AGENDA

Regular Town Board Meeting
October 18, 2021 - 6:00 PM
HUNTERSVILLE RECREATION CENTER (11836 Verhoeff Drive)

1. Call to Order

2. Invocation - Moment of Silence

3. Pledge of Allegiance

4. Mayor and Commissioner Reports-Staff Questions

5. Public Comments, Requests, or Presentations

5.A. Public Art Commission Update.

6. Agenda Changes

7. Public Hearings

7.A. Conduct public hearing on amendments to the Sedimentation and Soil Erosion Control Ordinance to Comply with HB 489. *(Emily Sloop)*

8. Other Business

8.A. Consider decision on amendments to the Sedimentation and Soil Erosion Control Ordinance to Comply with HB 489. *(Emily Sloop)*

8.B. Consider decision on Petition #R21-06, North Creek Village Mixed-Use, a request by Magnolia Development, LLC to rezone +/- 84.00-acres south of the NC 73 and Davidson-Concord Road intersection from Rural to Highway Commercial and Traditional Neighborhood Development - Conditional District for a development consisting of 42,500 commercial sq. ft., 303 multi-family units, 65 attached units and 77 detached units (Parcels: 01107311, 01126101 & 01126113). *(David Peete)*

8.C. Consider decision on Black Farms Road Farmhouse Cluster, a request by Black Farms Collective LLC to subdivide +/- 12.27 acres of land located on the east side of Black Farms Road to create a 6 lot Farmhouse Cluster Development. *(Lauren Speight)*

8.D. QUASI-JUDICIAL. Conduct quasi-judicial hearing on Birkdale Village Subdivision Sketch Plan Revision, a request by DDRTC Birkdale Village, LLC to subdivide +/- 1.78 acres of land located along Birkdale Commons Parkway to create four additional lots and abandon a portion of Lindholm Drive (Parcels: 00537115, 00537156, 00537163,00537198). *(Brian Richards)*

8.E. Consider decision on Petition #TA21-07, a text amendment request made by Nick Lombardo on behalf of North American properties to amend Article 4: Shopfront Building, Architectural Standards of the Huntersville Zoning Ordinance to allow shopfront buildings to use decorative metal panels such as Aluminum Composite Material panels as an accent or trim material. *(Lauren Speight)*

8.F. Consider decision on Petition #TA21-13, a request by Trinity Capital Advisors to amend the Zoning Ordinance allowing the Board of Commissioners to approve modification of a small stream buffer in the Mountain Island Lake Overlay zone through a conditional rezoning process in the Corporate Business zoning district. *(Jack Simoneau)*

8.G. Consider decision on Petition #R21-11, a request by Trinity Capital Acquisitions, LLC and Mike Clapp to rezone 23.14 acres from SP-CD to CB-CD at 10695 Hambright Road (Parcel 01740104). *(Jack Simoneau)*

8.H. Consider adopting Resolution approving the Construction Contract for Phase 2 of the Downtown Greenway. *(Michael Jaycocks)*

8.I. Consider approving budget amendment appropriating $20,000 from Historic Latta Plantation funding to Carolina Raptor Center in the Tourism fund. *(Pattie McGinnis)*

9. Consent Agenda

9.A. Approve the minutes of the September 20, 2021 Regular Town Board Meeting. *(Janet Pierson)*

9.B. Adopt Resolution to amend the Capital Improvement Program and apply for Charlotte Regional Transportation Planning Organization funding for the NC 115 (Old Statesville Rd) McCord Rd to NC 73 Project.

9.C. Adopt Resolution to approve changes to the Town's fee schedule as required by HB489. *(Stephen Trott)*

9.D. Approve budget amendment for Community Development Programming. *(Pattie McGinnis)*

9.E. Approve budget amendment appropriating Fund Balance in the amount of $140,000 for matching Charlotte Regional Transportation Planning Organization grant for The Park Huntersville Greenway. *(Michael Jaycocks)*

9.F. Approve budget amendment appropriating fund balance in the amount of $570,000 to the Downtown Greenway Project. *(Pattie McGinnis, Michael Jaycocks)*

9.G. Approve budget amendment appropriating fund balance in the amount of $65,000 to the repairs to the Town Center Parking Deck. *(Pattie McGinnis, Michael Jaycocks)*

9.H. Approve electric account write-offs for FY 2018. *(Jackie Huffman)*

10. Closing Comments

11. Adjourn

Special Accommodations: Anyone needing special accommodations when attending this meeting and/or if this information is needed in an alternative format please contact the Town Clerk. The Clerk can be reached by phone or fax: 704-875-6541, email: clerk@huntersville.org or at 101 Huntersville-Concord Rd, Huntersville, NC 28078.
We request at least 72-hours' notice prior to the meeting to make the appropriate arrangements.

The Board reserves the right to deviate from the agenda.

Town of Huntersville
Town Board
October 18, 2021

To: Town Board

From: Emily Sloop

Date: October 18, 2021

Subject: Ordinance to Amend SESC

EXPLAIN REQUEST:
Amendments to the Sedimentation and Soil Erosion Control Ordinance to Comply with HB 489.

ACTION RECOMMENDED:
Approval

FINANCIAL IMPLICATIONS:

ATTACHMENTS:
1. Ordinance to amend SESC
2. Soil and Erosion Control Ordinance 09-24-21 redline
3. Soil and Erosion Control Ordinance 09-24-21 clean

AN ORDINANCE TO AMEND THE TOWN OF HUNTERSVILLE

SOIL EROSION AND SEDIMENTATION CONTROL ORDINANCE

Section 1. **BE IT ORDAINED** by the Board of Commissioners of the Town of Huntersville, North Carolina, that subsection h of Section 3, Definitions, is hereby deleted and amended as follows:

h. – ~~Code Enforcement Department,~~ RESERVED.

~~Code Enforcement Department – means the Mecklenburg County Land Use and Environmental Services Agency, Code Enforcement Department, formerly known as Building Standards.~~

Section 2. **BE IT ORDAINED** by the Board of Commissioners of the Town of Huntersville, North Carolina, that subsection d of Section 4, Scope and Exclusion, is hereby amended as follows:

d. For the duration of an emergency, activities essential to protect human life, including activities specified in an executive order issued under G.S. 166A-19.30(a)(5).

Section 3. **BE IT ORDAINED** by the Board of Commissioners of the Town of Huntersville, North Carolina, that Section 6, General Requirements, is hereby amended as follows:

a. Erosion and Sedimentation Control Measures - All land-disturbing activities, including those that disturb less than an acre, shall provide Adequate Erosion Control Measures, Structures, or Devices in accordance with this Ordinance that are sufficient to retain the sediment generated by the land-disturbing activity within the boundaries of the Tract during construction upon and development of the Tract.

b. Plan Required - No Person shall initiate, direct, allow or conduct any land-disturbing activity on a Tract that meets any of the following criteria without having a copy of an approved Erosion and Sedimentation Control Plan on the job site.

1. uncovers one acre or more or

2. in Borrow and Waste areas covered by Section 9.f, with a disturbed area greater than one acre.

c. Exceptions-
i. When a development project contains an approved erosion control plan for an entire development, a separate erosion control plan shall not be required by the Town for development of individual residential lots within that development that disturb less than one acre if the developer and the builder are the same financially responsible person. For review of an erosion control plan for a single-family lot in a common plan of development under this subsection where the developer and builder are different, the plan shall require the following information:

(1) Name, address, telephone number, and email of owner of lot being developed.

(2) Street address of lot being developed.

(3) Subdivision name.

(4) Lot number.

(5) Tax parcel number of lot being developed.

(6) Total acreage of lot being developed.

(7) Total acreage disturbed.

(8) Anticipated start and completion date.

(9) Person financially responsible.

(10) Signature of person financially responsible.

(11) Existing platted survey of the lot.

(12) A sketch plan showing erosion control measures for the lot being developed, but the sketch shall not be required to be under the seal of a licensed engineer, landscape architect, or registered land surveyor unless there is a design feature requiring such under federal or State law or regulation.

ii. For a land-disturbing activity on more than one residential lot where the total land disturbed exceeds one acre, the person conducting the land-disturbing activity may submit for approval a single erosion control plan for all of the disturbed lots or may submit for review and approval under subsection (c.i) of this section the erosion control measures for each individual lot.

iii. No Plan shall require a silt fence or other erosion control measure to be placed in a location where, due to the contour and topography of the development site, that erosion control measure would not substantially and materially retain the sediment generated by the land-disturbing activity within the boundaries of the tract during construction upon and development of the tract.

iv. No plan shall require a wire-backed reinforced silt fence where, due to the contour and topography of the development site, that fence would not substantially and materially retain the sediment generated by the land-disturbing activity within the boundaries of the tract during construction upon and development of the tract.

~~c.~~ d. Compliance - Persons who submit a Plan to the Town Engineer shall comply with the provisions of Sections 10 & 11 of this Ordinance.

~~d.~~ e. Protection of Property - Persons conducting land-disturbing activity shall take all reasonable measures to protect all public and private property from damage caused by such activity and associated Sedimentation.

~~e.~~ f. More Restrictive Rules Shall Apply - Whenever conflicts exist between federal, state or local laws, ordinances, or rules, the more restrictive provision shall apply.

Section 4. BE IT ORDAINED by the Board of Commissioners of the Town of Huntersville, North Carolina, that subsection g of Section 8, Self-Monitoring and Self-Inspections, is hereby amended as follows:

g. Self-Monitoring and Self-Inspections. – The Landowner, the financially responsible party, or the landowner's or financially responsible party's agent shall inspect all Erosion and Sedimentation control measures as soon as possible, no less than once a week and within 24 hours after any storm event of greater than 1.0 inches of rain per 24-hour period or more frequently if required by State or Federal Law, hereinafter "Self-Monitoring." The Landowner, the financially responsible party, or the landowner's or financially responsible party's agent shall also perform an inspection of the area covered by the Plan after each phase of the Plan has been completed and after establishment of temporary ground cover in accordance with N.C.G.S. § 113A-57(2), hereinafter "Self-Inspections." The person performing the Self-Monitoring and Self-Inspections shall have certification approved by the Town Engineer. However, no periodic self-inspections or rain gauge installation is required on individual residential lots where less than one acre is being disturbed on each lot.

1. A record of the Self-Monitoring and Self-Inspections shall be maintained and made available at the site of the land-disturbing activity. These records shall set out any significant deviation from the approved Plan, identify any measures that may be required to correct the deviation, and document the completion of those measures. These records shall be maintained at the site until permanent ground cover has been established as required by the approved Plan. The Self-Inspections required by this subsection shall be in addition to inspections required by N.C.G.S. § 113A-61.1 and Section 12 of this Ordinance.

2. If one acre or more is to be disturbed, a record of inspections shall be kept by the Person conducting the land-disturbing activity or an agent until three years after construction is completed and approved by the Town Engineer. In determining the size of the disturbed area, all Tracts shown on the Plan for the Project as being disturbed or to be disturbed will be aggregated regardless of ownership, and regardless of whether such Tracts are contiguous or not, and regardless of whether such Tracts are in the same Phase. The record shall include the date and time of inspection, weather conditions, any repairs or maintenance needed, and the signature and certification number of the person who performed the inspection. Additional record keeping may be required by State or Federal Law and as stated on the approved plans.

3. Corrective action on the repairs and maintenance indicated on the record are to begin within 24 hours after a rain event or within 24 hours of the last inspection if a rain event did not prompt the inspection, unless additional time is allowed by the Town Engineer. The date of the completion of such repairs noted. The records of inspection shall be retained and made available to the Town Engineer upon request.

4. Persons that have had a Notice of Violation or repeated warning about off-site sedimentation or non-maintenance of Adequate Erosion Control Measures, Structures, or Devices may be required to provide the Town Engineer with a self-inspection record for the particular Tract.

5. Any Person who falsifies, tampers with, or knowingly renders inaccurate records can be penalized under Section 13 of this Ordinance.

6. In addition to the requirements contained in Subsections 8.g(1-5) above, Self-Inspections shall comply with the following:

(i) The person who performs the inspection shall make a record of the site inspection by documenting the following items:

(a) All of the erosion and sedimentation control measures, practices and devices, as called for in a construction sequence consistent with the approved erosion and sedimentation control plan, including but not limited to sedimentation control basins, sedimentation traps, sedimentation ponds, rock dams, temporary diversions, temporary slope drains, rock check dams, sediment fence or barriers, all forms of inlet protection, storm drainage facilities, energy dissipaters, and stabilization methods of open channels, have initially been installed and do not significantly deviate (as defined in Sub-item (i)(e) of this Rule) from the locations, dimensions and relative elevations shown on the approved erosion and sedimentation plan. Such documentation shall be accomplished by initialing and dating each measure or practice shown on a copy of the approved erosion and sedimentation control plan or by completing, dating and signing an inspection report that lists each measure, practice or device shown on the approved erosion and sedimentation control plan. This documentation is required only upon the initial installation of the erosion and sedimentation control measures, practices and devices as set forth by the approved erosion and sedimentation control plan or if the measures, practices and devices are modified after initial installation;

(b) the completion of any Phase of Grading for all graded slopes and fills shown on the approved erosion and sedimentation control plan, specifically noting the location and condition of the graded slopes and fills. Such documentation shall be accomplished by initialing and dating a copy of the approved erosion and sedimentation control plan or by completing, dating and signing an inspection report;

(c) the location of temporary or permanent ground cover, and that the installation of the ground cover does not significantly deviate (as defined in paragraph (e) of this sub-part) from the approved erosion and sedimentation control plan. Such documentation shall be accomplished by initialing and dating a copy of the approved erosion and sedimentation control plan or by completing, dating and signing an inspection report;

(d) that maintenance and repair requirements for all temporary and permanent erosion and sedimentation control measures, practices and devices have been performed. Such documentation shall be accomplished by completing, dating and signing an inspection report

(the general storm water permit monitoring form may be used to verify the maintenance and repair requirements); and

(e) any significant deviations from the approved erosion and sedimentation control plan, corrective actions required to correct the deviation and completion of the corrective actions. Such documentation shall be accomplished by initialing and dating a copy of the approved erosion and sedimentation control plan or by completing, dating and signing an inspection report. A significant deviation means an omission, alteration or relocation of an erosion or sedimentation control measure that prevents the measure from performing as intended.

(ii) The documentation, whether on a copy of the approved erosion and sedimentation control plan or an inspection report, shall include the name, address, affiliation, telephone number, and signature of the person conducting the inspection and the date of the inspection. Any relevant licenses and certifications may also be included. Any documentation of inspections that occur on a copy of the approved erosion and sedimentation control plan shall occur on a single copy of the plan and that plan shall be made available on the site. Any inspection reports shall also be made available on the site.

(iii) The inspection shall be performed during or after completion of each of the following activities:

(a) installation of perimeter erosion and sediment control measures;

(b) clearing and grubbing of existing ground cover;

(c) completion of any phase of grading of slopes or fills that requires provision of temporary or permanent ground cover pursuant to G.S. 113A-57(2);

(d) completion of storm drainage facilities;

(e) completion of construction or development; and

(f) quarterly until the establishment of permanent ground cover sufficient to restrain erosion or until the financially responsible party has conveyed ownership or control of a Tract for which the erosion and sedimentation control plan has been approved and the agency that approved the plan has been notified. If the financially responsible party has conveyed ownership or control of a Tract for which the erosion and sedimentation control plan has been approved, the new owner or person in control shall conduct and document inspections quarterly until the establishment of permanent ground cover sufficient to restrain erosion.

Section 5. BE IT ORDAINED by the Board of Commissioners of the Town of Huntersville, North Carolina, that subsection b of Section 10, Plan Review Process, is hereby amended as follows:

b. Plan Review Process -– Once a Plan has been submitted with the applicable review fee, the review process will be initiated. The Town Engineer will review each Plan submitted and within 30 Days of receipt thereof will notify the Person submitting the Plan (hereinafter "the applicant") that it has been approved, approved with modifications, or disapproved. The Engineer's time for review shall not begin until a complete Plan has been submitted. Plan requirements shall be as required by the Town Department of Engineering and Public Works. Should the Plan be filed and not reviewed within the specified time frame, the land-disturbing activity may commence subject to the provisions of Section 8.e, Section 10.a.4 and Section 10.a.5, and the Town Engineer will endeavor to review the plan on an expedited schedule.

In the event the Plan or a transfer of a plan is disapproved pursuant to subsection (d) of this Section, the Town Engineer shall notify the applicant and the Director of such disapproval within 10 Days thereof. The Town Engineer shall advise the applicant and the Director in writing as to the specific reasons that the Plan was disapproved. The applicant shall have the right to appeal the Town Engineer's decision to the Stormwater Advisory Committee as provided in Section 16 of this Ordinance, or may appeal directly to the Commission.

Plans for which land-disturbing activity has not commenced within 3 years from the initial plan approval are void.

Section 6. BE IT ORDAINED by the Board of Commissioners of the Town of Huntersville, North Carolina, that subsection i of Section 13, Penalties, is hereby amended and added as follows:

i. The damage or destruction of a silt fence occurring during land-disturbing activities or construction on a development project shall not be assessed a civil penalty under this section provided that the silt fence is repaired or replaced within the compliance period noted in the inspection report or Notice of Violation.

Section 7. Effective Date.

This ordinance shall become effective upon the date of adoption.

TOWN OF HUNTERSVILLE
SOIL EROSION AND SEDIMENTATION CONTROL ORDINANCE.

NOW, THEREFORE, BE IT ORDAINED by the Town of Huntersville Board of Commissioners that:

Section 1. Title

This Ordinance may be cited as the "Town of Huntersville Soil Erosion and Sedimentation Control Ordinance."

Section 2. Preamble

The Sedimentation of streams, lakes, wetlands, and other waters of this State constitute a major pollution problem. Sedimentation occurs from the Erosion or depositing of soil and other materials into the waters. Control of Erosion and Sedimentation is deemed vital to the public interest and necessary to public health and welfare, and expenditures of funds for Erosion and Sedimentation control programs shall be deemed for public purpose. It is the purpose of this Ordinance to provide for creation, administration, and enforcement of the program through procedures and for the adoption of mandatory standards that will permit development of this Town to continue with the least detrimental effects from pollution by Sedimentation. In recognition of desirability of early coordination of Sedimentation control planning, it is the intention of the Town's Board of Commissioners that pre-construction conferences be held among the affected parties.

Section 3. Definitions

As used in this Ordinance, unless the context clearly indicates otherwise, the following definitions apply.

a. Accelerated Erosion - means any increase over the rate of Natural Erosion as a result of land-disturbing activity.

b. Act - means the North Carolina Sedimentation Pollution Control Act of 1973 and all rules and orders adopted pursuant to it.

c. Adequate Erosion Control Measures, Structures, or Devices - means ones that control the soil material within the land area under responsible control of the Person conducting the land-disturbing activity.

d. Affiliate - means a Person that directly, or indirectly through one or more intermediaries, controls, is controlled by, or is under common control of another Person.

e. Being Conducted - means a land-disturbing activity has been initiated and permanent stabilization of the site has not been completed.

f. Borrow - means fill material that is required for on-site construction and is obtained from other locations.

g. Buffer Zone – means the strip of land adjacent to a Lake or Watercourse.

h. Reserved ~~Code Enforcement Department – means the Mecklenburg County Land Use and Environmental Services Agency, Code Enforcement Department, formerly known as Building Standards.~~

i. Reserved

j. Commission - means the North Carolina Sedimentation Control Commission.

k. Committee - means The Town of Huntersville Storm Water Advisory Committee as established by the resolution of the Huntersville Board of Commissioners, together with any amendments thereto.

l. Completion of Construction or Development - means that no further land-disturbing activity is required on a Tract except that which is necessary for establishing a permanent Ground Cover. Completion of Construction or Development may occur for a Tract, a Phase, or an entire Project as determined by the Town Engineer.

m. Contractor Conducting the Land-disturbing Activity – means any person who participates in the land-disturbing activity, including, but not limited to, the general contractor and sub-contractors with the responsibility for supervising the work on the ~~———~~Tract for the changing of the natural cover or topography of the Tract, or any part~~———~~ thereof.

n. Days – means calendar days unless otherwise specified.

o. Department - means the North Carolina Department of Environmental Quality.

p. Director - means the Director of the Division of Energy Mineral and Land Resources ~~———~~of the Department of Environmental Quality.

q. Discharge Point - means that point at which runoff leaves a Tract of land.

r. Energy Dissipater - means a structure or a shaped channel section with mechanical armoring placed at the outlet of pipes or conduits to receive and break down the energy from high Velocity flow.

s. Erosion - means the wearing away of land surface by the action of wind, water, gravity, or any combination thereof.

t. Forest Practice Guidelines – means the written directions related to water quality prepared by the Department's Division of Forest Resources and the United States Forest Service, including but not limited to the "Forestry Best Management Practices Manual" prepared by the Department.

u. Ground Cover - means any vegetative growth or other material that renders the soil surface stable against Accelerated Erosion.

v. Lake or Watercourse - means any stream, river, brook, swamp, sound, bay, creek, run, branch, canal, waterway, estuary, and any reservoir, lake or pond, natural or impounded, in which Sediment may be moved or carried in suspension, and which could be damaged by accumulation of Sediment.

w. Land-disturbing Activity - means any use of the land by any Person in residential, governmental, industrial, educational, institutional, or commercial development, highway and road construction and maintenance that results in a change in the natural cover or topography and that may cause or contribute to Sedimentation.

x. Local Government - means any county, incorporated village, town or city, or any combination of counties, incorporated villages, towns and cities, acting through a joint program pursuant to the provisions of the Act.

y. Natural Erosion - means the wearing away of the earth's surface by water, wind, or other natural agents under natural environmental conditions undisturbed by man.

z. Parent - means an Affiliate that directly, or indirectly through one or more intermediaries, controls another Person.

aa. Reserved.

bb. Permit – means the "Permit to Conduct Land-disturbing Activities" (grading permit) issued by the Town Engineer after a Plan is approved.

cc. Person(s) - means any individual, partnership, firm, association, joint venture, public or private corporation, trust, estate, commission, board, public or private institution, utility, cooperative, interstate body, or other legal entity.

dd. Person Conducting Land-disturbing Activity – means any person who may be held responsible for violation unless expressly provided otherwise by this Ordinance, the Act, or any order adopted pursuant to this Ordinance or the Act.

ee. Person Responsible for the Violation - as used in this Ordinance means:

1. The developer or other Person who has or holds himself out as having financial or operational control over the land-disturbing activity;

2. The landowner or Person in possession or control of the land who has directly or indirectly allowed the land-disturbing activity or has benefited from it or has failed to comply with any provision of this Ordinance, the Act, or any order adopted pursuant to this Ordinance or the Act.

ff. Phase – means a specific geographic portion of a Project as indicated on an approved Plan.

gg. Phase of Grading - means one of two types of grading, rough or fine.

hh. Plan**(s)** - means an Erosion and Sedimentation control plan for a Project, including all Phases and all Tracts.

ii. Sediment - means solid particulate matter, both mineral and organic, that has been or is being transported by water, air, gravity, or ice from its site of origin.

jj. Sedimentation - means the process by which Sediment resulting from Accelerated Erosion has been or is being transported off the site of the land-disturbing activity or into a Wetland, Lake or Watercourse.

kk. Siltation – means sediment resulting from Accelerated Erosion which is settleable or removable by properly designed, constructed, and maintained control measures; and which has been transported from its point of origin within the site of a land-disturbing activity; and which has been deposited, or is in suspension in water.

ll. Storm Drainage Facilities - means the system of inlets, conduits, channels, ditches and appurtenances that serve to collect and convey storm water through and from a given drainage area.

mm. Storm Water Runoff - means the ~~-~~surface flow of water resulting from precipitation in any form and occurring immediately after rainfall or melting.

nn. Subsidiary - means an Affiliate that is directly, or indirectly through one or more intermediaries, controlled by another Person.

oo. Ten-Year Storm - means a rainfall of an intensity expected to be equaled or exceeded, on the average, once in ten years, and of a duration that will produce the maximum peak rate of runoff, for the watershed of interest under average antecedent wetness conditions.

pp. Town Department of Engineering and Public Works – as used in this Ordinance, "Town Department of Engineering and Public Works" refers to both the Town Department of ~~Engineering~~Engineering and the Town Department of Public Works.

qq Town Engineer – as used in this Ordinance, "Town Engineer" refers to both the Town Engineer and the Director of Public Works, both of whom shall have full authority and responsibility under this Ordinance where the term "Town Engineer" is used.

rr. Tract - means contiguous lands and bodies of water being disturbed or to be disturbed as a unit, regardless of ownership. A Plan may have more than one Phase, and each Phase may have more than one Tract.

ss. Twenty-five Year Storm - means a rainfall of an intensity expected to be equaled or exceeded, on the average, once in 25 years, and of a duration that will produce the maximum peak rate of runoff, from the watershed of interest under average antecedent wetness conditions.

tt. Uncovered - means the removal of Ground Cover from, on, or above the soil surface.

uu. Undertaken - means the initiating of any activity, or phase of activity, which results or will result in a change in the Ground Cover or topography of a Tract.

vv. Velocity - means the average velocity of flow through the cross section of the main channel at the peak flow of the design storm. The cross section of the main channel shall be that area defined by the geometry of the channel plus the area of flow below the flood height defined by vertical lines at the main channel banks. Overload flows are not to be included for the purpose of computing velocity of flow.

ww. Waste - means surplus materials resulting from on-site construction and disposed of at other locations.

xx. Watershed - means any water supply watershed protection area regulated with various controls within the jurisdictional boundaries of the Town of Huntersville.

yy. Wetland(s) – means land having the vegetative, soil and hydrologic characteristics to be regulated by Section 401 and 404 of the Federal Clean Water Act as defined by the United States Army Corp of Engineers.

zz Working Days - means days exclusive of Saturday, and Sunday and Town government holidays during which weather conditions or soil conditions permit land-disturbing activity to be undertaken.

Section 4. Scope and Exclusions

This Ordinance shall regulate land-disturbing activity within the territorial jurisdiction of the Town of Huntersville and to the extraterritorial jurisdiction of the Town of Huntersville.

This Ordinance shall not apply to the following land-disturbing activities. Only those portions of a Tract that are in actual use for the land-disturbing activities listed below shall be exempt from this Ordinance:

a. Activities including the production and activities relating or incidental to the production of crops, grains, fruits, vegetables, ornamental and flowering plants, dairy, livestock, poultry, and all other forms of agriculture undertaken on agricultural land for the production of plants and animals useful to man, including, but not limited to:
   1. Forages and sod crops, grains and feed crops, tobacco, cotton, and peanuts.
   2. Dairy animals and dairy products.
   3. Poultry and poultry products.
   4. Livestock, including beef cattle, llamas, sheep, swine, horses, ponies, mules, and goats.
   5. Bees and apiary products.
   6. Fur producing animals.
   7. Mulch, ornamental plants, and other horticultural products. For purposes of this section, "mulch" means substances composed primarily of plant remains or mixtures of such substances.

b. Activities Undertaken on forest land for the production and harvesting of timber and timber products and conducted in accordance with best management practices set out in Forest Practice Guidelines Related to Water Quality, as adopted by the North Carolina Department of Agriculture and Consumer Services. If land-disturbing activity undertaken on forestland for the production and harvesting of timber and timber products is not conducted in accordance in accordance with such Forest Practice Guidelines, then the provisions of this Ordinance shall apply.

c. Activities for which a Permit is required under the Mining Act of 1971, Article 7 of Chapter 74 of the General Statutes.

d. For the duration of an emergency, activities essential to protect human life, including activities specified in an executive order issued under G.S. 166A-19.30(a)(5).

e. Land-disturbing activity over which the State has exclusive regulatory jurisdiction as provided in G.S. 113A-56(a).

f. Activities undertaken to restore the wetland functions of converted wetlands to provide compensatory mitigation to offset impacts permitted under Section 404 of the Clean Water Act.

g. Activities undertaken pursuant to Natural Resources Conservation Service standards to restore the wetlands functions of converted wetlands as defined in Title 7 Code of Federal Regulations § 12.2.

Section 5. Forest Practice Guidelines

a. The Town of Huntersville Board of Commissioners adopts by reference the Forest Practice Guidelines Related to Water Quality, as adopted by the North Carolina Department of Agriculture and Consumer Services.

b. If land-disturbing activity undertaken on forest land for the production and harvesting of timber and timber products is not conducted in accordance with Forest Practice Guidelines Related to Water Quality, the provisions of this Ordinance shall apply to such activity and any related land-disturbing activity on the Tract.

Section 6. General Requirements

a. Erosion and Sedimentation Control Measures - All land-disturbing activities, including those that disturb less than an acre, shall provide Adequate Erosion Control Measures, Structures, or Devices in accordance with this Ordinance that are sufficient to retain the sediment generated by the land-disturbing activity within the boundaries of the Tract during construction upon and development of the Tract.

b. Plan Required - No Person shall initiate, direct, allow or conduct any land-disturbing activity on a Tract that meets any of the following criteria without having a copy of an approved Erosion and Sedimentation Control Plan on the job site.

1. uncovers one acre or more or

2. in Borrow and Waste areas covered by Section 9.f, with a disturbed area greater than one acre.

c. Exceptions -
i. When a development project contains an approved erosion control plan for an entire development, a separate erosion control plan shall not be required by the Town for development of individual residential lots within that development that disturb less than one acre if the developer and the builder are the same financially responsible person. For review of an erosion control plan for a single-family lot in a common plan of development under this subsection where the developer and builder are different, the plan shall require the following information:
(1) Name, address, telephone number, and email of owner of lot being developed.
(2) Street address of lot being developed.
(3) Subdivision name.
(4) Lot number.
(5) Tax parcel number of lot being developed.
(6) Total acreage of lot being developed.
(7) Total acreage disturbed.
(8) Anticipated start and completion date.
(9) Person financially responsible.

(10) Signature of person financially responsible.
(11) Existing platted survey of the lot.
(12) A sketch plan showing erosion control measures for the lot being developed, but the sketch shall not be required to be under the seal of a licensed engineer, landscape architect, or registered land surveyor unless there is a design feature requiring such under federal or State law or regulation.

ii. For a land-disturbing activity on more than one residential lot where the total land disturbed exceeds one acre, the person conducting the land-disturbing activity may submit for approval a single erosion control plan for all of the disturbed lots or may submit for review and approval under subsection (c.i) of this section the erosion control measures for each individual lot.

iii. No Plan shall require a silt fence or other erosion control measure to be placed in a location where, due to the contour and topography of the development site, that erosion control measure would not substantially and materially retain the sediment generated by the land-disturbing activity within the boundaries of the tract during construction upon and development of the tract.

iv. No plan shall require a wire-backed reinforced silt fence where, due to the contour and topography of the development site, that fence would not substantially and materially retain the sediment generated by the land-disturbing activity within the boundaries of the tract during construction upon and development of the tract.

d. Compliance - Persons who submit a Plan to the Town Engineer shall comply with the provisions of Sections 10 & 11 of this Ordinance.

ed. Protection of Property - Persons conducting land-disturbing activity shall take all reasonable measures to protect all public and private property from damage caused by such activity and associated Sedimentation.

fe. More Restrictive Rules Shall Apply - Whenever conflicts exist between federal, state or local laws, ordinances, or rules, the more restrictive provision shall apply.

Section 7. Basic Control Objectives

A Plan may be disapproved pursuant to Section 10 of this Ordinance if the Plan fails to include Adequate Erosion Control Measures, Structures, or Devices to address the following control objectives:

a. Identify Critical Areas - On-site areas that are subject to severe Erosion, and off-site areas that are especially vulnerable to damage from Erosion and/or Sedimentation are to be identified and receive special attention.

b. Limit Time of Exposure - All land-disturbing activity is to be planned and conducted to limit exposure to the shortest feasible time.

c. Limit Exposed Areas - All land-disturbing activity is to be planned and conducted to minimize the size of the area to be exposed at any one time.

d. Control Surface Water - Surface water runoff originating upgrade of exposed areas should be controlled to reduce Erosion and Sediment loss during the period of exposure.

e. Control Sedimentation - All land-disturbing activity is to be planned and conducted so as to prevent Sedimentation damage.

f. Manage Storm Water Runoff - When the increase in the Velocity of Storm Water Runoff resulting from a land-disturbing activity is sufficient to cause Accelerated Erosion of the receiving watercourse, Plans are to include measures to control the Velocity at the Discharge Point so as to minimize Accelerated Erosion of the site and to decrease Sedimentation to any Lake or Watercourse.

Section 8. Mandatory Standards for Land-disturbing Activity

No land-disturbing activity subject to the control of this Ordinance shall be undertaken except in accordance with the following mandatory standards:

a. Lake, Watercourse and Wetland Protection - Additional erosion control measures structures, or devices as specified in the "Policies and Procedures" statement issued by the Town Engineer shall be required to provide a higher level of protection to Lakes, Watercourses, and Wetlands from Sedimentation.

1. Buffer zone – No land-disturbing activity during periods of construction or improvement to land shall be permitted in proximity to a Lake or Watercourse unless a buffer zone is provided along the margin of the watercourse of sufficient width to confine visible siltation within the twenty-five (25%) of the buffer zone nearest the land-disturbing activity.

i. Projects On, Over or Under Water. This subdivision shall not apply to a land-disturbing activity in connection with the construction of facilities to be located on, over, or under a Lake or Watercourse.

ii. Buffer Measurement. Unless otherwise provided, the width of a buffer zone is measured horizontally from the edge of the water to the nearest edge of the disturbed area, with the 25 percent of the strip nearer the land-disturbing activity containing natural or artificial means of confining visible siltation.

b. Graded Slopes and Fills - The angle for graded slopes and fills shall be no greater than the angle that that can be retained by vegetative cover or other Adequate Erosion Control Measures, Structures, or Devices. Permanent or temporary stabilization sufficient to restrain erosion is to be provided within 7 or 14 calendar days after completion of any Phase of Grading.

c. Fill Material. Unless a permit from the Department's Division of Waste Management to operate a landfill is on file for the official site, acceptable fill material shall be free of organic or other degradable materials, masonry, concrete and brick in sizes exceeding twelve (12) inches, and any materials which would cause the site to be regulated as a landfill by the State of North Carolina.

d. Ground Cover - The Person conducting the land-disturbing activity shall plant or otherwise provide a permanent Ground Cover sufficient to restrain Erosion after Completion of Construction or Development. Provisions for a permanent Ground Cover sufficient to restrain Erosion must be accomplished within 21 calendar days following Completion of Construction or Development. For an area of a site that is inactive for a period of 14 days from the last land-disturbing activity, temporary or permanent ground cover would be required.

e. Prior Plan Approval - No Person shall initiate any land-disturbing activity on a Tract if one acre or more is to be disturbed unless, thirty (30) or more days prior to initiating the activity, a Plan for that activity has been submitted and approved in accordance with Section 10(b). The land-disturbing activity shall be conducted in accordance with the approved erosion and sedimentation control plan. In determining the size of the disturbed area, all Tracts shown on the Plan for the Project as being disturbed or to be disturbed will be aggregated regardless of ownership, and regardless of whether such Tracts are contiguous or not, and regardless of whether such Tracts are in the same Phase. The Town shall forward to the Director of the Division of Water Resources a copy of each Plan for a land-disturbing activity that involves the utilization of ditches for the purpose of de-watering or lowering the water table of the Tract.

f. Pre-construction Conference - If one acre or more is to be, Uncovered, the Person(s) conducting the land-disturbing activity or an agent of that party shall contact the Town Engineer at least 48 hours before commencement of the land-disturbing activity. The purpose is to arrange an on-site meeting with the Town Engineer or duly authorized representative to review and discuss the approved Plan and the proposed land-disturbing activity.

g. Self-Monitoring and Self-Inspections. – The Landowner, the financially responsible party, or the landowner's or financially responsible party's agent shall inspect all Erosion and Sedimentation control measures as soon as possible, no less than once a week and within 24 hours after any storm event of greater than 1.0 inches of rain per ~~24 hour~~24-hour period or more frequently if required by State or Federal Law, hereinafter "Self-Monitoring." The Landowner, the financially responsible party, or the landowner's or financially responsible party's agent shall also perform an inspection of the area covered by the Plan after each phase of the Plan has been completed and after establishment of temporary ground cover in accordance with N.C.G.S. § 113A-57(2), hereinafter "Self-Inspections." The person performing the Self-Monitoring and Self-Inspections shall have certification approved by the Town Engineer. However, n-o periodic self-inspections or rain gauge installation is required on individual residential lots where less than one acre is being disturbed on each lot.

1. A record of the Self-Monitoring and Self-Inspections shall be maintained and made available at the site of the land-disturbing activity. These records shall set out any significant deviation from the approved Plan, identify any measures that may be required to correct the deviation, and document the completion of those measures. These records shall be maintained at the site until permanent ground cover has been established as required by the approved Plan. The Self-Inspections required by this subsection shall be in addition to inspections required by N.C.G.S. § 113A-61.1 and Section 12 of this Ordinance.

2. If one acre or more is to be disturbed, a record of inspections shall be kept by the Person conducting the land-disturbing activity or an agent until three years after construction is completed and approved by the Town Engineer. In determining the size of the disturbed area, all Tracts shown on the Plan for the Project as being disturbed or to be disturbed will be aggregated regardless of ownership, and regardless of whether such Tracts are contiguous or not, and regardless of whether such Tracts are in the same Phase. The record shall include the date and time of inspection, weather conditions, any repairs or maintenance needed, and the signature and certification number of the

person who performed the inspection. Additional record keeping may be required by State or Federal Law and as stated on the approved plans.

3. Corrective action on the repairs and maintenance indicated on the record are to begin within 24 hours after a rain event or within 24 hours of the last inspection if a rain event did not prompt the inspection, unless additional time is allowed by the Town Engineer. The date of the completion of such repairs noted. The records of inspection shall be retained and made available to the Town Engineer upon request.

4. Persons that have had a Notice of Violation or repeated warning about off-site sedimentation or non-maintenance of Adequate Erosion Control Measures, Structures, or Devices may be required to provide the Town Engineer with a self-inspection record for the particular Tract.

5. Any Person who falsifies, tampers with, or knowingly renders inaccurate records can be penalized under Section 13 of this Ordinance.

6. In addition to the requirements contained in Subsections 8.g(1-5) above, Self-Inspections shall comply with the following:

    (i) The person who performs the inspection shall make a record of the site inspection by documenting the following items:

        (a) All of the erosion and sedimentation control measures, practices and devices, as called for in a construction sequence consistent with the approved erosion and sedimentation control plan, including but not limited to sedimentation control basins, sedimentation traps, sedimentation ponds, rock dams, temporary diversions, temporary slope drains, rock check dams, sediment fence or barriers, all forms of inlet protection, storm drainage facilities, energy dissipaters, and stabilization methods of open channels, have initially been installed and do not significantly deviate (as defined in Sub-item (i)(e) of this Rule) from the locations, dimensions and relative elevations shown on the approved erosion and sedimentation plan. Such documentation shall be accomplished by initialing and dating each measure or practice shown on a copy of the approved erosion and sedimentation control plan or by completing, dating and signing an inspection report that lists each measure, practice or device shown on the approved erosion and sedimentation control plan. This documentation is required only upon the initial installation of the erosion and sedimentation control measures, practices and devices as set forth by the approved erosion and sedimentation control plan or if the measures, practices and devices are modified after initial installation;

        (b) the completion of any Phase of Grading for all graded slopes and fills shown on the approved erosion and sedimentation control plan, specifically noting the location and condition of the graded slopes and fills. Such documentation shall be accomplished by initialing and dating a copy of the approved erosion and sedimentation control plan or by completing,

dating and signing an inspection report;

(c) the location of temporary or permanent ground cover, and that the installation of the ground cover does not significantly deviate (as defined in paragraph (e) of this sub-part) from the approved erosion and sedimentation control plan. Such documentation shall be accomplished by initialing and dating a copy of the approved erosion and sedimentation control plan or by completing, dating and signing an inspection report;

(d) that maintenance and repair requirements for all temporary and permanent erosion and sedimentation control measures, practices and devices have been performed. Such documentation shall be accomplished by completing, dating and signing an inspection report (the general storm water permit monitoring form may be used to verify the maintenance and repair requirements); and

(e) any significant deviations from the approved erosion and sedimentation control plan, corrective actions required to correct the deviation and completion of the corrective actions. Such documentation shall be accomplished by initialing and dating a copy of the approved erosion and sedimentation control plan or by completing, dating and signing an inspection report. A significant deviation means an omission, alteration or relocation of an erosion or sedimentation control measure that prevents the measure from performing as intended.

(ii) The documentation, whether on a copy of the approved erosion and sedimentation control plan or an inspection report, shall include the name, address, affiliation, telephone number, and signature of the person conducting the inspection and the date of the inspection. Any relevant licenses and certifications may also be included. Any documentation of inspections that occur on a copy of the approved erosion and sedimentation control plan shall occur on a single copy of the plan and that plan shall be made available on the site. Any inspection reports shall also be made available on the site.

(iii) The inspection shall be performed during or after completion of each of the following activities:

(a) installation of perimeter erosion and sediment control measures;

(b) clearing and grubbing of existing ground cover;

(c) completion of any phase of grading of slopes or fills that requires provision of temporary or permanent ground cover pursuant to G.S. 113A-57(2);

(d) completion of storm drainage facilities;

(e) completion of construction or development; and

(f) quarterly until the establishment of permanent ground cover sufficient to– restrain erosion or until the financially responsible party has conveyed ownership or control of a Tract for which the erosion and sedimentation control plan has been approved and the agency that approved the plan has been notified. If the financially responsible party has conveyed ownership or control of a Tract for which the erosion and sedimentation control plan has been approved, the new owner or person in control shall conduct and document inspections quarterly until the establishment of permanent ground cover sufficient to restrain erosion

Section 9. Design and Performance Standards

a. Design Storm - Adequate Erosion Control Measures, Structures, and Devices shall be planned, designed, constructed and maintained so as to provide protection from the calculated maximum peak rate of runoff from the Ten-year Storm. Runoff rates shall be calculated using the procedures in the USDA, Natural Resource Conservation Services (formerly Soil Conservation Service's) "National Engineering Field Manual for Conservation Practices," or other acceptable calculation procedures including but not limited to the Town of Huntersville's Storm Water Design Manual.

b. Innovative Measures - Erosion and Sedimentation measures applied alone or in combination to satisfy the intent of this section are acceptable if they are sufficient to prevent adverse secondary consequences. Innovative techniques and ideas will be considered and may be used following approval by the Town Engineer if it can be demonstrated that such techniques and ideas are likely to produce successful results.

c. Responsibility for Maintenance - During the development of a site, the Person conducting the land-disturbing activity shall install and maintain all temporary and permanent Erosion and Sedimentation control measures as required by the approved Plan or any provision of this Ordinance, the Act, or any order adopted pursuant to this Ordinance or the Act. After development, the landowner or Person in possession or control of the land shall install and maintain all necessary permanent Erosion and Sediment control measures.

d. Additional Measures - Whenever the Town Engineer, determines that accelerated Erosion and Sedimentation is occurring as a result of land-disturbing activity, despite application and maintenance of protective practices, the Person conducting the land-disturbing activity shall take additional protective action.

e. Storm Water Outlet Protection

(a) Intent. Stream banks and channels downstream from any land-disturbing activity shall be protected from increased degradation by accelerated erosion caused by increased velocity of runoff from the land-disturbing activity.

(b) Performance standard. Persons shall conduct land-disturbing activity so that the post construction velocity of the 10-year storm runoff in the receiving watercourse to the discharge point does not exceed the greater of:

(1) the velocity established by the Maximum Permissible Velocities Table set out within this subsection; or

(2) the velocity of the ten-year storm runoff in the receiving watercourse prior to development.

If condition (1) or (2) of this Paragraph cannot be met, then the receiving watercourse to and including the discharge point shall be designed and constructed to withstand the expected velocity anywhere the velocity exceeds the "prior to development" velocity by 10%.

Maximum Permissible Velocities Table

The following is a table for maximum permissible velocity for storm water discharges in feet per second (F.P.S.) and meters per second (M.P.S.):

Material	F.P.S.	M.P.S.
Fine sand (noncolloidal)	2.5	.8
Sandy loam (noncolloidal)	2.5	.8
Silt loam (noncolloidal)	3.0	.9
Ordinary firm loam	3.5	1.1
Fine gravel	5.0	1.5
Stiff clay (very colloidal)	5.0	1.5
Graded, loam to cobbles (noncolloidal)	5.0	1.5
Graded, silt to cobbles (Colloidal)	5.5	1.7
Alluvial silts (noncolloidal)	3.5	1.1
Alluvial silts (colloidal)	5.0	1.5
Coarse gravel (noncolloidal)	6.0	1.8
Cobbles and shingles	5.5	1.7
Shales and hard pans	6.0	1.8

Source - Adapted from recommendations by Special Committee on Irrigation Research, American Society of Civil Engineers, 1926, for channels with straight alignment. For sinuous channels, multiply allowable velocity by 0.95 for slightly sinuous, by 0.9 for moderately sinuous channels, and by 0.8 for highly sinuous channels.

(c) Acceptable Management Measures - Measures applied alone or in combination to satisfy the intent of this section are acceptable if there are no objectionable secondary consequences. The Town recognizes that the management of storm water runoff to minimize or control downstream channel and bank erosion is a developing technology. Innovative techniques and ideas will be considered and may be used when shown to have the potential to produce successful results. Some alternatives, while not exhaustive, are to:

(1) Avoid increases in surface runoff volume and velocity by including measures to promote infiltration to compensate for increased runoff from areas rendered impervious;

(2) Avoid increases in storm water discharge velocities by using vegetated or roughened swales and waterways in place of closed drains and high

velocity paved sections:

(3) Provide energy dissipators at outlets of storm drainage facilities to reduce flow velocities to the point of discharge;

(4) Protect watercourses subject to accelerated erosion by improving cross sections and/or providing erosion-resistant lining; and

(5) Upgrade or replace the receiving device structure, or watercourse such that it will receive and conduct the flow to a point where it is no longer subject to degradation from the increased rate of flow or increased velocity.

(d) Exceptions - This rule shall not apply where it can be demonstrated to the Town that storm water discharge velocities will not create an erosion problem in the receiving watercourse.

f. Borrow and Waste Areas - When the Person conducting the land-disturbing activity is also the Person conducting the Borrow or Waste disposal activity, the following areas are considered as part of the land-disturbing activity.

1. Areas from which Borrow is obtained that are not regulated by the provisions of the Mining Act of 1971 and its subsequent amendments, or

2. Waste areas for surplus materials other than landfills regulated by the Department's Division of Solid Waste Management.

When the Person conducting the land-disturbing activity is the Person conducting the Borrow or Waste disposal activity, the activity shall not be considered a separate land-disturbing activity.

The responsible Person conducting the Borrow or Waste Areas shall provide Adequate Erosion Control Measures, Structures, or Devices and comply with all provisions of this Ordinance.

g. Access and Haul Roads - Temporary access and haul roads, other than public roads, constructed or used in connection with any land-disturbing activity shall be considered a part of such activity.

h. Operations in Lakes or Watercourses - land-disturbing activity in connection with construction in, on, over, or under a Lake or Watercourse shall be planned and conducted in such a manner as to minimize the extent and duration of disturbance of the Lake or Watercourse. The relocation of a stream, where relocation is an essential part of the proposed activity, shall be planned and executed so as to minimize changes in the stream flow characteristics, except when justification for significant alteration to flow characteristic is provided.

Section 10. Erosion and Sedimentation Control Plans

a. Plan Requirements – All Plans required for Land- disturbing Activities as identified in Section 6.b of this Ordinance shall meet the following requirements:

1. Plans shall contain architectural or engineering drawings, maps, assumptions, calculations, and narrative statements as needed to adequately describe the proposed development of all Tracts for the Project, including

all Phases, and the measures planned to comply with the requirements of this Ordinance. Plan content may vary to meet the needs of specific site requirements. Detailed guidelines for Plan preparation may be obtained from the Town Engineer on request.

2. Plans must contain an authorized statement of financial responsibility and ownership signed by the Person financially responsible for the land-disturbing activity or that Person's attorney in fact, and all such signatures shall be notarized. The statement shall include the mailing and street addresses of the principal place of business of the Person financially responsible and of the owner of the land or their registered agents. If the Person financially responsible is not a resident of North Carolina, a North Carolina agent must be designated in the statement for the purpose of receiving service of process and notice of compliance or non-compliance with the Plan, the Act, this Ordinance, or rules or orders adopted or issued pursuant to this Ordinance.

3. If the applicant is not the owner of the land to be disturbed, the draft erosion and sedimentation control plan must include the owner's notarized, written consent for the applicant to submit a draft erosion and sedimentation control plan and to conduct the anticipated land-disturbing activity.

4. The land-disturbing activity described in the Plan shall comply with all Federal, State, and Local water quality laws, rules and regulations, including, but not limited to, the Federal Clean Water Act. The Town Engineer may require supporting documentation.

5. The land-disturbing activity described in the Plan shall not result in a violation of rules adopted by the Environmental Management Commission to protect riparian buffers along surface waters.

6. The land-disturbing activity described in the Plan shall not result in a violation of any local Ordinance, law, rule, or regulation, including but not limited to zoning, tree protection, stream, lake and watershed buffers, and flood plain regulations.

7. Two (2) hard copies of the Plan shall be filed with the Town Engineer in addition to an electronic copy filed as directed by the Town. A copy of the approved Plan shall be maintained on the job site.

8. Effort should be made not to uncover more than 20 acres at any one time. If more than 20 acres are to be uncovered at any one time, the Plan shall contain the following:

   (a.) The method of limiting time of exposure and amount of exposed area to achieve the objectives of this Ordinance.
   (b.) A cut/fill analysis that shows where soil will be moved from one area of the Tract to another as ground elevation is changed.
   (c.) Construction sequence and construction phasing to justify the time and amount of exposure.
   (d.) Techniques to be used to prevent Sedimentation associated with larger disturbed areas.
   (e.) Additional erosion control measures, structures, and devices to

prevent Sedimentation.

9. All Plans must be sealed by a professional engineer, licensed to do business in the State of North Carolina.

10. No person may initiate a land-disturbing activity before notifying the Town in writing of the date that land-disturbing activity will begin.

b. Plan Review Process –– Once a Plan has been submitted with the applicable review fee, the review process will be initiated. The Town Engineer will review each Plan submitted and within 30 Days of receipt thereof will notify the Person submitting the Plan (hereinafter "the applicant") that it has been approved, approved with modifications, or disapproved. The Engineer's time for review shall not begin until a complete Plan has been submitted. Plan requirements shall be as required by the Town Department of Engineering and Public Works. Should the Plan be filed and not reviewed within the specified time frame, the land-disturbing activity may commence subject to the provisions of Section 8.e, Section 10.a.4 and Section 10.a.5, and the Town Engineer will endeavor to review the plan on an expedited schedule.

In the event the Plan or a transfer of a plan is disapproved pursuant to subsection (d) of this Section, the Town Engineer shall notify the applicant and the Director of such disapproval within 10 Days thereof. The Town Engineer shall advise the applicant and the Director in writing as to the specific reasons that the Plan was disapproved. The applicant shall have the right to appeal the Town Engineer's decision to the Stormwater Advisory Committee as provided in Section 16 of this Ordinance, or may appeal directly to the Commission.

Plans for which land-disturbing activity has not commenced within 3 years from the initial plan approval are void.

c. Amendments to Plans - If the Town Engineer, either upon review of such Plan or upon inspection of the job site, determines that the Plan is inadequate to meet the requirements of this Ordinance or that a significant risk of Accelerated Erosion or off-site Sedimentation exists, then the Town Engineer shall require a revised Plan. Pending the preparation of the revised Plan, work on affected area shall cease or shall continue only under conditions outlined by the Town Engineer.

Amendments or revisions to a Plan must be made in written and/or graphic form and shall be submitted at any time under the same requirements for submission of original Plans. Until such time as the Town Engineer approves any amendments or revisions, the land-disturbing activity shall not proceed, except in accordance with the Plan as originally approved.

The Town Engineer must approve, approve with modifications, or deny a revised Plan within 15 Days of receipt, or it is deemed to be approved as submitted, unless such approval conflicts with other federal, state or local regulations.

d. Grounds for Disapproval of Plans – Any Plan that is not in accordance with the requirements set forth in subsection (a) above shall be disapproved. In addition, a Plan may be disapproved upon a finding that an applicant or a parent, subsidiary, or other affiliate of the applicant:

1. Is conducting or has conducted land-disturbing activity without an approved Plan, or has received notice of violation regarding a Plan previously

approved by the Commission or the Town and has not complied with the provisions of the notice within the time specified in the notice;

2. Has failed to pay a civil penalty assessed pursuant to the Act, or a local ordinance adopted pursuant to the Act, by the time the payment is due;

3. Has been convicted of a misdemeanor pursuant to G.S. 113A-64(b) or any criminal provision of a local ordinance adopted pursuant to the Act; or

4. Has failed to substantially comply with State rules or local ordinances and regulations adopted pursuant to the Act.

For the purposes of this subsection, an applicant's record or the proposed transferee's record may be considered for only the two years prior to the application date.

e. Violations - Any Person engaged in land-disturbing activity who fails to file a required Plan in accordance with this Ordinance shall be deemed in willful violation of this Ordinance. Any Person who conducts a land-disturbing activity except in accordance with provisions of an approved Plan shall be deemed in violation of this Ordinance.

f. Plan Transfer. The Town may transfer an erosion and sedimentation control plan approved pursuant to this section without the consent of the plan holder to a successor-owner of the property on which the permitted activity is occurring or will occur as provided in this subsection. The Town may transfer a plan if all of the following conditions are met:

1. The successor-owner of the property submits to the local government a written request for the transfer of the plan and an authorized statement of financial responsibility and ownership.
2. The Town finds all of the following:
    a. The plan holder is one of the following:
        1) A natural person who is deceased.
        2) A partnership, limited liability corporation, corporation, or any other business association that has been dissolved.
        3) A person who has been lawfully and finally divested of title to the property on which the permitted activity is occurring or will occur.
        4) A person who has sold the property on which the permitted activity is occurring or will occur.
    b. The successor-owner holds title to the property on which the permitted activity is occurring or will occur.
    c. The successor-owner is the sole claimant of the right to engage in the permitted activity.
    d. There will be no substantial change in the permitted activity.
3. The plan holder shall comply with all terms and conditions of the plan until such time as the plan is transferred.
4. The successor-owner shall comply with all terms and conditions of the plan once the plan has been transferred.

Notwithstanding changes to law made after the original issuance of the plan, the Town may not impose new or different terms and conditions in the plan without the prior express consent of the successor-owner. Nothing in this subsection shall prevent the Town from requiring a revised plan pursuant to G.S. § 113A-54.1(b).

g. Display of Plan Approval. A Plan approval issued under this Section shall be prominently displayed until all construction is complete, all permanent sedimentation and erosion control measures are installed, and the site has been stabilized. A copy of the approved Plan shall be kept on file at the job site.

Section 11. Permits

a. No Person shall undertake any land-disturbing activity subject to this Ordinance without first obtaining a Permit from the Town Engineer. The only exception to this requirement is a land-disturbing activity that:

1. has been approved by the Town Engineer at a pre-construction conference for the purpose of installing erosion control measures indicated on the approved Plan,

2. is for the purpose of fighting fires,

3. is for the stock piling of raw or processed sand, stone, or gravel in existing material processing plants and existing storage yards, provided that Sediment control measures are utilized to protect against off-site damage, or

4. does not exceed one (1) acre of disturbed area. In determining the size of the disturbed area, all Tracts shown on the Plan for the Project will be aggregated regardless of ownership, and regardless of whether such Tracts are contiguous or not, and regardless of whether such Tracts are in the same Phase. Although a Plan and a Permit may not be required for activity comprising less than one acre, such activity is subject to all other requirements of this Ordinance.

b. No Person shall undertake any land-disturbing activity for more than one acre without acquiring an NCG01 Permit (in addition to the Permit required by Section 11(a) above) by completing and submitting an electronic Notice of Intent (NOI) form requesting a Certificate of Coverage (COC) under the NCG010000 Construction Stormwater General Permit. The Letter of Approval from the Engineer shall contain a notice of the NCG01 Permit requirement and the acreage approved for disturbance.

Section 12. Inspections and Investigations

a. The Town Engineer is authorized and required to inspect the sites of land-disturbing activity to ensure compliance with the Act, this Ordinance, or rules or orders adopted or issued pursuant to this Ordinance and to determine whether the activity is being conducted in accordance with the Ordinance, the Act, and the approved Plan and whether the measures required in the Plan are effective in controlling Erosion and Sedimentation resulting from land-disturbing activity. Notice of the right to inspect shall be included in the notification of each Plan approval or issuance of the Permit.

b. No Person shall willfully resist, delay, or obstruct the Town Engineer while the Town Engineer is inspecting or attempting to inspect a land-disturbing activity under this Ordinance.

c. If, through inspection, it is determined that a Person engaged in land-disturbing activity has failed to comply with the Act, this Ordinance, or rules, or orders adopted or issued pursuant to this Ordinance, or has failed to comply with an approved Plan, the Town Engineer shall immediately serve upon the landowner, the landowner's agent, or other Person in possession or control of the land a written notice of violation. The notice may be served by any means authorized under G.S. 1A-1, Rule 4. Notwithstanding the foregoing, if the person engaged in the land-disturbing activity has not received a previous notice of violation under this Section, the Town shall deliver the notice in person and shall offer assistance in developing corrective measures. Assistance may be provided by referral to a technical assistance program in the Department, referral to a cooperative extension program, or by the provision of written materials such as Departmental guidance documents. If the Town is unable to deliver the notice of violation within 15 days following discovery of the violation, the notice of violation may be served in the manner prescribed for service of process by G.S. 1A-1, Rule 4, and shall include information on how to obtain assistance in developing corrective measures.

A notice of violation shall identify the nature of the violation and set forth the measures necessary to achieve compliance with the Ordinance. The notice shall specify a date by which the Person must comply with this Ordinance, and advise that the Person may be subject to a civil penalty and that failure to correct the violation within the time specified will subject that Person to the civil and criminal penalties for a continued violation as provided in G.S. 113A-64 and Section 13 of this Ordinance, or any other authorized enforcement action.

d. In determining the measures required and the time for achieving compliance, the Town Engineer shall take into consideration the technology and quantity of work required, and shall set reasonable and attainable time limits.

e. The Town Engineer shall use local rainfall data approved by the Town Engineer to determine whether the design storm identified in Section 9.a has been exceeded.

f. Penalties may be assessed for any of the following:

1. Failure to submit a Plan.

2. Performing land-disturbing activities without an approved Plan and pre-construction conference, or Permit.

3. Obstructing, hampering or interfering with an authorized representative who is in the process of carrying out official duties.

4. A repeated violation for which a notice was previously given on the same Tract or to the Person Responsible for the Violation.

5. Willful violation of this Ordinance.

6. Failure to install or maintain Adequate Erosion Control Measures, Structures, or Devices per the approved Plan and additional measures per Section 9.d such that it results in Sedimentation in a Wetland, Lake or Watercourse, or other designated protected areas.

7. Failure to install or maintain Adequate Erosion Control Measures, Structures, or Devices per the approved Plan and additional measures per Section 9.d such that it results in off-site Sedimentation.

g. The Town Engineer shall have the power to conduct such investigation as it may reasonably deem necessary to carry out its duties as prescribed in this Ordinance, and for this purpose to enter at reasonable times upon any property, public or private, for the purpose of investigating and inspecting the sites of any land-disturbing activity. Reasonable time shall be deemed to include daylight hours, Monday through Saturday, and otherwise shall include all emergencies. No Person shall refuse entry or access to the Town Engineer who requests entry for purpose of inspection or investigation, and who presents appropriate credentials, nor shall any Person obstruct, hamper, or interfere with the Town Engineer while in the process of carrying out official duties.

h. The Town Engineer shall also have the power to require written statements, or the filing of reports under oath as a part of investigating land-disturbing activity.

i. With regard to the development of any Tract that is subject to this Ordinance, a Certificate of Occupancy shall not be issued where any of the following conditions exist:

1. There is a violation of this Ordinance with respect to the Tract.

2. If there remains due and payable to Town of Huntersville civil penalties that have been levied against the Person conducting the land-disturbing activity for violation(s) of this Ordinance. If a penalty is under appeal, the Town Engineer may require the amount of the fine, and any other amount that the Person would be required to pay under this Ordinance if the Person loses the appeal, be placed in a refundable account or surety prior to issuing the Certificate of Occupancy.

3. The requirements of the Plan have not been completed and the building for which a Certificate of Occupancy is requested is the only building then under construction on the Tract.

4. On the Tract which includes multiple buildings on a single parcel, the requirements of the Plan have not been completed and the building for which a Certificate of Occupancy is requested is the last building then under construction on the Tract.

5. On a Tract which includes multiple parcels created pursuant to the applicable subdivision regulations, the requirements of the Plan have not been completed with respect to the parcel for which the Certificate of Occupancy is requested.

Section 13. <u>Penalties</u>

a. Any Person who violates any of the provisions of this Ordinance, or rules or orders adopted or issued pursuant to this Ordinance, or who initiates or continues a land-disturbing activity for which a Plan is required except in accordance with the terms, conditions, and provisions of an approved Plan, is subject to a civil penalty. A civil penalty may be assessed from the date the violation first occurs. No penalty shall be assessed until the Person alleged to be in violation has been notified of the violation.

Refusal to accept the notice or failure to notify the Town Engineer of a change of address shall not relieve the violator's obligation to comply with the Ordinance or to pay such a penalty.

b. The maximum civil penalty for each violation of this Ordinance is $5,000.00. Each day of continuing violation shall constitute a separate violation. When the person has not been assessed any civil penalty under this Ordinance for any previous violation, and that person abated continuing environmental damage resulting from the violation within 180 days from the date of the notice of violation, the maximum cumulative total civil penalty assessed under this Section for all violations associated with the land-disturbing activity for which the erosion and sedimentation control plan is required is twenty-five thousand dollars ($25,000).

c. In determining the amount of the civil penalty, the Town Engineer shall consider the following factors: the degree and extent of harm caused by the violation; the cost of rectifying the damage; the amount of money the violator saved by noncompliance; whether the violation was committed willfully; and the prior record of the violator in complying or failing to comply with this Ordinance, the Act, or any other erosion and sedimentation control ordinance, rule, order or law.

d. The Town Engineer shall determine the amount of the civil penalty and shall notify the Person who is assessed the civil penalty of the amount of the penalty and the reason for assessing the penalty. The notice of assessment shall be served by any means authorized under G.S. 1A-1, Rule 4 and shall direct the violator to either pay the assessment, ~~-~~contest the assessment within 30 days as specified in Section 16, or file a request with the Sedimentation Control Commission for remission of the assessment within 60 days of receipt of the notice. A remission request must be accompanied by a waiver of the right to a contested case hearing by the Stormwater Advisory Committee and a stipulation as to the facts on which the assessment was based. If a violator does not pay a civil penalty assessed by the Town Engineer within 60 Days after it is due, the Town Engineer shall request the Town Attorney to institute a civil action to recover the amount of the assessment. The civil action shall be brought in Mecklenburg County Superior Court.

e. A civil action must be filed within three (3) years of the date the assessment was due. An assessment that is not contested and for which no request for remission is made within the required timeframe is due when the violator is served with a notice of assessment. An assessment that is contested or for which a request for remission is made within the required timeframe is due at the conclusion of the administrative and judicial review of the assessment or final remission decision.

f. Any Person who knowingly or willfully violates any provision of this Ordinance, or rule or order adopted or issued pursuant to this ordinance, or who knowingly or willfully initiates or continues a land-disturbing activity for which a~~n~~ Plan is required, except in accordance with the terms, conditions, and provisions of an approved Plan, shall be guilty of a Class 2 misdemeanor and may be subject to a fine not to exceed Five Thousand Dollars ($5,000). This is in addition to any civil penalties that may be charged.

g. A violation of the Town Soil Erosion and Sedimentation Control Ordinance that is not knowing or not willful shall not constitute a misdemeanor or infraction punishable under North Carolina General Statute 14-4, but instead shall be subject to the civil penalties provided in this Ordinance.

h. The clear proceeds of civil penalties collected by the Town of Huntersville under this subsection shall be remitted to the Civil Penalty and Forfeiture Fund in accordance with G.S. § 115C-457.2. Penalties collected by the Town of Huntersville may be diminished only by the actual costs of collection. The collection cost percentage to be used shall be established and approved by the North Carolina Office of State Budget and Management on an annual basis, based upon the computation of actual collection costs by the Town for the prior fiscal year.

~~h.~~i. The damage or destruction of a silt fence occurring during land-disturbing activities or construction on a development project shall not be assessed a civil penalty under this section provided that the silt fence is repaired or replaced within the compliance period noted in the inspection report or Notice of Violation.

Section 14. Injunctive Relief

a. Whenever the Town Engineer has reasonable cause to believe that any Person is violating or threatening to violate this Ordinance, any rule, regulation or order adopted by the Town of Huntersville, or any term, condition, or provision of an approved Plan, the Town Engineer may, either before or after the institution of any other action or proceeding authorized by this Ordinance, authorize the Town Attorney to institute a civil action in the name of the Town of Huntersville, for injunctive relief to restrain the violation or threatened violation. The action shall be brought pursuant to G.S. 113A-65(b) in Mecklenburg County Superior Court

b. Upon determination by a court that an alleged violation is occurring or is threatened, the court shall enter such orders or judgements as are necessary to abate the violation or to ensure that restoration is performed or to prevent the threatened violation. The institution of an action for injunctive relief under this section shall not relieve any party to such proceedings from any civil or criminal penalty prescribed for violations of this Ordinance.

Section 15. **Restoration of Areas Affected by Failure to Comply**

The Town Engineer may require a Person who engaged in any land-disturbing activity and failed to retain Sediment generated by the activity to restore the waters and land affected by the failure so as to minimize the detrimental effects of the resulting pollution by Sedimentation. This authority is in addition to any other civil penalty or injunctive relief authorized under this Ordinance.

Section 16. **Appeals**

a. Disapproval or Modification of Proposed Plan

1. The disapproval or modification of any proposed Plan by the Town Engineer shall entitle the Person submitting the Plan ("Petitioner") to a public hearing before the Storm Water Advisory Committee ("Committee") if such Person submits written demand for a hearing to the Clerk of the Committee ("Clerk") within 15 Days after receipt of written notice of the disapproval or modification. The demand for a hearing filed with the Clerk shall be accompanied by a filing fee as established by the Storm Water Advisory Committee. The Committee may order the refund of all or any part of the filing fee if it rules in favor of the Petitioner. Failure to timely file such demand and fee shall constitute a waiver of any rights to appeal under this Chapter and the Storm Water Advisory Committee shall have no jurisdiction to hear the appeal.

2. In the event a Plan is disapproved pursuant to Section 10.d of this Ordinance, the applicant may appeal the Town's disapproval of the Plan directly to the Commission.

3. Within 5 Days of receiving the demand for a hearing, the Clerk shall notify the Chairman of the Committee ("Chairman") of the demand for hearing. As soon as possible after the receipt of said notice, the Chairman shall set a time and place for the hearing and notify the Petitioner by mail of the date, time and place of the hearing. The time specified for the hearing shall be either at the next regularly scheduled meeting of the Committee from the submission of the notice, or as soon thereafter as practical, or at a special meeting. The hearing shall be conducted by the Committee in accordance with the provisions of Section 16.c of this Ordinance.

4. If the Committee upholds the disapproval or modification of a proposed Plan following the public hearing, the Petitioner shall have 30 Days from the receipt of the decision to appeal the decision to the North Carolina Sedimentation Control Commission pursuant to Title 15A, Chapter 4B Section .0118(b) of the North Carolina Administrative Code and G.S. 113A-61(c).

b. Issuance of a Notice of Civil Penalty Assessment

1. The issuance of a notice of assessment of a civil penalty by the Town Engineer shall entitle the Person responsible for the violation of the Ordinance ("Petitioner") to a public hearing before the Storm Water Advisory Committee ("Committee") if such Person submits written demand for a hearing to the Clerk of the Committee ("Clerk") within 30 Days of the receipt of the notice of assessment of a civil penalty. The demand for a hearing filed with the Clerk shall be accompanied by a filing fee as established by the Storm Water Advisory Committee. The Committee may order the refund of all or any part of the filing fee if it rules in favor of the Petitioner. Failure to timely file such demand and fee shall constitute a waiver of any rights to appeal under this Ordinance and the Storm Water Advisory Committee shall have no jurisdiction to hear the appeal.

2. Within 5 Days of receiving the Petitioner's demand for a hearing, the Clerk shall notify the Chairman of the Committee ("Chairman") of the request for hearing. As soon as possible after the receipt of said notice, the Chairman shall set a time and place for the hearing and notify the Petitioner by mail of the date, time and place of the hearing. The time specified for the hearing shall be either at the next regularly scheduled meeting of the Committee from the submission of the notice, or as soon thereafter as practical, or at a special meeting. The hearing shall be conducted pursuant to the provisions of Section 16.c of this Ordinance.

3. Any party aggrieved by the decision of the Committee with regard to the issuance of assessment of civil penalties shall have thirty (30) days from the receipt of the decision of the Committee to file a petition for review in Superior Court with the Clerk of Mecklenburg County Superior Court.

c. Hearing Procedure. The following provisions shall be applicable to any hearing conducted by the Committee pursuant to Section 16.a or 16.b above.

1. At the hearing, Petitioner and the Town Engineer shall have the right to be present and be heard, to be represented by counsel, and to present evidence through witnesses and competent testimony relevant to the issue(s) before the Committee.

2. Rules of evidence shall not apply to a hearing conducted pursuant to this Ordinance and the Committee may give probative effect to competent, substantial and material evidence.

3. At least seven (7) days before the hearing, the parties shall exchange a list of witnesses intended to be present at the hearing and a copy of any documentary evidence intended to be presented. The parties shall submit a copy of this information to the Clerk. Additional witnesses or documentary evidence may not be presented except upon consent of both parties or upon a majority vote of the Committee.

4. Witnesses shall testify under oath or affirmation to be administered by the Court Reporter or another duly authorized official.

5. The procedure at the hearing shall be such as to permit and secure a full, fair and orderly hearing and to permit all relevant, competent, substantial and material evidence to be received therein. A full record shall be kept of

all evidence taken or offered at such hearing. Both the representative for the Town and for the Petitioner shall have the right to cross-examine witnesses.

6. At the conclusion of the hearing, the Committee shall render its decision on the evidence submitted at such hearing and not otherwise.

   (a) If, after considering the evidence presented at the hearing, the Committee concludes by a preponderance of the evidence that the grounds for the Town Engineer's actions (including the amount assessed as a civil penalty) with regard to either disapproving or modifying a proposed Plan, or assessing a civil penalty are true and substantiated, the Committee shall uphold the action on the part of the Town Engineer.

   (b) If, after considering the evidence presented at the hearing, the Committee concludes by a preponderance of the evidence that the grounds for the Town Engineer's actions (including the amount assessed as a civil penalty) are not true and substantiated, the Committee shall, as it sees fit either reverse or modify any order, requirement, decision or determination of the Town Engineer. The Committee Bylaws will determine the number of concurring votes needed to reverse or modify any order, requirement, decision or determination of the Town Engineer.

   Any decision of the Committee which modifies the amount of the civil penalty shall include, as part of the findings of fact and conclusions of law, findings as to which assessment factors were not properly considered by the Town Engineer in determining the amount of the civil penalty assessed against the Petitioner.

7. The Committee shall keep minutes of its proceedings, showing the vote of each member upon each question and the absence or failure of any member to vote. The decision of the Committee shall be based on findings of fact and conclusions of law to support its decision.

8. The Committee shall send a copy of its findings and decision to the Applicant/Petitioner and the Town Engineer. If either party contemplates an appeal to a court of law, the party may request and obtain, at that party's own cost, a transcript of the proceedings.

9. The decision of the Committee shall constitute a final decision.

Section 17. **Existing Permits and Land-disturbing Activity**.

All permits and approved plans existing on the effective date of this Ordinance which were duly issued and/or approved by Mecklenburg County pursuant an interlocal agreement between Mecklenburg County and the Town of Huntersville, which provided for the enforcement by Mecklenburg County of the Mecklenburg County Soil Erosion and Sedimentation Control Ordinance within the territorial jurisdiction of the Town of Huntersville, including the extraterritorial jurisdiction of the Town, shall be recognized by the Town as valid permits and approved plans, and land-disturbing activity shall be allowed to continue in accordance with such permits and approved plans. Land-disturbing activity performed prior to the effective date of this Ordinance in violation of the Mecklenburg County Soil Erosion and Sedimentation Control Ordinance shall not be vested, and shall be subject to the terms of this Ordinance (the Town of Huntersville Soil Erosion and Sedimentation Control Ordinance).

Section 18. **Severability**

If any section or a section of this Ordinance is/are held to be invalid or unenforceable, all other sections shall nevertheless continue in full force and effect.

Section 19. **Effective Date**

This Ordinance shall be effective November 4, 2019

Section 20. **Revisions**

Town of Huntersville shall incorporate revisions required by the Commission within 8 months following receipt of the required revisions.

Adopted the 18th day of March, 2019, amended June 17, 2019, amended July 15, 2019, ~~and~~ amended November 4, 2019, and amended October 18, 2021.

Approved as to form:

_____ _____

Town Attorney Town Clerk

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TOWN OF HUNTERSVILLE
SOIL EROSION AND SEDIMENTATION CONTROL ORDINANCE.

NOW, THEREFORE, BE IT ORDAINED by the Town of Huntersville Board of Commissioners that:

Section 1. Title

This Ordinance may be cited as the "Town of Huntersville Soil Erosion and Sedimentation Control Ordinance."

Section 2. Preamble

The Sedimentation of streams, lakes, wetlands, and other waters of this State constitute a major pollution problem. Sedimentation occurs from the Erosion or depositing of soil and other materials into the waters. Control of Erosion and Sedimentation is deemed vital to the public interest and necessary to public health and welfare, and expenditures of funds for Erosion and Sedimentation control programs shall be deemed for public purpose. It is the purpose of this Ordinance to provide for creation, administration, and enforcement of the program through procedures and for the adoption of mandatory standards that will permit development of this Town to continue with the least detrimental effects from pollution by Sedimentation. In recognition of desirability of early coordination of Sedimentation control planning, it is the intention of the Town's Board of Commissioners that pre-construction conferences be held among the affected parties.

Section 3. Definitions

As used in this Ordinance, unless the context clearly indicates otherwise, the following definitions apply.

a. Accelerated Erosion - means any increase over the rate of Natural Erosion as a result of land-disturbing activity.

b. Act - means the North Carolina Sedimentation Pollution Control Act of 1973 and all rules and orders adopted pursuant to it.

c. Adequate Erosion Control Measures, Structures, or Devices - means ones that control the soil material within the land area under responsible control of the Person conducting the land-disturbing activity.

d. Affiliate - means a Person that directly, or indirectly through one or more intermediaries, controls, is controlled by, or is under common control of another Person.

e. Being Conducted - means a land-disturbing activity has been initiated and permanent stabilization of the site has not been completed.

f. Borrow - means fill material that is required for on-site construction and is obtained from other locations.

g. Buffer Zone – means the strip of land adjacent to a Lake or Watercourse.

h. Reserved

i. Reserved

j. Commission - means the North Carolina Sedimentation Control Commission.

k. Committee - means The Town of Huntersville Storm Water Advisory Committee as established by the resolution of the Huntersville Board of Commissioners, together with any amendments thereto.

l. Completion of Construction or Development - means that no further land-disturbing activity is required on a Tract except that which is necessary for establishing a permanent Ground Cover. Completion of Construction or Development may occur for a Tract, a Phase, or an entire Project as determined by the Town Engineer.

m. Contractor Conducting the Land-disturbing Activity – means any person who participates in the land-disturbing activity, including, but not limited to, the general contractor and sub-contractors with the responsibility for supervising the work on the Tract for the changing of the natural cover or topography of the Tract, or any part thereof.

n. Days – means calendar days unless otherwise specified.

o. Department - means the North Carolina Department of Environmental Quality.

p. Director - means the Director of the Division of Energy Mineral and Land Resources of the Department of Environmental Quality.

q. Discharge Point - means that point at which runoff leaves a Tract of land.

r. Energy Dissipater - means a structure or a shaped channel section with mechanical armoring placed at the outlet of pipes or conduits to receive and break down the energy from high Velocity flow.

s. Erosion - means the wearing away of land surface by the action of wind, water, gravity, or any combination thereof.

t. Forest Practice Guidelines – means the written directions related to water quality prepared by the Department's Division of Forest Resources and the United States Forest Service, including but not limited to the "Forestry Best Management Practices Manual" prepared by the Department.

u. Ground Cover - means any vegetative growth or other material that renders the soil surface stable against Accelerated Erosion.

v. Lake or Watercourse - means any stream, river, brook, swamp, sound, bay, creek, run, branch, canal, waterway, estuary, and any reservoir, lake or pond, natural or impounded, in which Sediment may be moved or carried in suspension, and which could be damaged by accumulation of Sediment.

w. Land-disturbing Activity - means any use of the land by any Person in residential, governmental, industrial, educational, institutional, or commercial development, highway and road construction and maintenance that results in a change in the natural cover or topography and that may cause or contribute to Sedimentation.

x. Local Government - means any county, incorporated village, town or city, or any combination of counties, incorporated villages, towns and cities, acting through a joint program pursuant to the provisions of the Act.

y. Natural Erosion - means the wearing away of the earth's surface by water, wind, or other natural agents under natural environmental conditions undisturbed by man.

z. Parent - means an Affiliate that directly, or indirectly through one or more intermediaries, controls another Person.

aa. Reserved.

bb. Permit – means the "Permit to Conduct Land-disturbing Activities" (grading permit) issued by the Town Engineer after a Plan is approved.

cc. Person(s) - means any individual, partnership, firm, association, joint venture, public or private corporation, trust, estate, commission, board, public or private institution, utility, cooperative, interstate body, or other legal entity.

dd. Person Conducting Land-disturbing Activity – means any person who may be held responsible for violation unless expressly provided otherwise by this Ordinance, the Act, or any order adopted pursuant to this Ordinance or the Act.

ee. Person Responsible for the Violation - as used in this Ordinance means:

1. The developer or other Person who has or holds himself out as having financial or operational control over the land-disturbing activity;

2. The landowner or Person in possession or control of the land who has directly or indirectly allowed the land-disturbing activity or has benefited from it or has failed to comply with any provision of this Ordinance, the Act, or any order adopted pursuant to this Ordinance or the Act.

ff. Phase – means a specific geographic portion of a Project as indicated on an approved Plan.

gg. Phase of Grading - means one of two types of grading, rough or fine.

hh. Plan**(s)** - means an Erosion and Sedimentation control plan for a Project, including all Phases and all Tracts.

ii. Sediment - means solid particulate matter, both mineral and organic, that has been or is being transported by water, air, gravity, or ice from its site of origin.

jj. Sedimentation - means the process by which Sediment resulting from Accelerated Erosion has been or is being transported off the site of the land-disturbing activity or into a Wetland, Lake or Watercourse.

kk. Siltation – means sediment resulting from Accelerated Erosion which is settleable or removable by properly designed, constructed, and maintained control measures; and which has been transported from its point of origin within the site of a land-disturbing activity; and which has been deposited, or is in suspension in water.

ll. Storm Drainage Facilities - means the system of inlets, conduits, channels, ditches and appurtenances that serve to collect and convey storm water through and from a given drainage area.

mm. Storm Water Runoff - means the surface flow of water resulting from precipitation in any form and occurring immediately after rainfall or melting.

nn. Subsidiary - means an Affiliate that is directly, or indirectly through one or more intermediaries, controlled by another Person.

oo. Ten-Year Storm - means a rainfall of an intensity expected to be equaled or exceeded, on the average, once in ten years, and of a duration that will produce the maximum peak rate of runoff, for the watershed of interest under average antecedent wetness conditions.

pp. Town Department of Engineering and Public Works – as used in this Ordinance, "Town Department of Engineering and Public Works" refers to both the Town Department of Engineering and the Town Department of Public Works.

qq Town Engineer – as used in this Ordinance, "Town Engineer" refers to both the Town Engineer and the Director of Public Works, both of whom shall have full authority and responsibility under this Ordinance where the term "Town Engineer" is used.

rr. Tract - means contiguous lands and bodies of water being disturbed or to be disturbed as a unit, regardless of ownership. A Plan may have more than one Phase, and each Phase may have more than one Tract.

ss. Twenty-five Year Storm - means a rainfall of an intensity expected to be equaled or exceeded, on the average, once in 25 years, and of a duration that will produce the maximum peak rate of runoff, from the watershed of interest under average antecedent wetness conditions.

tt. Uncovered - means the removal of Ground Cover from, on, or above the soil surface.

uu. Undertaken - means the initiating of any activity, or phase of activity, which results or will result in a change in the Ground Cover or topography of a Tract.

vv. Velocity - means the average velocity of flow through the cross section of the main channel at the peak flow of the design storm. The cross section of the main channel shall be that area defined by the geometry of the channel plus the area of flow below the flood height defined by vertical lines at the main channel banks. Overload flows are not to be included for the purpose of computing velocity of flow.

ww. Waste - means surplus materials resulting from on-site construction and disposed of at other locations.

xx. Watershed - means any water supply watershed protection area regulated with various controls within the jurisdictional boundaries of the Town of Huntersville.

yy. Wetland(s) – means land having the vegetative, soil and hydrologic characteristics to be regulated by Section 401 and 404 of the Federal Clean Water Act as defined by the United States Army Corp of Engineers.

zz Working Days - means days exclusive of Saturday, and Sunday and Town government holidays during which weather conditions or soil conditions permit land-disturbing activity to be undertaken.

Section 4. Scope and Exclusions

This Ordinance shall regulate land-disturbing activity within the territorial jurisdiction of the Town of Huntersville and to the extraterritorial jurisdiction of the Town of Huntersville.

This Ordinance shall not apply to the following land-disturbing activities. Only those portions of a Tract that are in actual use for the land-disturbing activities listed below shall be exempt from this Ordinance:

a. Activities including the production and activities relating or incidental to the production of crops, grains, fruits, vegetables, ornamental and flowering plants, dairy, livestock, poultry, and all other forms of agriculture undertaken on agricultural land for the production of plants and animals useful to man, including, but not limited to:
   1. Forages and sod crops, grains and feed crops, tobacco, cotton, and peanuts.
   2. Dairy animals and dairy products.
   3. Poultry and poultry products.
   4. Livestock, including beef cattle, llamas, sheep, swine, horses, ponies, mules, and goats.
   5. Bees and apiary products.
   6. Fur producing animals.
   7. Mulch, ornamental plants, and other horticultural products. For purposes of this section, "mulch" means substances composed primarily of plant remains or mixtures of such substances.

b. Activities Undertaken on forest land for the production and harvesting of timber and timber products and conducted in accordance with best management practices set out in Forest Practice Guidelines Related to Water Quality, as adopted by the North Carolina Department of Agriculture and Consumer Services. If land-disturbing activity undertaken on forestland for the production and harvesting of timber and timber products is not conducted in accordance in accordance with such Forest Practice Guidelines, then the provisions of this Ordinance shall apply.

c. Activities for which a Permit is required under the Mining Act of 1971, Article 7 of Chapter 74 of the General Statutes.

d. For the duration of an emergency, activities essential to protect human life, including activities specified in an executive order issued under G.S. 166A-19.30(a)(5).

e. Land-disturbing activity over which the State has exclusive regulatory jurisdiction as provided in G.S. 113A-56(a).

f. Activities undertaken to restore the wetland functions of converted wetlands to provide compensatory mitigation to offset impacts permitted under Section 404 of the Clean Water Act.

g. Activities undertaken pursuant to Natural Resources Conservation Service standards to restore the wetlands functions of converted wetlands as defined in Title 7 Code of Federal Regulations § 12.2.

Section 5. Forest Practice Guidelines

a. The Town of Huntersville Board of Commissioners adopts by reference the Forest Practice Guidelines Related to Water Quality, as adopted by the North Carolina Department of Agriculture and Consumer Services.

b. If land-disturbing activity undertaken on forest land for the production and harvesting of timber and timber products is not conducted in accordance with Forest Practice Guidelines Related to Water Quality, the provisions of this Ordinance shall apply to such activity and any related land-disturbing activity on the Tract.

Section 6. General Requirements

a. Erosion and Sedimentation Control Measures - All land-disturbing activities, including those that disturb less than an acre, shall provide Adequate Erosion Control Measures, Structures, or Devices in accordance with this Ordinance that are sufficient to retain the sediment generated by the land-disturbing activity within the boundaries of the Tract during construction upon and development of the Tract.

b. Plan Required - No Person shall initiate, direct, allow or conduct any land-disturbing activity on a Tract that meets any of the following criteria without having a copy of an approved Erosion and Sedimentation Control Plan on the job site.

1. uncovers one acre or more or

2. in Borrow and Waste areas covered by Section 9.f, with a disturbed area greater than one acre.

c. Exceptions -
i. When a development project contains an approved erosion control plan for an entire development, a separate erosion control plan shall not be required by the Town for development of individual residential lots within that development that disturb less than one acre if the developer and the builder are the same financially responsible person. For review of an erosion control plan for a single-family lot in a common plan of development under this subsection where the developer and builder are different, the plan shall require the following information:
(1) Name, address, telephone number, and email of owner of lot being developed.
(2) Street address of lot being developed.
(3) Subdivision name.
(4) Lot number.
(5) Tax parcel number of lot being developed.

(6) Total acreage of lot being developed.
(7) Total acreage disturbed.
(8) Anticipated start and completion date.
(9) Person financially responsible.
(10) Signature of person financially responsible.
(11) Existing platted survey of the lot.
(12) A sketch plan showing erosion control measures for the lot being developed, but the sketch shall not be required to be under the seal of a licensed engineer, landscape architect, or registered land surveyor unless there is a design feature requiring such under federal or State law or regulation.

ii. For a land-disturbing activity on more than one residential lot where the total land disturbed exceeds one acre, the person conducting the land-disturbing activity may submit for approval a single erosion control plan for all of the disturbed lots or may submit for review and approval under subsection (c.i) of this section the erosion control measures for each individual lot.

iii. No Plan shall require a silt fence or other erosion control measure to be placed in a location where, due to the contour and topography of the development site, that erosion control measure would not substantially and materially retain the sediment generated by the land-disturbing activity within the boundaries of the tract during construction upon and development of the tract.

iv. No plan shall require a wire-backed reinforced silt fence where, due to the contour and topography of the development site, that fence would not substantially and materially retain the sediment generated by the land-disturbing activity within the boundaries of the tract during construction upon and development of the tract.

d. Compliance - Persons who submit a Plan to the Town Engineer shall comply with the provisions of Sections 10 & 11 of this Ordinance.

e. Protection of Property - Persons conducting land-disturbing activity shall take all reasonable measures to protect all public and private property from damage caused by such activity and associated Sedimentation.

f. More Restrictive Rules Shall Apply - Whenever conflicts exist between federal, state or local laws, ordinances, or rules, the more restrictive provision shall apply.

Section 7. Basic Control Objectives

A Plan may be disapproved pursuant to Section 10 of this Ordinance if the Plan fails to include Adequate Erosion Control Measures, Structures, or Devices to address the following control objectives:

a. Identify Critical Areas - On-site areas that are subject to severe Erosion, and off-site areas that are especially vulnerable to damage from Erosion and/or Sedimentation are to be identified and receive special attention.

b. Limit Time of Exposure - All land-disturbing activity is to be planned and conducted to limit exposure to the shortest feasible time.

c. Limit Exposed Areas - All land-disturbing activity is to be planned and conducted to minimize the size of the area to be exposed at any one time.

d. Control Surface Water - Surface water runoff originating upgrade of exposed areas should be controlled to reduce Erosion and Sediment loss during the period of exposure.

e. Control Sedimentation - All land-disturbing activity is to be planned and conducted so as to prevent Sedimentation damage.

f. Manage Storm Water Runoff - When the increase in the Velocity of Storm Water Runoff resulting from a land-disturbing activity is sufficient to cause Accelerated Erosion of the receiving watercourse, Plans are to include measures to control the Velocity at the Discharge Point so as to minimize Accelerated Erosion of the site and to decrease Sedimentation to any Lake or Watercourse.

Section 8. Mandatory Standards for Land-disturbing Activity

No land-disturbing activity subject to the control of this Ordinance shall be undertaken except in accordance with the following mandatory standards:

a. Lake, Watercourse and Wetland Protection - Additional erosion control measures structures, or devices as specified in the "Policies and Procedures" statement issued by the Town Engineer shall be required to provide a higher level of protection to Lakes, Watercourses, and Wetlands from Sedimentation.

1. Buffer zone – No land-disturbing activity during periods of construction or improvement to land shall be permitted in proximity to a Lake or Watercourse unless a buffer zone is provided along the margin of the watercourse of sufficient width to confine visible siltation within the twenty-five (25%) of the buffer zone nearest the land-disturbing activity.

i. Projects On, Over or Under Water. This subdivision shall not apply to a land-disturbing activity in connection with the construction of facilities to be located on, over, or under a Lake or Watercourse.

ii. Buffer Measurement. Unless otherwise provided, the width of a buffer zone is measured horizontally from the edge of the water to the nearest edge of the disturbed area, with the 25 percent of the strip nearer the land-disturbing activity containing natural or artificial means of confining visible siltation.

b. Graded Slopes and Fills - The angle for graded slopes and fills shall be no greater than the angle that that can be retained by vegetative cover or other Adequate Erosion Control Measures, Structures, or Devices. Permanent or temporary stabilization sufficient to restrain erosion is to be provided within 7 or 14 calendar days after completion of any Phase of Grading.

c. Fill Material. Unless a permit from the Department's Division of Waste Management to operate a landfill is on file for the official site, acceptable fill material shall be free of organic or other degradable materials, masonry, concrete and brick in sizes exceeding twelve (12) inches, and any materials which would cause the site to be regulated as a landfill by the State of North Carolina.

d. Ground Cover - The Person conducting the land-disturbing activity shall plant or otherwise provide a permanent Ground Cover sufficient to restrain Erosion after Completion of Construction or Development. Provisions for a permanent Ground Cover sufficient to restrain Erosion must be accomplished within 21 calendar days following Completion of Construction or Development. For an area of a site that is inactive for a period of 14 days from the last land-disturbing activity, temporary or permanent ground cover would be required.

e. Prior Plan Approval - No Person shall initiate any land-disturbing activity on a Tract if one acre or more is to be disturbed unless, thirty (30) or more days prior to initiating the activity, a Plan for that activity has been submitted and approved in accordance with Section 10(b). The land-disturbing activity shall be conducted in accordance with the approved erosion and sedimentation control plan. In determining the size of the disturbed area, all Tracts shown on the Plan for the Project as being disturbed or to be disturbed will be aggregated regardless of ownership, and regardless of whether such Tracts are contiguous or not, and regardless of whether such Tracts are in the same Phase. The Town shall forward to the Director of the Division of Water Resources a copy of each Plan for a land-disturbing activity that involves the utilization of ditches for the purpose of de-watering or lowering the water table of the Tract.

f. Pre-construction Conference - If one acre or more is to be, Uncovered, the Person(s) conducting the land-disturbing activity or an agent of that party shall contact the Town Engineer at least 48 hours before commencement of the land-disturbing activity. The purpose is to arrange an on-site meeting with the Town Engineer or duly authorized representative to review and discuss the approved Plan and the proposed land-disturbing activity.

g. Self-Monitoring and Self-Inspections. – The Landowner, the financially responsible party, or the landowner's or financially responsible party's agent shall inspect all Erosion and Sedimentation control measures as soon as possible, no less than once a week and within 24 hours after any storm event of greater than 1.0 inches of rain per 24-hour period or more frequently if required by State or Federal Law, hereinafter "Self-Monitoring." The Landowner, the financially responsible party, or the landowner's or financially responsible party's agent shall also perform an inspection of the area covered by the Plan after each phase of the Plan has been completed and after establishment of temporary ground cover in accordance with N.C.G.S. § 113A-57(2), hereinafter "Self-Inspections." The person performing the Self-Monitoring and Self-Inspections shall have certification approved by the Town Engineer. However, no periodic self-inspections or rain gauge installation is required on individual residential lots where less than one acre is being disturbed on each lot.

1. A record of the Self-Monitoring and Self-Inspections shall be maintained and made available at the site of the land-disturbing activity. These records shall set out any significant deviation from the approved Plan, identify any measures that may be required to correct the deviation, and document the completion of those measures. These records shall be maintained at the site until permanent ground cover has been established as required by the approved Plan. The Self-Inspections required by this subsection shall be in addition to inspections required by N.C.G.S. § 113A-61.1 and Section 12 of this Ordinance.

2. If one acre or more is to be disturbed, a record of inspections shall be kept by the Person conducting the land-disturbing activity or an agent until three

years after construction is completed and approved by the Town Engineer. In determining the size of the disturbed area, all Tracts shown on the Plan for the Project as being disturbed or to be disturbed will be aggregated regardless of ownership, and regardless of whether such Tracts are contiguous or not, and regardless of whether such Tracts are in the same Phase. The record shall include the date and time of inspection, weather conditions, any repairs or maintenance needed, and the signature and certification number of the person who performed the inspection. Additional record keeping may be required by State or Federal Law and as stated on the approved plans.

3. Corrective action on the repairs and maintenance indicated on the record are to begin within 24 hours after a rain event or within 24 hours of the last inspection if a rain event did not prompt the inspection, unless additional time is allowed by the Town Engineer. The date of the completion of such repairs noted. The records of inspection shall be retained and made available to the Town Engineer upon request.

4. Persons that have had a Notice of Violation or repeated warning about off-site sedimentation or non-maintenance of Adequate Erosion Control Measures, Structures, or Devices may be required to provide the Town Engineer with a self-inspection record for the particular Tract.

5. Any Person who falsifies, tampers with, or knowingly renders inaccurate records can be penalized under Section 13 of this Ordinance.

6. In addition to the requirements contained in Subsections 8.g(1-5) above, Self-Inspections shall comply with the following:

    (i) The person who performs the inspection shall make a record of the site inspection by documenting the following items:

        (a) All of the erosion and sedimentation control measures, practices and devices, as called for in a construction sequence consistent with the approved erosion and sedimentation control plan, including but not limited to sedimentation control basins, sedimentation traps, sedimentation ponds, rock dams, temporary diversions, temporary slope drains, rock check dams, sediment fence or barriers, all forms of inlet protection, storm drainage facilities, energy dissipaters, and stabilization methods of open channels, have initially been installed and do not significantly deviate (as defined in Sub-item (i)(e) of this Rule) from the locations, dimensions and relative elevations shown on the approved erosion and sedimentation plan. Such documentation shall be accomplished by initialing and dating each measure or practice shown on a copy of the approved erosion and sedimentation control plan or by completing, dating and signing an inspection report that lists each measure, practice or device shown on the approved erosion and sedimentation control plan. This documentation is required only upon the initial installation of the erosion and sedimentation control measures, practices and devices as set forth by the approved erosion and sedimentation control plan or if the measures, practices and devices are

modified after initial installation;

(b) the completion of any Phase of Grading for all graded slopes and fills shown on the approved erosion and sedimentation control plan, specifically noting the location and condition of the graded slopes and fills. Such documentation shall be accomplished by initialing and dating a copy of the approved erosion and sedimentation control plan or by completing, dating and signing an inspection report;

(c) the location of temporary or permanent ground cover, and that the installation of the ground cover does not significantly deviate (as defined in paragraph (e) of this sub-part) from the approved erosion and sedimentation control plan. Such documentation shall be accomplished by initialing and dating a copy of the approved erosion and sedimentation control plan or by completing, dating and signing an inspection report;

(d) that maintenance and repair requirements for all temporary and permanent erosion and sedimentation control measures, practices and devices have been performed. Such documentation shall be accomplished by completing, dating and signing an inspection report (the general storm water permit monitoring form may be used to verify the maintenance and repair requirements); and

(e) any significant deviations from the approved erosion and sedimentation control plan, corrective actions required to correct the deviation and completion of the corrective actions. Such documentation shall be accomplished by initialing and dating a copy of the approved erosion and sedimentation control plan or by completing, dating and signing an inspection report. A significant deviation means an omission, alteration or relocation of an erosion or sedimentation control measure that prevents the measure from performing as intended.

(ii) The documentation, whether on a copy of the approved erosion and sedimentation control plan or an inspection report, shall include the name, address, affiliation, telephone number, and signature of the person conducting the inspection and the date of the inspection. Any relevant licenses and certifications may also be included. Any documentation of inspections that occur on a copy of the approved erosion and sedimentation control plan shall occur on a single copy of the plan and that plan shall be made available on the site. Any inspection reports shall also be made available on the site.

(iii) The inspection shall be performed during or after completion of each of the following activities:

(a) installation of perimeter erosion and sediment control measures;

(b) clearing and grubbing of existing ground cover;

(c) completion of any phase of grading of slopes or fills that requires provision of temporary or permanent ground cover pursuant to G.S. 113A-57(2);

(d) completion of storm drainage facilities;

(e) completion of construction or development; and

(f) quarterly until the establishment of permanent ground cover sufficient to restrain erosion or until the financially responsible party has conveyed ownership or control of a Tract for which the erosion and sedimentation control plan has been approved and the agency that approved the plan has been notified. If the financially responsible party has conveyed ownership or control of a Tract for which the erosion and sedimentation control plan has been approved, the new owner or person in control shall conduct and document inspections quarterly until the establishment of permanent ground cover sufficient to restrain erosion

Section 9. Design and Performance Standards

a. Design Storm - Adequate Erosion Control Measures, Structures, and Devices shall be planned, designed, constructed and maintained so as to provide protection from the calculated maximum peak rate of runoff from the Ten-year Storm. Runoff rates shall be calculated using the procedures in the USDA, Natural Resource Conservation Services (formerly Soil Conservation Service's) "National Engineering Field Manual for Conservation Practices," or other acceptable calculation procedures including but not limited to the Town of Huntersville's Storm Water Design Manual.

b. Innovative Measures - Erosion and Sedimentation measures applied alone or in combination to satisfy the intent of this section are acceptable if they are sufficient to prevent adverse secondary consequences. Innovative techniques and ideas will be considered and may be used following approval by the Town Engineer if it can be demonstrated that such techniques and ideas are likely to produce successful results.

c. Responsibility for Maintenance - During the development of a site, the Person conducting the land-disturbing activity shall install and maintain all temporary and permanent Erosion and Sedimentation control measures as required by the approved Plan or any provision of this Ordinance, the Act, or any order adopted pursuant to this Ordinance or the Act. After development, the landowner or Person in possession or control of the land shall install and maintain all necessary permanent Erosion and Sediment control measures.

d. Additional Measures - Whenever the Town Engineer, determines that accelerated Erosion and Sedimentation is occurring as a result of land-disturbing activity, despite application and maintenance of protective practices, the Person conducting the land-disturbing activity shall take additional protective action.

e. Storm Water Outlet Protection

(a) Intent. Stream banks and channels downstream from any land-disturbing activity shall be protected from increased degradation by accelerated erosion caused by increased velocity of runoff from the land-disturbing activity.

(b) Performance standard. Persons shall conduct land-disturbing activity so that the post construction velocity of the 10-year storm runoff in the receiving watercourse to the discharge point does not exceed the greater of:

(1) the velocity established by the Maximum Permissible Velocities Table set out within this subsection; or

(2) the velocity of the ten-year storm runoff in the receiving watercourse prior to development.

If condition (1) or (2) of this Paragraph cannot be met, then the receiving watercourse to and including the discharge point shall be designed and constructed to withstand the expected velocity anywhere the velocity exceeds the "prior to development" velocity by 10%.

Maximum Permissible Velocities Table

The following is a table for maximum permissible velocity for storm water discharges in feet per second (F.P.S.) and meters per second (M.P.S.):

Material	F.P.S.	M.P.S.
Fine sand (noncolloidal)	2.5	.8
Sandy loam (noncolloidal)	2.5	.8
Silt loam (noncolloidal)	3.0	.9
Ordinary firm loam	3.5	1.1
Fine gravel	5.0	1.5
Stiff clay (very colloidal)	5.0	1.5
Graded, loam to cobbles (noncolloidal)	5.0	1.5
Graded, silt to cobbles (Colloidal)	5.5	1.7
Alluvial silts (noncolloidal)	3.5	1.1
Alluvial silts (colloidal)	5.0	1.5
Coarse gravel (noncolloidal)	6.0	1.8
Cobbles and shingles	5.5	1.7
Shales and hard pans	6.0	1.8

Source - Adapted from recommendations by Special Committee on Irrigation Research, American Society of Civil Engineers, 1926, for channels with straight alignment. For sinuous channels, multiply allowable velocity by 0.95 for slightly sinuous, by 0.9 for moderately sinuous channels, and by 0.8 for highly sinuous channels.

(c) Acceptable Management Measures - Measures applied alone or in combination to satisfy the intent of this section are acceptable if there are no objectionable secondary consequences. The Town recognizes that the management of storm water runoff to minimize or control downstream channel and bank erosion is a

developing technology. Innovative techniques and ideas will be considered and may be used when shown to have the potential to produce successful results. Some alternatives, while not exhaustive, are to:

(1) Avoid increases in surface runoff volume and velocity by including measures to promote infiltration to compensate for increased runoff from areas rendered impervious;

(2) Avoid increases in storm water discharge velocities by using vegetated or roughened swales and waterways in place of closed drains and high velocity paved sections:

(3) Provide energy dissipators at outlets of storm drainage facilities to reduce flow velocities to the point of discharge;

(4) Protect watercourses subject to accelerated erosion by improving cross sections and/or providing erosion-resistant lining; and

(5) Upgrade or replace the receiving device structure, or watercourse such that it will receive and conduct the flow to a point where it is no longer subject to degradation from the increased rate of flow or increased velocity.

(d) Exceptions - This rule shall not apply where it can be demonstrated to the Town that storm water discharge velocities will not create an erosion problem in the receiving watercourse.

f. Borrow and Waste Areas - When the Person conducting the land-disturbing activity is also the Person conducting the Borrow or Waste disposal activity, the following areas are considered as part of the land-disturbing activity.

1. Areas from which Borrow is obtained that are not regulated by the provisions of the Mining Act of 1971 and its subsequent amendments, or

2. Waste areas for surplus materials other than landfills regulated by the Department's Division of Solid Waste Management.

When the Person conducting the land-disturbing activity is the Person conducting the Borrow or Waste disposal activity, the activity shall not be considered a separate land-disturbing activity.

The responsible Person conducting the Borrow or Waste Areas shall provide Adequate Erosion Control Measures, Structures, or Devices and comply with all provisions of this Ordinance.

g. Access and Haul Roads - Temporary access and haul roads, other than public roads, constructed or used in connection with any land-disturbing activity shall be considered a part of such activity.

h. Operations in Lakes or Watercourses - land-disturbing activity in connection with construction in, on, over, or under a Lake or Watercourse shall be planned and conducted in such a manner as to minimize the extent and duration of disturbance of the Lake or Watercourse. The relocation of a stream, where relocation is an

essential part of the proposed activity, shall be planned and executed so as to minimize changes in the stream flow characteristics, except when justification for significant alteration to flow characteristic is provided.

Section 10. Erosion and Sedimentation Control Plans

a. Plan Requirements – All Plans required for Land- disturbing Activities as identified in Section 6.b of this Ordinance shall meet the following requirements:

1. Plans shall contain architectural or engineering drawings, maps, assumptions, calculations, and narrative statements as needed to adequately describe the proposed development of all Tracts for the Project, including all Phases, and the measures planned to comply with the requirements of this Ordinance. Plan content may vary to meet the needs of specific site requirements. Detailed guidelines for Plan preparation may be obtained from the Town Engineer on request.

2. Plans must contain an authorized statement of financial responsibility and ownership signed by the Person financially responsible for the land-disturbing activity or that Person's attorney in fact, and all such signatures shall be notarized. The statement shall include the mailing and street addresses of the principal place of business of the Person financially responsible and of the owner of the land or their registered agents. If the Person financially responsible is not a resident of North Carolina, a North Carolina agent must be designated in the statement for the purpose of receiving service of process and notice of compliance or non-compliance with the Plan, the Act, this Ordinance, or rules or orders adopted or issued pursuant to this Ordinance.

3. If the applicant is not the owner of the land to be disturbed, the draft erosion and sedimentation control plan must include the owner's notarized, written consent for the applicant to submit a draft erosion and sedimentation control plan and to conduct the anticipated land-disturbing activity.

4. The land-disturbing activity described in the Plan shall comply with all Federal, State, and Local water quality laws, rules and regulations, including, but not limited to, the Federal Clean Water Act. The Town Engineer may require supporting documentation.

5. The land-disturbing activity described in the Plan shall not result in a violation of rules adopted by the Environmental Management Commission to protect riparian buffers along surface waters.

6. The land-disturbing activity described in the Plan shall not result in a violation of any local Ordinance, law, rule, or regulation, including but not limited to zoning, tree protection, stream, lake and watershed buffers, and flood plain regulations.

7. Two (2) hard copies of the Plan shall be filed with the Town Engineer in addition to an electronic copy filed as directed by the Town. A copy of the approved Plan shall be maintained on the job site.

8. Effort should be made not to uncover more than 20 acres at any one time. If more than 20 acres are to be uncovered at any one time, the Plan shall contain the following:

   (a.) The method of limiting time of exposure and amount of exposed area to achieve the objectives of this Ordinance.
   (b.) A cut/fill analysis that shows where soil will be moved from one area of the Tract to another as ground elevation is changed.
   (c.) Construction sequence and construction phasing to justify the time and amount of exposure.
   (d.) Techniques to be used to prevent Sedimentation associated with larger disturbed areas.
   (e.) Additional erosion control measures, structures, and devices to prevent Sedimentation.

9. All Plans must be sealed by a professional engineer, licensed to do business in the State of North Carolina.

10. No person may initiate a land-disturbing activity before notifying the Town in writing of the date that land-disturbing activity will begin.

b. Plan Review Process – Once a Plan has been submitted with the applicable review fee, the review process will be initiated. The Town Engineer will review each Plan submitted and within 30 Days of receipt thereof will notify the Person submitting the Plan (hereinafter "the applicant") that it has been approved, approved with modifications, or disapproved. The Engineer's time for review shall not begin until a complete Plan has been submitted. Plan requirements shall be as required by the Town Department of Engineering and Public Works. Should the Plan be filed and not reviewed within the specified time frame, the land-disturbing activity may commence subject to the provisions of Section 8.e, Section 10.a.4 and Section 10.a.5, and the Town Engineer will endeavor to review the plan on an expedited schedule.

In the event the Plan or a transfer of a plan is disapproved pursuant to subsection (d) of this Section, the Town Engineer shall notify the applicant and the Director of such disapproval within 10 Days thereof. The Town Engineer shall advise the applicant and the Director in writing as to the specific reasons that the Plan was disapproved. The applicant shall have the right to appeal the Town Engineer's decision to the Stormwater Advisory Committee as provided in Section 16 of this Ordinance, or may appeal directly to the Commission.

Plans for which land-disturbing activity has not commenced within 3 years from the initial plan approval are void.

c. Amendments to Plans - If the Town Engineer, either upon review of such Plan or upon inspection of the job site, determines that the Plan is inadequate to meet the requirements of this Ordinance or that a significant risk of Accelerated Erosion or off-site Sedimentation exists, then the Town Engineer shall require a revised Plan. Pending the preparation of the revised Plan, work on affected area shall cease or shall continue only under conditions outlined by the Town Engineer.

Amendments or revisions to a Plan must be made in written and/or graphic form and shall be submitted at any time under the same requirements for submission of original Plans. Until such time as the Town Engineer approves any amendments or

revisions, the land-disturbing activity shall not proceed, except in accordance with the Plan as originally approved.

The Town Engineer must approve, approve with modifications, or deny a revised Plan within 15 Days of receipt, or it is deemed to be approved as submitted, unless such approval conflicts with other federal, state or local regulations.

d. Grounds for Disapproval of Plans – Any Plan that is not in accordance with the requirements set forth in subsection (a) above shall be disapproved. In addition, a Plan may be disapproved upon a finding that an applicant or a parent, subsidiary, or other affiliate of the applicant:

1. Is conducting or has conducted land-disturbing activity without an approved Plan, or has received notice of violation regarding a Plan previously approved by the Commission or the Town and has not complied with the provisions of the notice within the time specified in the notice;

2. Has failed to pay a civil penalty assessed pursuant to the Act, or a local ordinance adopted pursuant to the Act, by the time the payment is due;

3. Has been convicted of a misdemeanor pursuant to G.S. 113A-64(b) or any criminal provision of a local ordinance adopted pursuant to the Act; or

4. Has failed to substantially comply with State rules or local ordinances and regulations adopted pursuant to the Act.

For the purposes of this subsection, an applicant's record or the proposed transferee's record may be considered for only the two years prior to the application date.

e. Violations - Any Person engaged in land-disturbing activity who fails to file a required Plan in accordance with this Ordinance shall be deemed in willful violation of this Ordinance. Any Person who conducts a land-disturbing activity except in accordance with provisions of an approved Plan shall be deemed in violation of this Ordinance.

f. Plan Transfer. The Town may transfer an erosion and sedimentation control plan approved pursuant to this section without the consent of the plan holder to a successor-owner of the property on which the permitted activity is occurring or will occur as provided in this subsection. The Town may transfer a plan if all of the following conditions are met:

1. The successor-owner of the property submits to the local government a written request for the transfer of the plan and an authorized statement of financial responsibility and ownership.

2. The Town finds all of the following:

   a. The plan holder is one of the following:

      1) A natural person who is deceased.

      2) A partnership, limited liability corporation, corporation, or any other business association that has been dissolved.

3) A person who has been lawfully and finally divested of title to the property on which the permitted activity is occurring or will occur.

4) A person who has sold the property on which the permitted activity is occurring or will occur.

b. The successor-owner holds title to the property on which the permitted activity is occurring or will occur.

c. The successor-owner is the sole claimant of the right to engage in the permitted activity.

d. There will be no substantial change in the permitted activity.

3. The plan holder shall comply with all terms and conditions of the plan until such time as the plan is transferred.

4. The successor-owner shall comply with all terms and conditions of the plan once the plan has been transferred.

Notwithstanding changes to law made after the original issuance of the plan, the Town may not impose new or different terms and conditions in the plan without the prior express consent of the successor-owner. Nothing in this subsection shall prevent the Town from requiring a revised plan pursuant to G.S. § 113A-54.1(b).

g. Display of Plan Approval. A Plan approval issued under this Section shall be prominently displayed until all construction is complete, all permanent sedimentation and erosion control measures are installed, and the site has been stabilized. A copy of the approved Plan shall be kept on file at the job site.

Section 11. Permits

a. No Person shall undertake any land-disturbing activity subject to this Ordinance without first obtaining a Permit from the Town Engineer. The only exception to this requirement is a land-disturbing activity that:

1. has been approved by the Town Engineer at a pre-construction conference for the purpose of installing erosion control measures indicated on the approved Plan,

2. is for the purpose of fighting fires,

3. is for the stock piling of raw or processed sand, stone, or gravel in existing material processing plants and existing storage yards, provided that Sediment control measures are utilized to protect against off-site damage, or

4. does not exceed one (1) acre of disturbed area. In determining the size of the disturbed area, all Tracts shown on the Plan for the Project will be aggregated regardless of ownership, and regardless of whether such Tracts are contiguous or not, and regardless of whether such Tracts are in the same Phase. Although a Plan and a Permit may not be required for activity comprising less than one acre, such activity is subject to all other requirements of this Ordinance.

b. No Person shall undertake any land-disturbing activity for more than one acre without acquiring an NCG01 Permit (in addition to the Permit required by Section 11(a) above) by completing and submitting an electronic Notice of Intent (NOI) form requesting a Certificate of Coverage (COC) under the NCG010000 Construction Stormwater General Permit. The Letter of Approval from the Engineer shall contain a notice of the NCG01 Permit requirement and the acreage approved for disturbance.

Section 12. **Inspections and Investigations**

a. The Town Engineer is authorized and required to inspect the sites of land-disturbing activity to ensure compliance with the Act, this Ordinance, or rules or orders adopted or issued pursuant to this Ordinance and to determine whether the activity is being conducted in accordance with the Ordinance, the Act, and the approved Plan and whether the measures required in the Plan are effective in controlling Erosion and Sedimentation resulting from land-disturbing activity. Notice of the right to inspect shall be included in the notification of each Plan approval or issuance of the Permit.

b. No Person shall willfully resist, delay, or obstruct the Town Engineer while the Town Engineer is inspecting or attempting to inspect a land-disturbing activity under this Ordinance.

c. If, through inspection, it is determined that a Person engaged in land-disturbing activity has failed to comply with the Act, this Ordinance, or rules, or orders adopted or issued pursuant to this Ordinance, or has failed to comply with an approved Plan, the Town Engineer shall immediately serve upon the landowner, the landowner's agent, or other Person in possession or control of the land a written notice of violation. The notice may be served by any means authorized under G.S. 1A-1, Rule 4. Notwithstanding the foregoing, if the person engaged in the land-disturbing activity has not received a previous notice of violation under this Section, the Town shall deliver the notice in person and shall offer assistance in developing corrective measures. Assistance may be provided by referral to a technical assistance program in the Department, referral to a cooperative extension program, or by the provision of written materials such as Departmental guidance documents. If the Town is unable to deliver the notice of violation within 15 days following discovery of the violation, the notice of violation may be served in the manner prescribed for service of process by G.S. 1A-1, Rule 4, and shall include information on how to obtain assistance in developing corrective measures.

   A notice of violation shall identify the nature of the violation and set forth the measures necessary to achieve compliance with the Ordinance. The notice shall specify a date by which the Person must comply with this Ordinance, and advise that the Person may be subject to a civil penalty and that failure to correct the violation within the time specified will subject that Person to the civil and criminal penalties for a continued violation as provided in G.S. 113A-64 and Section 13 of this Ordinance, or any other authorized enforcement action.

d. In determining the measures required and the time for achieving compliance, the Town Engineer shall take into consideration the technology and quantity of work required, and shall set reasonable and attainable time limits.

e. The Town Engineer shall use local rainfall data approved by the Town Engineer to determine whether the design storm identified in Section 9.a has been exceeded.

f. Penalties may be assessed for any of the following:

1. Failure to submit a Plan.

2. Performing land-disturbing activities without an approved Plan and pre-construction conference, or Permit.

3. Obstructing, hampering or interfering with an authorized representative who is in the process of carrying out official duties.

4. A repeated violation for which a notice was previously given on the same Tract or to the Person Responsible for the Violation.

5. Willful violation of this Ordinance.

6. Failure to install or maintain Adequate Erosion Control Measures, Structures, or Devices per the approved Plan and additional measures per Section 9.d such that it results in Sedimentation in a Wetland, Lake or Watercourse, or other designated protected areas.

7. Failure to install or maintain Adequate Erosion Control Measures, Structures, or Devices per the approved Plan and additional measures per Section 9.d such that it results in off-site Sedimentation.

g. The Town Engineer shall have the power to conduct such investigation as it may reasonably deem necessary to carry out its duties as prescribed in this Ordinance, and for this purpose to enter at reasonable times upon any property, public or private, for the purpose of investigating and inspecting the sites of any land-disturbing activity. Reasonable time shall be deemed to include daylight hours, Monday through Saturday, and otherwise shall include all emergencies. No Person shall refuse entry or access to the Town Engineer who requests entry for purpose of inspection or investigation, and who presents appropriate credentials, nor shall any Person obstruct, hamper, or interfere with the Town Engineer while in the process of carrying out official duties.

h. The Town Engineer shall also have the power to require written statements, or the filing of reports under oath as a part of investigating land-disturbing activity.

i. With regard to the development of any Tract that is subject to this Ordinance, a Certificate of Occupancy shall not be issued where any of the following conditions exist:

1. There is a violation of this Ordinance with respect to the Tract.

2. If there remains due and payable to Town of Huntersville civil penalties that have been levied against the Person conducting the land-disturbing activity for violation(s) of this Ordinance. If a penalty is under appeal, the Town Engineer may require the amount of the fine, and any other amount that the Person would be required to pay under this Ordinance if the Person loses the appeal, be placed in a refundable account or surety prior to issuing the Certificate of Occupancy.

3. The requirements of the Plan have not been completed and the building for which a Certificate of Occupancy is requested is the only building then under construction on the Tract.

4. On the Tract which includes multiple buildings on a single parcel, the requirements of the Plan have not been completed and the building for which a Certificate of Occupancy is requested is the last building then under construction on the Tract.

5. On a Tract which includes multiple parcels created pursuant to the applicable subdivision regulations, the requirements of the Plan have not been completed with respect to the parcel for which the Certificate of Occupancy is requested.

Section 13. Penalties

a. Any Person who violates any of the provisions of this Ordinance, or rules or orders adopted or issued pursuant to this Ordinance, or who initiates or continues a land-disturbing activity for which a Plan is required except in accordance with the terms, conditions, and provisions of an approved Plan, is subject to a civil penalty. A civil penalty may be assessed from the date the violation first occurs. No penalty shall be assessed until the Person alleged to be in violation has been notified of the violation. Refusal to accept the notice or failure to notify the Town Engineer of a change of address shall not relieve the violator's obligation to comply with the Ordinance or to pay such a penalty.

b. The maximum civil penalty for each violation of this Ordinance is $5,000.00. Each day of continuing violation shall constitute a separate violation. When the person has not been assessed any civil penalty under this Ordinance for any previous violation, and that person abated continuing environmental damage resulting from the violation within 180 days from the date of the notice of violation, the maximum cumulative total civil penalty assessed under this Section for all violations associated with the land-disturbing activity for which the erosion and sedimentation control plan is required is twenty-five thousand dollars ($25,000).

c. In determining the amount of the civil penalty, the Town Engineer shall consider the following factors: the degree and extent of harm caused by the violation; the cost of rectifying the damage; the amount of money the violator saved by noncompliance; whether the violation was committed willfully; and the prior record of the violator in complying or failing to comply with this Ordinance, the Act, or any other erosion and sedimentation control ordinance, rule, order or law.

d. The Town Engineer shall determine the amount of the civil penalty and shall notify the Person who is assessed the civil penalty of the amount of the penalty and the reason for assessing the penalty. The notice of assessment shall be served by any means authorized under G.S. 1A-1, Rule 4 and shall direct the violator to either pay the assessment, contest the assessment within 30 days as specified in Section 16, or file a request with the Sedimentation Control Commission for remission of the assessment within 60 days of receipt of the notice. A remission request must be accompanied by a waiver of the right to a contested case hearing by the Stormwater Advisory Committee and a stipulation as to the facts on which the assessment was based. If a violator does not pay a civil penalty assessed by the Town Engineer within 60 Days after it is due, the Town Engineer shall request the Town Attorney

to institute a civil action to recover the amount of the assessment. The civil action shall be brought in Mecklenburg County Superior Court.

e. A civil action must be filed within three (3) years of the date the assessment was due. An assessment that is not contested and for which no request for remission is made within the required timeframe is due when the violator is served with a notice of assessment. An assessment that is contested or for which a request for remission is made within the required timeframe is due at the conclusion of the administrative and judicial review of the assessment or final remission decision.

f. Any Person who knowingly or willfully violates any provision of this Ordinance, or rule or order adopted or issued pursuant to this ordinance, or who knowingly or willfully initiates or continues a land-disturbing activity for which a Plan is required, except in accordance with the terms, conditions, and provisions of an approved Plan, shall be guilty of a Class 2 misdemeanor and may be subject to a fine not to exceed Five Thousand Dollars ($5,000). This is in addition to any civil penalties that may be charged.

g. A violation of the Town Soil Erosion and Sedimentation Control Ordinance that is not knowing or not willful shall not constitute a misdemeanor or infraction punishable under North Carolina General Statute 14-4, but instead shall be subject to the civil penalties provided in this Ordinance.

h. The clear proceeds of civil penalties collected by the Town of Huntersville under this subsection shall be remitted to the Civil Penalty and Forfeiture Fund in accordance with G.S. § 115C-457.2. Penalties collected by the Town of Huntersville may be diminished only by the actual costs of collection. The collection cost percentage to be used shall be established and approved by the North Carolina Office of State Budget and Management on an annual basis, based upon the computation of actual collection costs by the Town for the prior fiscal year.

i. The damage or destruction of a silt fence occurring during land-disturbing activities or construction on a development project shall not be assessed a civil penalty under this section provided that the silt fence is repaired or replaced within the compliance period noted in the inspection report or Notice of Violation.

Section 14. **Injunctive Relief**

a. Whenever the Town Engineer has reasonable cause to believe that any Person is violating or threatening to violate this Ordinance, any rule, regulation or order adopted by the Town of Huntersville, or any term, condition, or provision of an approved Plan, the Town Engineer may, either before or after the institution of any other action or proceeding authorized by this Ordinance, authorize the Town Attorney to institute a civil action in the name of the Town of Huntersville, for injunctive relief to restrain the violation or threatened violation. The action shall be brought pursuant to G.S. 113A-65(b) in Mecklenburg County Superior Court

b. Upon determination by a court that an alleged violation is occurring or is threatened, the court shall enter such orders or judgements as are necessary to abate the violation or to ensure that restoration is performed or to prevent the threatened violation. The institution of an action for injunctive relief under this section shall not relieve any party to such proceedings from any civil or criminal penalty prescribed for violations of this Ordinance.

Section 15. Restoration of Areas Affected by Failure to Comply

The Town Engineer may require a Person who engaged in any land-disturbing activity and failed to retain Sediment generated by the activity to restore the waters and land affected by the failure so as to minimize the detrimental effects of the resulting pollution by Sedimentation. This authority is in addition to any other civil penalty or injunctive relief authorized under this Ordinance.

Section 16. Appeals

a. Disapproval or Modification of Proposed Plan

1. The disapproval or modification of any proposed Plan by the Town Engineer shall entitle the Person submitting the Plan ("Petitioner") to a public hearing before the Storm Water Advisory Committee ("Committee") if such Person submits written demand for a hearing to the Clerk of the Committee ("Clerk") within 15 Days after receipt of written notice of the disapproval or modification. The demand for a hearing filed with the Clerk shall be accompanied by a filing fee as established by the Storm Water Advisory Committee. The Committee may order the refund of all or any part of the filing fee if it rules in favor of the Petitioner. Failure to timely file such demand and fee shall constitute a waiver of any rights to appeal under this Chapter and the Storm Water Advisory Committee shall have no jurisdiction to hear the appeal.

2. In the event a Plan is disapproved pursuant to Section 10.d of this Ordinance, the applicant may appeal the Town's disapproval of the Plan directly to the Commission.

3. Within 5 Days of receiving the demand for a hearing, the Clerk shall notify the Chairman of the Committee ("Chairman") of the demand for hearing. As soon as possible after the receipt of said notice, the Chairman shall set a time and place for the hearing and notify the Petitioner by mail of the date, time and place of the hearing. The time specified for the hearing shall be either at the next regularly scheduled meeting of the Committee from the submission of the notice, or as soon thereafter as practical, or at a special meeting. The hearing shall be conducted by the Committee in accordance with the provisions of Section 16.c of this Ordinance.

4. If the Committee upholds the disapproval or modification of a proposed Plan following the public hearing, the Petitioner shall have 30 Days from the receipt of the decision to appeal the decision to the North Carolina Sedimentation Control Commission pursuant to Title 15A, Chapter 4B Section .0118(b) of the North Carolina Administrative Code and G.S. 113A-61(c).

b. Issuance of a Notice of Civil Penalty Assessment

1. The issuance of a notice of assessment of a civil penalty by the Town Engineer shall entitle the Person responsible for the violation of the Ordinance ("Petitioner") to a public hearing before the Storm Water Advisory Committee ("Committee") if such Person submits written demand for a hearing to the Clerk of the Committee ("Clerk") within 30 Days of the receipt of the notice of assessment of a civil penalty. The demand for a hearing filed with the Clerk shall be accompanied by a filing fee as established by the Storm Water Advisory Committee. The Committee may order the refund of all or any part of the filing fee if it rules in favor of the Petitioner. Failure to timely file such demand and fee shall constitute a waiver of any rights to appeal under this Ordinance and the Storm Water Advisory Committee shall have no jurisdiction to hear the appeal.

2. Within 5 Days of receiving the Petitioner's demand for a hearing, the Clerk shall notify the Chairman of the Committee ("Chairman") of the request for hearing. As soon as possible after the receipt of said notice, the Chairman shall set a time and place for the hearing and notify the Petitioner by mail of the date, time and place of the hearing. The time specified for the hearing shall be either at the next regularly scheduled meeting of the Committee from the submission of the notice, or as soon thereafter as practical, or at a special meeting. The hearing shall be conducted pursuant to the provisions of Section 16.c of this Ordinance.

3. Any party aggrieved by the decision of the Committee with regard to the issuance of assessment of civil penalties shall have thirty (30) days from the receipt of the decision of the Committee to file a petition for review in Superior Court with the Clerk of Mecklenburg County Superior Court.

c. Hearing Procedure. The following provisions shall be applicable to any hearing conducted by the Committee pursuant to Section 16.a or 16.b above.

1. At the hearing, Petitioner and the Town Engineer shall have the right to be present and be heard, to be represented by counsel, and to present evidence through witnesses and competent testimony relevant to the issue(s) before the Committee.

2. Rules of evidence shall not apply to a hearing conducted pursuant to this Ordinance and the Committee may give probative effect to competent, substantial and material evidence.

3. At least seven (7) days before the hearing, the parties shall exchange a list of witnesses intended to be present at the hearing and a copy of any documentary evidence intended to be presented. The parties shall submit a copy of this information to the Clerk. Additional witnesses or documentary evidence may not be presented except upon consent of both parties or upon a majority vote of the Committee.

4. Witnesses shall testify under oath or affirmation to be administered by the Court Reporter or another duly authorized official.

5. The procedure at the hearing shall be such as to permit and secure a full, fair and orderly hearing and to permit all relevant, competent, substantial

and material evidence to be received therein. A full record shall be kept of all evidence taken or offered at such hearing. Both the representative for the Town and for the Petitioner shall have the right to cross-examine witnesses.

6. At the conclusion of the hearing, the Committee shall render its decision on the evidence submitted at such hearing and not otherwise.

   (a) If, after considering the evidence presented at the hearing, the Committee concludes by a preponderance of the evidence that the grounds for the Town Engineer's actions (including the amount assessed as a civil penalty) with regard to either disapproving or modifying a proposed Plan, or assessing a civil penalty are true and substantiated, the Committee shall uphold the action on the part of the Town Engineer.

   (b) If, after considering the evidence presented at the hearing, the Committee concludes by a preponderance of the evidence that the grounds for the Town Engineer's actions (including the amount assessed as a civil penalty) are not true and substantiated, the Committee shall, as it sees fit either reverse or modify any order, requirement, decision or determination of the Town Engineer. The Committee Bylaws will determine the number of concurring votes needed to reverse or modify any order, requirement, decision or determination of the Town Engineer.

   Any decision of the Committee which modifies the amount of the civil penalty shall include, as part of the findings of fact and conclusions of law, findings as to which assessment factors were not properly considered by the Town Engineer in determining the amount of the civil penalty assessed against the Petitioner.

7. The Committee shall keep minutes of its proceedings, showing the vote of each member upon each question and the absence or failure of any member to vote. The decision of the Committee shall be based on findings of fact and conclusions of law to support its decision.

8. The Committee shall send a copy of its findings and decision to the Applicant/Petitioner and the Town Engineer. If either party contemplates an appeal to a court of law, the party may request and obtain, at that party's own cost, a transcript of the proceedings.

9. The decision of the Committee shall constitute a final decision.

Section 17. **Existing Permits and Land-disturbing Activity**.

All permits and approved plans existing on the effective date of this Ordinance which were duly issued and/or approved by Mecklenburg County pursuant an interlocal agreement between Mecklenburg County and the Town of Huntersville, which provided for the enforcement by Mecklenburg County of the Mecklenburg County Soil Erosion and Sedimentation Control Ordinance within the territorial jurisdiction of the Town of Huntersville, including the extraterritorial jurisdiction of the Town, shall be recognized by the Town as valid permits and approved plans, and land-disturbing activity shall be allowed to continue in accordance with such permits and approved plans. Land-disturbing activity performed prior to the effective date of this Ordinance in violation of the Mecklenburg County Soil Erosion and Sedimentation Control Ordinance shall not be vested, and shall be subject to the terms of this Ordinance (the Town of Huntersville Soil Erosion and Sedimentation Control Ordinance).

Section 18. **Severability**

If any section or a section of this Ordinance is/are held to be invalid or unenforceable, all other sections shall nevertheless continue in full force and effect.

Section 19. **Effective Date**

This Ordinance shall be effective November 4, 2019

Section 20. **Revisions**

Town of Huntersville shall incorporate revisions required by the Commission within 8 months following receipt of the required revisions.

Adopted the 18th day of March, 2019, amended June 17, 2019, amended July 15, 2019, amended November 4, 2019, and amended October 18, 2021

Approved as to form:

_____ _____

Town Attorney Town Clerk

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Town of Huntersville
Town Board
October 18, 2021

To: Town Board

From: Emily Sloop

Date: October 18, 2021

Subject: Ordinance to Amend SESC

EXPLAIN REQUEST:
Amendments to the Sedimentation and Soil Erosion Control Ordinance to Comply with HB 489.

ACTION RECOMMENDED:
Approval

FINANCIAL IMPLICATIONS:

ATTACHMENTS:
1. Ordinance to amend SESC
2. Soil and Erosion Control Ordinance 09-24-21 redline
3. Soil and Erosion Control Ordinance 09-24-21 clean

AN ORDINANCE TO AMEND THE TOWN OF HUNTERSVILLE

SOIL EROSION AND SEDIMENTATION CONTROL ORDINANCE

Section 1. **BE IT ORDAINED** by the Board of Commissioners of the Town of Huntersville, North Carolina, that subsection h of Section 3, Definitions, is hereby deleted and amended as follows:

h. – ~~Code Enforcement Department,~~ RESERVED.

~~Code Enforcement Department – means the Mecklenburg County Land Use and Environmental Services Agency, Code Enforcement Department, formerly known as Building Standards.~~

Section 2. **BE IT ORDAINED** by the Board of Commissioners of the Town of Huntersville, North Carolina, that subsection d of Section 4, Scope and Exclusion, is hereby amended as follows:

d. For the duration of an emergency, activities essential to protect human life, including activities specified in an executive order issued under G.S. 166A-19.30(a)(5).

Section 3. **BE IT ORDAINED** by the Board of Commissioners of the Town of Huntersville, North Carolina, that Section 6, General Requirements, is hereby amended as follows:

a. Erosion and Sedimentation Control Measures - All land-disturbing activities, including those that disturb less than an acre, shall provide Adequate Erosion Control Measures, Structures, or Devices in accordance with this Ordinance that are sufficient to retain the sediment generated by the land-disturbing activity within the boundaries of the Tract during construction upon and development of the Tract.

b. Plan Required - No Person shall initiate, direct, allow or conduct any land-disturbing activity on a Tract that meets any of the following criteria without having a copy of an approved Erosion and Sedimentation Control Plan on the job site.

1. uncovers one acre or more or

2. in Borrow and Waste areas covered by Section 9.f, with a disturbed area greater than one acre.

c. Exceptions-
i. When a development project contains an approved erosion control plan for an entire development, a separate erosion control plan shall not be required by the Town for development of individual residential lots within that development that disturb less than one acre if the developer and the builder are the same financially responsible person. For review of an erosion control plan for a single-family lot in a common plan of development under this subsection where the developer and builder are different, the plan shall require the following information:

(1) Name, address, telephone number, and email of owner of lot being developed.

(2) Street address of lot being developed.

(3) Subdivision name.

(4) Lot number.

(5) Tax parcel number of lot being developed.

(6) Total acreage of lot being developed.

(7) Total acreage disturbed.

(8) Anticipated start and completion date.

(9) Person financially responsible.

(10) Signature of person financially responsible.

(11) Existing platted survey of the lot.

(12) A sketch plan showing erosion control measures for the lot being developed, but the sketch shall not be required to be under the seal of a licensed engineer, landscape architect, or registered land surveyor unless there is a design feature requiring such under federal or State law or regulation.

ii. For a land-disturbing activity on more than one residential lot where the total land disturbed exceeds one acre, the person conducting the land-disturbing activity may submit for approval a single erosion control plan for all of the disturbed lots or may submit for review and approval under subsection (c.i) of this section the erosion control measures for each individual lot.

iii. No Plan shall require a silt fence or other erosion control measure to be placed in a location where, due to the contour and topography of the development site, that erosion control measure would not substantially and materially retain the sediment generated by the land-disturbing activity within the boundaries of the tract during construction upon and development of the tract.

iv. No plan shall require a wire-backed reinforced silt fence where, due to the contour and topography of the development site, that fence would not substantially and materially retain the sediment generated by the land-disturbing activity within the boundaries of the tract during construction upon and development of the tract.

~~c.~~ d. Compliance - Persons who submit a Plan to the Town Engineer shall comply with the provisions of Sections 10 & 11 of this Ordinance.

~~d.~~ e. Protection of Property - Persons conducting land-disturbing activity shall take all reasonable measures to protect all public and private property from damage caused by such activity and associated Sedimentation.

~~e.~~ f. More Restrictive Rules Shall Apply - Whenever conflicts exist between federal, state or local laws, ordinances, or rules, the more restrictive provision shall apply.

Section 4. BE IT ORDAINED by the Board of Commissioners of the Town of Huntersville, North Carolina, that subsection g of Section 8, Self-Monitoring and Self-Inspections, is hereby amended as follows:

g. Self-Monitoring and Self-Inspections. – The Landowner, the financially responsible party, or the landowner's or financially responsible party's agent shall inspect all Erosion and Sedimentation control measures as soon as possible, no less than once a week and within 24 hours after any storm event of greater than 1.0 inches of rain per 24-hour period or more frequently if required by State or Federal Law, hereinafter "Self-Monitoring." The Landowner, the financially responsible party, or the landowner's or financially responsible party's agent shall also perform an inspection of the area covered by the Plan after each phase of the Plan has been completed and after establishment of temporary ground cover in accordance with N.C.G.S. § 113A-57(2), hereinafter "Self-Inspections." The person performing the Self-Monitoring and Self-Inspections shall have certification approved by the Town Engineer. However, no periodic self-inspections or rain gauge installation is required on individual residential lots where less than one acre is being disturbed on each lot.

1. A record of the Self-Monitoring and Self-Inspections shall be maintained and made available at the site of the land-disturbing activity. These records shall set out any significant deviation from the approved Plan, identify any measures that may be required to correct the deviation, and document the completion of those measures. These records shall be maintained at the site until permanent ground cover has been established as required by the approved Plan. The Self-Inspections required by this subsection shall be in addition to inspections required by N.C.G.S. § 113A-61.1 and Section 12 of this Ordinance.

2. If one acre or more is to be disturbed, a record of inspections shall be kept by the Person conducting the land-disturbing activity or an agent until three years after construction is completed and approved by the Town Engineer. In determining the size of the disturbed area, all Tracts shown on the Plan for the Project as being disturbed or to be disturbed will be aggregated regardless of ownership, and regardless of whether such Tracts are contiguous or not, and regardless of whether such Tracts are in the same Phase. The record shall include the date and time of inspection, weather conditions, any repairs or maintenance needed, and the signature and certification number of the person who performed the inspection. Additional record keeping may be required by State or Federal Law and as stated on the approved plans.

3. Corrective action on the repairs and maintenance indicated on the record are to begin within 24 hours after a rain event or within 24 hours of the last inspection if a rain event did not prompt the inspection, unless additional time is allowed by the Town Engineer. The date of the completion of such repairs noted. The records of inspection shall be retained and made available to the Town Engineer upon request.

4. Persons that have had a Notice of Violation or repeated warning about off-site sedimentation or non-maintenance of Adequate Erosion Control Measures, Structures, or Devices may be required to provide the Town Engineer with a self-inspection record for the particular Tract.

5. Any Person who falsifies, tampers with, or knowingly renders inaccurate records can be penalized under Section 13 of this Ordinance.

6. In addition to the requirements contained in Subsections 8.g(1-5) above, Self-Inspections shall comply with the following:

(i) The person who performs the inspection shall make a record of the site inspection by documenting the following items:

(a) All of the erosion and sedimentation control measures, practices and devices, as called for in a construction sequence consistent with the approved erosion and sedimentation control plan, including but not limited to sedimentation control basins, sedimentation traps, sedimentation ponds, rock dams, temporary diversions, temporary slope drains, rock check dams, sediment fence or barriers, all forms of inlet protection, storm drainage facilities, energy dissipaters, and stabilization methods of open channels, have initially been installed and do not significantly deviate (as defined in Sub-item (i)(e) of this Rule) from the locations, dimensions and relative elevations shown on the approved erosion and sedimentation plan. Such documentation shall be accomplished by initialing and dating each measure or practice shown on a copy of the approved erosion and sedimentation control plan or by completing, dating and signing an inspection report that lists each measure, practice or device shown on the approved erosion and sedimentation control plan. This documentation is required only upon the initial installation of the erosion and sedimentation control measures, practices and devices as set forth by the approved erosion and sedimentation control plan or if the measures, practices and devices are modified after initial installation;

(b) the completion of any Phase of Grading for all graded slopes and fills shown on the approved erosion and sedimentation control plan, specifically noting the location and condition of the graded slopes and fills. Such documentation shall be accomplished by initialing and dating a copy of the approved erosion and sedimentation control plan or by completing, dating and signing an inspection report;

(c) the location of temporary or permanent ground cover, and that the installation of the ground cover does not significantly deviate (as defined in paragraph (e) of this sub-part) from the approved erosion and sedimentation control plan. Such documentation shall be accomplished by initialing and dating a copy of the approved erosion and sedimentation control plan or by completing, dating and signing an inspection report;

(d) that maintenance and repair requirements for all temporary and permanent erosion and sedimentation control measures, practices and devices have been performed. Such documentation shall be accomplished by completing, dating and signing an inspection report

(the general storm water permit monitoring form may be used to verify the maintenance and repair requirements); and

(e) any significant deviations from the approved erosion and sedimentation control plan, corrective actions required to correct the deviation and completion of the corrective actions. Such documentation shall be accomplished by initialing and dating a copy of the approved erosion and sedimentation control plan or by completing, dating and signing an inspection report. A significant deviation means an omission, alteration or relocation of an erosion or sedimentation control measure that prevents the measure from performing as intended.

(ii) The documentation, whether on a copy of the approved erosion and sedimentation control plan or an inspection report, shall include the name, address, affiliation, telephone number, and signature of the person conducting the inspection and the date of the inspection. Any relevant licenses and certifications may also be included. Any documentation of inspections that occur on a copy of the approved erosion and sedimentation control plan shall occur on a single copy of the plan and that plan shall be made available on the site. Any inspection reports shall also be made available on the site.

(iii) The inspection shall be performed during or after completion of each of the following activities:

(a) installation of perimeter erosion and sediment control measures;

(b) clearing and grubbing of existing ground cover;

(c) completion of any phase of grading of slopes or fills that requires provision of temporary or permanent ground cover pursuant to G.S. 113A-57(2);

(d) completion of storm drainage facilities;

(e) completion of construction or development; and

(f) quarterly until the establishment of permanent ground cover sufficient to restrain erosion or until the financially responsible party has conveyed ownership or control of a Tract for which the erosion and sedimentation control plan has been approved and the agency that approved the plan has been notified. If the financially responsible party has conveyed ownership or control of a Tract for which the erosion and sedimentation control plan has been approved, the new owner or person in control shall conduct and document inspections quarterly until the establishment of permanent ground cover sufficient to restrain erosion.

Section 5. BE IT ORDAINED by the Board of Commissioners of the Town of Huntersville, North Carolina, that subsection b of Section 10, Plan Review Process, is hereby amended as follows:

b. Plan Review Process -– Once a Plan has been submitted with the applicable review fee, the review process will be initiated. The Town Engineer will review each Plan submitted and within 30 Days of receipt thereof will notify the Person submitting the Plan (hereinafter "the applicant") that it has been approved, approved with modifications, or disapproved. The Engineer's time for review shall not begin until a complete Plan has been submitted. Plan requirements shall be as required by the Town Department of Engineering and Public Works. Should the Plan be filed and not reviewed within the specified time frame, the land-disturbing activity may commence subject to the provisions of Section 8.e, Section 10.a.4 and Section 10.a.5, and the Town Engineer will endeavor to review the plan on an expedited schedule.

In the event the Plan or a transfer of a plan is disapproved pursuant to subsection (d) of this Section, the Town Engineer shall notify the applicant and the Director of such disapproval within 10 Days thereof. The Town Engineer shall advise the applicant and the Director in writing as to the specific reasons that the Plan was disapproved. The applicant shall have the right to appeal the Town Engineer's decision to the Stormwater Advisory Committee as provided in Section 16 of this Ordinance, or may appeal directly to the Commission.

Plans for which land-disturbing activity has not commenced within 3 years from the initial plan approval are void.

Section 6. BE IT ORDAINED by the Board of Commissioners of the Town of Huntersville, North Carolina, that subsection i of Section 13, Penalties, is hereby amended and added as follows:

i. The damage or destruction of a silt fence occurring during land-disturbing activities or construction on a development project shall not be assessed a civil penalty under this section provided that the silt fence is repaired or replaced within the compliance period noted in the inspection report or Notice of Violation.

Section 7. Effective Date.

This ordinance shall become effective upon the date of adoption.

TOWN OF HUNTERSVILLE
SOIL EROSION AND SEDIMENTATION CONTROL ORDINANCE.

NOW, THEREFORE, BE IT ORDAINED by the Town of Huntersville Board of Commissioners that:

Section 1. Title

This Ordinance may be cited as the "Town of Huntersville Soil Erosion and Sedimentation Control Ordinance."

Section 2. Preamble

The Sedimentation of streams, lakes, wetlands, and other waters of this State constitute a major pollution problem. Sedimentation occurs from the Erosion or depositing of soil and other materials into the waters. Control of Erosion and Sedimentation is deemed vital to the public interest and necessary to public health and welfare, and expenditures of funds for Erosion and Sedimentation control programs shall be deemed for public purpose. It is the purpose of this Ordinance to provide for creation, administration, and enforcement of the program through procedures and for the adoption of mandatory standards that will permit development of this Town to continue with the least detrimental effects from pollution by Sedimentation. In recognition of desirability of early coordination of Sedimentation control planning, it is the intention of the Town's Board of Commissioners that pre-construction conferences be held among the affected parties.

Section 3. Definitions

As used in this Ordinance, unless the context clearly indicates otherwise, the following definitions apply.

a. Accelerated Erosion - means any increase over the rate of Natural Erosion as a result of land-disturbing activity.

b. Act - means the North Carolina Sedimentation Pollution Control Act of 1973 and all rules and orders adopted pursuant to it.

c. Adequate Erosion Control Measures, Structures, or Devices - means ones that control the soil material within the land area under responsible control of the Person conducting the land-disturbing activity.

d. Affiliate - means a Person that directly, or indirectly through one or more intermediaries, controls, is controlled by, or is under common control of another Person.

e. Being Conducted - means a land-disturbing activity has been initiated and permanent stabilization of the site has not been completed.

f. Borrow - means fill material that is required for on-site construction and is obtained from other locations.

g. Buffer Zone – means the strip of land adjacent to a Lake or Watercourse.

h. Reserved ~~Code Enforcement Department – means the Mecklenburg County Land Use and Environmental Services Agency, Code Enforcement Department, formerly known as Building Standards.~~

i. Reserved

j. Commission - means the North Carolina Sedimentation Control Commission.

k. Committee - means The Town of Huntersville Storm Water Advisory Committee as established by the resolution of the Huntersville Board of Commissioners, together with any amendments thereto.

l. Completion of Construction or Development - means that no further land-disturbing activity is required on a Tract except that which is necessary for establishing a permanent Ground Cover. Completion of Construction or Development may occur for a Tract, a Phase, or an entire Project as determined by the Town Engineer.

m. Contractor Conducting the Land-disturbing Activity – means any person who participates in the land-disturbing activity, including, but not limited to, the general contractor and sub-contractors with the responsibility for supervising the work on the ~~———~~Tract for the changing of the natural cover or topography of the Tract, or any part~~———~~ thereof.

n. Days – means calendar days unless otherwise specified.

o. Department - means the North Carolina Department of Environmental Quality.

p. Director - means the Director of the Division of Energy Mineral and Land Resources ~~———~~of the Department of Environmental Quality.

q. Discharge Point - means that point at which runoff leaves a Tract of land.

r. Energy Dissipater - means a structure or a shaped channel section with mechanical armoring placed at the outlet of pipes or conduits to receive and break down the energy from high Velocity flow.

s. Erosion - means the wearing away of land surface by the action of wind, water, gravity, or any combination thereof.

t. Forest Practice Guidelines – means the written directions related to water quality prepared by the Department's Division of Forest Resources and the United States Forest Service, including but not limited to the "Forestry Best Management Practices Manual" prepared by the Department.

u. Ground Cover - means any vegetative growth or other material that renders the soil surface stable against Accelerated Erosion.

v. Lake or Watercourse - means any stream, river, brook, swamp, sound, bay, creek, run, branch, canal, waterway, estuary, and any reservoir, lake or pond, natural or impounded, in which Sediment may be moved or carried in suspension, and which could be damaged by accumulation of Sediment.

w. Land-disturbing Activity - means any use of the land by any Person in residential, governmental, industrial, educational, institutional, or commercial development, highway and road construction and maintenance that results in a change in the natural cover or topography and that may cause or contribute to Sedimentation.

x. Local Government - means any county, incorporated village, town or city, or any combination of counties, incorporated villages, towns and cities, acting through a joint program pursuant to the provisions of the Act.

y. Natural Erosion - means the wearing away of the earth's surface by water, wind, or other natural agents under natural environmental conditions undisturbed by man.

z. Parent - means an Affiliate that directly, or indirectly through one or more intermediaries, controls another Person.

aa. Reserved.

bb. Permit – means the "Permit to Conduct Land-disturbing Activities" (grading permit) issued by the Town Engineer after a Plan is approved.

cc. Person(s) - means any individual, partnership, firm, association, joint venture, public or private corporation, trust, estate, commission, board, public or private institution, utility, cooperative, interstate body, or other legal entity.

dd. Person Conducting Land-disturbing Activity – means any person who may be held responsible for violation unless expressly provided otherwise by this Ordinance, the Act, or any order adopted pursuant to this Ordinance or the Act.

ee. Person Responsible for the Violation - as used in this Ordinance means:

1. The developer or other Person who has or holds himself out as having financial or operational control over the land-disturbing activity;

2. The landowner or Person in possession or control of the land who has directly or indirectly allowed the land-disturbing activity or has benefited from it or has failed to comply with any provision of this Ordinance, the Act, or any order adopted pursuant to this Ordinance or the Act.

ff. Phase – means a specific geographic portion of a Project as indicated on an approved Plan.

gg. Phase of Grading - means one of two types of grading, rough or fine.

hh. Plan**(s)** - means an Erosion and Sedimentation control plan for a Project, including all Phases and all Tracts.

ii. Sediment - means solid particulate matter, both mineral and organic, that has been or is being transported by water, air, gravity, or ice from its site of origin.

jj. Sedimentation - means the process by which Sediment resulting from Accelerated Erosion has been or is being transported off the site of the land-disturbing activity or into a Wetland, Lake or Watercourse.

kk. Siltation – means sediment resulting from Accelerated Erosion which is settleable or removable by properly designed, constructed, and maintained control measures; and which has been transported from its point of origin within the site of a land-disturbing activity; and which has been deposited, or is in suspension in water.

ll. Storm Drainage Facilities - means the system of inlets, conduits, channels, ditches and appurtenances that serve to collect and convey storm water through and from a given drainage area.

mm. Storm Water Runoff - means the ~~-~~surface flow of water resulting from precipitation in any form and occurring immediately after rainfall or melting.

nn. Subsidiary - means an Affiliate that is directly, or indirectly through one or more intermediaries, controlled by another Person.

oo. Ten-Year Storm - means a rainfall of an intensity expected to be equaled or exceeded, on the average, once in ten years, and of a duration that will produce the maximum peak rate of runoff, for the watershed of interest under average antecedent wetness conditions.

pp. Town Department of Engineering and Public Works – as used in this Ordinance, "Town Department of Engineering and Public Works" refers to both the Town Department of ~~Engineering~~Engineering and the Town Department of Public Works.

qq Town Engineer – as used in this Ordinance, "Town Engineer" refers to both the Town Engineer and the Director of Public Works, both of whom shall have full authority and responsibility under this Ordinance where the term "Town Engineer" is used.

rr. Tract - means contiguous lands and bodies of water being disturbed or to be disturbed as a unit, regardless of ownership. A Plan may have more than one Phase, and each Phase may have more than one Tract.

ss. Twenty-five Year Storm - means a rainfall of an intensity expected to be equaled or exceeded, on the average, once in 25 years, and of a duration that will produce the maximum peak rate of runoff, from the watershed of interest under average antecedent wetness conditions.

tt. Uncovered - means the removal of Ground Cover from, on, or above the soil surface.

uu. Undertaken - means the initiating of any activity, or phase of activity, which results or will result in a change in the Ground Cover or topography of a Tract.

vv. Velocity - means the average velocity of flow through the cross section of the main channel at the peak flow of the design storm. The cross section of the main channel shall be that area defined by the geometry of the channel plus the area of flow below the flood height defined by vertical lines at the main channel banks. Overload flows are not to be included for the purpose of computing velocity of flow.

ww. Waste - means surplus materials resulting from on-site construction and disposed of at other locations.

xx. Watershed - means any water supply watershed protection area regulated with various controls within the jurisdictional boundaries of the Town of Huntersville.

yy. Wetland(s) – means land having the vegetative, soil and hydrologic characteristics to be regulated by Section 401 and 404 of the Federal Clean Water Act as defined by the United States Army Corp of Engineers.

zz Working Days - means days exclusive of Saturday, and Sunday and Town government holidays during which weather conditions or soil conditions permit land-disturbing activity to be undertaken.

Section 4. Scope and Exclusions

This Ordinance shall regulate land-disturbing activity within the territorial jurisdiction of the Town of Huntersville and to the extraterritorial jurisdiction of the Town of Huntersville.

This Ordinance shall not apply to the following land-disturbing activities. Only those portions of a Tract that are in actual use for the land-disturbing activities listed below shall be exempt from this Ordinance:

a. Activities including the production and activities relating or incidental to the production of crops, grains, fruits, vegetables, ornamental and flowering plants, dairy, livestock, poultry, and all other forms of agriculture undertaken on agricultural land for the production of plants and animals useful to man, including, but not limited to:
   1. Forages and sod crops, grains and feed crops, tobacco, cotton, and peanuts.
   2. Dairy animals and dairy products.
   3. Poultry and poultry products.
   4. Livestock, including beef cattle, llamas, sheep, swine, horses, ponies, mules, and goats.
   5. Bees and apiary products.
   6. Fur producing animals.
   7. Mulch, ornamental plants, and other horticultural products. For purposes of this section, "mulch" means substances composed primarily of plant remains or mixtures of such substances.

b. Activities Undertaken on forest land for the production and harvesting of timber and timber products and conducted in accordance with best management practices set out in Forest Practice Guidelines Related to Water Quality, as adopted by the North Carolina Department of Agriculture and Consumer Services. If land-disturbing activity undertaken on forestland for the production and harvesting of timber and timber products is not conducted in accordance in accordance with such Forest Practice Guidelines, then the provisions of this Ordinance shall apply.

c. Activities for which a Permit is required under the Mining Act of 1971, Article 7 of Chapter 74 of the General Statutes.

d. For the duration of an emergency, activities essential to protect human life, including activities specified in an executive order issued under G.S. 166A-19.30(a)(5).

e. Land-disturbing activity over which the State has exclusive regulatory jurisdiction as provided in G.S. 113A-56(a).

f. Activities undertaken to restore the wetland functions of converted wetlands to provide compensatory mitigation to offset impacts permitted under Section 404 of the Clean Water Act.

g. Activities undertaken pursuant to Natural Resources Conservation Service standards to restore the wetlands functions of converted wetlands as defined in Title 7 Code of Federal Regulations § 12.2.

Section 5. Forest Practice Guidelines

a. The Town of Huntersville Board of Commissioners adopts by reference the Forest Practice Guidelines Related to Water Quality, as adopted by the North Carolina Department of Agriculture and Consumer Services.

b. If land-disturbing activity undertaken on forest land for the production and harvesting of timber and timber products is not conducted in accordance with Forest Practice Guidelines Related to Water Quality, the provisions of this Ordinance shall apply to such activity and any related land-disturbing activity on the Tract.

Section 6. General Requirements

a. Erosion and Sedimentation Control Measures - All land-disturbing activities, including those that disturb less than an acre, shall provide Adequate Erosion Control Measures, Structures, or Devices in accordance with this Ordinance that are sufficient to retain the sediment generated by the land-disturbing activity within the boundaries of the Tract during construction upon and development of the Tract.

b. Plan Required - No Person shall initiate, direct, allow or conduct any land-disturbing activity on a Tract that meets any of the following criteria without having a copy of an approved Erosion and Sedimentation Control Plan on the job site.

1. uncovers one acre or more or

2. in Borrow and Waste areas covered by Section 9.f, with a disturbed area greater than one acre.

c. Exceptions -
i. When a development project contains an approved erosion control plan for an entire development, a separate erosion control plan shall not be required by the Town for development of individual residential lots within that development that disturb less than one acre if the developer and the builder are the same financially responsible person. For review of an erosion control plan for a single-family lot in a common plan of development under this subsection where the developer and builder are different, the plan shall require the following information:
(1) Name, address, telephone number, and email of owner of lot being developed.
(2) Street address of lot being developed.
(3) Subdivision name.
(4) Lot number.
(5) Tax parcel number of lot being developed.
(6) Total acreage of lot being developed.
(7) Total acreage disturbed.
(8) Anticipated start and completion date.
(9) Person financially responsible.

(10) Signature of person financially responsible.
(11) Existing platted survey of the lot.
(12) A sketch plan showing erosion control measures for the lot being developed, but the sketch shall not be required to be under the seal of a licensed engineer, landscape architect, or registered land surveyor unless there is a design feature requiring such under federal or State law or regulation.

ii. For a land-disturbing activity on more than one residential lot where the total land disturbed exceeds one acre, the person conducting the land-disturbing activity may submit for approval a single erosion control plan for all of the disturbed lots or may submit for review and approval under subsection (c.i) of this section the erosion control measures for each individual lot.

iii. No Plan shall require a silt fence or other erosion control measure to be placed in a location where, due to the contour and topography of the development site, that erosion control measure would not substantially and materially retain the sediment generated by the land-disturbing activity within the boundaries of the tract during construction upon and development of the tract.

iv. No plan shall require a wire-backed reinforced silt fence where, due to the contour and topography of the development site, that fence would not substantially and materially retain the sediment generated by the land-disturbing activity within the boundaries of the tract during construction upon and development of the tract.

d. Compliance - Persons who submit a Plan to the Town Engineer shall comply with the provisions of Sections 10 & 11 of this Ordinance.

ed. Protection of Property - Persons conducting land-disturbing activity shall take all reasonable measures to protect all public and private property from damage caused by such activity and associated Sedimentation.

fe. More Restrictive Rules Shall Apply - Whenever conflicts exist between federal, state or local laws, ordinances, or rules, the more restrictive provision shall apply.

Section 7. Basic Control Objectives

A Plan may be disapproved pursuant to Section 10 of this Ordinance if the Plan fails to include Adequate Erosion Control Measures, Structures, or Devices to address the following control objectives:

a. Identify Critical Areas - On-site areas that are subject to severe Erosion, and off-site areas that are especially vulnerable to damage from Erosion and/or Sedimentation are to be identified and receive special attention.

b. Limit Time of Exposure - All land-disturbing activity is to be planned and conducted to limit exposure to the shortest feasible time.

c. Limit Exposed Areas - All land-disturbing activity is to be planned and conducted to minimize the size of the area to be exposed at any one time.

d. Control Surface Water - Surface water runoff originating upgrade of exposed areas should be controlled to reduce Erosion and Sediment loss during the period of exposure.

e. Control Sedimentation - All land-disturbing activity is to be planned and conducted so as to prevent Sedimentation damage.

f. Manage Storm Water Runoff - When the increase in the Velocity of Storm Water Runoff resulting from a land-disturbing activity is sufficient to cause Accelerated Erosion of the receiving watercourse, Plans are to include measures to control the Velocity at the Discharge Point so as to minimize Accelerated Erosion of the site and to decrease Sedimentation to any Lake or Watercourse.

Section 8. Mandatory Standards for Land-disturbing Activity

No land-disturbing activity subject to the control of this Ordinance shall be undertaken except in accordance with the following mandatory standards:

a. Lake, Watercourse and Wetland Protection - Additional erosion control measures structures, or devices as specified in the "Policies and Procedures" statement issued by the Town Engineer shall be required to provide a higher level of protection to Lakes, Watercourses, and Wetlands from Sedimentation.

1. Buffer zone – No land-disturbing activity during periods of construction or improvement to land shall be permitted in proximity to a Lake or Watercourse unless a buffer zone is provided along the margin of the watercourse of sufficient width to confine visible siltation within the twenty-five (25%) of the buffer zone nearest the land-disturbing activity.

i. Projects On, Over or Under Water. This subdivision shall not apply to a land-disturbing activity in connection with the construction of facilities to be located on, over, or under a Lake or Watercourse.

ii. Buffer Measurement. Unless otherwise provided, the width of a buffer zone is measured horizontally from the edge of the water to the nearest edge of the disturbed area, with the 25 percent of the strip nearer the land-disturbing activity containing natural or artificial means of confining visible siltation.

b. Graded Slopes and Fills - The angle for graded slopes and fills shall be no greater than the angle that that can be retained by vegetative cover or other Adequate Erosion Control Measures, Structures, or Devices. Permanent or temporary stabilization sufficient to restrain erosion is to be provided within 7 or 14 calendar days after completion of any Phase of Grading.

c. Fill Material. Unless a permit from the Department's Division of Waste Management to operate a landfill is on file for the official site, acceptable fill material shall be free of organic or other degradable materials, masonry, concrete and brick in sizes exceeding twelve (12) inches, and any materials which would cause the site to be regulated as a landfill by the State of North Carolina.

d. Ground Cover - The Person conducting the land-disturbing activity shall plant or otherwise provide a permanent Ground Cover sufficient to restrain Erosion after Completion of Construction or Development. Provisions for a permanent Ground Cover sufficient to restrain Erosion must be accomplished within 21 calendar days following Completion of Construction or Development. For an area of a site that is inactive for a period of 14 days from the last land-disturbing activity, temporary or permanent ground cover would be required.

e. Prior Plan Approval - No Person shall initiate any land-disturbing activity on a Tract if one acre or more is to be disturbed unless, thirty (30) or more days prior to initiating the activity, a Plan for that activity has been submitted and approved in accordance with Section 10(b). The land-disturbing activity shall be conducted in accordance with the approved erosion and sedimentation control plan. In determining the size of the disturbed area, all Tracts shown on the Plan for the Project as being disturbed or to be disturbed will be aggregated regardless of ownership, and regardless of whether such Tracts are contiguous or not, and regardless of whether such Tracts are in the same Phase. The Town shall forward to the Director of the Division of Water Resources a copy of each Plan for a land-disturbing activity that involves the utilization of ditches for the purpose of de-watering or lowering the water table of the Tract.

f. Pre-construction Conference - If one acre or more is to be, Uncovered, the Person(s) conducting the land-disturbing activity or an agent of that party shall contact the Town Engineer at least 48 hours before commencement of the land-disturbing activity. The purpose is to arrange an on-site meeting with the Town Engineer or duly authorized representative to review and discuss the approved Plan and the proposed land-disturbing activity.

g. Self-Monitoring and Self-Inspections. – The Landowner, the financially responsible party, or the landowner's or financially responsible party's agent shall inspect all Erosion and Sedimentation control measures as soon as possible, no less than once a week and within 24 hours after any storm event of greater than 1.0 inches of rain per ~~24 hour~~24-hour period or more frequently if required by State or Federal Law, hereinafter "Self-Monitoring." The Landowner, the financially responsible party, or the landowner's or financially responsible party's agent shall also perform an inspection of the area covered by the Plan after each phase of the Plan has been completed and after establishment of temporary ground cover in accordance with N.C.G.S. § 113A-57(2), hereinafter "Self-Inspections." The person performing the Self-Monitoring and Self-Inspections shall have certification approved by the Town Engineer. However, n-o periodic self-inspections or rain gauge installation is required on individual residential lots where less than one acre is being disturbed on each lot.

1. A record of the Self-Monitoring and Self-Inspections shall be maintained and made available at the site of the land-disturbing activity. These records shall set out any significant deviation from the approved Plan, identify any measures that may be required to correct the deviation, and document the completion of those measures. These records shall be maintained at the site until permanent ground cover has been established as required by the approved Plan. The Self-Inspections required by this subsection shall be in addition to inspections required by N.C.G.S. § 113A-61.1 and Section 12 of this Ordinance.

2. If one acre or more is to be disturbed, a record of inspections shall be kept by the Person conducting the land-disturbing activity or an agent until three years after construction is completed and approved by the Town Engineer. In determining the size of the disturbed area, all Tracts shown on the Plan for the Project as being disturbed or to be disturbed will be aggregated regardless of ownership, and regardless of whether such Tracts are contiguous or not, and regardless of whether such Tracts are in the same Phase. The record shall include the date and time of inspection, weather conditions, any repairs or maintenance needed, and the signature and certification number of the

person who performed the inspection. Additional record keeping may be required by State or Federal Law and as stated on the approved plans.

3. Corrective action on the repairs and maintenance indicated on the record are to begin within 24 hours after a rain event or within 24 hours of the last inspection if a rain event did not prompt the inspection, unless additional time is allowed by the Town Engineer. The date of the completion of such repairs noted. The records of inspection shall be retained and made available to the Town Engineer upon request.

4. Persons that have had a Notice of Violation or repeated warning about off-site sedimentation or non-maintenance of Adequate Erosion Control Measures, Structures, or Devices may be required to provide the Town Engineer with a self-inspection record for the particular Tract.

5. Any Person who falsifies, tampers with, or knowingly renders inaccurate records can be penalized under Section 13 of this Ordinance.

6. In addition to the requirements contained in Subsections 8.g(1-5) above, Self-Inspections shall comply with the following:

    (i) The person who performs the inspection shall make a record of the site inspection by documenting the following items:

        (a) All of the erosion and sedimentation control measures, practices and devices, as called for in a construction sequence consistent with the approved erosion and sedimentation control plan, including but not limited to sedimentation control basins, sedimentation traps, sedimentation ponds, rock dams, temporary diversions, temporary slope drains, rock check dams, sediment fence or barriers, all forms of inlet protection, storm drainage facilities, energy dissipaters, and stabilization methods of open channels, have initially been installed and do not significantly deviate (as defined in Sub-item (i)(e) of this Rule) from the locations, dimensions and relative elevations shown on the approved erosion and sedimentation plan. Such documentation shall be accomplished by initialing and dating each measure or practice shown on a copy of the approved erosion and sedimentation control plan or by completing, dating and signing an inspection report that lists each measure, practice or device shown on the approved erosion and sedimentation control plan. This documentation is required only upon the initial installation of the erosion and sedimentation control measures, practices and devices as set forth by the approved erosion and sedimentation control plan or if the measures, practices and devices are modified after initial installation;

        (b) the completion of any Phase of Grading for all graded slopes and fills shown on the approved erosion and sedimentation control plan, specifically noting the location and condition of the graded slopes and fills. Such documentation shall be accomplished by initialing and dating a copy of the approved erosion and sedimentation control plan or by completing,

dating and signing an inspection report;

(c) the location of temporary or permanent ground cover, and that the installation of the ground cover does not significantly deviate (as defined in paragraph (e) of this sub-part) from the approved erosion and sedimentation control plan. Such documentation shall be accomplished by initialing and dating a copy of the approved erosion and sedimentation control plan or by completing, dating and signing an inspection report;

(d) that maintenance and repair requirements for all temporary and permanent erosion and sedimentation control measures, practices and devices have been performed. Such documentation shall be accomplished by completing, dating and signing an inspection report (the general storm water permit monitoring form may be used to verify the maintenance and repair requirements); and

(e) any significant deviations from the approved erosion and sedimentation control plan, corrective actions required to correct the deviation and completion of the corrective actions. Such documentation shall be accomplished by initialing and dating a copy of the approved erosion and sedimentation control plan or by completing, dating and signing an inspection report. A significant deviation means an omission, alteration or relocation of an erosion or sedimentation control measure that prevents the measure from performing as intended.

(ii) The documentation, whether on a copy of the approved erosion and sedimentation control plan or an inspection report, shall include the name, address, affiliation, telephone number, and signature of the person conducting the inspection and the date of the inspection. Any relevant licenses and certifications may also be included. Any documentation of inspections that occur on a copy of the approved erosion and sedimentation control plan shall occur on a single copy of the plan and that plan shall be made available on the site. Any inspection reports shall also be made available on the site.

(iii) The inspection shall be performed during or after completion of each of the following activities:

(a) installation of perimeter erosion and sediment control measures;

(b) clearing and grubbing of existing ground cover;

(c) completion of any phase of grading of slopes or fills that requires provision of temporary or permanent ground cover pursuant to G.S. 113A-57(2);

(d) completion of storm drainage facilities;

(e) completion of construction or development; and

(f) quarterly until the establishment of permanent ground cover sufficient to– restrain erosion or until the financially responsible party has conveyed ownership or control of a Tract for which the erosion and sedimentation control plan has been approved and the agency that approved the plan has been notified. If the financially responsible party has conveyed ownership or control of a Tract for which the erosion and sedimentation control plan has been approved, the new owner or person in control shall conduct and document inspections quarterly until the establishment of permanent ground cover sufficient to restrain erosion

Section 9. Design and Performance Standards

a. Design Storm - Adequate Erosion Control Measures, Structures, and Devices shall be planned, designed, constructed and maintained so as to provide protection from the calculated maximum peak rate of runoff from the Ten-year Storm. Runoff rates shall be calculated using the procedures in the USDA, Natural Resource Conservation Services (formerly Soil Conservation Service's) "National Engineering Field Manual for Conservation Practices," or other acceptable calculation procedures including but not limited to the Town of Huntersville's Storm Water Design Manual.

b. Innovative Measures - Erosion and Sedimentation measures applied alone or in combination to satisfy the intent of this section are acceptable if they are sufficient to prevent adverse secondary consequences. Innovative techniques and ideas will be considered and may be used following approval by the Town Engineer if it can be demonstrated that such techniques and ideas are likely to produce successful results.

c. Responsibility for Maintenance - During the development of a site, the Person conducting the land-disturbing activity shall install and maintain all temporary and permanent Erosion and Sedimentation control measures as required by the approved Plan or any provision of this Ordinance, the Act, or any order adopted pursuant to this Ordinance or the Act. After development, the landowner or Person in possession or control of the land shall install and maintain all necessary permanent Erosion and Sediment control measures.

d. Additional Measures - Whenever the Town Engineer, determines that accelerated Erosion and Sedimentation is occurring as a result of land-disturbing activity, despite application and maintenance of protective practices, the Person conducting the land-disturbing activity shall take additional protective action.

e. Storm Water Outlet Protection

(a) Intent. Stream banks and channels downstream from any land-disturbing activity shall be protected from increased degradation by accelerated erosion caused by increased velocity of runoff from the land-disturbing activity.

(b) Performance standard. Persons shall conduct land-disturbing activity so that the post construction velocity of the 10-year storm runoff in the receiving watercourse to the discharge point does not exceed the greater of:

(1) the velocity established by the Maximum Permissible Velocities Table set out within this subsection; or

(2) the velocity of the ten-year storm runoff in the receiving watercourse prior to development.

If condition (1) or (2) of this Paragraph cannot be met, then the receiving watercourse to and including the discharge point shall be designed and constructed to withstand the expected velocity anywhere the velocity exceeds the "prior to development" velocity by 10%.

Maximum Permissible Velocities Table

The following is a table for maximum permissible velocity for storm water discharges in feet per second (F.P.S.) and meters per second (M.P.S.):

Material	F.P.S.	M.P.S.
Fine sand (noncolloidal)	2.5	.8
Sandy loam (noncolloidal)	2.5	.8
Silt loam (noncolloidal)	3.0	.9
Ordinary firm loam	3.5	1.1
Fine gravel	5.0	1.5
Stiff clay (very colloidal)	5.0	1.5
Graded, loam to cobbles (noncolloidal)	5.0	1.5
Graded, silt to cobbles (Colloidal)	5.5	1.7
Alluvial silts (noncolloidal)	3.5	1.1
Alluvial silts (colloidal)	5.0	1.5
Coarse gravel (noncolloidal)	6.0	1.8
Cobbles and shingles	5.5	1.7
Shales and hard pans	6.0	1.8

Source - Adapted from recommendations by Special Committee on Irrigation Research, American Society of Civil Engineers, 1926, for channels with straight alignment. For sinuous channels, multiply allowable velocity by 0.95 for slightly sinuous, by 0.9 for moderately sinuous channels, and by 0.8 for highly sinuous channels.

(c) Acceptable Management Measures - Measures applied alone or in combination to satisfy the intent of this section are acceptable if there are no objectionable secondary consequences. The Town recognizes that the management of storm water runoff to minimize or control downstream channel and bank erosion is a developing technology. Innovative techniques and ideas will be considered and may be used when shown to have the potential to produce successful results. Some alternatives, while not exhaustive, are to:

(1) Avoid increases in surface runoff volume and velocity by including measures to promote infiltration to compensate for increased runoff from areas rendered impervious;

(2) Avoid increases in storm water discharge velocities by using vegetated or roughened swales and waterways in place of closed drains and high

velocity paved sections:

(3) Provide energy dissipators at outlets of storm drainage facilities to reduce flow velocities to the point of discharge;

(4) Protect watercourses subject to accelerated erosion by improving cross sections and/or providing erosion-resistant lining; and

(5) Upgrade or replace the receiving device structure, or watercourse such that it will receive and conduct the flow to a point where it is no longer subject to degradation from the increased rate of flow or increased velocity.

(d) Exceptions - This rule shall not apply where it can be demonstrated to the Town that storm water discharge velocities will not create an erosion problem in the receiving watercourse.

f. Borrow and Waste Areas - When the Person conducting the land-disturbing activity is also the Person conducting the Borrow or Waste disposal activity, the following areas are considered as part of the land-disturbing activity.

1. Areas from which Borrow is obtained that are not regulated by the provisions of the Mining Act of 1971 and its subsequent amendments, or

2. Waste areas for surplus materials other than landfills regulated by the Department's Division of Solid Waste Management.

When the Person conducting the land-disturbing activity is the Person conducting the Borrow or Waste disposal activity, the activity shall not be considered a separate land-disturbing activity.

The responsible Person conducting the Borrow or Waste Areas shall provide Adequate Erosion Control Measures, Structures, or Devices and comply with all provisions of this Ordinance.

g. Access and Haul Roads - Temporary access and haul roads, other than public roads, constructed or used in connection with any land-disturbing activity shall be considered a part of such activity.

h. Operations in Lakes or Watercourses - land-disturbing activity in connection with construction in, on, over, or under a Lake or Watercourse shall be planned and conducted in such a manner as to minimize the extent and duration of disturbance of the Lake or Watercourse. The relocation of a stream, where relocation is an essential part of the proposed activity, shall be planned and executed so as to minimize changes in the stream flow characteristics, except when justification for significant alteration to flow characteristic is provided.

Section 10. Erosion and Sedimentation Control Plans

a. Plan Requirements – All Plans required for Land- disturbing Activities as identified in Section 6.b of this Ordinance shall meet the following requirements:

1. Plans shall contain architectural or engineering drawings, maps, assumptions, calculations, and narrative statements as needed to adequately describe the proposed development of all Tracts for the Project, including

all Phases, and the measures planned to comply with the requirements of this Ordinance. Plan content may vary to meet the needs of specific site requirements. Detailed guidelines for Plan preparation may be obtained from the Town Engineer on request.

2. Plans must contain an authorized statement of financial responsibility and ownership signed by the Person financially responsible for the land-disturbing activity or that Person's attorney in fact, and all such signatures shall be notarized. The statement shall include the mailing and street addresses of the principal place of business of the Person financially responsible and of the owner of the land or their registered agents. If the Person financially responsible is not a resident of North Carolina, a North Carolina agent must be designated in the statement for the purpose of receiving service of process and notice of compliance or non-compliance with the Plan, the Act, this Ordinance, or rules or orders adopted or issued pursuant to this Ordinance.

3. If the applicant is not the owner of the land to be disturbed, the draft erosion and sedimentation control plan must include the owner's notarized, written consent for the applicant to submit a draft erosion and sedimentation control plan and to conduct the anticipated land-disturbing activity.

4. The land-disturbing activity described in the Plan shall comply with all Federal, State, and Local water quality laws, rules and regulations, including, but not limited to, the Federal Clean Water Act. The Town Engineer may require supporting documentation.

5. The land-disturbing activity described in the Plan shall not result in a violation of rules adopted by the Environmental Management Commission to protect riparian buffers along surface waters.

6. The land-disturbing activity described in the Plan shall not result in a violation of any local Ordinance, law, rule, or regulation, including but not limited to zoning, tree protection, stream, lake and watershed buffers, and flood plain regulations.

7. Two (2) hard copies of the Plan shall be filed with the Town Engineer in addition to an electronic copy filed as directed by the Town. A copy of the approved Plan shall be maintained on the job site.

8. Effort should be made not to uncover more than 20 acres at any one time. If more than 20 acres are to be uncovered at any one time, the Plan shall contain the following:

   (a.) The method of limiting time of exposure and amount of exposed area to achieve the objectives of this Ordinance.
   (b.) A cut/fill analysis that shows where soil will be moved from one area of the Tract to another as ground elevation is changed.
   (c.) Construction sequence and construction phasing to justify the time and amount of exposure.
   (d.) Techniques to be used to prevent Sedimentation associated with larger disturbed areas.
   (e.) Additional erosion control measures, structures, and devices to

prevent Sedimentation.

9. All Plans must be sealed by a professional engineer, licensed to do business in the State of North Carolina.

10. No person may initiate a land-disturbing activity before notifying the Town in writing of the date that land-disturbing activity will begin.

b. Plan Review Process –– Once a Plan has been submitted with the applicable review fee, the review process will be initiated. The Town Engineer will review each Plan submitted and within 30 Days of receipt thereof will notify the Person submitting the Plan (hereinafter "the applicant") that it has been approved, approved with modifications, or disapproved. The Engineer's time for review shall not begin until a complete Plan has been submitted. Plan requirements shall be as required by the Town Department of Engineering and Public Works. Should the Plan be filed and not reviewed within the specified time frame, the land-disturbing activity may commence subject to the provisions of Section 8.e, Section 10.a.4 and Section 10.a.5, and the Town Engineer will endeavor to review the plan on an expedited schedule.

In the event the Plan or a transfer of a plan is disapproved pursuant to subsection (d) of this Section, the Town Engineer shall notify the applicant and the Director of such disapproval within 10 Days thereof. The Town Engineer shall advise the applicant and the Director in writing as to the specific reasons that the Plan was disapproved. The applicant shall have the right to appeal the Town Engineer's decision to the Stormwater Advisory Committee as provided in Section 16 of this Ordinance, or may appeal directly to the Commission.

Plans for which land-disturbing activity has not commenced within 3 years from the initial plan approval are void.

c. Amendments to Plans - If the Town Engineer, either upon review of such Plan or upon inspection of the job site, determines that the Plan is inadequate to meet the requirements of this Ordinance or that a significant risk of Accelerated Erosion or off-site Sedimentation exists, then the Town Engineer shall require a revised Plan. Pending the preparation of the revised Plan, work on affected area shall cease or shall continue only under conditions outlined by the Town Engineer.

Amendments or revisions to a Plan must be made in written and/or graphic form and shall be submitted at any time under the same requirements for submission of original Plans. Until such time as the Town Engineer approves any amendments or revisions, the land-disturbing activity shall not proceed, except in accordance with the Plan as originally approved.

The Town Engineer must approve, approve with modifications, or deny a revised Plan within 15 Days of receipt, or it is deemed to be approved as submitted, unless such approval conflicts with other federal, state or local regulations.

d. Grounds for Disapproval of Plans – Any Plan that is not in accordance with the requirements set forth in subsection (a) above shall be disapproved. In addition, a Plan may be disapproved upon a finding that an applicant or a parent, subsidiary, or other affiliate of the applicant:

1. Is conducting or has conducted land-disturbing activity without an approved Plan, or has received notice of violation regarding a Plan previously

approved by the Commission or the Town and has not complied with the provisions of the notice within the time specified in the notice;

2. Has failed to pay a civil penalty assessed pursuant to the Act, or a local ordinance adopted pursuant to the Act, by the time the payment is due;

3. Has been convicted of a misdemeanor pursuant to G.S. 113A-64(b) or any criminal provision of a local ordinance adopted pursuant to the Act; or

4. Has failed to substantially comply with State rules or local ordinances and regulations adopted pursuant to the Act.

For the purposes of this subsection, an applicant's record or the proposed transferee's record may be considered for only the two years prior to the application date.

e. Violations - Any Person engaged in land-disturbing activity who fails to file a required Plan in accordance with this Ordinance shall be deemed in willful violation of this Ordinance. Any Person who conducts a land-disturbing activity except in accordance with provisions of an approved Plan shall be deemed in violation of this Ordinance.

f. Plan Transfer. The Town may transfer an erosion and sedimentation control plan approved pursuant to this section without the consent of the plan holder to a successor-owner of the property on which the permitted activity is occurring or will occur as provided in this subsection. The Town may transfer a plan if all of the following conditions are met:

1. The successor-owner of the property submits to the local government a written request for the transfer of the plan and an authorized statement of financial responsibility and ownership.
2. The Town finds all of the following:
    a. The plan holder is one of the following:
        1) A natural person who is deceased.
        2) A partnership, limited liability corporation, corporation, or any other business association that has been dissolved.
        3) A person who has been lawfully and finally divested of title to the property on which the permitted activity is occurring or will occur.
        4) A person who has sold the property on which the permitted activity is occurring or will occur.
    b. The successor-owner holds title to the property on which the permitted activity is occurring or will occur.
    c. The successor-owner is the sole claimant of the right to engage in the permitted activity.
    d. There will be no substantial change in the permitted activity.
3. The plan holder shall comply with all terms and conditions of the plan until such time as the plan is transferred.
4. The successor-owner shall comply with all terms and conditions of the plan once the plan has been transferred.

Notwithstanding changes to law made after the original issuance of the plan, the Town may not impose new or different terms and conditions in the plan without the prior express consent of the successor-owner. Nothing in this subsection shall prevent the Town from requiring a revised plan pursuant to G.S. § 113A-54.1(b).

g. Display of Plan Approval. A Plan approval issued under this Section shall be prominently displayed until all construction is complete, all permanent sedimentation and erosion control measures are installed, and the site has been stabilized. A copy of the approved Plan shall be kept on file at the job site.

Section 11. Permits

a. No Person shall undertake any land-disturbing activity subject to this Ordinance without first obtaining a Permit from the Town Engineer. The only exception to this requirement is a land-disturbing activity that:

1. has been approved by the Town Engineer at a pre-construction conference for the purpose of installing erosion control measures indicated on the approved Plan,

2. is for the purpose of fighting fires,

3. is for the stock piling of raw or processed sand, stone, or gravel in existing material processing plants and existing storage yards, provided that Sediment control measures are utilized to protect against off-site damage, or

4. does not exceed one (1) acre of disturbed area. In determining the size of the disturbed area, all Tracts shown on the Plan for the Project will be aggregated regardless of ownership, and regardless of whether such Tracts are contiguous or not, and regardless of whether such Tracts are in the same Phase. Although a Plan and a Permit may not be required for activity comprising less than one acre, such activity is subject to all other requirements of this Ordinance.

b. No Person shall undertake any land-disturbing activity for more than one acre without acquiring an NCG01 Permit (in addition to the Permit required by Section 11(a) above) by completing and submitting an electronic Notice of Intent (NOI) form requesting a Certificate of Coverage (COC) under the NCG010000 Construction Stormwater General Permit. The Letter of Approval from the Engineer shall contain a notice of the NCG01 Permit requirement and the acreage approved for disturbance.

Section 12. Inspections and Investigations

a. The Town Engineer is authorized and required to inspect the sites of land-disturbing activity to ensure compliance with the Act, this Ordinance, or rules or orders adopted or issued pursuant to this Ordinance and to determine whether the activity is being conducted in accordance with the Ordinance, the Act, and the approved Plan and whether the measures required in the Plan are effective in controlling Erosion and Sedimentation resulting from land-disturbing activity. Notice of the right to inspect shall be included in the notification of each Plan approval or issuance of the Permit.

b. No Person shall willfully resist, delay, or obstruct the Town Engineer while the Town Engineer is inspecting or attempting to inspect a land-disturbing activity under this Ordinance.

c. If, through inspection, it is determined that a Person engaged in land-disturbing activity has failed to comply with the Act, this Ordinance, or rules, or orders adopted or issued pursuant to this Ordinance, or has failed to comply with an approved Plan, the Town Engineer shall immediately serve upon the landowner, the landowner's agent, or other Person in possession or control of the land a written notice of violation. The notice may be served by any means authorized under G.S. 1A-1, Rule 4. Notwithstanding the foregoing, if the person engaged in the land-disturbing activity has not received a previous notice of violation under this Section, the Town shall deliver the notice in person and shall offer assistance in developing corrective measures. Assistance may be provided by referral to a technical assistance program in the Department, referral to a cooperative extension program, or by the provision of written materials such as Departmental guidance documents. If the Town is unable to deliver the notice of violation within 15 days following discovery of the violation, the notice of violation may be served in the manner prescribed for service of process by G.S. 1A-1, Rule 4, and shall include information on how to obtain assistance in developing corrective measures.

A notice of violation shall identify the nature of the violation and set forth the measures necessary to achieve compliance with the Ordinance. The notice shall specify a date by which the Person must comply with this Ordinance, and advise that the Person may be subject to a civil penalty and that failure to correct the violation within the time specified will subject that Person to the civil and criminal penalties for a continued violation as provided in G.S. 113A-64 and Section 13 of this Ordinance, or any other authorized enforcement action.

d. In determining the measures required and the time for achieving compliance, the Town Engineer shall take into consideration the technology and quantity of work required, and shall set reasonable and attainable time limits.

e. The Town Engineer shall use local rainfall data approved by the Town Engineer to determine whether the design storm identified in Section 9.a has been exceeded.

f. Penalties may be assessed for any of the following:

1. Failure to submit a Plan.

2. Performing land-disturbing activities without an approved Plan and pre-construction conference, or Permit.

3. Obstructing, hampering or interfering with an authorized representative who is in the process of carrying out official duties.

4. A repeated violation for which a notice was previously given on the same Tract or to the Person Responsible for the Violation.

5. Willful violation of this Ordinance.

6. Failure to install or maintain Adequate Erosion Control Measures, Structures, or Devices per the approved Plan and additional measures per Section 9.d such that it results in Sedimentation in a Wetland, Lake or Watercourse, or other designated protected areas.

7. Failure to install or maintain Adequate Erosion Control Measures, Structures, or Devices per the approved Plan and additional measures per Section 9.d such that it results in off-site Sedimentation.

g. The Town Engineer shall have the power to conduct such investigation as it may reasonably deem necessary to carry out its duties as prescribed in this Ordinance, and for this purpose to enter at reasonable times upon any property, public or private, for the purpose of investigating and inspecting the sites of any land-disturbing activity. Reasonable time shall be deemed to include daylight hours, Monday through Saturday, and otherwise shall include all emergencies. No Person shall refuse entry or access to the Town Engineer who requests entry for purpose of inspection or investigation, and who presents appropriate credentials, nor shall any Person obstruct, hamper, or interfere with the Town Engineer while in the process of carrying out official duties.

h. The Town Engineer shall also have the power to require written statements, or the filing of reports under oath as a part of investigating land-disturbing activity.

i. With regard to the development of any Tract that is subject to this Ordinance, a Certificate of Occupancy shall not be issued where any of the following conditions exist:

1. There is a violation of this Ordinance with respect to the Tract.

2. If there remains due and payable to Town of Huntersville civil penalties that have been levied against the Person conducting the land-disturbing activity for violation(s) of this Ordinance. If a penalty is under appeal, the Town Engineer may require the amount of the fine, and any other amount that the Person would be required to pay under this Ordinance if the Person loses the appeal, be placed in a refundable account or surety prior to issuing the Certificate of Occupancy.

3. The requirements of the Plan have not been completed and the building for which a Certificate of Occupancy is requested is the only building then under construction on the Tract.

4. On the Tract which includes multiple buildings on a single parcel, the requirements of the Plan have not been completed and the building for which a Certificate of Occupancy is requested is the last building then under construction on the Tract.

5. On a Tract which includes multiple parcels created pursuant to the applicable subdivision regulations, the requirements of the Plan have not been completed with respect to the parcel for which the Certificate of Occupancy is requested.

Section 13. <u>Penalties</u>

a. Any Person who violates any of the provisions of this Ordinance, or rules or orders adopted or issued pursuant to this Ordinance, or who initiates or continues a land-disturbing activity for which a Plan is required except in accordance with the terms, conditions, and provisions of an approved Plan, is subject to a civil penalty. A civil penalty may be assessed from the date the violation first occurs. No penalty shall be assessed until the Person alleged to be in violation has been notified of the violation.

Refusal to accept the notice or failure to notify the Town Engineer of a change of address shall not relieve the violator's obligation to comply with the Ordinance or to pay such a penalty.

b. The maximum civil penalty for each violation of this Ordinance is $5,000.00. Each day of continuing violation shall constitute a separate violation. When the person has not been assessed any civil penalty under this Ordinance for any previous violation, and that person abated continuing environmental damage resulting from the violation within 180 days from the date of the notice of violation, the maximum cumulative total civil penalty assessed under this Section for all violations associated with the land-disturbing activity for which the erosion and sedimentation control plan is required is twenty-five thousand dollars ($25,000).

c. In determining the amount of the civil penalty, the Town Engineer shall consider the following factors: the degree and extent of harm caused by the violation; the cost of rectifying the damage; the amount of money the violator saved by noncompliance; whether the violation was committed willfully; and the prior record of the violator in complying or failing to comply with this Ordinance, the Act, or any other erosion and sedimentation control ordinance, rule, order or law.

d. The Town Engineer shall determine the amount of the civil penalty and shall notify the Person who is assessed the civil penalty of the amount of the penalty and the reason for assessing the penalty. The notice of assessment shall be served by any means authorized under G.S. 1A-1, Rule 4 and shall direct the violator to either pay the assessment, ~~-~~contest the assessment within 30 days as specified in Section 16, or file a request with the Sedimentation Control Commission for remission of the assessment within 60 days of receipt of the notice. A remission request must be accompanied by a waiver of the right to a contested case hearing by the Stormwater Advisory Committee and a stipulation as to the facts on which the assessment was based. If a violator does not pay a civil penalty assessed by the Town Engineer within 60 Days after it is due, the Town Engineer shall request the Town Attorney to institute a civil action to recover the amount of the assessment. The civil action shall be brought in Mecklenburg County Superior Court.

e. A civil action must be filed within three (3) years of the date the assessment was due. An assessment that is not contested and for which no request for remission is made within the required timeframe is due when the violator is served with a notice of assessment. An assessment that is contested or for which a request for remission is made within the required timeframe is due at the conclusion of the administrative and judicial review of the assessment or final remission decision.

f. Any Person who knowingly or willfully violates any provision of this Ordinance, or rule or order adopted or issued pursuant to this ordinance, or who knowingly or willfully initiates or continues a land-disturbing activity for which a~~n~~ Plan is required, except in accordance with the terms, conditions, and provisions of an approved Plan, shall be guilty of a Class 2 misdemeanor and may be subject to a fine not to exceed Five Thousand Dollars ($5,000). This is in addition to any civil penalties that may be charged.

g. A violation of the Town Soil Erosion and Sedimentation Control Ordinance that is not knowing or not willful shall not constitute a misdemeanor or infraction punishable under North Carolina General Statute 14-4, but instead shall be subject to the civil penalties provided in this Ordinance.

h. The clear proceeds of civil penalties collected by the Town of Huntersville under this subsection shall be remitted to the Civil Penalty and Forfeiture Fund in accordance with G.S. § 115C-457.2. Penalties collected by the Town of Huntersville may be diminished only by the actual costs of collection. The collection cost percentage to be used shall be established and approved by the North Carolina Office of State Budget and Management on an annual basis, based upon the computation of actual collection costs by the Town for the prior fiscal year.

~~h.~~i. The damage or destruction of a silt fence occurring during land-disturbing activities or construction on a development project shall not be assessed a civil penalty under this section provided that the silt fence is repaired or replaced within the compliance period noted in the inspection report or Notice of Violation.

Section 14. Injunctive Relief

a. Whenever the Town Engineer has reasonable cause to believe that any Person is violating or threatening to violate this Ordinance, any rule, regulation or order adopted by the Town of Huntersville, or any term, condition, or provision of an approved Plan, the Town Engineer may, either before or after the institution of any other action or proceeding authorized by this Ordinance, authorize the Town Attorney to institute a civil action in the name of the Town of Huntersville, for injunctive relief to restrain the violation or threatened violation. The action shall be brought pursuant to G.S. 113A-65(b) in Mecklenburg County Superior Court

b. Upon determination by a court that an alleged violation is occurring or is threatened, the court shall enter such orders or judgements as are necessary to abate the violation or to ensure that restoration is performed or to prevent the threatened violation. The institution of an action for injunctive relief under this section shall not relieve any party to such proceedings from any civil or criminal penalty prescribed for violations of this Ordinance.

Section 15. **Restoration of Areas Affected by Failure to Comply**

The Town Engineer may require a Person who engaged in any land-disturbing activity and failed to retain Sediment generated by the activity to restore the waters and land affected by the failure so as to minimize the detrimental effects of the resulting pollution by Sedimentation. This authority is in addition to any other civil penalty or injunctive relief authorized under this Ordinance.

Section 16. **Appeals**

a. Disapproval or Modification of Proposed Plan

1. The disapproval or modification of any proposed Plan by the Town Engineer shall entitle the Person submitting the Plan ("Petitioner") to a public hearing before the Storm Water Advisory Committee ("Committee") if such Person submits written demand for a hearing to the Clerk of the Committee ("Clerk") within 15 Days after receipt of written notice of the disapproval or modification. The demand for a hearing filed with the Clerk shall be accompanied by a filing fee as established by the Storm Water Advisory Committee. The Committee may order the refund of all or any part of the filing fee if it rules in favor of the Petitioner. Failure to timely file such demand and fee shall constitute a waiver of any rights to appeal under this Chapter and the Storm Water Advisory Committee shall have no jurisdiction to hear the appeal.

2. In the event a Plan is disapproved pursuant to Section 10.d of this Ordinance, the applicant may appeal the Town's disapproval of the Plan directly to the Commission.

3. Within 5 Days of receiving the demand for a hearing, the Clerk shall notify the Chairman of the Committee ("Chairman") of the demand for hearing. As soon as possible after the receipt of said notice, the Chairman shall set a time and place for the hearing and notify the Petitioner by mail of the date, time and place of the hearing. The time specified for the hearing shall be either at the next regularly scheduled meeting of the Committee from the submission of the notice, or as soon thereafter as practical, or at a special meeting. The hearing shall be conducted by the Committee in accordance with the provisions of Section 16.c of this Ordinance.

4. If the Committee upholds the disapproval or modification of a proposed Plan following the public hearing, the Petitioner shall have 30 Days from the receipt of the decision to appeal the decision to the North Carolina Sedimentation Control Commission pursuant to Title 15A, Chapter 4B Section .0118(b) of the North Carolina Administrative Code and G.S. 113A-61(c).

b. Issuance of a Notice of Civil Penalty Assessment

1. The issuance of a notice of assessment of a civil penalty by the Town Engineer shall entitle the Person responsible for the violation of the Ordinance ("Petitioner") to a public hearing before the Storm Water Advisory Committee ("Committee") if such Person submits written demand for a hearing to the Clerk of the Committee ("Clerk") within 30 Days of the receipt of the notice of assessment of a civil penalty. The demand for a hearing filed with the Clerk shall be accompanied by a filing fee as established by the Storm Water Advisory Committee. The Committee may order the refund of all or any part of the filing fee if it rules in favor of the Petitioner. Failure to timely file such demand and fee shall constitute a waiver of any rights to appeal under this Ordinance and the Storm Water Advisory Committee shall have no jurisdiction to hear the appeal.

2. Within 5 Days of receiving the Petitioner's demand for a hearing, the Clerk shall notify the Chairman of the Committee ("Chairman") of the request for hearing. As soon as possible after the receipt of said notice, the Chairman shall set a time and place for the hearing and notify the Petitioner by mail of the date, time and place of the hearing. The time specified for the hearing shall be either at the next regularly scheduled meeting of the Committee from the submission of the notice, or as soon thereafter as practical, or at a special meeting. The hearing shall be conducted pursuant to the provisions of Section 16.c of this Ordinance.

3. Any party aggrieved by the decision of the Committee with regard to the issuance of assessment of civil penalties shall have thirty (30) days from the receipt of the decision of the Committee to file a petition for review in Superior Court with the Clerk of Mecklenburg County Superior Court.

c. Hearing Procedure. The following provisions shall be applicable to any hearing conducted by the Committee pursuant to Section 16.a or 16.b above.

1. At the hearing, Petitioner and the Town Engineer shall have the right to be present and be heard, to be represented by counsel, and to present evidence through witnesses and competent testimony relevant to the issue(s) before the Committee.

2. Rules of evidence shall not apply to a hearing conducted pursuant to this Ordinance and the Committee may give probative effect to competent, substantial and material evidence.

3. At least seven (7) days before the hearing, the parties shall exchange a list of witnesses intended to be present at the hearing and a copy of any documentary evidence intended to be presented. The parties shall submit a copy of this information to the Clerk. Additional witnesses or documentary evidence may not be presented except upon consent of both parties or upon a majority vote of the Committee.

4. Witnesses shall testify under oath or affirmation to be administered by the Court Reporter or another duly authorized official.

5. The procedure at the hearing shall be such as to permit and secure a full, fair and orderly hearing and to permit all relevant, competent, substantial and material evidence to be received therein. A full record shall be kept of

all evidence taken or offered at such hearing. Both the representative for the Town and for the Petitioner shall have the right to cross-examine witnesses.

6. At the conclusion of the hearing, the Committee shall render its decision on the evidence submitted at such hearing and not otherwise.

   (a) If, after considering the evidence presented at the hearing, the Committee concludes by a preponderance of the evidence that the grounds for the Town Engineer's actions (including the amount assessed as a civil penalty) with regard to either disapproving or modifying a proposed Plan, or assessing a civil penalty are true and substantiated, the Committee shall uphold the action on the part of the Town Engineer.

   (b) If, after considering the evidence presented at the hearing, the Committee concludes by a preponderance of the evidence that the grounds for the Town Engineer's actions (including the amount assessed as a civil penalty) are not true and substantiated, the Committee shall, as it sees fit either reverse or modify any order, requirement, decision or determination of the Town Engineer. The Committee Bylaws will determine the number of concurring votes needed to reverse or modify any order, requirement, decision or determination of the Town Engineer.

   Any decision of the Committee which modifies the amount of the civil penalty shall include, as part of the findings of fact and conclusions of law, findings as to which assessment factors were not properly considered by the Town Engineer in determining the amount of the civil penalty assessed against the Petitioner.

7. The Committee shall keep minutes of its proceedings, showing the vote of each member upon each question and the absence or failure of any member to vote. The decision of the Committee shall be based on findings of fact and conclusions of law to support its decision.

8. The Committee shall send a copy of its findings and decision to the Applicant/Petitioner and the Town Engineer. If either party contemplates an appeal to a court of law, the party may request and obtain, at that party's own cost, a transcript of the proceedings.

9. The decision of the Committee shall constitute a final decision.

Section 17. **Existing Permits and Land-disturbing Activity**.

All permits and approved plans existing on the effective date of this Ordinance which were duly issued and/or approved by Mecklenburg County pursuant an interlocal agreement between Mecklenburg County and the Town of Huntersville, which provided for the enforcement by Mecklenburg County of the Mecklenburg County Soil Erosion and Sedimentation Control Ordinance within the territorial jurisdiction of the Town of Huntersville, including the extraterritorial jurisdiction of the Town, shall be recognized by the Town as valid permits and approved plans, and land-disturbing activity shall be allowed to continue in accordance with such permits and approved plans. Land-disturbing activity performed prior to the effective date of this Ordinance in violation of the Mecklenburg County Soil Erosion and Sedimentation Control Ordinance shall not be vested, and shall be subject to the terms of this Ordinance (the Town of Huntersville Soil Erosion and Sedimentation Control Ordinance).

Section 18. **Severability**

If any section or a section of this Ordinance is/are held to be invalid or unenforceable, all other sections shall nevertheless continue in full force and effect.

Section 19. **Effective Date**

This Ordinance shall be effective November 4, 2019

Section 20. **Revisions**

Town of Huntersville shall incorporate revisions required by the Commission within 8 months following receipt of the required revisions.

Adopted the 18th day of March, 2019, amended June 17, 2019, amended July 15, 2019, ~~and~~ amended November 4, 2019, and amended October 18, 2021.

Approved as to form:

_____ _____

Town Attorney Town Clerk

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TOWN OF HUNTERSVILLE
SOIL EROSION AND SEDIMENTATION CONTROL ORDINANCE.

NOW, THEREFORE, BE IT ORDAINED by the Town of Huntersville Board of Commissioners that:

Section 1. Title

This Ordinance may be cited as the "Town of Huntersville Soil Erosion and Sedimentation Control Ordinance."

Section 2. Preamble

The Sedimentation of streams, lakes, wetlands, and other waters of this State constitute a major pollution problem. Sedimentation occurs from the Erosion or depositing of soil and other materials into the waters. Control of Erosion and Sedimentation is deemed vital to the public interest and necessary to public health and welfare, and expenditures of funds for Erosion and Sedimentation control programs shall be deemed for public purpose. It is the purpose of this Ordinance to provide for creation, administration, and enforcement of the program through procedures and for the adoption of mandatory standards that will permit development of this Town to continue with the least detrimental effects from pollution by Sedimentation. In recognition of desirability of early coordination of Sedimentation control planning, it is the intention of the Town's Board of Commissioners that pre-construction conferences be held among the affected parties.

Section 3. Definitions

As used in this Ordinance, unless the context clearly indicates otherwise, the following definitions apply.

a. Accelerated Erosion - means any increase over the rate of Natural Erosion as a result of land-disturbing activity.

b. Act - means the North Carolina Sedimentation Pollution Control Act of 1973 and all rules and orders adopted pursuant to it.

c. Adequate Erosion Control Measures, Structures, or Devices - means ones that control the soil material within the land area under responsible control of the Person conducting the land-disturbing activity.

d. Affiliate - means a Person that directly, or indirectly through one or more intermediaries, controls, is controlled by, or is under common control of another Person.

e. Being Conducted - means a land-disturbing activity has been initiated and permanent stabilization of the site has not been completed.

f. Borrow - means fill material that is required for on-site construction and is obtained from other locations.

g. Buffer Zone – means the strip of land adjacent to a Lake or Watercourse.

h. Reserved

i. Reserved

j. Commission - means the North Carolina Sedimentation Control Commission.

k. Committee - means The Town of Huntersville Storm Water Advisory Committee as established by the resolution of the Huntersville Board of Commissioners, together with any amendments thereto.

l. Completion of Construction or Development - means that no further land-disturbing activity is required on a Tract except that which is necessary for establishing a permanent Ground Cover. Completion of Construction or Development may occur for a Tract, a Phase, or an entire Project as determined by the Town Engineer.

m. Contractor Conducting the Land-disturbing Activity – means any person who participates in the land-disturbing activity, including, but not limited to, the general contractor and sub-contractors with the responsibility for supervising the work on the Tract for the changing of the natural cover or topography of the Tract, or any part thereof.

n. Days – means calendar days unless otherwise specified.

o. Department - means the North Carolina Department of Environmental Quality.

p. Director - means the Director of the Division of Energy Mineral and Land Resources of the Department of Environmental Quality.

q. Discharge Point - means that point at which runoff leaves a Tract of land.

r. Energy Dissipater - means a structure or a shaped channel section with mechanical armoring placed at the outlet of pipes or conduits to receive and break down the energy from high Velocity flow.

s. Erosion - means the wearing away of land surface by the action of wind, water, gravity, or any combination thereof.

t. Forest Practice Guidelines – means the written directions related to water quality prepared by the Department's Division of Forest Resources and the United States Forest Service, including but not limited to the "Forestry Best Management Practices Manual" prepared by the Department.

u. Ground Cover - means any vegetative growth or other material that renders the soil surface stable against Accelerated Erosion.

v. Lake or Watercourse - means any stream, river, brook, swamp, sound, bay, creek, run, branch, canal, waterway, estuary, and any reservoir, lake or pond, natural or impounded, in which Sediment may be moved or carried in suspension, and which could be damaged by accumulation of Sediment.

w. Land-disturbing Activity - means any use of the land by any Person in residential, governmental, industrial, educational, institutional, or commercial development, highway and road construction and maintenance that results in a change in the natural cover or topography and that may cause or contribute to Sedimentation.

x. Local Government - means any county, incorporated village, town or city, or any combination of counties, incorporated villages, towns and cities, acting through a joint program pursuant to the provisions of the Act.

y. Natural Erosion - means the wearing away of the earth's surface by water, wind, or other natural agents under natural environmental conditions undisturbed by man.

z. Parent - means an Affiliate that directly, or indirectly through one or more intermediaries, controls another Person.

aa. Reserved.

bb. Permit – means the "Permit to Conduct Land-disturbing Activities" (grading permit) issued by the Town Engineer after a Plan is approved.

cc. Person(s) - means any individual, partnership, firm, association, joint venture, public or private corporation, trust, estate, commission, board, public or private institution, utility, cooperative, interstate body, or other legal entity.

dd. Person Conducting Land-disturbing Activity – means any person who may be held responsible for violation unless expressly provided otherwise by this Ordinance, the Act, or any order adopted pursuant to this Ordinance or the Act.

ee. Person Responsible for the Violation - as used in this Ordinance means:

1. The developer or other Person who has or holds himself out as having financial or operational control over the land-disturbing activity;

2. The landowner or Person in possession or control of the land who has directly or indirectly allowed the land-disturbing activity or has benefited from it or has failed to comply with any provision of this Ordinance, the Act, or any order adopted pursuant to this Ordinance or the Act.

ff. Phase – means a specific geographic portion of a Project as indicated on an approved Plan.

gg. Phase of Grading - means one of two types of grading, rough or fine.

hh. Plan**(s)** - means an Erosion and Sedimentation control plan for a Project, including all Phases and all Tracts.

ii. Sediment - means solid particulate matter, both mineral and organic, that has been or is being transported by water, air, gravity, or ice from its site of origin.

jj. Sedimentation - means the process by which Sediment resulting from Accelerated Erosion has been or is being transported off the site of the land-disturbing activity or into a Wetland, Lake or Watercourse.

kk. Siltation – means sediment resulting from Accelerated Erosion which is settleable or removable by properly designed, constructed, and maintained control measures; and which has been transported from its point of origin within the site of a land-disturbing activity; and which has been deposited, or is in suspension in water.

ll. Storm Drainage Facilities - means the system of inlets, conduits, channels, ditches and appurtenances that serve to collect and convey storm water through and from a given drainage area.

mm. Storm Water Runoff - means the surface flow of water resulting from precipitation in any form and occurring immediately after rainfall or melting.

nn. Subsidiary - means an Affiliate that is directly, or indirectly through one or more intermediaries, controlled by another Person.

oo. Ten-Year Storm - means a rainfall of an intensity expected to be equaled or exceeded, on the average, once in ten years, and of a duration that will produce the maximum peak rate of runoff, for the watershed of interest under average antecedent wetness conditions.

pp. Town Department of Engineering and Public Works – as used in this Ordinance, "Town Department of Engineering and Public Works" refers to both the Town Department of Engineering and the Town Department of Public Works.

qq Town Engineer – as used in this Ordinance, "Town Engineer" refers to both the Town Engineer and the Director of Public Works, both of whom shall have full authority and responsibility under this Ordinance where the term "Town Engineer" is used.

rr. Tract - means contiguous lands and bodies of water being disturbed or to be disturbed as a unit, regardless of ownership. A Plan may have more than one Phase, and each Phase may have more than one Tract.

ss. Twenty-five Year Storm - means a rainfall of an intensity expected to be equaled or exceeded, on the average, once in 25 years, and of a duration that will produce the maximum peak rate of runoff, from the watershed of interest under average antecedent wetness conditions.

tt. Uncovered - means the removal of Ground Cover from, on, or above the soil surface.

uu. Undertaken - means the initiating of any activity, or phase of activity, which results or will result in a change in the Ground Cover or topography of a Tract.

vv. Velocity - means the average velocity of flow through the cross section of the main channel at the peak flow of the design storm. The cross section of the main channel shall be that area defined by the geometry of the channel plus the area of flow below the flood height defined by vertical lines at the main channel banks. Overload flows are not to be included for the purpose of computing velocity of flow.

ww. Waste - means surplus materials resulting from on-site construction and disposed of at other locations.

xx. Watershed - means any water supply watershed protection area regulated with various controls within the jurisdictional boundaries of the Town of Huntersville.

yy. Wetland(s) – means land having the vegetative, soil and hydrologic characteristics to be regulated by Section 401 and 404 of the Federal Clean Water Act as defined by the United States Army Corp of Engineers.

zz Working Days - means days exclusive of Saturday, and Sunday and Town government holidays during which weather conditions or soil conditions permit land-disturbing activity to be undertaken.

Section 4. Scope and Exclusions

This Ordinance shall regulate land-disturbing activity within the territorial jurisdiction of the Town of Huntersville and to the extraterritorial jurisdiction of the Town of Huntersville.

This Ordinance shall not apply to the following land-disturbing activities. Only those portions of a Tract that are in actual use for the land-disturbing activities listed below shall be exempt from this Ordinance:

a. Activities including the production and activities relating or incidental to the production of crops, grains, fruits, vegetables, ornamental and flowering plants, dairy, livestock, poultry, and all other forms of agriculture undertaken on agricultural land for the production of plants and animals useful to man, including, but not limited to:
   1. Forages and sod crops, grains and feed crops, tobacco, cotton, and peanuts.
   2. Dairy animals and dairy products.
   3. Poultry and poultry products.
   4. Livestock, including beef cattle, llamas, sheep, swine, horses, ponies, mules, and goats.
   5. Bees and apiary products.
   6. Fur producing animals.
   7. Mulch, ornamental plants, and other horticultural products. For purposes of this section, "mulch" means substances composed primarily of plant remains or mixtures of such substances.

b. Activities Undertaken on forest land for the production and harvesting of timber and timber products and conducted in accordance with best management practices set out in Forest Practice Guidelines Related to Water Quality, as adopted by the North Carolina Department of Agriculture and Consumer Services. If land-disturbing activity undertaken on forestland for the production and harvesting of timber and timber products is not conducted in accordance in accordance with such Forest Practice Guidelines, then the provisions of this Ordinance shall apply.

c. Activities for which a Permit is required under the Mining Act of 1971, Article 7 of Chapter 74 of the General Statutes.

d. For the duration of an emergency, activities essential to protect human life, including activities specified in an executive order issued under G.S. 166A-19.30(a)(5).

e. Land-disturbing activity over which the State has exclusive regulatory jurisdiction as provided in G.S. 113A-56(a).

f. Activities undertaken to restore the wetland functions of converted wetlands to provide compensatory mitigation to offset impacts permitted under Section 404 of the Clean Water Act.

g. Activities undertaken pursuant to Natural Resources Conservation Service standards to restore the wetlands functions of converted wetlands as defined in Title 7 Code of Federal Regulations § 12.2.

Section 5. Forest Practice Guidelines

a. The Town of Huntersville Board of Commissioners adopts by reference the Forest Practice Guidelines Related to Water Quality, as adopted by the North Carolina Department of Agriculture and Consumer Services.

b. If land-disturbing activity undertaken on forest land for the production and harvesting of timber and timber products is not conducted in accordance with Forest Practice Guidelines Related to Water Quality, the provisions of this Ordinance shall apply to such activity and any related land-disturbing activity on the Tract.

Section 6. General Requirements

a. Erosion and Sedimentation Control Measures - All land-disturbing activities, including those that disturb less than an acre, shall provide Adequate Erosion Control Measures, Structures, or Devices in accordance with this Ordinance that are sufficient to retain the sediment generated by the land-disturbing activity within the boundaries of the Tract during construction upon and development of the Tract.

b. Plan Required - No Person shall initiate, direct, allow or conduct any land-disturbing activity on a Tract that meets any of the following criteria without having a copy of an approved Erosion and Sedimentation Control Plan on the job site.

1. uncovers one acre or more or

2. in Borrow and Waste areas covered by Section 9.f, with a disturbed area greater than one acre.

c. Exceptions -
i. When a development project contains an approved erosion control plan for an entire development, a separate erosion control plan shall not be required by the Town for development of individual residential lots within that development that disturb less than one acre if the developer and the builder are the same financially responsible person. For review of an erosion control plan for a single-family lot in a common plan of development under this subsection where the developer and builder are different, the plan shall require the following information:
(1) Name, address, telephone number, and email of owner of lot being developed.
(2) Street address of lot being developed.
(3) Subdivision name.
(4) Lot number.
(5) Tax parcel number of lot being developed.

(6) Total acreage of lot being developed.
(7) Total acreage disturbed.
(8) Anticipated start and completion date.
(9) Person financially responsible.
(10) Signature of person financially responsible.
(11) Existing platted survey of the lot.
(12) A sketch plan showing erosion control measures for the lot being developed, but the sketch shall not be required to be under the seal of a licensed engineer, landscape architect, or registered land surveyor unless there is a design feature requiring such under federal or State law or regulation.

ii. For a land-disturbing activity on more than one residential lot where the total land disturbed exceeds one acre, the person conducting the land-disturbing activity may submit for approval a single erosion control plan for all of the disturbed lots or may submit for review and approval under subsection (c.i) of this section the erosion control measures for each individual lot.

iii. No Plan shall require a silt fence or other erosion control measure to be placed in a location where, due to the contour and topography of the development site, that erosion control measure would not substantially and materially retain the sediment generated by the land-disturbing activity within the boundaries of the tract during construction upon and development of the tract.

iv. No plan shall require a wire-backed reinforced silt fence where, due to the contour and topography of the development site, that fence would not substantially and materially retain the sediment generated by the land-disturbing activity within the boundaries of the tract during construction upon and development of the tract.

d. Compliance - Persons who submit a Plan to the Town Engineer shall comply with the provisions of Sections 10 & 11 of this Ordinance.

e. Protection of Property - Persons conducting land-disturbing activity shall take all reasonable measures to protect all public and private property from damage caused by such activity and associated Sedimentation.

f. More Restrictive Rules Shall Apply - Whenever conflicts exist between federal, state or local laws, ordinances, or rules, the more restrictive provision shall apply.

Section 7. Basic Control Objectives

A Plan may be disapproved pursuant to Section 10 of this Ordinance if the Plan fails to include Adequate Erosion Control Measures, Structures, or Devices to address the following control objectives:

a. Identify Critical Areas - On-site areas that are subject to severe Erosion, and off-site areas that are especially vulnerable to damage from Erosion and/or Sedimentation are to be identified and receive special attention.

b. Limit Time of Exposure - All land-disturbing activity is to be planned and conducted to limit exposure to the shortest feasible time.

c. Limit Exposed Areas - All land-disturbing activity is to be planned and conducted to minimize the size of the area to be exposed at any one time.

d. Control Surface Water - Surface water runoff originating upgrade of exposed areas should be controlled to reduce Erosion and Sediment loss during the period of exposure.

e. Control Sedimentation - All land-disturbing activity is to be planned and conducted so as to prevent Sedimentation damage.

f. Manage Storm Water Runoff - When the increase in the Velocity of Storm Water Runoff resulting from a land-disturbing activity is sufficient to cause Accelerated Erosion of the receiving watercourse, Plans are to include measures to control the Velocity at the Discharge Point so as to minimize Accelerated Erosion of the site and to decrease Sedimentation to any Lake or Watercourse.

Section 8. Mandatory Standards for Land-disturbing Activity

No land-disturbing activity subject to the control of this Ordinance shall be undertaken except in accordance with the following mandatory standards:

a. Lake, Watercourse and Wetland Protection - Additional erosion control measures structures, or devices as specified in the "Policies and Procedures" statement issued by the Town Engineer shall be required to provide a higher level of protection to Lakes, Watercourses, and Wetlands from Sedimentation.

1. Buffer zone – No land-disturbing activity during periods of construction or improvement to land shall be permitted in proximity to a Lake or Watercourse unless a buffer zone is provided along the margin of the watercourse of sufficient width to confine visible siltation within the twenty-five (25%) of the buffer zone nearest the land-disturbing activity.

i. Projects On, Over or Under Water. This subdivision shall not apply to a land-disturbing activity in connection with the construction of facilities to be located on, over, or under a Lake or Watercourse.

ii. Buffer Measurement. Unless otherwise provided, the width of a buffer zone is measured horizontally from the edge of the water to the nearest edge of the disturbed area, with the 25 percent of the strip nearer the land-disturbing activity containing natural or artificial means of confining visible siltation.

b. Graded Slopes and Fills - The angle for graded slopes and fills shall be no greater than the angle that that can be retained by vegetative cover or other Adequate Erosion Control Measures, Structures, or Devices. Permanent or temporary stabilization sufficient to restrain erosion is to be provided within 7 or 14 calendar days after completion of any Phase of Grading.

c. Fill Material. Unless a permit from the Department's Division of Waste Management to operate a landfill is on file for the official site, acceptable fill material shall be free of organic or other degradable materials, masonry, concrete and brick in sizes exceeding twelve (12) inches, and any materials which would cause the site to be regulated as a landfill by the State of North Carolina.

d. Ground Cover - The Person conducting the land-disturbing activity shall plant or otherwise provide a permanent Ground Cover sufficient to restrain Erosion after Completion of Construction or Development. Provisions for a permanent Ground Cover sufficient to restrain Erosion must be accomplished within 21 calendar days following Completion of Construction or Development. For an area of a site that is inactive for a period of 14 days from the last land-disturbing activity, temporary or permanent ground cover would be required.

e. Prior Plan Approval - No Person shall initiate any land-disturbing activity on a Tract if one acre or more is to be disturbed unless, thirty (30) or more days prior to initiating the activity, a Plan for that activity has been submitted and approved in accordance with Section 10(b). The land-disturbing activity shall be conducted in accordance with the approved erosion and sedimentation control plan. In determining the size of the disturbed area, all Tracts shown on the Plan for the Project as being disturbed or to be disturbed will be aggregated regardless of ownership, and regardless of whether such Tracts are contiguous or not, and regardless of whether such Tracts are in the same Phase. The Town shall forward to the Director of the Division of Water Resources a copy of each Plan for a land-disturbing activity that involves the utilization of ditches for the purpose of de-watering or lowering the water table of the Tract.

f. Pre-construction Conference - If one acre or more is to be, Uncovered, the Person(s) conducting the land-disturbing activity or an agent of that party shall contact the Town Engineer at least 48 hours before commencement of the land-disturbing activity. The purpose is to arrange an on-site meeting with the Town Engineer or duly authorized representative to review and discuss the approved Plan and the proposed land-disturbing activity.

g. Self-Monitoring and Self-Inspections. – The Landowner, the financially responsible party, or the landowner's or financially responsible party's agent shall inspect all Erosion and Sedimentation control measures as soon as possible, no less than once a week and within 24 hours after any storm event of greater than 1.0 inches of rain per 24-hour period or more frequently if required by State or Federal Law, hereinafter "Self-Monitoring." The Landowner, the financially responsible party, or the landowner's or financially responsible party's agent shall also perform an inspection of the area covered by the Plan after each phase of the Plan has been completed and after establishment of temporary ground cover in accordance with N.C.G.S. § 113A-57(2), hereinafter "Self-Inspections." The person performing the Self-Monitoring and Self-Inspections shall have certification approved by the Town Engineer. However, no periodic self-inspections or rain gauge installation is required on individual residential lots where less than one acre is being disturbed on each lot.

1. A record of the Self-Monitoring and Self-Inspections shall be maintained and made available at the site of the land-disturbing activity. These records shall set out any significant deviation from the approved Plan, identify any measures that may be required to correct the deviation, and document the completion of those measures. These records shall be maintained at the site until permanent ground cover has been established as required by the approved Plan. The Self-Inspections required by this subsection shall be in addition to inspections required by N.C.G.S. § 113A-61.1 and Section 12 of this Ordinance.

2. If one acre or more is to be disturbed, a record of inspections shall be kept by the Person conducting the land-disturbing activity or an agent until three

years after construction is completed and approved by the Town Engineer. In determining the size of the disturbed area, all Tracts shown on the Plan for the Project as being disturbed or to be disturbed will be aggregated regardless of ownership, and regardless of whether such Tracts are contiguous or not, and regardless of whether such Tracts are in the same Phase. The record shall include the date and time of inspection, weather conditions, any repairs or maintenance needed, and the signature and certification number of the person who performed the inspection. Additional record keeping may be required by State or Federal Law and as stated on the approved plans.

3. Corrective action on the repairs and maintenance indicated on the record are to begin within 24 hours after a rain event or within 24 hours of the last inspection if a rain event did not prompt the inspection, unless additional time is allowed by the Town Engineer. The date of the completion of such repairs noted. The records of inspection shall be retained and made available to the Town Engineer upon request.

4. Persons that have had a Notice of Violation or repeated warning about off-site sedimentation or non-maintenance of Adequate Erosion Control Measures, Structures, or Devices may be required to provide the Town Engineer with a self-inspection record for the particular Tract.

5. Any Person who falsifies, tampers with, or knowingly renders inaccurate records can be penalized under Section 13 of this Ordinance.

6. In addition to the requirements contained in Subsections 8.g(1-5) above, Self-Inspections shall comply with the following:

    (i) The person who performs the inspection shall make a record of the site inspection by documenting the following items:

        (a) All of the erosion and sedimentation control measures, practices and devices, as called for in a construction sequence consistent with the approved erosion and sedimentation control plan, including but not limited to sedimentation control basins, sedimentation traps, sedimentation ponds, rock dams, temporary diversions, temporary slope drains, rock check dams, sediment fence or barriers, all forms of inlet protection, storm drainage facilities, energy dissipaters, and stabilization methods of open channels, have initially been installed and do not significantly deviate (as defined in Sub-item (i)(e) of this Rule) from the locations, dimensions and relative elevations shown on the approved erosion and sedimentation plan. Such documentation shall be accomplished by initialing and dating each measure or practice shown on a copy of the approved erosion and sedimentation control plan or by completing, dating and signing an inspection report that lists each measure, practice or device shown on the approved erosion and sedimentation control plan. This documentation is required only upon the initial installation of the erosion and sedimentation control measures, practices and devices as set forth by the approved erosion and sedimentation control plan or if the measures, practices and devices are

modified after initial installation;

(b) the completion of any Phase of Grading for all graded slopes and fills shown on the approved erosion and sedimentation control plan, specifically noting the location and condition of the graded slopes and fills. Such documentation shall be accomplished by initialing and dating a copy of the approved erosion and sedimentation control plan or by completing, dating and signing an inspection report;

(c) the location of temporary or permanent ground cover, and that the installation of the ground cover does not significantly deviate (as defined in paragraph (e) of this sub-part) from the approved erosion and sedimentation control plan. Such documentation shall be accomplished by initialing and dating a copy of the approved erosion and sedimentation control plan or by completing, dating and signing an inspection report;

(d) that maintenance and repair requirements for all temporary and permanent erosion and sedimentation control measures, practices and devices have been performed. Such documentation shall be accomplished by completing, dating and signing an inspection report (the general storm water permit monitoring form may be used to verify the maintenance and repair requirements); and

(e) any significant deviations from the approved erosion and sedimentation control plan, corrective actions required to correct the deviation and completion of the corrective actions. Such documentation shall be accomplished by initialing and dating a copy of the approved erosion and sedimentation control plan or by completing, dating and signing an inspection report. A significant deviation means an omission, alteration or relocation of an erosion or sedimentation control measure that prevents the measure from performing as intended.

(ii) The documentation, whether on a copy of the approved erosion and sedimentation control plan or an inspection report, shall include the name, address, affiliation, telephone number, and signature of the person conducting the inspection and the date of the inspection. Any relevant licenses and certifications may also be included. Any documentation of inspections that occur on a copy of the approved erosion and sedimentation control plan shall occur on a single copy of the plan and that plan shall be made available on the site. Any inspection reports shall also be made available on the site.

(iii) The inspection shall be performed during or after completion of each of the following activities:

(a) installation of perimeter erosion and sediment control measures;

(b) clearing and grubbing of existing ground cover;

(c) completion of any phase of grading of slopes or fills that requires provision of temporary or permanent ground cover pursuant to G.S. 113A-57(2);

(d) completion of storm drainage facilities;

(e) completion of construction or development; and

(f) quarterly until the establishment of permanent ground cover sufficient to restrain erosion or until the financially responsible party has conveyed ownership or control of a Tract for which the erosion and sedimentation control plan has been approved and the agency that approved the plan has been notified. If the financially responsible party has conveyed ownership or control of a Tract for which the erosion and sedimentation control plan has been approved, the new owner or person in control shall conduct and document inspections quarterly until the establishment of permanent ground cover sufficient to restrain erosion

Section 9. Design and Performance Standards

a. Design Storm - Adequate Erosion Control Measures, Structures, and Devices shall be planned, designed, constructed and maintained so as to provide protection from the calculated maximum peak rate of runoff from the Ten-year Storm. Runoff rates shall be calculated using the procedures in the USDA, Natural Resource Conservation Services (formerly Soil Conservation Service's) "National Engineering Field Manual for Conservation Practices," or other acceptable calculation procedures including but not limited to the Town of Huntersville's Storm Water Design Manual.

b. Innovative Measures - Erosion and Sedimentation measures applied alone or in combination to satisfy the intent of this section are acceptable if they are sufficient to prevent adverse secondary consequences. Innovative techniques and ideas will be considered and may be used following approval by the Town Engineer if it can be demonstrated that such techniques and ideas are likely to produce successful results.

c. Responsibility for Maintenance - During the development of a site, the Person conducting the land-disturbing activity shall install and maintain all temporary and permanent Erosion and Sedimentation control measures as required by the approved Plan or any provision of this Ordinance, the Act, or any order adopted pursuant to this Ordinance or the Act. After development, the landowner or Person in possession or control of the land shall install and maintain all necessary permanent Erosion and Sediment control measures.

d. Additional Measures - Whenever the Town Engineer, determines that accelerated Erosion and Sedimentation is occurring as a result of land-disturbing activity, despite application and maintenance of protective practices, the Person conducting the land-disturbing activity shall take additional protective action.

e. Storm Water Outlet Protection

(a) Intent. Stream banks and channels downstream from any land-disturbing activity shall be protected from increased degradation by accelerated erosion caused by increased velocity of runoff from the land-disturbing activity.

(b) Performance standard. Persons shall conduct land-disturbing activity so that the post construction velocity of the 10-year storm runoff in the receiving watercourse to the discharge point does not exceed the greater of:

(1) the velocity established by the Maximum Permissible Velocities Table set out within this subsection; or

(2) the velocity of the ten-year storm runoff in the receiving watercourse prior to development.

If condition (1) or (2) of this Paragraph cannot be met, then the receiving watercourse to and including the discharge point shall be designed and constructed to withstand the expected velocity anywhere the velocity exceeds the "prior to development" velocity by 10%.

Maximum Permissible Velocities Table

The following is a table for maximum permissible velocity for storm water discharges in feet per second (F.P.S.) and meters per second (M.P.S.):

Material	F.P.S.	M.P.S.
Fine sand (noncolloidal)	2.5	.8
Sandy loam (noncolloidal)	2.5	.8
Silt loam (noncolloidal)	3.0	.9
Ordinary firm loam	3.5	1.1
Fine gravel	5.0	1.5
Stiff clay (very colloidal)	5.0	1.5
Graded, loam to cobbles (noncolloidal)	5.0	1.5
Graded, silt to cobbles (Colloidal)	5.5	1.7
Alluvial silts (noncolloidal)	3.5	1.1
Alluvial silts (colloidal)	5.0	1.5
Coarse gravel (noncolloidal)	6.0	1.8
Cobbles and shingles	5.5	1.7
Shales and hard pans	6.0	1.8

Source - Adapted from recommendations by Special Committee on Irrigation Research, American Society of Civil Engineers, 1926, for channels with straight alignment. For sinuous channels, multiply allowable velocity by 0.95 for slightly sinuous, by 0.9 for moderately sinuous channels, and by 0.8 for highly sinuous channels.

(c) Acceptable Management Measures - Measures applied alone or in combination to satisfy the intent of this section are acceptable if there are no objectionable secondary consequences. The Town recognizes that the management of storm water runoff to minimize or control downstream channel and bank erosion is a

developing technology. Innovative techniques and ideas will be considered and may be used when shown to have the potential to produce successful results. Some alternatives, while not exhaustive, are to:

(1) Avoid increases in surface runoff volume and velocity by including measures to promote infiltration to compensate for increased runoff from areas rendered impervious;

(2) Avoid increases in storm water discharge velocities by using vegetated or roughened swales and waterways in place of closed drains and high velocity paved sections:

(3) Provide energy dissipators at outlets of storm drainage facilities to reduce flow velocities to the point of discharge;

(4) Protect watercourses subject to accelerated erosion by improving cross sections and/or providing erosion-resistant lining; and

(5) Upgrade or replace the receiving device structure, or watercourse such that it will receive and conduct the flow to a point where it is no longer subject to degradation from the increased rate of flow or increased velocity.

(d) Exceptions - This rule shall not apply where it can be demonstrated to the Town that storm water discharge velocities will not create an erosion problem in the receiving watercourse.

f. Borrow and Waste Areas - When the Person conducting the land-disturbing activity is also the Person conducting the Borrow or Waste disposal activity, the following areas are considered as part of the land-disturbing activity.

1. Areas from which Borrow is obtained that are not regulated by the provisions of the Mining Act of 1971 and its subsequent amendments, or

2. Waste areas for surplus materials other than landfills regulated by the Department's Division of Solid Waste Management.

When the Person conducting the land-disturbing activity is the Person conducting the Borrow or Waste disposal activity, the activity shall not be considered a separate land-disturbing activity.

The responsible Person conducting the Borrow or Waste Areas shall provide Adequate Erosion Control Measures, Structures, or Devices and comply with all provisions of this Ordinance.

g. Access and Haul Roads - Temporary access and haul roads, other than public roads, constructed or used in connection with any land-disturbing activity shall be considered a part of such activity.

h. Operations in Lakes or Watercourses - land-disturbing activity in connection with construction in, on, over, or under a Lake or Watercourse shall be planned and conducted in such a manner as to minimize the extent and duration of disturbance of the Lake or Watercourse. The relocation of a stream, where relocation is an

essential part of the proposed activity, shall be planned and executed so as to minimize changes in the stream flow characteristics, except when justification for significant alteration to flow characteristic is provided.

Section 10. Erosion and Sedimentation Control Plans

a. Plan Requirements – All Plans required for Land- disturbing Activities as identified in Section 6.b of this Ordinance shall meet the following requirements:

1. Plans shall contain architectural or engineering drawings, maps, assumptions, calculations, and narrative statements as needed to adequately describe the proposed development of all Tracts for the Project, including all Phases, and the measures planned to comply with the requirements of this Ordinance. Plan content may vary to meet the needs of specific site requirements. Detailed guidelines for Plan preparation may be obtained from the Town Engineer on request.

2. Plans must contain an authorized statement of financial responsibility and ownership signed by the Person financially responsible for the land-disturbing activity or that Person's attorney in fact, and all such signatures shall be notarized. The statement shall include the mailing and street addresses of the principal place of business of the Person financially responsible and of the owner of the land or their registered agents. If the Person financially responsible is not a resident of North Carolina, a North Carolina agent must be designated in the statement for the purpose of receiving service of process and notice of compliance or non-compliance with the Plan, the Act, this Ordinance, or rules or orders adopted or issued pursuant to this Ordinance.

3. If the applicant is not the owner of the land to be disturbed, the draft erosion and sedimentation control plan must include the owner's notarized, written consent for the applicant to submit a draft erosion and sedimentation control plan and to conduct the anticipated land-disturbing activity.

4. The land-disturbing activity described in the Plan shall comply with all Federal, State, and Local water quality laws, rules and regulations, including, but not limited to, the Federal Clean Water Act. The Town Engineer may require supporting documentation.

5. The land-disturbing activity described in the Plan shall not result in a violation of rules adopted by the Environmental Management Commission to protect riparian buffers along surface waters.

6. The land-disturbing activity described in the Plan shall not result in a violation of any local Ordinance, law, rule, or regulation, including but not limited to zoning, tree protection, stream, lake and watershed buffers, and flood plain regulations.

7. Two (2) hard copies of the Plan shall be filed with the Town Engineer in addition to an electronic copy filed as directed by the Town. A copy of the approved Plan shall be maintained on the job site.

8. Effort should be made not to uncover more than 20 acres at any one time. If more than 20 acres are to be uncovered at any one time, the Plan shall contain the following:

   (a.) The method of limiting time of exposure and amount of exposed area to achieve the objectives of this Ordinance.
   (b.) A cut/fill analysis that shows where soil will be moved from one area of the Tract to another as ground elevation is changed.
   (c.) Construction sequence and construction phasing to justify the time and amount of exposure.
   (d.) Techniques to be used to prevent Sedimentation associated with larger disturbed areas.
   (e.) Additional erosion control measures, structures, and devices to prevent Sedimentation.

9. All Plans must be sealed by a professional engineer, licensed to do business in the State of North Carolina.

10. No person may initiate a land-disturbing activity before notifying the Town in writing of the date that land-disturbing activity will begin.

b. Plan Review Process – Once a Plan has been submitted with the applicable review fee, the review process will be initiated. The Town Engineer will review each Plan submitted and within 30 Days of receipt thereof will notify the Person submitting the Plan (hereinafter "the applicant") that it has been approved, approved with modifications, or disapproved. The Engineer's time for review shall not begin until a complete Plan has been submitted. Plan requirements shall be as required by the Town Department of Engineering and Public Works. Should the Plan be filed and not reviewed within the specified time frame, the land-disturbing activity may commence subject to the provisions of Section 8.e, Section 10.a.4 and Section 10.a.5, and the Town Engineer will endeavor to review the plan on an expedited schedule.

In the event the Plan or a transfer of a plan is disapproved pursuant to subsection (d) of this Section, the Town Engineer shall notify the applicant and the Director of such disapproval within 10 Days thereof. The Town Engineer shall advise the applicant and the Director in writing as to the specific reasons that the Plan was disapproved. The applicant shall have the right to appeal the Town Engineer's decision to the Stormwater Advisory Committee as provided in Section 16 of this Ordinance, or may appeal directly to the Commission.

Plans for which land-disturbing activity has not commenced within 3 years from the initial plan approval are void.

c. Amendments to Plans - If the Town Engineer, either upon review of such Plan or upon inspection of the job site, determines that the Plan is inadequate to meet the requirements of this Ordinance or that a significant risk of Accelerated Erosion or off-site Sedimentation exists, then the Town Engineer shall require a revised Plan. Pending the preparation of the revised Plan, work on affected area shall cease or shall continue only under conditions outlined by the Town Engineer.

Amendments or revisions to a Plan must be made in written and/or graphic form and shall be submitted at any time under the same requirements for submission of original Plans. Until such time as the Town Engineer approves any amendments or

revisions, the land-disturbing activity shall not proceed, except in accordance with the Plan as originally approved.

The Town Engineer must approve, approve with modifications, or deny a revised Plan within 15 Days of receipt, or it is deemed to be approved as submitted, unless such approval conflicts with other federal, state or local regulations.

d. Grounds for Disapproval of Plans – Any Plan that is not in accordance with the requirements set forth in subsection (a) above shall be disapproved. In addition, a Plan may be disapproved upon a finding that an applicant or a parent, subsidiary, or other affiliate of the applicant:

1. Is conducting or has conducted land-disturbing activity without an approved Plan, or has received notice of violation regarding a Plan previously approved by the Commission or the Town and has not complied with the provisions of the notice within the time specified in the notice;

2. Has failed to pay a civil penalty assessed pursuant to the Act, or a local ordinance adopted pursuant to the Act, by the time the payment is due;

3. Has been convicted of a misdemeanor pursuant to G.S. 113A-64(b) or any criminal provision of a local ordinance adopted pursuant to the Act; or

4. Has failed to substantially comply with State rules or local ordinances and regulations adopted pursuant to the Act.

For the purposes of this subsection, an applicant's record or the proposed transferee's record may be considered for only the two years prior to the application date.

e. Violations - Any Person engaged in land-disturbing activity who fails to file a required Plan in accordance with this Ordinance shall be deemed in willful violation of this Ordinance. Any Person who conducts a land-disturbing activity except in accordance with provisions of an approved Plan shall be deemed in violation of this Ordinance.

f. Plan Transfer. The Town may transfer an erosion and sedimentation control plan approved pursuant to this section without the consent of the plan holder to a successor-owner of the property on which the permitted activity is occurring or will occur as provided in this subsection. The Town may transfer a plan if all of the following conditions are met:

1. The successor-owner of the property submits to the local government a written request for the transfer of the plan and an authorized statement of financial responsibility and ownership.

2. The Town finds all of the following:

   a. The plan holder is one of the following:

      1) A natural person who is deceased.

      2) A partnership, limited liability corporation, corporation, or any other business association that has been dissolved.

3) A person who has been lawfully and finally divested of title to the property on which the permitted activity is occurring or will occur.

4) A person who has sold the property on which the permitted activity is occurring or will occur.

b. The successor-owner holds title to the property on which the permitted activity is occurring or will occur.

c. The successor-owner is the sole claimant of the right to engage in the permitted activity.

d. There will be no substantial change in the permitted activity.

3. The plan holder shall comply with all terms and conditions of the plan until such time as the plan is transferred.

4. The successor-owner shall comply with all terms and conditions of the plan once the plan has been transferred.

Notwithstanding changes to law made after the original issuance of the plan, the Town may not impose new or different terms and conditions in the plan without the prior express consent of the successor-owner. Nothing in this subsection shall prevent the Town from requiring a revised plan pursuant to G.S. § 113A-54.1(b).

g. Display of Plan Approval. A Plan approval issued under this Section shall be prominently displayed until all construction is complete, all permanent sedimentation and erosion control measures are installed, and the site has been stabilized. A copy of the approved Plan shall be kept on file at the job site.

Section 11. Permits

a. No Person shall undertake any land-disturbing activity subject to this Ordinance without first obtaining a Permit from the Town Engineer. The only exception to this requirement is a land-disturbing activity that:

1. has been approved by the Town Engineer at a pre-construction conference for the purpose of installing erosion control measures indicated on the approved Plan,

2. is for the purpose of fighting fires,

3. is for the stock piling of raw or processed sand, stone, or gravel in existing material processing plants and existing storage yards, provided that Sediment control measures are utilized to protect against off-site damage, or

4. does not exceed one (1) acre of disturbed area. In determining the size of the disturbed area, all Tracts shown on the Plan for the Project will be aggregated regardless of ownership, and regardless of whether such Tracts are contiguous or not, and regardless of whether such Tracts are in the same Phase. Although a Plan and a Permit may not be required for activity comprising less than one acre, such activity is subject to all other requirements of this Ordinance.

b. No Person shall undertake any land-disturbing activity for more than one acre without acquiring an NCG01 Permit (in addition to the Permit required by Section 11(a) above) by completing and submitting an electronic Notice of Intent (NOI) form requesting a Certificate of Coverage (COC) under the NCG010000 Construction Stormwater General Permit. The Letter of Approval from the Engineer shall contain a notice of the NCG01 Permit requirement and the acreage approved for disturbance.

Section 12. **Inspections and Investigations**

a. The Town Engineer is authorized and required to inspect the sites of land-disturbing activity to ensure compliance with the Act, this Ordinance, or rules or orders adopted or issued pursuant to this Ordinance and to determine whether the activity is being conducted in accordance with the Ordinance, the Act, and the approved Plan and whether the measures required in the Plan are effective in controlling Erosion and Sedimentation resulting from land-disturbing activity. Notice of the right to inspect shall be included in the notification of each Plan approval or issuance of the Permit.

b. No Person shall willfully resist, delay, or obstruct the Town Engineer while the Town Engineer is inspecting or attempting to inspect a land-disturbing activity under this Ordinance.

c. If, through inspection, it is determined that a Person engaged in land-disturbing activity has failed to comply with the Act, this Ordinance, or rules, or orders adopted or issued pursuant to this Ordinance, or has failed to comply with an approved Plan, the Town Engineer shall immediately serve upon the landowner, the landowner's agent, or other Person in possession or control of the land a written notice of violation. The notice may be served by any means authorized under G.S. 1A-1, Rule 4. Notwithstanding the foregoing, if the person engaged in the land-disturbing activity has not received a previous notice of violation under this Section, the Town shall deliver the notice in person and shall offer assistance in developing corrective measures. Assistance may be provided by referral to a technical assistance program in the Department, referral to a cooperative extension program, or by the provision of written materials such as Departmental guidance documents. If the Town is unable to deliver the notice of violation within 15 days following discovery of the violation, the notice of violation may be served in the manner prescribed for service of process by G.S. 1A-1, Rule 4, and shall include information on how to obtain assistance in developing corrective measures.

   A notice of violation shall identify the nature of the violation and set forth the measures necessary to achieve compliance with the Ordinance. The notice shall specify a date by which the Person must comply with this Ordinance, and advise that the Person may be subject to a civil penalty and that failure to correct the violation within the time specified will subject that Person to the civil and criminal penalties for a continued violation as provided in G.S. 113A-64 and Section 13 of this Ordinance, or any other authorized enforcement action.

d. In determining the measures required and the time for achieving compliance, the Town Engineer shall take into consideration the technology and quantity of work required, and shall set reasonable and attainable time limits.

e. The Town Engineer shall use local rainfall data approved by the Town Engineer to determine whether the design storm identified in Section 9.a has been exceeded.

f. Penalties may be assessed for any of the following:

1. Failure to submit a Plan.

2. Performing land-disturbing activities without an approved Plan and pre-construction conference, or Permit.

3. Obstructing, hampering or interfering with an authorized representative who is in the process of carrying out official duties.

4. A repeated violation for which a notice was previously given on the same Tract or to the Person Responsible for the Violation.

5. Willful violation of this Ordinance.

6. Failure to install or maintain Adequate Erosion Control Measures, Structures, or Devices per the approved Plan and additional measures per Section 9.d such that it results in Sedimentation in a Wetland, Lake or Watercourse, or other designated protected areas.

7. Failure to install or maintain Adequate Erosion Control Measures, Structures, or Devices per the approved Plan and additional measures per Section 9.d such that it results in off-site Sedimentation.

g. The Town Engineer shall have the power to conduct such investigation as it may reasonably deem necessary to carry out its duties as prescribed in this Ordinance, and for this purpose to enter at reasonable times upon any property, public or private, for the purpose of investigating and inspecting the sites of any land-disturbing activity. Reasonable time shall be deemed to include daylight hours, Monday through Saturday, and otherwise shall include all emergencies. No Person shall refuse entry or access to the Town Engineer who requests entry for purpose of inspection or investigation, and who presents appropriate credentials, nor shall any Person obstruct, hamper, or interfere with the Town Engineer while in the process of carrying out official duties.

h. The Town Engineer shall also have the power to require written statements, or the filing of reports under oath as a part of investigating land-disturbing activity.

i. With regard to the development of any Tract that is subject to this Ordinance, a Certificate of Occupancy shall not be issued where any of the following conditions exist:

1. There is a violation of this Ordinance with respect to the Tract.

2. If there remains due and payable to Town of Huntersville civil penalties that have been levied against the Person conducting the land-disturbing activity for violation(s) of this Ordinance. If a penalty is under appeal, the Town Engineer may require the amount of the fine, and any other amount that the Person would be required to pay under this Ordinance if the Person loses the appeal, be placed in a refundable account or surety prior to issuing the Certificate of Occupancy.

3. The requirements of the Plan have not been completed and the building for which a Certificate of Occupancy is requested is the only building then under construction on the Tract.

4. On the Tract which includes multiple buildings on a single parcel, the requirements of the Plan have not been completed and the building for which a Certificate of Occupancy is requested is the last building then under construction on the Tract.

5. On a Tract which includes multiple parcels created pursuant to the applicable subdivision regulations, the requirements of the Plan have not been completed with respect to the parcel for which the Certificate of Occupancy is requested.

Section 13. Penalties

a. Any Person who violates any of the provisions of this Ordinance, or rules or orders adopted or issued pursuant to this Ordinance, or who initiates or continues a land-disturbing activity for which a Plan is required except in accordance with the terms, conditions, and provisions of an approved Plan, is subject to a civil penalty. A civil penalty may be assessed from the date the violation first occurs. No penalty shall be assessed until the Person alleged to be in violation has been notified of the violation. Refusal to accept the notice or failure to notify the Town Engineer of a change of address shall not relieve the violator's obligation to comply with the Ordinance or to pay such a penalty.

b. The maximum civil penalty for each violation of this Ordinance is $5,000.00. Each day of continuing violation shall constitute a separate violation. When the person has not been assessed any civil penalty under this Ordinance for any previous violation, and that person abated continuing environmental damage resulting from the violation within 180 days from the date of the notice of violation, the maximum cumulative total civil penalty assessed under this Section for all violations associated with the land-disturbing activity for which the erosion and sedimentation control plan is required is twenty-five thousand dollars ($25,000).

c. In determining the amount of the civil penalty, the Town Engineer shall consider the following factors: the degree and extent of harm caused by the violation; the cost of rectifying the damage; the amount of money the violator saved by noncompliance; whether the violation was committed willfully; and the prior record of the violator in complying or failing to comply with this Ordinance, the Act, or any other erosion and sedimentation control ordinance, rule, order or law.

d. The Town Engineer shall determine the amount of the civil penalty and shall notify the Person who is assessed the civil penalty of the amount of the penalty and the reason for assessing the penalty. The notice of assessment shall be served by any means authorized under G.S. 1A-1, Rule 4 and shall direct the violator to either pay the assessment, contest the assessment within 30 days as specified in Section 16, or file a request with the Sedimentation Control Commission for remission of the assessment within 60 days of receipt of the notice. A remission request must be accompanied by a waiver of the right to a contested case hearing by the Stormwater Advisory Committee and a stipulation as to the facts on which the assessment was based. If a violator does not pay a civil penalty assessed by the Town Engineer within 60 Days after it is due, the Town Engineer shall request the Town Attorney

to institute a civil action to recover the amount of the assessment. The civil action shall be brought in Mecklenburg County Superior Court.

e. A civil action must be filed within three (3) years of the date the assessment was due. An assessment that is not contested and for which no request for remission is made within the required timeframe is due when the violator is served with a notice of assessment. An assessment that is contested or for which a request for remission is made within the required timeframe is due at the conclusion of the administrative and judicial review of the assessment or final remission decision.

f. Any Person who knowingly or willfully violates any provision of this Ordinance, or rule or order adopted or issued pursuant to this ordinance, or who knowingly or willfully initiates or continues a land-disturbing activity for which a Plan is required, except in accordance with the terms, conditions, and provisions of an approved Plan, shall be guilty of a Class 2 misdemeanor and may be subject to a fine not to exceed Five Thousand Dollars ($5,000). This is in addition to any civil penalties that may be charged.

g. A violation of the Town Soil Erosion and Sedimentation Control Ordinance that is not knowing or not willful shall not constitute a misdemeanor or infraction punishable under North Carolina General Statute 14-4, but instead shall be subject to the civil penalties provided in this Ordinance.

h. The clear proceeds of civil penalties collected by the Town of Huntersville under this subsection shall be remitted to the Civil Penalty and Forfeiture Fund in accordance with G.S. § 115C-457.2. Penalties collected by the Town of Huntersville may be diminished only by the actual costs of collection. The collection cost percentage to be used shall be established and approved by the North Carolina Office of State Budget and Management on an annual basis, based upon the computation of actual collection costs by the Town for the prior fiscal year.

i. The damage or destruction of a silt fence occurring during land-disturbing activities or construction on a development project shall not be assessed a civil penalty under this section provided that the silt fence is repaired or replaced within the compliance period noted in the inspection report or Notice of Violation.

Section 14. **Injunctive Relief**

a. Whenever the Town Engineer has reasonable cause to believe that any Person is violating or threatening to violate this Ordinance, any rule, regulation or order adopted by the Town of Huntersville, or any term, condition, or provision of an approved Plan, the Town Engineer may, either before or after the institution of any other action or proceeding authorized by this Ordinance, authorize the Town Attorney to institute a civil action in the name of the Town of Huntersville, for injunctive relief to restrain the violation or threatened violation. The action shall be brought pursuant to G.S. 113A-65(b) in Mecklenburg County Superior Court

b. Upon determination by a court that an alleged violation is occurring or is threatened, the court shall enter such orders or judgements as are necessary to abate the violation or to ensure that restoration is performed or to prevent the threatened violation. The institution of an action for injunctive relief under this section shall not relieve any party to such proceedings from any civil or criminal penalty prescribed for violations of this Ordinance.

Section 15. Restoration of Areas Affected by Failure to Comply

The Town Engineer may require a Person who engaged in any land-disturbing activity and failed to retain Sediment generated by the activity to restore the waters and land affected by the failure so as to minimize the detrimental effects of the resulting pollution by Sedimentation. This authority is in addition to any other civil penalty or injunctive relief authorized under this Ordinance.

Section 16. Appeals

a. Disapproval or Modification of Proposed Plan

1. The disapproval or modification of any proposed Plan by the Town Engineer shall entitle the Person submitting the Plan ("Petitioner") to a public hearing before the Storm Water Advisory Committee ("Committee") if such Person submits written demand for a hearing to the Clerk of the Committee ("Clerk") within 15 Days after receipt of written notice of the disapproval or modification. The demand for a hearing filed with the Clerk shall be accompanied by a filing fee as established by the Storm Water Advisory Committee. The Committee may order the refund of all or any part of the filing fee if it rules in favor of the Petitioner. Failure to timely file such demand and fee shall constitute a waiver of any rights to appeal under this Chapter and the Storm Water Advisory Committee shall have no jurisdiction to hear the appeal.

2. In the event a Plan is disapproved pursuant to Section 10.d of this Ordinance, the applicant may appeal the Town's disapproval of the Plan directly to the Commission.

3. Within 5 Days of receiving the demand for a hearing, the Clerk shall notify the Chairman of the Committee ("Chairman") of the demand for hearing. As soon as possible after the receipt of said notice, the Chairman shall set a time and place for the hearing and notify the Petitioner by mail of the date, time and place of the hearing. The time specified for the hearing shall be either at the next regularly scheduled meeting of the Committee from the submission of the notice, or as soon thereafter as practical, or at a special meeting. The hearing shall be conducted by the Committee in accordance with the provisions of Section 16.c of this Ordinance.

4. If the Committee upholds the disapproval or modification of a proposed Plan following the public hearing, the Petitioner shall have 30 Days from the receipt of the decision to appeal the decision to the North Carolina Sedimentation Control Commission pursuant to Title 15A, Chapter 4B Section .0118(b) of the North Carolina Administrative Code and G.S. 113A-61(c).

b. Issuance of a Notice of Civil Penalty Assessment

1. The issuance of a notice of assessment of a civil penalty by the Town Engineer shall entitle the Person responsible for the violation of the Ordinance ("Petitioner") to a public hearing before the Storm Water Advisory Committee ("Committee") if such Person submits written demand for a hearing to the Clerk of the Committee ("Clerk") within 30 Days of the receipt of the notice of assessment of a civil penalty. The demand for a hearing filed with the Clerk shall be accompanied by a filing fee as established by the Storm Water Advisory Committee. The Committee may order the refund of all or any part of the filing fee if it rules in favor of the Petitioner. Failure to timely file such demand and fee shall constitute a waiver of any rights to appeal under this Ordinance and the Storm Water Advisory Committee shall have no jurisdiction to hear the appeal.

2. Within 5 Days of receiving the Petitioner's demand for a hearing, the Clerk shall notify the Chairman of the Committee ("Chairman") of the request for hearing. As soon as possible after the receipt of said notice, the Chairman shall set a time and place for the hearing and notify the Petitioner by mail of the date, time and place of the hearing. The time specified for the hearing shall be either at the next regularly scheduled meeting of the Committee from the submission of the notice, or as soon thereafter as practical, or at a special meeting. The hearing shall be conducted pursuant to the provisions of Section 16.c of this Ordinance.

3. Any party aggrieved by the decision of the Committee with regard to the issuance of assessment of civil penalties shall have thirty (30) days from the receipt of the decision of the Committee to file a petition for review in Superior Court with the Clerk of Mecklenburg County Superior Court.

c. Hearing Procedure. The following provisions shall be applicable to any hearing conducted by the Committee pursuant to Section 16.a or 16.b above.

1. At the hearing, Petitioner and the Town Engineer shall have the right to be present and be heard, to be represented by counsel, and to present evidence through witnesses and competent testimony relevant to the issue(s) before the Committee.

2. Rules of evidence shall not apply to a hearing conducted pursuant to this Ordinance and the Committee may give probative effect to competent, substantial and material evidence.

3. At least seven (7) days before the hearing, the parties shall exchange a list of witnesses intended to be present at the hearing and a copy of any documentary evidence intended to be presented. The parties shall submit a copy of this information to the Clerk. Additional witnesses or documentary evidence may not be presented except upon consent of both parties or upon a majority vote of the Committee.

4. Witnesses shall testify under oath or affirmation to be administered by the Court Reporter or another duly authorized official.

5. The procedure at the hearing shall be such as to permit and secure a full, fair and orderly hearing and to permit all relevant, competent, substantial

and material evidence to be received therein. A full record shall be kept of all evidence taken or offered at such hearing. Both the representative for the Town and for the Petitioner shall have the right to cross-examine witnesses.

6. At the conclusion of the hearing, the Committee shall render its decision on the evidence submitted at such hearing and not otherwise.

   (a) If, after considering the evidence presented at the hearing, the Committee concludes by a preponderance of the evidence that the grounds for the Town Engineer's actions (including the amount assessed as a civil penalty) with regard to either disapproving or modifying a proposed Plan, or assessing a civil penalty are true and substantiated, the Committee shall uphold the action on the part of the Town Engineer.

   (b) If, after considering the evidence presented at the hearing, the Committee concludes by a preponderance of the evidence that the grounds for the Town Engineer's actions (including the amount assessed as a civil penalty) are not true and substantiated, the Committee shall, as it sees fit either reverse or modify any order, requirement, decision or determination of the Town Engineer. The Committee Bylaws will determine the number of concurring votes needed to reverse or modify any order, requirement, decision or determination of the Town Engineer.

   Any decision of the Committee which modifies the amount of the civil penalty shall include, as part of the findings of fact and conclusions of law, findings as to which assessment factors were not properly considered by the Town Engineer in determining the amount of the civil penalty assessed against the Petitioner.

7. The Committee shall keep minutes of its proceedings, showing the vote of each member upon each question and the absence or failure of any member to vote. The decision of the Committee shall be based on findings of fact and conclusions of law to support its decision.

8. The Committee shall send a copy of its findings and decision to the Applicant/Petitioner and the Town Engineer. If either party contemplates an appeal to a court of law, the party may request and obtain, at that party's own cost, a transcript of the proceedings.

9. The decision of the Committee shall constitute a final decision.

Section 17. **Existing Permits and Land-disturbing Activity**.

All permits and approved plans existing on the effective date of this Ordinance which were duly issued and/or approved by Mecklenburg County pursuant an interlocal agreement between Mecklenburg County and the Town of Huntersville, which provided for the enforcement by Mecklenburg County of the Mecklenburg County Soil Erosion and Sedimentation Control Ordinance within the territorial jurisdiction of the Town of Huntersville, including the extraterritorial jurisdiction of the Town, shall be recognized by the Town as valid permits and approved plans, and land-disturbing activity shall be allowed to continue in accordance with such permits and approved plans. Land-disturbing activity performed prior to the effective date of this Ordinance in violation of the Mecklenburg County Soil Erosion and Sedimentation Control Ordinance shall not be vested, and shall be subject to the terms of this Ordinance (the Town of Huntersville Soil Erosion and Sedimentation Control Ordinance).

Section 18. **Severability**

If any section or a section of this Ordinance is/are held to be invalid or unenforceable, all other sections shall nevertheless continue in full force and effect.

Section 19. **Effective Date**

This Ordinance shall be effective November 4, 2019

Section 20. **Revisions**

Town of Huntersville shall incorporate revisions required by the Commission within 8 months following receipt of the required revisions.

Adopted the 18th day of March, 2019, amended June 17, 2019, amended July 15, 2019, amended November 4, 2019, and amended October 18, 2021

Approved as to form:

_____ _____

Town Attorney Town Clerk

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Town of Huntersville
Town Board
October 18, 2021

To: Town Board

From: David Peete, Principal Planner

Date: October 18, 2021

Subject: Petition #R21-06 North Creek Mixed-Use

EXPLAIN REQUEST:
Consider Final Action on Petition #R21-06, North Creek Village Mixed-Use, a request by Magnolia Development, LLC to rezone +/- 84.00-acres south of the NC 73 and Davidson-Concord Road intersection from Rural to Highway Commercial and Traditional Neighborhood Development - Conditional District for a development consisting of 42,500 commercial sq. ft., 303 multi-family units, 65 attached units and 77 detached units (Parcels: 01107311, 01126101 & 01126113).

ACTION RECOMMENDED:
Consider Final Action

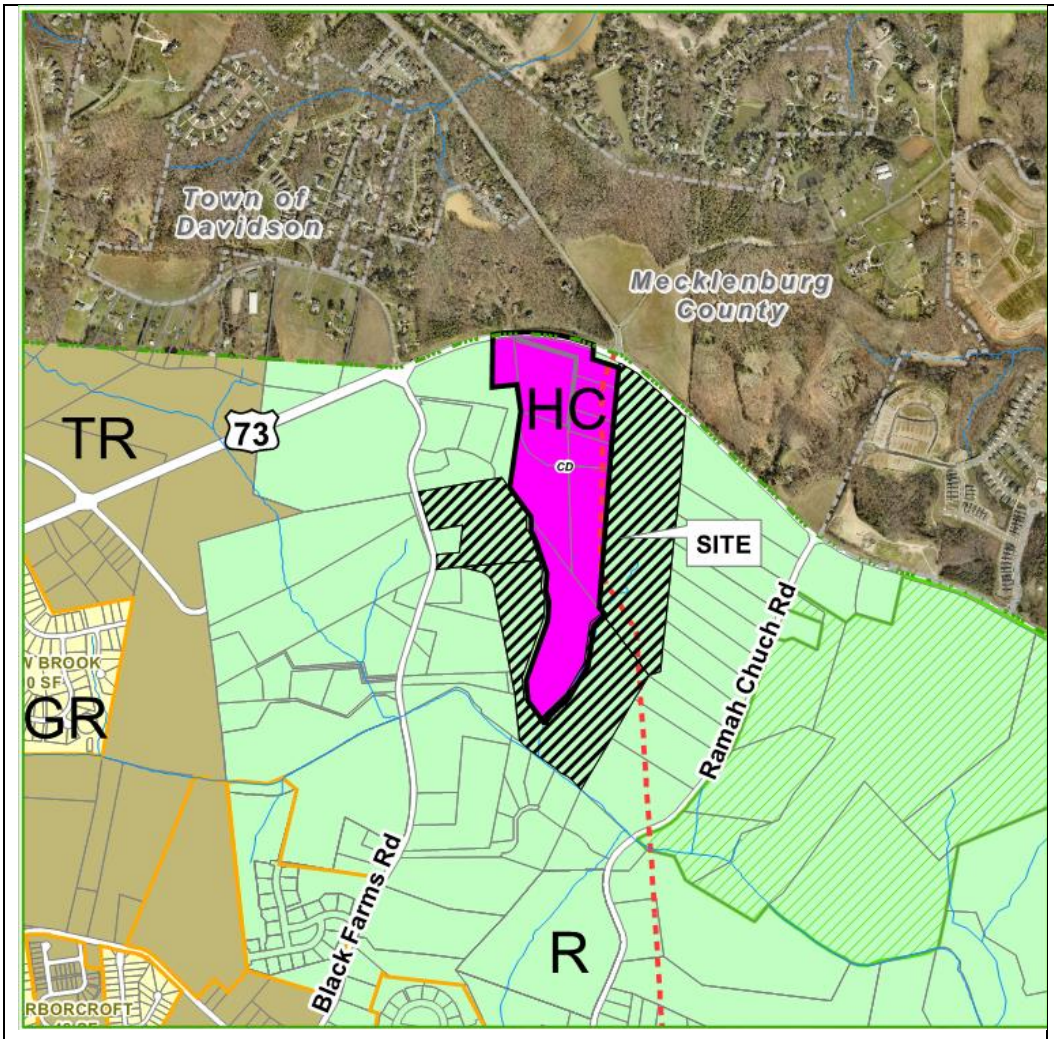
FINANCIAL IMPLICATIONS:
n/a

ATTACHMENTS:
1. R21-06 North Creek Village Mixed-Use Final Action Staff Report (10-18-21)
2. Attachment A - North Creek Mixed-Use General Application
3. Attachment B-1 - North Creek Village Mixed-Use Rezoning Plan 1 of 2 (4th version -10.04.21)
4. Attachment B-2 - North Creek Village Mixed-Use Rezoning Plan 2 of 2 (4th version - 10.04.21)
5. Attachment C - Neighborhood Meeting Report - June2, 2021
6. Attachment D - CMS Report (9-20-21) - North Creek Mixed Use- 3rd site plan
7. Attachment E - North Creek Village sub-area density map (3rd Submittal)
8. Attachment F - North Creek Village Mixed-Use Commercial Building Elevations

North Creek Village Mixed-Use Conditional District Rezoning

[UPDATES SINCE PLANNING BOARD IN RED]

PART 1: PROJECT SUMMARY



Applicant: Magnolia Development, LLC

Property Owner: Charles Spencer Davis, Jr. & James Coy F/T B/W Mayes (see Attachment A).

Property Address: 17705 Davidson-Concord Road

Project Size: (+/-) 84.0-acres

Parcel Numbers:

01107311, 01126101 & 01126113

Current Zoning: Rural (R).

Current Land Use: vacant / one (1) cell tower.

Proposed Zoning: Highway Commercial — Conditional District (HC-CD) & Traditional Neighborhood Development - Urban (TND-U CD).

Proposed Land Use: 303 Multi-family units, 65 Attached-Residential, 77 Detached-Residential & 42,500 Sq. Ft. Commercial Uses (HC permitted uses).

1. Purpose: Petition to rezone 84.0-acres generally located at 17705 Davidson-Concord Road – south of the intersection of Davidson-Concord Road and NC 73 - from the Rural (R) Zoning District to Highway Commercial – Conditional District (HC-CD) and Traditional Neighborhood Development – Urban (TND-U CD) to create a mixed-use development consisting of 303 multi-family units, 65 attached units, 77 detached units and 42,500 sq. ft. of commercial (Highway Commercial permitted uses) (see Attachments B). <u>If the CD Rezoning Plan is approved, a corresponding Subdivision Sketch Plan will be reviewed by staff for compliance.</u>

2. Adjoining Zoning and Land Uses.

   <u>North</u>: Town of Davidson: *Neighborhood Edge (NE) & Neighborhood Center II (NC2) & Town of Huntersville Highway Commercial – Conditional District (HC-CD) & Rural (R) – NC 73 corridor, Large-lot, single-family homes , one single-family subdivision (Pages Pond), farmland & vacant*.

South: *Rural (R) – Large-lot, single-family homes, one farm (Black) & vacant land.*
East: *Rural (R) – Large-lot, single-family homes & vacant.*
West: *Rural (R) – Large-lot, Single-family homes, one farm (Black), farmland & vacant.*

3. One (1) neighborhood meeting was held on June 2, 2021. A summary of the questions and concerns from that meeting are found in the report of the meeting (see Attachment C).
4. Notice of this CD-Rezoning request was provided via postcards sent to all property owners within 250 ft. of the project; a legal ad placed in the Charlotte Observer; and posting of public hearing signs on the property in two (2) locations (Davidson-Concord Rd. & NC 73 intersection & along Black Farm Road).
5. The advertised Public Hearing date was August 16, 2021, however the applicant is requested not to open the hearing and continued to September 20, 2021.

6. **NOTE OF CONTEXT:** A large portion of this proposed Rezoning Plan is located within an identified "Activity Center" from the 2040 Community Plan. However, it is important to understand the level of development already vested within this activity center in order to understand the full impact of proposed development within the center (see Attachment E). The addition of North Creek Village Mixed-Use allows a substantial portion of the "Activity Area" to be master planned.

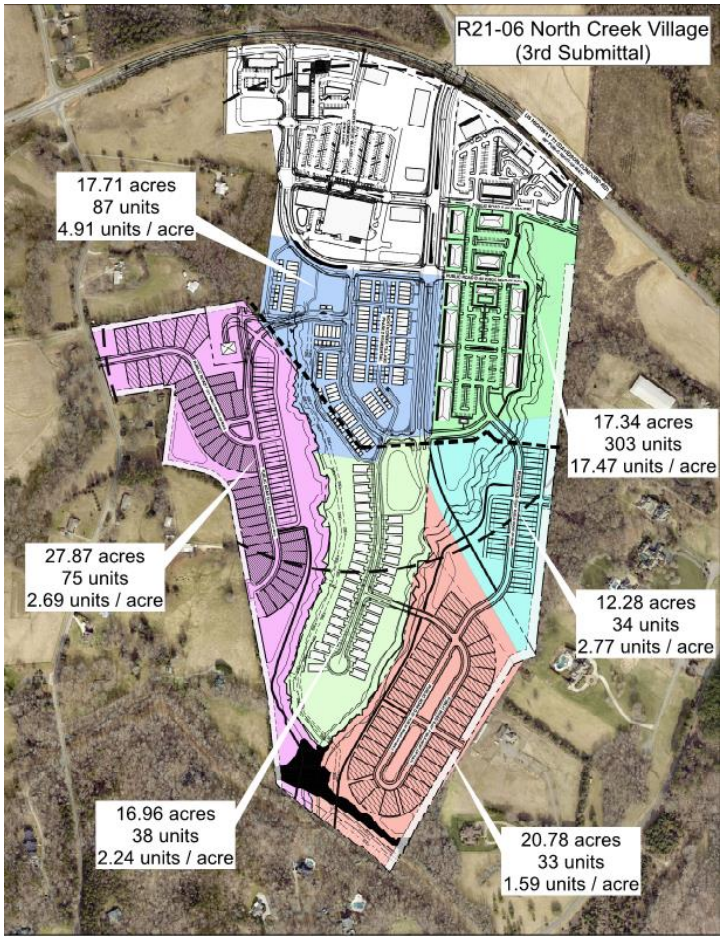
   In 2008, mixed-use development known as "Huntersville East" was approved and later revised. Below is a comparison of the two developments.

	Huntersville East (approved)	**North Creek Village (Proposed)**
Development size:	59.92-acres	84.0 acres
Max. Commercial Space:	181,827 sq. ft.	42,500 sq. ft.
Attached Units:	89	368 (303 apartments; 65 townhomes)
Detached Units:	36	77
Total Units:	125 (2.08 unit/acre)	445 (5.3 unit/acre

   In TOTAL, these two developments would permit the following level of development:

Development size:	**143.92-acres**
Max. Commercial Space:	**224,327 sq. ft.**
Multi-Family Units:	**303**
Attached Units:	**154**
Detached Units:	**113**
Total Units:	**570 (3.96 unit/acre)**

As defined on page 54 of the 2040 Community Plan, "Planned Activity Centers include a mix of non-residential and residential uses and are usually located at key intersections of major or minor thoroughfares. New non-residential uses are limited in scale and overall footprint (generally less than 40,000 square feet of non-residential). Residential uses include a mix of housing types centered around shopping, service or civic uses. Residential uses transition to lower gross density with more open space away from Activity Centers". A significant portion of the proposed rezoning is located within an identified Activity Center and provides a mix of uses, including commercial, multi-family and attached and detached homes. The essential question for this proposed development is whether the amount of development is "stepping-down" as it moves out toward the adjacent Rural zoning areas? Staff has cited the larger-than-minimum external buffers and the placement of the highest-density use (the apartments) more than 230 feet from the external property line as sufficient transitions from the proposed project to the adjoin Rural zone. The Planning Board, in their recommendation, did not agree that the project was appropriate (see Part 7).



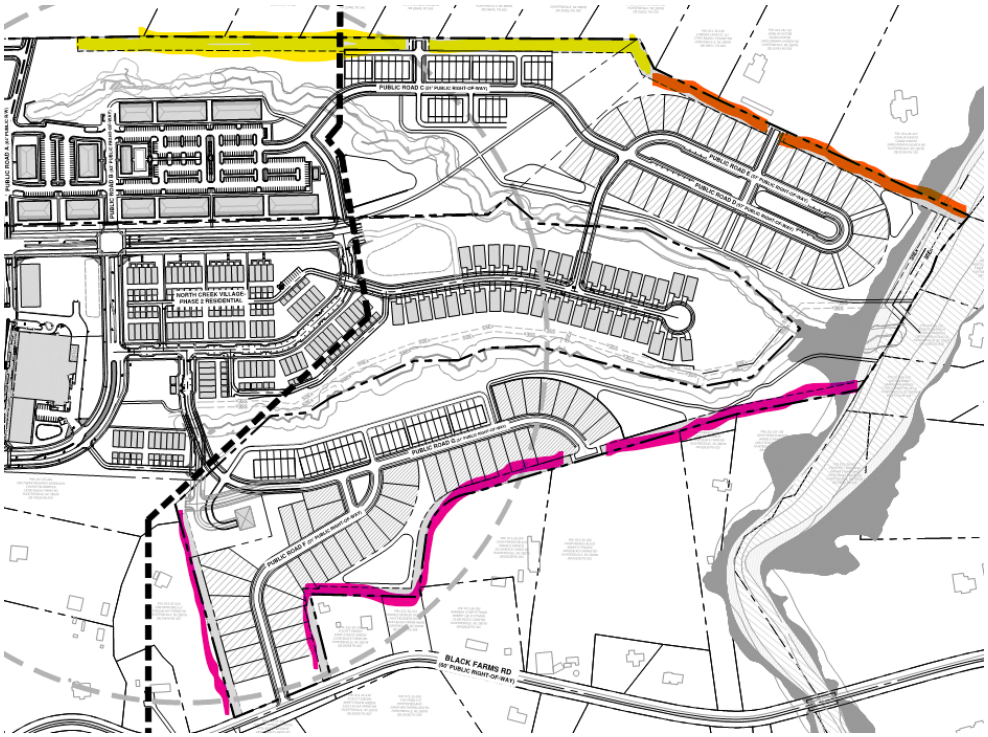
PART 2: REZONING/SITE PLAN ISSUES

The proposed Conditional District Rezoning Plan is generally compliant with the Zoning Ordinance and Subdivision Regulations. Significant elements include:

- Proposed Uses: 303 Multi-Family Units (Apartments), 65 Attached Units (Townhomes), 77 Detached Units (445 total residential units) and 42,500 sq. ft. of Commercial uses.
- Urban Open Space provision within ¼ mile of all residential units is proposed to be a “greenway and/or greenbelt”.
- Right-of-way to be dedicated along NC 73, as required by NCDOT. Right-of-way for future thoroughfare to be dedicated to the southern boundary. Two (2) street connections to existing streets are proposed to NC 73 (far eastern edge) and to Black Farm Road. Three (3) connections to the pending section of future thoroughfare (part of Huntersville East) are proposed, as well as two (2) connections to the original Huntersville East development. There are five (5) stubs to adjoining parcels.
- Two (2) trail connections are proposed leading to the future County/Town regional greenway located to the south of this development.
- If the Rezoning Plan is approved, Staff, at the construction document phase, will review the plans for compliance with the Water Quality Ordinance, Erosion Control Ordinance and Stream Buffer Requirements, as found in the Zoning Ordinance.
- No phasing plan is proposed, but a phasing plan may developed later for the development.
- The entire project is proposed to be annexed into the Town of Huntersville.

The Conditional District Rezoning Plan has several issues that need to be addressed:

1. Buffers along exterior boundaries are required, by Ordinance, to be a minimum of 20' in width and undisturbed. While the plan shows buffers exceeding the minimum (pink = 30', orange = 40' & yellow = 50'), grading appears to occur in the buffers in several locations. The preliminary grading plan needs to provide more clarity. There also appears to be grading in the SWIM buffer near the apartments.
   STAFF COMMENT: *All three (3) types of buffers will leave the 20 feet closest to the exterior property lines as undisturbed. the remainder of the buffers may be disturbed for development, but will be planted afterward. Of specific note, the 50 feet wide buffer east of the apartments will be 100% undisturbed with the only disturbance between the creek and eastern property line will be the greenway trail.*



2. Traditional Neighborhood Development – Urban (TND-U) is requested for the residential sections of the development in order to allow 83% attached units. TND Districts are provided "for the development of new neighborhoods… which are structured upon a fine network of interconnecting pedestrian-oriented streets and other public spaces. TNDs offer a mixture of housing types and prices, prominently sited civic or community building(s) and stores/offices/workplaces to provide a balanced mix of activities". TND also requires the following:
   - Average perimeter of all blocks should not exceed 1,350 ft., with no block greater than 500 ft. without a dedicated alley or pathway providing through access.

   STAFF COMMENT: Blocks A – C (in the apartment area) exceed the recommended 1,350' block perimeter by less than 10% and have created a block structure with pedestrian connections and additional open spaces throughout. The size of the blocks is impacted by the parking required for large multi-family development.

3. Elevations for the commercial, multi-family units (apartments) and attached units (townhomes) in the HC and TND zone along the public street frontages need to be provided.

STAFF COMMENT: Per Article 3.2.11.d.3 Traditional Neighborhood Development – General Requirements, "A master plan in compliance with Traditional Neighborhood Development standards shall be provided with the conditional district plan…" The master plan shall include… building elevations, which may be required to evaluate the interior pedestrian environment and conditions at project edges". Commercial elevations are provided (see Attachment F) and are acceptable, as they are similar to the adjacent North Creek – Commercial development currently under construction. Elevations for the apartments and townhomes are to be submitted and reviewed by staff before Final Action.

4. The apartment, townhome and lots less than 60' in width areas must provide on-street parking.
   STAFF COMMENT: *Article 5.5 Streets of the Zoning Ordinance states "an on-street parking lane on at least one side of the street is required on streets serving apartments, attached houses and detached houses with lots less than 60' or less in width". On-street parking is now provided for the apartment and townhome areas. The single-family lots under 60' in width (near Black Farm Road) must provide on-street parking.*

5. Required specimen tree save is 30% for both HC and TND-U zoning. Previously the Rezoning Plan indicated less than 30% specimen tree save, with the intention to mitigate the remainder of required tree save.
   STAFF COMMENT: *Tree Save is shown on Sheet SP-102 as 30% (minimum). This issue has been satisfied.*

6. The proximity of the highest-density use (apartments) abuts the Rural zoning district, with a permitted density of 0.9 units-per-acre, is a concern as to whether that is supported by the 2040 Community Plan land use recommendation for an Activity Center. Additionally, while all of the external buffers exceed the Ordinance minimum of 20', are they appropriate to adequately transition higher-intensity uses to the existing land use pattern?
   STAFF COMMENT: *The 50' undisturbed buffer width and the placement of the apartment buildings more than 230 feet from the eastern property line (which includes the entire area between creek and property line) is a sufficient transition. The other buffer types, 40' on the southeast and 30' along the west are also appropriate, as they provide more than the minimum level of transition.*

7. All parking lots, when located along a public street must be screened.
   STAFF COMMENT: *A note indicating all required parking lot screening/landscaping to be provided, per Zoning Ordinance, has been added. This issue has been satisfied.*

8. Pedestrian circulation through the proposed multi-family and commercial parking lot does not satisfy Article 6 of the Zoning Ordinance.
   STAFF COMMENT: *Article 6.D. states that "parking lots shall be designed to allow pedestrians to safely move from their vehicles to the building(s). On larger lots, corridors within the parking area should channel pedestrians from the car to the perimeter of the lot or to the building". Furthermore, the TND-U zoning district allows pedestrian pathways to count as block beaks, which would help address the issue listed on page 3 of this report. Pedestrian circulation through the multi-family (apartments) is acceptable. While the pedestrian circulation through the commercial area has improved, additional connections are needed. Recommend approval conditioned upon continued work with Staff on the circulation network.*

9. Per Art. 9.9 of the Zoning Ordinance, a 200 ft. setback must be provided from a cell tower to residential lots.
   STAFF COMMENT: *If the applicants request a smaller setback, Staff would support a setback equal to the height of the tower (which will need to be provided). It is also recommended that the cell tower setback is measured from the building envelope of the surrounding lots. An Ordinance Modification to allow a 100 feet cell tower setback is requested. Staff can support this modification, as the setback is greater than the height of the tower (94 feet).*

10. MODIFICATION REQUEST – "50 ft. lots shown on the Rezoning Plan are not required to be accessed through an alley in order to be consistent with the 50' lots in Phase 1 and in order to accommodate the adjacent buffers shown."
    STAFF COMMENT: *Lots exceeding 50' do not require alley access. It is possible a modification of this requirement is not necessary. The smallest single-family lots are 50.01 feet in width, thus an Ordinance modification is not required. This issue has been satisfied.*

11. Note 3 (Sheet SP-203) – "Schematic Nature of Rezoning Plan" note.
    STAFF COMMENT: Note allows significant ability to amend plan without public review (where appropriate). Staff to review note with applicant. Note language is acceptable. This issue has been satisfied.

12. Note 6 (Sheet SP-203) – "Permitted Uses" note.
    STAFF COMMENT: Note permits higher density uses to be located anywhere throughout development. Note should be eliminated or revised. Language should be added regarding density changes along external boundaries are subject to Staff review.

13. RECOMMENDATION: Will floodplain along southern border be dedicated to Mecklenburg County?
    STAFF COMMENT: *Dedicating the floodplain to the County helps in water quality management and future greenway development. The question of dedication is not answered on the plan set.*

14. RECOMMENDATION: In the area south of the thoroughfare, 50% of the Single-Family Homes are facing a storm water BMP with limited space to provide maintenance access and adequate landscaping / screening of the BMP.
    STAFF COMMENT: *A BMP with 100% public street frontage should be well landscaped, therefore a rain garden or other heavily planted BMP type is recommended in this location. Add a note indicating the type of landscaped BMP that will be installed.*

15. RECOMMENDATION: a pedestrian crossing from the western single-family units to the Huntersville East single-family area would provide residents access to all parts of the development;
    STAFF COMMENT: A greenway extension connecting the two residential areas has been added to the site plan with the note "potential alignment of greenway connection between Phases 1 and 2 to be determined in permitting phase". The parameters of this note are not clear as to what determines the connection. Also, the Phase of the previously-approved area is Phase 2, not 1. Staff recommends clarification of the note.

16. RECOMMENDATION: The proposed private greenway in the Multi-Family block does not connect or continue on to a network that should be created throughout the development;
    STAFF COMMENT: A connection for both sections is provided. This issue has been satisfied.

PART 3: TRANSPORTATION ISSUES

Traffic Impact Analysis (TIA)

A revised phased TIA for the North Creek Village development (R21-06) was submitted on 9/20/21. The TIA is phased to include residential uses in Phase 1 and commercial uses in Phase 2. After review, the TIA is acceptable as a final version. It is recommended that the developer coordinate with the North Carolina Department of Transportation (NCDOT) regarding driveway permit requirements for the development.

The TIA recommends the following improvements:

NC73 at Davidson Concord Road

- Construct a southbound left-turn lane on Davidson Concord Road with 300 feet of storage (Phase 1). (This improvement is within the Town of Davidson ETJ.)
- Construct an eastbound right-turn lane on NC73 with 100 feet of storage (Phase 2)

STAFF COMMENT: It is recommended that the eastbound right-turn lane on NC73 with 100 feet of storage listed above be constructed when any part of the development (residential or commercial) is built.

This TIA assumes that the following roadway improvements are constructed as part of another development:
NC73 at Davidson Concord Road

- Westbound left-turn lane on NC73 with 200 feet of storage
- Northbound Prosperity Church Road approach to include an exclusive left-turn lane with 300 feet of storage, an exclusive through lane, an exclusive right-turn lane with 300 feet of storage
- Eastbound left-turn lane on NC73 to include 225 feet of storage

STAFF COMMENT: It is recommended that this development construct these assumed improvements as part of this rezoning if the other development does not construct them prior.

PART 4: REZONING CRITERIA

Article 11.4.7(d) of the Zoning Ordinance states that "in considering any petition to reclassify property, the Planning Board in its recommendation and the Town Board in its decision shall take into consideration any identified relevant adopted land-use plans for the area including, but not limited to, comprehensive plans, strategic plans, district plans, area plans, neighborhood plans, corridor plans, and other land-use policy documents".

In 2008, the Davidson-Concord Road / NC 73 Area Plan identified the area south of NC 73 and Davidson-Concord Road as appropriate for a "Village Concept", a type of development that is "compact, mixed-use and pedestrian-oriented". However, that Plan was NOT adopted by the Town of Huntersville, but did influence both the 2030 and 2040 Community Plans that guide development today.

NOTE: The following references to the 2040 Community Plan's policies that relate to the North Creek Village Mixed-Use Rezoning Plan are divided into two sections: Policies that DO SUPPORT the Plan as presented and Policies that DO NOT support the plan.

The 2040 Huntersville Community Plan **DOES SUPPORT** this project through the following sections:

- **Policy LU-2:** Encourage residential development that follows the pattern outlined in the future land use map.
    - **Policy LU-2.1:** Higher intensity residential uses will be focused generally within two miles of the I-77/NC-115 corridor and future activity centers in the eastern and western areas of the Huntersville zoning jurisdiction.

  STAFF COMMENT: *The North Creek Mixed-Use development would be located approximately 2.15-miles from NC-115 to the western edge and 2.5 miles from the eastern edge. The majority of the proposed development is located in the Activity Center identified for the intersection of NC 73 and Davidson-Concord Road (see page 53) in the 2040 Community Plan. The proposed density of 5.3-units per acre is adjacent on all sides to Rural Zoning Districts with densities of 0.9 units/acre or less. The previously*

approved Huntersville East development (which is also mostly within this Activity Center) has a density of 2.07 unit/acre (see note #6 on page 2 of this report). The area to the west was not developed under the Town's subdivision regulations. The area to the east includes a series of large lots located along Ramah Church Road that average 7.8-acres in size (approx. 0.08-units/acre). To the south is the Ramah Oaks Farmhouse Cluster, a 16.68-acre development with a density of 0.36-units per acre. The "Huntersville Transect is a description of relative development intensity and expected built and natural forms. The Future Land Use Map combined with (land use) policies create a transect that focuses growth in walkable Mixed-Use Centers and Activity Centers and decreases in intensity farther away from the center. Traditional neighborhoods give way to conservation subdivisions and eventually farmhouse clusters that sensitively integrate with the rural environment". If the proposed rezoning plan is divided into smaller sub-areas (see chart on page 3 of this report), an analysis of the various sections shows that many are consistent with the TR zoning district, which may be a more appropriate designation than TND-U for the majority of the residential areas (except for the multi-family). The Multi-Family density is seen as appropriate with the location of the Multi-Family Buildings more than 230 feet from the external property line and buffers, of between 30' – 50' to provide additional visual transitions from the Rural zones.

- **Policy LU-6: Support a mix of land uses in key locations**.
  - LU 6.1: A mix of land uses is encouraged in Mixed-Use Centers, Activity Centers & Employment Centers identified on the Future Land Use Map.

  STAFF COMMENT: *The proposed mix of uses is appropriate for an Activity Center*.

- **Policy LU-1 - Future Land Use Activity Centers Map** (2040 Community Plan page 56): Location #2 is the North Creek Village Mixed-Use development and includes the previously approved development (formerly known as Huntersville East). "The NC73 Transportation/Land Use Corridor Plan recommended a Neighborhood Center in this area with additional study needed. A conditional mixed-use commercial rezoning was approved with 22 acres for commercial, 15 acres for attached housing and 15 acres for detached housing". Planned Activity Centers include a mix of non-residential and residential uses and are usually located at key intersections of major or minor thoroughfares. New non-residential uses are limited in scale and overall footprint (generally less than 40,000 sq. ft. of non-residential). Residential uses include a mix of housing types centered around shopping, service or civic uses. Residential uses transition to lower gross density with more open space away from Activity Centers.
  STAFF COMMENT: *While the mix and nature of the proposed development is consistent with the 2040 Community Plan, and recognizing that the commercial space in the previously-approved Huntersville East will one day exist, the additional commercial square footage is acceptable. The density of the proposed residential – particularly the multi-family residential - is supported by the plan's emphasis on pedestrian connections and a walkable block pattern. The overall density "steps-down" as it reaches the edges of the activity center to approximate the density levels of the surrounding zoning districts.*

- **Policy LU-7: Require new development to follow design principles that reinforce the vision for the Town as expressed in this plan and other adopted plans.**
  - **LU 7.1: Require all new development to adhere to the following design principles**:
    - In Mixed-Use Centers, Activity Centers, Town Centers and Moderate Density Areas, streets and sidewalks are meant to be attractive and inviting. New development in these areas shall follow these principles:
      - All buildings shall front a public street or (Urban) Open Space.

- Streets should be connected, have short blocks and sidewalks on both sides of the street.
- Improve connectivity, particularly for pedestrians and vehicles.
- Parking lots, if required, should be predominately located behind buildings screened from view and larger lots should be broken by buildings and/or landscape features.
- Accommodate a mix of uses and/or housing types.

STAFF COMMENT: *All proposed buildings front on either public streets or Urban Open Space. The public streets connect to other public streets, and the blocks are generally compliant with recommended perimeter lengths. While pedestrian circulation is still in need of improvement in the commercial area, good circulation is provided through the higher-density residential areas. A mix of housing types are proposed, however the uses are compartmentalized and a more-fully integrate land use pattern within the Activity Center limits would be recommended.*

- **Policy LU-10: Encourage a diversity of housing options.**
  - **LU 10.1: Align housing options with resident needs and promote attainable housing options**.
    - Accommodate a mix of housing by type, tenure and location to serve a growing and increasingly diverse population. Housing offerings should align with workforce opportunities, including management, professional positions and service positions.
  - **LU 10.2: Continue to encourage a mix of lot sizes in new developments**

STAFF COMMENT: *The development offers three (3) main types of residential units: Multi-Family (apartments), Attached Units (townhomes) and Detached Units on 50.01' and 60' wide lots (single-family homes). This mix of housing types offers options for future residents with varying income levels*.

- ***Policy LU-11: Protect Exiting Housing Stock***.
  - **LU 11.1: Protect and enhance the unique character of Huntersville's neighborhoods by using planning tools to safeguard from potentially negative impacts of development and redevelopment.**

STAFF COMMENT**:** *A 50 ft. vegetated buffer along the eastern border is proposed, and the nearest Multi-Family units are approximately 230 ft. from the external property line. The Multi-Family units have the highest density (17.47 units/acre) and the 230 ft. of separation from the Rural Zoning district is acceptable. The townhomes to the south of the apartments also have a 50 ft. buffer separating the uses' density of 2.77 units/acre from the adjacent Rural zoning. The detached homes in the southern portion have a 40 ft. vegetated buffer along the property line. Along the western border (along Black Farm Road), the proposed vegetated buffer is 30 ft. from the property line with evergreen plantings. The external 20' of all buffers (accept east of the apartments) will be undisturbed buffers that only add vegetation where existing vegetation is not adequate, per the Zoning Ordinance.*

- **EOS-10: Improve bicycle and pedestrian facilities throughout Town.**
  - **Implement the Bicycle and Pedestrian Committee's 30 x 30 plan.**
    - Connect all parks, schools, neighborhoods and major shopping into the Greenway System by 2030 incrementally over the next 10 years.
      - Include greenways, sidewalks, multi-use paths, trails and dirtways.

STAFF COMMENT: *All public streets have sidewalks along both sides and generally provide pedestrian circulation throughout. Two (2) proposed trails will lead to the southern end of the development and enable future connection to a future Town/County greenway. Block-lengths have acceptable perimeter size and additional pedestrian (or street) connections have been added to create a walkable-scale.*

- **Policy LU 3.1**: **Manage residential growth in the eastern and western parts of Huntersville's planning jurisdiction.**
    - **LU 3.1**: **Discourage rezonings to higher intensity residential districts in the Residential Edge and Rural Conservation future land use character areas**.
        - There is constant pressure to rezone to higher-density districts on the edges of town. Growth management was the #1 priority for survey response. There needs to be a concerted effort to uphold previous policy decisions to limit density and increase open space preservation in the more undeveloped areas outside of the Town Core.

  STAFF COMMENT: *Portions of the proposed Rezoning Plan are outside the Activity Center and should therefore more closely match the permitted densities of the surrounding zoning district. The densities of the single-family home areas are just above Transitional Residential (TR) density limits (1.5 units/acre) and serve as an appropriate transition to the adjoining Rural (R) zones.*

- **Policy LU-5: Focus more intense development in locations that can support growth**.
    - LU 5.1: Allow more intense development only where transportation infrastructure and utilities already exist.

  STAFF COMMENT: *While NC 73 is a regional transportation corridor and will soon be widened to accommodate greater east/west movement, the network of streets south of NC 73 does not yet exist. While the previously-approved Huntersville East development will provide a section of future north/south thoroughfare and the North Creek Village Mixed-Use development will provide additional right-of-way to the south, there is no connection to another thoroughfare. There is a connection proposed to Black Farm Road, however, no upgrades are proposed to Black Farm Road itself. And while there are several street stubs to the east, they also will not connect for the foreseeable future. The vast majority of the traffic from this development will use NC 73. Activity Centers are located where thoroughfares (existing and future) intersect. This project is located primarily within such a center. The widening of NC 73 is currently scheduled to begin in 2026 to add additional transportation capacity.*

- **Policy LU-8: Emphasize form and flexibility in Mixed-Use Centers, Employment Centers, the Town Core, and Activity Centers.**
    - LU 8.1: Continue to emphasize form and flexibility in development regulations for these areas. The current zoning ordinance has basic form-based standards with flexibility built-in. Key elements include allowing multiple types of land uses, a mix of uses, minimal setbacks, and parking requirements.

  STAFF COMMENT: *Good design is the key to flexibility in development regulations. Site plans that facilitate elevated design and adhere to the tenets of a form-based ordinance will justify modifications to the standard requirements. The improved block structure, acceptable block perimeters, expanded pedestrian network and greenway trails all work to facilitate walkability between the various uses, while respecting the physical elements of the site (creeks, stands of trees).*

- **Policy LU-9: New residential development should follow appropriate housing design principles**.
    - **LU 9.1: In higher intensity areas including Mixed-Use Centers, Activity Centers, the Town Core, and Moderate Density areas neighborhoods should adhere to the following design principles**:
        - All homes must front a public street or (Urban) open space.
        - Front porches and recessed garages are encouraged.
        - On-street parking is required in new developments that have lot widths below 60'.

STAFF COMMENT: *All proposed homes front on public streets. Floorplans have not been provided for the apartments or townhomes, therefore it cannot be determined if porches or recessed garages are provided. The proposed residential street cross-section does not provide on-street parking on (at least) one side of the road, as required for lots under 60' in width.*

- **Policy LU-11: Protect Existing Housing Stock.**
  - LU 11.1: Protect and enhance the unique character of Huntersville's neighborhoods by using planning tools to safeguard from potentially negative impacts of development and redevelopment.
- STAFF COMMENT: *The density levels step-down as the development approaches the Rural zone, there are larger-than-minimum buffers required, the multi-family residential is located more than 230 feet from an external boundary and buffers along state roads are proposed. This will all serve to provide transitions from new development patterns to the existing land uses.*

STAFF COMMENT – The 2040 Huntersville Community Plan **DOES NOT SUPPORT** this project through the following sections:

- **Policy EOS-6: Preserve elements of rural character.**
- EOS 6.1: Enforce existing standards and evaluate new design standards to preserve the character of scenic country roads.
  - McCauley Road, Black Farms Road, Beatties Farm Road, and Ramah Church Road have been identified as scenic resources and should have corridor-specific design controls that preserve scenic beauty.
  - Current regulations require a preserved buffer of trees in some areas and open space requirements encourage the protection of key features, such as views, fields and historical structures.
  - Additional controls might include view-shed protections, additional landscaping buffers or open space or screening requirements, use restrictions, density restrictions, or higher setbacks along the roadway.
  - Planned roadway improvements should be evaluated for adherence to previous planning efforts

  STAFF COMMENT: *An 80 ft. buffer along Black Farm Road of undisturbed vegetation (without BMPs) is shown. The typical road cross-section should not be installed along Black Farm Road to preserve the rural character of the corridor.*

Article 11 Section 11.4.7(e) of the Zoning Ordinance states that: "in considering any petition to reclassify property the Planning Board in its recommendation and the Town Board in its decision should consider:

1. **Whether the proposed reclassification is consistent with the overall character of existing development in the immediate vicinity of the subject property.**
   STAFF COMMENT: *The proposed Conditional District Rezoning for the North Creek Village Mixed-Use Conditional District Rezoning is supported by the 2040 Comprehensive Plan, as the property is located within an identified Activity Center. The main issues have been the increased level of commercial space within an identified Activity Center and whether the location of the Multi-Family units and townhomes (and their densities) are so oriented as to provide appropriate transitions into the adjacent Rural Zones. The increased densities are located behind enhanced buffers, ranging from 50+ feet to 30 feet, with at least 20 feet undisturbed.*

2. **The adequacy of public facilities and services intended to serve the subject property, including but not limited to roadways, transit service, parks and recreational facilities, police and fire protection, hospitals and medical services, schools, storm water drainage systems, water supplies, and wastewater and refuse disposal.**
STAFF COMMENT:
   - *A Transportation Impact Analysis was required – see Part 3 of this report.*
   - *Storm water plan approval, water and sewer and refuse disposal and a Willingness-to-serve from Charlotte Water, must all be provided.*
   - *The Conditional District Rezoning site plan was reviewed by Charlotte-Mecklenburg School District (CMS) and a report on the 3rd version of the plan was received on September 21, 2021. CMS indicates the proposed Rezoning Plan would add approximately 88 students to the schools in this area and indicate approval of the project "may increase overcrowding and/or reliance upon mobile classrooms at the schools listed above". (see below & see Attachment D for the full CMS report).*

CMS Planning Area: North

Average Student Yield per Unit: 0.1225 (303 multi-family) = 37
0.1812 (65 single family attached) = 12
0.5118 (77 single family detached) = 39

This development may add 88 students to the schools in this area.

The following data is as of 20th Day of the 2020-21 school year.

Schools Affected	*Total Classroom Teachers*	*Building Classrooms/ Teacher Stations*	*20th Day, Enrollment (non-ec)*	*Building Classroom/ Adjusted Capacity (Without Mobiles)*	*20th Day, Building Utilization (Without Mobiles)*	*Additional Students As a result of this development*	*Utilization As of result of this development (Without Mobiles)*
HUNTERSVILLE ELEMENTARY	47	37	734	578	127%	39	**132%**
BAILEY MIDDLE	76.65	57	1454	1081	134%	21	**136%**
WILLIAM A HOUGH HIGH	118.5	100	2485	2097	119%	28	**120%**

The total estimated capital cost of providing the additional school capacity for this new development is $3,335,000; calculated as follows:

Elementary School: 39 x $34,000 = $1,326,000
Middle School: 21 x $37,000 = $777,000
High School: 28 x $44,000 = $1,232,000

RECOMMENDATION
Adequacy of existing school capacity is a significant problem. We are particularly concerned about a case where school utilization exceeds 100% since the proposed development may exacerbate the situation. Approval of this petition may increase overcrowding and/or reliance upon mobile classrooms at the schools listed above.

3. **Whether the proposed reclassification will adversely affect a known archeological, environmental, historical or cultural resource."**
   STAFF COMMENT: *Planning staff has no indication that the request will adversely affect known archeological, environmental, historical or cultural resources*.

PART 5: STAFF RECOMMENDATION

Staff can recommend approval with conditions, as the proposed CD Rezoning will allow a significant portion of the NC 73 / Prosperity Church Road Activity Center to be master planned and will provide a variety of housing types that will help support non-residential development.

Conditions for approval include:

- Provide elevation-concepts for Apartments and Townhomes;
- Provide clear pedestrian circulation throughout HC commercial area;
- Note 6 should add language regarding density changes along external boundaries are subject to Staff review;
- On-street parking to be provided in front of Lots under 60' wide;
- Clarify call-out that the 80' buffer along Black Farm Road is 100% undisturbed;
- The two street-options to connect the new west area to the previously-approved portion of North Creek (just east of the cell tower) will provide a stub to the north with either street option;
- Clarify the note on the recommended trail link between Phase 2 Residential (vested) and proposed western residential area;
- All TIA / Transportation requirements will be provided and redlines addressed;
- All outstanding redlines on Rezoning Plan to be addressed.

PART 6: PUBLIC HEARING COMMENTS

The Public Hearing scheduled for Monday, August 16, 2021 was not opened and was continued to Monday, September 20, 2021. The Public Hearing was held on Sept. 20 and closed by Town Board. No public comments were received.

PART 7: PLANNING BOARD RECOMMENDATION

On September, 28, 2021, the Planning Board reviewed this item and made a motion to deny R 21-06 North Creek Village Mixed-Use by 7-2 vote. The CD rezoning request was seen as inconsistent with Policy LU-11 and EOS-6 of the Huntersville 2040 Community Plan. The request seen as not reasonable, nor is it in the public interest to amend the zoning parcel. It does not protect and enhance the unique character, nor does it preserve the rural elements specifically of Black Farms Road and Ramah Church Road. These two roads have specifically been identified in the 2040 Community Plan as scenic resources and they should have corridors designed specifically that preserve the scenic beauty.

PART 8: ATTACHMENTS/ENCLOSURES

Attachments

A – Rezoning Application.
B – North Creek Village Mixed-Use Rezoning Plan (4th version – Oct. 4, 2021).
C - Neighborhood Meeting Report from June 2, 2021.
D – CMS Report – North Creek Village Mixed-Use (Updated 9-21-21).
E – North Creek sub-area density map.
F – North Creek Village Mixed-Use – Commercial Building Elevations.

PART 11: CONSISTENCY STATEMENT - R 21-06 North Creek Village Mixed-Use Conditional District Rezoning

Staff Recommendation	Planning Board	Board of Commissioners
APPROVAL: In considering the proposed rezoning application R21-06; North Creek Village Mixed-Use Conditional District Rezoning, the Planning Staff RECOMMENDS CONDITIONAL APPROVAL FOR the rezoning as it is consistent with Policy Recommendations LU-1, LU-2, LU-3.1, LU-5, LU-6, LU-7, LU-8, LU-9, LU-10, LU-11 & EOS-10 of the 2040 Community Plan. Recommendation of approval is also based on the following conditions (as outlined in Part 5): Provide elevation-concepts for Apartments & Townhomes; Provide clear pedestrian circulation throughout HC commercial area; Note 6 should add language regarding density changes along external boundaries are subject to Staff review; On-street parking to be provided in front of Lots under 60' wide; Clarify call-out that the 80' buffer along Black Farm Road is 100% undisturbed; The two street-options to connect the new west area to the previously-approved portion of North Creek (just east of the cell tower) will provide a stub to the north with either street option; Clarify the note on the recommended trail link between Phase 2 Residential (vested) and proposed western residential area; All TIA / Transportation requirements will be provided and redlines addressed; All outstanding redlines on Rezoning Plan to be addressed. **With those conditions, it is reasonable and in the public interest to rezone 84.0-acres (as described in Attachment B) from Rural (R) to North Creek Village Mixed-Use Conditional District Rezoning Plan to permit 42,500 SF of commercial space, 303 apartments, 65 townhomes and 77 single-family homes BECAUSE it is consistent with the 2040 Comprehensive Plan and the applicable provisions of the Zoning Ordinance can be adequately addressed, with staff's recommendations and conditions listed above.**	**DENIAL**: In considering the proposed rezoning application R21-06: North Creek Village Mixed-Use Conditional District Rezoning, the Planning Board recommends denial (7-2). The CD rezoning request was seen as inconsistent with Policy LU-11 and EOS-6 of the Huntersville 2040 Community Plan. The request seen as not reasonable, nor is it in the public interest to amend the zoning parcel. It does not protect and enhance the unique character, nor does it preserve the rural elements specifically of Black Farms Road and Ramah Church Road. These two roads have specifically been identified in the 2040 Community Plan as scenic resources and they should have corridors designed specifically that preserve the scenic beauty.	**APPROVAL**: In considering the proposed rezoning application R21-06; North Creek Village Mixed-Use Conditional District Rezoning, the Town Board recommends approval based on the Plan being consistent with **(insert applicable plan reference)**. **It is reasonable and in the public interest to approve the Rezoning Plan because… (Explain)** **DENIAL**: In considering the proposed rezoning application R21-06; North Creel Village Mixed-Use Conditional District Rezoning Revision, the Town Board recommends denial based on the Plan being **(consistent OR inconsistent) with (insert applicable plan reference).** **It is not reasonable and in the public interest to approve the Rezoning Plan because… (Explain)**

General Application

INCOMPLETE SUBMISSIONS WILL NOT BE ACCEPTED. PLEASE CHECK ALL ITEMS CAREFULLY.

1. Application Type

Please indicate the type of application you are submitting. In addition to the application, the submission process for each application type can be found at https://www.huntersville.org/528/Permits-Process

- ☐ Change of Use
- ☐ Commercial Site Plan
- ☒ Conditional Rezoning
- ☐ General Rezoning
- ☐ Master Signage Program
- ☐ Special Use Permit
- ☐ Revision to Original Project # _____
- ☐ Other _____

SUBDIVISION CATEGORIES: Per the Huntersville Subdivision Ordinance

- ☒ Sketch Plan
- ☐ Preliminary Plan
- ☐ Final Plat (Includes Minor Subdivision)
- ☐ Exempt Subdivision
- ☐ Final Plat Revision
- ☐ Farmhouse Cluster

2. Project Data

Date of Application April 1, 2021

Name of Project Huntersville East- North Creek Village Phase # (if subdivision) _____

Project Address Sam Furr Road , NC HWY. 73

Parcel Identification Number(s) (PIN) 01107311,01126101,01126113

Current Zoning District R Proposed District (for rezoning only) TND-R AND HC-CD

Property Size (acres) 84.6 Street Frontage (feet) _____

Current Land Use Residential

Proposed Land Use(s) Residential and Commercial

Is the project within Huntersville's corporate limits?
Yes_____ No X If no, does the applicant intend to voluntarily annex? Yes

3. Description of Request

Explain the nature of this request. If a separate sheet is necessary, please attach to this application.

Approval of a mixed use center, including shops and a variety of residential types, greenway and pedestrian connections, as part of the Huntersville East activity center/node in accordance with the 2040 Land Use Plan.

4. Site Plan Submittals

Consult the particular type of *Review Process* for the application type selected above. These can be found at https://www.huntersville.org/528/Permits-Process.

5. Outside Agency Information

Other agencies may have applications and fees associated with the land development process. The *Review Process* list includes plan documents needed for most town and county reviewing agencies. For major subdivisions, commercial site plans, and rezoning petitions please enclose a copy of the Charlotte-Mecklenburg Utility *Willingness to Serve* letter for the subject property.

6. Applicant

Printed Name Magnolia Development, LLC co. Phone 919- 414-6721

☐ Corporation ☒ Limited Liability Company ☐ Trust ☐ Partnership ☐ Other: _____

☐ By signature below, I hereby acknowledge, as/on behalf of (circle one) the applicant my understanding this application will be considered in a quasi-judicial proceeding and that neither I, nor anyone on my behalf, may contact the Board of Commissioners except through sworn testimony at the public hearing. (Applicable for Special Use Permits and Subdivisions)

Signature _____ Printed Name: Steve Vinson

Title: Manager Email: Svinson@magnoliadevco.com

Address of Applicant 440 Ed Drive Suite 201, Raleigh, NC 27612

7. Property Owner (if different than applicant) (See attached)

*Printed Name _____ Phone _____

☐ Corporation ☐ Limited Liability Company ☐ Trust ☐ Partnership ☐ Other: _____

☐ By signature below, I hereby acknowledge, as/on behalf of (circle one) the owner my understanding this application will be considered in a quasi-judicial proceeding and that neither I, nor anyone on my behalf, may contact the Board of Commissioners except through sworn testimony at the public hearing. (Applicable for Special Use Permits and Subdivisions)

Signature _____ Printed Name _____

Title _____ Email _____

Address of Property Owner _____

* Property owner hereby grants permission to the Town of Huntersville personnel to enter the subject property for any purpose required in processing this application.

Every owner of each parcel included in this application, or the owner (s) duly authorized agent, must sign this application. If signed by an agent on behalf of the Owner, this application MUST be accompanied by a notarized Limited Power of Attorney signed by the property owner (s), specifically authorizing the agent to act on the owner (s) behalf in signing this application. Failure of each owner, or their duly authorized agent, to sign, or failure to include the authority of the agent signed by the property owner, will result in an INVALID APPLICATION. **If additional space is needed for signatures, attach the Town of Huntersville Signature Addendum Form.**

8. Development/Design Firm Contact Information

Magnolia Development, LLC co.	Steve Vinson	919-414-6721	svinson@magnoliadevco.com
Development Firm	Name of Contact	Phone	Email
Cole, Jenest and Stone	Sean Paone	704-971-4538	spaone@colejeneststone.com
Design Firm	Name of Contact	Phone	Email

Contact Information

Town of Huntersville
Planning Department
PO Box 664
Huntersville, NC 28070

Phone: 704-875-7000
Fax: 704-992-5528
Physical Address: 105 Gilead Road, Third Floor
Website: https://www.huntersville.org/228/Planning-Department

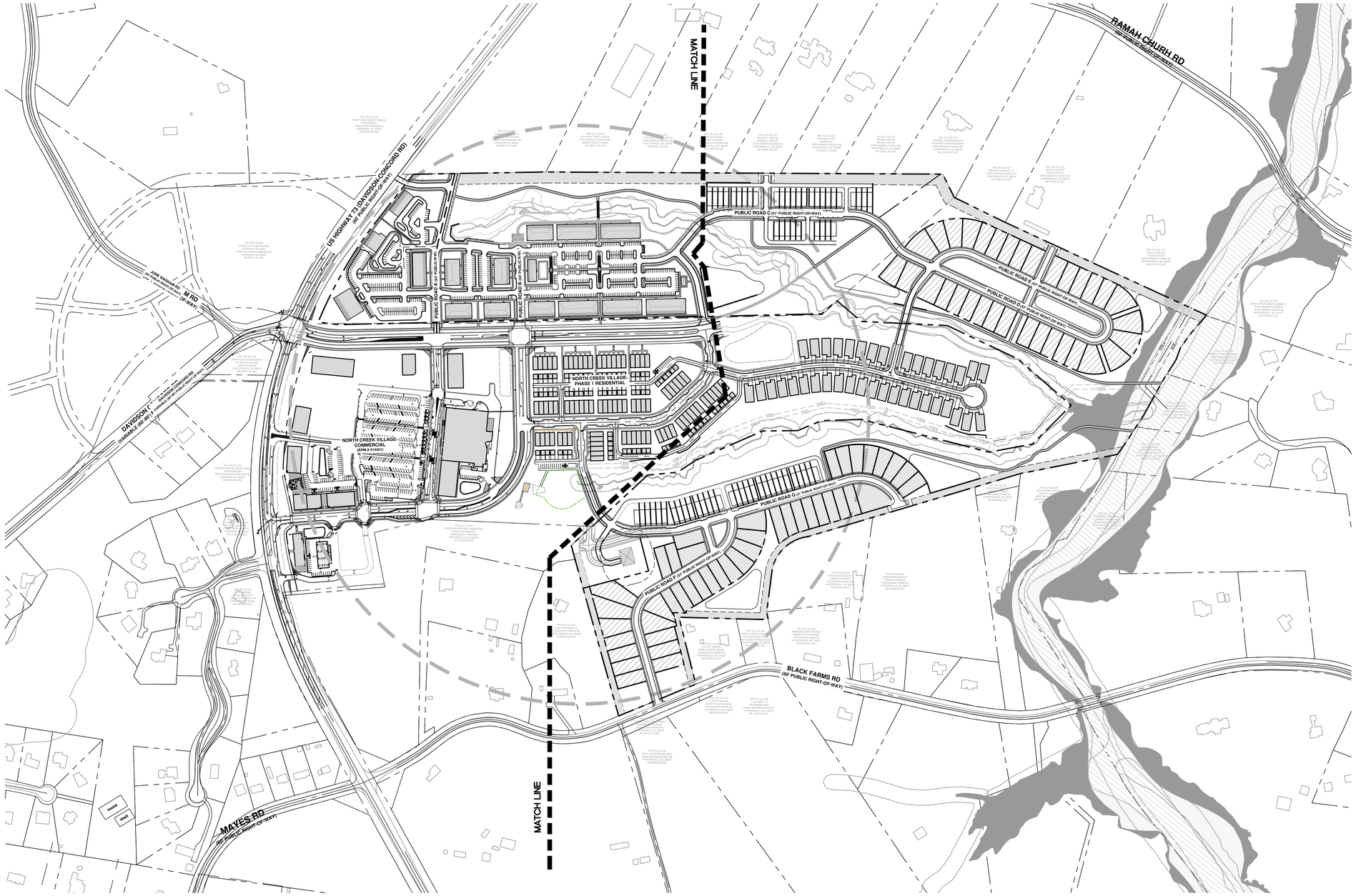
NORTH CREEK VILLAGE MIXED-USE

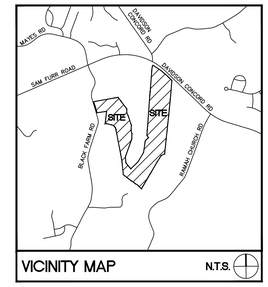
REZONING/SKETCH PLAN

EPM # 421030 | HUNTERSVILLE, NC

RELATED PLANS:

NORTH CREEK VILLAGE-COMMERCIAL (EPM # 414451) AND NORTH CREEK VILLAGE-PHASE 1 RESIDENTIAL





SURVEY DISCLAIMER

WETLANDS AND TREE SURVEY DATE: MAY 28, 2021, UPDATED ON JUNE 7, 2021. SURVEY PREPARED BY ATLAS ENVIRONMENTAL; 338 SHARON AMITY RD #411, CHARLOTTE, NC 28211. (704)-512-1206 / WWW.ATLASENVI.COM. ALL OTHER INFO OBTAINED FROM MECKLENBURG COUNTY GIS, UPDATED AS OF SEPTEMBER 23, 2019.

SHEET LIST

SP-000	COVER SHEET
SP-100	EXISTING CONDITIONS
SP-101	TREE PRESERVATION
SP-102	TREE CANOPY PRESERVATION
SP-103	TREE PRESERVATION NOTES
SP-104	SLOPE ANALYSIS
SP-105	SOIL AND STREAM ANALYSIS
SP-200	SKETCH PLAN
SP-200A	BLOCK AND PERIMETER LENGTHS
SP-201	SKETCH PLAN
SP-201A	BLOCK AND PERIMETER LENGTHS
SP-202	STREET SECTIONS
SP-203	BUILDING AND LOT TYPES
SP-204	DEVELOPMENT NOTES
SP-205	ZONING MAP
SP-300	PRELIMINARY GRADING PLAN
SP-301	PRELIMINARY GRADING PLAN
SP-302	DRAINAGE AREA MAP PRE-DEVELOPMENT
SP-303	DRAINAGE AREA MAP POST-DEVELOPMENT
SP-400	ADJACENT PARCEL MAP
SP-401	ADJACENT PARCEL INFORMATION
SP-500	EMERGENCY VEHICLE ACCESS
SP-600	LANDSCAPE PLAN
SP-601	LANDSCAPE PLAN

1. CONTRACTOR IS FULLY RESPONSIBLE FOR CONTACTING APPROPRIATE PARTIES AND ENSURING THAT ALL EXISTING UTILITIES ARE LOCATED PRIOR TO CONSTRUCTION.
2. CONTRACTOR IS RESPONSIBLE FOR PLACING BARRICADES, USING FLAG MEN, ETC., AS NECESSARY TO ENSURE THE SAFETY OF THE PUBLIC.
3. ALL PAVEMENT CUTS, CONCRETE OR ASPHALT, ARE TO BE REPLACED ACCORDING TO THE STANDARDS OF THE NORTH CAROLINA DEPARTMENT OF TRANSPORTATION, OR LOCAL JURISDICTION, WHICHEVER IS MORE STRINGENT.
4. SHORING SHALL BE IN ACCORDANCE WITH OSHA TRENCHING STANDARDS, 29 CFR, PART 1926, SUBPART P, OR AS AMENDED.

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Landscape Architecture
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Urban Design

200 South Tryon Street, Suite 1400
Charlotte, North Carolina 28202

p+ 704 376 1555 f+ 704 376 7851
url+ www.colejenestst one.com

MAGNOLIA DEVELOPMENT CO. LLC

4040 ED DRIVE, SUITE 201
RALEIGH, NC 27612

NORTH CREEK VILLAGE MIXED-USE REZONING/ SKETCH PLAN

17705 DAVIDSON-CONCORD ROAD
HUNTERSVILLE, NC 28078

COVER SHEET

Project No.
4661.04

Issued
03/18/21

THIS PLAN IS SCHEMATIC IN NATURE AND LOCATIONS OF ROADS, LOTS AND OTHER AREAS AND IMPROVEMENTS ARE SUBJECT TO FINAL DETERMINATION ON PRELIMINARY AND FINAL PLAN.

Revised

07/23/21 – TOWN COMMENTS
08/27/21 – TOWN COMMENTS
10/04/21 – PLAN SET SUBMITTAL FOR TOWN BOARD

BOLTON & MENK, INC.
CORPORATE
PRELIMINARY NOT FOR CONSTRUCTION
10/04/21

SCALE: 1"=200'
0 100' 200' 400'

SP-000

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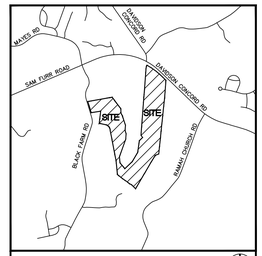

VICINITY MAP N.T.S.

SURVEY DISCLAIMER

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LEGEND

SYMBOL

- LOCAL HIGH POINTS
- FLOW DIRECTION
- EXISTING TREE LINE
- ZONING BOUNDARY

PROJECT NAME:	NORTH CREEK MIXED-USE REZONING
PARCEL NUMBER:	01107311, 01126101, 01126113
SITE ACREAGE:	± 84.00 ACRES (GIS)
REZONING ACREAGE:	± 84.00 ACRES
PRINCIPAL USES:	COMMERCIAL MULTI-FAMILY RESIDENTIAL SINGLE FAMILY ATTACHED SINGLE FAMILY DETACHED
EXISTING ZONING DISTRICT:	HC (CD), R
PROPOSED ZONING DISTRICT:	HC (CD), TND-U (CD)

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MAGNOLIA DEVELOPMENT CO. LLC

4040 ED DRIVE, SUITE 201
RALEIGH, NC 27612

NORTH CREEK VILLAGE MIXED-USE REZONING/ SKETCH PLAN

17705 DAVIDSON-CONCORD ROAD
HUNTERSVILLE, NC 28078

EXISTING CONDITIONS

Project No.
4661.04

Issued
03/18/21

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Revised

07/23/21 – TOWN COMMENTS
08/27/21 – TOWN COMMENTS
10/04/21 – PLAN SET SUBMITTAL FOR TOWN BOARD

BOLTON & MENK, INC. CORPORATE SEAL — PRELIMINARY NOT FOR CONSTRUCTION — SEAN P. PARKER 10/04/21

SCALE: 1"=200'
0 100' 200' 400'
N

SP-100

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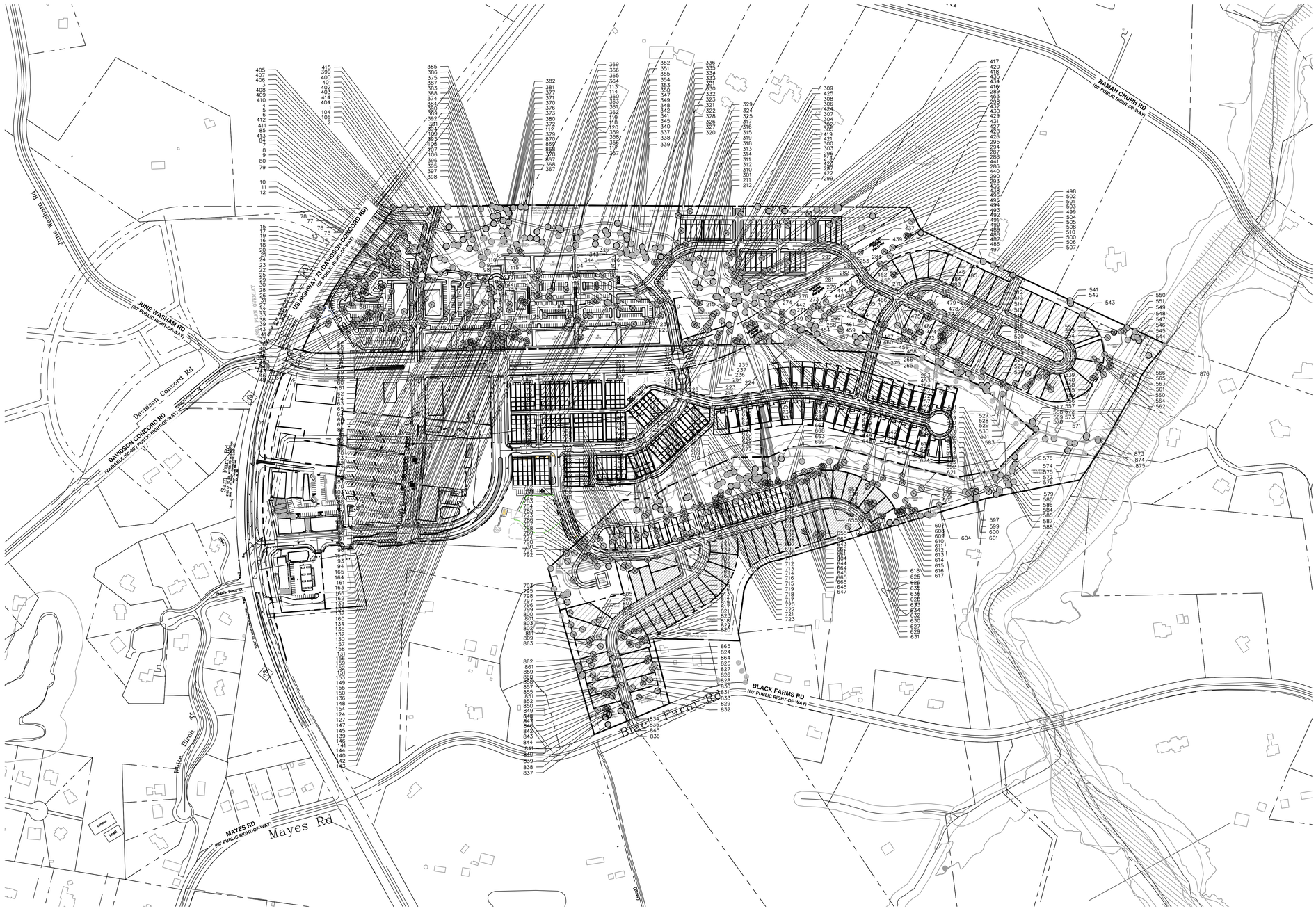
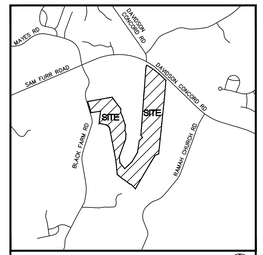

RAMAH CHURH RD
(60' PUBLIC RIGHT-OF-WAY)
US HIGHWAY 73 (DAVIDSON-CONCORD RD)
(80' PUBLIC RIGHT-OF-WAY)
JUNE WASHAM RD
(60' PUBLIC RIGHT-OF-WAY)
DAVIDSON CONCORD RD
(VARIABLE 68'-80' PUBLIC RIGHT-OF-WAY)
Davidson Concord Rd
Sam Furr Rd
Sam Furr Ct.
Sam Furr Rd
White Birch Dr
MAYES RD
(60' PUBLIC RIGHT-OF-WAY)
Mayes Rd
BLACK FARMS RD
(60' PUBLIC RIGHT-OF-WAY)
Black Farm Rd
Black Farm Rd
Hardin Creek Overlay
Hardin Creek Overlay
Hardin Creek Overlay



VICINITY MAP N.T.S.

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LEGEND

SYMBOL

- ZONING BOUNDARY
- EXISTING TREE TO REMAIN
- EXISTING SPECIMEN TREE TO REMAIN
- EXISTING SPECIMEN TREE TO BE REMOVED
- EXISTING TREE TO BE REMOVED
- TREE CANOPY TO BE REMOVED
- TREE CANOPY TO BE SAVED

PROJECT NAME:	NORTH CREEK MIXED-USE REZONING
PARCEL NUMBER:	01107311, 01126101, 01126113
SITE ACREAGE:	± 84.00 ACRES (GIS)
REZONING ACREAGE:	± 84.00 ACRES
PRINCIPAL USES:	COMMERCIAL MULTI-FAMILY RESIDENTIAL SINGLE FAMILY ATTACHED SINGLE FAMILY DETACHED
EXISTING ZONING DISTRICT:	HC (CD), R
PROPOSED ZONING DISTRICT:	HC (CD), TND-U (CD)

NORTH CREEK VILLAGE				
TOTAL EXISTING SPECIMEN TREES	% SPECIMEN TREES REQ'D TO SAVE BY ORD.	EXISTING SPECIMEN TREES TO BE RETAINED	% SPECIMEN TREES PRESERVED	TOTAL SPECIMEN TREES TO BE MITIGATED
396	30%	119**	30%**	0**

EXISTING % OF SITE COVERED BY TREE CANOPY	REQUIRED TREE CANOPY TO RETAIN BY DISTRICT (%)	MINIMUM TREE CANOPY TO BE RETAINED (%)	TREE CANOPY TO BE RETAINED (%)
95.86% (±81.00 AC)	0% (±0.00 AC)	0% (±0.00 AC)	0 – 25%** (±20.92 AC)

NOTE: SPECIMEN TREES ARE DEFINED PER THE TOWN OF HUNTERSVILLE ORDINANCE:
- SMALL MATURING TREES WITH A CALIPER OF 12" OR GREATER.
- LARGE MATURING TREES WITH A CALIPER OF 24" OR GREATER.

**NOTE: FINAL TREE SAVE AREAS AND ASSOCIATED PERCENTAGES ARE DEPENDENT UPON FINAL ENGINEERING AND SHALL NOT LIMIT SITE DEVELOPMENT DURING PERMITTING.

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NORTH CREEK VILLAGE MIXED-USE REZONING/ SKETCH PLAN

17705 DAVIDSON-CONCORD ROAD
HUNTERSVILLE, NC 28078

TREE CANOPY PRESERVATION

Project No.
4661.04

Issued
03/18/21

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Revised

07/23/21 – TOWN COMMENTS
08/27/21 – TOWN COMMENTS
10/04/21 – PLAN SET SUBMITTAL FOR TOWN BOARD

BOLTON & MENK, INC.
NORTH CAROLINA
PROFESSIONAL ENGINEER
036596
PRELIMINARY NOT FOR CONSTRUCTION
10/04/21

SCALE: 1"=200'
0 100' 200' 400'
N

SP-102

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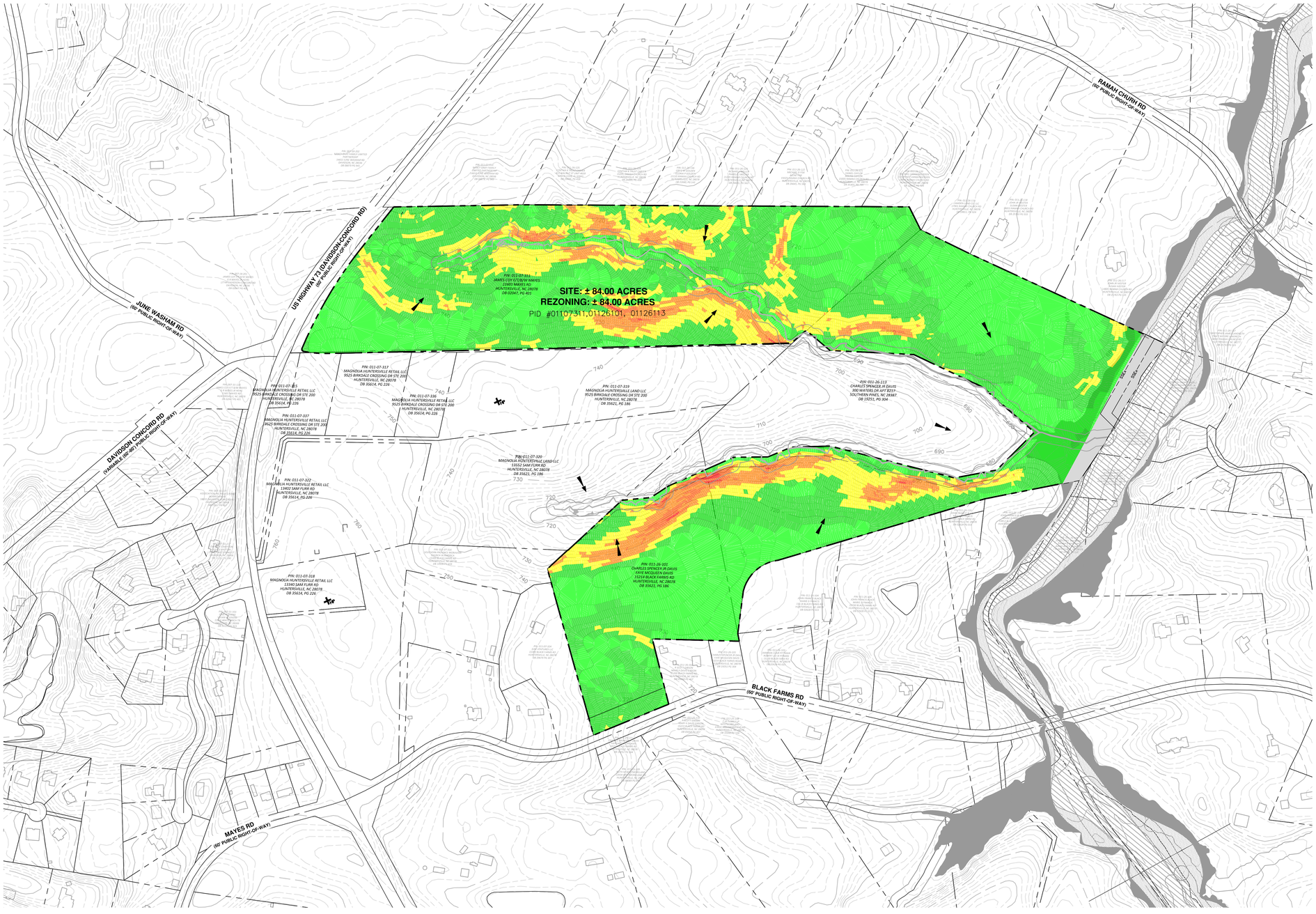
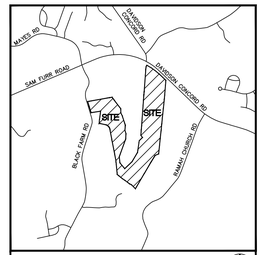
TREE INVENTORY:

		TREE INVENTORY		
TREE ID #	TREE SPECIES	DESCRIPTION	DBH (in.)	SAVE
1	SOUTHERN RED CEDAR	SPECIMEN	13	SAVE
2	RED OAK	SPECIMEN	32	SAVE
3	RED OAK	SPECIMEN	16	REMOVE
4	EASTERN RED CEDAR	SPECIMEN	14	REMOVE
5	GREEN ASH	NON-SPECIMEN	21	REMOVE
6	EASTERN RED CEDAR	SPECIMEN	13	REMOVE
7	BLACK WALNUT	NON-SPECIMEN	18	REMOVE
8	SWEET GUM	NON-SPECIMEN	12	REMOVE
9	POPLAR	NON-SPECIMEN	21	REMOVE
10	SWEET GUM	NON-SPECIMEN	21	REMOVE
11	POPLAR	NON-SPECIMEN	20	REMOVE
12	POPLAR	NON-SPECIMEN	19	REMOVE
13	POPLAR	NON-SPECIMEN	18.5	REMOVE
14	POPLAR	NON-SPECIMEN	22	REMOVE
15	HACKBERRY	NON-SPECIMEN	16	REMOVE
16	HICKORY	SPECIMEN	25	REMOVE
17	SWEET GUM	NON-SPECIMEN	22	REMOVE
18	POPLAR	NON-SPECIMEN	18	REMOVE
19	POPLAR	NON-SPECIMEN	20	REMOVE
20	POPLAR	NON-SPECIMEN	20.5	REMOVE
21	SWEET GUM	NON-SPECIMEN	20	REMOVE
22	SWEET GUM	NON-SPECIMEN	22	REMOVE
23	POPLAR	SPECIMEN	30	REMOVE
24	SWEET GUM	NON-SPECIMEN	20	REMOVE
25	SWEET GUM	SPECIMEN	28	REMOVE
26	POPLAR	NON-SPECIMEN	22	REMOVE
27	RED BUD	SPECIMEN	13.5	REMOVE
28	POPLAR	NON-SPECIMEN	23	REMOVE
29	BLACK WALNUT	NON-SPECIMEN	20	REMOVE
30	BLACK WALNUT	SPECIMEN	26	REMOVE
31	BLACK WALNUT	SPECIMEN	37	REMOVE
32	SWEET GUM	SPECIMEN	28	REMOVE
33	WHITE OAK	SPECIMEN	44	REMOVE
34	BLACK WALNUT	SPECIMEN	28	REMOVE
35	BLACK WALNUT	HERITAGE	58.5	SAVE
36	RED CEDAR	SPECIMEN	29	REMOVE
37	BLACK WALNUT	SPECIMEN	29	REMOVE
38	HACKBERRY	NON-SPECIMEN	18	REMOVE
39	HACKBERRY	NON-SPECIMEN	19	REMOVE
40	DOGWOOD	SPECIMEN	12	REMOVE
41	EASTERN RED CEDAR	SPECIMEN	28	REMOVE
42	PECAN	SPECIMEN	44.5	REMOVE
43	NORWAY SPRUCE	NON-SPECIMEN	18	REMOVE
44	BLACK WALNUT	NON-SPECIMEN	16	REMOVE
45	BOX ELDER	NON-SPECIMEN	19.5	REMOVE
46	AMERICAN ELM	NON-SPECIMEN	17	REMOVE
47	BLACK WALNUT	SPECIMEN	27	REMOVE
48	BLACK WALNUT	NON-SPECIMEN	13	REMOVE
49	POPLAR	SPECIMEN	27.5	REMOVE
50	BLACK WALNUT	NON-SPECIMEN	22	REMOVE
51	MULBERRY	SPECIMEN	29	REMOVE
52	WHITE OAK	SPECIMEN	45	REMOVE
53	BLACK WALNUT	NON-SPECIMEN	18	REMOVE
54	RED CEDAR	SPECIMEN	17	REMOVE
55	SWEET GUM	NON-SPECIMEN	23	REMOVE
56	POPLAR	SPECIMEN	33	REMOVE
57	POPLAR	SPECIMEN	24	REMOVE
58	POPLAR	SPECIMEN	26	REMOVE
59	HOPHORNBEAM	SPECIMEN	12	REMOVE
60	SWEET GUM	NON-SPECIMEN	20	REMOVE
61	RED OAK	NON-SPECIMEN	18.5	REMOVE
62	POPLAR	NON-SPECIMEN	19	REMOVE
63	HOPHORNBEAM	SPECIMEN	14	REMOVE
64	POPLAR	NON-SPECIMEN	18	REMOVE
65	WILLOW OAK	SPECIMEN	31.5	REMOVE
66	HOPHORNBEAM	SPECIMEN	13	REMOVE
67	POPLAR	SPECIMEN	24	REMOVE
68	RED CEDAR	SPECIMEN	13	REMOVE
69	SYCAMORE	NON-SPECIMEN	23.5	REMOVE
70	RED CEDAR	SPECIMEN	13	REMOVE
71	SOUTHERN RED OAK	SPECIMEN	30.5	REMOVE
72	BLACK WALNUT	NON-SPECIMEN	16.5	REMOVE
73	SWEET GUM	NON-SPECIMEN	23	REMOVE
74	SYCAMORE	SPECIMEN	25	REMOVE
75	POPLAR	NON-SPECIMEN	18	REMOVE
76	POPLAR	SPECIMEN	26	REMOVE
77	HICKORY	NON-SPECIMEN	22.5	REMOVE
78	RED CEDAR	SPECIMEN	12	REMOVE
79	HOPHORNBEAM	SPECIMEN	18	REMOVE
80	BLACK GUM	NON-SPECIMEN	12	REMOVE
81	SWEET GUM	NON-SPECIMEN	20	REMOVE
82	POPLAR	SPECIMEN	24	REMOVE
83	POPLAR	SPECIMEN	24.5	REMOVE
84	POPLAR	NON-SPECIMEN	19	REMOVE
85	EASTERN RED CEDAR	SPECIMEN	14	REMOVE
86	POPLAR	NON-SPECIMEN	20.5	REMOVE
87	EASTERN RED CEDAR	SPECIMEN	24.5	REMOVE
88	EASTERN RED CEDAR	SPECIMEN	38.5	REMOVE
89	SWEET GUM	SPECIMEN	32	REMOVE
90	RED OAK	NON-SPECIMEN	18	REMOVE
91	EASTERN RED CEDAR	SPECIMEN	22.5	REMOVE
92	WILLOW OAK	NON-SPECIMEN	20	REMOVE
93	POPLAR	NON-SPECIMEN	19.5	REMOVE
94	POPLAR	NON-SPECIMEN	21	REMOVE
95	SWEET GUM	NON-SPECIMEN	21.5	REMOVE
96	HOPHORNBEAM	SPECIMEN	14	REMOVE
97	EASTERN RED CEDAR	SPECIMEN	19.5	REMOVE
98	RED CEDAR	SPECIMEN	15.5	REMOVE
99	RED CEDAR	SPECIMEN	17.5	REMOVE
100	EASTERN RED CEDAR	SPECIMEN	15	REMOVE
101	POPLAR	NON-SPECIMEN	21	REMOVE
102	EASTERN RED CEDAR	NON-SPECIMEN	19	REMOVE
103	EASTERN RED CEDAR	SPECIMEN	19.5	REMOVE
104	RED CEDAR	SPECIMEN	14	REMOVE
105	SWEET GUM	SPECIMEN	32	REMOVE
106	RED CEDAR	SPECIMEN	18	SAVE
107	RED CEDAR	SPECIMEN	19.5	REMOVE
108	EASTERN RED CEDAR	SPECIMEN	18.5	SAVE
109	EASTERN RED CEDAR	SPECIMEN	18.5	SAVE
110	RED CEDAR	SPECIMEN	16.5	REMOVE
111	POPLAR	NON-SPECIMEN	21.5	REMOVE
112	POPLAR	NON-SPECIMEN	23.5	REMOVE
113	POPLAR	NON-SPECIMEN	21	REMOVE
114	POPLAR	NON-SPECIMEN	18	REMOVE
115	EASTERN RED CEDAR	SPECIMEN	16	REMOVE
116	POPLAR	NON-SPECIMEN	19	REMOVE
117	LOBLOLLY	SPECIMEN	24	REMOVE
118	WILLOW OAK	NON-SPECIMEN	20	REMOVE
119	EASTERN RED CEDAR	SPECIMEN	14	REMOVE
120	SWEET GUM	NON-SPECIMEN	18.5	REMOVE
121	RED CEDAR	SPECIMEN	14	REMOVE
122	SWEET GUM	SPECIMEN	24	REMOVE
123	SWEET GUM	NON-SPECIMEN	19	REMOVE
124	SWEET GUM	NON-SPECIMEN	23	REMOVE
125	SWEET GUM	SPECIMEN	26	REMOVE
126	HOPHORNBEAM	SPECIMEN	13	REMOVE
127	POPLAR	SPECIMEN	31	REMOVE
128	POPLAR	SPECIMEN	25	REMOVE
129	POPLAR	SPECIMEN	24	REMOVE
130	RED OAK	SPECIMEN	25	REMOVE
131	WILLOW OAK	SPECIMEN	27	REMOVE
132	POPLAR	SPECIMEN	26	REMOVE
133	SWEET GUM	NON-SPECIMEN	19.5	REMOVE
134	POPLAR	SPECIMEN	27	REMOVE
135	SOUTHERN RED OAK	SPECIMEN	32	REMOVE
136	POPLAR	NON-SPECIMEN	18	REMOVE
137	SWEET GUM	SPECIMEN	25.5	REMOVE
138	POPLAR	NON-SPECIMEN	20	REMOVE
139	POPLAR	NON-SPECIMEN	22.5	REMOVE
140	POPLAR	SPECIMEN	27	REMOVE
141	POPLAR	SPECIMEN	24.5	REMOVE
142	POPLAR	NON-SPECIMEN	23	REMOVE
143	POPLAR	SPECIMEN	24	REMOVE
144	SWEET GUM	SPECIMEN	26	REMOVE
145	POPLAR	SPECIMEN	28	REMOVE
146	POPLAR	SPECIMEN	27	REMOVE
147	POPLAR	SPECIMEN	27	REMOVE
148	POPLAR	NON-SPECIMEN	22	REMOVE
149	WHITE OAK	NON-SPECIMEN	24	REMOVE
150	POPLAR	NON-SPECIMEN	18	REMOVE
151	POPLAR	NON-SPECIMEN	21	REMOVE
152	POPLAR	NON-SPECIMEN	20	REMOVE
153	POPLAR	SPECIMEN	24	REMOVE
154	RED CEDAR	SPECIMEN	12	REMOVE
155	WHITE OAK	SPECIMEN	29	REMOVE
156	POPLAR	NON-SPECIMEN	21.5	REMOVE
157	POPLAR	NON-SPECIMEN	21.5	REMOVE
158	POPLAR	NON-SPECIMEN	21.5	REMOVE
159	WHITE OAK	SPECIMEN	25	REMOVE
160	WILLOW OAK	SPECIMEN	27	REMOVE
161	POPLAR	NON-SPECIMEN	20	REMOVE
162	POPLAR	SPECIMEN	27	REMOVE
163	POPLAR	SPECIMEN	33.5	REMOVE
164	POPLAR	NON-SPECIMEN	18.5	REMOVE
165	POPLAR	NON-SPECIMEN	19	REMOVE
166	HONEY LOCUST	NON-SPECIMEN	18.5	REMOVE
167	POPLAR	SPECIMEN	37	REMOVE
168	WILLOW OAK	SPECIMEN	38.5	REMOVE
169	BLACK GUM	NON-SPECIMEN	22	REMOVE
170	POPLAR	NON-SPECIMEN	18.5	REMOVE
171	RED CEDAR	SPECIMEN	12	REMOVE
172	RED CEDAR	SPECIMEN	17	REMOVE
173	RED CEDAR	SPECIMEN	15	REMOVE
174	RED CEDAR	SPECIMEN	15	REMOVE
175	RED CEDAR	SPECIMEN	14	REMOVE
176	RED CEDAR	SPECIMEN	20	REMOVE
177	RED CEDAR	SPECIMEN	15	REMOVE
178	RED CEDAR	SPECIMEN	16	REMOVE
179	RED CEDAR	SPECIMEN	14	REMOVE
180	GREEN ASH	NON-SPECIMEN	20	REMOVE
181	EASTERN RED CEDAR	SPECIMEN	17.5	REMOVE
182	HOPHORNBEAM	SPECIMEN	9.5	REMOVE
183	EASTERN RED CEDAR	SPECIMEN	14.5	REMOVE
184	POPLAR	SPECIMEN	24	REMOVE
185	EASTERN RED CEDAR	SPECIMEN	17.5	REMOVE
186	EASTERN RED CEDAR	SPECIMEN	16	REMOVE
187	SWEET GUM	NON-SPECIMEN	19	SAVE
188	WHITE OAK	SPECIMEN	29	SAVE
189	HOPHORNBEAM	SPECIMEN	13	REMOVE
190	POST OAK	SPECIMEN	26.5	REMOVE
191	RED OAK	NON-SPECIMEN	18.5	REMOVE
192	RED OAK	SPECIMEN	26.5	REMOVE
193	SWEET GUM	NON-SPECIMEN	20.5	REMOVE
194	EASTERN RED CEDAR	SPECIMEN	16	REMOVE
195	LOBLOLLY	SPECIMEN	24.5	REMOVE
196	RED OAK	NON-SPECIMEN	19.5	REMOVE
197	POST OAK	NON-SPECIMEN	18	REMOVE
198	WHITE OAK	SPECIMEN	26	REMOVE
199	WHITE OAK	SPECIMEN	28	REMOVE
200	SWEET GUM	NON-SPECIMEN	19	REMOVE
201	SWEET GUM	NON-SPECIMEN	18.5	REMOVE
202	EASTERN RED CEDAR	SPECIMEN	19.5	REMOVE
203	EASTERN RED CEDAR	SPECIMEN	16	REMOVE
204	EASTERN RED CEDAR	SPECIMEN	15.5	REMOVE
205	MOCKERNUT HICKORY	NON-SPECIMEN	21	REMOVE
206	RED OAK	NON-SPECIMEN	20	REMOVE
207	WHITE OAK	SPECIMEN	26	REMOVE
208	POST OAK	NON-SPECIMEN	22	REMOVE
209	RED CEDAR	SPECIMEN	14	REMOVE
210	WHITE OAK	NON-SPECIMEN	19	REMOVE
211	RED OAK	NON-SPECIMEN	21.5	SAVE
212	MOCKERNUT HICKORY	NON-SPECIMEN	18	SAVE
213	WHITE OAK	SPECIMEN	29	SAVE
214	WHITE OAK	NON-SPECIMEN	20.5	REMOVE
215	WHITE OAK	NON-SPECIMEN	18.5	REMOVE
216	TREE	NON-SPECIMEN	19.5	REMOVE
217	POST OAK	NON-SPECIMEN	21.5	REMOVE
218	WHITE OAK	NON-SPECIMEN	20	REMOVE
219	WHITE OAK	NON-SPECIMEN	20	REMOVE
220	MOCKERNUT HICKORY	NON-SPECIMEN	19	REMOVE
221	WHITE OAK	NON-SPECIMEN	19	REMOVE
222	WHITE OAK	NON-SPECIMEN	23	SAVE
223	WHITE OAK	NON-SPECIMEN	19	SAVE
224	WHITE OAK	NON-SPECIMEN	19	REMOVE
225	RED OAK	SPECIMEN	25	REMOVE
226	WHITE OAK	SPECIMEN	30	REMOVE
227	POST OAK	NON-SPECIMEN	18	REMOVE
228	MOCKERNUT HICKORY	NON-SPECIMEN	20	REMOVE
229	RED CEDAR	SPECIMEN	18	REMOVE
230	POST OAK	NON-SPECIMEN	19	REMOVE
231	WHITE OAK	SPECIMEN	24	REMOVE
232	M HICKORY	NON-SPECIMEN	18	REMOVE
233	RED OAK	NON-SPECIMEN	21	REMOVE
234	POST OAK	NON-SPECIMEN	18	REMOVE
235	WHITE OAK	NON-SPECIMEN	21	REMOVE
236	WHITE OAK	SPECIMEN	24	REMOVE
237	POST OAK	NON-SPECIMEN	18	REMOVE
238	RED OAK	NON-SPECIMEN	18	REMOVE
239	RED OAK	NON-SPECIMEN	22	SAVE
240	WHITE OAK	SPECIMEN	31	REMOVE
241	GREEN ASH	NON-SPECIMEN	19	REMOVE
242	MOCKERNUT HICKORY	NON-SPECIMEN	18	REMOVE
243	BEECH	NON-SPECIMEN	21	REMOVE
244	GREEN ASH	NON-SPECIMEN	18.5	REMOVE
245	GREEN ASH	SPECIMEN	26.5	REMOVE
246	RED OAK	NON-SPECIMEN	21	REMOVE
247	EASTERN RED CEDAR	SPECIMEN	17.5	REMOVE
248	POPLAR	SPECIMEN	37	REMOVE
249	POPLAR	NON-SPECIMEN	23	SAVE
250	EASTERN RED CEDAR	SPECIMEN	12	SAVE
251	SWEET GUM	SPECIMEN	27	SAVE
252	EASTERN RED CEDAR	SPECIMEN	19.5	SAVE
253	POPLAR	NON-SPECIMEN	19	SAVE
254	RED OAK	NON-SPECIMEN	18.5	REMOVE
255	WHITE OAK	NON-SPECIMEN	19	SAVE
256	SWEET GUM	NON-SPECIMEN	18	SAVE
257	SWEET GUM	NON-SPECIMEN	20.5	SAVE
258	MOCKERNUT HICKORY	NON-SPECIMEN	22	SAVE
259	BEECH	NON-SPECIMEN	19	REMOVE
260	WHITE OAK	SPECIMEN	33	SAVE
261	POPLAR	SPECIMEN	32	SAVE
262	SWEET GUM	NON-SPECIMEN	21.5	SAVE
263	SWEET GUM	SPECIMEN	25	SAVE
264	WHITE OAK	NON-SPECIMEN	22	SAVE
265	SWEET GUM	SPECIMEN	29	SAVE
266	SWEET GUM	NON-SPECIMEN	19.5	SAVE
267	WHITE OAK	SPECIMEN	25	SAVE
268	GREEN ASH	NON-SPECIMEN	20	SAVE
269	POPLAR	NON-SPECIMEN	20.5	REMOVE
270	SWEET GUM	NON-SPECIMEN	22	REMOVE
271	WHITE OAK	NON-SPECIMEN	21	REMOVE
272	WHITE OAK	SPECIMEN	34	REMOVE
273	WHITE OAK	NON-SPECIMEN	20	REMOVE
274	WHITE OAK	SPECIMEN	36	REMOVE
275	SWEET GUM	NON-SPECIMEN	23	REMOVE
276	SWEET GUM	NON-SPECIMEN	20	REMOVE
277	SWEET GUM	SPECIMEN	26	SAVE
278	SWEET GUM	NON-SPECIMEN	23	SAVE
279	AMERICAN ELM	NON-SPECIMEN	13	REMOVE
280	RED OAK	NON-SPECIMEN	23	REMOVE
281	POPLAR	NON-SPECIMEN	18	REMOVE
282	SWEET GUM	NON-SPECIMEN	19	SAVE
283	POPLAR	NON-SPECIMEN	22.5	SAVE
284	POPLAR	NON-SPECIMEN	19	SAVE
285	POPLAR	NON-SPECIMEN	19.5	REMOVE
286	SWEET GUM	SPECIMEN	25.5	REMOVE
287	POST OAK	NON-SPECIMEN	25.5	REMOVE
288	RED OAK	SPECIMEN	32	REMOVE
289	POPLAR	NON-SPECIMEN	23.5	REMOVE
290	POST OAK	NON-SPECIMEN	23	REMOVE
291	POPLAR	NON-SPECIMEN	21.5	SAVE
292	POPLAR	NON-SPECIMEN	18	SAVE
293	SWEET GUM	NON-SPECIMEN	20	SAVE
294	SWEET GUM	NON-SPECIMEN	22	SAVE
295	SWEET GUM	NON-SPECIMEN	18	REMOVE
296	POPLAR	NON-SPECIMEN	19	SAVE
297	POPLAR	NON-SPECIMEN	22	REMOVE
298	RED MAPLE	NON-SPECIMEN	19	REMOVE
299	SWEET GUM	NON-SPECIMEN	20	REMOVE
300	SWEET GUM	SPECIMEN	24	REMOVE
301	RED MAPLE	NON-SPECIMEN	21	SAVE
302	GREEN ASH	NON-SPECIMEN	18	REMOVE
303	GREEN ASH	SPECIMEN	26	REMOVE
304	RED MAPLE	NON-SPECIMEN	20	REMOVE
305	POPLAR	NON-SPECIMEN	21	REMOVE
306	SWEET GUM	NON-SPECIMEN	22	REMOVE
307	SYCAMORE	NON-SPECIMEN	18	REMOVE
308	RED OAK	SPECIMEN	26	REMOVE
309	RED OAK	SPECIMEN	33	REMOVE
310	RED MAPLE	NON-SPECIMEN	21.5	SAVE
311	RED MAPLE	NON-SPECIMEN	22.5	SAVE
312	POPLAR	SPECIMEN	28.5	SAVE
313	SWEET GUM	NON-SPECIMEN	18	SAVE
314	RED MAPLE	NON-SPECIMEN	18	REMOVE
315	EASTERN RED CEDAR	SPECIMEN	19.5	SAVE
316	POPLAR	NON-SPECIMEN	19.5	SAVE
317	SWEET GUM	SPECIMEN	25.5	SAVE
318	EASTERN RED CEDAR	SPECIMEN	17	REMOVE
319	EASTERN RED CEDAR	SPECIMEN	13.5	SAVE
320	RED MAPLE	NON-SPECIMEN	23	REMOVE
321	RED MAPLE	SPECIMEN	24.5	REMOVE
322	POPLAR	SPECIMEN	27	REMOVE
323	SWEET GUM	NON-SPECIMEN	18.5	REMOVE
324	MOCKERNUT HICKORY	NON-SPECIMEN	21	REMOVE
325	RED OAK	SPECIMEN	30	REMOVE
326	GREEN ASH	NON-SPECIMEN	19	REMOVE
327	RED CEDAR	SPECIMEN	16	REMOVE
328	RED CEDAR	SPECIMEN	16	REMOVE
329	RED CEDAR	SPECIMEN	14	REMOVE
330	POPLAR	NON-SPECIMEN	20	REMOVE
331	RED MAPLE	NON-SPECIMEN	22	REMOVE
332	POPLAR	SPECIMEN	30	SAVE
333	MOCKERNUT HICKORY	NON-SPECIMEN	21	SAVE
334	POPLAR	NON-SPECIMEN	18.5	SAVE
335	SWEET GUM	NON-SPECIMEN	23.5	SAVE
336	POPLAR	NON-SPECIMEN	20	SAVE
337	POPLAR	SPECIMEN	24	SAVE
338	EASTERN RED CEDAR	SPECIMEN	15	SAVE
339	POPLAR	NON-SPECIMEN	21.5	SAVE
340	SYCAMORE	NON-SPECIMEN	19	SAVE
341	POPLAR	NON-SPECIMEN	19.5	SAVE
342	POPLAR	NON-SPECIMEN	19.5	SAVE
343	POPLAR	SPECIMEN	24	SAVE
344	RED MAPLE	SPECIMEN	27	SAVE
345	EASTERN RED CEDAR	SPECIMEN	15.5	SAVE
346	POPLAR	NON-SPECIMEN	20	SAVE
347	RED MAPLE	NON-SPECIMEN	18	SAVE
348	POPLAR	NON-SPECIMEN	20	SAVE
349	WHITE OAK	SPECIMEN	25	SAVE
350	POPLAR	NON-SPECIMEN	21	SAVE
351	POPLAR	NON-SPECIMEN	23	SAVE
352	POPLAR	NON-SPECIMEN	18.5	SAVE
353	EASTERN RED CEDAR	SPECIMEN	14.5	SAVE
354	WHITE OAK	NON-SPECIMEN	23	SAVE
355	SWEET GUM	NON-SPECIMEN	21.5	SAVE
356	RED MAPLE	SPECIMEN	25.5	SAVE
357	WHITE OAK	SPECIMEN	30	SAVE
358	GREEN ASH	SPECIMEN	34	SAVE
359	EASTERN RED CEDAR	SPECIMEN	17	SAVE
360	EASTERN RED CEDAR	NON-SPECIMEN	18	REMOVE
361	POPLAR	SPECIMEN	34	SAVE
362	POST OAK	NON-SPECIMEN	19	SAVE
363	POST OAK	NON-SPECIMEN	19	SAVE
364	MOCKERNUT HICKORY	NON-SPECIMEN	18	SAVE
365	POPLAR	NON-SPECIMEN	22	SAVE
366	SYCAMORE	NON-SPECIMEN	20	SAVE
367	SWEET GUM	NON-SPECIMEN	18	SAVE
368	EASTERN RED CEDAR	SPECIMEN	14	SAVE
369	WHITE OAK	NON-SPECIMEN	21.5	SAVE
370	POPLAR	NON-SPECIMEN	21	SAVE
371	SYCAMORE	NON-SPECIMEN	21.5	SAVE
372	RED CEDAR	SPECIMEN	12	SAVE
373	GREEN ASH	NON-SPECIMEN	20.5	SAVE
374	GREEN ASH	NON-SPECIMEN	21.5	SAVE
375	SWEET GUM	NON-SPECIMEN	18.5	SAVE
376	POPLAR	NON-SPECIMEN	21	SAVE
377	SWEET GUM	NON-SPECIMEN	23.5	SAVE
378	WHITE OAK	NON-SPECIMEN	23	SAVE
379	GREEN ASH	NON-SPECIMEN	18	SAVE
380	RED CEDAR	SPECIMEN	12.5	SAVE
381	SWEET GUM	NON-SPECIMEN	22	SAVE
382	POPLAR	NON-SPECIMEN	19.5	SAVE
383	SWEET GUM	NON-SPECIMEN	21.5	SAVE
384	SWEET GUM	NON-SPECIMEN	23	SAVE
385	SWEET GUM	SPECIMEN	25	SAVE
386	WHITE OAK	NON-SPECIMEN	21	SAVE
387	SWEET GUM	NON-SPECIMEN	19	SAVE
388	SWEET GUM	SPECIMEN	25.5	SAVE
389	POPLAR	SPECIMEN	37	SAVE
390	SWEET GUM	NON-SPECIMEN	23	SAVE
391	TULIP POPLAR	NON-SPECIMEN	21.5	SAVE
392	EASTERN RED CEDAR	SPECIMEN	17.5	SAVE
393	RED CEDAR	SPECIMEN	12	SAVE
394	SWEET GUM	SPECIMEN	27	SAVE
395	POST OAK	SPECIMEN	29.5	SAVE
396	MULBERRY	SPECIMEN	28	SAVE
397	MOCKERNUT HICKORY	SPECIMEN	24.5	SAVE
398	SWEET GUM	NON-SPECIMEN	23	SAVE
399	BLACK GUM	NON-SPECIMEN	23	SAVE
400	SWEET GUM	NON-SPECIMEN	18.5	SAVE
401	SWEET GUM	SPECIMEN	24	SAOVE
402	SWEET GUM	SPECIMEN	29	SAVE
403	WHITE OAK	SPECIMEN	25.5	SAVE
404	BLACK GUM	NON-SPECIMEN	20.5	SAVE
405	POPLAR	NON-SPECIMEN	20	SAVE
406	EASTERN RED CEDAR	SPECIMEN	14.5	SAVE
407	AMERICAN ELM	NON-SPECIMEN	19.5	REMOVE
408	POPLAR	NON-SPECIMEN	22.5	REMOVE
409	SWEET GUM	SPECIMEN	32.5	REMOVE
410	POPLAR	NON-SPECIMEN	24	REMOVE
411	EASTERN RED CEDAR	SPECIMEN	17.5	REMOVE
412	POPLAR	NON-SPECIMEN	23.5	REMOVE
413	POPLAR	SPECIMEN	25	REMOVE
414	EASTERN RED CEDAR	SPECIMEN	13	REMOVE
415	EASTERN RED CEDAR	SPECIMEN	16	SAVE
416	WILLOW OAK	NON-SPECIMEN	20	REMOVE
417	POPLAR	NON-SPECIMEN	19	REMOVE
418	WHITE OAK	NON-SPECIMEN	20	REMOVE
419	RED OAK	NON-SPECIMEN	18	REMOVE
420	SWEET GUM	NON-SPECIMEN	18	REMOVE
421	SOUTHERN RED	SPECIMEN	26	SAVE
422	SWEET GUM	NON-SPECIMEN	21.6	REMOVE
423	SWEET GUM	NON-SPECIMEN	21.5	SAVE
424	WHITE OAK	NON-SPECIMEN	19.5	SAVE
425	POPLAR	NON-SPECIMEN	22	REMOVE
426	POPLAR	NON-SPECIMEN	19	REMOVE
427	POPLAR	NON-SPECIMEN	20	REMOVE
428	POPLAR	NON-SPECIMEN	18.5	REMOVE
429	RED OAK	NON-SPECIMEN	18.5	SAVE
430	WHITE OAK	NON-SPECIMEN	18	SAVE
431	RED OAK	SPECIMEN	33	SAVE
432	RED OAK	SPECIMEN	24	SAVE
433	WILLOW OAK	NON-SPECIMEN	18.5	REMOVE
434	SOUTHERN RED OAK	SPECIMEN	51	SAVE
435	WILLOW OAK	SPECIMEN	27	REMOVE
436	SOUTHERN RED OAK	NON-SPECIMEN	18	REMOVE
437	POPLAR	NON-SPECIMEN	23	REMOVE
438	EASTERN RED CEDAR	SPECIMEN	12	REMOVE
439	EASTERN RED CEDAR	SPECIMEN	12	REMOVE
440	WILLOW OAK	SPECIMEN	24	SAVE
441	SYCAMORE	NON-SPECIMEN	22.5	SAVE
442	SOUTHERN RED OAK	NON-SPECIMEN	23	REMOVE
443	SOUTHERN RED OAK	NON-SPECIMEN	18.5	REMOVE
444	POPLAR	NON-SPECIMEN	19.5	REMOVE
445	SWEET GUM	NON-SPECIMEN	19	REMOVE
446	NORTHERN RED OAK	SPECIMEN	26.5	REMOVE
447	WHITE OAK	SPECIMEN	34	REMOVE
448	WILLOW OAK	NON-SPECIMEN	18.5	REMOVE
449	WILLOW OAK	SPECIMEN	29	REMOVE
450	WILLOW OAK	SPECIMEN	22	REMOVE
451	RED CEDAR	SPECIMEN	14	REMOVE
452	WILLOW OAK	NON-SPECIMEN	23	REMOVE
453	POPLAR	SPECIMEN	38.5	SAVE
454	AMERICAN ELM	NON-SPECIMEN	12	REMOVE
455	AMERICAN ELM	SPECIMEN	13	SAVE
456	WILLOW OAK	NON-SPECIMEN	23.5	SAVE
457	WILLOW OAK	NON-SPECIMEN	22.5	SAVE
458	SWEET GUM	NON-SPECIMEN	19.5	SAVE
459	WILLOW OAK	NON-SPECIMEN	19	REMOVE
460	WILLOW OAK	NON-SPECIMEN	19	REMOVE
461	WILLOW OAK	SPECIMEN	24	REMOVE
462	SWEET GUM	NON-SPECIMEN	18	REMOVE
463	SWEET GUM	NON-SPECIMEN	19	REMOVE
464	WILLOW OAK	NON-SPECIMEN	18	REMOVE
465	WILLOW OAK	NON-SPECIMEN	19	REMOVE
466	WILLOW OAK	NON-SPECIMEN	19	REMOVE
467	SWEET GUM	NON-SPECIMEN	22	REM





VICINITY MAP N.T.S.

SURVEY DISCLAIMER

WETLANDS AND TREE SURVEY DATE: MAY 28, 2021, UPDATED ON JUNE 7, 2021. SURVEY PREPARED BY ATLAS ENVIRONMENTAL: 338 SHARON AMITY RD #411, CHARLOTTE, NC 28211. (704)-512-1206 / WWW.ATLASENVI.COM. ALL OTHER INFO OBTAINED FROM MECKLENBURG COUNTY GIS, UPDATED AS OF SEPTEMBER 23, 2019.

LEGEND

SYMBOL

- SLOPES LESS 0%-10% – 64.50 AC
- SLOPES BETWEEN 10%-15% – 13.06 AC
- SLOPES BETWEEN 15%-25% – 6.21 AC
- SLOPES ABOVE 25% – 0.1 AC
- LOCAL HIGH POINTS
- FLOW DIRECTION
- ZONING BOUNDARY

PROJECT NAME:	NORTH CREEK MIXED-USE REZONING
PARCEL NUMBER:	01107311, 01126101, 01126113
SITE ACREAGE:	± 84.00 ACRES (GIS)
REZONING ACREAGE:	± 84.00 ACRES
PRINCIPAL USES:	COMMERCIAL MULTI-FAMILY RESIDENTIAL SINGLE FAMILY ATTACHED SINGLE FAMILY DETACHED
EXISTING ZONING DISTRICT:	HC (CD), R
PROPOSED ZONING DISTRICT:	HC (CD), TND-U (CD)

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Realizing the Possibilities

Land Planning
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Landscape Architecture
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Civil Engineering
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Urban Design

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url+ www.colejeneststone.com

MAGNOLIA DEVELOPMENT CO. LLC

4040 ED DRIVE, SUITE 201
RALEIGH, NC 27612

NORTH CREEK VILLAGE MIXED-USE REZONING/ SKETCH PLAN

17705 DAVIDSON-CONCORD ROAD
HUNTERSVILLE, NC 28078

SLOPE ANALYSIS PLAN

Project No.
4661.04

Issued
03/18/21

THIS PLAN IS SCHEMATIC IN NATURE AND LOCATIONS OF ROADS, LOTS AND OTHER AREAS AND IMPROVEMENTS ARE SUBJECT TO FINAL DETERMINATION ON PRELIMINARY AND FINAL PLAN.

Revised

07/23/21 – TOWN COMMENTS
08/27/21 – TOWN COMMENTS
10/04/21 – PLAN SET SUBMITTAL FOR TOWN BOARD

BOLTON & MENK, INC. CORPORATE SEAL NORTH CAROLINA
PRELIMINARY NOT FOR CONSTRUCTION
10/04/21

SCALE: 1"=200'
0 100' 200' 400'
N

SP-104

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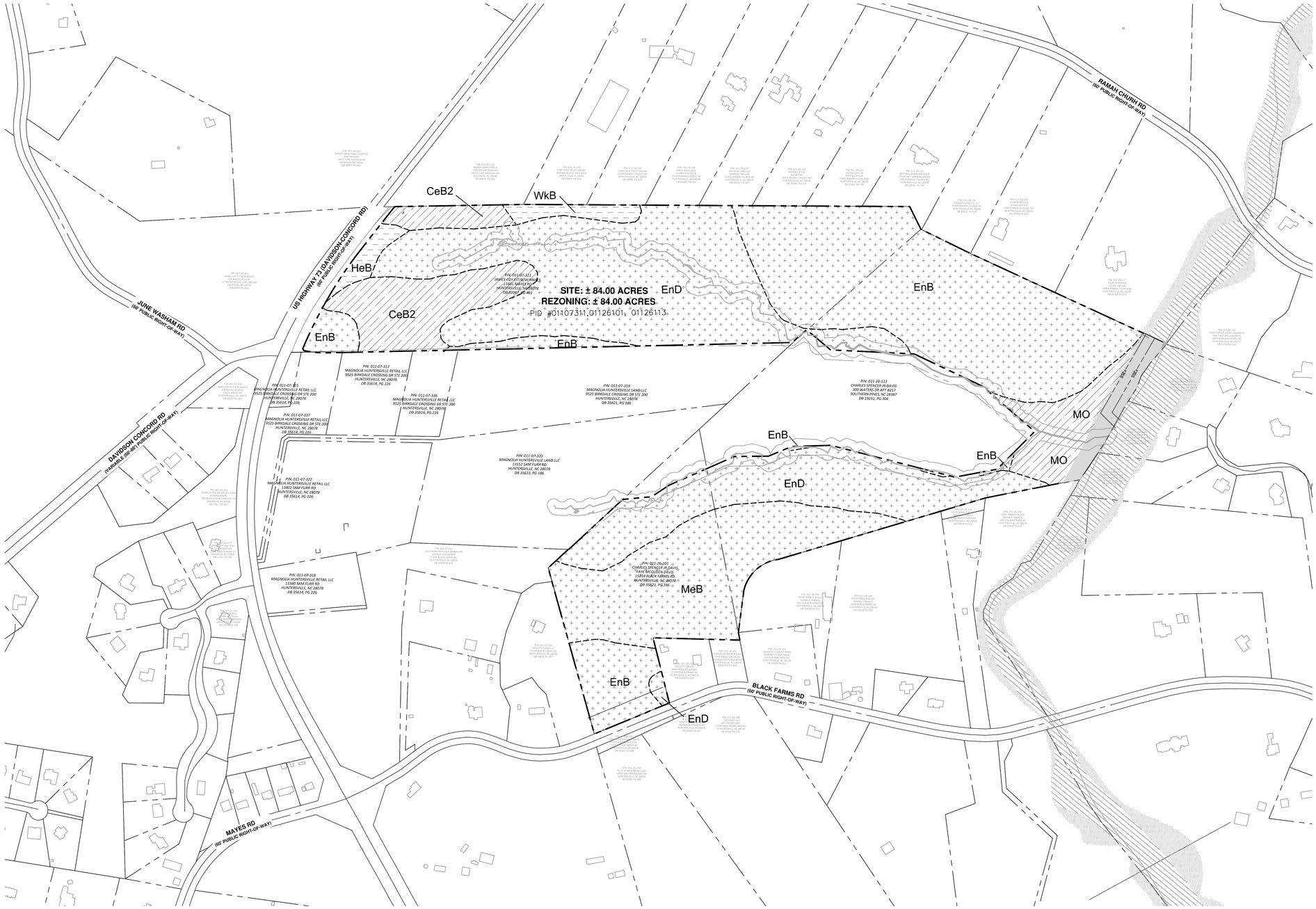

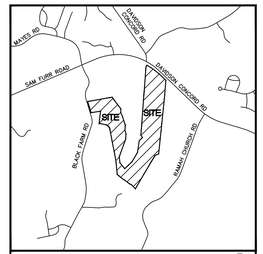

VICINITY MAP N.T.S.

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WETLANDS AND TREE SURVEY DATE: MAY 28, 2021, UPDATED ON JUNE 7, 2021. SURVEY PREPARED BY ATLAS ENVIRONMENTAL: 338 SHARON AMITY RD #411, CHARLOTTE, NC 28211. (704)-512-1206 / WWW.ATLASENVI.COM. ALL OTHER INFO OBTAINED FROM MECKLENBURG COUNTY GIS, UPDATED AS OF SEPTEMBER 23, 2019.

LEGEND

SYMBOL

- HYDROLOGIC SOILS GROUP 'B'
- HYDROLOGIC SOILS GROUP 'C'
- HYDROLOGIC SOILS GROUP 'D'
- ZONING BOUNDARY

PROJECT NAME:	NORTH CREEK MIXED-USE REZONING
PARCEL NUMBER:	01107311, 01126101, 0112613
SITE ACREAGE:	± 84.00 ACRES (GIS)
REZONING ACREAGE:	± 84.00 ACRES
PRINCIPAL USES:	COMMERCIAL MULTI-FAMILY RESIDENTIAL SINGLE FAMILY ATTACHED SINGLE FAMILY DETACHED
EXISTING ZONING DISTRICT:	HC (CD), R
PROPOSED ZONING DISTRICT:	HC (CD), TND-U (CD)

CeB2– CECIL SANDY CLAY LOAM, 2 – 8% SLOPES (B)
EnB–ENON SANDY LOAM, 2–8% SLOPES (C)
EnD–ENON SANDY LOAM, 8–15% SLOPES (C)
HeB– HELENA SANDY LOAM, 2 – 8% SLOPES (D)
MeB–MECKLENBURG FINE SANDY LOAM, 2–8% SLOPES (C)
MO– MONACAN LOAM, 0 – 2% SLOPES (B/D)
WkB–WILKES LOAM, 4–8% SLOPES (D)

SUMMARY:

HYDROLIC SOIL GROUP B:	±12 AC (12%)
HYDROLIC SOIL GROUP C:	±70 AC (70%)
HYDROLIC SOIL GROUP D:	±2 AC (2%)
TOTAL SITE:	±84 AC

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MAGNOLIA DEVELOPMENT CO. LLC

4040 ED DRIVE, SUITE 201
RALEIGH, NC 27612

NORTH CREEK VILLAGE MIXED-USE REZONING/ SKETCH PLAN

17705 DAVIDSON-CONCORD ROAD
HUNTERSVILLE, NC 28078

SOIL & STREAM ANALYSIS

Project No.
4661.04

Issued
03/18/21

THIS PLAN IS SCHEMATIC IN NATURE AND LOCATIONS OF ROADS, LOTS AND OTHER AREAS AND IMPROVEMENTS ARE SUBJECT TO FINAL DETERMINATION ON PRELIMINARY AND FINAL PLAN.

Revised

07/23/21 – TOWN COMMENTS
08/27/21 – TOWN COMMENTS
10/04/21 – PLAN SET SUBMITTAL FOR TOWN BOARD

BOLTON & MENK, INC. CORPORATE SEAL NORTH CAROLINA 2214 SEAL 036864 ENGINEER JEFFREY P. BRAUN

PRELIMINARY NOT FOR CONSTRUCTION

10/04/21

SCALE: 1"=200'
0 100' 200' 400'
N

SP-105

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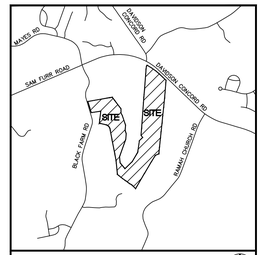

VICINITY MAP N.T.S.

SURVEY DISCLAIMER

WETLANDS AND TREE SURVEY DATE: MAY 28, 2021, UPDATED ON JUNE 7, 2021. SURVEY PREPARED BY ATLAS ENVIRONMENTAL: 338 SHARON AMITY RD #411, CHARLOTTE, NC 28211. (704)-512-1206 / WWW.ATLASENVA.COM. ALL OTHER INFO OBTAINED FROM MECKLENBURG COUNTY GIS, UPDATED AS OF SEPTEMBER 23, 2019.

LEGEND

SYMBOL

- CONCEPTUAL BUILDING FOOTPRINTS
- FRONT OF BUILDING
- 50' SINGLE FAMILY DETACHED LOT
- 60' SINGLE FAMILY DETACHED LOT
- "ACTIVITY CENTER" PER DRAFT 2040 COMMUNITY PLAN
- ZONING BOUNDARY
- PROPOSED INTERNAL PROPERTY LINE
- PROPOSED SIDEWALK
- PROPOSED GREENWAY
- PROPOSED RETAINING WALL

PROJECT NAME:	NORTH CREEK MIXED-USE REZONING
PARCEL NUMBER:	01107311, 01126101, 01126113
SITE ACREAGE:	± 84.00 ACRES (GIS)
REZONING ACREAGE:	± 84.00 ACRES
PRINCIPAL USES:	COMMERCIAL MULTI-FAMILY RESIDENTIAL SINGLE FAMILY ATTACHED SINGLE FAMILY DETACHED
EXISTING ZONING DISTRICT:	HC (CD), R
PROPOSED ZONING DISTRICT:	HC (CD), TND-U (CD)

NOTES:

SEE SHEET SP-200A / SP-201A FOR BLOCK AND PERIMETER LENGTHS

SEE SHEET SP-202 FOR STREET SECTIONS

SEE SHEET SP-203 FOR DEVELOPMENT STANDARDS

SEE SHEET SP-204 FOR ZONING EXHIBIT

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Land Planning
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NORTH CREEK VILLAGE MIXED-USE REZONING/ SKETCH PLAN

17705 DAVIDSON-CONCORD ROAD
HUNTERSVILLE, NC 28078

SKETCH PLAN

Project No.
4661.04

Issued
03/18/21

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Revised

07/23/21 – TOWN COMMENTS
08/27/21 – TOWN COMMENTS
10/04/21 – PLAN SET SUBMITTAL FOR TOWN BOARD

BOLTON & MENK, INC. CAMPBELL, CALIFORNIA SEAN P. [illegible] 864 REGISTERED PROFESSIONAL ENGINEER CIVIL
PRELIMINARY NOT FOR CONSTRUCTION
10/04/21

SCALE: 1"=100'
0 50' 100' 200'
N

SP-200

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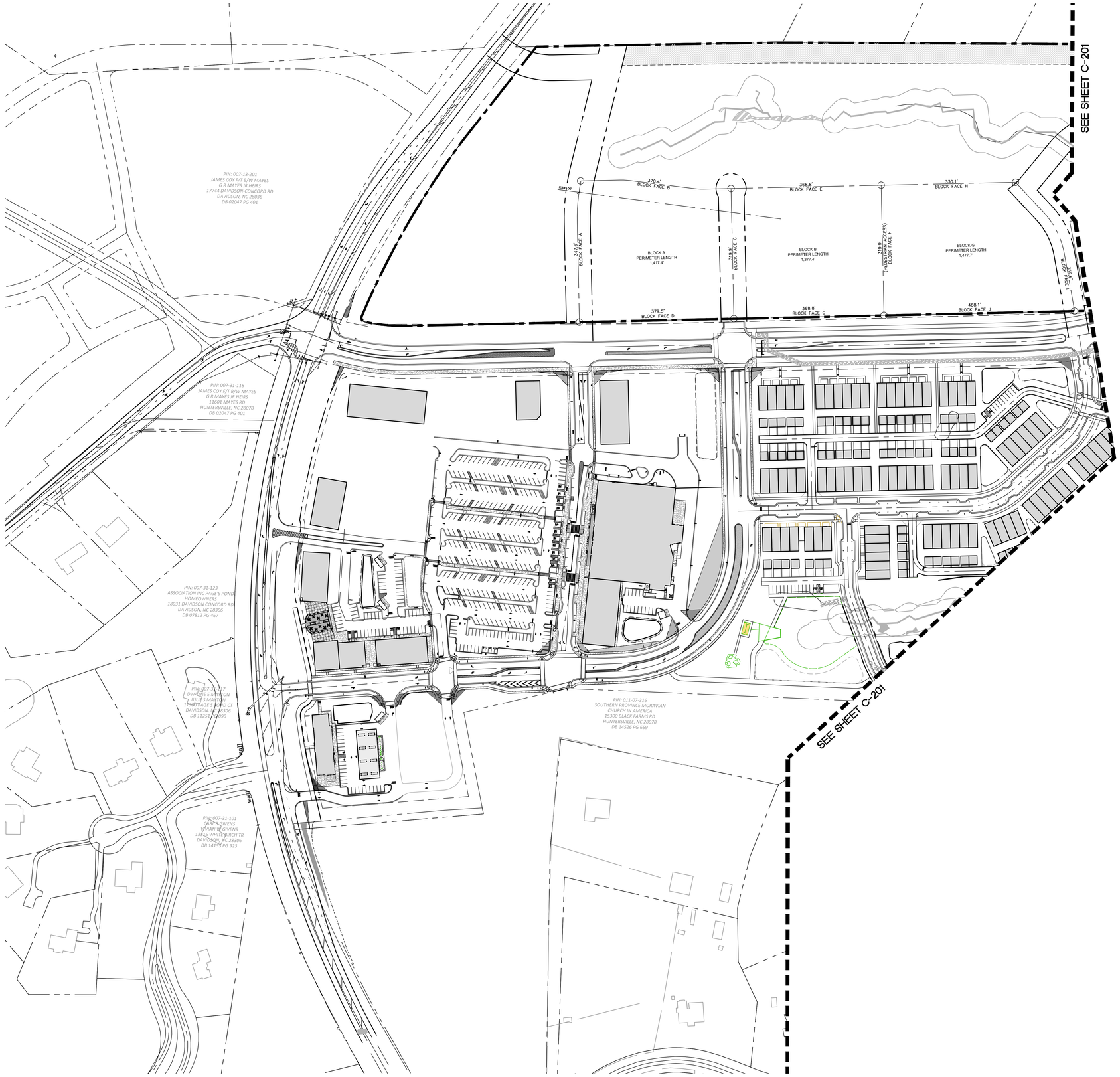

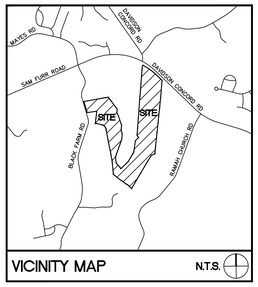

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LEGEND

SYMBOL

- PARCEL LINE / PROJECT BOUNDARY
- BLOCK LENGTH / INTERSECTION
- PROPOSED RIGHT OF WAY
- PROPOSED CENTERLINE

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NOTES:

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SEE SHEET SP-203 FOR DEVELOPMENT STANDARDS

SEE SHEET SP-204 FOR ZONING EXHIBIT

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BLOCK LENGTHS

BLOCK A	
–PERIMETER LENGTH:	1,417.4'
–BLOCK FACE A:	347.6'
–BLOCK FACE B:	370.4'
–BLOCK FACE C:	319.9'
–BLOCK FACE D:	379.5'
BLOCK B	
–PERIMETER LENGTH:	1,377.4''
–BLOCK FACE C:	319.9'
–BLOCK FACE E:	368.8'
–BLOCK FACE F:	319.9'
–BLOCK FACE G:	368.8'
BLOCK C	
–PERIMETER LENGTH:	1,477.7'
–BLOCK FACE F:	319.9'
–BLOCK FACE H:	330.1'
–BLOCK FACE I:	359.6'
–BLOCK FACE J:	368.8'
BLOCK PERIMETER LENGTH AVERAGE:	1,424.2'
BLOCK LENGTH AVERAGE:	427.5'

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NORTH CREEK VILLAGE MIXED-USE REZONING/ SKETCH PLAN

17705 DAVIDSON-CONCORD ROAD
HUNTERSVILLE, NC 28078

BLOCK AND PERIMETER LENGTHS

Project No.
4661.04

Issued
03/18/21

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Revised

07/23/21 – TOWN COMMENTS
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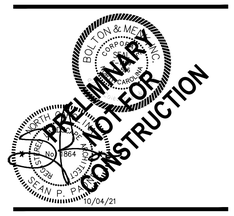
10/04/21 – PLAN SET SUBMITTAL FOR TOWN BOARD



SCALE: 1"=100'

0 50' 100' 200'

N

SP-200A

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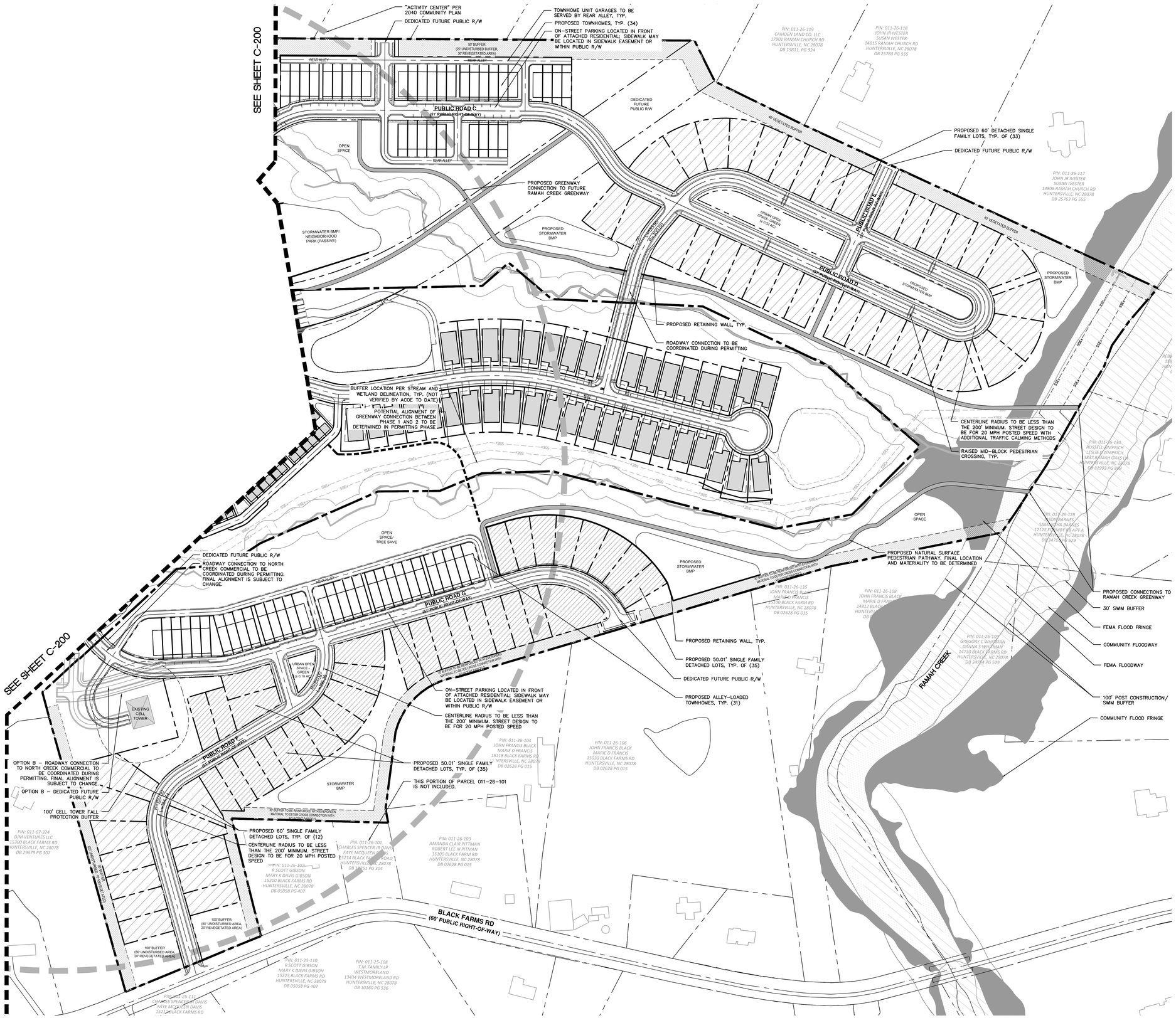

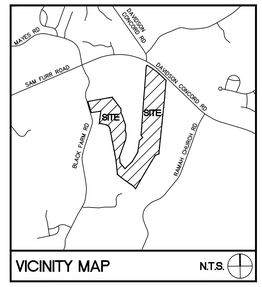

VICINITY MAP N.T.S.

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LEGEND

SYMBOL

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- FRONT OF BUILDING
- 50' SINGLE FAMILY DETACHED LOT
- 60' SINGLE FAMILY DETACHED LOT
- "ACTIVITY CENTER" PER DRAFT 2040 COMMUNITY PLAN
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- PROPOSED INTERNAL PROPERTY LINE
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NOTES:

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SKETCH PLAN

Project No.
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Issued
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Revised
07/23/21 – TOWN COMMENTS
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10/04/21 – PLAN SET SUBMITTAL FOR TOWN BOARD

BOLTON & MENK, INC. SEAL 864 SEAN P. PARKER PRELIMINARY NOT FOR CONSTRUCTION 10/04/21

SCALE: 1"=100'
0 50' 100' 200'

SP-201

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BLOCK LENGTHS

BLOCK A
- PERIMETER LENGTH: 675.7'
  - BLOCK FACE A 270.5'
  - BLOCK FACE B 130.5'
  - BLOCK FACE C 274.7'

BLOCK B
- PERIMETER LENGTH: 992.0'
  - BLOCK FACE B: 130.5'
  - BLOCK FACE D: 365.5'
  - BLOCK FACE J: 130.5'
  - BLOCK FACE E: 190.5'
  - BLOCK FACE I: 175.0'

BLOCK C
- PERIMETER LENGTH: 384.7'
  - BLOCK FACE K: 120.0'
  - BLOCK FACE J: 130.5'
  - BLOCK FACE L: 134.2'

BLOCK D
- PERIMETER LENGTH: 631.3'
  - BLOCK FACE E: 190.5'
  - BLOCK FACE F: 310.3'
  - BLOCK FACE G: 130.5'

BLOCK E
- PERIMETER LENGTH: 435.5'
  - BLOCK FACE G: 130.5'
  - BLOCK FACE H: 130.0'
  - BLOCK FACE I: 175.0'

BLOCK F
- PERIMETER LENGTH: 935.2'
  - BLOCK FACE G: 223.9'
  - BLOCK FACE P: 524.4'
  - BLOCK FACE Q: 186.9'

BLOCK G
- PERIMETER LENGTH: 704.3'
  - BLOCK FACE Q: 186.9'
  - BLOCK FACE R: 361.6'
  - BLOCK FACE S: 155.8'

BLOCK H
- PERIMETER LENGTH: 431.5'
  - BLOCK FACE S: 155.8'
  - BLOCK FACE T: 119.9'
  - BLOCK FACE U: 155.8'

BLOCK I
- PERIMETER LENGTH: 671.5'
  - BLOCK FACE V: 360.2'
  - BLOCK FACE U: 155.8'
  - BLOCK FACE X: 155.5'

BLOCK J
- PERIMETER LENGTH: 911.8'
  - BLOCK FACE Y: 461.6'
  - BLOCK FACE X: 155.5'
  - BLOCK FACE Z: 294.7'

BLOCK K
- PERIMETER LENGTH: 518.6'
  - BLOCK FACE O: 223.9'
  - BLOCK FACE Z: 294.7'

BLOCK L
- PERIMETER LENGTH: 1,171.3'
  - BLOCK FACE AA: 467.4'
  - BLOCK FACE BB: 142.0'
  - BLOCK FACE CC: 436.4'
  - BLOCK FACE EE: 125.3'

BLOCK M
- PERIMETER LENGTH: 1,189.3'
  - BLOCK FACE BB: 142.0'
  - BLOCK FACE II: 589.3'
  - BLOCK FACE HH: 458.0'

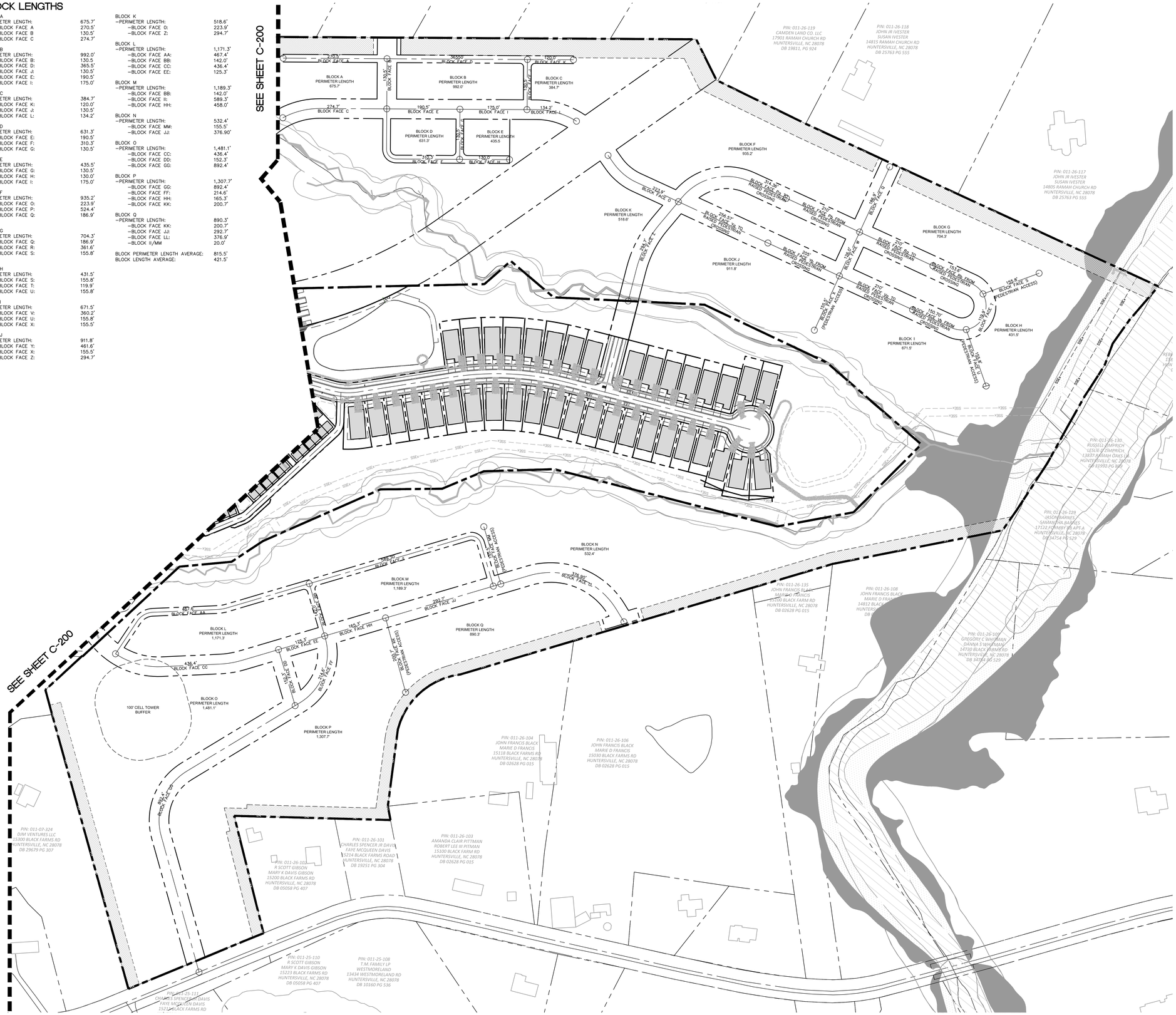
BLOCK N
- PERIMETER LENGTH: 532.4'
  - BLOCK FACE MM: 155.5'
  - BLOCK FACE JJ: 376.90'

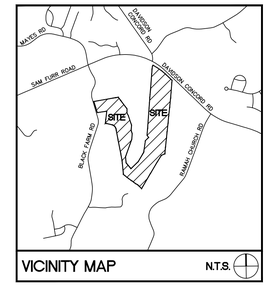
BLOCK O
- PERIMETER LENGTH: 1,481.1'
  - BLOCK FACE CC: 436.4'
  - BLOCK FACE DD: 152.3'
  - BLOCK FACE GG: 892.4'

BLOCK P
- PERIMETER LENGTH: 1,307.7'
  - BLOCK FACE GG: 892.4'
  - BLOCK FACE FF: 214.6'
  - BLOCK FACE HH: 165.3'
  - BLOCK FACE KK: 200.7'

BLOCK Q
- PERIMETER LENGTH: 890.3'
  - BLOCK FACE KK: 200.7'
  - BLOCK FACE JJ: 292.7'
  - BLOCK FACE LL: 376.9'
  - BLOCK II/MM 20.0'

BLOCK PERIMETER LENGTH AVERAGE: 815.5'
BLOCK LENGTH AVERAGE: 421.5'





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LEGEND

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- PARCEL LINE / PROJECT BOUNDARY
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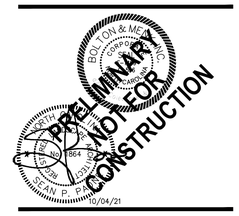

SCALE: 1"=100'
0 50' 100' 200'

SP-201A

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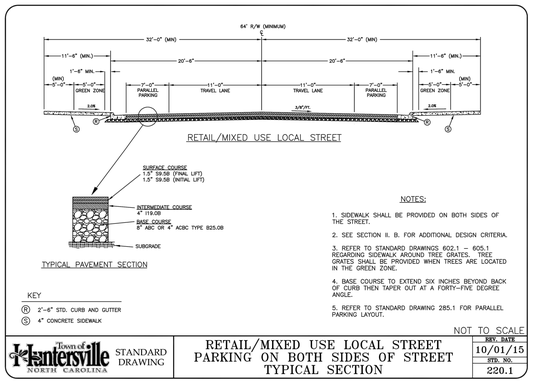
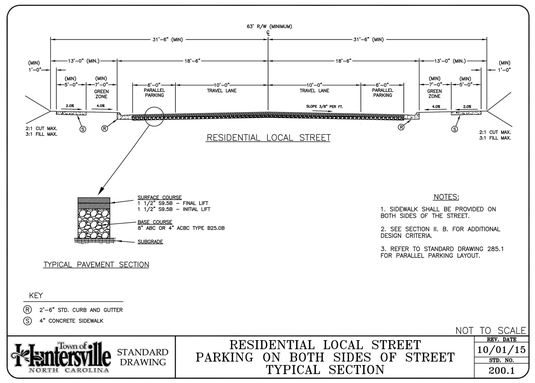
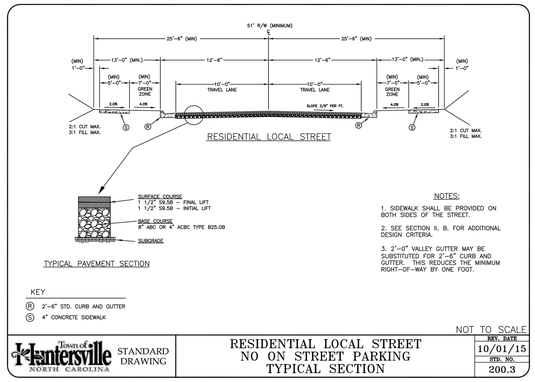


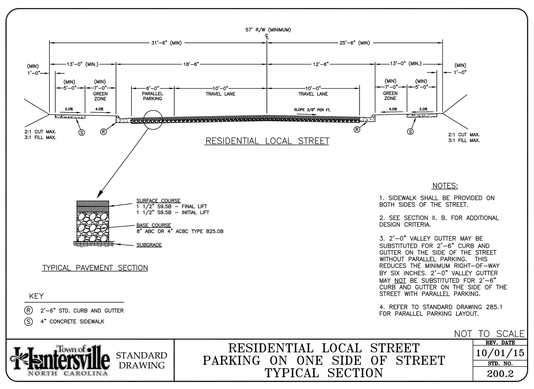
STREET TYPE 1
TYPICAL OF PUBLIC ROAD A



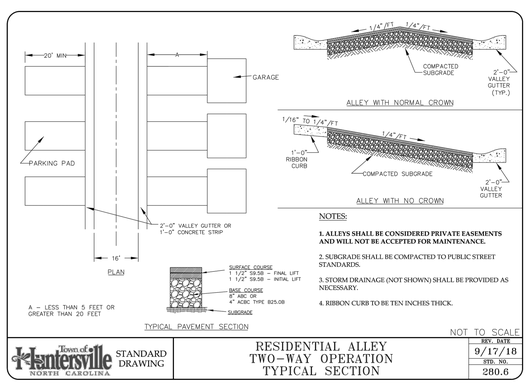
STREET TYPE 2
TYPICAL OF PUBLIC ROAD B



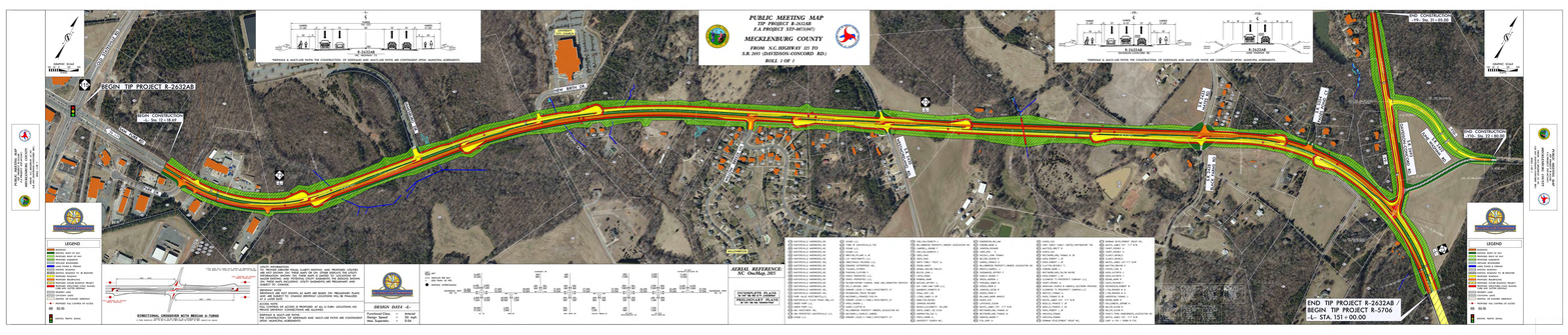
STREET TYPE 3
TYPICAL OF PUBLIC ROADS: C, F + G



STREET TYPE 4
TYPICAL OF PUBLIC ROADS: D + E

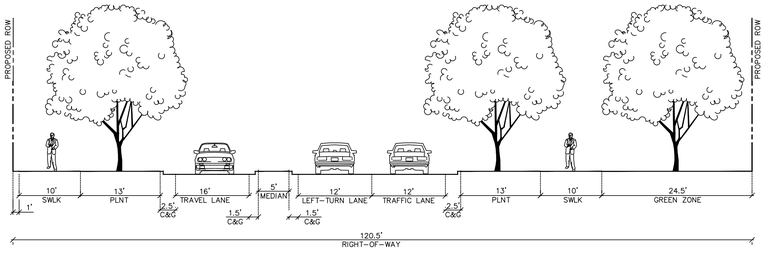


STREET TYPE 5
TYPICAL OF ALLEYS



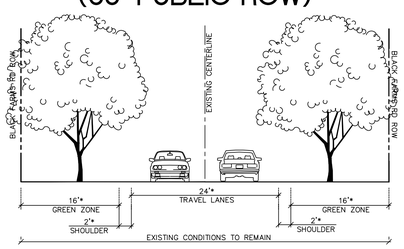
PROPOSED NC 73
(DAVIDSON-CONCORD ROAD)
NCDOT CROSS-SECTION

PROSPERITY CHURCH ROAD
(120.5' PUBLIC ROW)*

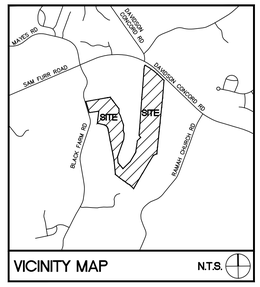


*REFERENCE NORTH CREEK COMMERCIAL (EPM #414451) AND NORTH CREEK PHASE 2 RESIDENTIAL.

BLACK FARMS ROAD
(60' PUBLIC ROW)



*EXISTING CONDITIONS ARE APPROXIMATE.



SURVEY DISCLAIMER

WETLANDS AND TREE SURVEY DATE: MAY 28, 2021, UPDATED ON JUNE 7, 2021. SURVEY PREPARED BY ATLAS ENVIRONMENTAL; 338 SHARON AMITY RD #411, CHARLOTTE, NC 28211, (704)-512-1206 / WWW.ATLASENVI.COM. ALL OTHER INFO OBTAINED FROM MECKLENBURG COUNTY GIS, UPDATED AS OF SEPTEMBER 23, 2019.

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Land Planning
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MAGNOLIA DEVELOPMENT CO. LLC

4040 ED DRIVE, SUITE 201
RALEIGH, NC 27612

NORTH CREEK VILLAGE MIXED-USE REZONING/ SKETCH PLAN

17705 DAVIDSON-CONCORD ROAD
HUNTERSVILLE, NC 28078

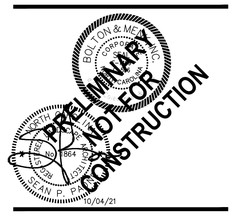
STREET SECTIONS

Project No.
4661.04

Issued
03/18/21

THIS PLAN IS SCHEMATIC IN NATURE, AND LOCATIONS OF ROADS, LOTS AND OTHER AREAS AND IMPROVEMENTS ARE SUBJECT TO FINAL DETERMINATION ON PRELIMINARY AND FINAL PLAN.

Revised
07/23/21 – TOWN COMMENTS
08/27/21 – TOWN COMMENTS
10/04/21 – PLAN SET SUBMITTAL FOR TOWN BOARD



SCALE: 1"=100'
0 50' 100' 200'

SP-202

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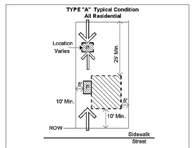
Lot Types / Detached House

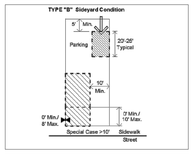
Building Placement/Parking/Vehicle Access



1. Buildings shall be placed on the lot within zone represented by the hatched area except in R & TR zone, where min. front setbacks are 25' and 20' respectively.
   Along new streets, the build-to line shall be a minimum of 10' behind street ROW.
   Along existing streets, front build-to lines of new buildings shall be equal to the average setbacks of existing buildings on the same side of the street within 300'. Where the average setback of existing buildings within 300' exceeds 50' the setback of any new building may vary up to 20' from the setback of an adjacent building, existing or proposed, in order to negotiate a gradual transition to a different building setback. Only in the most exceptional circumstances having to do with extreme topography or very special design composition may these rules of residential building placement be varied.
2. Garages may be detached (entered from front or rear), or attached to the main dwelling, with or without habitable rooms above. Front loaded garages, if provided, shall meet the standards of Section 8.16.
3. A detached garage may be located only in the rear yard.
4. Points of permitted front or rear access to parking indicated by arrows. On corner lots, sideyard access is also permitted.
5. Main pedestrian access to the building is from the street. Secondary access may be from parking areas.
6. For buildings set back from the sidewalk, balconies, stoops, stairs, open porches, bay windows, and, and awnings are permitted to encroach into the front setback area up to 8'.
7. Sideyard setback is 12' in the R zone & 6' in the TR zone.

Description:
The detached house may coexist with other, similarly scaled buildings along town streets. When other building types are integrated with the detached house, the scale of the detached-house type and lot shall control. Civic buildings, however, may exceed the scale of the detached house. Where possible, structures shall be designed to terminate vistas or serve as key focal points in the neighborhood.

Building Placement/Parking/Vehicle Access

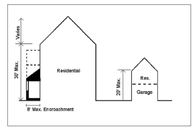


1. Generally, buildings shall be placed on the lot within zone represented by the hatched area. The build-to line will range from 0' to 10' behind street ROW. Special site conditions such as extreme topography may require a larger setback. Sideyard houses are not permitted on in-fill sites abutting existing sideyard houses.
2. A detached garage may be located only in the rear yard. Attached garages are not permitted on sideyard houses.
3. Points of permitted rear access to parking indicated by arrow.
4. Main pedestrian access to the building is from the street. Secondary access may be from parking areas.
5. For buildings set up to the sidewalk, balconies and upper level bay windows may encroach over the sidewalk up to 5'.
6. For buildings set back from the sidewalk, balconies, stoops, stairs, open porches, bay windows, and, and awnings are permitted to encroach into the front setback area up to 8'.
7. Commercial Use in a Detached House (NR district) shall comply with the following:
   a. Parking shall be located in the side or rear yards only. If provided in the front yard, the parking area shall not exceed 25% of the frontage line and shall not be in the yards adjacent to a street.
   b. Parking areas on adjacent mixed use lot shall be connected whenever practical.
   c. Trash containers shall be located in the rear yard. If adjacent to existing single family residential uses, trash containers shall be limited to residential rollout containers only (no dumpster).
   d. Mechanical equipment at ground level shall be placed on the parking lot side of the building away from buildings on adjacent sites and shall be screened from view by an opaque screen.
8. Mechanical equipment shall not encroach into any required setback.

Special Conditions:
1. The intention of buildings in all locations must be to relate the principal facade to the sidewalk and public space of the street.
2. Corners: Setback at street corners will generally replicate frontage conditions. However, side setbacks on a minor street may be less than the front dimension.
3. Within the limits described, those regulations apply to all houses built on public streets. For detached homes on large lots accessed by a private drive in Rural Neighborhoods, building placement and site planning will be dictated by landscape features and landscape preservation.

Building Type / Detached House

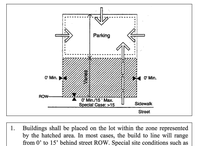
Permitted Height/Uses/Encroachments



1. Building height shall be measured as the vertical distance from the highest finished grade relative to the street frontage, up to the eaves.
2. Building height of main dwelling to ridge may vary depending on the roof pitch.
3. Permitted uses are indicated above.
4. Maximum footprint for a building housing a detached accessory dwelling is 650 square feet or 50% of first floor area of principal residence, whichever is greater.
5. Balconies, stoops, stairs, open porches, bay windows, and awnings are permitted to encroach into setback area up to 8'.
6. Decks, balconies, and porches are permitted to encroach into the rear yard setback as provided in Section 8.8.5.

Lot Type / Shopfront Building

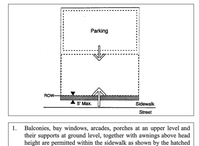
Building Placement/Parking/Vehicular Access



1. Buildings shall be placed on the lot within the zone represented by the hatched area. In most cases, the build to line will range from 0' to 15' behind street ROW. Special site conditions such as topography, pattern of lot widths, or setbacks of existing buildings permit a larger setback.
2. Building facades shall be generally parallel to frontage property lines.
3. Parking shall be located to the rear of the building; sideyard parking shall occupy no more than 25 percent of the primary frontage line and shall not be placed in an established sideyard abutting an intersecting street. Where dimensions of existing lots restrict parking behind buildings, the limitations on sideyard parking may be modified.
4. Points of permitted access to the parking indicated by arrows.
5. Hedges, garden walls, or fences may be built on property lines or as the continuation of building walls. A garden wall, fence, or hedge (min. 3' in height) shall be installed along any street frontage adjacent to parking areas.
6. Parking areas on adjacent lots shall be connected wherever practicable.
7. Trash containers shall be located in a rear parking area (see Parking Regulations).
8. Mechanical and utility equipment at ground level shall be placed in the side or rear yard and shall be screened from view by opaque screening from grade level along any public street or adjacent property (Article 7.6.2). Buildings that front on more than one public street may have mechanical and utility equipment located within a street facing yard, provided it is visually screened using compatible building materials and design as the principle structure. This is applicable only where no other reasonable option exists as determined by the Administrator. Examples of features limiting the location of mechanical and utility equipment may include, but not limited to, the physical layout of existing building, the presence of easements, elevation changes, etc.

Description:
The shopfront building is a small-scale structure which can accommodate a variety of uses. The structure is typically a maximum of 15,000 square feet. A group of shopfront buildings can be combined to form a mixed-use neighborhood center. Individual shopfront buildings can be used to provide some commercial service, such as a convenience food store, in close proximity to homes. Traditional commercial buildings in the old town provide good examples. Hotels, inns, and conference centers may be placed in shopfront or mixed-use buildings. Where possible, structures shall be designed to terminate vistas or serve as key focal points in the neighborhood.

Encroachment/Pedestrian Access to Building

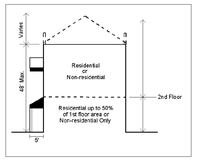


1. Balconies, bay windows, arcades, porches at an upper level and their supports at ground level, together with awnings above head height are permitted within the sidewalk as shown by the hatched area. Encroaching arcades should cover entire sidewalk.
2. Primary pedestrian access into the building shall be from the street frontage line (indicated by larger arrow). Secondary access may be from parking areas (indicated by smaller arrow).

Special Conditions:
1. The intention of buildings in all locations must be to relate the principal facade to the sidewalk and public space of the street.
2. Drive-through customer services, if permitted in the district, must be located at the rear of the building or on a side which does not abut a street.
3. Corners: Setbacks at street corners will generally replicate frontage conditions. However, side setbacks on a minor street may be less than the front dimension.
4. Within the limits described, front and side setbacks will vary depending upon site conditions. Setbacks should be used in a manner which encourages pedestrian activity. Squares or spatially defined plazas within building setback areas can act as focal points for pedestrians.

Building Type / Shopfront Building

Permitted Height and Uses



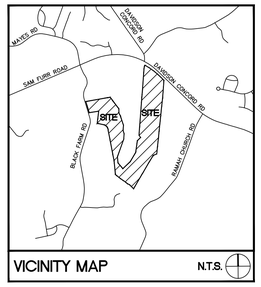
1. Building height shall be measured as the vertical distance from the highest finished grade relative to the street frontage, up to the eaves or the highest level of a flat roof.
2. The height of parapet walls may vary depending upon the need to screen mechanical equipment.
3. Building height to the ridge may vary depending on the roof pitch.
4. Permitted uses are indicated above, and are further controlled by district regulations.
5. Where an existing residential building converts to a mixed-use building, at least 40% of the habitable floors area shall be residential.

Architectural Standards

Principles
A. To perpetuate the unique building character of the town and its environs, and to re-establish its local identity, development shall generally employ building types that are sympathetic to the historic architectural vocabulary of the area in their massing and external materials.
B. Building elevations fronting or visible from public streets shall be clad with masonry, wood, vinyl siding, stucco, or similar material. Metal paneling may not comprise a street fronting building face.
C. The front elevations facing the street, and the overall massing shall communicate emphasis on the human scale and the pedestrian environment.
D. Each building should be designed to form part of a larger composition of the area in which it is situated. Adjacent buildings should thus be of similar scale, height, and configuration.
E. Trailers (mobile units) may not be used as permanent shopfront buildings.

Configurations
A. Two wall materials may be combined horizontally on one facade. The "heavier" material should be below and can cover the first floor only (i.e. brick below wood siding).
B. Street level windows should be untinted. Tinted glass with a minimum visual transmittance factor of 35 is permitted. Mirrored or reflective glass is not permitted in any location.
C. Windows shall be of square or vertical proportion. Special windows may be circular or regular polygons.

Techniques
A. Windows should be set to the inside of the building face wall.
B. All rooftop equipment shall be enclosed in a building material that matches the structure or is visually compatible with the structure.



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NORTH CREEK VILLAGE MIXED-USE REZONING/ SKETCH PLAN

17705 DAVIDSON-CONCORD ROAD
HUNTERSVILLE, NC 28078

BUILDING AND LOT TYPES

Project No.
4661.04

Issued
03/18/21

THIS PLAN IS SCHEMATIC IN NATURE AND LOCATIONS OF ROADS, LOTS AND OTHER AREAS AND IMPROVEMENTS ARE SUBJECT TO FINAL DETERMINATION ON PRELIMINARY AND FINAL PLAN.

Revised
07/23/21 – TOWN COMMENTS
08/27/21 – TOWN COMMENTS
10/04/21 – PLAN SET SUBMITTAL FOR TOWN BOARD

SP-203

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Lot Type / Attached House

Building Placement/Parking/Vehicle Access

1. Buildings shall be placed on the lot within zone represented by the hatched area.
2. Along new streets, the build-to line will range from 10' to 25' behind street ROW. Special site conditions such as topography or lot widths permit a larger setback. Along existing streets, front build-to lines shall typically be equal to the average setbacks for buildings on the same side of the street within 300 feet. However, in more urban conditions, dwellings may be set up to the property line at the sidewalk.
3. Building facades shall be generally parallel to front property lines. All buildings shall front onto a public street.
4. Front loaded garages, if provided, shall meet the standards of Section 8.16.
5. Points of permitted access to parking indicated by arrows.

Encroachment/Pedestrian Access

1. For buildings set up to the sidewalk, balconies and upper level bay windows are permitted to encroach over the sidewalk area up to 5'.
2. For buildings set back from sidewalk, balconies, stoops, stairs, open porches, bay windows, and awnings are permitted to encroach into the front setback area up to 8'.
3. Main pedestrian access to the building is from the street (indicated by larger arrow). Secondary access may be from parking areas (indicated by smaller arrow).
4. Decks must be constructed only in an established rear yard and are permitted to encroach into the rear setback up to 15'.
5. Mechanical equipment shall not encroach into any required setback.

Description:
The attached house is a rowhouse, a townhouse, or a duplex. Traditional southern homes in Savannah and Charleston provide the historic model. Dilworth Crescent in Charlotte provides a good contemporary example. Generally, building plans will have narrow frontages with the plan depth being greater than its width. Where possible, structures shall be designed to terminate vistas or serve as key focal points in the neighborhood.

Special Conditions:
1. The intention of buildings in all locations must be to relate the principal facade to the sidewalk and public space of the street.
2. Corners: Setback at street corners will generally replicate frontage conditions. However, side setbacks on a minor street may be less than the front dimension.
3. Front and side setbacks will vary depending upon site conditions. Setbacks should be used in a manner which encourages pedestrian activity.

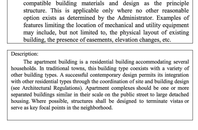
Building Type / Attached House

Permitted Height and Uses

1. Building height shall be measured as the vertical distance from the highest finished grade relative to the street frontage, up to the eaves.
2. Building height to ridge will vary depending upon the roof pitch.
3. Permitted uses are indicated above.
4. Maximum footprint for a building housing a detached accessory dwelling is 650 square feet.

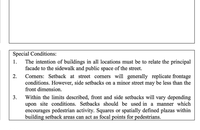
Lot Type / Highway Commercial

Building Placement/Parking/Vehicle Access



1. Buildings shall be placed on the lot within zone represented by the hatched area. In most cases, the build to line will be 15' behind street ROW. Special site conditions such as topography, pattern of lot widths, or setbacks of existing buildings permit a larger setback.
2. Setbacks may vary according to setting within limits indicated.
3. Building facades shall be generally parallel to frontage property lines.
4. Parking shall be located to the rear and/or side of the building. Except in the VS District, sideyard parking may occupy no more than 45% of the principle frontage line. In the VS District, sideyard parking may occupy 50% of the principal frontage line. Parking shall not be placed in any sideyard abutting an intersecting street. Where dimensions of existing lots restrict parking behind buildings, the limitations on sideyard parking may be modified.
5. Points of permitted access to the parking indicated by arrows.
6. Hedges, garden walls, or fences may be built on property lines or as the continuation of building walls. A garden wall, fence, or hedge (min. 3' in height) shall be installed along any street frontage adjacent to parking areas.
7. Parking areas on adjacent lots shall be connected wherever practicable.
8. Trash containers shall be located in a rear parking area (see Parking Regulations).
9. Mechanical and utility equipment at ground level shall be placed in the side or rear yard and shall be screened from view by opaque screening from grade level along any public street or adjacent property (Article 7.6.2). Buildings that front on more than one public street may have mechanical and utility equipment located within a street facing yard, provided it is visually screened using compatible building materials and design as the principle structure. This is applicable only where no other reasonable option exists as determined by the Administrator. Examples of features limiting the location of mechanical and utility equipment may include, but not limited to, the physical layout of existing building, the presence of easements, elevation changes, etc.

Vehicular Circulation/Pedestrian Access



1. Main pedestrian access to the building may be from the side (indicated by the larger arrows). Secondary access must be from the street frontage (indicated by the smaller arrow).
2. Drive-throughs shall be located to the rear of the building.
3. Entrance canopies (for motels, etc.) shall face the street.
4. Typical vehicular circulation movement is indicated by thin line arrows.

Special Conditions:
1. Buildings in all locations should relate a principal facade to the sidewalk and public space of the street.
2. Corners: Setback at street corners will generally replicate frontage conditions.

Description:
1. This building type generally comprises fast food retail, drive through banks, motels and other highway dependent uses. These regulations are designed to bring these building types into a framework of town streets. This building type shall be limited to the Highway Commercial, Campus Business, and Special Purpose Districts. Where possible, structures shall be designed to terminate vistas or serve as key focal points in the neighborhood.

Building Type / Highway Commercial

Permitted Height and Uses

1. Building height shall be measured as the vertical distance from the highest finished grade relative to the street frontage, up to the eaves or the highest level of a flat roof.
2. The height of parapet walls may vary depending upon the need to screen mechanical equipment.
3. Building height to the ridge may vary depending on the roof pitch.
4. Permitted uses are indicated above, and are further controlled by zoning district standards.

Architectural Standards

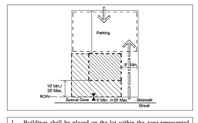
Principles
A. Building elevations fronting or visible from public streets shall be clad with masonry, wood, vinyl siding, stucco, or similar material. Metal paneling may not comprise a street fronting building face. Decorative metal panels such as Aluminum Composite Material (ACM) panels may be used as an accent or trim material and as cladding for building accent elements such as canopies and their supporting structure. Decorative metal panel accents however, may not exceed 30% of any façade.
B. All walls not visible from a public right-of-way may be constructed of cinder block, bricks, wood or vinyl siding, or approved metal paneling but shall be painted to match the overall color scheme of the rest of the building.
C. Trailers (mobile units) may not be used as permanent highway commercial buildings.

Configurations
A. Two wall materials may be combined horizontally on one façade. The "heavier" material should be below (i.e. brick below wood siding).
B. Street level windows should be untinted. Tinted glass with a minimum visual transmittance factor of 35 is permitted. Mirrored or reflective glass is not permitted in any location.

Techniques
A. All rooftop equipment shall be enclosed in a building material that matches the structure or is visually compatible with the structure.

Lot Type / Apartment Building

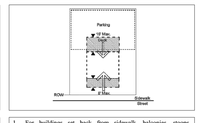
Building Placement/Parking/Vehicle Access



1. Buildings shall be placed on the lot within the zone represented within the hatched area.
2. In most cases, the build to line will be 15' behind street ROW. Special site conditions such as topography, pattern of lot widths, or setbacks of existing buildings permit a larger setback. In urban conditions, apartments may be set up to the property line at the sidewalk, including corner conditions.
3. Building facades shall be generally parallel to front property lines. All buildings shall front onto a public street. All ground floor residential units with exterior access shall front a public street, unless specifically exempted by one of the provisions of Section 8.1.
4. Parking shall be located to the rear of the building.
5. Points of permitted access to the parking indicated by arrows.
6. Hedges, garden walls, or fences may be built on property lines or as the continuation of building walls. A garden wall, fence, or hedge (min. 3' in height) shall be installed along any street frontage adjacent to parking areas.
7. Trash containers shall be located in the rear parking area (see Parking Regulations).
8. Mechanical and utility equipment at ground level shall be placed in the side or rear yard and shall be screened from view by opaque screening from grade level along any public street or adjacent property (Article 7.6.2). Buildings that front on more than one public street may have mechanical and utility equipment located within a street facing yard, provided it is visually screened using compatible building materials and design as the principle structure. This is applicable only where no other reasonable option exists as determined by the Administrator. Examples of features limiting the location of mechanical and utility equipment may include, but not limited to, the physical layout of existing building, the presence of easements, elevation changes, etc.

Description:
The apartment building is a residential building accommodating several households. In traditional towns, this building type coexists with a variety of other building types. A successful contemporary design permits its integration with other residential types through the coordination of site and building design (see Architectural Regulations). Apartment complexes should be one or more separated buildings similar in their scale on the public street to large detached housing. Where possible, structures shall be designed to terminate vistas or serve as key focal points in the neighborhood.

Encroachment/Pedestrian Access

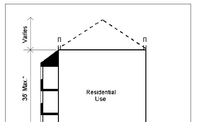


1. For buildings set back from sidewalk, balconies, stoops, stairs, open porches, bay windows, and awnings are permitted to encroach into setback area up to 8'.
2. Attached decks are permitted to encroach into the rear setback up to 15 feet.
3. For buildings set up to the sidewalk, upper level balconies, bay windows and their supports at ground level may encroach a maximum of 5'0" over the sidewalk.
4. Main pedestrian access to the building and to individual units is from the street (indicated by larger arrow), unless specifically exempted by one of the provisions of Section 8.1. Secondary access may be from parking areas (indicated by smaller arrow).

Special Conditions:
1. The intention of buildings in all locations must be to relate the principal facade to the sidewalk and public space of the street.
2. Corners: Setback at street corners will generally replicate frontage conditions. However, side setbacks on a minor street may be less than the front dimension.
3. Within the limits described, front and side setbacks will vary depending upon site conditions. Setbacks should be used in a manner which encourages pedestrian activity. Squares or spatially defined plazas within building setback areas can act as focal points for pedestrians.

Building Type / Apartment Building

Permitted Height and Uses



1. Building height shall be measured as the vertical distance from the highest finished grade relative to the street frontage, up to the eaves or the highest level of a flat roof.
2. The height of parapet walls may vary depending upon the need to screen mechanical equipment.
3. Building height to the ridge may vary depending on the roof pitch.
4. Permitted uses are indicated above.

Architectural Standards

Principles
A. To perpetuate the unique building character of the town and its environs, and to re-establish its local identity, development shall generally employ building types that are sympathetic to the historic architectural vocabulary of the area in their massing and external materials.
B. The front elevations facing the street, and the overall massing shall communicate an emphasis on the human scale and the pedestrian environment.
C. Each building should be designed to form part of a larger composition of the area in which it is situated. Adjacent buildings should thus be of similar scale, height, and configuration.
D. Building silhouettes should be generally consistent. The scale and pitch of roof lines should thus be similar across groups of buildings.
E. Porches should form a predominant motif of house designs, and be located on the front or to the side of the dwelling. When attached to the front, they should extend over at least 15% of the front facade. All porches should be constructed of materials in keeping with those of the main building.
F. Front loaded garages, if provided, shall meet the standards of Section 8.16.
G. At a minimum, the Americans with Disabilities Act standards for accessibility shall be met.

Configurations
A. Main roofs on residential buildings shall be symmetrical gables or hips with a pitch of between 4:12 and 12:12. Monopitch (shed) roofs are allowed only if they are attached to the wall of the main building. No monopitch shall be less than 4:12. All accessory buildings shall have roof pitches that conform to those of the main building.
B. Balconies should generally be simply supported by posts and beams. The support of cantilevered balconies should be assisted by visible brackets.
C. Two wall materials may be combined horizontally on one facade. The "heavier" material should be below.
D. Exterior chimneys should be finished in brick or stucco.

Techniques
A. Overhanging eaves may expose rafters.
B. Flush eaves should be finished by profiled molding or gutters.

SITE PLAN DATA TABLE

PROJECT NAME:	NORTH CREEK MIXED-USE REZONING	
PARCEL NUMBER:	01107311, 01126101, 01126113	
SITE ACREAGE:	±84.00 ACRES (GIS) (INCLUDES APPROVED PHASE I)	
REZONING ACREAGE:	±84.00 ACRES (KNOWN AS PHASE II)	
PRINCIPAL USES:	COMMERCIAL, MULTI-FAMILY, SINGLE FAMILY ATTACHED, SINGLE FAMILY DETACHED	
BUILDING TYPE/HEIGHT:	COMMERCIAL(SHOPFRONT):	UP TO 48' (EXCLUDES ROOF)
	COMMERCIAL (HC):	UP TO 36' (EXCLUDES ROOF)
	APARTMENT:	UP TO 36' (EXCLUDES ROOF)
	SINGLE FAMILY ATTACHED:	UP TO 30' (EXCLUDES ROOF)
	SINGLE FAMILY DETACHED:	UP TO 30' (EXCLUDES ROOF)
EXISTING ZONING DISTRICT:	HC (CD), R	
PROPOSED ZONING DISTRICT:	HC (CD), TND-U (CD)	
HC (CD) SUMMARY		
TOTAL COMMERCIAL SQUARE FOOTAGE:	42,500 SF ±	
TOTAL PARKING REQUIRED:	85 SPACES (1 SPACE PER 500 SF)	
TOTAL PARKING PROVIDED:	213 SPACES (5 SPACES PER 1,000 SF)	
TND-U (CD) SUMMARY		
MULTI-FAMILY UNITS:	303 UNITS	
TOTAL PARKING REQUIRED:	455 SPACES (1.5 SPACES PER UNIT)	
TOTAL PARKING PROVIDED:	474 SPACES (1.56 SPACES PER UNIT)	
SINGLE FAMILY ATTACHED LOTS:	65 UNITS (TOWNHOMES)	
TOTAL PARKING REQUIRED:	130 SPACES (2 SPACES PER UNITS)	
TOTAL PARKING PROVIDED:	130 SPACES (2 GARAGE SPACES PER UNIT)	
SINGLE FAMILY DETACHED LOTS:	32 LOTS (50' X 130') 45 LOTS (60' X 130')	
WATERSHED:	ROCKY RIVER, CLARK	
IMPERVIOUS AREA		
EXISTING IMPERVIOUS AREA:	±TBD ACRES (TBD%)	
PROPOSED IMPERVIOUS AREA:	±TBD ACRES (TBD%)	

BUILDING DEVELOPMENT SUMMARY

COMMERCIAL A: HIGHWAY COMMERCIAL/SHOPFRONT
±6,000 SF
REQUIRES 12 SPACES (1 SPACE PER 500 SQFT)

COMMERCIAL B: HIGHWAY COMMERCIAL/SHOPFRONT
±6,000 SF
REQUIRES 12 SPACES (1 SPACE PER 500 SQFT)

COMMERCIAL C: HIGHWAY COMMERCIAL/SHOPFRONT
±21,500 SF
REQUIRES 43 SPACES (1 SPACE PER 500 SQFT)

COMMERCIAL D: HIGHWAY COMMERCIAL/SHOPFRONT
±9,500 SF
REQUIRES 19 SPACES (1 SPACE PER 500 SQFT)

BUILDING A : MULTI-FAMILY
±8,400 (3-STORY)
18 UNITS

BUILDING B : MULTI-FAMILY
±8,400 (3-STORY)
18 UNITS

BUILDING C: MULTI-FAMILY
±8,400 (3-STORY)
18 UNITS, CLUB/LEASING

BUILDING D: MULTI-FAMILY
±8,400 (3-STORY)
18 UNITS

BUILDING E: MULTI-FAMILY
±8,400 SF (3-STORY)
18 UNITS

BUILDING F: MULTI-FAMILY
±12,600 (3-STORY)
36 UNITS

BUILDING G: MULTI-FAMILY
±12,600 (3-STORY)
36 UNITS

BUILDING H: MULTI-FAMILY
±12,600 SF (3-STORY)
36 UNITS

BUILDING I: MULTI-FAMILY
±8,400 (3/4-STORY)
21 UNITS

BUILDING J: MULTI-FAMILY
±12,600 (3/4-STORY)
42 UNITS

BUILDING K: MULTI-FAMILY
±12,600 (3/4-STORY)
42 UNITS

BUILDING BUILD-TO-RANGE (BTR)/SETBACK TABLE

SAM FURR ROAD
PRIMARY BUILDING TYPE: SHOPFRONT/HIGHWAY COMMERCIAL
BUILD-TO-RANGE: 0' – 15'
SIDE SETBACK: 0'
REAR SETBACK: 0'

PROSPERITY CHURCH ROAD EXTENSION
PRIMARY BUILDING TYPE: SHOPFRONT/HIGHWAY COMMERCIAL/APARTMENT
BUILD-TO-RANGE: 0' – 15'
SIDE SETBACK: 0'
REAR SETBACK: 0'

PROPOSED INTERNAL PUBLIC STREET A
PRIMARY BUILDING TYPE: SHOPFRONT/APARTMENT
BUILD-TO-RANGE: 0' – 15'
SIDE SETBACK: 0'
REAR SETBACK: 0'

PROPOSED INTERNAL PUBLIC STREET B
PRIMARY BUILDING TYPE: APARTMENT
BUILD-TO-RANGE: 0' – 15'
SIDE SETBACK: 0'
REAR SETBACK: 0'

PROPOSED INTERNAL PUBLIC STREET C, D, & E
PRIMARY BUILDING TYPE: ATTACHED HOUSE
BUILD-TO-RANGE: 0'–25'
SIDE SETBACK: 0'
REAR SETBACK: 5'–35' MINIMUM

PRIMARY BUILDING TYPE: DETACHED HOUSE
BUILD-TO-RANGE: 0'–15'
SIDE SETBACK: 5' MINIMUM
REAR SETBACK: 5'–25' MINIMUM

REZONING NOTES

1. REZONING PETITION. THESE REZONING NOTES COMPRISE THE DEVELOPMENT STANDARDS ("DEVELOPMENT STANDARDS") ASSOCIATED WITH THE REZONING PETITION (THE "REZONING PETITION") FILED BY ("PETITIONER") ON APRIL 1, 2021 (THE "FILING DATE") AS REZONING PETITION & SKETCH PLAN (THE "REZONING PLAN") FOR THAT APPROXIMATELY 84.6 ACRE TRACT OF LAND, IDENTIFIED ON THIS SITE PLAN AS NORTH CREEK MIXED USE (THE "PROJECT") IN CONNECTION WITH PART OF TAX PARCEL NUMBERS 01107311, 01107319, 01107320, 01126101, AND 01126113, (THE "PROPERTY"). THE PURPOSE OF THE REZONING PETITION IS TO CONVERT THE ZONING CLASSIFICATION OF THE PROPERTY FROM RURAL TO HIGHWAY COMMERCIAL – CD/TND-U-CD ZONING CLASSIFICATION IN ACCORDANCE WITH THE PROVISIONS OF THE TOWN OF HUNTERSVILLE ZONING ORDINANCE (THE "ORDINANCE").

2. DEVELOPMENT STANDARDS AND CONDITIONS. DEVELOPMENT OF THE PROPERTY WILL BE GOVERNED BY THESE DEVELOPMENT STANDARDS, WHICH ARE PART OF THE REZONING PETITION, AND THE APPLICABLE PROVISIONS OF THE ORDINANCE IN PLACE ON THE DATE OF THE FILING OF THE REZONING PLAN. UNLESS THE REZONING PLAN ESTABLISHES A MORE STRINGENT STANDARD(S), OR UNLESS OTHERWISE NOTED ON THE REZONING PLAN OR IN THESE DEVELOPMENT STANDARDS, THE REGULATIONS ESTABLISHED UNDER THE ORDINANCE IN PLACE ON THE DATE OF THE FILING OF THE REZONING PLAN GOVERN DEVELOPMENT OF THE PROPERTY AS SHOWN ON THE REZONING PLAN. THE BUILD TO RANGE IS 10' TO 15' FOR BUILDINGS FRONTING HIGHWAY 73.

3. SCHEMATIC NATURE OF REZONING PLAN. THE LOTS AND PROPOSED IMPROVEMENTS SHOWN ON THE REZONING PLAN ARE SCHEMATIC IN NATURE AND EXACT LOCATIONS, ARCHITECTURE, SIZE, NUMBER OR QUANTITY AND CONFIGURATIONS OF LOTS AND IMPROVEMENTS MAY BE MODIFIED DURING DESIGN, ENGINEERING AND CONSTRUCTION PHASES OF THE DEVELOPMENT SO LONG AS SUCH MODIFICATION IS COMPATIBLE WITH THE APPROXIMATE LAYOUT, ARCHITECTURE, SIZE, NUMBER, QUANTITY AND LOCATION OF LOTS AND IMPROVEMENTS SHOWN ON THE REZONING PLAN. FOR EXAMPLE, THE AMENITY CENTER FOR THE MULTI-FAMILY PROJECT MAY BE RELOCATED WITHIN THE PROJECT AND OTHER BUILDINGS MODIFIED AND RELOCATED TO ACCOMMODATE THE NEW AMENITY CENTER LOCATION. TOWNHOMES MAY BE REDESIGNED AS ATTACHED HOUSES OR SINGLE-FAMILY HOMES WITH ADMINISTRATIVE APPROVAL SO LONG AS THE TOTAL NUMBER OF RESIDENTIAL UNITS IN THE PROJECT IS NOT INCREASED BEYOND THE TOTAL NUMBER OF RESIDENTIAL UNITS LISTED ON THE REZONING PLAN. THE EXACT ALIGNMENTS OF THE INTERNAL DRIVES AND INTERNAL PUBLIC STREETS HAVE NOT BEEN DETERMINED AND ARE SUBJECT TO FINAL DESIGN AND ENGINEERING PLANS, AND MINOR MODIFICATIONS OR ALTERATIONS OF THESE ALIGNMENTS MAY TAKE PLACE DURING DESIGN DEVELOPMENT AND CONSTRUCTION PHASES. MAJOR AMENDMENTS ARE DETERMINED BY STAFF FOR ALL CD REZONING PLANS. COMMERCIAL BUILDINGS MAY BE CONVERTED TO MIXED-USE BUILDINGS SO LONG AS THE TOTAL NUMBER OF RESIDENTIAL UNITS IN THE PROJECT IS NOT INCREASED BEYOND THE TOTAL NUMBER OF RESIDENTIAL UNITS LISTED ON THE REZONING PLAN.

4. PHASING. THE DEVELOPMENT OF THE PROPERTY AS GENERALLY DEPICTED ON THE REZONING PLAN MAY BE PHASED. ANY PROPOSED PHASING MUST ALIGN WITH REQUIRED TIA, INFRASTRUCTURE AND STORMWATER IMPROVEMENTS; PROVIDED, HOWEVER, ANY MITIGATION REQUIRED BY NCDOT WILL BE COORDINATED WITH NCDOT AND EACH PHASE OR SEQUENCE OF IMPROVEMENTS IN THE PROJECT WILL MEET ALL ORDINANCE REQUIREMENTS. UTILITIES, INFRASTRUCTURE, AND GRADING SHALL BE DELIVERED TO EACH INDIVIDUAL PHASE AS EACH IS DEVELOPED.

5. VESTED RIGHTS. THIS REZONING PLAN IS A SITE-SPECIFIC DEVELOPMENT PLAN AND APPROVAL THEREOF CONSTITUTES VESTED RIGHTS IN THE REZONING PLAN PURSUANT TO THE PROVISIONS OF THE ORDINANCE. NOTWITHSTANDING ANY OTHER PROVISIONS OF THESE DEVELOPMENT STANDARDS, IF, AT SOME POINT, MODIFICATIONS ARE MADE TO THE ORDINANCE BY THE TOWN BOARD, PETITIONER MAY VOLUNTARILY AGREE TO APPLY SUCH MODIFICATIONS TO THE REZONING PLAN IN A MANNER CONSISTENT WITH THE ORDINANCE AS IT CHANGES FROM TIME TO TIME, AND WITHOUT PURSUING A REZONING. SUCH MODIFICATIONS TO THE ORDINANCE SHALL IN NO WAY IMPACT THE PETITIONER'S VESTED RIGHTS.

6. PERMITTED USES. THE PROPERTY MAY BE DEVELOPED FOR ANY USES (INCLUDING ACCESSORY USES) PERMITTED IN THE HC FOR THE PORTION OF THE PROPERTY PROPOSED FOR HC-CD ZONING AND FOR ANY USES (INCLUDING ACCESSORY USES) PERMITTED IN TND-U ZONING DISTRICTS FOR THE PORTION OF THE PROPERTY PROPOSED FOR TND-U ZONING, INCLUDING MULTI-FAMILY RESIDENTIAL, ATTACHED AND DETACHED RESIDENTIAL, AND COMMERCIAL USES AS SHOWN ON THE REZONING PLAN, SUBJECT TO THE DEVELOPMENT STANDARDS ASSOCIATED WITH SUCH USES; PROVIDED, HOWEVER, THE DENSITY TRANSITION GENERALLY SHOWN ON THE REZONING PLAN SHALL BE MAINTAINED. ANY LABELLING ON THE REZONING PLAN MAY BE AN INDICATION OF THE CURRENT INTENTION ON THE PART OF PETITIONER BUT SHALL NOT RESTRICT THE PROPERTY IN A MANNER THAT CONFLICTS WITH THE PROVISIONS OF THESE DEVELOPMENT NOTES. DRIVE-UP AND WALK-UP AUTOMATED TELLER MACHINES AND DRIVE-THROUGH RESTAURANTS AND COMMERCIAL USES ARE SPECIFICALLY PERMITTED IN THE HC-CD AREA SO LONG AS THEY MEET THE DESIGN REQUIREMENTS OF THE ORDINANCE.

7. ACCESS. THE NUMBER OF SITE ACCESS POINTS, DRIVEWAYS AND CONNECTIONS TO ROADS ARE SCHEMATIC IN NATURE. TO THE EXTENT PERMITTED BY APPLICABLE DRIVEWAY PERMIT REQUIREMENTS, FUTURE DRIVEWAYS, ACCESS POINTS AND ROAD CONNECTIONS MAY CROSS THE SETBACK AND SHALL NOT REQUIRE A REZONING OF THE PROPERTY BUT SHALL OTHERWISE COMPLY WITH APPLICABLE DRIVEWAY PERMIT REQUIREMENTS. IN PARTICULAR, THE STUB CONNECTION ADJACENT TO THE SOUTHERN PROVINCE MORAVIAN CHURCH PROPERTY MAY BE RELOCATED TO CONNECT ACROSS PROPERTY OWNED BY PETITIONER. MINOR CHANGES TO EXTERNAL CONNECTIONS MAY BE APPROVED ADMINISTRATIVELY.

8. SUBDIVISION. THE PROPERTY IS ONE DEVELOPMENT AND MAY BE SUBDIVIDED WITHOUT A REZONING TO ALLOW SEPARATE OWNERS OF INDIVIDUAL PARCELS SO LONG AS SUCH SUBDIVISION IS IN COMPLIANCE WITH APPLICABLE LAW INCLUDING SUBDIVISION REGULATIONS. HOWEVER, RECOMBINATION, CONDOMINIUMIZATION, OR REDUCTION IN THE NUMBER OF PARCELS MAY OCCUR IN ACCORDANCE WITH THE REGULATIONS OF THE ORDINANCE. REQUIREMENTS THAT ARE MET BY THE PROJECT AS A WHOLE, SUCH AS OPEN SPACE, TREE SAVE AND IMPERVIOUS REQUIREMENTS, NEED NOT BE MET BY INDIVIDUAL PARCELS.

9. STREET IMPROVEMENTS. PETITIONER SHALL BE REQUIRED TO INSTALL SIDEWALKS;–STREET TREES, PLANTING STRIPS, BICYCLE LANES OR OTHER STREET IMPROVEMENTS AS A CONDITION OF THE APPROVAL OF THIS REZONING PLAN AS SPECIFICALLY SHOWN ON THE REZONING PLAN AND AS REQUIRED BY THE ZONING ORDINANCE, SUBDIVISION ORDINANCE, APPLICABLE HUNTERSVILLE/NCDOT TIA, OR DRIVEWAY PERMIT REQUIREMENTS.

10. LANDSCAPING/BUFFERS. EXCEPT AS OTHERWISE SHOWN ON THE REZONING PLAN, DEVELOPMENT OF THE PROPERTY SHALL COMPLY WITH THE LANDSCAPING AND BUFFER REQUIREMENTS OF THE ORDINANCE. ALL PARKING LOT AND OTHER REQUIRED SCREENING SHALL BE IN COMPLIANCE WITH THE ORDINANCE.

11. AMENDMENT. FUTURE AMENDMENTS TO THE REZONING PLAN AND/OR THESE DEVELOPMENT STANDARDS MAY BE APPLIED FOR BY THE THEN OWNER OF OWNERS OF THE PROPERTY IN ACCORDANCE WITH THE PROVISIONS OF THE ORDINANCE; PROVIDED, HOWEVER, IN THE EVENT ANY PORTION OF THE PROPERTY IS CONVEYED TO A THIRD PARTY, PETITIONER MAY REQUEST AN AMENDMENT TO THE REZONING PLAN WITHOUT THE WRITTEN CONSENT OF ANY OTHER OWNER OF ALL OR ANY PORTION OF THE PROPERTY UNLESS SUCH AMENDMENT CONSTITUTES A CHANGE IN THE BUILDING OR USE OF THE PORTION OF THE PROPERTY OWNED BY SUCH OWNER, PROVIDED PETITIONER PROVIDES FOR SUCH AMENDMENT RIGHT IN THE RECORDED PRIVATE RESTRICTIVE COVENANTS THAT GOVERN THE PROJECT. ALL REQUIREMENTS IN CONJUNCTION WITH THE AMENDMENT WILL BE CALCULATED ON THE PROPERTY AS A WHOLE IN THE SAME MANNER SUCH REQUIREMENTS WERE CALCULATED AT THE TIME OF THE INITIAL APPROVAL. THIS NOTE SHALL BE SHOWN ON THE FINAL PLAT WHEN RECORDED.

12. BMP DESIGN. THE DESIGNS FOR THE BMPS SHOWN ON THE REZONING PLAN SHALL BE FINALIZED DURING THE CONSTRUCTION PHASE AND SHALL BE COMPLETED AS A PART OF THE INFRASTRUCTURE IMPROVEMENTS.

13. BINDING EFFECT OF THE REZONING DOCUMENTS AND DEFINITIONS. IF THIS REZONING PETITION IS APPROVED, ALL CONDITIONS APPLICABLE TO THE USE AND DEVELOPMENT OF THE SITE IMPOSED UNDER THESE DEVELOPMENT STANDARDS AND THE REZONING PLAN WILL, UNLESS AMENDED IN THE MANNER PROVIDED UNDER THE ORDINANCE, BE BINDING UPON AND INURE TO THE BENEFIT OF PETITIONER AND THE CURRENT AND SUBSEQUENT OWNERS OF THE SITE AND THEIR RESPECTIVE SUCCESSORS IN INTEREST AND ASSIGNS. THROUGHOUT THESE DEVELOPMENT STANDARDS, THE TERM "PETITIONER" SHALL BE DEEMED TO INCLUDE THE HEIRS, DEVISEES, PERSONAL REPRESENTATIVES, SUCCESSORS IN INTEREST AND ASSIGNS OF PETITIONER OR THE OWNER OR OWNERS OF THE SITE FROM TIME TO TIME WHO MAY BE INVOLVED IN ANY FUTURE DEVELOPMENT THEREOF.

14. ANNEXATION. PETITIONER SHALL REQUEST THAT THE PROPERTY BE ANNEXED IN ACCORDANCE WITH TOWN REGULATIONS.

REQUESTED MODIFICATIONS

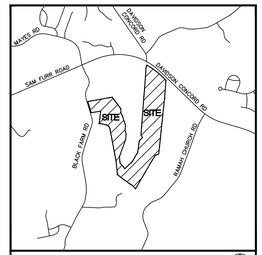
1. THE DISTANCE BETWEEN THE BUILDING ENVELOPE OF ANY RESIDENCE AND THE TELECOMMUNICATIONS TOWER SHOWN ON THE PLAN SHALL BE AT LEAST NINETY-FOUR FEET (94').

2. CONSTRUCTION TRAFFIC SHALL ACCESS PROPERTY FROM HIGHWAY 73 ONLY.

3. THE CENTERLINE RADII RELATED TO SPECIFIC PROPOSED STREETS, AS NOTED ON THE SKETCH PLAN, SHALL BE PERMITTED TO BE LESS THAN THE REQUIRED 200' IF THE STREETS ARE DESIGNED TO A 20 MPH POSTED SPEED, INCLUDE TRAFFIC CALMING METHODS, OR A COMBINATION OF BOTH METHODS TO SLOW VEHICULAR TRAFFIC ALONG THOSE CURVES.

SKETCH PLAN NOTES

1. ALL DEVELOPMENT AND CONSTRUCTION SHALL COMPLY WITH ALL ZONING AND SUBDIVISION STANDARDS OF THE TOWN OF HUNTERSVILLE, MECKLENBURG COUNTY, AND NCDOT, AS APPLICABLE.
2. THIS PROPERTY MAY BE SUBJECT TO ANY EASEMENTS AND/OR RIGHT-OF-WAY OF RECORD.
3. ALL AREAS DESIGNATED AS COMMON OPEN SPACE OR URBAN SPACE SHALL BE OWNED AND MAINTAINED BY THE PROPERTY OWNERSHIP ASSOCIATION AND DEDICATED FOR PUBLIC/PRIVATE USE IN PERPETUITY.
4. ACCESS (INGRESS/EGRESS) LOCATION AND DESIGN SHOWN ON THIS SKETCH PLAN AREA SUBJECT TO ACHIEVING VERTICAL AND HORIZONTAL SIGHT DISTANCES, TURN LANE IMPROVEMENTS (INCLUDING RIGHT-OF-WAY) AND INTERSECTION WITH ADJACENT AND OPPOSING ACCESS POINTS. MODIFICATION TO PLAN MAY RESULT.
5. LARGE MATURING TREES WILL BE PLANTED 40' O/C WITHIN THE REQUIRED PLANTING STRIP ALONG ALL STREETS WITH THE EXCEPTION OF RURAL PARKWAYS WHERE EXISTING TREES CAN SATISFY THE STREET TREE REQUIREMENT. SMALL MATURING TREES ARE TO BE USED WHERE OVERHEAD POWER LINES EXIST.
6. MAIL LOCATIONS TO BE REVIEWED AND APPROVED DURING CONSTRUCTION DOCUMENTS. MAIL TO BE DELIVERED TO (1) ONE LOCATION WITHIN EACH BUILDING ENVELOPE THAT INCLUDES RESIDENTIAL USES. COMMERCIAL MAIL DELIVERY TO BE DETERMINED IN CONJUNCTION WITH POST MASTER. THIS IS SUBJECT TO CHANGE PENDING FINAL DESIGN AND APPROVALS.
7. THE PROPOSED DEVELOPMENT WILL BE SERVED BY PRIVATE WASTE MANAGEMENT FOR TRASH COLLECTION.
8. THE TOWN OF HUNTERSVILLE BUILD TO LINE IS DEFINED AS, "A LINE EXTENDING THROUGH A LOT WHICH IS GENERALLY PARALLEL TO THE FRONT PROPERTY LINE AND MARKS THE LOCATION FROM WHICH THE PRINCIPLE VERTICAL PLANE OF THE FRONT BUILDING ELEVATION, EXCLUSIVE OF PORCHES, BAY WINDOWS AND SIMILAR APPURTENANCES, MUST BE ERECTED; INTENDED TO CREATE AN EVEN BUILDING FACADE LINE ON A STREET. THE BUILD-TO LINE IS ESTABLISHED ON THE RECORD PLAT (FINAL PLAT)."
9. THE PROPOSED DEVELOPMENT WILL CONSIST OF A GRAVITY DRIVEN SANITARY SEWER SYSTEM. THE SANITARY SEWER WILL SERVE EACH PROPOSED BUILDING AND TIE TO THE PROPOSED PUBLIC SYSTEM WITHIN THE DEVELOPMENT. THE PUBLIC SYSTEM WITHIN THE DEVELOPMENT WILL TIE INTO THE PUBLIC SYSTEM ALREADY IN PLACE AT TIME OF CO'S WHICH WILL BE ACCESSED FROM THE CONNECTION ALONG RAMAH CREEK.
10. THE PROPOSED DEVELOPMENT WILL CONSIST OF PUBLIC AND PRIVATE WATER LINE CONNECTIONS WHICH WILL TIE INTO THE EXISTING PUBLIC WATERLINES LOCATED ON US HIGHWAY 73 (DAVIDSON-CONCORD ROAD) AND IN NORTH CREEK COMMERCIAL AND PHASE 2– RESIDENTIAL DEVELOPMENTS.
11. ALL RETAINING WALLS REQUIRING SPECIAL INSPECTIONS (GREATER THAN 5' IN HEIGHT) SHALL MEET THE REQUIREMENTS OF THE MCSBC CHAPTER 17 – SPECIAL INSPECTIONS AS DETAILED PER THE MECKLENBURG COUNTY CODE ENFORCEMENT SPECIAL INSPECTIONS PROCESS. ADDITIONALLY, COPIES OF THE RETAINING WALL PLANS SHALL BE SUBMITTED TO THE HUNTERSVILLE ENGINEERING DEPARTMENT FOR REVIEW AND APPROVAL. THE TOWN OF HUNTERSVILLE SHALL BE COPIED ON ALL STATEMENTS OF SPECIAL INSPECTIONS, SPECIAL INSPECTIONS FINAL REPORTS, AND DESIGN PRINCIPAL IN RESPONSIBLE CHARGE (DPIRC) LETTERS.
12. THE TOWN OF HUNTERSVILLE REQUIRES THAT ALL STREETS PROPOSED TO BE TAKEN OVER BY THE TOWN FOR MAINTENANCE BE REVIEWED, INSPECTED AND CERTIFIED BY A LICENSED PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF NORTH CAROLINA FOR ADEQUATE CONSTRUCTION. REVIEW OF STREET CONSTRUCTION BY THE CERTIFYING ENGINEER IS REQUIRED THROUGHOUT THE CONSTRUCTION PROCESS. REFER TO THE TOWN OF HUNTERSVILLE ENGINEERING STANDARDS AND PROCEDURES MANUAL FOR ADDITIONAL INFORMATION INCLUDING THE REQUIRED CERTIFICATION FORM.
13. THIS PROJECT MAY BE BUILT IN MULTIPLE PHASES. FINAL PHASING SUBJECT TO CHANGE.
14. A SKETCH PLAN IS BEING REVIEWED CONCURRENTLY WITH THE REZONING PLAN AND WILL COMPLY WITH THE APPROVED REZONING PLAN.
15. TRASH CONTAINERS TO BE LOCATED IN REAR PARKING AREAS.
16. BUILDING UTILITIES (MECHANICAL EQUIPMENT) TO BE LOCATED IN THE SIDE/REAR ONLY: NOT PERMITTED ON STREET SIDE GENERALLY.
17. TRANSPORTATION MODELING COMPLETED BY THE DEPARTMENT OF TRANPORTATION RELATED TO US HIGHWAY 73 (DAVIDSON-CONCORD ROAD) MAY IMPACT SITE AND PLAN WILL BE REVISED ACCORDINGLY.



VICINITY MAP N.T.S.

SURVEY DISCLAIMER

WETLANDS AND TREE SURVEY DATE: MAY 28, 2021, UPDATED ON JUNE 7, 2021. SURVEY PREPARED BY ATLAS ENVIRONMENTAL: 338 SHARON AMITY RD #411, CHARLOTTE, NC 28211. (704)-512-1206 / WWW.ATLASENVI.COM. ALL OTHER INFO OBTAINED FROM MECKLENBURG COUNTY GIS, UPDATED AS OF SEPTEMBER 23, 2019.

ColeJenest & Stone

Shaping the Environment
Realizing the Possibilities

Land Planning
+
Landscape Architecture
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Civil Engineering
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Urban Design

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RALEIGH, NC 27612

NORTH CREEK VILLAGE MIXED-USE REZONING/ SKETCH PLAN

17705 DAVIDSON-CONCORD ROAD
HUNTERSVILLE, NC 28078

DEVELOPMENT NOTES

Project No.
4661.04

Issued
03/18/21

THIS PLAN IS SCHEMATIC IN NATURE. AND LOCATIONS OF ROADS, LOTS AND OTHER AREAS AND IMPROVEMENTS ARE SUBJECT TO FINAL DETERMINATION ON PRELIMINARY AND FINAL PLAN.

Revised

07/23/21 – TOWN COMMENTS
08/27/21 – TOWN COMMENTS
10/04/21 – PLAN SET SUBMITTAL FOR TOWN BOARD

BOLTON & MENK, INC. CAMPBELL WILLIAM SEAN P. 2019031864 REGISTERED PROFESSIONAL ENGINEER
PRELIMINARY NOT FOR CONSTRUCTION
10/04/21

SP-204

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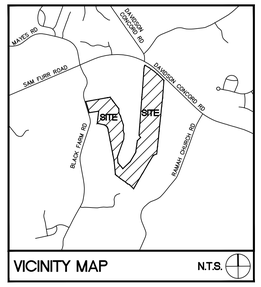

VICINITY MAP N.T.S.

SURVEY DISCLAIMER

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LEGEND

SYMBOL

- PROPOSED ZONING AMENDMENT TND-U (CD): ±78.4 ACRES
- PROPOSED ZONING AMNEDMENT HC (CD): ±5.65 ACRES
- ZONING BOUNDARY

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RALEIGH, NC 27612

NORTH CREEK VILLAGE MIXED-USE REZONING/ SKETCH PLAN

17705 DAVIDSON-CONCORD ROAD
HUNTERSVILLE, NC 28078

ZONING MAP

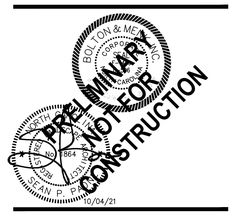
Project No.
4661.04

Issued
03/18/21

THIS PLAN IS SCHEMATIC IN NATURE. AND LOCATIONS OF ROADS, LOTS AND OTHER AREAS AND IMPROVEMENTS ARE SUBJECT TO FINAL DETERMINATION ON PRELIMINARY AND FINAL PLAN.

Revised

07/23/21 – TOWN COMMENTS
08/27/21 – TOWN COMMENTS
10/04/21 – PLAN SET SUBMITTAL FOR TOWN BOARD



SCALE: 1"= 200'
0 100' 200' 400'
N

SP-205

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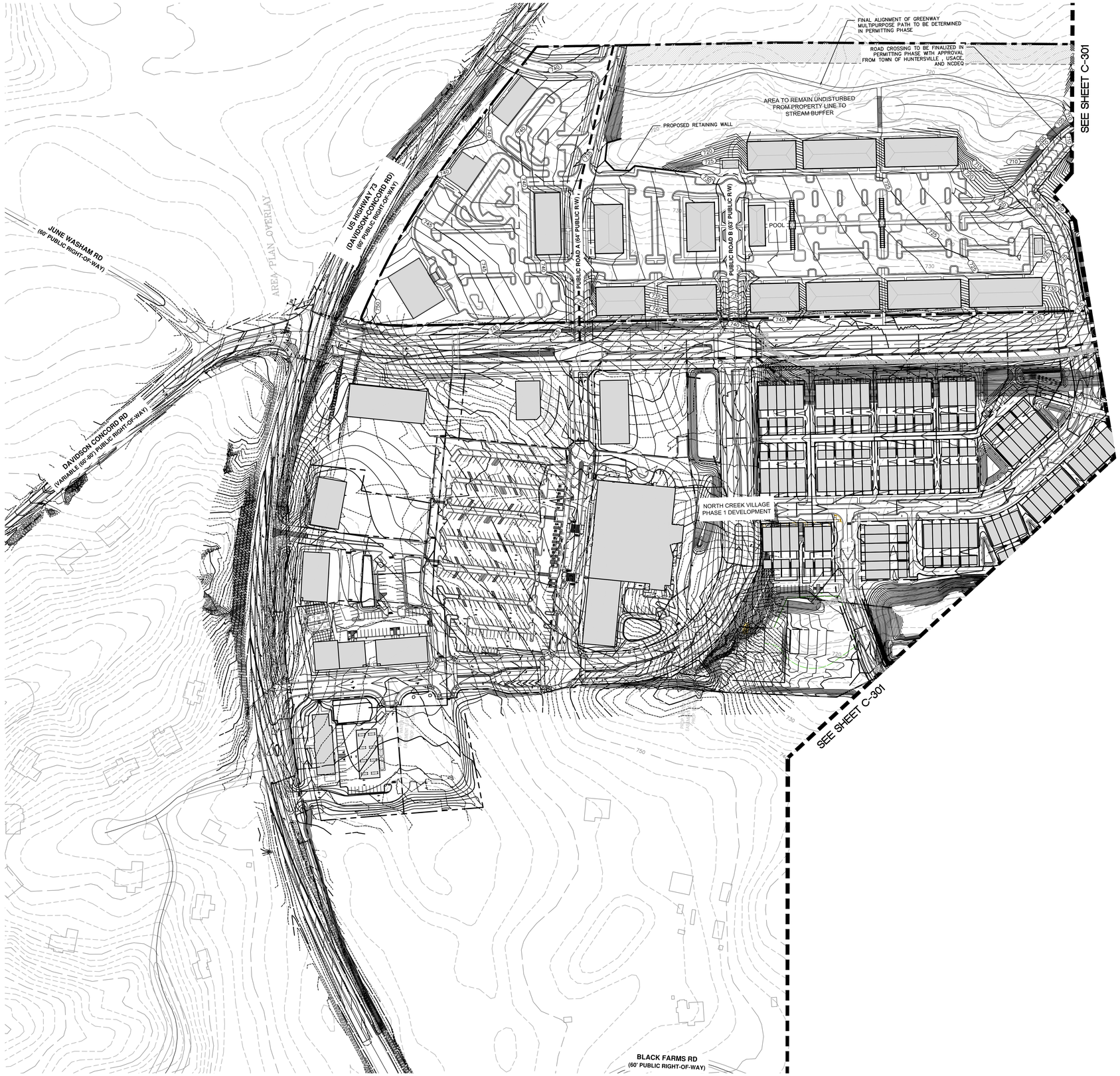

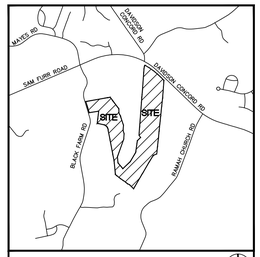

VICINITY MAP N.T.S.

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LEGEND

SYMBOL		DETAIL
	PROPOSED CONTOUR	-/-
700	PROPOSED INDEX CONTOUR	-/-
100.00	PROPOSED SPOT ELEVATION	-/-
HP	PROPOSED HIGH POINT	-/-
	PROPOSED DRAINAGE SWALE	-/-
	PROPOSED STORM DRAINAGE	-/-
C.O.	PROPOSED ROOF DRAIN LINE	-/-
CI	PROPOSED CURB INLET	-/-
DI	PROPOSED DROP INLET	-/-
STCB	PROPOSED SLAB TYPE CATCH BASIN	-/-
AD	PROPOSED AREA DRAIN	-/-
DCI	PROPOSED DOUBLE CURB INLET	-/-
MH	PROPOSED MANHOLE	-/-
	PROPOSED IRRIGATION SLEEVES (2) 4" DIA. SCHEDULE 40 PVC	-/-
JB	PROPOSED JUNCTION BOX	-/-
RIP RAP	PROPOSED GRAVEL AND RIPRAP APRON	-/-
HW	PROPOSED HEAD WALL	-/-
FES	PROPOSED FLARED END SECTION	-/-

NOTES:
1. LOCATION OF STREAM BUFFER TO BE CONFIRMED WITH MECKLENBURG COUNTY PER THE WATER QUALITY BUFFER IMPLEMENTATION GUIDELINES.
2. ALL STORM WATER FROM IMPERVIOUS SURFACES TO BE COLLECTED.

North Carolina 811 WWW.NC811.ORG

1. CONTRACTOR IS FULLY RESPONSIBLE FOR CONTACTING APPROPRIATE PARTIES AND ENSURING THAT ALL EXISTING UTILITIES ARE LOCATED PRIOR TO CONSTRUCTION.
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4. SHORING SHALL BE IN ACCORDANCE WITH OSHA TRENCHING STANDARDS, 29 CFR, PART 1926, SUBPART P, OR AS AMENDED.

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NORTH CREEK VILLAGE MIXED-USE REZONING/ SKETCH PLAN

17705 DAVIDSON-CONCORD ROAD
HUNTERSVILLE, NC 28078

PRELIMINARY GRADING PLAN

Project No.
4661.04

Issued
03/18/21

THIS PLAN IS SCHEMATIC IN NATURE AND LOCATIONS OF ROADS, LOTS AND OTHER AREAS AND IMPROVEMENTS ARE SUBJECT TO FINAL DETERMINATION ON PRELIMINARY AND FINAL PLAN.

Revised

07/23/21 – TOWN COMMENTS
08/27/21 – TOWN COMMENTS
10/04/21 – PLAN SET SUBMITTAL FOR TOWN BOARD

BOULTON & MENKE — CAROLINA — SEAL — 030864 — ENGINEER — STEVEN P. PIENKOS, P.E.

PRELIMINARY NOT FOR CONSTRUCTION

10/04/21

SCALE: 1"=100'

0 50' 100' 200'

N

SP-300

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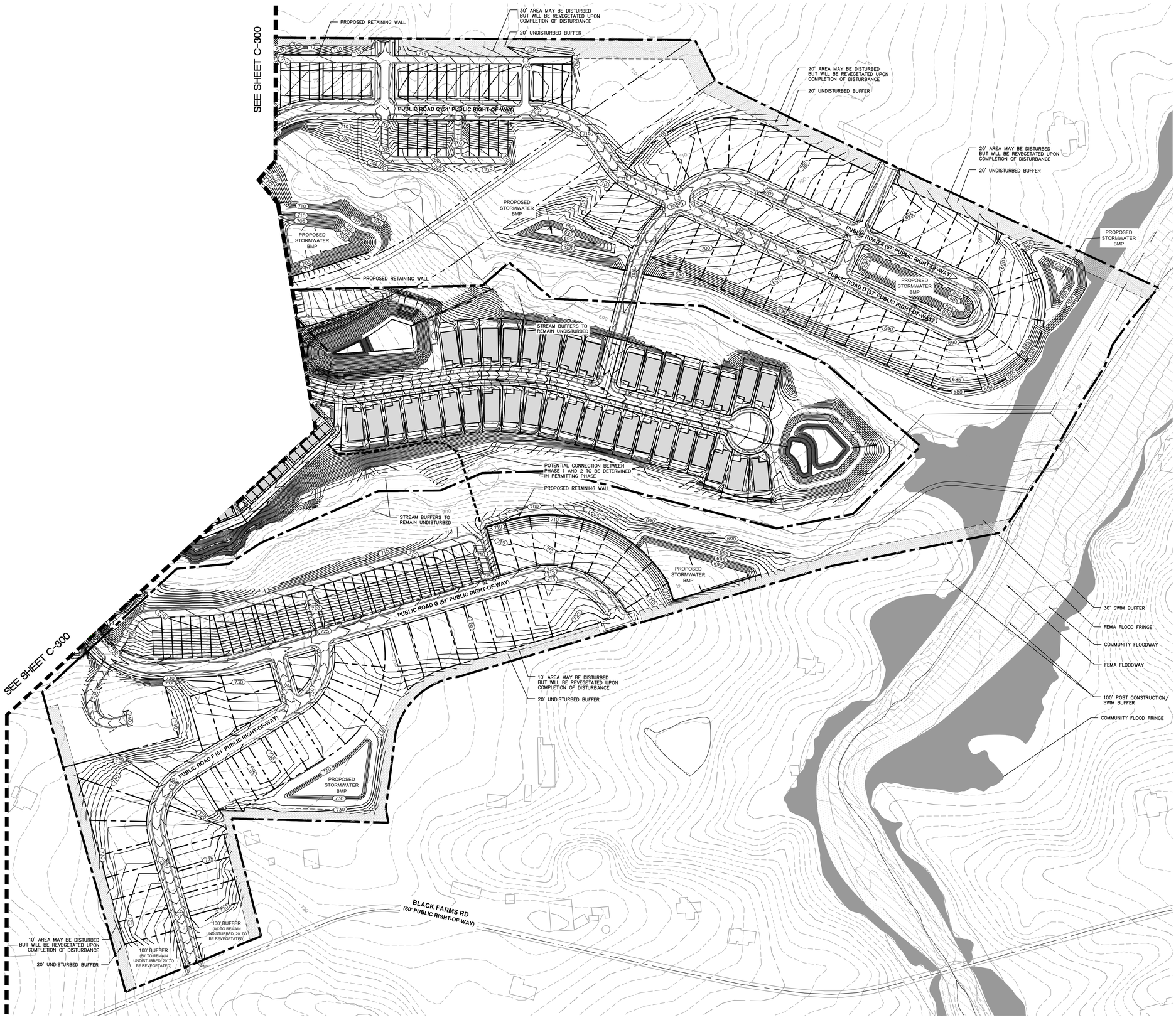

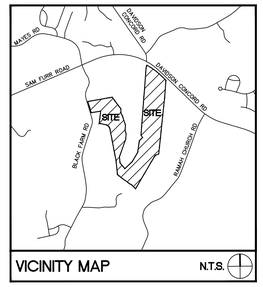

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LEGEND

SYMBOL		DETAIL
	PROPOSED CONTOUR	-/-
100	PROPOSED INDEX CONTOUR	-/-
100.00	PROPOSED SPOT ELEVATION	-/-
HP	PROPOSED HIGH POINT	-/-
	PROPOSED DRAINAGE SWALE	-/-
	PROPOSED STORM DRAINAGE	-/-
C.O.	PROPOSED ROOF DRAIN LINE	-/-
CI	PROPOSED CURB INLET	-/-
DI	PROPOSED DROP INLET	-/-
STCB	PROPOSED SLAB TYPE CATCH BASIN	-/-
AD	PROPOSED AREA DRAIN	-/-
DCI	PROPOSED DOUBLE CURB INLET	-/-
MH	PROPOSED MANHOLE	-/-
	PROPOSED IRRIGATION SLEEVES (2) 4" DIA. SCHEDULE 40 PVC	-/-
JB	PROPOSED JUNCTION BOX	-/-
	PROPOSED GRAVEL AND RIPRAP APRON	-/-
HW	PROPOSED HEAD WALL	-/-
FES	PROPOSED FLARED END SECTION	-/-

NOTES:
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North Carolina 811 www.nc811.org

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NORTH CREEK VILLAGE MIXED-USE REZONING/ SKETCH PLAN

17705 DAVIDSON-CONCORD ROAD
HUNTERSVILLE, NC 28078

PRELIMINARY GRADING PLAN

Project No.
4661.04

Issued
03/18/21

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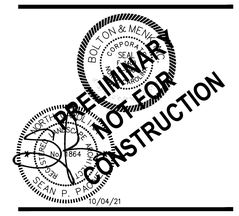
10/04/21 – PLAN SET SUBMITTAL FOR TOWN BOARD



SCALE: 1"=100'
0 50' 100' 200'
N

SP-301

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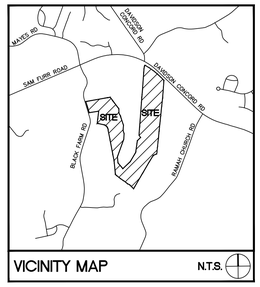

VICINITY MAP N.T.S.

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NORTH CREEK VILLAGE MIXED-USE REZONING/ SKETCH PLAN

17705 DAVIDSON-CONCORD ROAD
HUNTERSVILLE, NC 28078

DRAINAGE AREA MAP PRE-DEVELOPMENT

Project No.
4661.04

Issued
03/18/21

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08/27/21 – TOWN COMMENTS
10/04/21 – PLAN SET SUBMITTAL FOR TOWN BOARD

BOLTON & MENK, INC. CORPORATE SEAL NORTH CAROLINA ENGINEERING PRELIMINARY NOT FOR CONSTRUCTION SEAL 049864 SEAL SCOTT P. PAYNE 10/04/21

SCALE: 1"=200'
0 100' 200' 400'

SP-302

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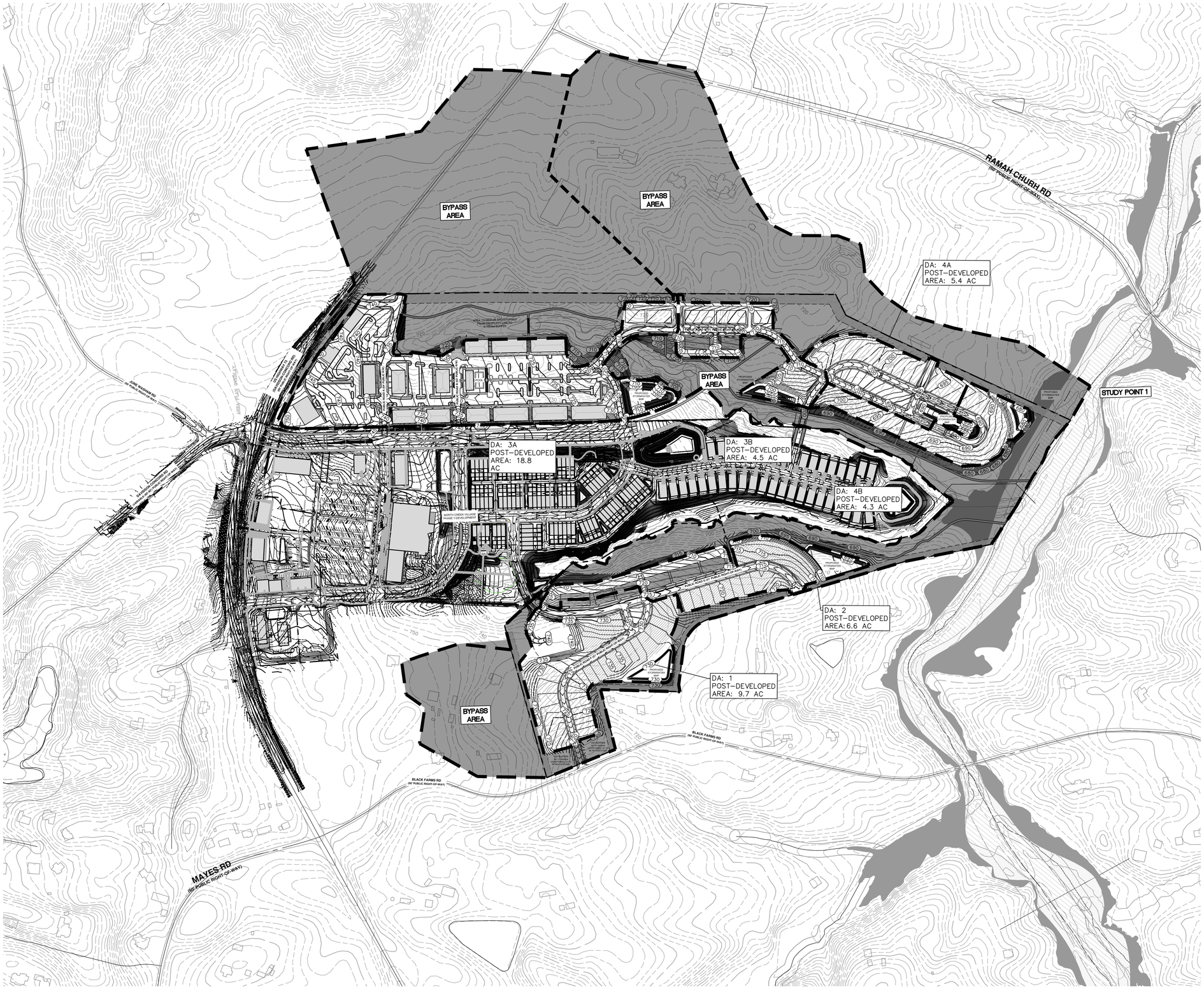

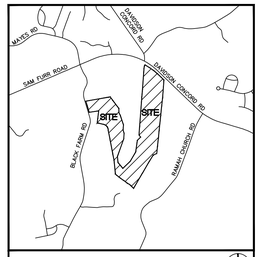

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NORTH CREEK VILLAGE MIXED-USE REZONING/ SKETCH PLAN

17705 DAVIDSON-CONCORD ROAD
HUNTERSVILLE, NC 28078

DRAINAGE AREA MAP POST-DEVELOPMENT

Project No.
4661.04

Issued
03/18/21

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Revised

07/23/21 – TOWN COMMENTS
08/27/21 – TOWN COMMENTS
10/04/21 – PLAN SET SUBMITTAL FOR TOWN BOARD

BOLTON & MENK CORPORATE SEAL — PRELIMINARY NOT FOR CONSTRUCTION — SEAN P. PARKER — 10/04/21

SCALE: 1"=200'
0 100' 200' 400'
N

SP-303

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NORTH CREEK VILLAGE MIXED-USE REZONING/ SKETCH PLAN

17705 DAVIDSON-CONCORD ROAD
HUNTERSVILLE, NC 28078

ADJACENT PARCEL MAP

Project No.
4661.04

Issued
03/18/21

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Revised

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10/04/21 – PLAN SET SUBMITTAL FOR TOWN BOARD

BOLTON & MENK, INC. CORPORATE SEAL NORTH CAROLINA ENGINEERING 044864 SEAL SEAN P. [illegible] 10/04/21

PRELIMINARY NOT FOR CONSTRUCTION

SCALE: 1"= 200'
0 100' 200' 400'

N

SP-400

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	taxpid	Owner Last Name	Owner First Name	Second Owner Last Name	Second Owner First Name	Mailing Addresses 1	City	State	ZIP CODE
1	00718202	NANCY GRAY FAMILY LIMITED PARTNERSHIP				14652 JUNE WASHAM RD	DAVIDSON	NC	28036
2	00731118	MAYES	JAMES COY F/T B/W	HEIRS	G R MAYES JR	11601 MAYES RD	HUNTERSVILLE	NC	28078
3	00731119	WILLY HOMES INC				1718 CABARRUS CROSSING DR	HUNTERSVILLE	NC	28078
4	01107318	MAGNOLIA HUNTERSVILLE RETAIL LLC				9525 BIRKDALE CROSSING DR STE 200	HUNTERSVILLE	NC	28078
5	01107319	MAGNOLIA HUNTERSVILLE LAND LLC				9525 BIRKDALE CROSSING DR STE 200	HUNTERSVILLE	NC	28078
6	01107322	MAGNOLIA HUNTERSVILLE RETAIL LLC				9525 BIRKDALE CROSSING DR STE 200	HUNTERSVILLE	NC	28078
7	01107336	MAGNOLIA HUNTERSVILLE RETAIL LLC				9525 BIRKDALE CROSSING DR STE 200	HUNTERSVILLE	NC	28078
8	01107337	MAGNOLIA HUNTERSVILLE RETAIL LLC				9525 BIRKDALE CROSSING DR STE 200	HUNTERSVILLE	NC	28078
9	01125110	GIBSON	R SCOTT	MARY K	GIBSON	117 SHAVENDER DR	MOORESVILLE	NC	28117
10	01126134	BLACK	JOSEPH EDWARD	BRYANT	KAREN	14850 BLACK FARMS RD	HUNTERSVILLE	NC	28078
11	01107312	WORLAND	ADAM C	WORLAND	AMY C	15340 BLACK FARMS RD	HUNTERSVILLE	NC	28078
12	01107326	CLAYTON	BEVERLY T.	CLAYTON	JUDITH H.	15410 BLACK FARM RD	HUNTERSVILLE	NC	28078
13	01126129	BARNES	JASON	BARNES	SAMANTHA	17122 FORMBY RD APT A	HUNTERSVILLE	NC	28078
14	00731102	BROCKMAN	KRISTINE	BROCKMAN	ZACHARIAH	13308 WHITE BIRCH TERR	DAVIDSON	NC	28036
15	01107315	MAGNOLIA HUNTERSVILLE RETAIL LLC				9525 BIRKDALE CROSSING DR STE 200	HUNTERSVILLE	NC	28078
16	01107321	MORAVIAN CHURCH IN AMERICA	SOUTHERN PROVINCE			459 SOUTH CHURCH ST	WINSTON-SALEM	NC	27101
17	01126125	CARTER	CYNTHIA K TRUST			411 WALNUT ST UNIT 4639	GREEN COVE SPRINGS	FL	32043
18	01126135	BLACK	JOHN FRANCIS	BLACK	MARIE D	15100 BLACK FARM RD	HUNTERSVILLE	NC	28078
19	01126121	CAYLOR	DANIEL	CAYLOR	MAYRA	15005 RAMAH CHURCH RD	HUNTERSVILLE	NC	28078
20	00731101	GIVENS	CARL R	GIVENS	VIVIAN W	13316 WHITE BIRCH TER	DAVIDSON	NC	28036
21	00731117	MAYTON	DWAYNE E	MAYTON	JULIE S	17900 PAGES POND CT	DAVIDSON	NC	28036
22	00731115	HOLLENBECK	JEROME H	HOLLENBECK	GWYN S	17916 PAGES POND CT	DAVIDSON	NC	28036
23	01107311	MAYES	JAMES COY F/T B/W	G R MAYES JR HEIRS		11601 MAYES RD	HUNTERSVILLE	NC	28078
24	01107324	DMJ VENTURES LLC				15410 HOLLY TRAIL LN	DAVIDSON	NC	28036
25	01125109	WESTMORELAND	RUTH M			13434 WESTMORELAND RD	HUNTERSVILLE	NC	28078
26	01126106	BLACK	JOHN FRANCIS	BLACK	MARIE D	15100 BLACK FARMS RD	HUNTERSVILLE	NC	28078
27	01126108	BLACK	JOHN FRANCIS	BLACK	MARIE D	15100 BLACK FARMS RD	HUNTERSVILLE	NC	28078
28	01125112	THOMANN	MIKE	DARBY	REBECCA MARY	15035 BLACK FARMS RD	HUNTERSVILLE	NC	28078
29	01126103	PITTMAN	AMANDA CLAIR	PITTMAN	ROBERT LEE III	15100 BLACK FARMS RD	HUNTERSVILLE	NC	28078
30	01126119	CAMDEN LAND CO LLC				6805 FAIRVIEW RD UNIT C	CHARLOTTE	NC	28210
31	01126120	VANWINGERDEN	MICHAEL	VANWINGERDEN	COURTNEY	14925 RAMAH CHURCH RD	HUNTERSVILLE	NC	28078
32	01126123	WELLER	RICHARD J	WELLER	PAMELA J	15105 RAMAH CHURCH RD	HUNTERSVILLE	NC	28078
33	01126137	LANDRETH	CHRISTOPHER JAMES	LANDRETH	TRACY MOORE	14625 HARVINGTON DR	HUNTERSVILLE	NC	28277
34	00718201	MAYES	JAMES COY F/T B/W	G R MAYES JR HEIRS		11601 MAYES RD	HUNTERSVILLE	NC	28078
35	00731116	ANDERSON	THOMAS J	ANDERSON	MARY M	17908 PAGE`S POND CT	DAVIDSON	NC	28036
36	00731120	STUTHEIT	RACHEL S			18009 DAVIDSON CONCORD RD	DAVIDSON	NC	28036
37	01107317	MAGNOLIA HUNTERSVILLE RETAIL LLC				9525 BIRKDALE CROSSING DR STE 200	HUNTERSVILLE	NC	28078
38	01107320	MAGNOLIA HUNTERSVILLE LAND LLC				9525 BIRKDALE CROSSING DR STE 200	HUNTERSVILLE	NC	28078
39	01125111	DAVIS	CHARLES SPENCER JR	DAVIS	FAYE MCQUEEN	3959 HIGHWAY 200	CONCORD	NC	28025
40	01126109	WHITMAN	GREGORY C	WHITMAN	DANNA S	14730 BLACK FARM RD	HUNTERSVILLE	NC	28078
41	01107313	POTTS	RACHEL ANNE			15316 BLACK FARMS RD	HUNTERSVILLE	NC	28078
42	01126118	IVESTER	JOHN JR	IVESTER	SUSAN	PO BOX 2457	HUNTERSVILLE	NC	28070
43	01126130	ZIMPRICH	RUSSELL	ZIMPRICH	LESLIE D	13837 RAMAH OAKS LN	HUNTERSVILLE	NC	28078
44	01125108	WESTMORELAND	T M FAMILY LP			13434 WESTMORELAND RD	HUNTERSVILLE	NC	28078
45	01126101	DAVIS	CHARLES SPENCER JR	DAVIS	FAYE MCQUEEN	300 WATERS DR APT B217	SOUTHERN PINES	NC	28387
46	01126122	FISK	MICHAEL D	FISK	ALENE	15025 RAMAH CHURCH RD	HUNTERSVILLE	NC	28078
47	01126124	CARTER	CYNTHIA K TRUST			411 WALNUT ST UNIT 4639	GREEN COVE SPRINGS	FL	32043
48	01107302	MAGNOLIA HUNTERSVILLE RETAIL LLC				9525 BIRKDALE CROSSING DR STE 200	HUNTERSVILLE	NC	28078
49	01126111	BLACK FARMS COLLECTIVE LLC				8512 SHADETREE ST	HUNTERSVILLE	NC	28078
50	01126136	GOLDEN	GREG W	GOLDEN	GLORIA P	15135 RAMAH CHURCH RD	HUNTERSVILLE	NC	28078
51	01126104	BLACK	JOHN FRANCIS	BLACK	MARIE D	15100 BLACK FARMS RD	HUNTERSVILLE	NC	28078
52	01126113	DAVIS	CHARLES SPENCER JR	DAVIS	FAYE MCQUEEN	300 WATERS DR APT B217	SOUTHERN PINES	NC	28387
53	01107316	MORAVIAN CHURCH IN AMERICA	SOUTHERN PROVINCE			459 SOUTH CHURCH ST	WINSTON-SALEM	NC	27101
54	01126117	IVESTER	JOHN JR	IVESTER	SUSAN	PO BOX 2457	HUNTERSVILLE	NC	28070
55	00731123	PAGE`S POND HOMEOWNERS	ASSOCIATION INC			13302 WHITE BIRCH TER	DAVIDSON	NC	28036
56	01107101	SHORT	RODNEY A	SHORT	NORMA G	17211 CONNOW QUAY CT	CORNELIUS	NC	28031
57	01107301	MAGNOLIA HUNTERSVILLE RETAIL LLC				9525 BIRKDALE CROSSING DR STE 200	HUNTERSVILLE	NC	28078
58	01107310	NANCY GRAY FAMILY LIMITED PARTNERSHIP				14652 JUNE WASHAM RD	DAVIDSON	NC	28036
59	01125101	KNOX	ROBERT J JR	KNOX	CYNTHIA L	15401 BLACK FARM RD	HUNTERSVILLE	NC	28078
60	01126102	GIBSON	R SCOTT	GIBSON	MARY K DAVIS	117 SHAVENDER DR	MOORESVILLE	NC	28117
61	01126131	PIROLLI	RECECCA LEANNE			13849 RAHAH OAKS LN	HUNTERSVILLE	NC	28078
62	01126140	MAGNOLIA HUNTERSVILLE LAND LLC				9525 BIRKDALE CROSSING DR STE 200	HUNTERSVILLE	NC	28078

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RALEIGH, NC 27612

NORTH CREEK VILLAGE MIXED-USE REZONING/ SKETCH PLAN

17705 DAVIDSON-CONCORD ROAD
HUNTERSVILLE, NC 28078

ADJACENT PARCEL INFO.

Project No.
4661.04

Issued
03/18/21

THIS PLAN IS SCHEMATIC IN NATURE AND LOCATIONS OF ROADS, LOTS AND OTHER AREAS AND IMPROVEMENTS ARE SUBJECT TO FINAL DETERMINATION ON PRELIMINARY AND FINAL PLAN.

Revised

07/23/21 – TOWN COMMENTS
08/27/21 – TOWN COMMENTS
10/04/21 – PLAN SET SUBMITTAL FOR TOWN BOARD

BOLTON & MENK, INC. CORPORATE SEAL NORTH CAROLINA 2864 ENGINEER PRELIMINARY NOT FOR CONSTRUCTION 10/04/21

SP-401

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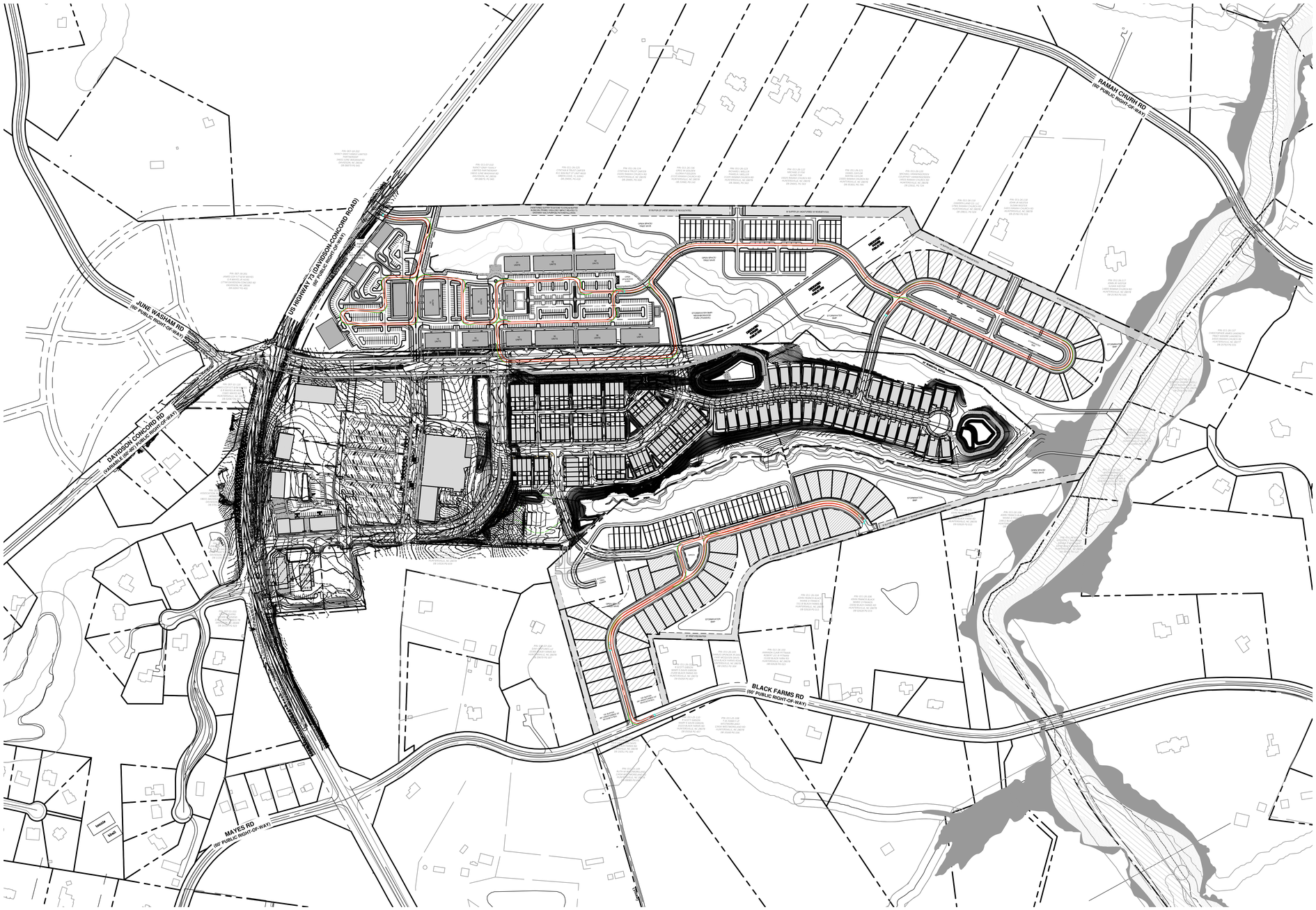
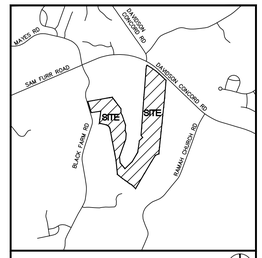




SURVEY DISCLAIMER

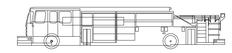
WETLANDS AND TREE SURVEY DATE: MAY 28, 2021, UPDATED ON JUNE 7, 2021. SURVEY PREPARED BY ATLAS ENVIRONMENTAL; 338 SHARON AMITY RD #411, CHARLOTTE, NC 28211. (704)-512-1206 / WWW.ATLASENVI.COM. ALL OTHER INFO OBTAINED FROM MECKLENBURG COUNTY GIS, UPDATED AS OF SEPTEMBER 23, 2019.

LEGEND

SYMBOL

BUILDING ENVELOPE

ZONING BOUNDARY



B-40 Ladder Truck	
Overall Length	40.000ft
Overall Width	8.167ft
Overall Body Height	7.745ft
Min Body Ground Clearance 0.656ft	
Track Width	8.167ft
Lock-to-lock time	5.00s
Max Wheel Angle	45.00°

NOTE:

1. **FIRE HYDRANTS WILL BE LOCATED WITHIN 750' OF MOST REMOTE POINT OF ANY STRUCTURE FOR (NFPA 13R) OR 200' FOR (NFPA 13). SPECIFIC LOCATIONS WILL BE DETERMINED DURING CONSTRUCTION DOCUMENTATION.**
2. **ALL ROUTES THE FIRE APPARATUS WILL TRAVEL WILL BE DESIGNED TO SUPPORT LOADS OF 80,000 POUNDS.**

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NORTH CREEK VILLAGE MIXED-USE REZONING/ SKETCH PLAN

17705 DAVIDSON-CONCORD ROAD
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EMERGENCY VEHICLE ACCESS

Project No.
4661.04

Issued
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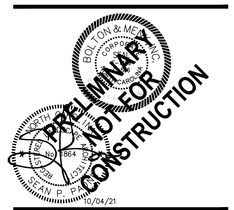

SCALE: 1"= 200'
0 100' 200' 400'

N

SP-500

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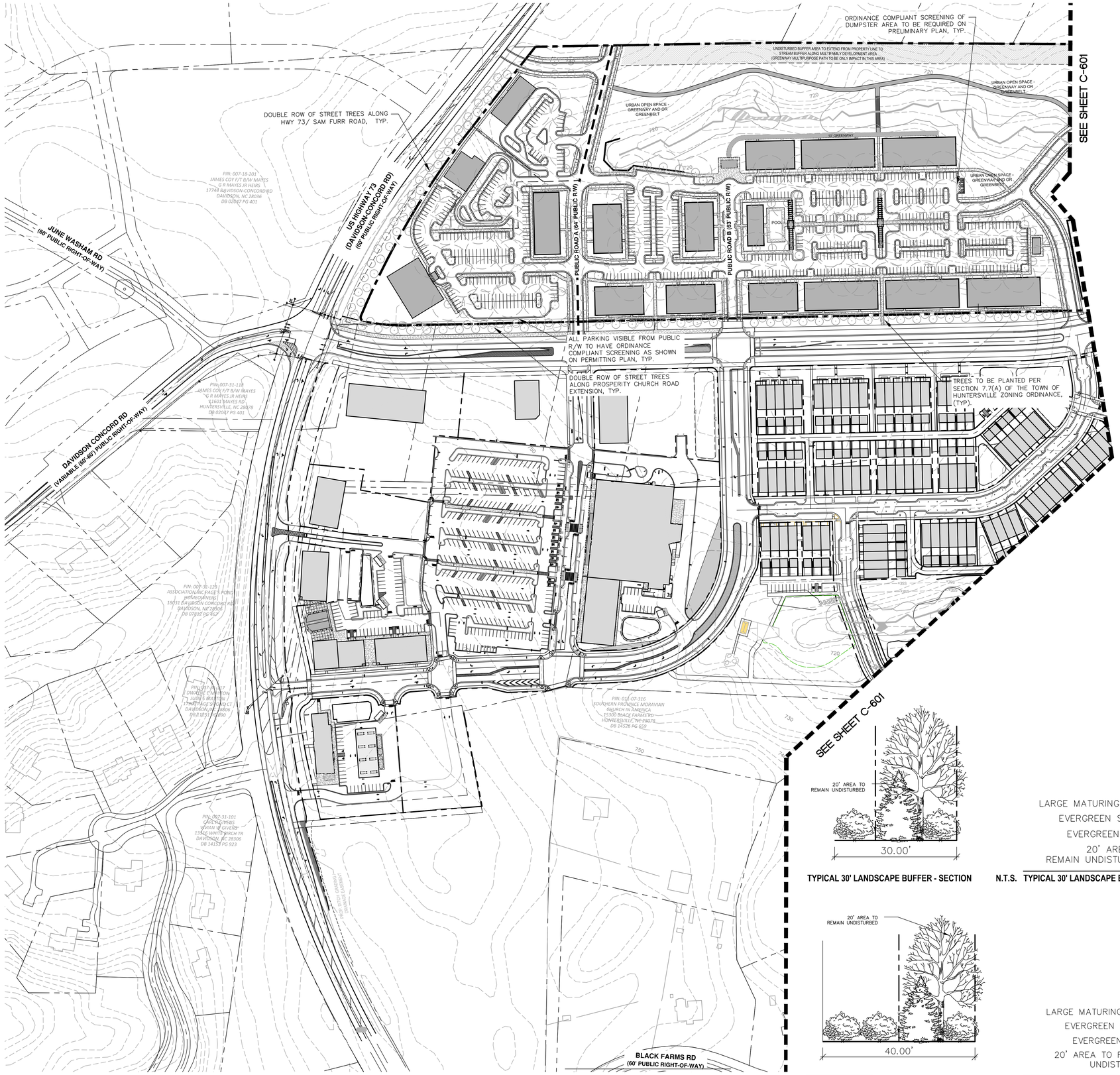

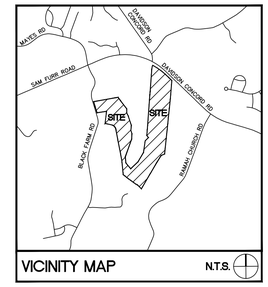

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LEGEND

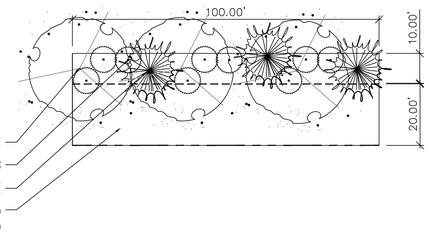
SYMBOL

- PROPOSED SIDEWALK
- PROPOSED GREENWAY
- BUILDING ENVELOPE
- LANDSCAPED BUFFER
- PROPOSED CANOPY TREE
- ZONING BOUNDARY

NOTE:

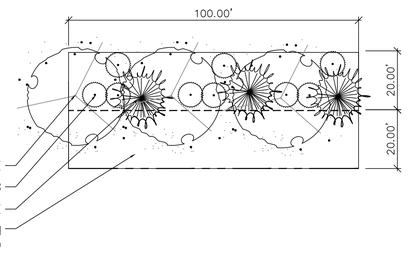
1. TREE LOCATIONS ARE SUBJECT TO CHANGE DURING CONSTRUCTION PLAN REVIEW PHASE TO SATISFY THE TOWN'S ENGINEERING STANDARDS AND PROCEDURES MANUAL.
2. ALL LANDSCAPED BUFFERS TO BE SUPPLEMENTED WHERE EXISTING VEGETATION IS NOT SUFFICIENT.
3. PARKING LOTS, WHEN LOCATED ALONG A PUBLIC STREET SHALL BE SCREENED PER TOWN ORDINANCES.

TYPICAL 30' LANDSCAPE BUFFER - SECTION N.T.S.



TYPICAL 30' LANDSCAPE BUFFER - PLAN N.T.S.

TYPICAL 40' LANDSCAPE BUFFER - SECTION N.T.S.



TYPICAL 40' LANDSCAPE BUFFER - PLAN N.T.S.

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LANDSCAPE PLAN

Project No.
4661.04

Issued
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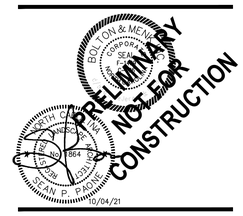
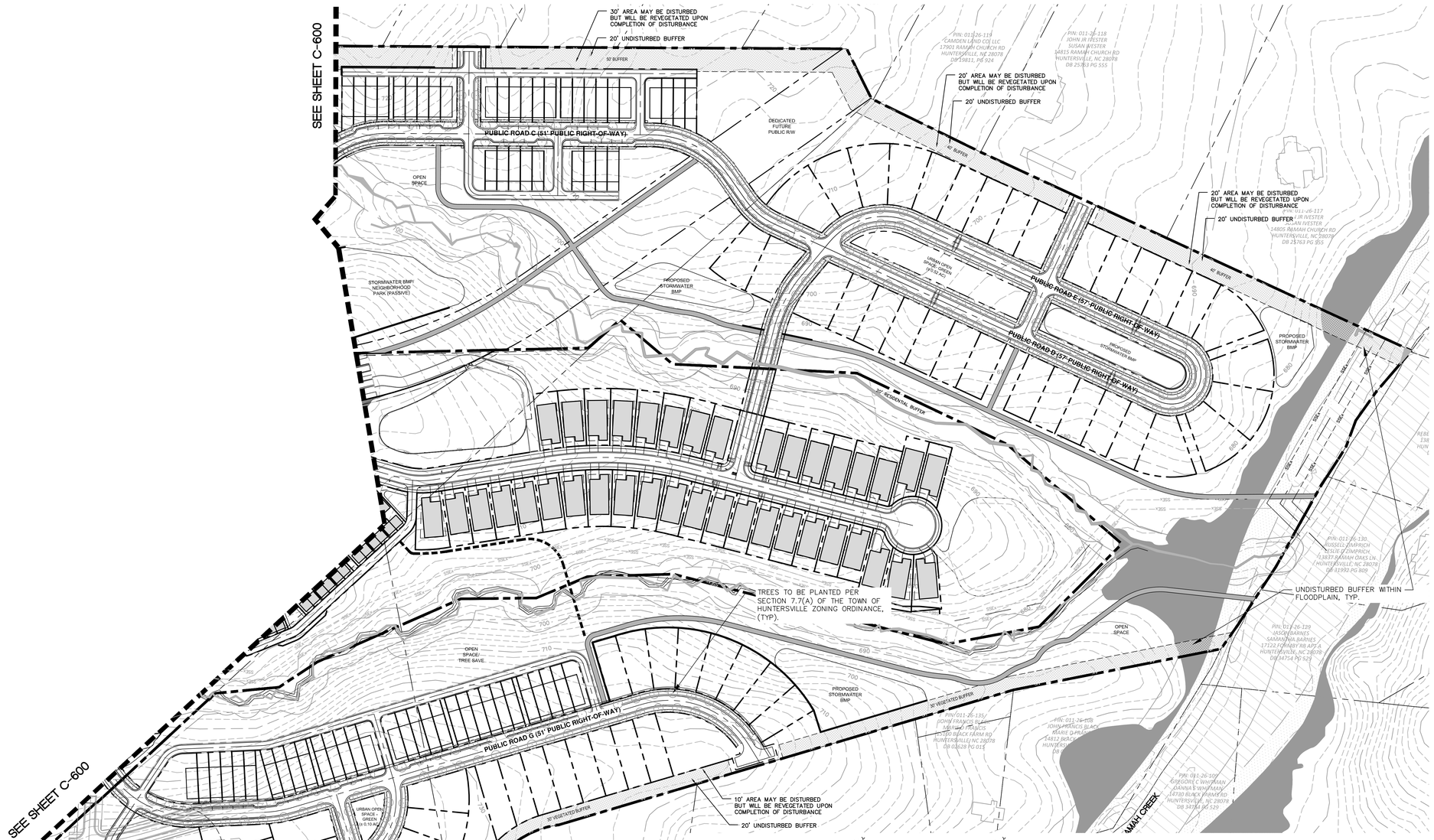
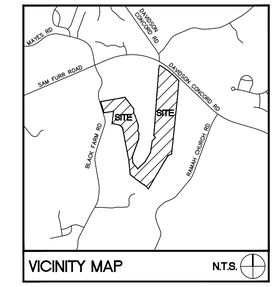

BOLTON & MENK
NORTH CAROLINA
SEAL
SEAL
SEAL





VICINITY MAP N.T.S.

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LEGEND

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- PROPOSED GREENWAY
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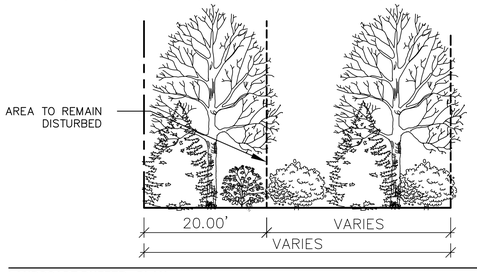
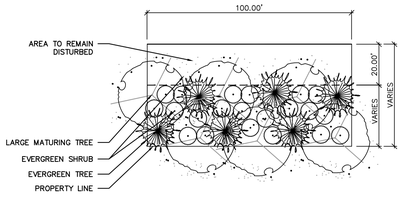


LANDSCAPE BUFFER - PLAN N.T.S.



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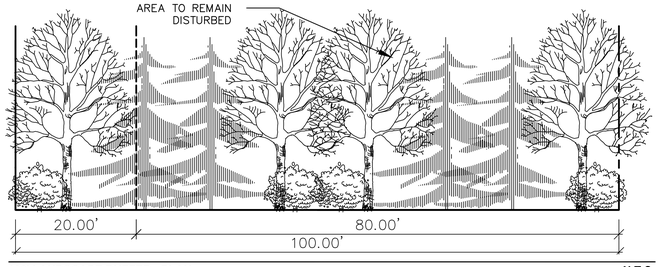
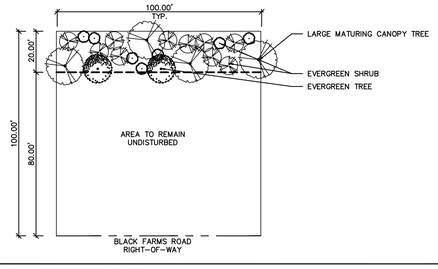


100' LANDSCAPE BUFFER - PLAN N.T.S.



TYPICAL 100' LANDSCAPE BUFFER - PLAN N.T.S.

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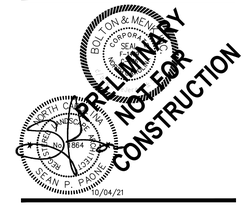
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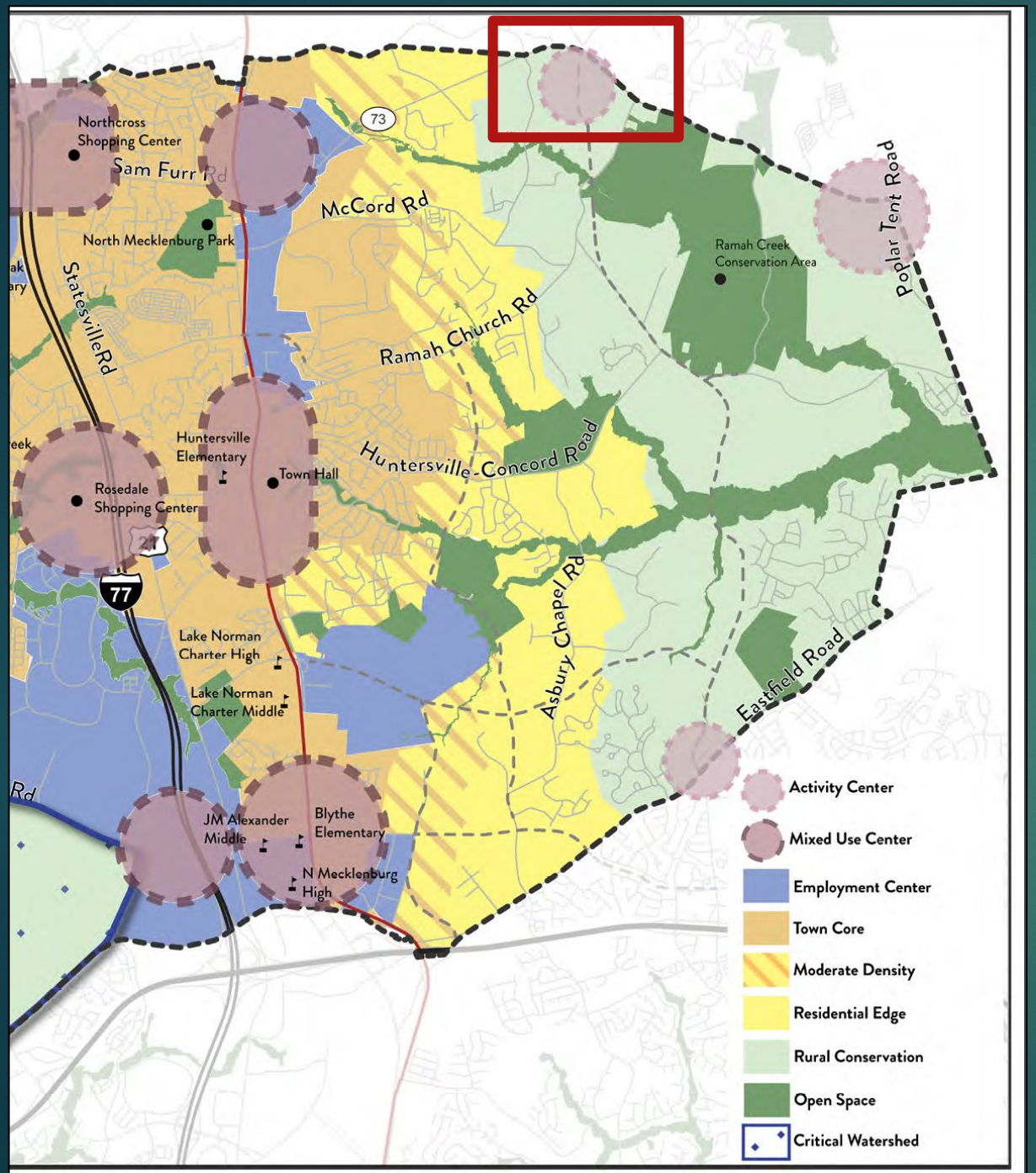
CHRISTOPHER A. CAMPBELL
SEAL
PRELIMINARY
NOT FOR CONSTRUCTION
SOUTH CAROLINA
NORTH CAROLINA
SEAL
SEAL
SEAL

NORTH CREEK VILLAGE DEVELOPMENT

Development Team

Timeline

- Community Meeting: June 2, 2021
- Public Hearing: July 19, 2021
- Planning Board Meeting: July 27, 2021
- Town Board Meeting: August 16, 2021



North Creek Village is the continuation of Huntersville East

History: A conditional mixed use commercial rezoning for the grocery-anchored center and single-family portion was approved in 2009.

North Creek Village is located in an Activity Center

The 2040 Plan places Activity Centers at key intersections of major and minor thoroughfares to create walkable, connected communities at those locations.

Development should follow the approved plan for the area

2040 Community Plan

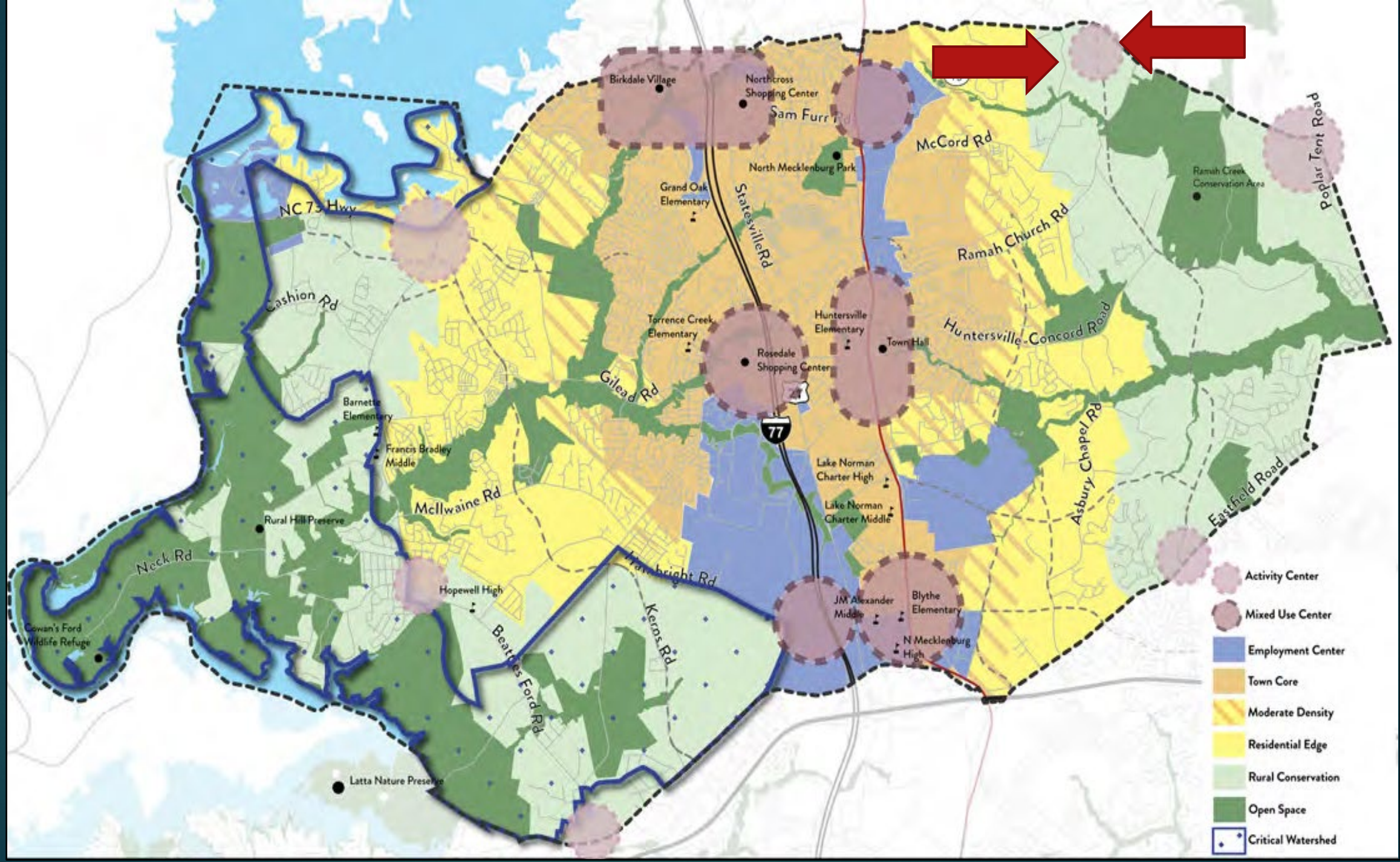
2040 COMMUNITY PLAN envisions an ACTIVITY CENTER for this area

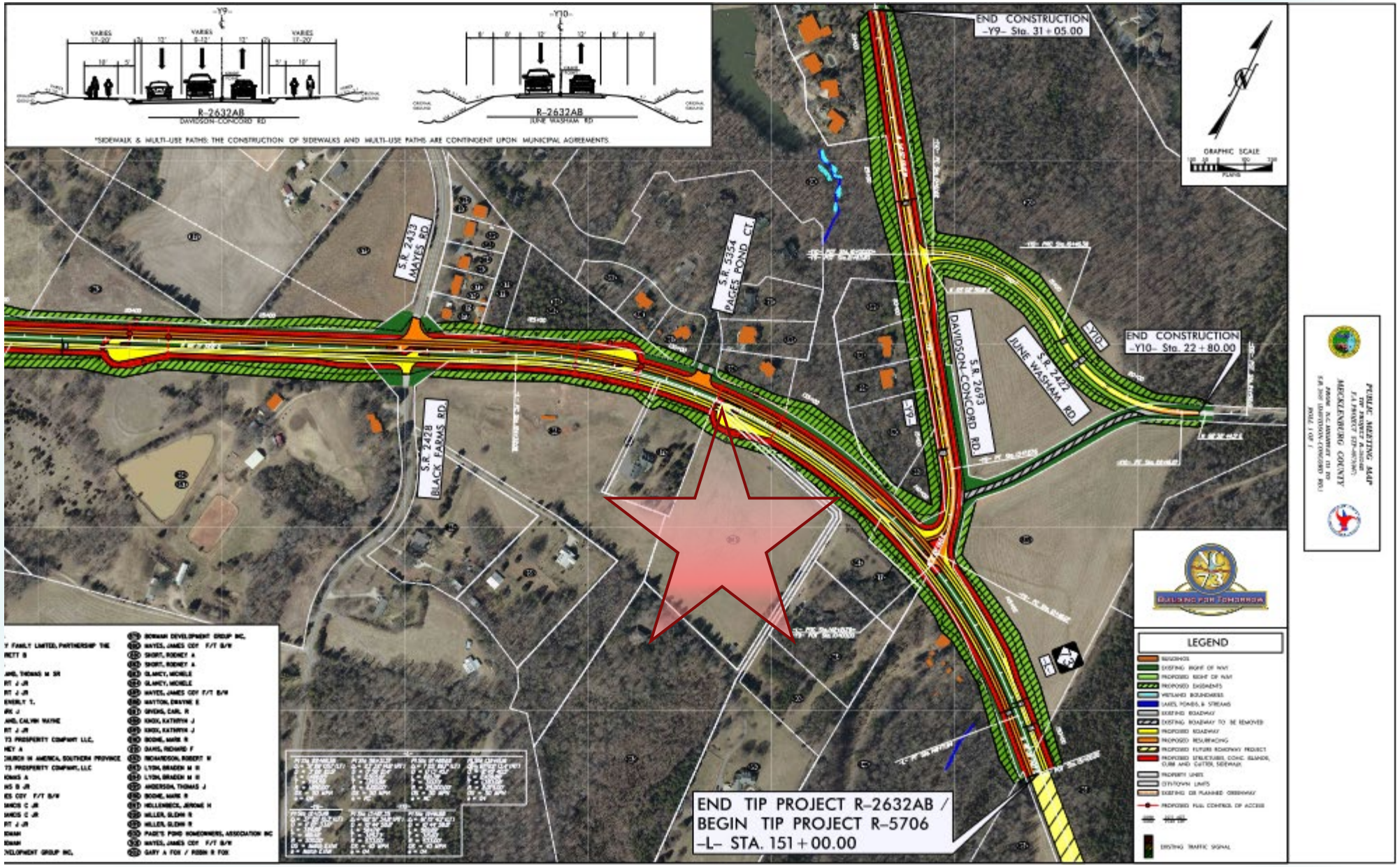
The goal of an ACTIVITY CENTER is to

"Create vibrant, pedestrian-accessible mixed-use areas with restaurants, small businesses and housing"

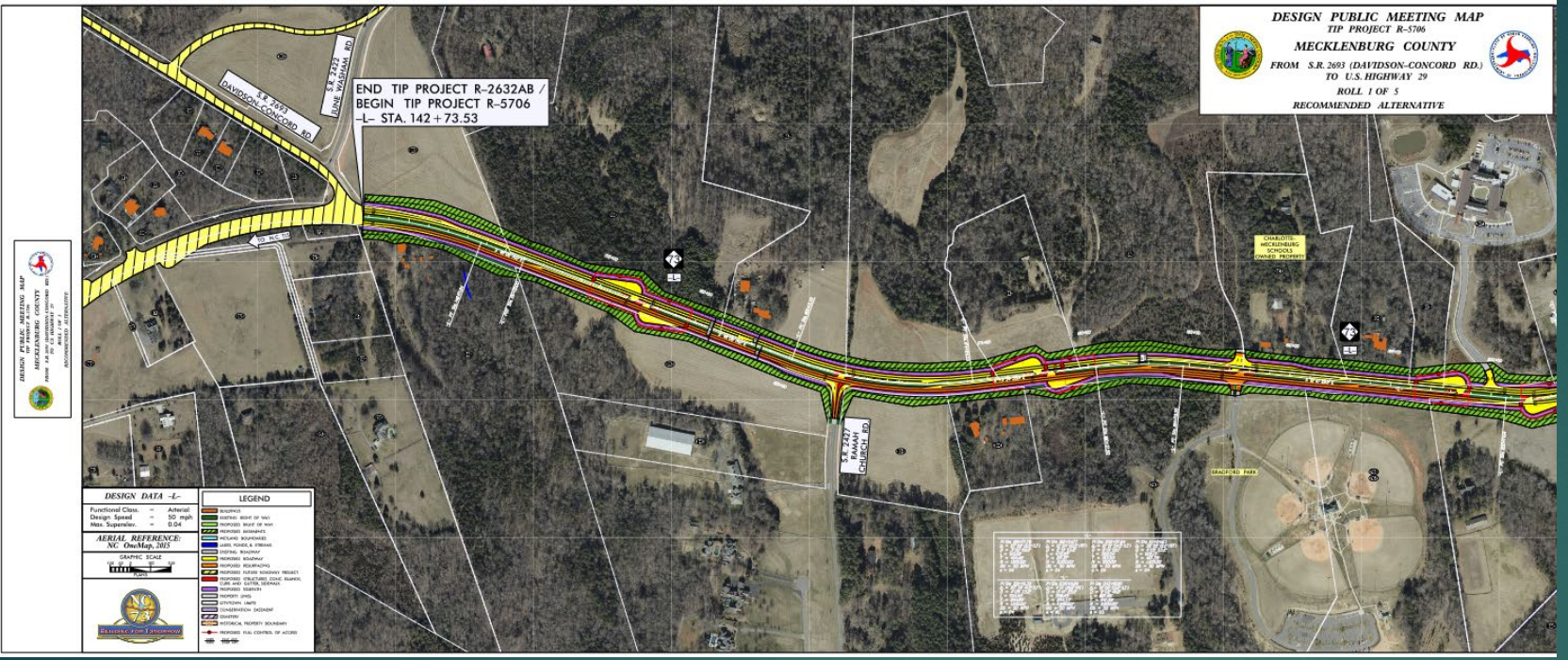
Activity Centers

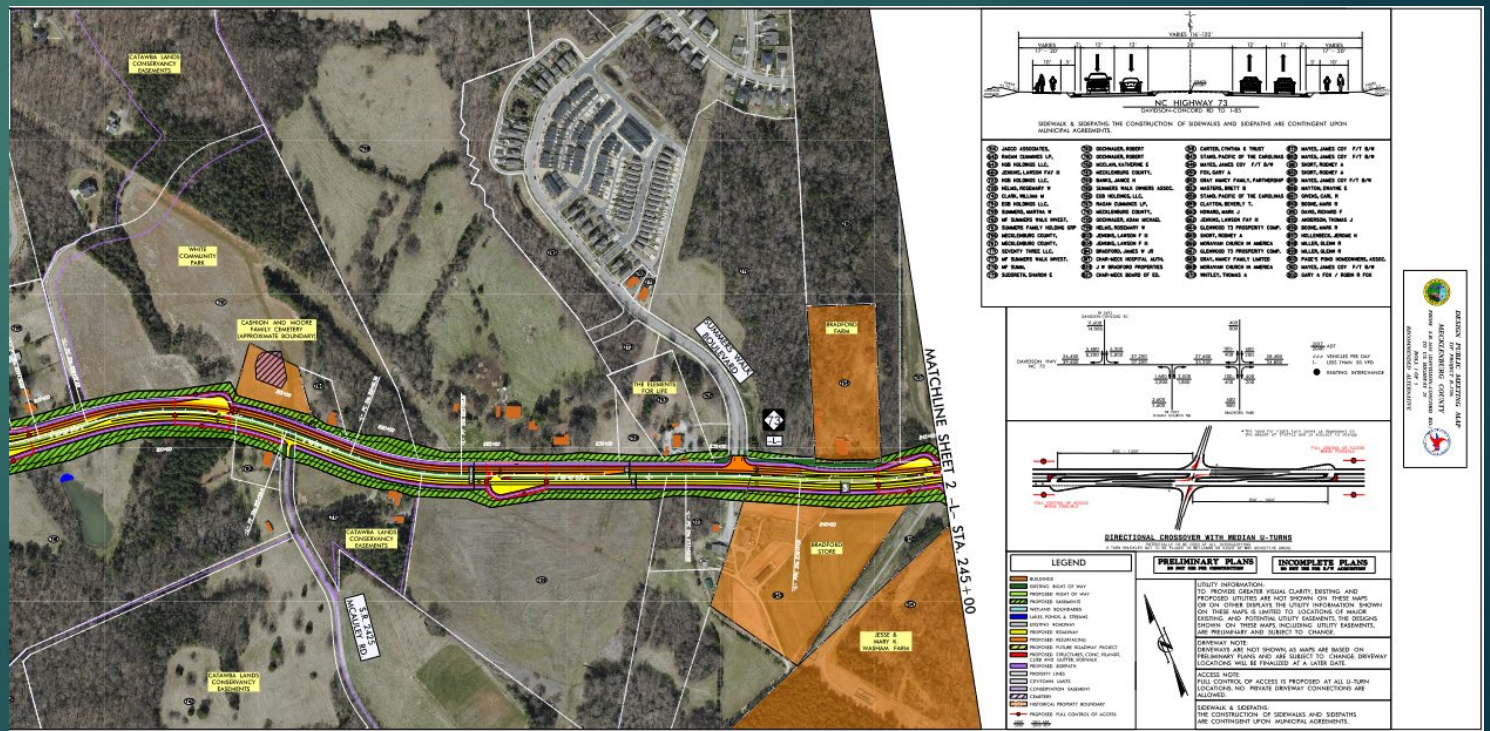
Planned Activity Centers include a mix of non-residential and residential uses and are usually located at key intersections of major or minor thoroughfares. New non-residential uses are limited in scale and overall footprint (generally less than 40,000 square feet of non-residential). Residential uses include mix of housing types centered around shopping, service or civic uses. Residential uses transition to lower gross density with more open space away from Activity Centers.

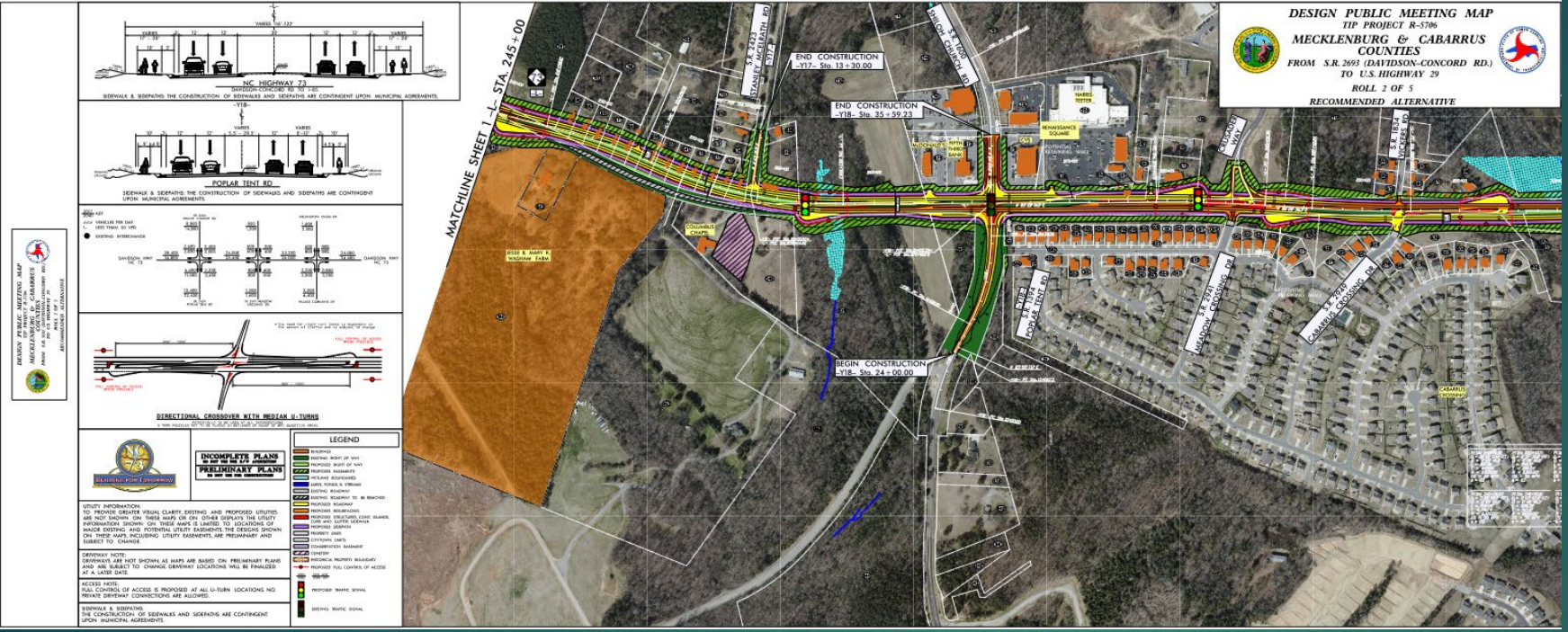

Birkdale Village
Northcross Shopping Center
Sam Furr Rd
McCord Rd
North Mecklenburg Park
Grand Oak Elementary
Statesville Rd
Ramah Church Rd
Ramah Creek Conservation Area
Poplar Tent Road
NC 73 Hwy
Cashion Rd
Torrence Creek Elementary
Huntersville Elementary
Town Hall
Rosedale Shopping Center
Huntersville-Concord Road
Gilead Rd
77
Barnette Elementary
Francis Bradley Middle
McIlwaine Rd
Rural Hill Preserve
Lake Norman Charter High
Lake Norman Charter Middle
Asbury Chapel Rd
Eastfield Road
Neck Rd
Hopewell High
Maybright Rd
Kerns Rd
Beatties Ford Rd
JM Alexander Middle
Blythe Elementary
N Mecklenburg High
Cowan's Ford Wildlife Refuge
Latta Nature Preserve
Activity Center
Mixed Use Center
Employment Center
Town Core
Moderate Density
Residential Edge
Rural Conservation
Open Space
Critical Watershed

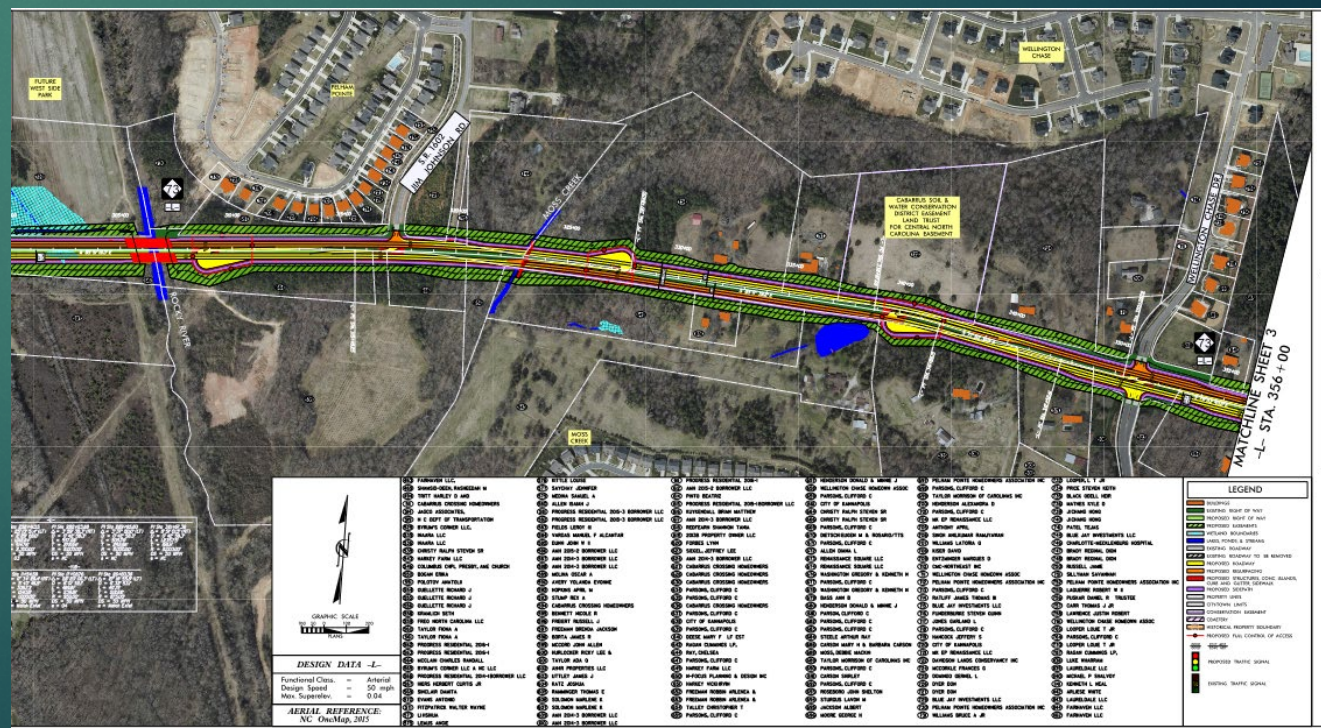


- NC 73 from Lincoln County to I-85
- Widen to multi-lane
- STIP 2025


DESIGN PUBLIC MEETING MAP
TIP PROJECT R-5706
MECKLENBURG COUNTY
FROM S.R. 2693 (DAVIDSON-CONCORD RD.)
TO U.S. HIGHWAY 29
ROLL 1 OF 5
RECOMMENDED ALTERNATIVE
END TIP PROJECT R-2632AB /
BEGIN TIP PROJECT R-5706
-L- STA. 142+73.53
S.R. 2693 DAVIDSON-CONCORD RD
S.R. 2423 JANE WAGMAN RD
S.R. 2427 RAMAH CHURCH RD
DESIGN DATA -L-
Functional Class. = Arterial
Design Speed = 50 mph
Wes. Superelev. = 0.04
AERIAL REFERENCE:
NC OneMap, 2015
GRAPHIC SCALE
LEGEND


MATCHLINE SHEET 2 -L- STA. 245+00
CATAWBA LANDS CONSERVANCY EASEMENTS
WHITE COMMUNITY PARK
CASHION AND MOORE FAMILY CEMETERY (APPROXIMATE BOUNDARY)
S.R. 2425 MCGINLEY RD
HEADFORD FARM
LEADFORD STONE
JESSE & MARY K. WAGMAN FARM
NC HIGHWAY 73
DAVIDSON-CONCORD RD TO I-85
SIDEWALK & SIDEPATHS: THE CONSTRUCTION OF SIDEWALKS AND SIDEPATHS ARE CONTINGENT UPON MUNICIPAL AGREEMENTS.
DIRECTIONAL CROSSOVER WITH MEDIAN U-TURNS
LEGEND
PRELIMINARY PLANS
INCOMPLETE PLANS
UTILITY INFORMATION:
DRIVEWAY NOTE:
ACCESS NOTE:
SIDEWALK & SIDEPATHS:


DESIGN PUBLIC MEETING MAP
TIP PROJECT R-5706
MECKLENBURG & CABARRUS COUNTIES
FROM S.R. 2693 (DAVIDSON-CONCORD RD.) TO U.S. HIGHWAY 29
ROLL 2 OF 5
RECOMMENDED ALTERNATIVE
NC HIGHWAY 73
POPLAR TENT RD
DIRECTIONAL CROSSOVER WITH MEDIAN U-TURNS
INCOMPLETE PLANS
PRELIMINARY PLANS
LEGEND
MATCHLINE SHEET 1 -L- STA. 245+00
END CONSTRUCTION -Y17- Sta. 13+30.00
END CONSTRUCTION -Y18- Sta. 35+59.23
BEGIN CONSTRUCTION -Y18- Sta. 24+00.00
S.R. 1423 STANFIELD MCKEATHAN RD.
S.R. 1400 POPLAR TENT RD.
S.R. 2693 DAVIDSON-CONCORD RD.
S.R. 1004 CABARRUS CROSSING DR.
S.R. 1004 CABARRUS CROSSING DR.
S.R. 1164 LOCKE RD.
S.R. 1164 LOCKE RD.
S.R. 1164 VICKERS RD.
RENAISSANCE SQUARE
WOODMEN OF THE WORLD BANK
HARRIS TEETER
COLUMBUS CHAPEL
BESS & MARY E WIGGINS FARM
CABARRUS CROSSING


MATCHLINE SHEET 3 -L- STA. 356+00
S.R. 1002 BETH JOHNSON RD.
FUTURE WEST SIDE PARK
PELHAM POINTE
WELLINGTON CHASE
CABARRUS SOIL & WATER CONSERVATION DISTRICT EASEMENT LAND TRUST FOR CENTRAL NORTH CAROLINA EASEMENT
ROCKY RIVER
MOSS CREEK
DESIGN DATA -L-
Functional Class. = Arterial
Design Speed = 50 mph
Max. Superelev. = 0.04
AERIAL REFERENCE: NC OneMap, 2015
LEGEND

NORTH CREEK MIXED USE - MASTERPLAN

COLEJENEST & STONE | 06.02.2020 | 4661

Susan Irvin
Irvin Law Group
susan@irvinlawgroup.com
704-896-0820

Steve Vinson
Magnolia Development Company
svinson@magnoliadevco.com
919-414-6721

Activity Node/Center

Appropriate Zoning:

Highway Commercial (HC) for front commercial property and
Traditional Neighborhood Design (TND)– U for back residential property

HC- The Highway Commercial District is established to provide primarily for auto-dependent uses in areas not amenable to easy pedestrian access and a comfortable pedestrian environment

TND- Traditional Neighborhood Developments (TNDs) offer a mixture of housing types and prices, prominently sited civic or community building(s), and stores/offices/workplaces to provide a balanced mix of activities

Policy Lu-1: Encourage a development pattern that follows the Future Land Use Map

Land Use Map designates this area as an Activity Center Land Use

Encouraged in Activity Centers:

TND , Live-Work Units, Apartments and Condos (if contextually appropriate), Attached (townhomes, duplex, triplex),Detached

Policy LU-6: Support a mix of land uses in key locations.

LU 6.1: A mix of land uses is encouraged in Mixed Use Centers, Activity Centers, Employment Centers identified on the Future Land Use Map.

Policy LU-8: Emphasize form and flexibility in Mixed Use Centers, Employment Centers, the Town Core and Activity Centers.

Planning Services
4421 Stuart Andrew Blvd.
Charlotte, NC 28217
Phone: 980-343-6246
Email: planning@cms.k12.nc.us

Town of Huntersville: Project Update North Creek Mixed Use (3rd Site Plan)

IMPACT OF THE PROPOSED DEVELOPMENT

Proposed Housing Units: 303 Multi-family units, 65 single family attached, and 77 single family detached, under proposed zoning HC (CD) and TND-U (CD).

CMS Planning Area: North

Average Student Yield per Unit: 0.1225 (303 multi-family) = 37
0.1812 (65 single family attached) = 12
0.5118 (77 single family detached) = 39

This development may add 88 students to the schools in this area.

The following data is as of 20th Day of the 2020-21 school year.

Schools Affected	*Total Classroom Teachers*	*Building Classrooms/ Teacher Stations*	*20th Day, Enrollment (non-ec)*	*Building Classroom/ Adjusted Capacity (Without Mobiles)*	*20th Day, Building Utilization (Without Mobiles)*	*Additional Students As a result of this development*	*Utilization As of result of this development (Without Mobiles)*
HUNTERSVILLE ELEMENTARY	47	37	734	578	127%	39	**132%**
BAILEY MIDDLE	76.65	57	1454	1081	134%	21	**136%**
WILLIAM A HOUGH HIGH	118.5	100	2485	2097	119%	28	**120%**

The total estimated capital cost of providing the additional school capacity for this new development is $3,335,000; calculated as follows:

Elementary School: **39** x $34,000 = $1,326,000
Middle School: **21** x $37,000 = $777,000
High School: **28** x $44,000 = $1,232,000

RECOMMENDATION

Adequacy of existing school capacity is a significant problem. We are particularly concerned about a case where school utilization exceeds 100% since the proposed development may exacerbate the situation. Approval of this petition may increase overcrowding and/or reliance upon mobile classrooms at the schools listed above.

R21-06 North Creek Village (3rd Submittal)

17.71 acres
87 units
4.91 units / acre

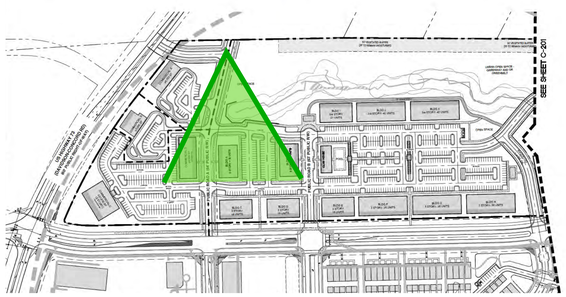
17.34 acres
303 units
17.47 units / acre

27.87 acres
75 units
2.69 units / acre

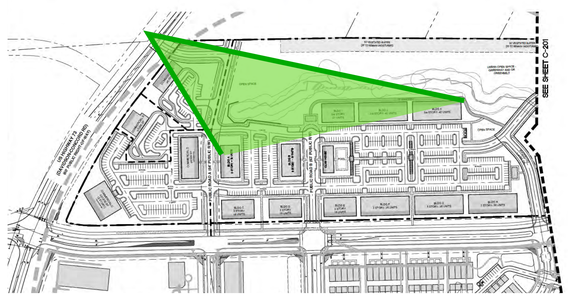
12.28 acres
34 units
2.77 units / acre

16.96 acres
38 units
2.24 units / acre

20.78 acres
33 units
1.59 units / acre



VIEW CORRIDOR KEY MAP



VIEW CORRIDOR KEY MAP

VIEW CORRIDOR KEY MAP

BUILDING - REAR ELEVATION

BUILDING - NORTH ELEVATION

BUILDING - FRONT ELEVATION

BUILDING -SOUTH ELEVATION

BUILDING - REAR ELEVATION

BUILDING - NORTH ELEVATION

BUILDING - FRONT ELEVATION

BUILDING - SOUTH ELEVATION

BUILDING DESIGN NOTES:

1. BUILDING UTILITIES, MECHANICAL EQUIPMENT, TO BE LOCATED IN SIDE / REAR YARD ONLY; NOT PERMITTED ON STREET SIDE.
2. All WINDOWS AND DOORS ON THIS ELEVATION ARE TRANSPARENCY EXCEPT THE DECORATIVE WINDOWS THAT WILL BE NON-REFLECTIVE AND NON-MIRRORED.
3. SIGNAGE SHOWN FOR ILLUSTRATION PURPOSES ONLY. SIGNAGE TO BE SUBMITTED SEPARATELY APPROVAL.

BUILDING DESIGN NOTES:

1. BUILDING UTILITIES, MECHANICAL EQUIPMENT, TO BE LOCATED IN SIDE / REAR YARD ONLY; NOT PERMITTED ON STREET SIDE.
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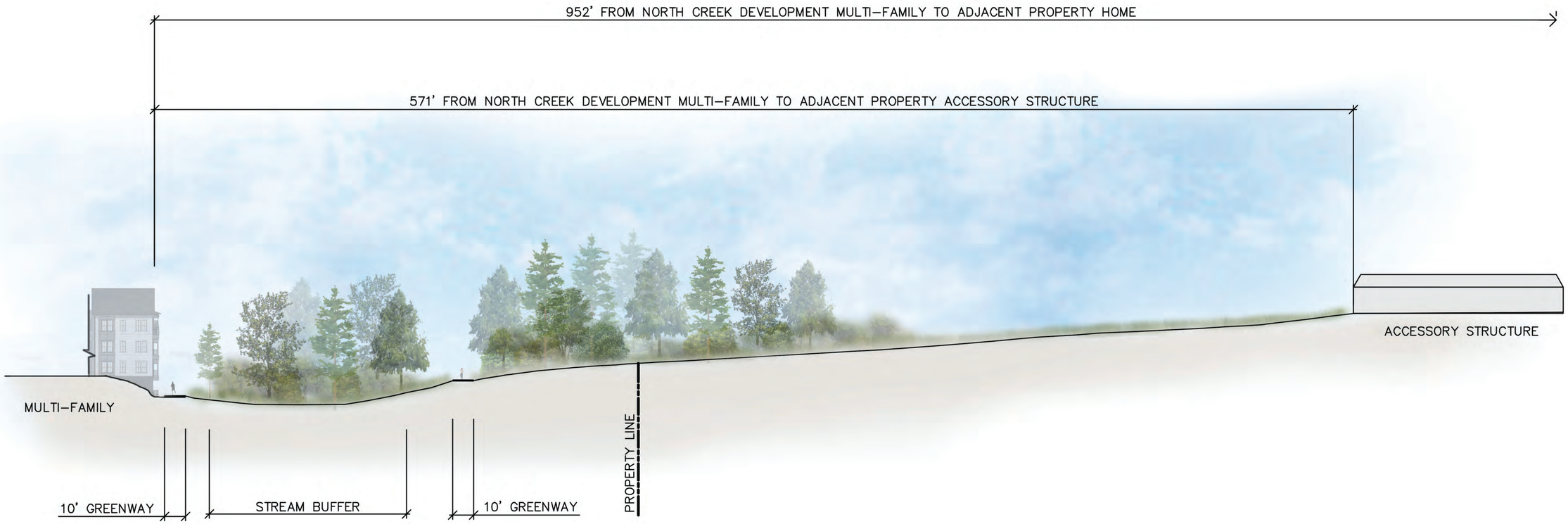
NORTH CREEK

MAGNOLIA HUNTERSVILLE
DEVELOPMENT COMPANY, LLC


952' FROM NORTH CREEK DEVELOPMENT MULTI-FAMILY TO ADJACENT PROPERTY HOME
571' FROM NORTH CREEK DEVELOPMENT MULTI-FAMILY TO ADJACENT PROPERTY ACCESSORY STRUCTURE
ACCESSORY STRUCTURE
MULTI-FAMILY
PROPERTY LINE
10' GREENWAY
STREAM BUFFER
10' GREENWAY

Town of Huntersville
Town Board
October 18, 2021

To: Town Board

From: Lauren Speight

Date: October 18, 2021

Subject: Black Farms Road Farmhouse Cluster

EXPLAIN REQUEST:
Consider a decision on Black Farms Road Farmhouse Cluster, a request by Black Farms Collective LLC to subdivide +/- 12.27 acres of land located on the east side of Black Farms Road to create a 6 lot Farmhouse Cluster Development.

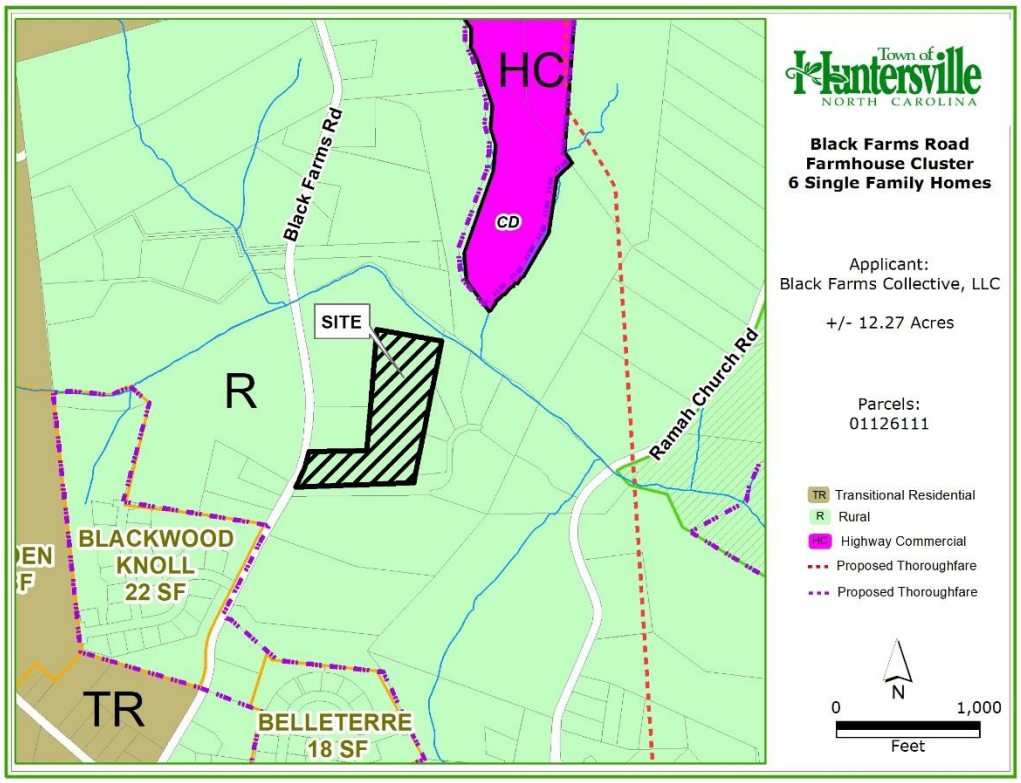
ACTION RECOMMENDED:
Consider a decision on Black Farms Road Farmhouse Cluster.

FINANCIAL IMPLICATIONS:
N/A

ATTACHMENTS:
1. Black Farms Road FC Staff Report_ 10 18 2021v3
2. Attachment A ToH_General_Application
3. Attachment B 2021-09-03_Civil_Plans_Feedback

Black Farms Farmhouse Cluster

PART 1: PROJECT SUMMARY



Applicant: Black Farms Collective, LLC

Designer: Henson Foley

Project Size: +/- 12.27 acres

Parcel Number: 01126111

Current Zoning: Rural (R)

Current Land Use: Vacant

Proposed Land Use: 6 single family lot residential Farmhouse Cluster Development

The application is Attachment A. The site plan is Attachment B.

PART 2: SITE PLAN DESCRIPTION

1. Proposal: To subdivide +/- 12.27 acres of land located on the east side of Black Farms Road to create a 6 lot Farmhouse Cluster Development. The Rural (R) zoning district allows Farmhouse Cluster Developments up to six houses accessed by way of a shared private drive.
2. Adjacent Properties:
   - North: *Rural (R) – Single-Family Residential*
   - South: *Rural (R) – Single-Family Residential*
   - East: *Rural (R) – Farmhouse Cluster, Ramah Oaks Farmhouse Cluster*
   - West: *Rural (R) – Farm, Single-Family Residential*
3. The proposed subdivision has a lot size range of 1.54 acres to 4.16 acres. No minimum lot size or width is required if the project meets all other standards of the district.
4. 50% of the existing tree canopy and 50% of the existing specimen trees are required to be saved. The developer intends to save 51.4% of the tree canopy and 52.3% of the specimen trees onsite. Staff has concerns about 1 tree (Page C03) and have inquired with the submitting firm, but even if it were removed, the site would comply with saving 50% of the existing specimen trees.
5. The applicant is proposing a total of 6.36 acres (51.8% of the site) to be preserved as open space.
6. The applicants intend to develop the subdivision in two phases.
7. This Farmhouse Cluster Development will be served by Charlotte Water. The applicant has included a Capacity Assurance Letter from Charlotte Water, however Staff has requested additional information about the sewer connection.

PART 3: TRANSPORTATION HIGHLIGHTS

Traffic Impact Analysis (TIA); No TIA is required for this project.

PART 4: PLANNING STAFF ANALYSIS

According to the Huntersville Zoning Ordinance, Farmhouse Cluster permits the subdivision of land for up to six houses accessed by way of a shared private drive. A Farmhouse Cluster is permitted if the project meets the following eleven (11) conditions.

1) Minimum project size and frontage on public road: 10 acres with a minimum of 30 feet of frontage on a public road either by fee simple ownership or by exclusive easement.

   Staff Comment: The applicants are proposing a total acreage of 12.27 and +/- 272.5 feet of frontage on a public road. This condition is met.

2) There shall be no more than two farmhouse cluster developments permitted per tract as that tract existed on February 18, 2003.

   Staff Comment: The site plan only indicates one farmhouse cluster development with six (6) lots. This condition is met.

3) Private drives shall be paved in accordance with the Town of Huntersville construction standards. The private street right-of-way or easement shall be sufficient width to accommodate drainage/water quality treatment associated with the private drive. Further, the recorded easement shall have at least 30' of frontage on a public street.

   Staff Comment: There are notes on the site plan indicating the private drive will be paved in accordance with the Town of Huntersville construction standards and will be maintained by the property owner/HOA. This condition has been met.

4) An association of all property owners shall be established for maintenance of all commonly held spaces, if any. Where there are no commonly held spaces except for a shared driveway or private street, a legally binding shared driveway and/or private street use and maintenance agreement shall be filed at the Register of Deeds of Mecklenburg County. Furthermore, the shared driveway or private road shall be shown, along with all appropriate and necessary easements, on a recorded plat and a note shall be attached thereto stipulating the use and maintenance of the driveway and referencing the recorded agreement(s).

   Staff Comment: The applicants have put a note on the site plan stating the above condition. The condition has been met.

5) The location of building sites shall be determined through a site analysis which identifies features listed in Article 7 to be preserved as open space;

   Staff Comment: The applicants have indicated building areas on each of the six (6) lots which respect the preservation of open space and natural features. This condition has been met.

6) No minimum lot size or width is required, so long as the project meets all other standards of the district;

   Staff Comment: The applicants are meeting all other standards of the district. This condition is met.

7) At least 50% of the tract shall be designated as open space. Open space preservation shall be irrevocable. A metes and bounds description of the space to be preserved and limits on use shall be recorded on the subdivision plat and on individual deeds when open space lands are not held entirely in common. Open space lands may be part of a deeded lot so long as it reflects an irrevocable conservation or open space easement requiring such portions of individual lots to remain and be used as open space as provided in this section.

Staff Comment: The applicants are proposing 51.8% open space. Regarding the minimum area required, this condition has been met. The applicants are proposing for all open space to be located within private lots and a metes and bounds description of the space to be preserved and limits on use shall be recorded on the subdivision plat and on individual deeds for open space.

8) Permitted uses of open space lands to be preserved shall correspond generally to physical conditions at the time of subdivision approval. Restrictive covenants shall limit uses to the continuation of certain agricultural activities (pastureland, crop cultivation) or recreation uses that preserve the view from public streets of rural heritage features to be preserved. For example, fields or pasture land preserved as required open space may continue to support cultivation or grazing; however existing woodlands may not be clear-cut. In order to ensure septic tanks are located on the most suitable soils, septic fields may be located in common open space provided a maintenance easement is established for access.

   Staff Comment: The open space proposed corresponds generally to the existing physical conditions. A note is included on the site plan indicating open space shall not be disturbed. Staff has further requested the submitting firm to add a note as a condition to the site plan indicating, "Permitted uses of open space lands to be preserved shall correspond generally to physical conditions at the time of subdivision approval. Restrictive covenants shall limit uses to the continuation of certain agricultural activities (pastureland, crop cultivation) or recreation uses that preserve the view from public streets of rural heritage features to be preserved."

9) The project shall maintain a generally rural appearance from public road(s).

   Staff Comment: As the proposed development is not a major subdivision, the 80 ft opaque buffer detailed in Article 3.2.1, D, 2, h for properties within the Rural (R) Zoning District is not required. However, development in the R Zoning District must be compatible with surroundings and maintain a generally rural appearance from public roads per Article 3.2.1, e, 9 and Article 3.2.1, d, 4. Adjacent homes are approximately +/- 100 ft from Black Farms Road and the existing major subdivision opposite of the proposed farmhouse cluster includes an opaque vegetated buffer along Black Farms Road. Staff has met with the submitting firm regarding a revision to the plan to include a 60-foot buffer is included along Asbury Chapel Road as a condition to the plan approval. Staff included comments that the width of the buffer shall be a completely vegetated opaque buffer. Staff and the submitting firm have corresponded about this requirement the submitting firm plans to include a revision to this buffer to satisfy this requirement.

10) Where a farmhouse cluster would eliminate a planned street connection or a street connection indicated on a plan adopted by the Town of Huntsville or the Charlotte-Mecklenburg Thoroughfare Plan, and no alternate alignment can reasonably provide the connection, the design of the farmhouse cluster shall provide for said connection by the dedication of right-of-way for streets less than 70 feet in width and by the reservation of right-of-way for streets 70 feet or wider.

    Staff Comment: N/A

11) A Farmhouse Cluster requires an approved **Farmhouse Cluster subdivision plan,** according to the requirements of the Huntersville Subdivision Ordinance including approval by the Town Board and shall meet all other requirements for review and approval, which may include preliminary plan approval prior to approval of a final plat.

    Staff Comment: This site plan has met 9 of the 11 requirements for review and approval. The remaining two requirements have been addressed by Staff and shall be revised before the plan is stamped for approval.

PART 5: STAFF RECOMMENDATION

In considering Black Farms Road Farmhouse Cluster, staff finds:

- The application is complete.

- The site plan meets ten (10) of the eleven (11) conditions outlined in the Huntersville Zoning Ordinance as defined in Part 4 of this Staff Report.

  Summary of findings:

  1. The site plan includes a private drive that will be built to Huntersville construction standards and will be maintained by the property owner/HOA.
  2. This site plans only include one farmhouse cluster that will be in keeping with the Rural district appearance.
  3. All open space and tree save requirements have been met.
  4. Only minor revisions are required before Staff can stamp approval of this plan.
  5. With the revision to the visually opaque buffer along Black Farms Road, all farmhouse cluster plan criteria can be met.

- Staff **recommends approval** of the project pending all outstanding comments are addressed.
  - *Outstanding comments from the Planning Department and Huntersville Land Development.*

PART 7: TOWN BOARD DECISION

Does the Plan comply with all applicable requirements?

PART 8: ATTACHMENTS/ENCLOSURES

Attachments

A – Application

B – Site Plan

General Application

INCOMPLETE SUBMISSIONS WILL NOT BE ACCEPTED. PLEASE CHECK ALL ITEMS CAREFULLY.

1. Application Type

Please indicate the type of application you are submitting. In addition to the application, the submission process for each application type can be found at https://www.huntersville.org/528/Permits-Process

☐ Change of Use ☐ Commercial Site Plan ☐ Conditional Rezoning ☐ General Rezoning ☐ Master Signage Program ☐ Special Use Permit ☐ Revision to Original Project # _____ ☐ Other _____	SUBDIVISION CATEGORIES: Per the Huntersville Subdivision Ordinance ☐ Sketch Plan ☐ Preliminary Plan ☐ Final Plat (Includes Minor Subdivision) ☐ Exempt Subdivision ☐ Final Plat Revision ☒ Farmhouse Cluster

2. Project Data

Date of Application 06/02/2021

Name of Project Black Farms Road Farmhouse Cluster Phase # (if subdivision) _____

Project Address 14700 Black Farms Road

Parcel Identification Number(s) (PIN) 01126111

Current Zoning District R Proposed District (for rezoning only) _____

Property Size (acres) 12.27 Street Frontage (feet) 270

Current Land Use Wooded

Proposed Land Use(s) Single-Family Residential

Is the project within Huntersville's corporate limits?
Yes_____ No X If no, does the applicant intend to voluntarily annex? X

3. Description of Request

Explain the nature of this request. If a separate sheet is necessary, please attach to this application.

This project is a farmhouse cluster subdivision, including 6 lots, their associated driveways and a private road cul-de-sac. The private road will be a part of phase 1. The owner is having conversations with potential builders as to either build out all of the lots at once, or to sell off to other builders to build out separately.

4. Site Plan Submittals

Consult the particular type of *Review Process* for the application type selected above. These can be found at https://www.huntersville.org/528/Permits-Process.

5. Outside Agency Information

Other agencies may have applications and fees associated with the land development process. The *Review Process* list includes plan documents needed for most town and county reviewing agencies. For major subdivisions, commercial site plans, and rezoning petitions please enclose a copy of the Charlotte-Mecklenburg Utility *Willingness to Serve* letter for the subject property.

6. Applicant

Printed Name Black Farms Collective LLC Phone 704-301-8082

☐ Corporation ☒ Limited Liability Company ☐ Trust ☐ Partnership ☐ Other:

☒ By signature below, I hereby acknowledge, as ~~on behalf of~~ (circle one) the applicant my understanding this application will be considered in a quasi-judicial proceeding and that neither I, nor anyone on my behalf, may contact the Board of Commissioners except through sworn testimony at the public hearing. (Applicable for Special Use Permits and Subdivisions)

Signature Ronald William Randle Printed Name: Ronald William Randle

Title President Email ron@loveshutter.com

Address of Applicant 8512 Shadetree St. Huntersville, NC 28078

7. Property Owner (if different than applicant)

*Printed Name Phone

☐ Corporation ☐ Limited Liability Company ☐ Trust ☐ Partnership ☐ Other:

☐ By signature below, I hereby acknowledge, as/on behalf of (circle one) the owner my understanding this application will be considered in a quasi-judicial proceeding and that neither I, nor anyone on my behalf, may contact the Board of Commissioners except through sworn testimony at the public hearing. (Applicable for Special Use Permits and Subdivisions)

Signature Printed Name

Title Email

Address of Property Owner

* Property owner hereby grants permission to the Town of Huntersville personnel to enter the subject property for any purpose required in processing this application.

Every owner of each parcel included in this application, or the owner (s) duly authorized agent, must sign this application. If signed by an agent on behalf of the Owner, this application MUST be accompanied by a notarized Limited Power of Attorney signed by the property owner (s), specifically authorizing the agent to act on the owner (s) behalf in signing this application. Failure of each owner, or their duly authorized agent, to sign, or failure to include the authority of the agent signed by the property owner, will result in an INVALID APPLICATION. **If additional space is needed for signatures, attach the Town of Huntersville Signature Addendum Form.**

8. Development/Design Firm Contact Information

Development Firm	Name of Contact	Phone	Email
HensonFoley	Jay Henson	704-875-1615	jay@hensonfoley.com
Design Firm	Name of Contact	Phone	Email

Contact Information

Town of Huntersville	Phone:	704-875-7000
Planning Department	Fax:	704-992-5528
PO Box 664	Physical Address:	105 Gilead Road, Third Floor
Huntersville, NC 28070	Website:	https://www.huntersville.org/228/Planning-Department

SHEET LIST TABLE	
SHEET NUMBER	SHEET TITLE
C01	COVER
C02	SURVEY
C03	TREE SAVE PLAN
C04	SPECIMEN TREE SAVE PLAN
C05	SITE PLAN
C06	ROAD PROFILE
C07	DRIVEWAY CONNECTION PLAN
C08	MASTER GRADING-EROSION
C09	GRADING-EROSION PH1
C10	GRADING-EROSION LOT 1
C11	GRADING-EROSION LOT 2
C12	GRADING-EROSION LOT 3
C13	GRADING-EROSION LOT 4
C14	GRADING-EROSION LOT 5
C15	GRADING-EROSION LOT 6
C16	UTILITY PLAN
C17	LANDSCAPE PLAN
C18	SITE DETAILS
C19	EC DETAILS
C20	EC DETAILS
C21	SU-30 AUTOTURN
C22	FIRETRUCK AUTOTURN
C23	SIGHT DISTANCE PROFILE
C24	TRAFFIC CONTROL

REVIEWED by Randy Frazier
Fire Plans Examiner
Mecklenburg County Code Enforcement

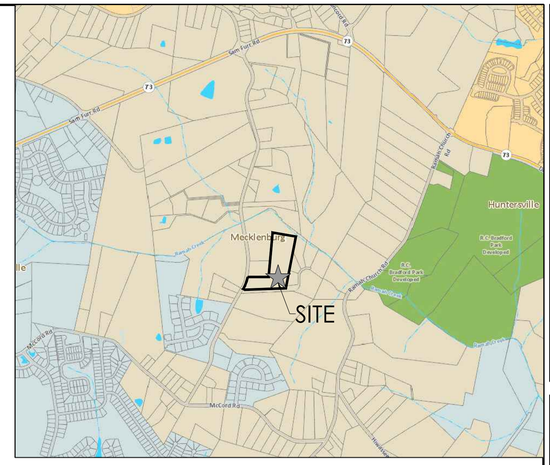
CIVIL SITE PLAN PACKAGE
PROPOSED

BLACK FARM FARMHOUSE CLUSTER
HUNTERSVILLE, MECKLENBURG COUNTY, NC

EPM# 423643

OWNER:

BLACK FARMS COLLECTIVE, LLC
8512 SHADETREE STREET
HUNTERSVILLE, NC 28078



VICINITY MAP
SCALE: N.T.S.

1. CONTRACTOR IS FULLY RESPONSIBLE FOR CONTACTING APPROPRIATE PARTIES AND ASSURING THAT EXISTING UTILITIES ARE LOCATED PRIOR TO BEGINNING CONSTRUCTION.
2. CONTRACTOR IS RESPONSIBLE FOR PLACING BARRICADES USING FLAGMEN, ETC., AS NECESSARY TO INSURE SAFETY TO THE PUBLIC.
3. ALL PAVEMENT CUTS, CONCRETE OR ASPHALT, ARE TO BE REPLACED ACCORDING TO STANDARDS OF THE DEPARTMENT OF TRANSPORTATION.
4. SHORING WILL BE ACCORDING TO OSHA TRENCHING STANDARDS PART 1926 SUBPART P, OR AS AMENDED.

811 Know what's below. Call before you dig.

HensonFoley
Landscape Architecture Civil Engineering
8712 Lindholm Dr Suite 202A, Huntersville NC 28078
p: 704.875.1615f: | 704.875.0959 | www.hensonfoley.com
NC ENGINEERING BOARD LICENSE #: C-3781
NC LANDSCAPE ARCHITECTURE BOARD LICENSE #: C-399

NORTH CAROLINA REGISTERED LANDSCAPE ARCHITECT 1000 TIMOTHY S. FRENCH
9/3/2021

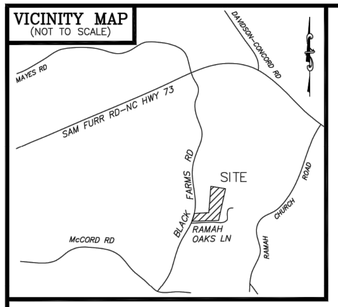
BLACK FARM FARMHOUSE CLUSTER
PIN #01126111
14700 BLACK FARM RD, HUNTERSVILLE, NC 28078
COVER

REVISIONS:
2021-09-03 TOWN AND NCDOT REV.

C01 COVER.DWG
PROJECT NUMBER: 220040
DATE: 06/04/2021 DRAWN BY: TSF
SHEET C01 OF 24

C01 COVER.DWG - PLOT: Justin - FRI. 9-3-2021 10:15 AM

VICINITY MAP
(NOT TO SCALE)



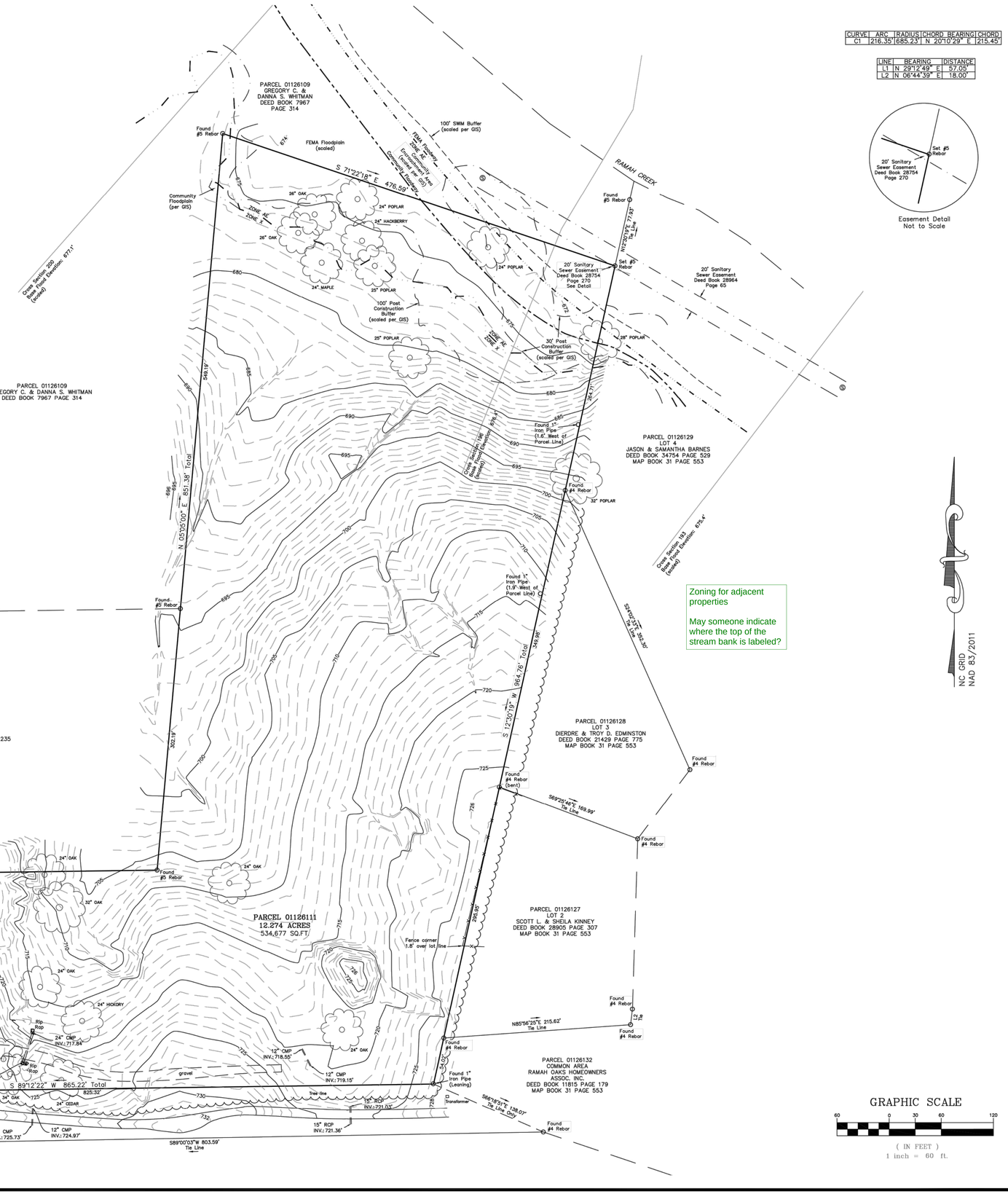
I, GLENN H. LESSER, PROFESSIONAL LAND SURVEYOR, CERTIFY THAT THIS PLAT WAS DRAWN UNDER MY SUPERVISION FROM AN ACTUAL SURVEY MADE UNDER MY SUPERVISION, DEED DESCRIPTION AND/OR MAP BOOK SEE _, PAGE NOTE #2 ; THAT THE BOUNDARIES NOT SURVEYED ARE CLEARLY INDICATED AS FROM INFORMATION FOUND IN BOOK _N/A_ PAGE _N/A_ AS SHOWN HEREON; THAT THE RATIO OF PRECISION AS CALCULATED IS 1:10,000+; THAT THIS PLAT WAS PREPARED IN ACCORDANCE WITH G.S. 47-30 AS AMENDED. WITNESS MY ORIGINAL SIGNATURE, REGISTRATION NUMBER AND SEAL THIS 4th DAY OF AUGUST, 2021.

GLENN H. LESSER – NC PLS L-4735

NORTH CAROLINA PROFESSIONAL LAND SURVEYOR SEAL L-4735 GLENN H. LESSER

SURVEYOR NOTES:

1. THIS PROPERTY MAY BE SUBJECT TO ANY EASEMENTS, RESTRICTIVE COVENANTS AND/OR RIGHT-OF-WAY OF RECORD.
2. BOUNDARY INFORMATION BASED ON DEED BOOK 28832 PAGE 83 AS RECORDED IN THE MECKLENBURG COUNTY REGISTER OF DEEDS.
3. BASIS OF BEARINGS: NC GRID NAD 83/2011
4. AREA BY COORDINATE METHOD. ALL DISTANCES SHOWN ARE HORIZONTAL AND US FEET.
5. POINTS NOT LABELED "FOUND" OR "SET" ARE COMPUTED POINTS ONLY. ALL CORNERS ARE FLUSH WITH THE GROUND UNLESS OTHERWISE NOTED.
6. THIS PROPERTY IS LOCATED WITHIN ZONES "X" AND "AE" ACCORDING TO THE FLOOD INSURANCE RATE MAP, COMMUNITY PANEL NUMBER 3710466200K, DATED NOVEMBER 16, 2018. ALL FLOODLINES, FLOODWAYS AND BUFFERS SHOWN HEREON ARE SCALED FROM FEMA MAP OR MECKLENBURG COUNTY GIS AND ARE APPROXIMATE.
7. THE LOCATION OF UTILITIES AS SHOWN HEREON, WHETHER PUBLIC OR PRIVATE, ARE BASED ON THE LOCATION OF VISIBLE ABOVE GROUND APPURTENANCES ONLY. OTHER UTILITIES WHICH WERE NOT OBSERVED AND NOT SHOWN HEREON MAY EXIST. IT IS THE OWNERS/TENANTS RESPONSIBILITY TO VERIFY THE LOCATION PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION. CES GROUP ENGINEERS, LLP CANNOT ASSUME RESPONSIBILITY FOR MISIDENTIFICATION OR OMISSION OF UNDERGROUND UTILITIES.
8. NO NCGS OR USGS MONUMENTS LOCATED WITHIN 2000' OF SUBJECT PARCEL.
9. CONTOURS SHOWN ARE ONE FOOT (1') INTERVALS. ELEVATIONS ARE BASED ON NAVD 88.
10. TEMPORARY BENCHMARK (TBM) SHOWN IS A SPIKE SET IN A UTILITY POLE ALONG THE RIGHT-OF-WAY OF BLACK FARMS ROAD HAVING AN ELEVATION OF 715.75' AS SHOWN HEREON AND IS BASED ON NAVD 88 DATUM.
11. THERE ARE NO SMALL MATURING TRESS 12 INCHES IN CALIPER OR GREATER ON THE SITE.


PARCEL 01126109
GREGORY C. & DANNA S. WHITMAN
DEED BOOK 7967
PAGE 314
Found #5 Rebar
FEMA Floodplain (scaled)
100' SWIM Buffer (scaled per GIS)
FEMA Floodway Zone AE (Encroachment Prohibited per GIS)
Community Floodplain (per GIS)
ZONE AE
ZONE X
S 71°22'18" E 476.59'
RAMAH CREEK
Found #5 Rebar
N12°20'19" E 77.83' Tie Line
Set #5 Rebar
20' Sanitary Sewer Easement Deed Book 28754 Page 270 See Detail
20' Sanitary Sewer Easement Deed Book 28964 Page 65
Cross Section 200 Creek Flood Elevation 677.1'
26" OAK
24" POPLAR
24" HACKBERRY
24" MAPLE
25" POPLAR
100' Post Construction Buffer (scaled per GIS)
30' Post Construction Buffer (scaled per GIS)
28" POPLAR
545.19'
N 05°05'00" E 851.38' Total
Found 1" Iron Pipe (1.6' West of Parcel Line)
Cross Section 1400 Creek Flood Elevation 677.4'
Found #4 Rebar
32" POPLAR
PARCEL 01126129
LOT 4
JASON & SAMANTHA BARNES
DEED BOOK 34754 PAGE 529
MAP BOOK 31 PAGE 553
Cross Section 1400 Creek Flood Elevation 675.4' (scaled)
S24°02'47" E 359.80'
Found 1" Iron Pipe (1.9' West of Parcel Line)
Found #5 Rebar
PARCEL 01126110
BETTY SUE WHITMAN
DEED BOOK 8223 PAGE 235
N07°01'19" E 803.47' Tie Line
Indicate r/w to be dedicated
gravel
N 89°13'21" E 444.87' Total
414.31'
Found #5 Rebar
30.90'
TBM SPIKE IN UTILITY POLE ELEV:715.75 (NAVD 88)
BLACK FARMS ROAD S.R. #2238 60' Prescriptive R/W (Map Book 31 Page 553)
PARCEL 01126111
12.274 ACRES
534,677 SQ.FT.
24" OAK
32" OAK
24" HICKORY
33" OAK
25" OAK
25" ELM
34" OAK
24" CEDAR
Rip Rap
18" CPP INV.: 716.91'
18" CPP INV.: 717.43'
24" CMP INV.: 717.84'
24" CMP INV.: 721.51'
12" CMP INV.: 718.55'
12" CMP INV.: 719.15'
12" CMP INV.: 721.04'
S 89°12'22" W 865.22' Total
825.32'
Found 1" Iron Pipe (Leaning)
Transformer
S68°48'31"E 138.07' Tie Line (typ)
15"RCP INV.: 721.05'
15"RCP INV.: 719.97'
12" CMP INV.: 721.44'
12" CMP INV.: 721.99'
12" CMP INV.: 725.73'
12" CMP INV.: 724.97'
15" RCP INV.: 721.36'
RAMAH OAKS LANE
PRIVATE DRIVE
(MAP BOOK 31 PAGE 553)
S89°00'03"W 803.59' Tie Line
PARCEL 01126128
LOT 3
DIERDRE & TROY D. EDMINSTON
DEED BOOK 21429 PAGE 775
MAP BOOK 31 PAGE 553
S12°30'19" W 964.76' Total
349.98'
S89°25'44"E 169.99' Tie Line
Fence corner 1.8' over lot line
PARCEL 01126127
LOT 2
SCOTT L. & SHEILA KINNEY
DEED BOOK 28905 PAGE 307
MAP BOOK 31 PAGE 553
N85°56'25"E 215.62' Tie Line
PARCEL 01126132
COMMON AREA
RAMAH OAKS HOMEOWNERS ASSOC. INC.
DEED BOOK 11815 PAGE 179
MAP BOOK 31 PAGE 553
Found #4 Rebar
Found #4 Rebar (bent)
Found #4 Rebar
Found #4 Rebar
Found #4 Rebar

TREE SAVE - TREE CANOPY (R)

TOTAL SITE AREA: 534,677 SF (12.27 AC)

EXISTING TREE CANOPY: 528,900 SF (12.14 AC)

TREE SAVE AREAS:
TREE SAVE AREA : 271,642 SF (6.24 AC)
TOTAL CANOPY TO REMAIN: 51.4%

TREE CANOPY TO BE REMOVED: 257,258 SF (5.91 AC)
TOTAL CANOPY TO BE REMOVED: 48.6%

TREE CANOPY REQUIRED TO SAVE: 264,450 SF (6.07 AC)
PERCENT REQUIRED TO SAVE: 50%

LEGEND

CANOPY TO BE SAVED

CANOPY TO BE REMOVED

Need official letter from arborist

Plan shows 21 trees, 50% - save 11 trees

1. CONTRACTOR IS FULLY RESPONSIBLE FOR CONTACTING APPROPRIATE PARTIES AND ASSURING THAT EXISTING UTILITIES ARE LOCATED PRIOR TO BEGINNING CONSTRUCTION.
2. CONTRACTOR IS RESPONSIBLE FOR PLACING BARRICADES USING FLAGMEN, ETC., AS NECESSARY TO INSURE SAFETY TO THE PUBLIC.
3. ALL PAVEMENT CUTS, CONCRETE OR ASPHALT, ARE TO BE REPLACED ACCORDING TO STANDARDS OF THE DEPARTMENT OF TRANSPORTATION.
4. SHORING WILL BE ACCORDING TO OSHA TRENCHING STANDARDS PART 1926 SUBPART P, OR AS AMENDED.

811 Know what's below. Call before you dig.

HensonFoley
Landscape Architecture Civil Engineering
8712 Lindholm Dr Suite 202A, Huntersville NC 28078
p: 704.875.1615f: | 704.875.0959 | www.hensonfoley.com
NC ENGINEERING BOARD LICENSE #: C-3781
NC LANDSCAPE ARCHITECTURE BOARD LICENSE #: C-399

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N
W E
S
NORTH ARROW
0 30 60 120
GRAPHIC SCALE 1"=60 FT.

NORTH CAROLINA REGISTERED LANDSCAPE ARCHITECT 2021 TIMOTHY A. FOLEY
09/03/2021

BLACK FARM FARMHOUSE CLUSTER

PIN #01126111

14700 BLACK FARM RD, HUNTERSVILLE, NC 28078

TREE SAVE PLAN

REVISIONS:

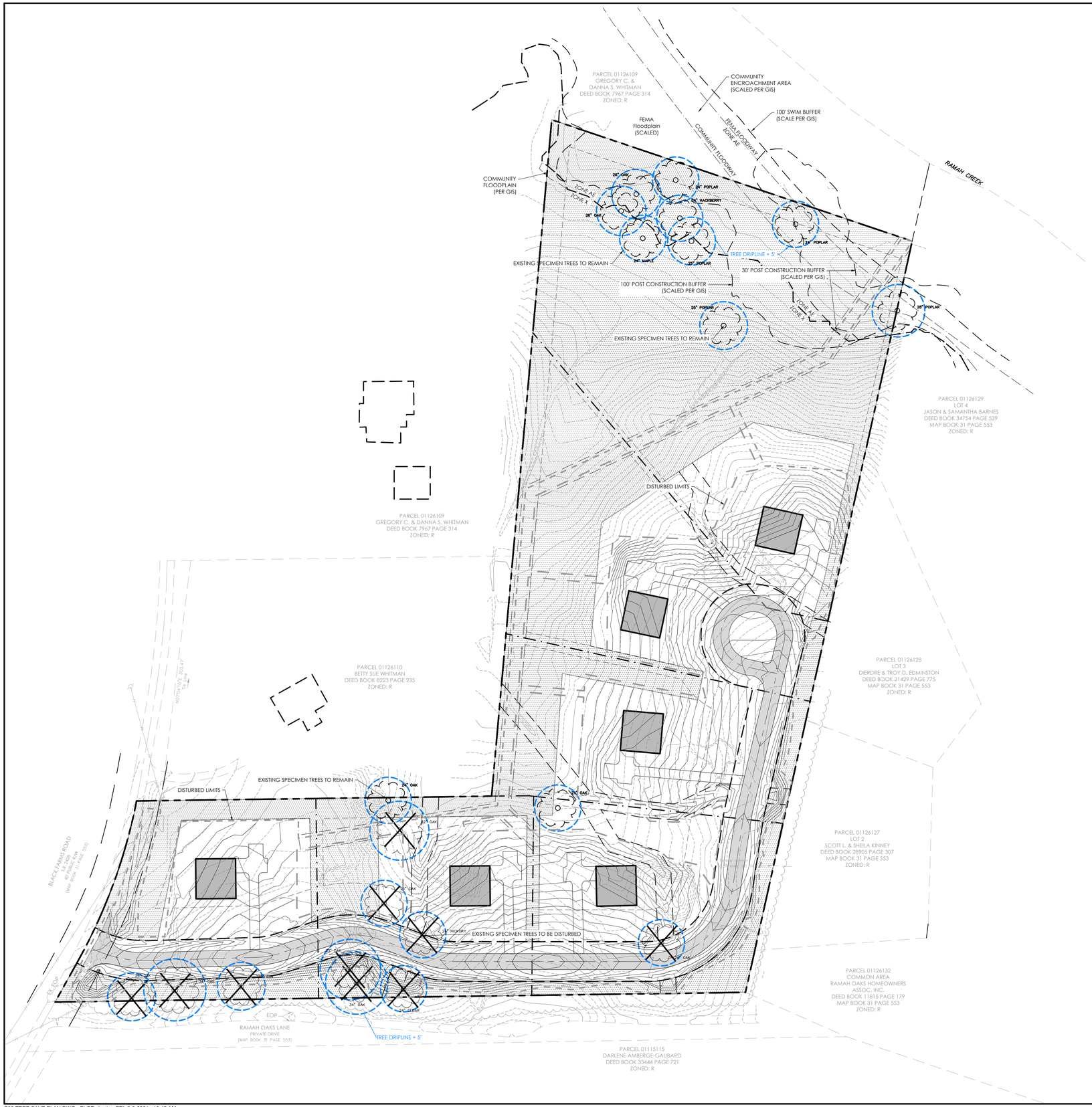
2021-09-03 TOWN AND NCDOT REV.

C03 TREE SAVE PLAN.DWG

PROJECT NUMBER: 220040

DATE: 06/04/2021 DRAWN BY: TSF

SHEET C03 OF 24



TREE SAVE - SPECIMEN TREES TOTAL SITE

EXISTING SPECIMEN TREES: 21

EXISTING SPECIMEN TREES TO REMAIN: 11
EXISTING SPECIMEN TREES TO BE REMOVED: 10
SPECIMEN TREES REQUIRED TO RETAIN: 10 TREES (50%)

EXISTING SPECIMEN TREES TO BE SAVED: 11 TREES (52.3%)

TREES TO BE MITIGATED: 0

NOTE: NO HERITAGE TREES FOUND ON SITE

LEGEND

DRIP LINE + 5'

SPECIMEN TREES SAVED

SPECIMEN TREES TO BE REMOVED

NOTE: TREE REMOVAL AND CANOPY IS WORSE CASE CONDITION. IF GRADING OR TRENCHING FOR UTILITIES DOES NOT REQUIRE THE TREE TO BE REMOVED, DO NOT REMOVE THE TREE.

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NORTH ARROW
0 30 60 120
GRAPHIC SCALE 1"=60 FT.

NORTH CAROLINA
LANDSCAPE ARCHITECT
REGISTERED
PHILIP A. HENSON
2021/09/03

BLACK FARM FARMHOUSE CLUSTER

PIN #01126111

14700 BLACK FARM RD, HUNTERSVILLE, NC 28078

SPECIMEN TREE SAVE PLAN

REVISIONS:

2021-09-03 TOWN AND NCDOT REV.

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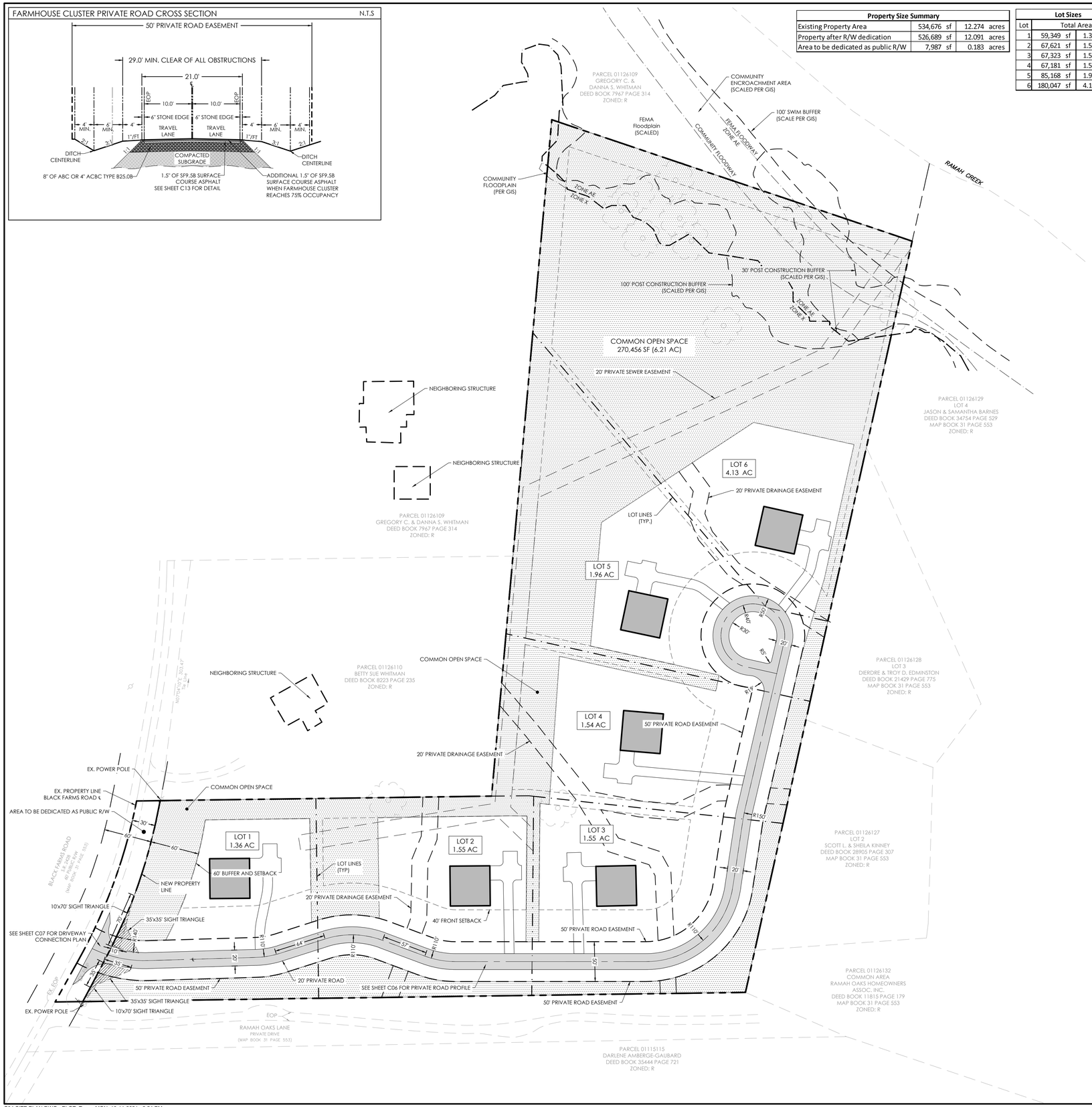
4. SHORING WILL BE ACCORDING TO OSHA TRENCHING STANDARDS PART 1926 SUBPART P, OR AS AMENDED.

811 Know what's below. Call before you dig.

C03 TREE SAVE PLAN.DWG
PROJECT NUMBER: 220040
DATE: 06/04/2021 DRAWN BY: TSF
SHEET C04 OF 24

FARMHOUSE CLUSTER PRIVATE ROAD CROSS SECTION

N.T.S



Property Size Summary				
Existing Property Area	534,676	sf	12.274	acres
Property after R/W dedication	526,689	sf	12.091	acres
Area to be dedicated as public R/W	7,987	sf	0.183	acres

Lot Sizes			
Lot	Total Area		
1	59,349 sf	1.36	acres
2	67,621 sf	1.55	acres
3	67,323 sf	1.55	acres
4	67,181 sf	1.54	acres
5	85,168 sf	1.96	acres
6	180,047 sf	4.13	acres

Impervious Summary				
Existing Site Area	534,677	sf	12.27	acres
Max 12% BUA	64,161	sf	1.47	acres
BUA for Common Driveway	27,700	sf	0.64	acres
Remaining	36,461	sf	0.84	acres
No. of lots	6			
MAX BUA per lot	6,077	sf	0.14	acres

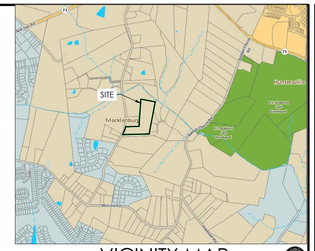
Approximate BUA Shown per Lot			
Lot	Footprint	Driveway	Total
1	2,500 sf	2,210 sf	4,710 sf
2	2,500 sf	2,170 sf	4,670 sf
3	2,500 sf	2,195 sf	4,695 sf
4	2,500 sf	2,730 sf	5,230 sf
5	2,500 sf	2,280 sf	4,780 sf
6	2,500 sf	2,130 sf	4,630 sf

NOTE:
APPROXIMATE BUA PER LOT SHOWN FOR REFERENCE ONLY. FINAL LOT BUA TO BE DETERMINED BY LOT OWNER; HOWEVER, BUA PER LOT NOT TO EXCEED MAX ALLOWABLE OF 6,077 SF

OPEN SPACE REQUIREMENTS

TOTAL SITE AREA	526,689 SF (12.09 ACRES)
REQUIRED OPEN SPACE (50% OF SITE)	263,345 (6.05 ACRES)
TOTAL OPEN SPACE PROVIDED	270,456 SF (6.21 ACRES)

NOTE: THIS PROPERTY WILL NOT BE ANNEXED INTO THE MUNICIPAL LIMITS OF THE TOWN OF HUNTERSVILLE AT THIS TIME.



VICINITY MAP
SCALE: N.T.S.

SITE DATA

LOCATION:	14700 BLACK FARMS ROAD (PID # 01126111) HUNTERSVILLE, NC 28078	
ZONE:	R (RURAL)	
USE:	RESIDENTIAL (FARMHOUSE CLUSTER)	
CONTACT:	HENSONFOLEY (JAY HENSON) 704-875-1615	
ITEM #		PROVIDED
1.	TOTAL SITE AREA	12.09 AC
2.	NUMBER OF LOTS	6 LOTS
3.	MIN. FRONT SETBACK	40'
4.	MIN. SIDE SETBACK	8'
5.	MIN. REAR SETBACK	25'
6.	CORNER LOT SETBACK	40'
7.	LOT WIDTH RANGE	158' - 270'
8.	LOT SIZE RANGE	1.54 AC. - 4.13 AC.
9.	MAX. BUILDING HEIGHT	2 STORIES
10.	BUILDING - LOT TYPE	SINGLE FAMILY DETACHED
11.	WATERSHED	CLARKE WATERSHED
12.	FEMA MAP NUMBER	3710466200K
13.	FEMA MAP EFFECTIVE DATE	11/16/2018
14.	SOIL TYPE	EnD, EnB, MO

GENERAL NOTES

- ALL DEVELOPMENT AND CONSTRUCTION SHALL COMPLY WITH ALL ZONING AND SUBDIVISION STANDARDS OF THE TOWN OF HUNTERSVILLE, MECKLENBURG COUNTY, AND NCDOT, AS APPLICABLE.
- THIS PROPERTY MAY BE SUBJECT TO ANY EASEMENTS AND/OR RIGHT-OF-WAY OF RECORD.
- ALL APPLICABLE FEDERAL, STATE, AND LOCAL ENVIRONMENTAL PERMITS AND APPROVALS WILL BE OBTAINED BY DEVELOPER.
- ALL AREAS DESIGNATED AS COMMON AND/OR URBAN OPEN SPACE SHALL BE OWNED AND MAINTAINED BY THE HOMEOWNERS ASSOCIATION AND DEDICATED FOR PERPETUITY.
- ACCESS (INGRESS/EGRESS) LOCATION AND DESIGN SHOWN ON THIS SKETCH PLAN AREA SUBJECT TO ACHIEVING VERTICAL AND HORIZONTAL SIGHT DISTANCES, TURN LANE IMPROVEMENTS (INCLUDING RIGHT-OF-WAY) AND INTERSECTION WITH ADJACENT AND OPPOSING ACCESS POINTS. MODIFICATIONS TO PLAN MAY RESULT.
- PRIVATE ROAD TO BE HD ASPHALT SUFFICIENT TO SUPPORT 80,000 LB FIRE APPARATUS
- RESIDENTS ARE TO COORDINATE TRASH PICK UP WITH A SERVICE PROVIDER IN THE AREA. THE TOWN OF HUNTERSVILLE TRASH SERVICE DOES NOT PICK UP FROM PRIVATE STREETS. EACH LOT OWNER IS RESPONSIBLE FOR INDIVIDUAL LOT PICK UP FOR GARBAGE.
- EACH LOT WILL HAVE ITS OWN MAIL BOX. DELIVERIES WILL BE DELIVERED TO EACH HOUSE INDIVIDUALLY.
- ALL COMMON OPEN SPACE WITHIN TREE SAVE AREA SHALL NOT BE DISTURBED.
- FLOODPLAIN AREA SHALL BE DEDICATED TO COUNTY FOR GREENWAY. MINIMUM REQUIRED EASEMENT FOR PUBLIC ACCESS.

BUILDING SEPARATION

- ALL DETACHED PRINCIPAL STRUCTURES IN ALL DISTRICTS SHALL PRESERVE A MINIMUM BUILDING SEPARATION OF 10 FEET. THE REQUIREMENT OF THE DISTRICT TO CONFORM TO AN EXISTING PATTERN OF BUILDING SPACING ALONG A STREET MAY REQUIRE A GREATER SEPARATION OR THE PROVISION OF SPECIFIED SIDE YARDS. ALL DETACHED ACCESSORY STRUCTURES IN ALL DISTRICTS SHALL MAINTAIN A MINIMUM BUILDING SEPARATION OF 4 FEET, AS MEASURED FROM THE OVERHANG (ARTICLE 8.10 TOH ZO).

UTILITIES

- MECHANICAL EQUIPMENT SHALL NOT ENCROACH INTO ANY REQUIRED SETBACK.
- ALL SIGNS WILL BE REVIEWED & APPROVED SEPARATELY AND SHALL MEET ARTICLE 10 OF THE TOH ZO.
- WATER AND SEWER SERVICES WILL BE PROVIDED FOR EACH LOT BY CLT WATER AS A PART OF THIS PROJECT. THOES SERVICES WILL BE PROVIDED JUST BEYOND THE 50' PRIVATE ROAD EASEMENT. EACH INDIVIDUAL LOT OWNER WILL THEN BE RESPONSIBLE FOR THE CONTINUATION OF EACH SERVICE TO THEIR HOME.

TRAFFIC CONTROL/PAVEMENT MARKINGS & STREET LIGHTING PLAN

- STANDARD STREET MARKERS MUST BE INSTALLED BY THE DEVELOPER AT ONE CORNER OF ALL STREET INTERSECTIONS, INCLUDING PRIVATE STREETS, BEFORE ANY CERTIFICATES OF OCCUPANCY MAY BE ISSUED FOR BUILDINGS OR RESIDENCES ALONG THOSE STREETS, THE DESIGN, MATERIAL, LOCATION AND INSTALLATION OF THE SIGNS MUST BE IN ACCORDANCE WITH STANDARDS SPECIFIED IN THE LAND DEVELOPMENT STANDARDS MANUAL UNLESS AN ALTERNATIVE DESIGN IS APPROVED.
- BARRICADES MUST BE INSTALLED AT THE END OF ALL DEAD-END STREETS EXCEPT CUL-DE-SAC STREETS, WHICH HAVE BEEN IMPROVED WITH A PERMANENT TURNAROUND AS REQUIRED BY THIS ORDINANCE. DESIGN, MATERIAL AND INSTALLATION OF THE BARRICADES MUST BE IN ACCORDANCE WITH THE LAND DEVELOPMENT STANDARDS MANUAL.
- NO DEPARTMENT, OFFICER, AGENT, OR EMPLOYEE OF THE TOWN WILL ACCEPT FOR MAINTENANCE, LAY OUT, OPEN, IMPROVE, GRADE, PAVE OR LIGHT ANY STREETS OR AUTHORIZE THE LAYING OF WATER MAINS, SEWERS, ELECTRICAL SERVICE EXTENSIONS OR OTHER FACILITIES OR UTILITIES IN ANY STREET WITHIN THE TOWN UNLESS: SUCH STREET HAS BEEN ACCEPTED OR OPENED AS, OR HAS OTHERWISE RECEIVED THE LEGAL STATUS OF, A PUBLIC STREET PRIOR TO THE EFFECTIVE DATE OF THIS ORDINANCE; OR FOR ANY NEW STREET, SUCH STREET CORRESPONDS IN ITS LOCATION AND LINES WITH A STREET SHOWN ON A PRELIMINARY SUBDIVISION PLAN, TENTATIVELY APPROVED BY THE TOWN MANAGER OR DESIGNATED ADMINISTRATIVE AGENT; OR SUCH STREET HAS BEEN ACCEPTED AS A PUBLIC STREET BY A VOTE OF A MAJORITY OF ALL THE MEMBERS OF THE TOWN BOARD OR BY THE STATE OF NORTH CAROLINA; OR SUCH STREET HAS BEEN ACCEPTED AS A PUBLIC STREET BY THE STATE OF NORTH CAROLINA; OR SUCH STREET IS AN APPROVED PRIVATE STREET BUILT IN CONFORMANCE WITH THE PROVISIONS OF ALL APPLICABLE ORDINANCES. (SECTION 8.170 & 8.200 TOH SO)

MAINTENANCE GUARANTEE

- ALL IMPROVEMENTS REQUIRED BY THIS ORDINANCE SHALL BE GUARANTEED AGAINST DEFECTS IN WORKMANSHIP AND MATERIALS BY THE SUBDIVIDER FOR A PERIOD OF ONE YEAR FROM THE DATE OF THE FILING OF THE FINAL PLAT OR THE DATE OF THE COMPLETION OF THE IMPROVEMENT, WHICHEVER IS LATER. THE SUBDIVIDER SHALL FILE WITH THE TOWN A MAINTENANCE BOND WITH ADEQUATE SURETIES IN AN AMOUNT DETERMINED BY THE TOWN OF HUNTERSVILLE/MECKLENBURG COUNTY TO BE SUFFICIENT TO ASSURE PROPER MAINTENANCE AND REPAIR OF SUCH IMPROVEMENTS FOR THE ONE-YEAR WARRANTY PERIOD. (SECTION 8.400 TOH SO)
- WATER QUALITY LID. FINANCIAL ARRANGEMENTS ARE TO BE MADE THROUGH THE TOWN OF HUNTERSVILLE GUARANTEEING THE INSTALLATION AND MAINTENANCE OF REQUIRED BMPS UNTIL THE ISSUANCE OF CO'S FOR SEVENTY-FIVE PERCENT (75%) OF ALL CONSTRUCTION WHICH MIGHT REASONABLY BE ANTICIPATED TO BE BUILT WITHIN THE AREA WHICH DRAINS INTO THE BMP, ALLOWING CREDIT FOR IMPROVEMENTS COMPLETED PRIOR TO THE SUBMISSION OF THE FINAL PLAT.

WATER QUALITY LID MAINTENANCE

- BMPS THAT ARE CONSTRUCTED ON PRIVATELY OWNED LAND AND THAT ARE NOT WITHIN A PUBLIC EASEMENT SHALL BE MAINTAINED BY A PROPERTY OWNERS ASSOCIATION OR THE OWNER OF THE SUBJECT PROPERTY. BMPS THAT ARE CONSTRUCTED ON PUBLIC LAND WITHIN PUBLIC RIGHTS-OF-WAY, AND/OR WITHIN PUBLIC EASEMENTS SHALL BE MAINTAINED BY THE PUBLIC BODY WITH OWNERSHIP/JURISDICTION OF THE SUBJECT PROPERTY.

MAINTENANCE COVENANTS

- PRIOR TO THE ISSUANCE OF AN OCCUPANCY PERMIT FOR ANY BUILDING WITHIN A PERMITTED DEVELOPMENT SERVED BY A BMP, THE APPLICANT OR OWNER OF THE BMP SHALL ESTABLISH A FORMAL MAINTENANCE COVENANT APPROVED BY THE MECKLENBURG COUNTY LAND USE AND ENVIRONMENTAL SERVICES AGENCY AND RECORDED IN THE OFFICE OF THE REGISTER OF DEEDS IN WHICH THE OWNER ACKNOWLEDGES THE DUTY OF THE OWNER AND ALL SUBSEQUENT OWNERS OF THE PROPERTY TO MAINTAIN THE BMP IN ACCORDANCE WITH THE TERMS OF THE COVENANT.
- THE DEVELOPER IS RESPONSIBLE FOR CONTACTING CLT WATER FOR ALL WATER AND SEWER ISSUES. A PARCEL WITH ON-SITE SEPTIC, 100% OF THE REPAIR AREA DOES NOT NEED TO BE CLEARED INITIALLY (ONLY THE AREA FOR THE ORIGINAL SEPTIC FIELD). PLEASE CONSIDER THIS WHEN LOOKING AT TREE PRESERVATION REQUIREMENTS.
- IF YOU ARE PROPOSING TO DEVELOP A RESIDENTIAL SUBDIVISION INSIDE THE MIL-O OR LN-O WATERSHED DISTRICTS YOU SHALL RESERVE 1% OF THE LOT AREA BUT NOT LESS THAN 150 SQ/FT IMPERVIOUS AREA PER LOT TO ALLOW FOR ADDITION OF FUTURE IMPERVIOUS AREA BY THE HOMEOWNER/OCCUPANT.
- LANDS THAT ARE DISTURBED DURING LAND DEVELOPMENT ACTIVITIES SHALL BE EXCLUDED FROM OPEN SPACE CALCULATION AREAS. EXAMPLES: TEMPORARY SEDIMENT BASINS, TEMPORARY DITCHES, AREAS WHERE GRADES PUSH INTO OPEN SPACE.
- PLACE THE HUNTERSVILLE CONSTRUCTION SEQUENCE ON THE GRADING AND EROSION CONTROL PLANS, SEE BELOW FOR THIS LANGUAGE.
- AN ASSOCIATION OF ALL PROPERTY OWNERS SHALL BE ESTABLISHED FOR MAINTENANCE OF ALL COMMONLY HELP SPACES. IF ANY, WHERE THERE ARE NO COMMONLY HELD SPACES, IF ANY. WHERE THERE ARE NO COMMONLY HELD SPACES EXCEPT FOR A SHARED DRIVEWAY OR PRIVATE DRIVEWAY, A LEGALLY BINDING SHARED DRIVEWAY OR PRIVATE STREET USE AND MAINTENANCE AGREEMENT SHALL BE FILED AT THE REGISTER OF DEEDS OF MECKLENBURG COUNTY. FURTHERMORE, THE SHARED DRIVEWAY OR PRIVATE ROAD SHALL BE SHOWN, ALONG WITH ALL APPROPRIATE AND NECESSARY EASEMENTS, ON A RECORDED PLAT AND A NOTE SHALL BE ATTACHED THERETO STIPULATING THE USE AND MAINTENANCE OF DRIVEWAY AND REFERENCING THE RECORDED AGREEMENT(S).

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4. SHORING WILL BE ACCORDING TO OSHA TRENCHING STANDARDS PART 1926 SUBPART P, OR AS AMENDED.

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W E
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NORTH ARROW
0 30 60 120
GRAPHIC SCALE 1"=60 FT.

NORTH CAROLINA PROFESSIONAL SEAL 51555 ENGINEER JUSTIN D. COBB
Justin D. Cobb 10/7/2021

BLACK FARM FARMHOUSE CLUSTER

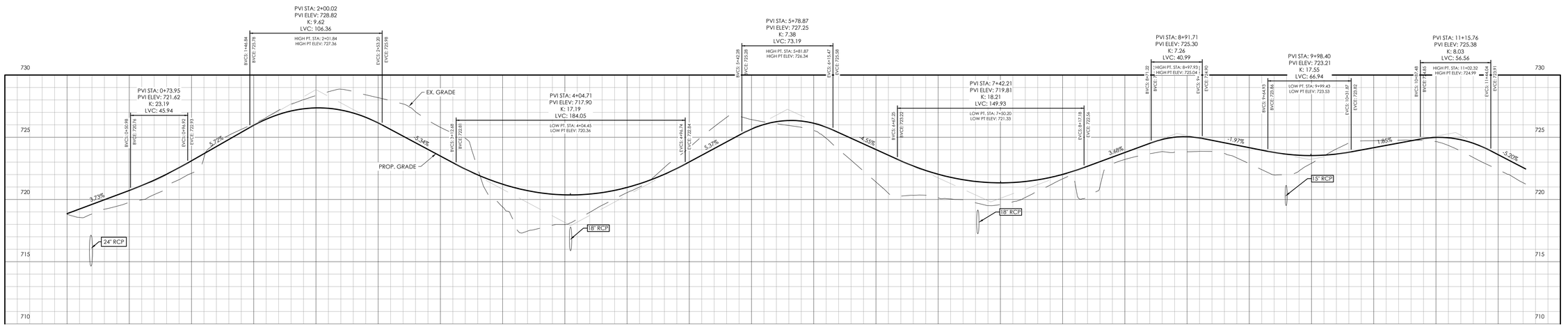
PIN #01126111
14700 BLACK FARM RD, HUNTERSVILLE, NC 28078

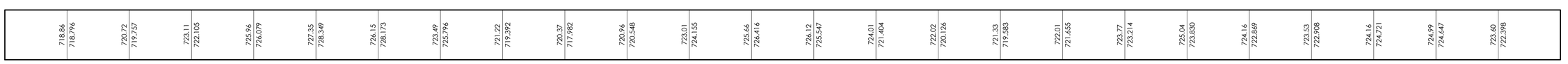
SITE PLAN

REVISIONS:
2021-09-03 TOWN AND NCDOT REV.
2021-10-07 TOWN AND NCDOT REV.

C04 SITE PLAN.DWG
PROJECT NUMBER: 220040
DATE: 06/04/2021 DRAWN BY: TSF
SHEET C05 OF 02

C04 SITE PLAN.DWG - PLOT: Tess - MON. 10-11-2021 2:54 PM





ROAD PROFILE
H: 1' = 40'
V: 1' = 4'

1. CONTRACTOR IS FULLY RESPONSIBLE FOR CONTACTING APPROPRIATE PARTIES AND ASSURING THAT EXISTING UTILITIES ARE LOCATED PRIOR TO BEGINNING CONSTRUCTION.
2. CONTRACTOR IS RESPONSIBLE FOR PLACING BARRICADES USING FLAGMEN, ETC., AS NECESSARY TO INSURE SAFETY TO THE PUBLIC.
3. ALL PAVEMENT CUTS, CONCRETE OR ASPHALT, ARE TO BE REPLACED ACCORDING TO STANDARDS OF THE DEPARTMENT OF TRANSPORTATION.
4. SHORING WILL BE ACCORDING TO OSHA TRENCHING STANDARDS PART 1926 SUBPART P, OR AS AMENDED.

811 Know what's below. Call before you dig.

HensonFoley
Landscape Architecture Civil Engineering
8712 Lindholm Dr Suite 202A, Huntersville NC 28078
p: 704.875.1615f: | 704.875.0959 | www.hensonfoley.com
NC ENGINEERING BOARD LICENSE #: C-3781
NC LANDSCAPE ARCHITECTURE BOARD LICENSE #: C-399

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NORTH ARROW

0 20 40 80
GRAPHIC SCALE 1"=40 FT.

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 040181 TIMOTHY A. HENSON 9/3/2021

BLACK FARM FARMHOUSE CLUSTER

PIN #01126111
14700 BLACK FARM RD, HUNTERSVILLE, NC 28078

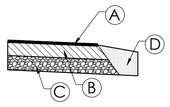
ROAD PROFILE

REVISIONS:
2021-09-03 TOWN AND NCDOT REV.

C05 ROAD PROFILE.DWG
PROJECT NUMBER: 220040
DATE: 06/04/2021 DRAWN BY: TSF
SHEET C06 OF 24

PAVEMENT SCHEDULE

Ⓐ	3", 2 lifts, AC SURFACE COURSE, TYPE S9.5C (TACK COAT BEFORE LAYING SURFACE COURSE)
Ⓑ	4" AC INTERMEDIATE COURSE, TYPE I19.0C
Ⓒ	5.5" AC BASE, TYPE B25.0C
Ⓓ	SELECT BACKFILL



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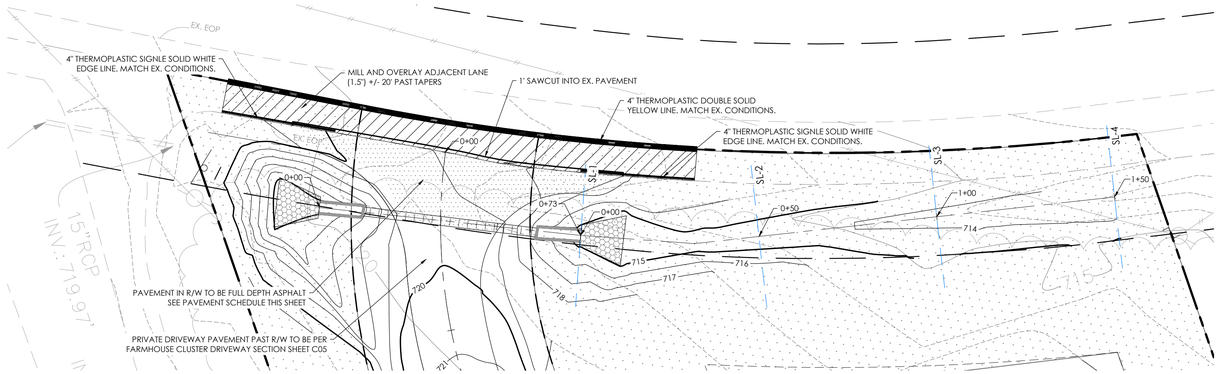
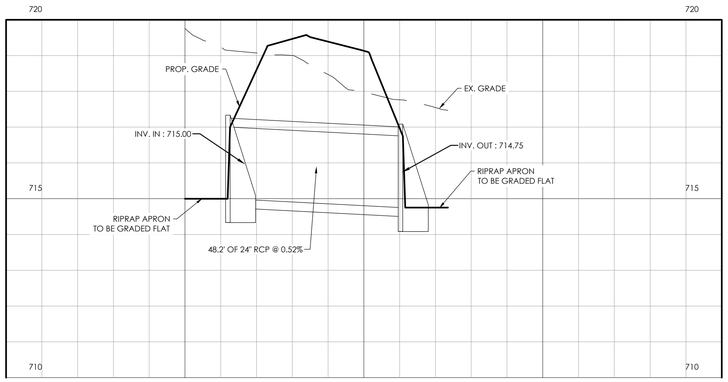
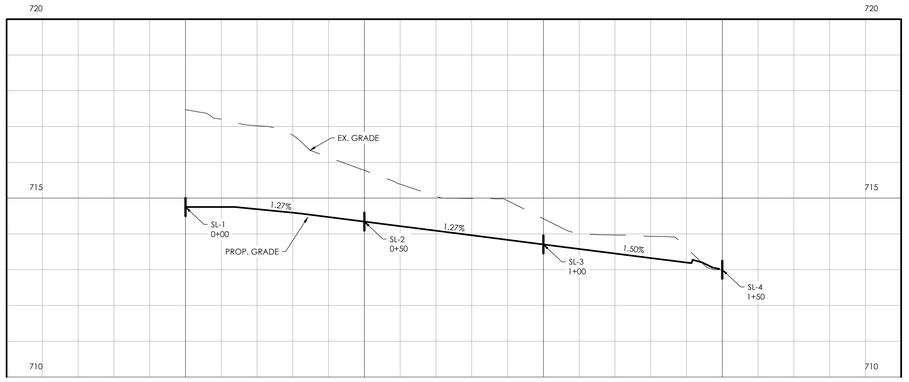
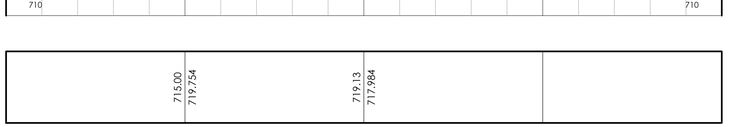
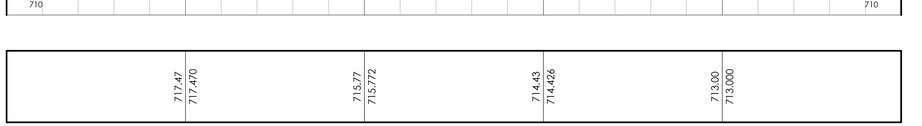






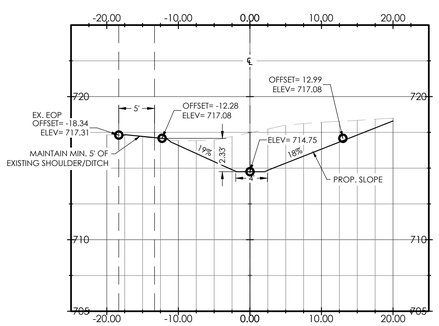


DRIVEWAY CULVERT PROFILE
H: 1" = 20'
V: 1' = 2'

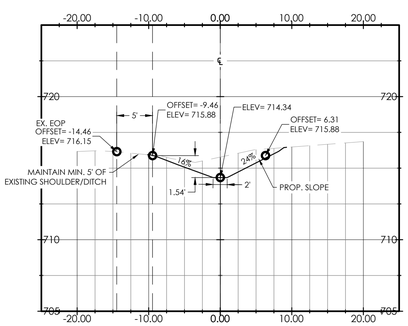


DITCH PROFILE
H: 1" = 20'
V: 1' = 2'

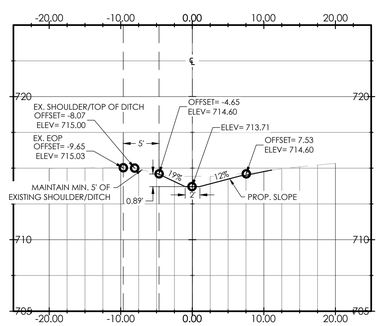
DITCH 0+00.00 SL-1



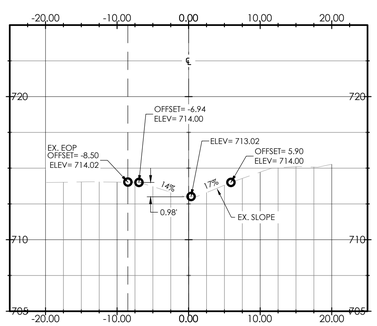
DITCH 0+50.00 SL-2



DITCH 0+00.00 SL-3



DITCH 1+50.00 SL-4 TIE INTO EXISITNG



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N
W E
S
NORTH ARROW

0 20 40 80
GRAPHIC SCALE 1"=40 FT.

NORTH CAROLINA REGISTERED LANDSCAPE ARCHITECT 1926 TSF
2021-09-03

BLACK FARM FARMHOUSE CLUSTER

PIN #01112611
14700 BLACK FARM RD, HUNTERSVILLE, NC 28078

DRIVEWAY CONNECTION PLAN

REVISIONS:
2021-09-03 TOWN AND NCDOT REV.

C05 ROAD PROFILE.DWG
PROJECT NUMBER: 220040
DATE: 06/04/2021 DRAWN BY: TSF
SHEET C07 OF 24

CONSTRUCTION SEQUENCE:

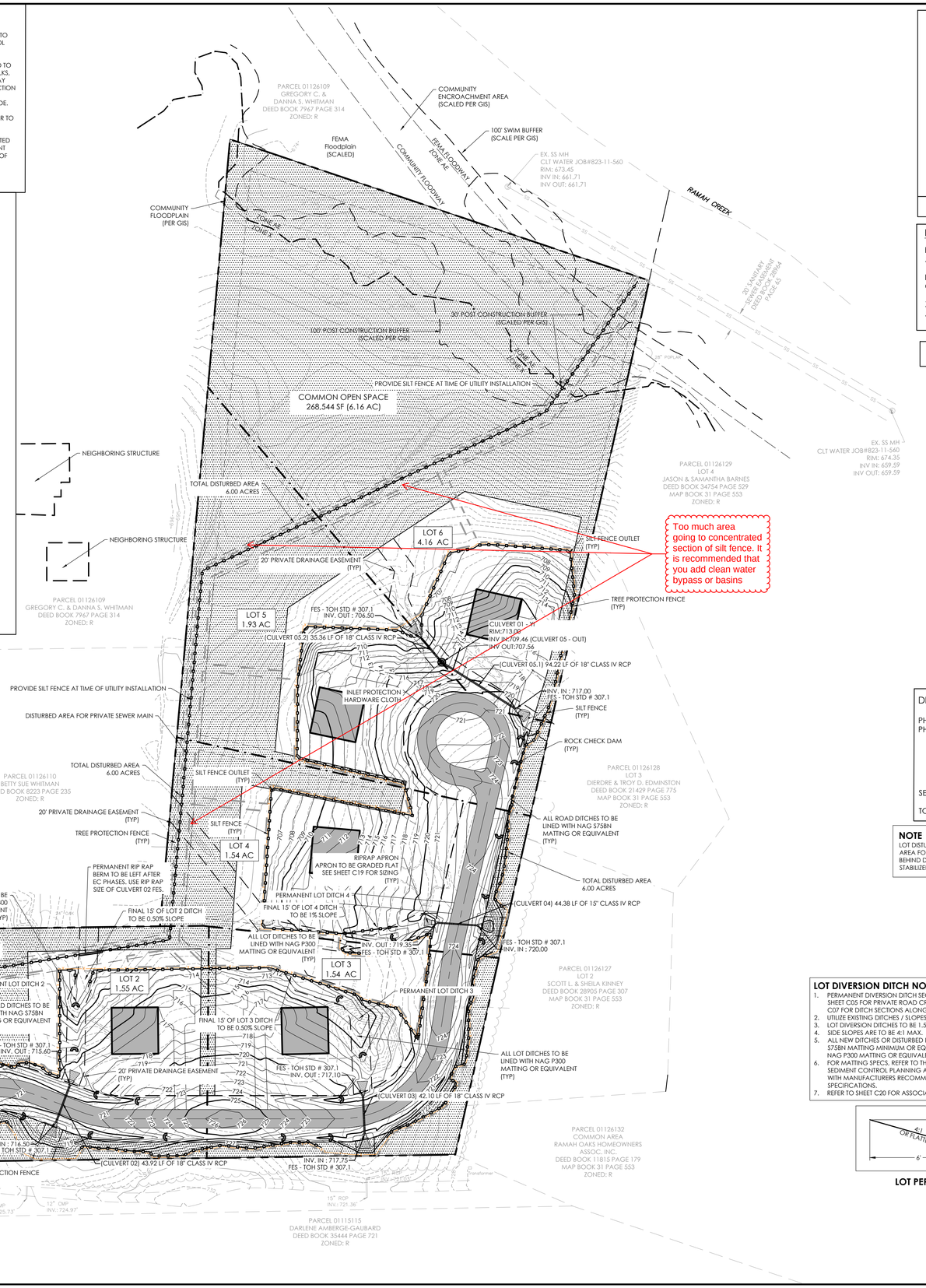
1. OBTAIN GRADING/EROSION CONTROL PLAN APPROVAL FROM THE TOWN OF HUNTERSVILLE.
2. SET UP AN ON-SITE PRE-CONSTRUCTION CONFERENCE WITH THE FOLLOWING DEPARTMENTS: EROSION CONTROL INSPECTOR, LAND DEVELOPMENT INSPECTOR, ZONING INSPECTOR AND NCDOT. FAILURE TO SCHEDULE SUCH CONFERENCE 48 HOURS PRIOR TO ANY LAND DISTURBING ACTIVITY IS SUBJECT TO FINE.
3. INSTALL CONSTRUCTION ENTRANCE, TREE PROTECTION FENCING, SILT FENCING, DITCHES, BYPASS LINES, AND OTHER MEASURES AS SHOWN ON PLANS, CLEARING ONLY AS NECESSARY TO INSTALL THESE DEVICES. PAM TO BE INSTALLED PER COUNTY STANDARDS.
4. CALL FOR ON-SITE INSPECTION BY INSPECTOR. WHEN APPROVED, INSPECTOR ISSUES THE GRADING PERMIT AND CLEARING AND GRUBBING MAY BEGIN.
5. THE CONTRACTOR SHALL DILIGENTLY AND CONTINUOUSLY MAINTAIN ALL EROSION CONTROL DEVICES AND STRUCTURES.
6. FOR PHASED EROSION CONTROL PLANS, CONTRACTOR SHALL MEET WITH EROSION CONTROL INSPECTOR PRIOR TO COMMENCING WITH EACH PHASE OF EROSION CONTROL MEASURES.
7. THE LAND DEVELOPMENT INSPECTOR SHOULD BE CALLED TO CONDUCT INSPECTIONS ON STORM DRAINAGE, SIDEWALKS, DRIVEWAY ON STORM DRAINAGE, SIDEWALKS, DRIVE WAY IMPROVEMENTS, AND ALL ASPECTS OF ROAD CONSTRUCTION
8. STABILIZE SITE AS AREAS ARE BROUGHT TO FINISHED GRADE.
9. COORDINATE WITH EROSION CONTROL INSPECTOR PRIOR TO REMOVAL OF EROSION CONTROL MEASURES.
10. ALL EROSION CONTROL MEASURES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE N. C. EROSION AND SEDIMENT CONTROL PLANNING AND DESIGN MANUAL, U. S. DEPT. OF AGRICULTURE, AND THE TOWN OF HUNTERSVILLE

HUNTERSVILLE CONSTRUCTION SEQUENCE:

1. INSTALL TREE / VEGETATION PROTECTION MEASURES ALONG BUFFER AREA(S) AND ANY TREE SAVE AREAS DELINEATED ON THE PLAN.
2. THE BUFFER LINE (MEASURED FROM THE CREEK BANK OR PROPERTY LINE, OR WHATEVER IS APPLICABLE) SHALL BE STAKED.
3. PROTECTION MEASURES SHALL BE INSTALLED AS DICTATED BY THE DRIP-LINE OF VEGETATION THAT IS WITHIN THE BUFFER. WHERE DRIPLINE(S) DO NOT EXTEND BEYOND THE BUFFER LINE THE BUFFER LINE SHALL BE RESPECTED.
4. TREE / VEGETATION PROTECTION MEASURES MUST BE USED WHERE ANY CLEARING OR GRADING ACTIVITIES WILL OCCUR WITHIN 100'NOF A BUFFER. PROTECTION MEASURES SHALL BE ORANGE TREE FENCING, OR CONTINUOUS FLAGGING ON VEGETATION OR STAKES. FLAGS SHOULD BE MAX. 20' ON CENTER, WHICH MAY BE USED ONLY WHERE THICK UNDERBRUSH EXISTS.
5. REQUEST TREE INSPECTION - TOWN OF HUNTERSVILLE. PLANNING STAFF (875-7000).
6. SETUP PRE-CONSTRUCTION CONFERENCE WITH TOWN OF HUNTERSVILLE PLANNING STAFF (875-7000).
7. CONTINUE CONSTRUCTION SEQUENCE PER MECKLENBURG COUNTY AS REQUIRED.
8. WHERE STANDARDS AND RESPONSIBILITY FOR INFRASTRUCTURE CONSTRUCTION, INCLUDING BUT NOT LIMITED TO STREETS, SIDEWALKS, AND LANDSCAPING, ARE SPECIFIED IN THE ZONING AND/OR SUBDIVISION ORDINANCES OF THE TOWN OF HUNTERSVILLE, TOWN STANDARDS SHALL CONTROL. IN THE ABSENCE OF A SPECIFIED TOWN STANDARD, CONSTRUCTION SHALL BE IN CONFORMANCE WITH THE THEN MOST RECENT VERSION OF THE CHARLOTTE-MECKLENBURG LAND DEVELOPMENT STANDARDS MANUAL (CMLDS).

THE FOLLOWING MEASURES SHALL BE FOLLOWED TO PROTECT EXISTING TREES TO BE RETAINED ON A DEVELOPING SITE:

9. PRIOR TO CONSTRUCTION, TREE PROTECTION BARRIERS SHALL BE PLACED AROUND ALL TREES TO BE SAVED AND THEIR ROOT PROTECTION AREA(S), TO PREVENT DAMAGE TO TREES OVER 8 INCHES IN CALIPER. THESE BARRICADES SHALL BE INSTALLED PRIOR TO GRADING, CONSTRUCTION, OR OTHER LAND DISTURBING ACTIVITY. THE BARRICADES SHALL BE CONSTRUCTED FROM MATERIAL SUBSTANTIAL ENOUGH TO PROTECT ROOTS, TRUNK, AND CROWN OF THE TREE, SUCH AS 2"X4" STANDARDS AND 1"X4" RAILS. SILT FENCING OR ORANGE SAFETY FENCING, MINIMUM 4 FT. IN HEIGHT ON METAL POSTS. THE BARRICADE SHALL BE PLACED AT A DISTANCE FROM THE TRUNK, EQUAL TO THE FARTHEST DRIP LINE OF THE TREE AND SHOULD INCLUDE THE TOTAL AREA BENEATH THE TREE CANOPY. ALTERNATIVE TREE PROTECTION MEASURES PROPOSED BY THE DEVELOPER WILL ALSO BE CONSIDERED IN ORDER TO ASSURE MAXIMUM PRESERVATION ON SPECIFIC SITES.
10. NO SOIL DISTURBANCE OR COMPACTION. STOCK PILING OF SOIL OR OTHER CONSTRUCTION MATERIALS, VEHICULAR TRAFFIC, OR STORAGE OF HEAVY EQUIPMENT ARE ALLOWED IN THE AREAS DESIGNATED FOR PROTECTION.
11. ROOT PRUNING SHALL BE KEPT TO AN ABSOLUTE MINIMUM.
12. PRUNING OF EXISTING TREES SHALL BE DONE ACCORDING TO THE NATIONAL ARBORISTS ASSOCIATION STANDARDS IN A MANNER THAT PRESERVES THE CHARACTER OF THE CROWN.
13. GRADING MUST NOT ENCROACH ON A TREE ROOT ZONE IN WAYS THAT THREATEN THE SURVIVAL OF THE TREE. ROOT CUTS AND FILLS MUST BE LIMITED TO 1/4 OF THE AREA WITHIN THE DRIP LINE OF THE TREE, ANY CUTS MUST BE CLEAN AND PAINTED PROMPTLY WITH A TREE PAINT.
14. NO ROPES, SIGNS, WIRES, UNPROTECTED ELECTRICAL INSTALLATION OR OTHER DEVICES OR MATERIAL, SHALL BE SECURED OR FASTENED AROUND OR THROUGH A TREE SHRUB.
15. A GRADING PERMIT SHALL NOT BE ISSUED PRIOR TO APPROVAL OF A TREE PROTECTION PLAN.
16. IF A TREE PRESERVATION AREA IS DISTURBED FOR ANY REASON, IT SHALL BE RESTORED AT A RATE OF 10 TREES PER 1000 SQUARE FEET. TREES TO BE PLANTED SHALL HAVE A MINIMUM CAUPER OF 2" MEASURED 6" ABOVE THE ROOTBALL, SHALL BE MINIMUM 8' TO 10' IN HEIGHT AT INSTALLATION, AND SHALL BE AT LEAST 75% LARGE MATURING VARIETIES. WHERE A DISTURBED AREA ALSO FUNCTIONED TO BUFFER ADJACENT PROPERTIES OR PUBLIC STREET(S), AT LEAST 50% OF THE TREES SHALL BE EVERGREEN VARIETIES. TREES SHALL BE DISTRIBUTED THROUGHOUT THE DISTURBED AREA IN SUCH A WAY AS TO EFFECTIVELY REPLACE THE VEGETATION DISTURBED. IN AREAS OD SEVERE DISTURBANCE, SUPPLEMENTAL PLANTING OF SHRUBS AND UNDERSTORY MAY ALSO BE REQUIRED BY STAFF. A PLANTING PLAN IS REQUIRED FOR STAFF REVIEW AND APPROVAL PRIOR TO COMMENCEMENT OF PLANTING.



SILT FENCE OUTLET
CHECK DAM
INLET PROTECTION
SKIMMER
RIP RAP
TREE FENCE
SILT FENCE
DENUDED LIMITS
EROSION MATTING

LEGEND

HUNTERSVILLE INSPECTORS

EROSION CONTROL INSPECTOR
ANNE LOFTIN (704)579-1090

LAND DEVELOPMENT INSPECTORS
CECIL TALBOT (704)579-1163

ZONING INSPECTOR
AU'DARIUS BLACKWOOD (704)301-9969

CLARKE CREEK WATERHSED

TOTAL DISTURBED AREA:
6.00 ACRES

EROSION CONTROL NOTES:

1. ALL TOHLD "STD." NUMBERS REFER TO THE TOWN OF HUNTERSVILLE ENGINEERING STANDARDS AND PROCEDURES MANUAL.
2. ON-SITE BURIAL PITS REQUIRE AN ON-SITE DEMOLITION LANDFILL PERMIT FROM THE ZONING ADMINISTRATOR.
3. ANY GRADING BEYOND THE DENUDED LIMITS SHOWN ON THE PLAN IS A VIOLATION OF THE CITY/COUNTY EROSION CONTROL ORDINANCE AND IS SUBJECT TO A FINE.
4. GRADING MORE THAN ONE ACRE WITHOUT AN APPROVED EROSION CONTROL PLAN IS A VIOLATION OF THE CITY/COUNTY EROSION CONTROL ORDINANCE AND IS SUBJECT TO A FINE.
5. ALL GRADED SLOPES MUST BE SEEDED AND MULCHED AS SPECIFIED BELOW.

SECTION E: GROUND STABILIZATION

Required Ground Stabilization Timeframes		
Site Area Description	**Stabilize within this many calendar days after ceasing land disturbance**	**Timeframe variations**
(a) Perimeter dikes, swales, ditches, and perimeter slopes	7	None
(b) High Quality Water (HQW) Zones	7	None
(c) Slopes steeper than 3:1	7	If slopes are 10' or less in length and are not steeper than 2:1, 14 days are allowed
(d) Slopes 3:1 to 4:1	7	-7 days for slopes greater than 50' in length and with slopes steeper than 4:1 -7 days for perimeter dikes, swales, ditches, perimeter slopes and HQW Zones -10 days for Falls Lake Watershed
(e) Areas with slopes flatter than 4:1	7	-7 days for perimeter dikes, swales, ditches, perimeter slopes and HQW Zones -10 days for Falls Lake Watershed unless there is zero slope

Note: After the permanent cessation of construction activities, any areas with temporary ground stabilization shall be converted to permanent ground stabilization as soon as practicable but in no case longer than 90 calendar days after the last land disturbing activity. Temporary ground stabilization shall be maintained in a manner to render the surface stable against accelerated erosion until permanent ground stabilization is achieved.

6. ADDITIONAL MEASURES TO CONTROL EROSION AND SEDIMENT MAY BE REQUIRED BY A REPRESENTATIVE OF THE CITY/COUNTY ENGINEERING DEPARTMENT.
7. SLOPES SHALL BE GRADED NO STEEPER THAN 2:1. SLOPES GREATER THAN 10' REQUIRE ADEQUATE TERRACING (CMLDS #30.16)
8. STABILIZATION IS THE BEST FORM OF EROSION CONTROL. TEMPORARY SEEDING IS NECESSARY TO ACHIEVE EROSION CONTROL ON LARGE DENUDED AREAS AND ESPECIALLY WHEN REQUIRED SPECIFICALLY AS PART OF THE CONSTRUCTION SEQUENCE SHOWN ON THE PLAN.
9. A GRADING PLAN MUST BE SUBMITTED FOR ANY LOT GRADING EXCEEDING ONE ACRE THAT WAS NOT PREVIOUSLY APPROVED. EROSION CONTROL INSPECTOR IS TO BE CONTACTED PRIOR TO ANY NEW LOT CONSTRUCTION.
10. TEMPORARY DRIVEWAY PERMIT FOR CONSTRUCTION ENTRANCES IN NCDOT RIGHT OF WAY MUST BE PRESENTED AT PRE-CONSTRUCTION MEETING.
11. ALL EMBANKMENTS MUST BE CONSTRUCTED PER SECTION 4.0.6 EMBANKMENT REQUIREMENTS IN THE BMP DESIGN MANUAL.
12. SOIL COMPACTION TESTS ARE REQUIRED ON ANY BERM >=5' IN HEIGHT FROM THE NATURAL GRADE. SOIL COMPACTION MUST BE 95% PROCTOR AND CERTIFIED BY A LICENSED SOIL ENGINEER.

GENERAL EROSION NOTES:

1. APPROVAL OF THIS PLAN IS NOT AN AUTHORIZATION TO GRADE ADJACENT PROPERTIES. WHEN FIELD CONDITIONS WARRANT OFF-SITE GRADING, PERMISSION MUST BE OBTAINED FROM THE AFFECTED OWNERS.
2. THE DEVELOPER SHALL MAINTAIN EACH STREAM, CREEK, OR BACKWASH CHANNEL IN AN UNOBSTRUCTED STATE AND SHALL REMOVE FROM THE CHANNEL AND BANKS OF THE STREAM ALL DEBRIS, LOGS, TIMBER, JUNK AND OTHER ACCUMULATIONS.
3. ANY CONSTRUCTION OR USE WITHIN THE AREAS DELINEATED AS FLOODWAY DISTRICT FRINGE BOUNDARY LINE OR FLOODWAY DISTRICT ENCROACHMENT BOUNDARY LINE IS SUBJECT TO THE RESTRICTIONS IMPOSED BY THE FLOODWAY REGULATIONS OF THE TOWN OF HUNTERSVILLE, AS ADMINISTERED BY MECKLENBURG COUNTY.
4. THE TOWN OF HUNTERSVILLE HAS NOT REVIEWED THE STRUCTURAL STABILITY OF ANY RETAINING WALLS ON THE SITE AND DOES NOT ASSUME RESPONSIBILITY FOR THEM.
5. ALL ROOF DRAINS TO CONNECT TO UNDERGROUND STORM DRAINAGE SYSTEM.
6. NO SOIL, DEBRIS, OR RUN-OFF IS ALLOWED TO LEAVE THE SITE. THE CONSTRUCTION ENTRANCE SHALL BE CONSTRUCTED PER COUNTY STANDARD AND BE MAINTAINED THROUGHOUT CONSTRUCTION TO LIMIT ROADWAY CONTAMINATION. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ROUTINELY CLEAN THE ADJACENT ROADWAY TO MAINTAIN CLEANLINESS.
7. ANY SEDIMENT THAT MAKES ITS WAY TO ANY BMP OR STRUCTURE IS THE RESPONSIBILITY OF THE OWNER/GENERAL CONTRACTOR TO REMOVE AT THEIR SOLE EXPENSE.
8. OWNER AND CONTRACTOR ARE RESPONSIBLE FOR ALL SOIL RELATED TO THEIR SITE. SILT SACKS ARE TO BE PLACED IN ALL ADJACENT STORM DRAINS AND ANY SOIL, MUD, OR DEBRIS THAT COMES OFF OF THIS SITE IS THE RESPONSIBILITY OF THE OWNER/GENERAL CONTRACTOR TO REMOVE AT THEIR SOLE EXPENSE.

DISTURBED AREA SUMMARY

PHASE 1: +/- 2.51 ACRES
PHASE 2:
- LOT 1: +/- 0.55 ACRES
- LOT 2: +/- 0.54 ACRES
- LOT 3: +/- 0.63 ACRES
- LOT 4: +/- 0.71 ACRES
- LOT 5: +/- 0.52 ACRES
- LOT 6: +/- 0.59 ACRES

SEWER: +/- 0.37 ACRES

TOTAL DISTURBED AREA: 6.00 ACRES

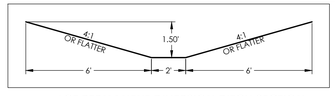
NOTE
LOT DISTURBED AREAS INCLUDE PORTIONS OF PHASE 1 AREA FOR DRIVEWAY CONNECTIONS, LOT GRADING BEHIND DITCHES, ETC. MINIMIZE DISTURBANCE TO EXISTING STABILIZED AREAS, CULVERT, AND DRAINAGE DITCHES.

HUNTERSVILLE NOTES:

1. COMMUNITY ENCROACHMENT LINE MUST BE MARKED AND MAINTAINED ON SITE UNTIL FINAL GRADING IS COMPLETED.
2. INSPECTIONS SHALL BE CONDUCTED AS PRESCRIBED BY THE MAINTENANCE COVENANT. ADDITIONAL INSPECTIONS MAY BE CONDUCTED BY THE TOWN OF HUNTERSVILLE LAND USE AND ENVIRONMENTAL SERVICES AGENCY ON ANY REASONABLE BASIS, INCLUDING BUT NOT LIMITED TO: ROUTINE INSPECTIONS; RANDOM INSPECTIONS; INSPECTIONS BASED UPON COMPLAINTS OR OHTER NOTICE OF POSSIBLE VIOLATIONS; INSPECTIONS OF DRAINAGE BASINS OR AREAS IDENTIFIED AS HIGHER THAN TYPICAL SOURCES OF SEDIMENT OR OTHER CONTAMINANTS OR POLLUTANTS OR WITH DISCHARGES OF A TYPE WHICH ARE MORE LIKELY THAN THE TYPICAL DISCHARGE TO CAUSE VIOLATIONS OF STATE OR FEDERAL WATER QUALITY STANDARDS OR THE NPDES STORM WATER PERMIT; AND JOINT INSPECTION WITH OTHER AGENCIES INSPECTION UNDER ENVIRONMENTAL AND SAFETY LAWS. INSPECTIONS MAY INCLUDE, BUT ARE LIMITED TO: REVIEWING MAINTENANCE AND REPAIR RECORDS; SAMPLING DISCHARGES, SURFACE WATER, GROUNDWATER, AND MATERIAL OR WATER IN BMP'S; EVALUATING THE CONDITION OF BMP'S AND STORM WATER MANAGEMENT PRACTICES.
3. RIGHT OF ENTRY FOR INSPECTION. WHEN ANY NEW BMP IS INSTALLED ON PRIVATE PROPERTY, THE PROPERTY OWNER SHALL GRANT TO THE TOWN OF HUNTERSVILLE LAND USE AND ENVIRONMENTAL SERVICES AGENCY THE RIGHT TO ENTER THE PROPERTY AT REASONABLE TIMES AND IN A A REASONABLE MANNER FOR THE PURPOSE OF INSPECTION. THIS INCLUDES THE RIGHT TO ENTER A PROPERTY WHEN THE TOWN OF HUNTERSVILLE LAND USE AND ENVIRONMENTAL SERVICES AGENCY HAS A REASONABLE BASIS TO BELIEVE THAT A VIOLATION OF THIS REGULATION IS OCCURRING OR HAS OCCURRED, AND TO ENTER WHEN NECESSARY FOR ABATEMENT OF A PUBLIC NUISANCE OR CORRECTION OF A VIOLATION OF THIS REGULATION.

LOT DIVERSION DITCH NOTES:

1. PERMANENT DIVERSION DITCH SECTION BELOW IS FOR LOT GRADING ONLY. SEE SHEET C05 FOR PRIVATE ROAD CROSS SECTION WITH DITCH SECTION AND SHEET C07 FOR DITCH SECTIONS ALONG BLACK FARMS ROAD.
2. UTILIZE EXISTING DITCHES / SLOPES AS MUCH AS POSSIBLE.
3. LOT DIVERSION DITCHES TO BE 1.5' DEEP AND 2' WIDE AT BOTTOM.
4. SIDE SLOPES ARE TO BE 4:1 MAX.
5. ALL NEW DITCHES OR DISTURBED EXISTING DITCHES TO BE STABILIZED WITH NAG S75BN MATTING MINIMUM OR EQUIVALENT. LOT DITCHES TO BE STABILIZED WITH NAG P300 MATTING OR EQUIVALENT.
6. FOR MATTING SPECS, REFER TO THE LATEST EDITION OF THE NCDEQ EROSION AND SEDIMENT CONTROL PLANNING AND DESIGN MANUAL, SECTION 6.17 ALONG WITH MANUFACTURERS RECOMMENDATIONS FOR CONSTRICTION SPECIFICATIONS.
7. REFER TO SHEET C20 FOR ASSOCIATED MATTING DETAILS / SPECS.



LOT PERMANENT DIVERSION DITCH SECTION
N.T.S.

1. CONTRACTOR IS FULLY RESPONSIBLE FOR CONTACTING APPROPRIATE PARTIES AND ASSURING THAT EXISTING UTILITIES ARE LOCATED PRIOR TO BEGINNING CONSTRUCTION.
2. CONTRACTOR IS RESPONSIBLE FOR PLACING BARRICADES USING FLAGMEN, ETC., AS NECESSARY TO INSURE SAFETY TO THE PUBLIC.
3. ALL PAVEMENT CUTS, CONCRETE OR ASPHALT, ARE TO BE REPLACED ACCORDING TO STANDARDS OF THE DEPARTMENT OF TRANSPORTATION.
4. SHORING WILL BE ACCORDING TO OSHA TRENCHING STANDARDS PART 1926 SUBPART P, OR AS AMENDED.

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NORTH ARROW
0 30 60 120
GRAPHIC SCALE 1"=60 FT.

NORTH CAROLINA REGISTERED LANDSCAPE ARCHITECT SEAL 1001 TIMOTHY S. PETERSEN

BLACK FARM FARMHOUSE CLUSTER

PIN #01126111
14700 BLACK FARM RD, HUNTERSVILLE, NC 28078

MASTER GRADING-EROSION

REVISIONS:
2021-09-03 TOWN AND NCDOT REV.

C06 MASTER GRADING-EROSION.DWG
PROJECT NUMBER: 220040
DATE: 06/04/2021 DRAWN BY: TSF
SHEET C08 OF 24

CONSTRUCTION SEQUENCE (PHASE 1):

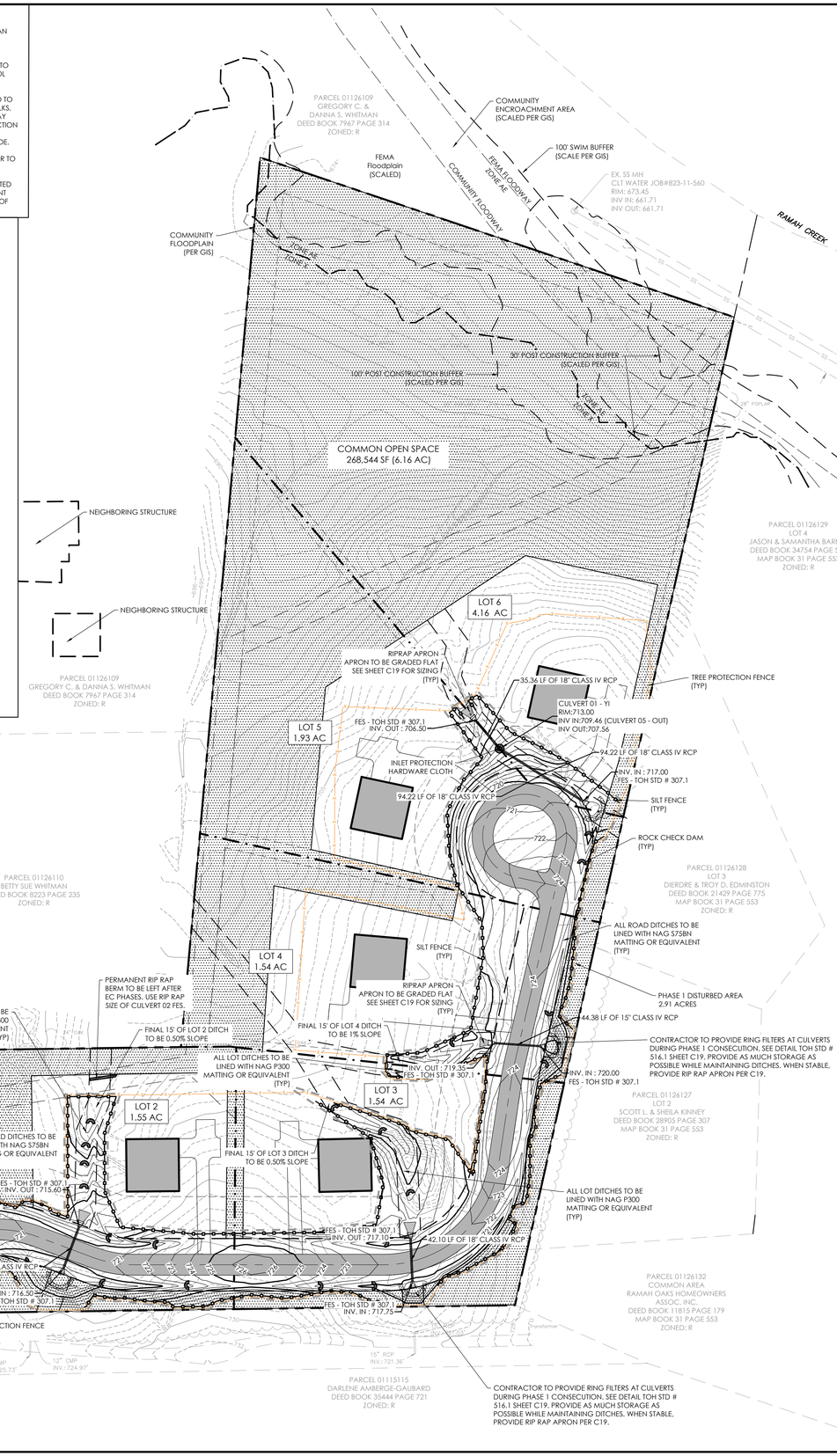
1. OBTAIN GRADING/EROSION CONTROL PLAN APPROVAL FROM THE TOWN OF HUNTERSVILLE.
2. SET UP AN ON-SITE PRE-CONSTRUCTION CONFERENCE WITH THE FOLLOWING DEPARTMENTS: EROSION CONTROL INSPECTOR, LAND DEVELOPMENT INSPECTOR, ZONING INSPECTOR AND NCDOT. FAILURE TO SCHEDULE SUCH CONFERENCE 48 HOURS PRIOR TO ANY LAND DISTURBING ACTIVITY IS SUBJECT TO FINE.
3. INSTALL CONSTRUCTION ENTRANCE, TREE PROTECTION FENCING, SILT FENCING, DITCHES, BYPASS LINES, AND OTHER MEASURES AS SHOWN ON PLANS, CLEARING ONLY AS NECESSARY TO INSTALL THESE DEVICES. PAM TO BE INSTALLED PER COUNTY STANDARDS.
4. CALL FOR ON-SITE INSPECTION BY INSPECTOR. WHEN APPROVED, INSPECTOR ISSUES THE GRADING PERMIT AND CLEARING AND GRUBBING MAY BEGIN.
5. THE CONTRACTOR SHALL DILIGENTLY AND CONTINUOUSLY MAINTAIN ALL EROSION CONTROL DEVICES AND STRUCTURES.
6. INSTALL DITCHES AND CULVERTS FIRST TO PROMOTE CLEAN WATER BYPASS FROM WORK AREA.
7. FOR PHASED EROSION CONTROL PLANS, CONTRACTOR SHALL MEET WITH EROSION CONTROL INSPECTOR PRIOR TO COMMENCING WITH EACH PHASE OF EROSION CONTROL MEASURES.
8. THE LAND DEVELOPMENT INSPECTOR SHOULD BE CALLED TO CONDUCT INSPECTIONS ON STORM DRAINAGE, SIDEWALKS, DRIVEWAY ON STORM DRAINAGE, SIDEWALKS, DRIVE WAY IMPROVEMENTS, AND ALL ASPECTS OF ROAD CONSTRUCTION
9. STABILIZE SITE AS AREAS ARE BROUGHT TO FINISHED GRADE.
10. COORDINATE WITH EROSION CONTROL INSPECTOR PRIOR TO REMOVAL OF EROSION CONTROL MEASURES.
11. ALL EROSION CONTROL MEASURES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE N. C. EROSION AND SEDIMENT CONTROL PLANNING AND DESIGN MANUAL, U. S. DEPT. OF AGRICULTURE, AND THE TOWN OF HUNTERSVILLE

HUNTERSVILLE CONSTRUCTION SEQUENCE:

1. INSTALL TREE / VEGETATION PROTECTION MEASURES ALONG BUFFER AREA(S) AND ANY TREE SAVE AREAS DELINEATED ON THE PLAN.
2. THE BUFFER LINE (MEASURED FROM THE CREEK BANK OR PROPERTY LINE, OR WHATEVER IS APPLICABLE) SHALL BE STAKED.
3. PROTECTION MEASURES SHALL BE INSTALLED AS DICTATED BY THE DRIP-LINE OF VEGETATION THAT IS WITHIN THE BUFFER, WHERE DRIPLINE(S) DO NOT EXTEND BEYOND THE BUFFER LINE THE BUFFER LINE SHALL BE RESPECTED.
4. TREE / VEGETATION PROTECTION MEASURES MUST BE USED WHERE ANY CLEARING OR GRADING ACTIVITIES WILL OCCUR WITHIN 100'NOF A BUFFER. PROTECTION MEASURES SHALL BE ORANGE TREE FENCING, OR CONTINUOUS FLAGGING ON VEGETATION OR STAKES. FLAGS SHOULD BE MAX. 20' ON CENTER, WHICH MAY BE USED ONLY WHERE THICK UNDERBRUSH EXISTS.
5. REQUEST TREE INSPECTION - TOWN OF HUNTERSVILLE, PLANNING STAFF (875-7000).
6. SETUP PRE-CONSTRUCTION CONFERENCE WITH TOWN OF HUNTERSVILLE PLANNING STAFF (875-7000).
7. CONTINUE CONSTRUCTION SEQUENCE PER MECKLENBURG COUNTY AS REQUIRED.
8. WHERE STANDARDS AND RESPONSIBILITY FOR INFRASTRUCTURE CONSTRUCTION, INCLUDING BUT NOT LIMITED TO STREETS, SIDEWALKS, AND LANDSCAPING, ARE SPECIFIED IN THE ZONING AND/OR SUBDIVISION ORDINANCES OF THE TOWN OF HUNTERSVILLE, TOWN STANDARDS SHALL CONTROL. IN THE ABSENCE OF A SPECIFIED TOWN STANDARD, CONSTRUCTION SHALL BE IN CONFORMANCE WITH THE THEN MOST RECENT VERSION OF THE CHARLOTTE-MECKLENBURG LAND DEVELOPMENT STANDARDS MANUAL (CMLDS).

THE FOLLOWING MEASURES SHALL BE FOLLOWED TO PROTECT EXISTING TREES TO BE RETAINED ON A DEVELOPING SITE:

9. PRIOR TO CONSTRUCTION, TREE PROTECTION BARRIERS SHALL BE PLACED AROUND ALL TREES TO BE SAVED AND THEIR ROOT PROTECTION AREA(S), TO PREVENT DAMAGE TO TREES OVER 8 INCHES IN CALIPER. THESE BARRICADES SHALL BE INSTALLED PRIOR TO GRADING, CONSTRUCTION, OR OTHER LAND DISTURBING ACTIVITY. THE BARRICADES SHALL BE CONSTRUCTED FROM MATERIAL SUBSTANTIAL ENOUGH TO PROTECT ROOTS, TRUNK, AND CROWN OF THE TREE, SUCH AS 2"X4" STANDARDS AND 1"X4" RAILS. SILT FENCING OR ORANGE SAFETY FENCING, MINIMUM 4 FT. IN HEIGHT ON METAL POSTS. THE BARRICADE SHALL BE PLACED AT A DISTANCE FROM THE TRUNK, EQUAL TO THE FARTHEST DRIP LINE OF THE TREE AND SHOULD INCLUDE THE TOTAL AREA BENEATH THE TREE CANOPY. ALTERNATIVE TREE PROTECTION MEASURES PROPOSED BY THE DEVELOPER WILL ALSO BE CONSIDERED IN ORDER TO ASSURE MAXIMUM PRESERVATION ON SPECIFIC SITES.
10. NO SOIL DISTURBANCE OR COMPACTION. STOCK PILING OF SOIL OR OTHER CONSTRUCTION MATERIALS, VEHICULAR TRAFFIC, OR STORAGE OF HEAVY EQUIPMENT ARE ALLOWED IN THE AREAS DESIGNATED FOR PROTECTION.
11. ROOT PRUNING SHALL BE KEPT TO AN ABSOLUTE MINIMUM.
12. PRUNING OF EXISTING TREES SHALL BE DONE ACCORDING TO THE NATIONAL ARBORISTS ASSOCIATION STANDARDS IN A MANNER THAT PRESERVES THE CHARACTER OF THE CROWN.
13. GRADING MUST NOT ENCROACH ON A TREE ROOT ZONE IN WAYS THAT THREATEN THE SURVIVAL OF THE TREE. ROOT CUTS AND FILLS MUST BE LIMITED TO 1/4 OF THE AREA WITHIN THE DRIP LINE OF THE TREE, ANY CUTS MUST BE CLEAN AND PAINTED PROMPTLY WITH A TREE PAINT.
14. NO ROPES, SIGNS, WIRES, UNPROTECTED ELECTRICAL INSTALLATION OR OTHER DEVICES OR MATERIAL, SHALL BE SECURED OR FASTENED AROUND OR THROUGH A TREE SHRUB.
15. A GRADING PERMIT SHALL NOT BE ISSUED PRIOR TO APPROVAL OF A TREE PROTECTION PLAN.
16. IF A TREE PRESERVATION AREA IS DISTURBED FOR ANY REASON, IT SHALL BE RESTORED AT A RATE OF 10 TREES PER 1000 SQUARE FEET. TREES TO BE PLANTED SHALL HAVE A MINIMUM CALIPER OF 2" MEASURED 6" ABOVE THE ROOTBALL, SHALL BE MINIMUM 8' TO 10' IN HEIGHT AT INSTALLATION, AND SHALL BE AT LEAST 75% LARGE MATURING VARIETIES. WHERE A DISTURBED AREA ALSO FUNCTIONED TO BUFFER ADJACENT PROPERTIES OR PUBLIC STREET(S), AT LEAST 50% OF THE TREES SHALL BE EVERGREEN VARIETIES. TREES SHALL BE DISTRIBUTED THROUGHOUT THE DISTURBED AREA IN SUCH A WAY AS TO EFFECTIVELY REPLACE THE VEGETATION DISTURBED. IN AREAS OD SEVERE DISTURBANCE, SUPPLEMENTAL PLANTING OF SHRUBS AND UNDERSTORY MAY ALSO BE REQUIRED BY STAFF. A PLANTING PLAN IS REQUIRED FOR STAFF REVIEW AND APPROVAL PRIOR TO COMMENCEMENT OF PLANTING.



SILT FENCE OUTLET
CHECK DAM
INLET PROTECTION
SKIMMER
RIP RAP
TREE FENCE
SILT FENCE
DENUDED LIMITS
EROSION MATTING

LEGEND

HUNTERSVILLE INSPECTORS

EROSION CONTROL INSPECTOR
ANNE LOFTIN (704)579-1090

LAND DEVELOPMENT INSPECTORS
CECIL TALBOT (704)579-1163

ZONING INSPECTOR
AU'DARIUS BLACKWOOD (704)301-9969

CLARKE CREEK WATERHSED

DISTURBED AREA (PH 1): +/- 2.91 ACRES

SEE INDIVIDUAL LOT GRADING SHEETS FOR GRADING NOTES

DISTURBED AREA SUMMARY

PHASE 1: +/- 2.91 ACRES
PHASE 2:
LOT 1: +/- 0.55 ACRES
LOT 2: +/- 0.54 ACRES
LOT 3: +/- 0.63 ACRES
LOT 4: +/- 0.71 ACRES
LOT 5: +/- 0.52 ACRES
LOT 6: +/- 0.59 ACRES
SEWER: +/- 0.37 ACRES

TOTAL DISTURBED AREA: 6.00 ACRES

NOTE
LOT DISTURBED AREAS INCLUDE PORTIONS OF PHASE 1 AREA FOR DRIVEWAY CONNECTIONS, LOT GRADING BEHIND DITCHES, ETC. MINIMIZE DISTURBANCE TO EXISTING STABILIZED AREAS, CULVERT, AND DRAINAGE DITCHES.

EROSION CONTROL NOTES:

1. ALL TOHLD "STD." NUMBERS REFER TO THE TOWN OF HUNTERSVILLE ENGINEERING STANDARDS AND PROCEDURES MANUAL.
2. ON-SITE BURIAL PITS REQUIRE AN ON-SITE DEMOLITION LANDFILL PERMIT FROM THE ZONING ADMINISTRATOR.
3. ANY GRADING BEYOND THE DENUDED LIMITS SHOWN ON THE PLAN IS A VIOLATION OF THE CITY/COUNTY EROSION CONTROL ORDINANCE AND IS SUBJECT TO A FINE.
4. GRADING MORE THAN ONE ACRE WITHOUT AN APPROVED EROSION CONTROL PLAN IS A VIOLATION OF THE CITY/COUNTY EROSION CONTROL ORDINANCE AND IS SUBJECT TO A FINE.
5. ALL GRADED SLOPES MUST BE SEEDED AND MULCHED AS SPECIFIED BELOW.

SECTION E: GROUND STABILIZATION

Required Ground Stabilization Timeframes		
Site Area Description	**Stabilize within this many calendar days after ceasing land disturbance**	**Timeframe variations**
(a) Perimeter dikes, swales, ditches, and perimeter slopes	7	None
(b) High Quality Water (HQW) Zones	7	None
(c) Slopes steeper than 3:1	7	If slopes are 10' or less in length and are not steeper than 2:1, 14 days are allowed
(d) Slopes 3:1 to 4:1	7	-7 days for slopes greater than 50' in length and with slopes steeper than 4:1 -7 days for perimeter dikes, swales, ditches, perimeter slopes and HQW Zones -10 days for Falls Lake Watershed
(e) Areas with slopes flatter than 4:1	7	-7 days for perimeter dikes, swales, ditches, perimeter slopes and HQW Zones -10 days for Falls Lake Watershed unless there is zero slope

Note: After the permanent cessation of construction activities, any areas with temporary ground stabilization shall be converted to permanent ground stabilization as soon as practicable but in no case longer than 90 calendar days after the last land disturbing activity. Temporary ground stabilization shall be maintained in a manner to render the surface stable against accelerated erosion until permanent ground stabilization is achieved.

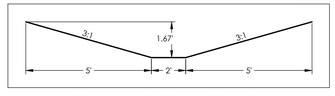
6. ADDITIONAL MEASURES TO CONTROL EROSION AND SEDIMENT MAY BE REQUIRED BY A REPRESENTATIVE OF THE CITY/COUNTY ENGINEERING DEPARTMENT.
7. SLOPES SHALL BE GRADED NO STEEPER THAN 2:1. SLOPES GREATER THAN 10' REQUIRE ADEQUATE TERRACING (CMLDS #30.16)
8. STABILIZATION IS THE BEST FORM OF EROSION CONTROL. TEMPORARY SEEDING IS NECESSARY TO ACHIEVE EROSION CONTROL ON LARGE DENUDED AREAS AND ESPECIALLY WHEN REQUIRED SPECIFICALLY AS PART OF THE CONSTRUCTION SEQUENCE SHOWN ON THE PLAN.
9. A GRADING PLAN MUST BE SUBMITTED FOR ANY LOT GRADING EXCEEDING ONE ACRE THAT WAS NOT PREVIOUSLY APPROVED. EROSION CONTROL INSPECTOR IS TO BE CONTACTED PRIOR TO ANY NEW LOT CONSTRUCTION.
10. TEMPORARY DRIVEWAY PERMIT FOR CONSTRUCTION ENTRANCES IN NCDOT RIGHT OF WAY MUST BE PRESENTED AT PRE-CONSTRUCTION MEETING.
11. ALL EMBANKMENTS MUST BE CONSTRUCTED PER SECTION 4.0.6 EMBANKMENT REQUIREMENTS IN THE BMP DESIGN MANUAL.
12. SOIL COMPACTION TESTS ARE REQUIRED ON ANY BERM >=5' IN HEIGHT FROM THE NATURAL GRADE. SOIL COMPACTION MUST BE 95% PROCTOR AND CERTIFIED BY A LICENSED SOIL ENGINEER.

GENERAL EROSION NOTES:

1. APPROVAL OF THIS PLAN IS NOT AN AUTHORIZATION TO GRADE ADJACENT PROPERTIES. WHEN FIELD CONDITIONS WARRANT OFF-SITE GRADING, PERMISSION MUST BE OBTAINED FROM THE AFFECTED OWNERS.
2. THE DEVELOPER SHALL MAINTAIN EACH STREAM, CREEK, OR BACKWASH CHANNEL IN AN UNOBSTRUCTED STATE AND SHALL REMOVE FROM THE CHANNEL AND BANKS OF THE STREAM ALL DEBRIS, LOGS, TIMBER, JUNK AND OTHER ACCUMULATIONS.
3. ANY CONSTRUCTION OR USE WITHIN THE AREAS DELINEATED AS FLOODWAY DISTRICT FRINGE BOUNDARY LINE OR FLOODWAY DISTRICT ENCROACHMENT BOUNDARY LINE IS SUBJECT TO THE RESTRICTIONS IMPOSED BY THE FLOODWAY REGULATIONS OF THE TOWN OF HUNTERSVILLE, AS ADMINISTERED BY MECKLENBURG COUNTY.
4. THE TOWN OF HUNTERSVILLE HAS NOT REVIEWED THE STRUCTURAL STABILITY OF ANY RETAINING WALLS ON THE SITE AND DOES NOT ASSUME RESPONSIBILITY FOR THEM.
5. ALL ROOF DRAINS TO CONNECT TO UNDERGROUND STORM DRAINAGE SYSTEM.
6. NO SOIL, DEBRIS, OR RUN-OFF IS ALLOWED TO LEAVE THE SITE. THE CONSTRUCTION ENTRANCE SHALL BE CONSTRUCTED PER COUNTY STANDARD AND BE MAINTAINED THROUGHOUT CONSTRUCTION TO LIMIT ROADWAY CONTAMINATION. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ROUTINELY CLEAN THE ADJACENT ROADWAY TO MAINTAIN CLEANLINESS.
7. ANY SEDIMENT THAT MAKES ITS WAY TO ANY BMP OR STRUCTURE IS THE RESPONSIBILITY OF THE OWNER/GENERAL CONTRACTOR TO REMOVE AT THEIR SOLE EXPENSE.
8. OWNER AND CONTRACTOR ARE RESPONSIBLE FOR ALL SOIL RELATED TO THEIR SITE. SILT SACKS ARE TO BE PLACED IN ALL ADJACENT STORM DRAINS AND ANY SOIL, MUD, OR DEBRIS THAT COMES OFF OF THIS SITE IS THE RESPONSIBILITY OF THE OWNER/GENERAL CONTRACTOR TO REMOVE AT THEIR SOLE EXPENSE.

HUNTERSVILLE NOTES:

1. COMMUNITY ENCROACHMENT LINE MUST BE MARKED AND MAINTAINED ON SITE UNTIL FINAL GRADING IS COMPLETED.
2. INSPECTIONS SHALL BE CONDUCTED AS PRESCRIBED BY THE MAINTENANCE COVENANT. ADDITIONAL INSPECTIONS MAY BE CONDUCTED BY THE TOWN OF HUNTERSVILLE LAND USE AND ENVIRONMENTAL SERVICES AGENCY ON ANY REASONABLE BASIS, INCLUDING BUT NOT LIMITED TO: ROUTINE INSPECTIONS; RANDOM INSPECTIONS; INSPECTIONS BASED UPON COMPLAINTS OR OHTER NOTICE OF POSSIBLE VIOLATIONS; INSPECTIONS OF DRAINAGE BASINS OR AREAS IDENTIFIED AS HIGHER THAN TYPICAL SOURCES OF SEDIMENT OR OTHER CONTAMINANTS OR POLLUTANTS OR WITH DISCHARGES OF A TYPE WHICH ARE MORE LIKELY THAN THE TYPICAL DISCHARGE TO CAUSE VIOLATIONS OF STATE OR FEDERAL WATER QUALITY STANDARDS OR THE NPDES STORM WATER PERMIT; AND JOINT INSPECTION WITH OTHER AGENCIES INSPECTION UNDER ENVIRONMENTAL AND SAFETY LAWS. INSPECTIONS MAY INCLUDE, BUT ARE LIMITED TO: REVIEWING MAINTENANCE AND REPAIR RECORDS; SAMPLING DISCHARGES, SURFACE WATER, GROUNDWATER, AND MATERIAL OR WATER IN BMP'S; EVALUATING THE CONDITION OF BMP'S AND STORM WATER MANAGEMENT PRACTICES.
3. RIGHT OF ENTRY FOR INSPECTION. WHEN ANY NEW BMP IS INSTALLED ON PRIVATE PROPERTY, THE PROPERTY OWNER SHALL GRANT TO THE TOWN OF HUNTERSVILLE LAND USE AND ENVIRONMENTAL SERVICES AGENCY THE RIGHT TO ENTER THE PROPERTY AT REASONABLE TIMES AND IN A A REASONABLE MANNER FOR THE PURPOSE OF INSPECTION. THIS INCLUDES THE RIGHT TO ENTER A PROPERTY WHEN THE TOWN OF HUNTERSVILLE LAND USE AND ENVIRONMENTAL SERVICES AGENCY HAS A REASONABLE BASIS TO BELIEVE THAT A VIOLATION OF THIS REGULATION IS OCCURRING OR HAS OCCURRED, AND TO ENTER WHEN NECESSARY FOR ABATEMENT OF A PUBLIC NUISANCE OR CORRECTION OF A VIOLATION OF THIS REGULATION.



PERMANENT DIVERSION DITCH SECTION
N.T.S.

DIVERSION DITCH NOTES:

1. UTILIZE EXISTING DITCHES / SLOPES AS MUCH AS POSSIBLE.
2. NEW DIVERSION DITCHES TO BE 1.67' DEEP AND 2' WIDE AT BOTTOM.
3. SIDE SLOPES ARE TO BE 3:1 MAX.
4. ALL NEW DITCHES OR DISTURBED EXISTING DITCHES TO BE STABILIZED WITH NAG S75BN MATTING.
5. FOR MATTING SPECS, REFER TO THE LATEST EDITION OF THE NCDEQ EROSION AND SEDIMENT CONTROL PLANNING AND DESIGN MANUAL, SECTION 6.17 ALONG WITH MANUFACTURERS RECOMMENDATIONS FOR CONSTRICTION SPECIFICATIONS.
6. REFER TO SHEET C18 FOR ASSOCIATED MATTING DETAILS / SPECS.

1. CONTRACTOR IS FULLY RESPONSIBLE FOR CONTACTING APPROPRIATE PARTIES AND ASSURING THAT EXISTING UTILITIES ARE LOCATED PRIOR TO BEGINNING CONSTRUCTION.
2. CONTRACTOR IS RESPONSIBLE FOR PLACING BARRICADES USING FLAGMEN, ETC., AS NECESSARY TO INSURE SAFETY TO THE PUBLIC.
3. ALL PAVEMENT CUTS, CONCRETE OR ASPHALT, ARE TO BE REPLACED ACCORDING TO STANDARDS OF THE DEPARTMENT OF TRANSPORTATION.
4. SHORING WILL BE ACCORDING TO OSHA TRENCHING STANDARDS PART 1926 SUBPART P, OR AS AMENDED.

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0 30 60 120
GRAPHIC SCALE 1"=60 FT.

NORTH CAROLINA REGISTERED LANDSCAPE ARCHITECT 1015 PAMELA A. HENSON 4/27/2021

BLACK FARM FARMHOUSE CLUSTER

PIN #01126111
14700 BLACK FARM RD, HUNTERSVILLE, NC 28078

GRADING-EROSION PH1

REVISIONS:
2021-09-03 TOWN AND NCDOT REV.

C07 GRADING-EROSION PH1.DWG
PROJECT NUMBER: 220040
DATE: 06/04/2021 DRAWN BY: TSF
SHEET C09 OF 24

SEE SHEET C08 AND C09 FOR EROSION CONTROL NOTES

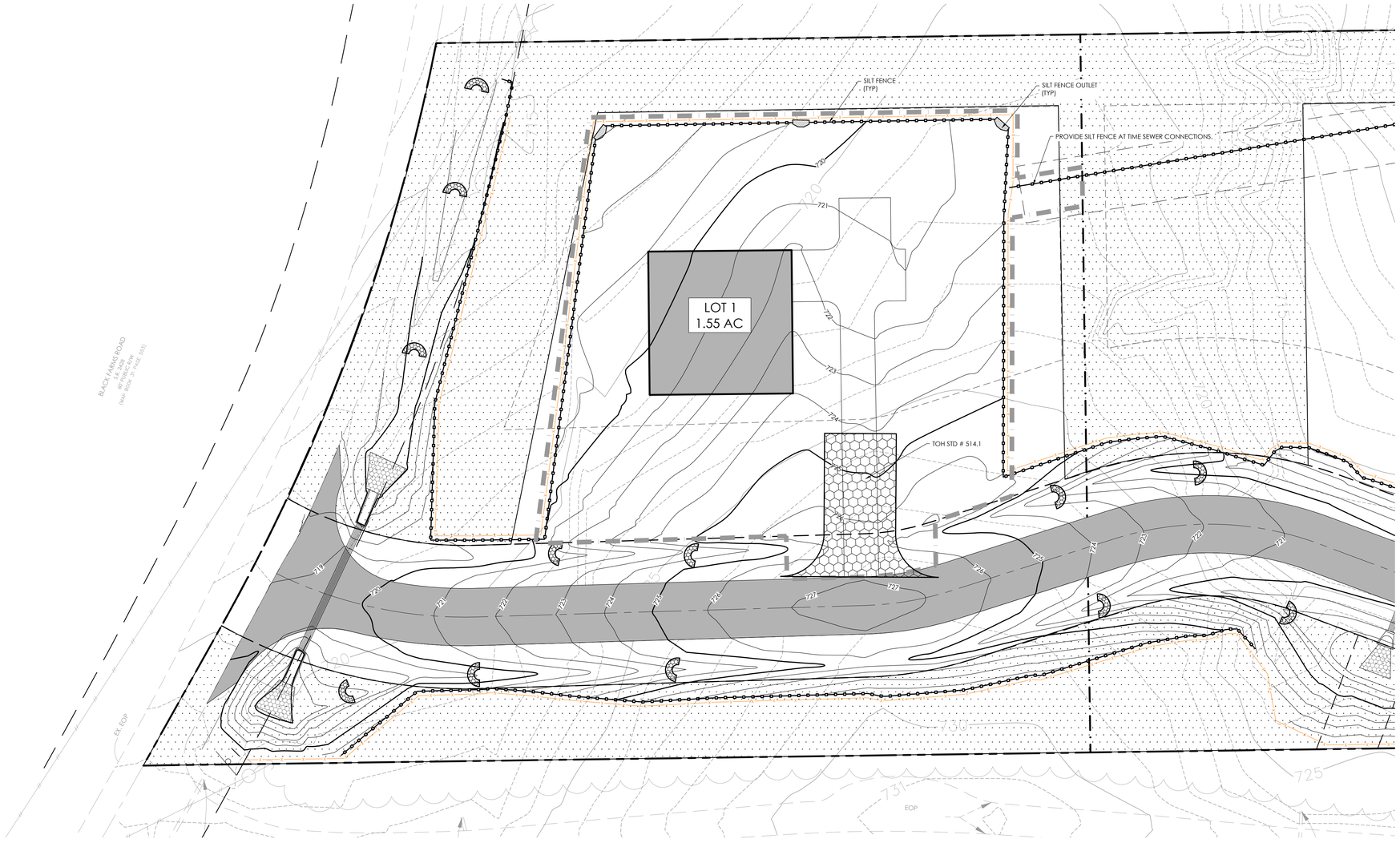
MINIMUM EC MEASURES TO BE PROVIDED
SILT FENCE: 225 LF
SILT FENCE OUTLETS: 3

SILT FENCE OUTLET
CHECK DAM
INLET PROTECTION
SKIMMER
RIP RAP
TREE FENCE
SILT FENCE
DENUDED LIMITS
EROSION MATTING

LEGEND

DISTURBED LIMITS(LOT 1): +/- 0.55 ACRES
TOTAL DISTURBED LIMITS: 6.00 ACRES

NOTE
LOT DISTURBED AREAS INCLUDE PORTIONS OF PHASE 1 AREA FOR DRIVEWAY CONNECTIONS, LOT GRADING BEHIND DITCHES, ETC., MINIMIZE DISTURBANCE TO EXISTING STABILIZED AREAS, CULVERT, AND DRAINAGE DITCHES. DISTURBANCE IS NOT TO EXCEED LIMITS SHOWN ON OVERALL GRADING PLAN C08.



GENERAL NOTES:

1. ALL STORM WATER CATCH BASINS, INLETS, MANHOLES, ETC. SHALL BE PERMANENTLY LABELED AS "NO DUMPING, DRAINS TO RIVER" AND INCLUDE A FISH SYMBOL.
2. SOIL FILL (GEOTECH REPORT SHALL TAKE PRECEDENCE OVER THIS SPECIFICATION IF EXISTS.)
3. PLOW, SCARIFY, BENCH, OR BREAK UP SLOPED SURFACES STEEPER THAN 1 VERTICAL TO 4 HORIZONTAL SO FILL MATERIAL WILL BOND WITH EXISTING MATERIAL.
4. PLACE AND COMPACT FILL MATERIAL IN LAYERS TO REQUIRED ELEVATIONS AS FOLLOWS:
   - 4.1. UNDER GRASS AND PLANTED AREAS, USE SATISFACTORY SOIL MATERIAL.
   - 4.2. UNDER WALKS AND PAVEMENTS, USE SATISFACTORY SOIL MATERIAL.
   - 4.3. UNDER STEPS AND RAMPS, USE ENGINEERED FILL.
   - 4.4. UNDER BUILDING SLABS, USE ENGINEERED FILL.
   - 4.5. UNDER FOOTINGS AND FOUNDATIONS, USE ENGINEERED FILL.
   - 4.6. PLACE SOIL FILL ON SUBGRADES FREE OF MUD, FROST, SNOW, OR ICE.
5. SOIL MOISTURE CONTROL
   - 5.1. REVISE PERCENTAGES IN THIS ARTICLE ACCORDING TO GEOTECHNICAL ENGINEER'S WRITTEN RECOMMENDATIONS.
   - 5.2. UNIFORMLY MOISTEN OR AERATE SUBGRADE AND EACH SUBSEQUENT FILL OR BACKFILL SOIL LAYER BEFORE COMPACTION TO WITHIN 2 PERCENT OF OPTIMUM MOISTURE CONTENT.
   - 5.3. DO NOT PLACE BACKFILL OR FILL SOIL MATERIAL ON SURFACES THAT ARE MUDDY, FROZEN, OR CONTAIN FROST OR ICE.
   - 5.4. REMOVE AND REPLACE, OR SCARIFY AND AIR DRY, OTHERWISE SATISFACTORY SOIL MATERIAL THAT EXCEEDS OPTIMUM MOISTURE CONTENT BY 2 PERCENT AND IS TOO WET TO COMPACT TO SPECIFIED DRY UNIT WEIGHT.
6. COMPACTION OF SOIL BACKFILLS AND FILLS
   - 6.1. PLACE BACKFILL AND FILL SOIL MATERIALS IN LAYERS NOT MORE THAN 8 INCHES (200 MM) IN LOOSE DEPTH FOR MATERIAL COMPACTED BY HEAVY COMPACTION EQUIPMENT, AND NOT MORE THAN 4 INCHES (100 MM) IN LOOSE DEPTH FOR MATERIAL COMPACTED BY HAND-OPERATED TAMPERS.
   - 6.2. PLACE BACKFILL AND FILL SOIL MATERIALS EVENLY ON ALL SIDES OF STRUCTURES TO REQUIRED ELEVATIONS, AND UNIFORMLY ALONG THE FULL LENGTH OF EACH STRUCTURE.
   - 6.3. COMPACT SOIL MATERIALS TO NOT LESS THAN THE FOLLOWING PERCENTAGES OF MAXIMUM DRY UNIT WEIGHT ACCORDING TO ASTM D 698:
     - 6.3.1. UNDER STRUCTURES, BUILDING SLABS, STEPS, AND PAVEMENTS, SCARIFY AND RECOMPACT TOP 12 INCHES (300 MM) OF EXISTING SUBGRADE AND EACH LAYER OF BACKFILL OR FILL SOIL MATERIAL AT 100 PERCENT.
     - 6.3.2. UNDER WALKWAYS, SCARIFY AND RECOMPACT TOP 6 INCHES (150 MM) BELOW SUBGRADE AND COMPACT EACH LAYER OF BACKFILL OR FILL SOIL MATERIAL AT 95 PERCENT.
     - 6.3.3. UNDER TURF OR UNPAVED AREAS, SCARIFY AND RECOMPACT TOP 6 INCHES (150 MM) BELOW SUBGRADE AND COMPACT EACH LAYER OF BACKFILL OR FILL SOIL MATERIAL AT 85 PERCENT.
   - 6.4. FOR UTILITY TRENCHES, COMPACT EACH LAYER OF INITIAL AND FINAL BACKFILL SOIL MATERIAL AT 95 PERCENT.
7. GRADING
   - 7.1. GENERAL: UNIFORMLY GRADE AREAS TO A SMOOTH SURFACE, FREE OF IRREGULAR SURFACE CHANGES. COMPLY WITH COMPACTION REQUIREMENTS AND GRADE TO CROSS SECTIONS, LINES, AND ELEVATIONS INDICATED.
   - 7.2. PROVIDE A SMOOTH TRANSITION BETWEEN ADJACENT EXISTING GRADES AND NEW GRADES.
   - 7.3. CUT OUT SOFT SPOTS, FILL LOW SPOTS, AND TRIM HIGH SPOTS TO COMPLY WITH REQUIRED SURFACE TOLERANCES.
   - 7.4. SITE ROUGH GRADING: SLOPE GRADES TO DIRECT WATER AWAY FROM BUILDINGS AND TO PREVENT PONDING. FINISH SUBGRADES TO REQUIRED ELEVATIONS WITHIN THE FOLLOWING TOLERANCES:
     - 7.4.1. TURF OR UNPAVED AREAS: PLUS OR MINUS 1 INCH (25 MM).
     - 7.4.2. WALKS: PLUS OR MINUS 1 INCH (25 MM).
     - 7.4.3. PAVEMENTS: PLUS OR MINUS 1/2 INCH (13 MM).
   - 7.5. GRADING INSIDE BUILDING LINES: FINISH SUBGRADE TO A TOLERANCE OF 1/2 INCH (13 MM) WHEN TESTED WITH A 10-FOOT (3-M) STRAIGHTEDGE.
8. FIELD QUALITY CONTROL
   - 8.1. TESTING AGENCY: OWNER WILL ENGAGE A QUALIFIED GEOTECHNICAL ENGINEERING TESTING AGENCY TO PERFORM TESTS AND INSPECTIONS.
   - 8.2. ALLOW TESTING AGENCY TO INSPECT AND TEST SUBGRADES AND EACH FILL OR BACKFILL LAYER. PROCEED WITH SUBSEQUENT EARTH MOVING ONLY AFTER TEST RESULTS FOR PREVIOUSLY COMPLETED WORK COMPLY WITH REQUIREMENTS.
   - 8.3. FOOTING SUBGRADE: AT FOOTING SUBGRADES, AT LEAST ONE TEST OF EACH SOIL STRATUM WILL BE PERFORMED TO VERIFY DESIGN BEARING CAPACITIES. SUBSEQUENT VERIFICATION AND APPROVAL OF OTHER FOOTING SUBGRADES MAY BE BASED ON A VISUAL COMPARISON OF SUBGRADE WITH TESTED SUBGRADE WHEN APPROVED BY ARCHITECT.
   - 8.4. TESTING AGENCY WILL TEST COMPACTION OF SOILS IN PLACE ACCORDING TO ASTM D 1556, ASTM D 2167, ASTM D 2922, AND ASTM D 2937, AS APPLICABLE. TESTS WILL BE PERFORMED AT THE FOLLOWING LOCATIONS AND FREQUENCIES:
   - 8.5. PAVED AND BUILDING SLAB AREAS: AT SUBGRADE AND AT EACH COMPACTED FILL AND BACKFILL LAYER, AT LEAST ONE TEST FOR EVERY 2000 SQ. FT. (186 SQ. M) OR LESS OF PAVED AREA OR BUILDING SLAB, BUT IN NO CASE FEWER THAN THREE TESTS.
   - 8.6. FOUNDATION WALL BACKFILL: AT EACH COMPACTED BACKFILL LAYER, AT LEAST ONE TEST FOR EVERY 100 FEET (30 M) OR LESS OF WALL LENGTH, BUT NO FEWER THAN TWO TESTS.
   - 8.7. TRENCH BACKFILL: AT EACH COMPACTED INITIAL AND FINAL BACKFILL LAYER, AT LEAST ONE TEST FOR EVERY 150 FEET (46 M) OR LESS OF TRENCH LENGTH, BUT NO FEWER THAN TWO TESTS.
   - 8.8. WHEN TESTING AGENCY REPORTS THAT SUBGRADES, FILLS, OR BACKFILLS HAVE NOT ACHIEVED DEGREE OF COMPACTION SPECIFIED, SCARIFY AND MOISTEN OR AERATE, OR REMOVE AND REPLACE SOIL MATERIALS TO DEPTH REQUIRED; RECOMPACT AND RETEST UNTIL SPECIFIED COMPACTION IS OBTAINED.

HUNTERSVILLE CONSTRUCTION SEQUENCE:

1. INSTALL TREE / VEGETATION PROTECTION MEASURES ALONG BUFFER AREA(S) AND ANY TREE SAVE AREAS DELINEATED ON THE PLAN.
2. THE BUFFER LINE (MEASURED FROM THE CREEK BANK OR PROPERTY LINE, OR WHATEVER IS APPLICABLE) SHALL BE STAKED.
3. PROTECTION MEASURES SHALL BE INSTALLED AS DICTATED BY THE DRIP-LINE OF VEGETATION THAT IS WITHIN THE BUFFER. WHERE DRIPLINE(S) DO NOT EXTEND BEYOND THE BUFFER LINE THE BUFFER LINE SHALL BE RESPECTED.
4. TREE / VEGETATION PROTECTION MEASURES MUST BE USED WHERE ANY CLEARING OR GRADING ACTIVITIES WILL OCCUR WITHIN 100'NOF A BUFFER. PROTECTION MEASURES SHALL BE ORANGE TREE FENCING, OR CONTINUOUS FLAGGING ON VEGETATION OR STAKES. FLAGS SHOULD BE MAX. 20' ON CENTER, WHICH MAY BE USED ONLY WHERE THICK UNDERBRUSH EXISTS.
5. REQUEST TREE INSPECTION - TOWN OF HUNTERSVILLE, PLANNING STAFF (875-7000).
6. SETUP PRE-CONSTRUCTION CONFERENCE WITH MECKLENBURG COUNTY LAND DEVELOPMENT & TOWN OF HUNTERSVILLE PLANNING STAFF (875-7000).
7. CONTINUE CONSTRUCTION SEQUENCE PER MECKLENBURG COUNTY AS REQUIRED.
8. WHERE STANDARDS AND RESPONSIBILITY FOR INFRASTRUCTURE CONSTRUCTION, INCLUDING BUT NOT LIMITED TO STREETS, SIDEWALKS, AND LANDSCAPING, ARE SPECIFIED IN THE ZONING AND/OR SUBDIVISION ORDINANCES OF THE TOWN OF HUNTERSVILLE, TOWN STANDARDS SHALL CONTROL. IN THE ABSENCE OF A SPECIFIED TOWN STANDARD, CONSTRUCTION SHALL BE IN CONFORMANCE WITH THE THEN MOST RECENT VERSION OF THE CHARLOTTE-MECKLENBURG LAND DEVELOPMENT STANDARDS MANUAL (CMLDS).

CONSTRUCTION SEQUENCE:

1. OBTAIN GRADING/EROSION CONTROL PLAN APPROVAL FROM THE TOWN OF HUNTERSVILLE.
2. SET UP AN ON-SITE PRE-CONSTRUCTION CONFERENCE WITH THE FOLLOWING DEPARTMENTS: EROSION CONTROL INSPECTOR, LAND DEVELOPMENT INSPECTOR, ZONING INSPECTOR AND NCDOT. FAILURE TO SCHEDULE SUCH CONFERENCE 48 HOURS PRIOR TO ANY LAND DISTURBING ACTIVITY IS SUBJECT TO FINE.
3. INSTALL CONSTRUCTION ENTRANCE, TREE PROTECTION FENCING, SILT FENCING, DITCHES, BYPASS LINES, AND OTHER MEASURES AS SHOWN ON PLANS, CLEARING ONLY AS NECESSARY TO INSTALL THESE DEVICES. PAM TO BE INSTALLED PER COUNTY STANDARDS.
4. CALL FOR ON-SITE INSPECTION BY INSPECTOR. WHEN APPROVED, INSPECTOR ISSUES THE GRADING PERMIT AND CLEARING AND GRUBBING MAY BEGIN.
5. THE CONTRACTOR SHALL DILIGENTLY AND CONTINUOUSLY MAINTAIN ALL EROSION CONTROL DEVICES AND STRUCTURES.
6. FOR PHASED EROSION CONTROL PLANS, CONTRACTOR SHALL MEET WITH EROSION CONTROL INSPECTOR PRIOR TO COMMENCING WITH EACH PHASE OF EROSION CONTROL MEASURES.
7. THE LAND DEVELOPMENT INSPECTOR SHOULD BE CALLED TO CONDUCT INSPECTIONS ON STORM DRAINAGE, SIDEWALKS, DRIVEWAY ON STORM DRAINAGE, SIDEWALKS, DRIVE WAY IMPROVEMENTS, AND ALL ASPECTS OF ROAD CONSTRUCTION
8. STABILIZE SITE AS AREAS ARE BROUGHT TO FINISHED GRADE.
9. COORDINATE WITH EROSION CONTROL INSPECTOR PRIOR TO REMOVAL OF EROSION CONTROL MEASURES.
10. ALL EROSION CONTROL MEASURES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE N. C. EROSION AND SEDIMENT CONTROL PLANNING AND DESIGN MANUAL, U. S. DEPT. OF AGRICULTURE, AND THE TOWN OF HUNTERSVILLE

GENERAL NOTES:

1. APPROVAL OF THIS PLAN IS NOT AN AUTHORIZATION TO GRADE ADJACENT PROPERTIES. WHEN FIELD CONDITIONS WARRANT OFF-SITE GRADING, PERMISSION MUST BE OBTAINED FROM THE AFFECTED OWNERS.
2. THE DEVELOPER SHALL MAINTAIN EACH STREAM, CREEK, OR BACKWASH CHANNEL IN AN UNOBSTRUCTED STATE AND SHALL REMOVE FROM THE CHANNEL AND BANKS OF THE STREAM ALL DEBRIS, LOGS, TIMBER, JUNK AND OTHER ACCUMULATIONS.
3. COMMUNITY ENCROACHMENT LINE MUST BE MARKED AND MAINTAINED ON SITE UNTIL FINAL GRADING IS COMPLETED.
4. ANY CONSTRUCTION OR USE WITHIN THE AREAS DELINEATED AS FLOODWAY DISTRICT FRINGE BOUNDARY LINE OR FLOODWAY DISTRICT ENCROACHMENT BOUNDARY LINE IS SUBJECT TO THE RESTRICTIONS IMPOSED BY THE FLOODWAY REGULATIONS OF THE TOWN OF HUNTERSVILLE AND MECKLENBURG COUNTY.
5. THE MECKLENBURG COUNTY ENGINEERING DEPARTMENT HAS NOT REVIEWED THE STRUCTURAL STABILITY OF ANY RETAINING WALLS ON THE SITE AND DOES NOT ASSUME RESPONSIBILITY FOR THEM.
6. NON-STANDARD ITEMS (I.E.: PAVERS, IRRIGATION SYSTEMS, ETC.) IN THE RIGHT-OF-WAY REQUIRE A RIGHT-OF-WAY ENCROACHMENT AGREEMENT WITH THE NORTH CAROLINA DEPARTMENT OF TRANSPORTATION BEFORE INSTALLATION.
7. ALL ROOF DRAINS TO CONNECT TO UNDERGROUND STORM DRAINAGE SYSTEM.

1. CONTRACTOR IS FULLY RESPONSIBLE FOR CONTACTING APPROPRIATE PARTIES AND ASSURING THAT EXISTING UTILITIES ARE LOCATED PRIOR TO BEGINNING CONSTRUCTION.
2. CONTRACTOR IS RESPONSIBLE FOR PLACING BARRICADES USING FLAGMEN, ETC., AS NECESSARY TO INSURE SAFETY TO THE PUBLIC.
3. ALL PAVEMENT CUTS, CONCRETE OR ASPHALT, ARE TO BE REPLACED ACCORDING TO STANDARDS OF THE DEPARTMENT OF TRANSPORTATION.
4. SHORING WILL BE ACCORDING TO OSHA TRENCHING STANDARDS PART 1926 SUBPART P, OR AS AMENDED.

811 Know what's below. Call before you dig.

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NC ENGINEERING BOARD LICENSE #: C-3781
NC LANDSCAPE ARCHITECTURE BOARD LICENSE #: C-399

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N
W E
S
NORTH ARROW
0 10 20 40
GRAPHIC SCALE 1"=20 FT.

NICHOLAS CARL HENSON — NORTH CAROLINA — LANDSCAPE ARCHITECT — 2737 — REGISTERED — 10/31/2021

BLACK FARM FARMHOUSE CLUSTER

PIN #01126111

14700 BLACK FARM RD, HUNTERSVILLE, NC 28078

GRADING-EROSION LOT 1

REVISIONS:
2021-09-03 TOWN AND NCDOT REV.

C08 GRADING-EROSION LOT 1.DWG
PROJECT NUMBER: 220040
DATE: 06/04/2021 DRAWN BY: TSF
SHEET C10 OF 24

C08 GRADING-EROSION LOT 1.DWG - PLOT: Justin - FRI. 9-3-2021 10:16 AM

SILT FENCE OUTLET

CHECK DAM

INLET PROTECTION

SKIMMER

RIP RAP

TREE FENCE

SILT FENCE

DENUDED LIMITS

EROSION MATTING

LEGEND

SEE SHEET C08 AND C09 FOR EROSION CONTROL NOTES

MINIMUM EC MEASURES TO BE PROVIDED

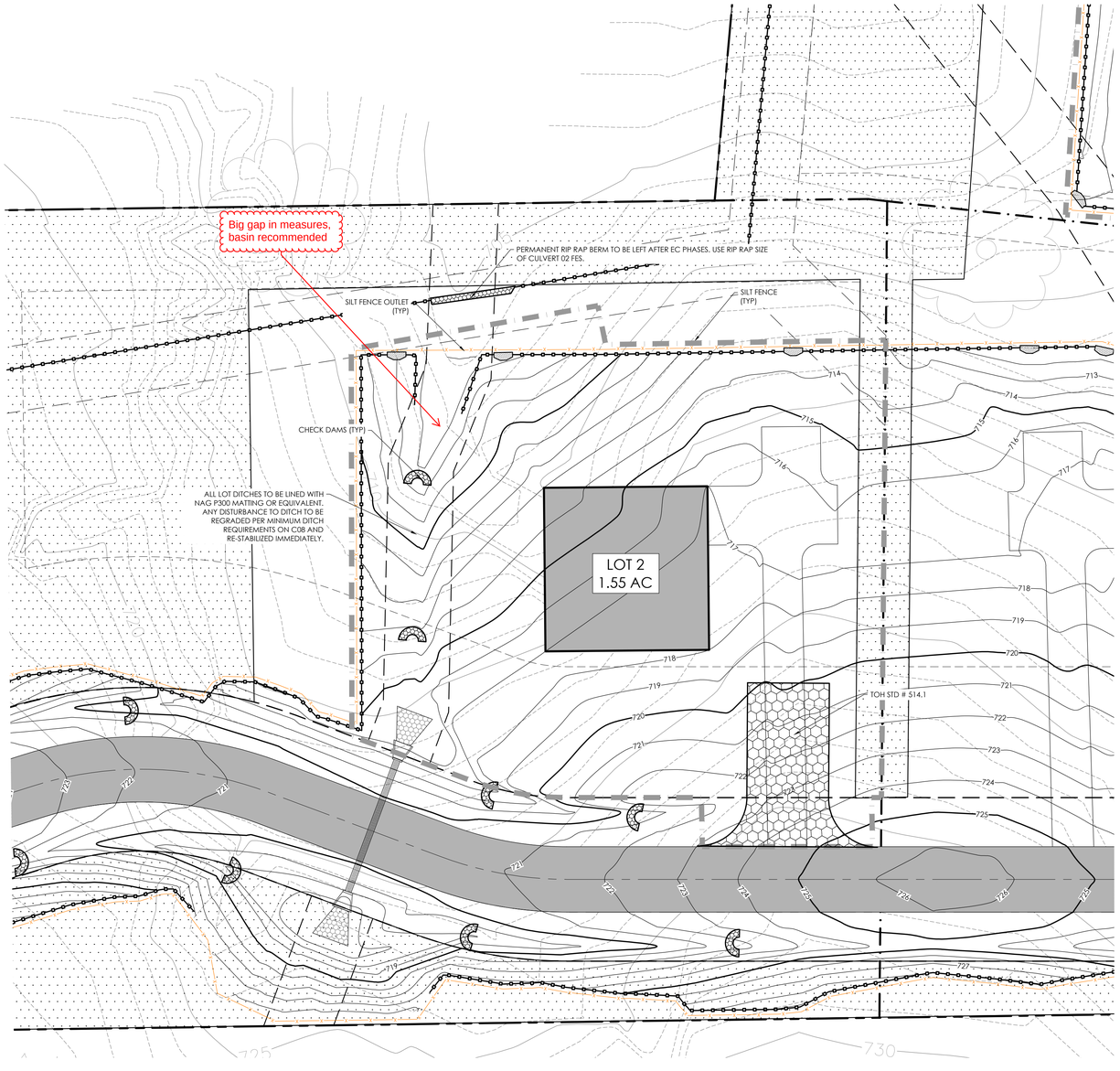
SILT FENCE: 225 LF
SILT FENCE OUTLETS: 3

This handles one design aspect of silt fence. Please see other design parameters of silt fence design (typ.)

NOTE

LOT DISTURBED AREAS INCLUDE PORTIONS OF PHASE 1 AREA FOR DRIVEWAY CONNECTIONS, LOT GRADING BEHIND DITCHES, ETC. MINIMIZE DISTURBANCE TO EXISTING STABILIZED AREAS, CULVERT, AND DRAINAGE DITCHES. DISTURBANCE IS NOT TO EXCEED LIMITS SHOWN ON OVERALL GRADING PLAN C08.

DISTURBED LIMITS(LOT 2): +/- 0.54 ACRES
TOTAL DISTURBED LIMITS: 6.00 ACRES



GENERAL NOTES:

1. ALL STORM WATER CATCH BASINS, INLETS, MANHOLES, ETC. SHALL BE PERMANENTLY LABELED AS "NO DUMPING, DRAINS TO RIVER" AND INCLUDE A FISH SYMBOL.
2. SOIL FILL (GEOTECH REPORT SHALL TAKE PRECEDENCE OVER THIS SPECIFICATION IF EXISTS.)
3. PLOW, SCARIFY, BENCH, OR BREAK UP SLOPED SURFACES STEEPER THAN 1 VERTICAL TO 4 HORIZONTAL SO FILL MATERIAL WILL BOND WITH EXISTING MATERIAL.
4. PLACE AND COMPACT FILL MATERIAL IN LAYERS TO REQUIRED ELEVATIONS AS FOLLOWS:
   - 4.1. UNDER GRASS AND PLANTED AREAS, USE SATISFACTORY SOIL MATERIAL.
   - 4.2. UNDER WALKS AND PAVEMENTS, USE SATISFACTORY SOIL MATERIAL.
   - 4.3. UNDER STEPS AND RAMPS, USE ENGINEERED FILL.
   - 4.4. UNDER BUILDING SLABS, USE ENGINEERED FILL.
   - 4.5. UNDER FOOTINGS AND FOUNDATIONS, USE ENGINEERED FILL.
   - 4.6. PLACE SOIL FILL ON SUBGRADES FREE OF MUD, FROST, SNOW, OR ICE.
5. SOIL MOISTURE CONTROL
   - 5.1. REVISE PERCENTAGES IN THIS ARTICLE ACCORDING TO GEOTECHNICAL ENGINEER'S WRITTEN RECOMMENDATIONS.
   - 5.2. UNIFORMLY MOISTEN OR AERATE SUBGRADE AND EACH SUBSEQUENT FILL OR BACKFILL SOIL LAYER BEFORE COMPACTION TO WITHIN 2 PERCENT OF OPTIMUM MOISTURE CONTENT.
   - 5.3. DO NOT PLACE BACKFILL OR FILL SOIL MATERIAL ON SURFACES THAT ARE MUDDY, FROZEN, OR CONTAIN FROST OR ICE.
   - 5.4. REMOVE AND REPLACE, OR SCARIFY AND AIR DRY, OTHERWISE SATISFACTORY SOIL MATERIAL THAT EXCEEDS OPTIMUM MOISTURE CONTENT BY 2 PERCENT AND IS TOO WET TO COMPACT TO SPECIFIED DRY UNIT WEIGHT.
6. COMPACTION OF SOIL BACKFILLS AND FILLS
   - 6.1. PLACE BACKFILL AND FILL SOIL MATERIALS IN LAYERS NOT MORE THAN 8 INCHES (200 MM) IN LOOSE DEPTH FOR MATERIAL COMPACTED BY HEAVY COMPACTION EQUIPMENT, AND NOT MORE THAN 4 INCHES (100 MM) IN LOOSE DEPTH FOR MATERIAL COMPACTED BY HAND-OPERATED TAMPERS.
   - 6.2. PLACE BACKFILL AND FILL SOIL MATERIALS EVENLY ON ALL SIDES OF STRUCTURES TO REQUIRED ELEVATIONS, AND UNIFORMLY ALONG THE FULL LENGTH OF EACH STRUCTURE.
   - 6.3. COMPACT SOIL MATERIALS TO NOT LESS THAN THE FOLLOWING PERCENTAGES OF MAXIMUM DRY UNIT WEIGHT ACCORDING TO ASTM D 698:
     - 6.3.1. UNDER STRUCTURES, BUILDING SLABS, STEPS, AND PAVEMENTS, SCARIFY AND RECOMPACT TOP 12 INCHES (300 MM) OF EXISTING SUBGRADE AND EACH LAYER OF BACKFILL OR FILL SOIL MATERIAL AT 100 PERCENT.
     - 6.3.2. UNDER WALKWAYS, SCARIFY AND RECOMPACT TOP 6 INCHES (150 MM) BELOW SUBGRADE AND COMPACT EACH LAYER OF BACKFILL OR FILL SOIL MATERIAL AT 95 PERCENT.
     - 6.3.3. UNDER TURF OR UNPAVED AREAS, SCARIFY AND RECOMPACT TOP 6 INCHES (150 MM) BELOW SUBGRADE AND COMPACT EACH LAYER OF BACKFILL OR FILL SOIL MATERIAL AT 85 PERCENT.
   - 6.4. FOR UTILITY TRENCHES, COMPACT EACH LAYER OF INITIAL AND FINAL BACKFILL SOIL MATERIAL AT 95 PERCENT.
7. GRADING
   - 7.1. GENERAL: UNIFORMLY GRADE AREAS TO A SMOOTH SURFACE, FREE OF IRREGULAR SURFACE CHANGES. COMPLY WITH COMPACTION REQUIREMENTS AND GRADE TO CROSS SECTIONS, LINES, AND ELEVATIONS INDICATED.
   - 7.2. PROVIDE A SMOOTH TRANSITION BETWEEN ADJACENT EXISTING GRADES AND NEW GRADES.
   - 7.3. CUT OUT SOFT SPOTS, FILL LOW SPOTS, AND TRIM HIGH SPOTS TO COMPLY WITH REQUIRED SURFACE TOLERANCES.
   - 7.4. SITE ROUGH GRADING: SLOPE GRADES TO DIRECT WATER AWAY FROM BUILDINGS AND TO PREVENT PONDING. FINISH SUBGRADES TO REQUIRED ELEVATIONS WITHIN THE FOLLOWING TOLERANCES:
     - 7.4.1. TURF OR UNPAVED AREAS: PLUS OR MINUS 1 INCH (25 MM).
     - 7.4.2. WALKS: PLUS OR MINUS 1 INCH (25 MM).
     - 7.4.3. PAVEMENTS: PLUS OR MINUS 1/2 INCH (13 MM).
   - 7.5. GRADING INSIDE BUILDING LINES: FINISH SUBGRADE TO A TOLERANCE OF 1/2 INCH (13 MM) WHEN TESTED WITH A 10-FOOT (3-M) STRAIGHTEDGE.
8. FIELD QUALITY CONTROL
   - 8.1. TESTING AGENCY: OWNER WILL ENGAGE A QUALIFIED GEOTECHNICAL ENGINEERING TESTING AGENCY TO PERFORM TESTS AND INSPECTIONS.
   - 8.2. ALLOW TESTING AGENCY TO INSPECT AND TEST SUBGRADES AND EACH FILL OR BACKFILL LAYER. PROCEED WITH SUBSEQUENT EARTH MOVING ONLY AFTER TEST RESULTS FOR PREVIOUSLY COMPLETED WORK COMPLY WITH REQUIREMENTS.
   - 8.3. FOOTING SUBGRADE: AT FOOTING SUBGRADES, AT LEAST ONE TEST OF EACH SOIL STRATUM WILL BE PERFORMED TO VERIFY DESIGN BEARING CAPACITIES. SUBSEQUENT VERIFICATION AND APPROVAL OF OTHER FOOTING SUBGRADES MAY BE BASED ON A VISUAL COMPARISON OF SUBGRADE WITH TESTED SUBGRADE WHEN APPROVED BY ARCHITECT.
   - 8.4. TESTING AGENCY WILL TEST COMPACTION OF SOILS IN PLACE ACCORDING TO ASTM D 1556, ASTM D 2167, ASTM D 2922, AND ASTM D 2937, AS APPLICABLE. TESTS WILL BE PERFORMED AT THE FOLLOWING LOCATIONS AND FREQUENCIES:
   - 8.5. PAVED AND BUILDING SLAB AREAS: AT SUBGRADE AND AT EACH COMPACTED FILL AND BACKFILL LAYER, AT LEAST ONE TEST FOR EVERY 2000 SQ. FT. (186 SQ. M) OR LESS OF PAVED AREA OR BUILDING SLAB, BUT IN NO CASE FEWER THAN THREE TESTS.
   - 8.6. FOUNDATION WALL BACKFILL: AT EACH COMPACTED BACKFILL LAYER, AT LEAST ONE TEST FOR EVERY 100 FEET (30 M) OR LESS OF WALL LENGTH, BUT NO FEWER THAN TWO TESTS.
   - 8.7. TRENCH BACKFILL: AT EACH COMPACTED INITIAL AND FINAL BACKFILL LAYER, AT LEAST ONE TEST FOR EVERY 150 FEET (46 M) OR LESS OF TRENCH LENGTH, BUT NO FEWER THAN TWO TESTS.
   - 8.8. WHEN TESTING AGENCY REPORTS THAT SUBGRADES, FILLS, OR BACKFILLS HAVE NOT ACHIEVED DEGREE OF COMPACTION SPECIFIED, SCARIFY AND MOISTEN OR AERATE, OR REMOVE AND REPLACE SOIL MATERIALS TO DEPTH REQUIRED; RECOMPACT AND RETEST UNTIL SPECIFIED COMPACTION IS OBTAINED.

HUNTERSVILLE CONSTRUCTION SEQUENCE:

1. INSTALL TREE / VEGETATION PROTECTION MEASURES ALONG BUFFER AREA(S) AND ANY TREE SAVE AREAS DELINEATED ON THE PLAN.
2. THE BUFFER LINE (MEASURED FROM THE CREEK BANK OR PROPERTY LINE, OR WHATEVER IS APPLICABLE) SHALL BE STAKED.
3. PROTECTION MEASURES SHALL BE INSTALLED AS DICTATED BY THE DRIP-LINE OF VEGETATION THAT IS WITHIN THE BUFFER. WHERE DRIPLINE(S) DO NOT EXTEND BEYOND THE BUFFER LINE THE BUFFER LINE SHALL BE RESPECTED.
4. TREE / VEGETATION PROTECTION MEASURES MUST BE USED WHERE ANY CLEARING OR GRADING ACTIVITIES WILL OCCUR WITHIN 100'NOF A BUFFER; PROTECTION MEASURES SHALL BE ORANGE TREE FENCING, OR CONTINUOUS FLAGGING ON VEGETATION OR STAKES. FLAGS SHOULD BE MAX. 20' ON CENTER, WHICH MAY BE USED ONLY WHERE THICK UNDERBRUSH EXISTS.
5. REQUEST TREE INSPECTION - TOWN OF HUNTERSVILLE, PLANNING STAFF (875-7000).
6. SETUP PRE-CONSTRUCTION CONFERENCE WITH MECKLENBURG COUNTY LAND DEVELOPMENT & TOWN OF HUNTERSVILLE PLANNING STAFF (875-7000).
7. CONTINUE CONSTRUCTION SEQUENCE PER MECKLENBURG COUNTY AS REQUIRED.
8. WHERE STANDARDS AND RESPONSIBILITY FOR INFRASTRUCTURE CONSTRUCTION, INCLUDING BUT NOT LIMITED TO STREETS, SIDEWALKS, AND LANDSCAPING, ARE SPECIFIED IN THE ZONING AND/OR SUBDIVISION ORDINANCES OF THE TOWN OF HUNTERSVILLE, TOWN STANDARDS SHALL CONTROL. IN THE ABSENCE OF A SPECIFIED TOWN STANDARD, CONSTRUCTION SHALL BE IN CONFORMANCE WITH THE THEN MOST RECENT VERSION OF THE CHARLOTTE-MECKLENBURG LAND DEVELOPMENT STANDARDS MANUAL (CMLDS).

CONSTRUCTION SEQUENCE:

1. OBTAIN GRADING/EROSION CONTROL PLAN APPROVAL FROM THE TOWN OF HUNTERSVILLE.
2. SET UP AN ON-SITE PRE-CONSTRUCTION CONFERENCE WITH THE FOLLOWING DEPARTMENTS: EROSION CONTROL INSPECTOR, LAND DEVELOPMENT INSPECTOR, ZONING INSPECTOR AND NCDOT. FAILURE TO SCHEDULE SUCH CONFERENCE 48 HOURS PRIOR TO ANY LAND DISTURBING ACTIVITY IS SUBJECT TO FINE.
3. INSTALL CONSTRUCTION ENTRANCE, TREE PROTECTION FENCING, SILT FENCING, DITCHES, BYPASS LINES, AND OTHER MEASURES AS SHOWN ON PLANS, CLEARING ONLY AS NECESSARY TO INSTALL THESE DEVICES. PAM TO BE INSTALLED PER COUNTY STANDARDS.
4. CALL FOR ON-SITE INSPECTION BY INSPECTOR. WHEN APPROVED, INSPECTOR ISSUES THE GRADING PERMIT AND CLEARING AND GRUBBING MAY BEGIN.
5. THE CONTRACTOR SHALL DILIGENTLY AND CONTINUOUSLY MAINTAIN ALL EROSION CONTROL DEVICES AND STRUCTURES.
6. FOR PHASED EROSION CONTROL PLANS, CONTRACTOR SHALL MEET WITH EROSION CONTROL INSPECTOR PRIOR TO COMMENCING WITH EACH PHASE OF EROSION CONTROL MEASURES.
7. THE LAND DEVELOPMENT INSPECTOR SHOULD BE CALLED TO CONDUCT INSPECTIONS ON STORM DRAINAGE, SIDEWALKS, DRIVEWAY ON STORM DRAINAGE, SIDEWALKS, DRIVE WAY IMPROVEMENTS, AND ALL ASPECTS OF ROAD CONSTRUCTION
8. STABILIZE SITE AS AREAS ARE BROUGHT TO FINISHED GRADE.
9. COORDINATE WITH EROSION CONTROL INSPECTOR PRIOR TO REMOVAL OF EROSION CONTROL MEASURES.
10. ALL EROSION CONTROL MEASURES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE N. C. EROSION AND SEDIMENT CONTROL PLANNING AND DESIGN MANUAL, U. S. DEPT. OF AGRICULTURE, AND THE TOWN OF HUNTERSVILLE

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2. THE DEVELOPER SHALL MAINTAIN EACH STREAM, CREEK, OR BACKWASH CHANNEL IN AN UNOBSTRUCTED STATE AND SHALL REMOVE FROM THE CHANNEL AND BANKS OF THE STREAM ALL DEBRIS, LOGS, TIMBER, JUNK AND OTHER ACCUMULATIONS.
3. COMMUNITY ENCROACHMENT LINE MUST BE MARKED AND MAINTAINED ON SITE UNTIL FINAL GRADING IS COMPLETED.
4. ANY CONSTRUCTION OR USE WITHIN THE AREAS DELINEATED AS FLOODWAY DISTRICT FRINGE BOUNDARY LINE OR FLOODWAY DISTRICT ENCROACHMENT BOUNDARY LINE IS SUBJECT TO THE RESTRICTIONS IMPOSED BY THE FLOODWAY REGULATIONS OF THE TOWN OF HUNTERSVILLE AND MECKLENBURG COUNTY.
5. THE MECKLENBURG COUNTY ENGINEERING DEPARTMENT HAS NOT REVIEWED THE STRUCTURAL STABILITY OF ANY RETAINING WALLS ON THE SITE AND DOES NOT ASSUME RESPONSIBILITY FOR THEM.
6. NON-STANDARD ITEMS (I.E.; PAVERS, IRRIGATION SYSTEMS, ETC.) IN THE RIGHT-OF-WAY REQUIRE A RIGHT-OF-WAY ENCROACHMENT AGREEMENT WITH THE NORTH CAROLINA DEPARTMENT OF TRANSPORTATION BEFORE INSTALLATION.
7. ALL ROOF DRAINS TO CONNECT TO UNDERGROUND STORM DRAINAGE SYSTEM.

1. CONTRACTOR IS FULLY RESPONSIBLE FOR CONTACTING APPROPRIATE PARTIES AND ASSURING THAT EXISTING UTILITIES ARE LOCATED PRIOR TO BEGINNING CONSTRUCTION.
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NC LANDSCAPE ARCHITECTURE BOARD LICENSE #: C-399

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N
W E
S
NORTH ARROW
0 10 20 40
GRAPHIC SCALE 1"=20 FT.

NORTH CAROLINA LANDSCAPE ARCHITECT SEAL 1015 TIMOTHY S. FOLEY

BLACK FARM FARMHOUSE CLUSTER

PIN #01112611

14700 BLACK FARM RD, HUNTERSVILLE, NC 28078

GRADING-EROSION LOT 2

REVISIONS:

2021-09-03 TOWN AND NCDOT REV.

C09 GRADING-EROSION LOT 2.DWG

PROJECT NUMBER: 220040

DATE: 06/04/2021 DRAWN BY: TSF

SHEET C11 OF 24

SEE SHEET C08 AND C09 FOR EROSION CONTROL NOTES

	SILT FENCE OUTLET
	CHECK DAM
	INLET PROTECTION
	SKIMMER
	RIP RAP
	TREE FENCE
	SILT FENCE
	DENUDED LIMITS
	EROSION MATTING

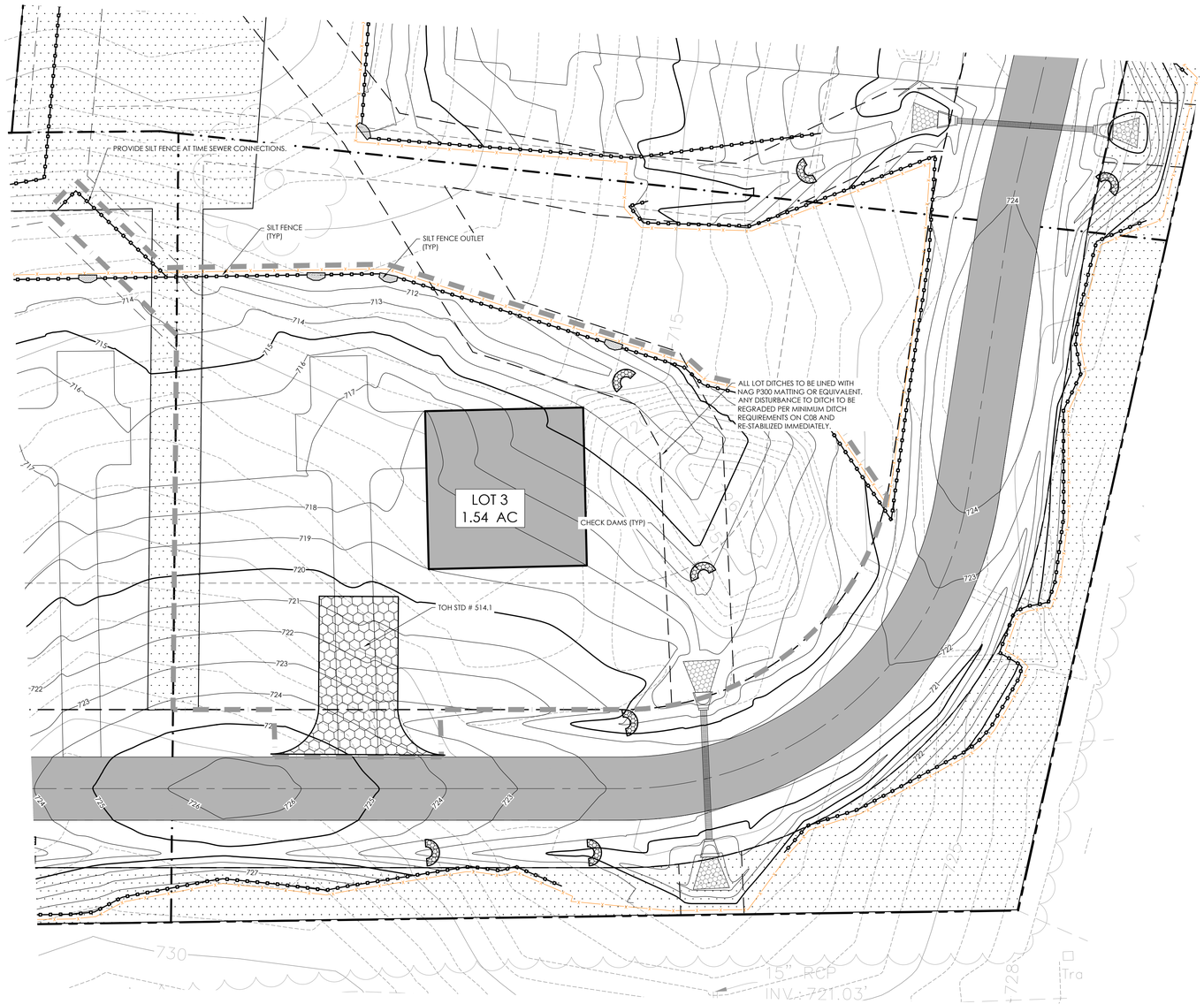
LEGEND

DISTURBED LIMITS(LOT 3): +/- 0.63 ACRES
TOTAL DISTURBED LIMITS: 6.00 ACRES

MINIMUM EC MEASURES TO BE PROVIDED
SILT FENCE: 255 LF
SILT FENCE OUTLETS: 3

See previous note

NOTE
LOT DISTURBED AREAS INCLUDE PORTIONS OF PHASE 1 AREA FOR DRIVEWAY CONNECTIONS, LOT GRADING BEHIND DITCHES, ETC.. MINIMIZE DISTURBANCE TO EXISTING STABILIZED AREAS, CULVERT, AND DRAINAGE DITCHES.. DISTURBANCE IS NOT TO EXCEED LIMITS SHOWN ON OVERALL GRADING PLAN C08.



GENERAL NOTES:

1. ALL STORM WATER CATCH BASINS, INLETS, MANHOLES, ETC. SHALL BE PERMANENTLY LABELED AS "NO DUMPING, DRAINS TO RIVER" AND INCLUDE A FISH SYMBOL.
2. SOIL FILL (GEOTECH REPORT SHALL TAKE PRECEDENCE OVER THIS SPECIFICATION IF EXISTS.)
3. PLOW, SCARIFY, BENCH, OR BREAK UP SLOPED SURFACES STEEPER THAN 1 VERTICAL TO 4 HORIZONTAL SO FILL MATERIAL WILL BOND WITH EXISTING MATERIAL.
4. PLACE AND COMPACT FILL MATERIAL IN LAYERS TO REQUIRED ELEVATIONS AS FOLLOWS:
   - 4.1. UNDER GRASS AND PLANTED AREAS, USE SATISFACTORY SOIL MATERIAL.
   - 4.2. UNDER WALKS AND PAVEMENTS, USE SATISFACTORY SOIL MATERIAL.
   - 4.3. UNDER STEPS AND RAMPS, USE ENGINEERED FILL.
   - 4.4. UNDER BUILDING SLABS, USE ENGINEERED FILL.
   - 4.5. UNDER FOOTINGS AND FOUNDATIONS, USE ENGINEERED FILL.
   - 4.6. PLACE SOIL FILL ON SUBGRADES FREE OF MUD, FROST, SNOW, OR ICE.
5. SOIL MOISTURE CONTROL
   - 5.1. REVISE PERCENTAGES IN THIS ARTICLE ACCORDING TO GEOTECHNICAL ENGINEER'S WRITTEN RECOMMENDATIONS.
   - 5.2. UNIFORMLY MOISTEN OR AERATE SUBGRADE AND EACH SUBSEQUENT FILL OR BACKFILL SOIL LAYER BEFORE COMPACTION TO WITHIN 2 PERCENT OF OPTIMUM MOISTURE CONTENT.
   - 5.3. DO NOT PLACE BACKFILL OR FILL SOIL MATERIAL ON SURFACES THAT ARE MUDDY, FROZEN, OR CONTAIN FROST OR ICE.
   - 5.4. REMOVE AND REPLACE, OR SCARIFY AND AIR DRY, OTHERWISE SATISFACTORY SOIL MATERIAL THAT EXCEEDS OPTIMUM MOISTURE CONTENT BY 2 PERCENT AND IS TOO WET TO COMPACT TO SPECIFIED DRY UNIT WEIGHT.
6. COMPACTION OF SOIL BACKFILLS AND FILLS
   - 6.1. PLACE BACKFILL AND FILL SOIL MATERIALS IN LAYERS NOT MORE THAN 8 INCHES (200 MM) IN LOOSE DEPTH FOR MATERIAL COMPACTED BY HEAVY COMPACTION EQUIPMENT, AND NOT MORE THAN 4 INCHES (100 MM) IN LOOSE DEPTH FOR MATERIAL COMPACTED BY HAND-OPERATED TAMPERS.
   - 6.2. PLACE BACKFILL AND FILL SOIL MATERIALS EVENLY ON ALL SIDES OF STRUCTURES TO REQUIRED ELEVATIONS, AND UNIFORMLY ALONG THE FULL LENGTH OF EACH STRUCTURE.
   - 6.3. COMPACT SOIL MATERIALS TO NOT LESS THAN THE FOLLOWING PERCENTAGES OF MAXIMUM DRY UNIT WEIGHT ACCORDING TO ASTM D 698:
     - 6.3.1. UNDER STRUCTURES, BUILDING SLABS, STEPS, AND PAVEMENTS, SCARIFY AND RECOMPACT TOP 12 INCHES (300 MM) OF EXISTING SUBGRADE AND EACH LAYER OF BACKFILL OR FILL SOIL MATERIAL AT 100 PERCENT.
     - 6.3.2. UNDER WALKWAYS, SCARIFY AND RECOMPACT TOP 6 INCHES (150 MM) BELOW SUBGRADE AND COMPACT EACH LAYER OF BACKFILL OR FILL SOIL MATERIAL AT 95 PERCENT.
     - 6.3.3. UNDER TURF OR UNPAVED AREAS, SCARIFY AND RECOMPACT TOP 6 INCHES (150 MM) BELOW SUBGRADE AND COMPACT EACH LAYER OF BACKFILL OR FILL SOIL MATERIAL AT 85 PERCENT.
   - 6.4. FOR UTILITY TRENCHES, COMPACT EACH LAYER OF INITIAL AND FINAL BACKFILL SOIL MATERIAL AT 95 PERCENT.
7. GRADING
   - 7.1. GENERAL: UNIFORMLY GRADE AREAS TO A SMOOTH SURFACE, FREE OF IRREGULAR SURFACE CHANGES. COMPLY WITH COMPACTION REQUIREMENTS AND GRADE TO CROSS SECTIONS, LINES, AND ELEVATIONS INDICATED.
   - 7.2. PROVIDE A SMOOTH TRANSITION BETWEEN ADJACENT EXISTING GRADES AND NEW GRADES.
   - 7.3. CUT OUT SOFT SPOTS, FILL LOW SPOTS, AND TRIM HIGH SPOTS TO COMPLY WITH REQUIRED SURFACE TOLERANCES.
   - 7.4. SITE ROUGH GRADING: SLOPE GRADES TO DIRECT WATER AWAY FROM BUILDINGS AND TO PREVENT PONDING. FINISH SUBGRADES TO REQUIRED ELEVATIONS WITHIN THE FOLLOWING TOLERANCES:
     - 7.4.1. TURF OR UNPAVED AREAS: PLUS OR MINUS 1 INCH (25 MM).
     - 7.4.2. WALKS: PLUS OR MINUS 1 INCH (25 MM).
     - 7.4.3. PAVEMENTS: PLUS OR MINUS 1/2 INCH (13 MM).
   - 7.5. GRADING INSIDE BUILDING LINES: FINISH SUBGRADE TO A TOLERANCE OF 1/2 INCH (13 MM) WHEN TESTED WITH A 10-FOOT (3-M) STRAIGHTEDGE.
8. FIELD QUALITY CONTROL
   - 8.1. TESTING AGENCY: OWNER WILL ENGAGE A QUALIFIED GEOTECHNICAL ENGINEERING TESTING AGENCY TO PERFORM TESTS AND INSPECTIONS.
   - 8.2. ALLOW TESTING AGENCY TO INSPECT AND TEST SUBGRADES AND EACH FILL OR BACKFILL LAYER. PROCEED WITH SUBSEQUENT EARTH MOVING ONLY AFTER TEST RESULTS FOR PREVIOUSLY COMPLETED WORK COMPLY WITH REQUIREMENTS.
   - 8.3. FOOTING SUBGRADE: AT FOOTING SUBGRADES, AT LEAST ONE TEST OF EACH SOIL STRATUM WILL BE PERFORMED TO VERIFY DESIGN BEARING CAPACITIES. SUBSEQUENT VERIFICATION AND APPROVAL OF OTHER FOOTING SUBGRADES MAY BE BASED ON A VISUAL COMPARISON OF SUBGRADE WITH TESTED SUBGRADE WHEN APPROVED BY ARCHITECT.
   - 8.4. TESTING AGENCY WILL TEST COMPACTION OF SOILS IN PLACE ACCORDING TO ASTM D 1556, ASTM D 2167, ASTM D 2922, AND ASTM D 2937, AS APPLICABLE. TESTS WILL BE PERFORMED AT THE FOLLOWING LOCATIONS AND FREQUENCIES:
   - 8.5. PAVED AND BUILDING SLAB AREAS: AT SUBGRADE AND AT EACH COMPACTED FILL AND BACKFILL LAYER, AT LEAST ONE TEST FOR EVERY 2000 SQ. FT. (186 SQ. M) OR LESS OF PAVED AREA OR BUILDING SLAB, BUT IN NO CASE FEWER THAN THREE TESTS.
   - 8.6. FOUNDATION WALL BACKFILL: AT EACH COMPACTED BACKFILL LAYER, AT LEAST ONE TEST FOR EVERY 100 FEET (30 M) OR LESS OF WALL LENGTH, BUT NO FEWER THAN TWO TESTS.
   - 8.7. TRENCH BACKFILL: AT EACH COMPACTED INITIAL AND FINAL BACKFILL LAYER, AT LEAST ONE TEST FOR EVERY 150 FEET (46 M) OR LESS OF TRENCH LENGTH, BUT NO FEWER THAN TWO TESTS.
   - 8.8. WHEN TESTING AGENCY REPORTS THAT SUBGRADES, FILLS, OR BACKFILLS HAVE NOT ACHIEVED DEGREE OF COMPACTION SPECIFIED, SCARIFY AND MOISTEN OR AERATE, OR REMOVE AND REPLACE SOIL MATERIALS TO DEPTH REQUIRED; RECOMPACT AND RETEST UNTIL SPECIFIED COMPACTION IS OBTAINED.

HUNTERSVILLE CONSTRUCTION SEQUENCE:

1. INSTALL TREE / VEGETATION PROTECTION MEASURES ALONG BUFFER AREA(S) AND ANY TREE SAVE AREAS DELINEATED ON THE PLAN.
2. THE BUFFER LINE (MEASURED FROM THE CREEK BANK OR PROPERTY LINE, OR WHATEVER IS APPLICABLE) SHALL BE STAKED.
3. PROTECTION MEASURES SHALL BE INSTALLED AS DICTATED BY THE DRIP-LINE OF VEGETATION THAT IS WITHIN THE BUFFER. WHERE DRIPLINE(S) DO NOT EXTEND BEYOND THE BUFFER LINE THE BUFFER LINE SHALL BE RESPECTED.
4. TREE / VEGETATION PROTECTION MEASURES MUST BE USED WHERE ANY CLEARING OR GRADING ACTIVITIES WILL OCCUR WITHIN 100'NOF A BUFFER. PROTECTION MEASURES SHALL BE ORANGE TREE FENCING, OR CONTINUOUS FLAGGING ON VEGETATION OR STAKES. FLAGS SHOULD BE MAX. 20' ON CENTER, WHICH MAY BE USED ONLY WHERE THICK UNDERBRUSH EXISTS.
5. REQUEST TREE INSPECTION - TOWN OF HUNTERSVILLE, PLANNING STAFF (875-7000).
6. SETUP PRE-CONSTRUCTION CONFERENCE WITH MECKLENBURG COUNTY LAND DEVELOPMENT & TOWN OF HUNTERSVILLE PLANNING STAFF (875-7000).
7. CONTINUE CONSTRUCTION SEQUENCE PER MECKLENBURG COUNTY AS REQUIRED.
8. WHERE STANDARDS AND RESPONSIBILITY FOR INFRASTRUCTURE CONSTRUCTION, INCLUDING BUT NOT LIMITED TO STREETS, SIDEWALKS, AND LANDSCAPING, ARE SPECIFIED IN THE ZONING AND/OR SUBDIVISION ORDINANCES OF THE TOWN OF HUNTERSVILLE, TOWN STANDARDS SHALL CONTROL. IN THE ABSENCE OF A SPECIFIED TOWN STANDARD, CONSTRUCTION SHALL BE IN CONFORMANCE WITH THE THEN MOST RECENT VERSION OF THE CHARLOTTE-MECKLENBURG LAND DEVELOPMENT STANDARDS MANUAL (CMLDS).

CONSTRUCTION SEQUENCE:

1. OBTAIN GRADING/EROSION CONTROL PLAN APPROVAL FROM THE TOWN OF HUNTERSVILLE.
2. SET UP AN ON-SITE PRE-CONSTRUCTION CONFERENCE WITH THE FOLLOWING DEPARTMENTS: EROSION CONTROL INSPECTOR, LAND DEVELOPMENT INSPECTOR, ZONING INSPECTOR AND NCDOT. FAILURE TO SCHEDULE SUCH CONFERENCE 48 HOURS PRIOR TO ANY LAND DISTURBING ACTIVITY IS SUBJECT TO FINE.
3. INSTALL CONSTRUCTION ENTRANCE, TREE PROTECTION FENCING, SILT FENCING, DITCHES, BYPASS LINES, AND OTHER MEASURES AS SHOWN ON PLANS. CLEARING ONLY AS NECESSARY TO INSTALL THESE DEVICES. PAM TO BE INSTALLED PER COUNTY STANDARDS.
4. CALL FOR ON-SITE INSPECTION BY INSPECTOR. WHEN APPROVED, INSPECTOR ISSUES THE GRADING PERMIT AND CLEARING AND GRUBBING MAY BEGIN.
5. THE CONTRACTOR SHALL DILIGENTLY AND CONTINUOUSLY MAINTAIN ALL EROSION CONTROL DEVICES AND STRUCTURES.
6. FOR PHASED EROSION CONTROL PLANS, CONTRACTOR SHALL MEET WITH EROSION CONTROL INSPECTOR PRIOR TO COMMENCING WITH EACH PHASE OF EROSION CONTROL MEASURES.
7. THE LAND DEVELOPMENT INSPECTOR SHOULD BE CALLED TO CONDUCT INSPECTIONS ON STORM DRAINAGE, SIDEWALKS, DRIVEWAY ON STORM DRAINAGE, SIDEWALKS, DRIVE WAY IMPROVEMENTS, AND ALL ASPECTS OF ROAD CONSTRUCTION
8. STABILIZE SITE AS AREAS ARE BROUGHT TO FINISHED GRADE.
9. COORDINATE WITH EROSION CONTROL INSPECTOR PRIOR TO REMOVAL OF EROSION CONTROL MEASURES.
10. ALL EROSION CONTROL MEASURES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE N. C. EROSION AND SEDIMENT CONTROL PLANNING AND DESIGN MANUAL, U. S. DEPT. OF AGRICULTURE, AND THE TOWN OF HUNTERSVILLE

GENERAL NOTES:

1. APPROVAL OF THIS PLAN IS NOT AN AUTHORIZATION TO GRADE ADJACENT PROPERTIES. WHEN FIELD CONDITIONS WARRANT OFF-SITE GRADING, PERMISSION MUST BE OBTAINED FROM THE AFFECTED OWNERS.
2. THE DEVELOPER SHALL MAINTAIN EACH STREAM, CREEK, OR BACKWASH CHANNEL IN AN UNOBSTRUCTED STATE AND SHALL REMOVE FROM THE CHANNEL AND BANKS OF THE STREAM ALL DEBRIS, LOGS, TIMBER, JUNK AND OTHER ACCUMULATIONS.
3. COMMUNITY ENCROACHMENT LINE MUST BE MARKED AND MAINTAINED ON SITE UNTIL FINAL GRADING IS COMPLETED.
4. ANY CONSTRUCTION OR USE WITHIN THE AREAS DELINEATED AS FLOODWAY DISTRICT FRINGE BOUNDARY LINE OR FLOODWAY DISTRICT ENCROACHMENT BOUNDARY LINE IS SUBJECT TO THE RESTRICTIONS IMPOSED BY THE FLOODWAY REGULATIONS OF THE TOWN OF HUNTERSVILLE AND MECKLENBURG COUNTY.
5. THE MECKLENBURG COUNTY ENGINEERING DEPARTMENT HAS NOT REVIEWED THE STRUCTURAL STABILITY OF ANY RETAINING WALLS ON THE SITE AND DOES NOT ASSUME RESPONSIBILITY FOR THEM.
6. NON-STANDARD ITEMS (I.E.: PAVERS, IRRIGATION SYSTEMS, ETC.) IN THE RIGHT-OF-WAY REQUIRE A RIGHT-OF-WAY ENCROACHMENT AGREEMENT WITH THE NORTH CAROLINA DEPARTMENT OF TRANSPORTATION BEFORE INSTALLATION.
7. ALL ROOF DRAINS TO CONNECT TO UNDERGROUND STORM DRAINAGE SYSTEM.

1. CONTRACTOR IS FULLY RESPONSIBLE FOR CONTACTING APPROPRIATE PARTIES AND ASSURING THAT EXISTING UTILITIES ARE LOCATED PRIOR TO BEGINNING CONSTRUCTION.
2. CONTRACTOR IS RESPONSIBLE FOR PLACING BARRICADES USING FLAGMEN, ETC., AS NECESSARY TO INSURE SAFETY TO THE PUBLIC.
3. ALL PAVEMENT CUTS, CONCRETE OR ASPHALT, ARE TO BE REPLACED ACCORDING TO STANDARDS OF THE DEPARTMENT OF TRANSPORTATION.
4. SHORING WILL BE ACCORDING TO OSHA TRENCHING STANDARDS PART 1926 SUBPART P, OR AS AMENDED.

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Landscape Architecture Civil Engineering
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p: 704.875.1615f: | 704.875.0959 | www.hensonfoley.com
NC ENGINEERING BOARD LICENSE #: C-3781
NC LANDSCAPE ARCHITECTURE BOARD LICENSE #: C-399

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NORTH ARROW
0 10 20 40
GRAPHIC SCALE 1"=20 FT.

NORTH CAROLINA REGISTERED LANDSCAPE ARCHITECT 1007 TIMOTHY S. FOLEY 2/25/2021

BLACK FARM FARMHOUSE CLUSTER

PIN #01126111
14700 BLACK FARM RD, HUNTERSVILLE, NC 28078

GRADING-EROSION LOT 3

REVISIONS:
2021-09-03 TOWN AND NCDOT REV.

C10 GRADING-EROSION LOT 3.DWG
PROJECT NUMBER: 220040
DATE: 06/04/2021 DRAWN BY: TSF
SHEET C12 OF 24

SEE SHEET C08 AND C09 FOR EROSION CONTROL NOTES

MINIMUM EC MEASURES TO BE PROVIDED
SILT FENCE: 290 LF
SILT FENCE OUTLETS: 3

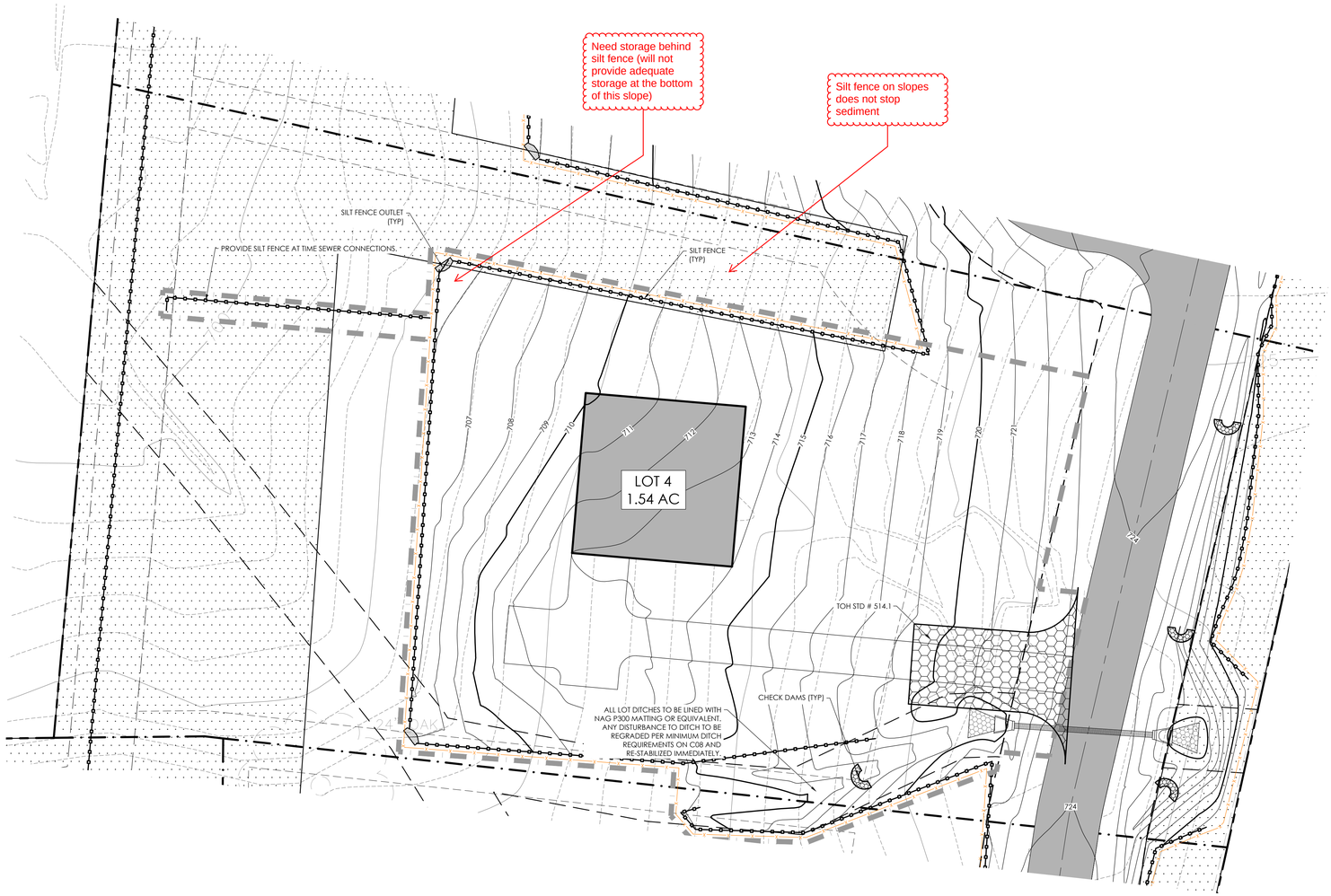
See previous note

SILT FENCE OUTLET
CHECK DAM
INLET PROTECTION
SKIMMER
RIP RAP
TREE FENCE
SILT FENCE
DENUDED LIMITS
EROSION MATTING

LEGEND

DISTURBED LIMITS(LOT 4): +/- 0.71 ACRES
TOTAL DISTURBED LIMITS: 6.00 ACRES

NOTE
LOT DISTURBED AREAS INCLUDE PORTIONS OF PHASE 1 AREA FOR DRIVEWAY CONNECTIONS, LOT GRADING BEHIND DITCHES, ETC. MINIMIZE DISTURBANCE TO EXISTING STABILIZED AREAS, CULVERT, AND DRAINAGE DITCHES. DISTURBANCE IS NOT TO EXCEED LIMITS SHOWN ON OVERALL GRADING PLAN C08.



GENERAL NOTES:

1. APPROVAL OF THIS PLAN IS NOT AN AUTHORIZATION TO GRADE ADJACENT PROPERTIES. WHEN FIELD CONDITIONS WARRANT OFF-SITE GRADING, PERMISSION MUST BE OBTAINED FROM THE AFFECTED OWNERS.
2. THE DEVELOPER SHALL MAINTAIN EACH STREAM, CREEK, OR BACKWASH CHANNEL IN AN UNOBSTRUCTED STATE AND SHALL REMOVE FROM THE CHANNEL AND BANKS OF THE STREAM ALL DEBRIS, LOGS, TIMBER, JUNK AND OTHER ACCUMULATIONS.
3. COMMUNITY ENCROACHMENT LINE MUST BE MARKED AND MAINTAINED ON SITE UNTIL FINAL GRADING IS COMPLETED.
4. ANY CONSTRUCTION OR USE WITHIN THE AREAS DELINEATED AS FLOODWAY DISTRICT FRINGE BOUNDARY LINE OR FLOODWAY DISTRICT ENCROACHMENT BOUNDARY LINE IS SUBJECT TO THE RESTRICTIONS IMPOSED BY THE FLOODWAY REGULATIONS OF THE TOWN OF HUNTERSVILLE AND MECKLENBURG COUNTY.
5. THE MECKLENBURG COUNTY ENGINEERING DEPARTMENT HAS NOT REVIEWED THE STRUCTURAL STABILITY OF ANY RETAINING WALLS ON THE SITE AND DOES NOT ASSUME RESPONSIBILITY FOR THEM.
6. NON-STANDARD ITEMS (I.E.: PAVERS, IRRIGATION SYSTEMS, ETC.) IN THE RIGHT-OF-WAY REQUIRE A RIGHT-OF-WAY ENCROACHMENT AGREEMENT WITH THE NORTH CAROLINA DEPARTMENT OF TRANSPORTATION BEFORE INSTALLATION.
7. ALL ROOF DRAINS TO CONNECT TO UNDERGROUND STORM DRAINAGE SYSTEM.

GENERAL NOTES:

1. ALL STORM WATER CATCH BASINS, INLETS, MANHOLES, ETC. SHALL BE PERMANENTLY LABELED AS "NO DUMPING, DRAINS TO RIVER" AND INCLUDE A FISH SYMBOL.
2. SOIL FILL (GEOTECH REPORT SHALL TAKE PRECEDENCE OVER THIS SPECIFICATION IF EXISTS.)
3. PLOW, SCARIFY, BENCH, OR BREAK UP SLOPED SURFACES STEEPER THAN 1 VERTICAL TO 4 HORIZONTAL SO FILL MATERIAL WILL BOND WITH EXISTING MATERIAL.
4. PLACE AND COMPACT FILL MATERIAL IN LAYERS TO REQUIRED ELEVATIONS AS FOLLOWS:
   - 4.1. UNDER GRASS AND PLANTED AREAS, USE SATISFACTORY SOIL MATERIAL.
   - 4.2. UNDER WALKS AND PAVEMENTS, USE SATISFACTORY SOIL MATERIAL.
   - 4.3. UNDER STEPS AND RAMPS, USE ENGINEERED FILL.
   - 4.4. UNDER BUILDING SLABS, USE ENGINEERED FILL.
   - 4.5. UNDER FOOTINGS AND FOUNDATIONS, USE ENGINEERED FILL.
   - 4.6. PLACE SOIL FILL ON SUBGRADES FREE OF MUD, FROST, SNOW, OR ICE.
5. SOIL MOISTURE CONTROL
   - 5.1. REVISE PERCENTAGES IN THIS ARTICLE ACCORDING TO GEOTECHNICAL ENGINEER'S WRITTEN RECOMMENDATIONS.
   - 5.2. UNIFORMLY MOISTEN OR AERATE SUBGRADE AND EACH SUBSEQUENT FILL OR BACKFILL SOIL LAYER BEFORE COMPACTION TO WITHIN 2 PERCENT OF OPTIMUM MOISTURE CONTENT.
   - 5.3. DO NOT PLACE BACKFILL OR FILL SOIL MATERIAL ON SURFACES THAT ARE MUDDY, FROZEN, OR CONTAIN FROST OR ICE.
   - 5.4. REMOVE AND REPLACE, OR SCARIFY AND AIR DRY, OTHERWISE SATISFACTORY SOIL MATERIAL THAT EXCEEDS OPTIMUM MOISTURE CONTENT BY 2 PERCENT AND IS TOO WET TO COMPACT TO SPECIFIED DRY UNIT WEIGHT.
6. COMPACTION OF SOIL BACKFILLS AND FILLS
   - 6.1. PLACE BACKFILL AND FILL SOIL MATERIALS IN LAYERS NOT MORE THAN 8 INCHES (200 MM) IN LOOSE DEPTH FOR MATERIAL COMPACTED BY HEAVY COMPACTION EQUIPMENT, AND NOT MORE THAN 4 INCHES (100 MM) IN LOOSE DEPTH FOR MATERIAL COMPACTED BY HAND-OPERATED TAMPERS.
   - 6.2. PLACE BACKFILL AND FILL SOIL MATERIALS EVENLY ON ALL SIDES OF STRUCTURES TO REQUIRED ELEVATIONS, AND UNIFORMLY ALONG THE FULL LENGTH OF EACH STRUCTURE.
   - 6.3. COMPACT SOIL MATERIALS TO NOT LESS THAN THE FOLLOWING PERCENTAGES OF MAXIMUM DRY UNIT WEIGHT ACCORDING TO ASTM D 698:
     - 6.3.1. UNDER STRUCTURES, BUILDING SLABS, STEPS, AND PAVEMENTS, SCARIFY AND RECOMPACT TOP 12 INCHES (300 MM) OF EXISTING SUBGRADE AND EACH LAYER OF BACKFILL OR FILL SOIL MATERIAL AT 100 PERCENT.
     - 6.3.2. UNDER WALKWAYS, SCARIFY AND RECOMPACT TOP 6 INCHES (150 MM) BELOW SUBGRADE AND COMPACT EACH LAYER OF BACKFILL OR FILL SOIL MATERIAL AT 95 PERCENT.
     - 6.3.3. UNDER TURF OR UNPAVED AREAS, SCARIFY AND RECOMPACT TOP 6 INCHES (150 MM) BELOW SUBGRADE AND COMPACT EACH LAYER OF BACKFILL OR FILL SOIL MATERIAL AT 85 PERCENT.
   - 6.4. FOR UTILITY TRENCHES, COMPACT EACH LAYER OF INITIAL AND FINAL BACKFILL SOIL MATERIAL AT 95 PERCENT.
7. GRADING
   - 7.1. GENERAL: UNIFORMLY GRADE AREAS TO A SMOOTH SURFACE, FREE OF IRREGULAR SURFACE CHANGES. COMPLY WITH COMPACTION REQUIREMENTS AND GRADE TO CROSS SECTIONS, LINES, AND ELEVATIONS INDICATED.
   - 7.2. PROVIDE A SMOOTH TRANSITION BETWEEN ADJACENT EXISTING GRADES AND NEW GRADES.
   - 7.3. CUT OUT SOFT SPOTS, FILL LOW SPOTS, AND TRIM HIGH SPOTS TO COMPLY WITH REQUIRED SURFACE TOLERANCES.
   - 7.4. SITE ROUGH GRADING: SLOPE GRADES TO DIRECT WATER AWAY FROM BUILDINGS AND TO PREVENT PONDING. FINISH SUBGRADES TO REQUIRED ELEVATIONS WITHIN THE FOLLOWING TOLERANCES:
     - 7.4.1. TURF OR UNPAVED AREAS: PLUS OR MINUS 1 INCH (25 MM).
     - 7.4.2. WALKS: PLUS OR MINUS 1 INCH (25 MM).
     - 7.4.3. PAVEMENTS: PLUS OR MINUS 1/2 INCH (13 MM).
   - 7.5. GRADING INSIDE BUILDING LINES: FINISH SUBGRADE TO A TOLERANCE OF 1/2 INCH (13 MM) WHEN TESTED WITH A 10-FOOT (3-M) STRAIGHTEDGE.
8. FIELD QUALITY CONTROL
   - 8.1. TESTING AGENCY: OWNER WILL ENGAGE A QUALIFIED GEOTECHNICAL ENGINEERING TESTING AGENCY TO PERFORM TESTS AND INSPECTIONS.
   - 8.2. ALLOW TESTING AGENCY TO INSPECT AND TEST SUBGRADES AND EACH FILL OR BACKFILL LAYER. PROCEED WITH SUBSEQUENT EARTH MOVING ONLY AFTER TEST RESULTS FOR PREVIOUSLY COMPLETED WORK COMPLY WITH REQUIREMENTS.
   - 8.3. FOOTING SUBGRADE: AT FOOTING SUBGRADES, AT LEAST ONE TEST OF EACH SOIL STRATUM WILL BE PERFORMED TO VERIFY DESIGN BEARING CAPACITIES. SUBSEQUENT VERIFICATION AND APPROVAL OF OTHER FOOTING SUBGRADES MAY BE BASED ON A VISUAL COMPARISON OF SUBGRADE WITH TESTED SUBGRADE WHEN APPROVED BY ARCHITECT.
   - 8.4. TESTING AGENCY WILL TEST COMPACTION OF SOILS IN PLACE ACCORDING TO ASTM D 1556, ASTM D 2167, ASTM D 2922, AND ASTM D 2937, AS APPLICABLE. TESTS WILL BE PERFORMED AT THE FOLLOWING LOCATIONS AND FREQUENCIES:
   - 8.5. PAVED AND BUILDING SLAB AREAS: AT SUBGRADE AND AT EACH COMPACTED FILL AND BACKFILL LAYER, AT LEAST ONE TEST FOR EVERY 2000 SQ. FT. (186 SQ. M) OR LESS OF PAVED AREA OR BUILDING SLAB, BUT IN NO CASE FEWER THAN THREE TESTS.
   - 8.6. FOUNDATION WALL BACKFILL: AT EACH COMPACTED BACKFILL LAYER, AT LEAST ONE TEST FOR EVERY 100 FEET (30 M) OR LESS OF WALL LENGTH, BUT NO FEWER THAN TWO TESTS.
   - 8.7. TRENCH BACKFILL: AT EACH COMPACTED INITIAL AND FINAL BACKFILL LAYER, AT LEAST ONE TEST FOR EVERY 150 FEET (46 M) OR LESS OF TRENCH LENGTH, BUT NO FEWER THAN TWO TESTS.
   - 8.8. WHEN TESTING AGENCY REPORTS THAT SUBGRADES, FILLS, OR BACKFILLS HAVE NOT ACHIEVED DEGREE OF COMPACTION SPECIFIED, SCARIFY AND MOISTEN OR AERATE, OR REMOVE AND REPLACE SOIL MATERIALS TO DEPTH REQUIRED; RECOMPACT AND RETEST UNTIL SPECIFIED COMPACTION IS OBTAINED.

HUNTERSVILLE CONSTRUCTION SEQUENCE:

1. INSTALL TREE / VEGETATION PROTECTION MEASURES ALONG BUFFER AREA(S) AND ANY TREE SAVE AREAS DELINEATED ON THE PLAN.
2. THE BUFFER LINE (MEASURED FROM THE CREEK BANK OR PROPERTY LINE, OR WHATEVER IS APPLICABLE) SHALL BE STAKED.
3. PROTECTION MEASURES SHALL BE INSTALLED AS DICTATED BY THE DRIP-LINE OF VEGETATION THAT IS WITHIN THE BUFFER. WHERE DRIPLINE(S) DO NOT EXTEND BEYOND THE BUFFER LINE THE BUFFER LINE SHALL BE RESPECTED.
4. TREE / VEGETATION PROTECTION MEASURES MUST BE USED WHERE ANY CLEARING OR GRADING ACTIVITIES WILL OCCUR WITHIN 100' NOF A BUFFER. PROTECTION MEASURES SHALL BE ORANGE TREE FENCING, OR CONTINUOUS FLAGGING ON VEGETATION OR STAKES. FLAGS SHOULD BE MAX. 20' ON CENTER, WHICH MAY BE USED ONLY WHERE THICK UNDERBRUSH EXISTS.
5. REQUEST TREE INSPECTION - TOWN OF HUNTERSVILLE, PLANNING STAFF (875-7000).
6. SETUP PRE-CONSTRUCTION CONFERENCE WITH MECKLENBURG COUNTY LAND DEVELOPMENT & TOWN OF HUNTERSVILLE PLANNING STAFF (875-7000).
7. CONTINUE CONSTRUCTION SEQUENCE PER MECKLENBURG COUNTY AS REQUIRED.
8. WHERE STANDARDS AND RESPONSIBILITY FOR INFRASTRUCTURE CONSTRUCTION, INCLUDING BUT NOT LIMITED TO STREETS, SIDEWALKS, AND LANDSCAPING, ARE SPECIFIED IN THE ZONING AND/OR SUBDIVISION ORDINANCES OF THE TOWN OF HUNTERSVILLE, TOWN STANDARDS SHALL CONTROL. IN THE ABSENCE OF A SPECIFIED TOWN STANDARD, CONSTRUCTION SHALL BE IN CONFORMANCE WITH THE THEN MOST RECENT VERSION OF THE CHARLOTTE-MECKLENBURG LAND DEVELOPMENT STANDARDS MANUAL (CMLDS).

CONSTRUCTION SEQUENCE:

1. OBTAIN GRADING/EROSION CONTROL PLAN APPROVAL FROM THE TOWN OF HUNTERSVILLE.
2. SET UP AN ON-SITE PRE-CONSTRUCTION CONFERENCE WITH THE FOLLOWING DEPARTMENTS: EROSION CONTROL INSPECTOR, LAND DEVELOPMENT INSPECTOR, ZONING INSPECTOR AND NCDOT. FAILURE TO SCHEDULE SUCH CONFERENCE 48 HOURS PRIOR TO ANY LAND DISTURBING ACTIVITY IS SUBJECT TO FINE.
3. INSTALL CONSTRUCTION ENTRANCE, TREE PROTECTION FENCING, SILT FENCING, DITCHES, BYPASS LINES, AND OTHER MEASURES AS SHOWN ON PLANS, CLEARING ONLY AS NECESSARY TO INSTALL THESE DEVICES. PAM TO BE INSTALLED PER COUNTY STANDARDS.
4. CALL FOR ON-SITE INSPECTION BY INSPECTOR. WHEN APPROVED, INSPECTOR ISSUES THE GRADING PERMIT AND CLEARING AND GRUBBING MAY BEGIN.
5. THE CONTRACTOR SHALL DILIGENTLY AND CONTINUOUSLY MAINTAIN ALL EROSION CONTROL DEVICES AND STRUCTURES.
6. FOR PHASED EROSION CONTROL PLANS, CONTRACTOR SHALL MEET WITH EROSION CONTROL INSPECTOR PRIOR TO COMMENCING WITH EACH PHASE OF EROSION CONTROL MEASURES.
7. THE LAND DEVELOPMENT INSPECTOR SHOULD BE CALLED TO CONDUCT INSPECTIONS ON STORM DRAINAGE, SIDEWALKS, DRIVEWAY ON STORM DRAINAGE, SIDEWALKS, DRIVE WAY IMPROVEMENTS, AND ALL ASPECTS OF ROAD CONSTRUCTION
8. STABILIZE SITE AS AREAS ARE BROUGHT TO FINISHED GRADE.
9. COORDINATE WITH EROSION CONTROL INSPECTOR PRIOR TO REMOVAL OF EROSION CONTROL MEASURES.
10. ALL EROSION CONTROL MEASURES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE N. C. EROSION AND SEDIMENT CONTROL PLANNING AND DESIGN MANUAL, U. S. DEPT. OF AGRICULTURE, AND THE TOWN OF HUNTERSVILLE

1. CONTRACTOR IS FULLY RESPONSIBLE FOR CONTACTING APPROPRIATE PARTIES AND ASSURING THAT EXISTING UTILITIES ARE LOCATED PRIOR TO BEGINNING CONSTRUCTION.
2. CONTRACTOR IS RESPONSIBLE FOR PLACING BARRICADES USING FLAGMEN, ETC., AS NECESSARY TO INSURE SAFETY TO THE PUBLIC.
3. ALL PAVEMENT CUTS, CONCRETE OR ASPHALT, ARE TO BE REPLACED ACCORDING TO STANDARDS OF THE DEPARTMENT OF TRANSPORTATION.
4. SHORING WILL BE ACCORDING TO OSHA TRENCHING STANDARDS PART 1926 SUBPART P, OR AS AMENDED.

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NORTH ARROW
0 10 20 40
GRAPHIC SCALE 1"=20 FT.

NORTH CAROLINA REGISTERED LANDSCAPE ARCHITECT 1000 PHILIP T. HENSON 2021

BLACK FARM FARMHOUSE CLUSTER

PIN #01126111
14700 BLACK FARM RD, HUNTERSVILLE, NC 28078

GRADING-EROSION LOT 4

REVISIONS:
2021-09-03 TOWN AND NCDOT REV.

C11 GRADING-EROSION LOT 4.DWG
PROJECT NUMBER: 220040
DATE: 06/04/2021 DRAWN BY: TSF
SHEET C13 OF 24

SEE SHEET C08 AND C09 FOR EROSION CONTROL NOTES

MINIMUM EC MEASURES TO BE PROVIDED
SILT FENCE: 210 LF
SILT FENCE OUTLETS: 4

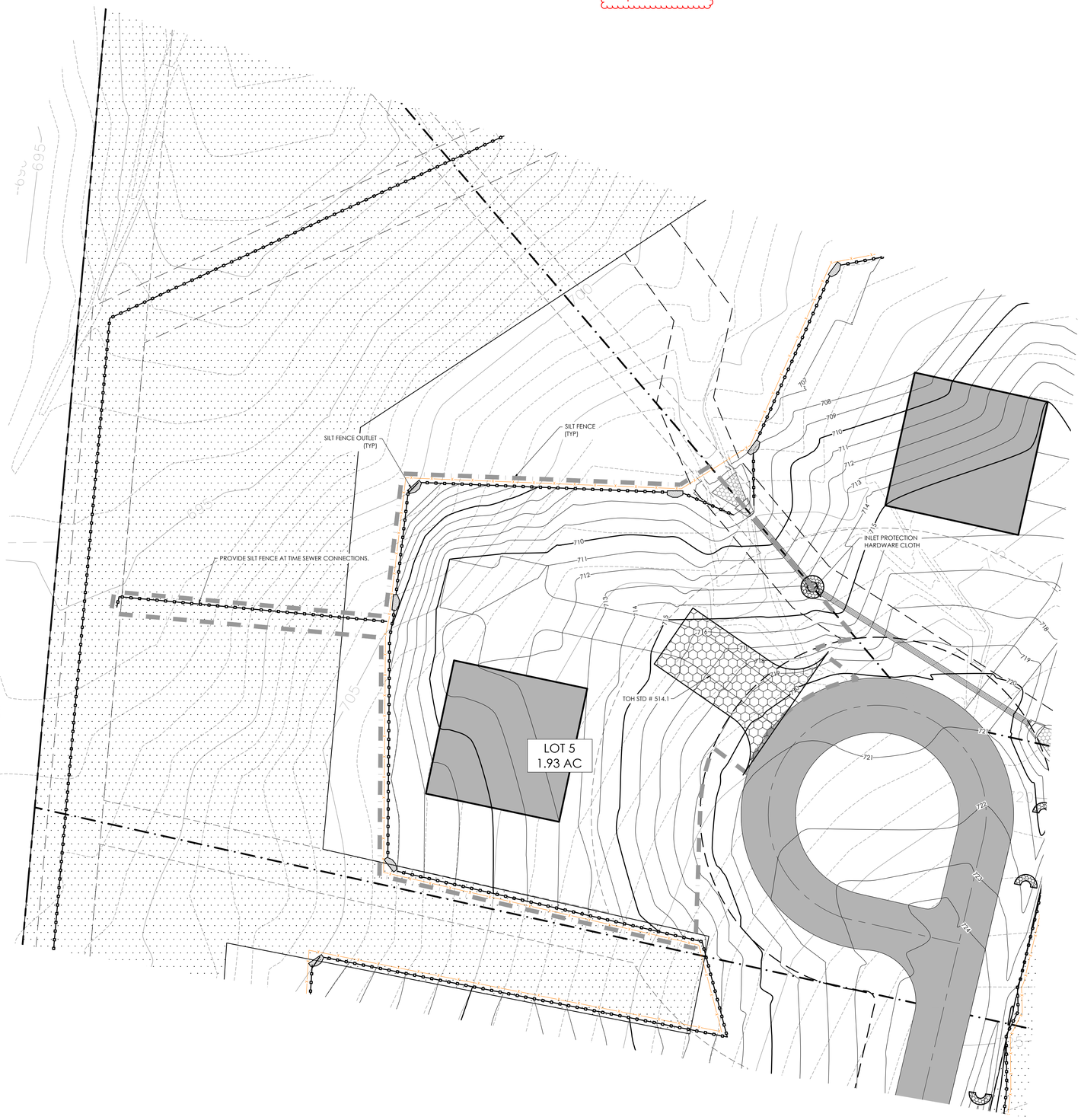
SILT FENCE OUTLET
CHECK DAM
INLET PROTECTION
SKIMMER
RIP RAP
TREE FENCE
SILT FENCE
DENUDED LIMITS
EROSION MATTING

LEGEND

DISTURBED LIMITS(LOT 5): +/- 0.52 ACRES
TOTAL DISTURBED LIMITS: 6.00 ACRES

NOTE
LOT DISTURBED AREAS INCLUDE PORTIONS OF PHASE 1 AREA FOR DRIVEWAY CONNECTIONS, LOT GRADING BEHIND DITCHES, ETC. MINIMIZE DISTURBANCE TO EXISTING STABILIZED AREAS, CULVERT, AND DRAINAGE DITCHES. DISTURBANCE IS NOT TO EXCEED LIMITS SHOWN ON OVERALL GRADING PLAN C08.

See previous comments



GENERAL NOTES:

1. ALL STORM WATER CATCH BASINS, INLETS, MANHOLES, ETC. SHALL BE PERMANENTLY LABELED AS "NO DUMPING, DRAINS TO RIVER" AND INCLUDE A FISH SYMBOL.
2. SOIL FILL (GEOTECH REPORT SHALL TAKE PRECEDENCE OVER THIS SPECIFICATION IF EXISTS.)
3. PLOW, SCARIFY, BENCH, OR BREAK UP SLOPED SURFACES STEEPER THAN 1 VERTICAL TO 4 HORIZONTAL SO FILL MATERIAL WILL BOND WITH EXISTING MATERIAL.
4. PLACE AND COMPACT FILL MATERIAL IN LAYERS TO REQUIRED ELEVATIONS AS FOLLOWS:
   - 4.1. UNDER GRASS AND PLANTED AREAS, USE SATISFACTORY SOIL MATERIAL.
   - 4.2. UNDER WALKS AND PAVEMENTS, USE SATISFACTORY SOIL MATERIAL.
   - 4.3. UNDER STEPS AND RAMPS, USE ENGINEERED FILL.
   - 4.4. UNDER BUILDING SLABS, USE ENGINEERED FILL.
   - 4.5. UNDER FOOTINGS AND FOUNDATIONS, USE ENGINEERED FILL.
   - 4.6. PLACE SOIL FILL ON SUBGRADES FREE OF MUD, FROST, SNOW, OR ICE.
5. SOIL MOISTURE CONTROL
   - 5.1. REVISE PERCENTAGES IN THIS ARTICLE ACCORDING TO GEOTECHNICAL ENGINEER'S WRITTEN RECOMMENDATIONS.
   - 5.2. UNIFORMLY MOISTEN OR AERATE SUBGRADE AND EACH SUBSEQUENT FILL OR BACKFILL SOIL LAYER BEFORE COMPACTION TO WITHIN 2 PERCENT OF OPTIMUM MOISTURE CONTENT.
   - 5.3. DO NOT PLACE BACKFILL OR FILL SOIL MATERIAL ON SURFACES THAT ARE MUDDY, FROZEN, OR CONTAIN FROST OR ICE.
   - 5.4. REMOVE AND REPLACE, OR SCARIFY AND AIR DRY, OTHERWISE SATISFACTORY SOIL MATERIAL THAT EXCEEDS OPTIMUM MOISTURE CONTENT BY 2 PERCENT AND IS TOO WET TO COMPACT TO SPECIFIED DRY UNIT WEIGHT.
6. COMPACTION OF SOIL BACKFILLS AND FILLS
   - 6.1. PLACE BACKFILL AND FILL SOIL MATERIALS IN LAYERS NOT MORE THAN 8 INCHES (200 MM) IN LOOSE DEPTH FOR MATERIAL COMPACTED BY HEAVY COMPACTION EQUIPMENT, AND NOT MORE THAN 4 INCHES (100 MM) IN LOOSE DEPTH FOR MATERIAL COMPACTED BY HAND-OPERATED TAMPERS.
   - 6.2. PLACE BACKFILL AND FILL SOIL MATERIALS EVENLY ON ALL SIDES OF STRUCTURES TO REQUIRED ELEVATIONS, AND UNIFORMLY ALONG THE FULL LENGTH OF EACH STRUCTURE.
   - 6.3. COMPACT SOIL MATERIALS TO NOT LESS THAN THE FOLLOWING PERCENTAGES OF MAXIMUM DRY UNIT WEIGHT ACCORDING TO ASTM D 698:
     - 6.3.1. UNDER STRUCTURES, BUILDING SLABS, STEPS, AND PAVEMENTS, SCARIFY AND RECOMPACT TOP 12 INCHES (300 MM) OF EXISTING SUBGRADE AND EACH LAYER OF BACKFILL OR FILL SOIL MATERIAL AT 100 PERCENT.
     - 6.3.2. UNDER WALKWAYS, SCARIFY AND RECOMPACT TOP 6 INCHES (150 MM) BELOW SUBGRADE AND COMPACT EACH LAYER OF BACKFILL OR FILL SOIL MATERIAL AT 95 PERCENT.
     - 6.3.3. UNDER TURF OR UNPAVED AREAS, SCARIFY AND RECOMPACT TOP 6 INCHES (150 MM) BELOW SUBGRADE AND COMPACT EACH LAYER OF BACKFILL OR FILL SOIL MATERIAL AT 85 PERCENT.
   - 6.4. FOR UTILITY TRENCHES, COMPACT EACH LAYER OF INITIAL AND FINAL BACKFILL SOIL MATERIAL AT 95 PERCENT.
7. GRADING
   - 7.1. GENERAL: UNIFORMLY GRADE AREAS TO A SMOOTH SURFACE, FREE OF IRREGULAR SURFACE CHANGES. COMPLY WITH COMPACTION REQUIREMENTS AND GRADE TO CROSS SECTIONS, LINES, AND ELEVATIONS INDICATED.
   - 7.2. PROVIDE A SMOOTH TRANSITION BETWEEN ADJACENT EXISTING GRADES AND NEW GRADES.
   - 7.3. CUT OUT SOFT SPOTS, FILL LOW SPOTS, AND TRIM HIGH SPOTS TO COMPLY WITH REQUIRED SURFACE TOLERANCES.
   - 7.4. SITE ROUGH GRADING: SLOPE GRADES TO DIRECT WATER AWAY FROM BUILDINGS AND TO PREVENT PONDING. FINISH SUBGRADES TO REQUIRED ELEVATIONS WITHIN THE FOLLOWING TOLERANCES:
     - 7.4.1. TURF OR UNPAVED AREAS: PLUS OR MINUS 1 INCH (25 MM).
     - 7.4.2. WALKS: PLUS OR MINUS 1 INCH (25 MM).
     - 7.4.3. PAVEMENTS: PLUS OR MINUS 1/2 INCH (13 MM).
   - 7.5. GRADING INSIDE BUILDING LINES: FINISH SUBGRADE TO A TOLERANCE OF 1/2 INCH (13 MM) WHEN TESTED WITH A 10-FOOT (3-M) STRAIGHTEDGE.
8. FIELD QUALITY CONTROL
   - 8.1. TESTING AGENCY: OWNER WILL ENGAGE A QUALIFIED GEOTECHNICAL ENGINEERING TESTING AGENCY TO PERFORM TESTS AND INSPECTIONS.
   - 8.2. ALLOW TESTING AGENCY TO INSPECT AND TEST SUBGRADES AND EACH FILL OR BACKFILL LAYER. PROCEED WITH SUBSEQUENT EARTH MOVING ONLY AFTER TEST RESULTS FOR PREVIOUSLY COMPLETED WORK COMPLY WITH REQUIREMENTS.
   - 8.3. FOOTING SUBGRADE: AT FOOTING SUBGRADES, AT LEAST ONE TEST OF EACH SOIL STRATUM WILL BE PERFORMED TO VERIFY DESIGN BEARING CAPACITIES. SUBSEQUENT VERIFICATION AND APPROVAL OF OTHER FOOTING SUBGRADES MAY BE BASED ON A VISUAL COMPARISON OF SUBGRADE WITH TESTED SUBGRADE WHEN APPROVED BY ARCHITECT.
   - 8.4. TESTING AGENCY WILL TEST COMPACTION OF SOILS IN PLACE ACCORDING TO ASTM D 1556, ASTM D 2167, ASTM D 2922, AND ASTM D 2937, AS APPLICABLE. TESTS WILL BE PERFORMED AT THE FOLLOWING LOCATIONS AND FREQUENCIES:
   - 8.5. PAVED AND BUILDING SLAB AREAS: AT SUBGRADE AND AT EACH COMPACTED FILL AND BACKFILL LAYER, AT LEAST ONE TEST FOR EVERY 2000 SQ. FT. (186 SQ. M) OR LESS OF PAVED AREA OR BUILDING SLAB, BUT IN NO CASE FEWER THAN THREE TESTS.
   - 8.6. FOUNDATION WALL BACKFILL: AT EACH COMPACTED BACKFILL LAYER, AT LEAST ONE TEST FOR EVERY 100 FEET (30 M) OR LESS OF WALL LENGTH, BUT NO FEWER THAN TWO TESTS.
   - 8.7. TRENCH BACKFILL: AT EACH COMPACTED INITIAL AND FINAL BACKFILL LAYER, AT LEAST ONE TEST FOR EVERY 150 FEET (46 M) OR LESS OF TRENCH LENGTH, BUT NO FEWER THAN TWO TESTS.
   - 8.8. WHEN TESTING AGENCY REPORTS THAT SUBGRADES, FILLS, OR BACKFILLS HAVE NOT ACHIEVED DEGREE OF COMPACTION SPECIFIED, SCARIFY AND MOISTEN OR AERATE, OR REMOVE AND REPLACE SOIL MATERIALS TO DEPTH REQUIRED; RECOMPACT AND RETEST UNTIL SPECIFIED COMPACTION IS OBTAINED.

HUNTERSVILLE CONSTRUCTION SEQUENCE:

1. INSTALL TREE / VEGETATION PROTECTION MEASURES ALONG BUFFER AREA(S) AND ANY TREE SAVE AREAS DELINEATED ON THE PLAN.
2. THE BUFFER LINE (MEASURED FROM THE CREEK BANK OR PROPERTY LINE, OR WHATEVER IS APPLICABLE) SHALL BE STAKED.
3. PROTECTION MEASURES SHALL BE INSTALLED AS DICTATED BY THE DRIP-LINE OF VEGETATION THAT IS WITHIN THE BUFFER. WHERE DRIPLINE(S) DO NOT EXTEND BEYOND THE BUFFER LINE THE BUFFER LINE SHALL BE RESPECTED.
4. TREE / VEGETATION PROTECTION MEASURES MUST BE USED WHERE ANY CLEARING OR GRADING ACTIVITIES WILL OCCUR WITHIN 100'NOF A BUFFER. PROTECTION MEASURES SHALL BE ORANGE TREE FENCING, OR CONTINUOUS FLAGGING ON VEGETATION OR STAKES. FLAGS SHOULD BE MAX. 20' ON CENTER, WHICH MAY BE USED ONLY WHERE THICK UNDERBRUSH EXISTS.
5. REQUEST TREE INSPECTION - TOWN OF HUNTERSVILLE, PLANNING STAFF (875-7000).
6. SETUP PRE-CONSTRUCTION CONFERENCE WITH MECKLENBURG COUNTY LAND DEVELOPMENT & TOWN OF HUNTERSVILLE PLANNING STAFF (875-7000).
7. CONTINUE CONSTRUCTION SEQUENCE PER MECKLENBURG COUNTY AS REQUIRED.
8. WHERE STANDARDS AND RESPONSIBILITY FOR INFRASTRUCTURE CONSTRUCTION, INCLUDING BUT NOT LIMITED TO STREETS, SIDEWALKS, AND LANDSCAPING, ARE SPECIFIED IN THE ZONING AND/OR SUBDIVISION ORDINANCES OF THE TOWN OF HUNTERSVILLE, TOWN STANDARDS SHALL CONTROL. IN THE ABSENCE OF A SPECIFIED TOWN STANDARD, CONSTRUCTION SHALL BE IN CONFORMANCE WITH THE THEN MOST RECENT VERSION OF THE CHARLOTTE-MECKLENBURG LAND DEVELOPMENT STANDARDS MANUAL (CMLDS).

CONSTRUCTION SEQUENCE:

1. OBTAIN GRADING/EROSION CONTROL PLAN APPROVAL FROM THE TOWN OF HUNTERSVILLE.
2. SET UP AN ON-SITE PRE-CONSTRUCTION CONFERENCE WITH THE FOLLOWING DEPARTMENTS: EROSION CONTROL INSPECTOR, LAND DEVELOPMENT INSPECTOR, ZONING INSPECTOR AND NCDOT. FAILURE TO SCHEDULE SUCH CONFERENCE 48 HOURS PRIOR TO ANY LAND DISTURBING ACTIVITY IS SUBJECT TO FINE.
3. INSTALL CONSTRUCTION ENTRANCE, TREE PROTECTION FENCING, SILT FENCING, DITCHES, BYPASS LINES, AND OTHER MEASURES AS SHOWN ON PLANS. CLEARING ONLY AS NECESSARY TO INSTALL THESE DEVICES, PAM TO BE INSTALLED PER COUNTY STANDARDS.
4. CALL FOR ON-SITE INSPECTION BY INSPECTOR. WHEN APPROVED, INSPECTOR ISSUES THE GRADING PERMIT AND CLEARING AND GRUBBING MAY BEGIN.
5. THE CONTRACTOR SHALL DILIGENTLY AND CONTINUOUSLY MAINTAIN ALL EROSION CONTROL DEVICES AND STRUCTURES.
6. FOR PHASED EROSION CONTROL PLANS, CONTRACTOR SHALL MEET WITH EROSION CONTROL INSPECTOR PRIOR TO COMMENCING WITH EACH PHASE OF EROSION CONTROL MEASURES.
7. THE LAND DEVELOPMENT INSPECTOR SHOULD BE CALLED TO CONDUCT INSPECTIONS ON STORM DRAINAGE, SIDEWALKS, DRIVEWAY ON STORM DRAINAGE, SIDEWALKS, DRIVE WAY IMPROVEMENTS, AND ALL ASPECTS OF ROAD CONSTRUCTION
8. STABILIZE SITE AS AREAS ARE BROUGHT TO FINISHED GRADE.
9. COORDINATE WITH EROSION CONTROL INSPECTOR PRIOR TO REMOVAL OF EROSION CONTROL MEASURES.
10. ALL EROSION CONTROL MEASURES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE N. C. EROSION AND SEDIMENT CONTROL PLANNING AND DESIGN MANUAL, U. S. DEPT. OF AGRICULTURE, AND THE TOWN OF HUNTERSVILLE

GENERAL NOTES:

1. APPROVAL OF THIS PLAN IS NOT AN AUTHORIZATION TO GRADE ADJACENT PROPERTIES. WHEN FIELD CONDITIONS WARRANT OFF-SITE GRADING, PERMISSION MUST BE OBTAINED FROM THE AFFECTED OWNERS.
2. THE DEVELOPER SHALL MAINTAIN EACH STREAM, CREEK, OR BACKWASH CHANNEL IN AN UNOBSTRUCTED STATE AND SHALL REMOVE FROM THE CHANNEL AND BANKS OF THE STREAM ALL DEBRIS, LOGS, TIMBER, JUNK AND OTHER ACCUMULATIONS.
3. COMMUNITY ENCROACHMENT LINE MUST BE MARKED AND MAINTAINED ON SITE UNTIL FINAL GRADING IS COMPLETED.
4. ANY CONSTRUCTION OR USE WITHIN THE AREAS DELINEATED AS FLOODWAY DISTRICT FRINGE BOUNDARY LINE OR FLOODWAY DISTRICT ENCROACHMENT BOUNDARY LINE IS SUBJECT TO THE RESTRICTIONS IMPOSED BY THE FLOODWAY REGULATIONS OF THE TOWN OF HUNTERSVILLE AND MECKLENBURG COUNTY.
5. THE MECKLENBURG COUNTY ENGINEERING DEPARTMENT HAS NOT REVIEWED THE STRUCTURAL STABILITY OF ANY RETAINING WALLS ON THE SITE AND DOES NOT ASSUME RESPONSIBILITY FOR THEM.
6. NON-STANDARD ITEMS (I.E.: PAVERS, IRRIGATION SYSTEMS, ETC.) IN THE RIGHT-OF-WAY REQUIRE A RIGHT-OF-WAY ENCROACHMENT AGREEMENT WITH THE NORTH CAROLINA DEPARTMENT OF TRANSPORTATION BEFORE INSTALLATION.
7. ALL ROOF DRAINS TO CONNECT TO UNDERGROUND STORM DRAINAGE SYSTEM.

1. CONTRACTOR IS FULLY RESPONSIBLE FOR CONTACTING APPROPRIATE PARTIES AND ASSURING THAT EXISTING UTILITIES ARE LOCATED PRIOR TO BEGINNING CONSTRUCTION.
2. CONTRACTOR IS RESPONSIBLE FOR PLACING BARRICADES USING FLAGMEN, ETC., AS NECESSARY TO INSURE SAFETY TO THE PUBLIC.
3. ALL PAVEMENT CUTS, CONCRETE OR ASPHALT, ARE TO BE REPLACED ACCORDING TO STANDARDS OF THE DEPARTMENT OF TRANSPORTATION.
4. SHORING WILL BE ACCORDING TO OSHA TRENCHING STANDARDS PART 1926 SUBPART P, OR AS AMENDED.

811 Know what's below. Call before you dig.

HensonFoley
Landscape Architecture Civil Engineering
8712 Lindholm Dr Suite 202A, Huntersville NC 28078
p: 704.875.1615f: | 704.875.0959 | www.hensonfoley.com
NC ENGINEERING BOARD LICENSE #: C-3781
NC LANDSCAPE ARCHITECTURE BOARD LICENSE #: C-399

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N
W E
S
NORTH ARROW
0 10 20 40
GRAPHIC SCALE 1"=20 FT.

NORTH CAROLINA REGISTERED LANDSCAPE ARCHITECT 1615 PAUL HENSON

BLACK FARM FARMHOUSE CLUSTER

PIN #01126111
14700 BLACK FARM RD, HUNTERSVILLE, NC 28078

GRADING-EROSION LOT 5

REVISIONS:
2021-09-03 TOWN AND NCDOT REV.

C12 GRADING-EROSION LOT 5.DWG
PROJECT NUMBER: 220040
DATE: 06/04/2021 DRAWN BY: TSF
SHEET C14 OF 24

C12 GRADING-EROSION LOT 5.DWG - PLOT: Justin - FRI. 9-3-2021 10:16 AM

SEE SHEET C08 AND C09 FOR EROSION CONTROL NOTES

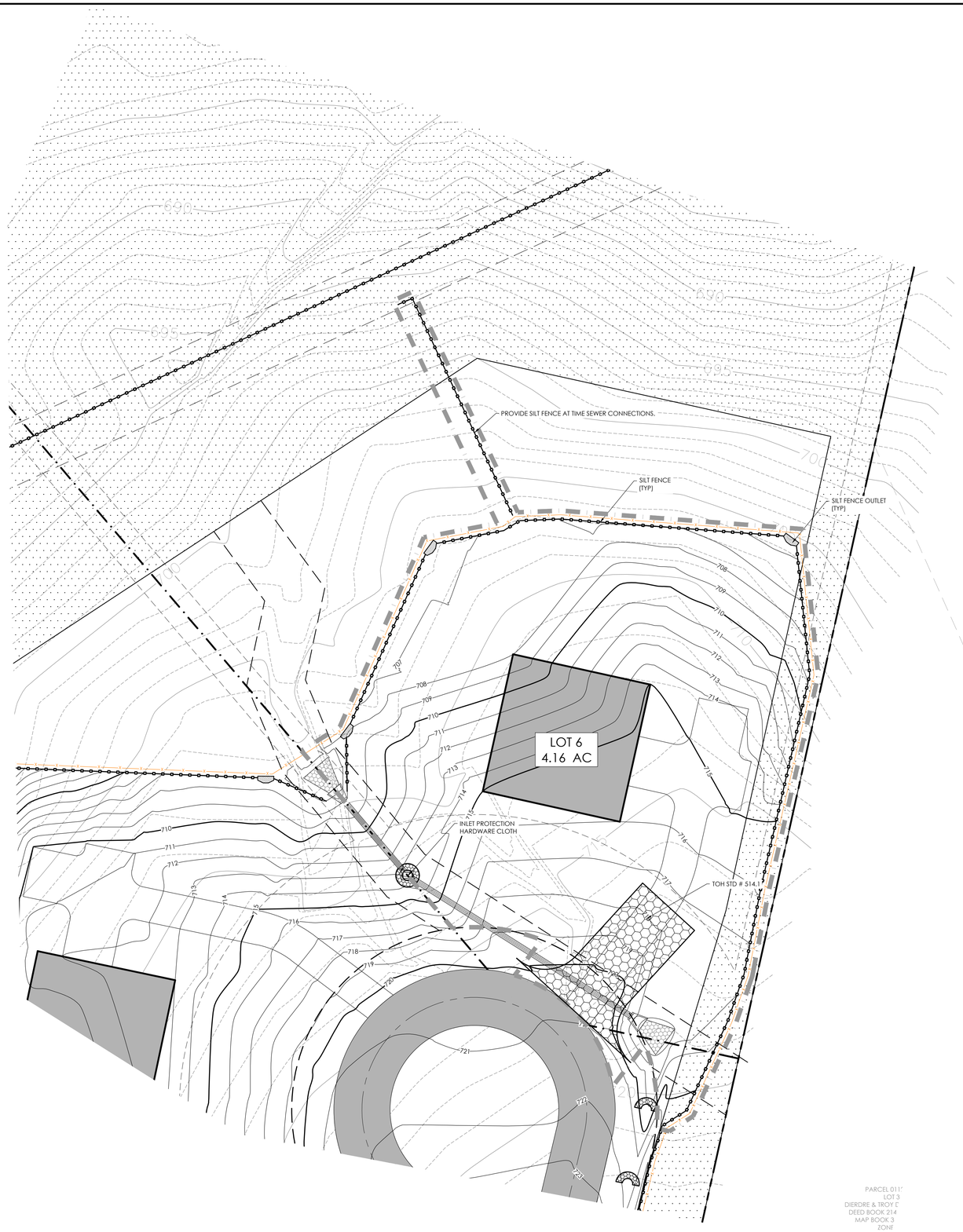
SILT FENCE OUTLET
CHECK DAM
INLET PROTECTION
SKIMMER
RIP RAP
TREE FENCE
SILT FENCE
DENUDED LIMITS
EROSION MATTING

LEGEND

DISTURBED LIMITS(LOT 6): +/- 0.59 ACRES
TOTAL DISTURBED LIMITS: 6.00 ACRES

NOTE
LOT DISTURBED AREAS INCLUDE PORTIONS OF PHASE 1 AREA FOR DRIVEWAY CONNECTIONS, LOT GRADING BEHIND DITCHES, ETC. MINIMIZE DISTURBANCE TO EXISTING STABILIZED AREAS, CULVERT, AND DRAINAGE DITCHES. DISTURBANCE IS NOT TO EXCEED LIMITS SHOWN ON OVERALL GRADING PLAN C08.

MINIMUM EC MEASURES TO BE PROVIDED
SILT FENCE: 240 LF
SILT FENCE OUTLETS: 3



GENERAL NOTES:

1. ALL STORM WATER CATCH BASINS, INLETS, MANHOLES, ETC. SHALL BE PERMANENTLY LABELED AS "NO DUMPING, DRAINS TO RIVER" AND INCLUDE A FISH SYMBOL.
2. SOIL FILL (GEOTECH REPORT SHALL TAKE PRECEDENCE OVER THIS SPECIFICATION IF EXISTS.)
3. PLOW, SCARIFY, BENCH, OR BREAK UP SLOPED SURFACES STEEPER THAN 1 VERTICAL TO 4 HORIZONTAL SO FILL MATERIAL WILL BOND WITH EXISTING MATERIAL.
4. PLACE AND COMPACT FILL MATERIAL IN LAYERS TO REQUIRED ELEVATIONS AS FOLLOWS:
   - 4.1. UNDER GRASS AND PLANTED AREAS, USE SATISFACTORY SOIL MATERIAL.
   - 4.2. UNDER WALKS AND PAVEMENTS, USE SATISFACTORY SOIL MATERIAL.
   - 4.3. UNDER STEPS AND RAMPS, USE ENGINEERED FILL.
   - 4.4. UNDER BUILDING SLABS, USE ENGINEERED FILL.
   - 4.5. UNDER FOOTINGS AND FOUNDATIONS, USE ENGINEERED FILL.
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   - 6.1. PLACE BACKFILL AND FILL SOIL MATERIALS IN LAYERS NOT MORE THAN 8 INCHES (200 MM) IN LOOSE DEPTH FOR MATERIAL COMPACTED BY HEAVY COMPACTION EQUIPMENT, AND NOT MORE THAN 4 INCHES (100 MM) IN LOOSE DEPTH FOR MATERIAL COMPACTED BY HAND-OPERATED TAMPERS.
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   - 6.3. COMPACT SOIL MATERIALS TO NOT LESS THAN THE FOLLOWING PERCENTAGES OF MAXIMUM DRY UNIT WEIGHT ACCORDING TO ASTM D 698:
     - 6.3.1. UNDER STRUCTURES, BUILDING SLABS, STEPS, AND PAVEMENTS, SCARIFY AND RECOMPACT TOP 12 INCHES (300 MM) OF EXISTING SUBGRADE AND EACH LAYER OF BACKFILL OR FILL SOIL MATERIAL AT 100 PERCENT.
     - 6.3.2. UNDER WALKWAYS, SCARIFY AND RECOMPACT TOP 6 INCHES (150 MM) BELOW SUBGRADE AND COMPACT EACH LAYER OF BACKFILL OR FILL SOIL MATERIAL AT 95 PERCENT.
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   - 7.2. PROVIDE A SMOOTH TRANSITION BETWEEN ADJACENT EXISTING GRADES AND NEW GRADES.
   - 7.3. CUT OUT SOFT SPOTS, FILL LOW SPOTS, AND TRIM HIGH SPOTS TO COMPLY WITH REQUIRED SURFACE TOLERANCES.
   - 7.4. SITE ROUGH GRADING: SLOPE GRADES TO DIRECT WATER AWAY FROM BUILDINGS AND TO PREVENT PONDING. FINISH SUBGRADES TO REQUIRED ELEVATIONS WITHIN THE FOLLOWING TOLERANCES:
     - 7.4.1. TURF OR UNPAVED AREAS: PLUS OR MINUS 1 INCH (25 MM).
     - 7.4.2. WALKS: PLUS OR MINUS 1 INCH (25 MM).
     - 7.4.3. PAVEMENTS: PLUS OR MINUS 1/2 INCH (13 MM).
   - 7.5. GRADING INSIDE BUILDING LINES: FINISH SUBGRADE TO A TOLERANCE OF 1/2 INCH (13 MM) WHEN TESTED WITH A 10-FOOT (3-M) STRAIGHTEDGE.
8. FIELD QUALITY CONTROL
   - 8.1. TESTING AGENCY: OWNER WILL ENGAGE A QUALIFIED GEOTECHNICAL ENGINEERING TESTING AGENCY TO PERFORM TESTS AND INSPECTIONS.
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   - 8.3. FOOTING SUBGRADE: AT FOOTING SUBGRADES, AT LEAST ONE TEST OF EACH SOIL STRATUM WILL BE PERFORMED TO VERIFY DESIGN BEARING CAPACITIES. SUBSEQUENT VERIFICATION AND APPROVAL OF OTHER FOOTING SUBGRADES MAY BE BASED ON A VISUAL COMPARISON OF SUBGRADE WITH TESTED SUBGRADE WHEN APPROVED BY ARCHITECT.
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   - 8.6. FOUNDATION WALL BACKFILL: AT EACH COMPACTED BACKFILL LAYER, AT LEAST ONE TEST FOR EVERY 100 FEET (30 M) OR LESS OF WALL LENGTH, BUT NO FEWER THAN TWO TESTS.
   - 8.7. TRENCH BACKFILL: AT EACH COMPACTED INITIAL AND FINAL BACKFILL LAYER, AT LEAST ONE TEST FOR EVERY 150 FEET (46 M) OR LESS OF TRENCH LENGTH, BUT NO FEWER THAN TWO TESTS.
   - 8.8. WHEN TESTING AGENCY REPORTS THAT SUBGRADES, FILLS, OR BACKFILLS HAVE NOT ACHIEVED DEGREE OF COMPACTION SPECIFIED, SCARIFY AND MOISTEN OR AERATE, OR REMOVE AND REPLACE SOIL MATERIALS TO DEPTH REQUIRED; RECOMPACT AND RETEST UNTIL SPECIFIED COMPACTION IS OBTAINED.

HUNTERSVILLE CONSTRUCTION SEQUENCE:

1. INSTALL TREE / VEGETATION PROTECTION MEASURES ALONG BUFFER AREA(S) AND ANY TREE SAVE AREAS DELINEATED ON THE PLAN.
2. THE BUFFER LINE (MEASURED FROM THE CREEK BANK OR PROPERTY LINE, OR WHATEVER IS APPLICABLE) SHALL BE STAKED.
3. PROTECTION MEASURES SHALL BE INSTALLED AS DICTATED BY THE DRIP-LINE OF VEGETATION THAT IS WITHIN THE BUFFER. WHERE DRIPLINE(S) DO NOT EXTEND BEYOND THE BUFFER LINE THE BUFFER LINE SHALL BE RESPECTED.
4. TREE / VEGETATION PROTECTION MEASURES MUST BE USED WHERE ANY CLEARING OR GRADING ACTIVITIES WILL OCCUR WITHIN 100'NOF A BUFFER. PROTECTION MEASURES SHALL BE ORANGE TREE FENCING, OR CONTINUOUS FLAGGING ON VEGETATION OR STAKES. FLAGS SHOULD BE MAX. 20' ON CENTER, WHICH MAY BE USED ONLY WHERE THICK UNDERBRUSH EXISTS.
5. REQUEST TREE INSPECTION - TOWN OF HUNTERSVILLE, PLANNING STAFF (875-7000).
6. SETUP PRE-CONSTRUCTION CONFERENCE WITH MECKLENBURG COUNTY LAND DEVELOPMENT & TOWN OF HUNTERSVILLE PLANNING STAFF (875-7000).
7. CONTINUE CONSTRUCTION SEQUENCE PER MECKLENBURG COUNTY AS REQUIRED.
8. WHERE STANDARDS AND RESPONSIBILITY FOR INFRASTRUCTURE CONSTRUCTION, INCLUDING BUT NOT LIMITED TO STREETS, SIDEWALKS, AND LANDSCAPING, ARE SPECIFIED IN THE ZONING AND/OR SUBDIVISION ORDINANCES OF THE TOWN OF HUNTERSVILLE, TOWN STANDARDS SHALL CONTROL. IN THE ABSENCE OF A SPECIFIED TOWN STANDARD, CONSTRUCTION SHALL BE IN CONFORMANCE WITH THE THEN MOST RECENT VERSION OF THE CHARLOTTE-MECKLENBURG LAND DEVELOPMENT STANDARDS MANUAL (CMLDS).

CONSTRUCTION SEQUENCE:

1. OBTAIN GRADING/EROSION CONTROL PLAN APPROVAL FROM THE TOWN OF HUNTERSVILLE.
2. SET UP AN ON-SITE PRE-CONSTRUCTION CONFERENCE WITH THE FOLLOWING DEPARTMENTS: EROSION CONTROL INSPECTOR, LAND DEVELOPMENT INSPECTOR, ZONING INSPECTOR AND NCDOT. FAILURE TO SCHEDULE SUCH CONFERENCE 48 HOURS PRIOR TO ANY LAND DISTURBING ACTIVITY IS SUBJECT TO FINE.
3. INSTALL CONSTRUCTION ENTRANCE, TREE PROTECTION FENCING, SILT FENCING, DITCHES, BYPASS LINES, AND OTHER MEASURES AS SHOWN ON PLANS. CLEARING ONLY AS NECESSARY TO INSTALL THESE DEVICES; PAM TO BE INSTALLED PER COUNTY STANDARDS.
4. CALL FOR ON-SITE INSPECTION BY INSPECTOR, WHEN APPROVED, INSPECTOR ISSUES THE GRADING PERMIT AND CLEARING AND GRUBBING MAY BEGIN.
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10. ALL EROSION CONTROL MEASURES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE N. C. EROSION AND SEDIMENT CONTROL PLANNING AND DESIGN MANUAL, U. S. DEPT. OF AGRICULTURE, AND THE TOWN OF HUNTERSVILLE

GENERAL NOTES:

1. APPROVAL OF THIS PLAN IS NOT AN AUTHORIZATION TO GRADE ADJACENT PROPERTIES. WHEN FIELD CONDITIONS WARRANT OFF-SITE GRADING, PERMISSION MUST BE OBTAINED FROM THE AFFECTED OWNERS.
2. THE DEVELOPER SHALL MAINTAIN EACH STREAM, CREEK, OR BACKWASH CHANNEL IN AN UNOBSTRUCTED STATE AND SHALL REMOVE FROM THE CHANNEL AND BANKS OF THE STREAM ALL DEBRIS, LOGS, TIMBER, JUNK AND OTHER ACCUMULATIONS.
3. COMMUNITY ENCROACHMENT LINE MUST BE MARKED AND MAINTAINED ON SITE UNTIL FINAL GRADING IS COMPLETED.
4. ANY CONSTRUCTION OR USE WITHIN THE AREAS DELINEATED AS FLOODWAY DISTRICT FRINGE BOUNDARY LINE OR FLOODWAY DISTRICT ENCROACHMENT BOUNDARY LINE IS SUBJECT TO THE RESTRICTIONS IMPOSED BY THE FLOODWAY REGULATIONS OF THE TOWN OF HUNTERSVILLE AND MECKLENBURG COUNTY.
5. THE MECKLENBURG COUNTY ENGINEERING DEPARTMENT HAS NOT REVIEWED THE STRUCTURAL STABILITY OF ANY RETAINING WALLS ON THE SITE AND DOES NOT ASSUME RESPONSIBILITY FOR THEM.
6. NON-STANDARD ITEMS (I.E.: PAVERS, IRRIGATION SYSTEMS, ETC.) IN THE RIGHT-OF-WAY REQUIRE A RIGHT-OF-WAY ENCROACHMENT AGREEMENT WITH THE NORTH CAROLINA DEPARTMENT OF TRANSPORTATION BEFORE INSTALLATION.
7. ALL ROOF DRAINS TO CONNECT TO UNDERGROUND STORM DRAINAGE SYSTEM.

1. CONTRACTOR IS FULLY RESPONSIBLE FOR CONTACTING APPROPRIATE PARTIES AND ASSURING THAT EXISTING UTILITIES ARE LOCATED PRIOR TO BEGINNING CONSTRUCTION.
2. CONTRACTOR IS RESPONSIBLE FOR PLACING BARRICADES USING FLAGMEN, ETC., AS NECESSARY TO INSURE SAFETY TO THE PUBLIC.
3. ALL PAVEMENT CUTS, CONCRETE OR ASPHALT, ARE TO BE REPLACED ACCORDING TO STANDARDS OF THE DEPARTMENT OF TRANSPORTATION.
4. SHORING WILL BE ACCORDING TO OSHA TRENCHING STANDARDS PART 1926 SUBPART P, OR AS AMENDED.

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N
W E
S
NORTH ARROW
0 10 20 40
GRAPHIC SCALE 1"=20 FT.

NORTH CAROLINA REGISTERED LANDSCAPE ARCHITECT 2019 THOMAS S. FOLEY

BLACK FARM FARMHOUSE CLUSTER

PIN #01126111
14700 BLACK FARM RD, HUNTERSVILLE, NC 28078

GRADING-EROSION LOT 6

REVISIONS:
2021-09-03 TOWN AND NCDOT REV.

C13 GRADING-EROSION LOT 6.DWG
PROJECT NUMBER: 220040
DATE: 06/04/2021 DRAWN BY: TSF
SHEET C15 OF 24

C13 GRADING-EROSION LOT 6.DWG - PLOT: Justin - FRI. 9-3-2021 10:16 AM

TYPICAL LOCATION REQUIREMENT FOR ABOVE GROUND INSTALLATION
N.T.S.

NOTES:

1. BACKFLOW PREVENTION ASSEMBLIES (BPA's) SHALL CONFORM TO CLT WATER SPECIFICATIONS. SHUT-OFF VALVES ARE SPECIFIC TO EACH APPROVED BPA AND NO SUBSTITUTIONS OF SHUT-OFF VALVES ARE PERMITTED. REFER TO CLT WATER APPROVED LIST OF BPA's.
2. FIRE LINE SERVICES SHALL HAVE OUTSIDE STEM AND YOKE (OS & Y) HANDWHEEL OPERATORS ON BUTTERFLY VALVES, AND LISTED ON APPROVED LIST AS FIRE APPROVED. IF SERVING FIRE SPRINKLERS, TAMPER SWITCHES ARE REQUIRED.
3. PIPE MATERIAL AND FITTINGS SHALL BE AS SPECIFIED IN CLT WATER STANDARDS SPECIFICATION. ALL JOINTS SHALL BE RESTRAINED WITH MEGALUG RESTRAINTS OR APPROVED EQUAL.
4. SUPPORT OF ASSEMBLY SHALL BE DESIGNED BY OWNER. 8" - 12" SHALL BE SUPPORTED AT EACH VALVE AND SHALL NOT BLOCK RELIEF VALVE ON DRAIN PORT.
5. INSULATED ENCLOSURE SHALL BE AS SPECIFIED IN CLT WATER ENCLOSURE INFORMATION - HEATED INSULATED ENCLOSURE ARE REQUIRED FOR FIRE LINE SERVICES. NO INSULATION SHALL BE WRAPPED AROUND BPA.
6. ALL LOCATIONS FOR BPA'S REQUIRE CLT WATER APPROVAL AND MUST BE OUTSIDE OF ZONING SET-BACK DIRECTLY BEHIND METER.
7. THERE SHALL BE NO TAPS, PIPING BRANCHES, UNAPPROVED BYPASS PIPING, HYDRANTS, FIRE DEPT. CONNECTION POINTS, OR OTHER WATER - USING APPURTENANCES CONNECTED TO THE SUPPLY LINE BETWEEN ANY WATER METER AND ITS CLT WATER - REQUIRED BACKFLOW PREVENTER.
8. EACH CLT WATER-REQUIRED BPA IS REQUIRED TO BE TESTED BY A CLT WATER - APPROVED CERTIFIED TESTER PRIOR TO PLACING THE WATER SYSTEM IN SERVICE. TEST RESULTS SHALL BE SUBMITTED TO CLT WATER WITHIN 30 DAYS AND TESTED ANNUALLY THEREAFTER SUBMITTING RESULTS TO CLT WATER.
9. ALL INSTALLATIONS INTENDED FOR ADDRESSING CLT WATER REQUIREMENTS, REQUIRE PRIOR APPROVAL FROM THE APPROPRIATE CLT WATER BACKFLOW INSPECTOR.

NO SCALE | 2 | 1-4 | 4.3.2016

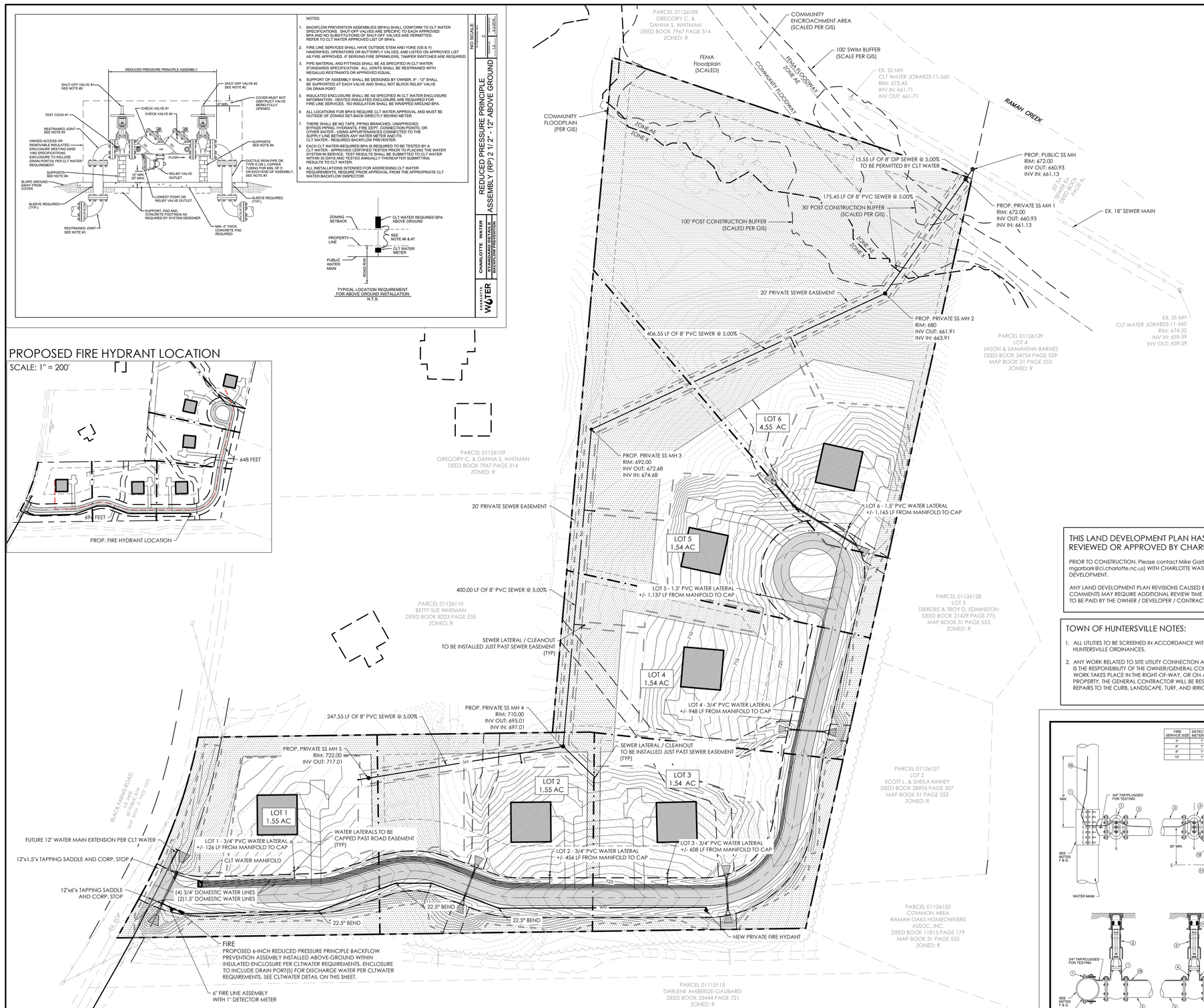
REDUCED PRESSURE PRINCIPLE ASSEMBLY (RP) 2 1/2" - 12" ABOVE GROUND

CHARLOTTE WATER | CROSS CONNECTION CONTROL | BACKFLOW PREVENTION

CHARLOTTE WATER

PROPOSED FIRE HYDRANT LOCATION

SCALE: 1" = 200'



GENERAL SITE UTILITY NOTES:

1. ALL PIPE LENGTHS ARE HORIZONTAL DISTANCE AND ARE APPROXIMATE.
2. CONTRACTOR SHALL PROVIDE ALL THE MATERIALS AND APPURTENANCES NECESSARY FOR THE COMPLETE INSTALLATION OF THE UTILITIES. ALL PIPES AND FITTINGS SHALL BE INSPECTED BY THE BUILDING INSPECTOR PRIOR TO BEING COVERED.
3. ALL WORK SHALL COMPLY WITH ALL APPLICABLE CODES, REGULATIONS, AND/OR LOCAL STANDARDS IMPOSED BY LOCAL UTILITY.
4. ALL WATER LINES SHALL HAVE A MINIMUM COVER OF 36" ABOVE TOP OF PIPE.
5. CONTRACTOR SHALL ADJUST LOCATION OF PROPOSED WATER LINES AS REQUIRED TO AVOID CONFLICTS WITH STORM SEWER OR OTHER UTILITIES.
7. LOCATION, SIZE AND INVERT ELEVATIONS OF SANITARY SEWER SHALL BE COORDINATED WITH THE APPROVED PLUMBING PLANS FOR THE BUILDING.
9. GENERAL CONTRACTOR SHALL INSTALL UTILITIES TO WITHIN 5' OF BUILDING. PLUMBING CONTRACTOR SHALL BE RESPONSIBLE FOR UTILITIES IN THE BUILDING AND WITHIN 5' OF THE BUILDING.
10. INSTALLATION AND REPAIR OF UNDERGROUND ELECTRICAL, GAS AND TELEPHONE UTILITIES AND DISTURBED AREAS SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR OR APPLICABLE UTILITY COMPANY. THE DISTURBED AREAS BENEATH EXISTING ASPHALT SHALL BE RE-COMPACTED TO THE REQUIRED SPECIFICATIONS, AND THE STONE BASE AND ASPHALT BE RETURNED TO ITS ORIGINAL CONDITION.
11. THE GENERAL CONTRACTOR SHALL COORDINATE ALL NEW UTILITY TAP/CONNECTION LOCATIONS WITH THE UTILITY DEPARTMENT. FEES SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR. HOWEVER, IMPACT/CAPACITY FEES TO BE PAID BY DEVELOPER/OWNER.
12. THERE SHALL BE NO TAPS, PIPING BRANCHES, UNAPPROVED BYPASS PIPING, HYDRANTS, FIRE DEPT. CONNECTION POINTS, OR OTHER WATER-USING APPURTENANCES CONNECTED TO THE SUPPLY LINE BETWEEN ANY WATER METER AND ITS CLTWATER REQUIRED BACKFLOW PREVENTER.
13. EACH REQUIRED BACKFLOW PREVENTION ASSEMBLY IS REQUIRED TO BE TESTED BY A CLTWATER APPROVED CERTIFIED TESTER PRIOR TO PLACING THE WATER SYSTEM IN SERVICE.

IRRIGATION SLEEVING NOTES:

1. CONTRACTOR SHALL LAY ALL SLEEVES AND CONDUIT AT 2'-0" BELOW THE FINISH GRADE OF THE TOP OF PAVEMENT.
2. CONTRACTOR SHALL MARK THE LOCATION OF ALL SLEEVES AND CONDUIT WITH THE SLEEVING MATERIAL "ELLED" TO 2'-0" ABOVE FINISH GRADE AND CAPPED.
3. CONTRACTOR SHALL FURNISH THE IRRIGATION DESIGNER WITH AN "AS-BUILT" DRAWING SHOWING ALL SLEEVES AND THE RESPECTIVE DEPTHS BELOW THE FINISH GRADE AND/OR PAVEMENT.
4. EXTEND ALL SLEEVES TO 2'-0" BEYOND THE EDGE OF ALL PAVEMENT.
5. ADD 4" DIAMETER SLEEVES TO ALL ISOLATED PLANTING AREAS NOT SHOWN ON THIS DRAWING, OR UNDER PAVEMENT ADDED AFTER THIS PLAN WAS COMPLETED.
6. ALL SLEEVES SHALL BE SCHEDULED 40 PVC.

CLT WATER NOTES:

- CUSTOMER IS RESPONSIBLE FOR STAKING SITE AS NECESSARY TO DETERMINE SERVICE LOCATIONS AND ELEVATIONS PRIOR TO CLT WATER CONTRACTOR MOBILIZING TO INSTALL SERVICES. SITE ADDRESS MUST BE VISIBLY POSTED AT SITE
- ON-SITE CONTRACTOR IS RESPONSIBLE FOR RELOCATING ANY APPLICABLE CONFLICTING UTILITIES NECESSARY TO COMPLETE SERVICE INSTALLATIONS. ADDITIONAL FEES MAY APPLY AND CONSTRUCTION TIMELINES EXTENDED IF CONFLICTING UTILITIES ARE NOT SHOWN ON PLANS.
- WATER AND SEWER CONNECTIONS SHALL NOT BE LOCATED WITHIN PROPOSED CONSTRUCTION ENTRANCES.
- PAYMENT FOR A QUOTED SERVICE CONNECTION SHALL BE CONSIDERED ACKNOWLEDGEMENT & APPROVAL OF CLT WATER COMMENTS BY THE APPLICANT; PAYMENT DOES NOT INCLUDE ANY ADDITIONAL FEES REQUIRED DUE TO UNFORESEEN CONDITIONS THAT ARE/WERE NOT DEPICTED ON THE SITE PLAN PROVIDED BY THE APPLICANT.
- CLT WATER WILL INSTALL 6" OR 8" LATERAL INTO DOGHOUSE OR EXISTING MH AND BRING INSIDE R/W AS SHOWN. CLT WATER WILL PLUG END OF LATERAL & SET A 4"X4' POST TO MARK LOCATION OF PROPOSED PVT MH BY ON-SITE CONTRACTOR, IF A PVT MH IS SHOWN ON PLANS.
- EACH CLTWATER-REQUIRED BPA IS REQUIRED TO BE TESTED BY A CLTWATER-APPROVED CERTIFIED TESTER PRIOR TO PLACING THE WATER SYSTEM IN SERVICE
- APPROVAL FOR BACKFLOW PREVENTION REQUIREMENTS IS NOT PART OF THIS REVIEW. BACKFLOW PREVENTION REVIEW ENTAILS PLAN SUBMITTAL VIA MECKLENBURG COUNTY'S CODE ENFORCEMENT PERMITTING PROCESS AT THE TIME OF APPLICATION FOR BUILDING PERMITS. BACKFLOW PROGRAM REQUIREMENTS ARE AVAILABLE AT HTTP://CHARLOTTENC.GOV/WATER/PAGES/BACKFLOWCONSTRUCTIONGUIDELINES.ASPX . PLEASE CONTACT MARK KROUSE AT 704-432-5800 FOR MORE INFORMATION.

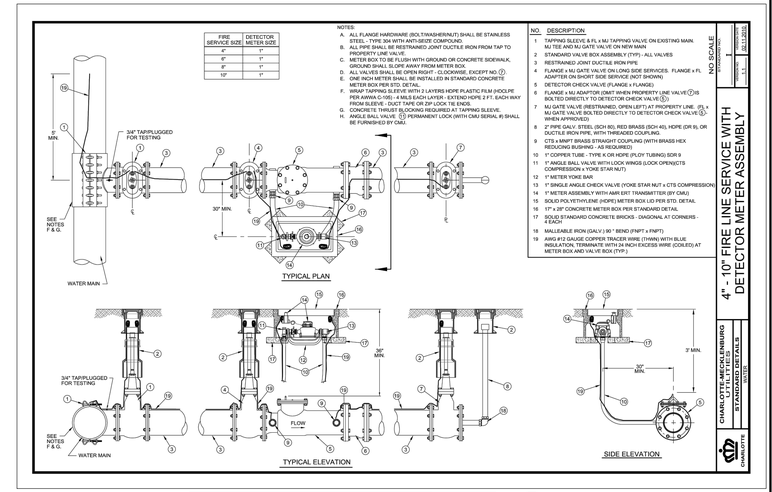
THIS LAND DEVELOPMENT PLAN HAS NOT BEEN REVIEWED OR APPROVED BY CHARLOTTE WATER.

PRIOR TO CONSTRUCTION, Please contact Mike Garbark (704-432-5797 mgarbark@ci.charlotte.nc.us) WITH CHARLOTTE WATER AND EXPLAIN YOUR DEVELOPMENT.

ANY LAND DEVELOPMENT PLAN REVISIONS CAUSED BY CHARLOTTE WATER COMMENTS MAY REQUIRE ADDITIONAL REVIEW TIME AND ADDITIONAL FEES TO BE PAID BY THE OWNER / DEVELOPER / CONTRACTOR.

TOWN OF HUNTERSVILLE NOTES:

1. ALL UTILITIES TO BE SCREENED IN ACCORDANCE WITH TOWN OF HUNTERSVILLE ORDINANCES.
2. ANY WORK RELATED TO SITE UTILITY CONNECTION AND CONSTRUCTION IS THE RESPONSIBILITY OF THE OWNER/GENERAL CONTRACTOR. WHERE WORK TAKES PLACE IN THE RIGHT-OF-WAY, OR ON ADJACENT PROPERTY, THE GENERAL CONTRACTOR WILL BE RESPONSIBLE FOR ANY REPAIRS TO THE CURB, LANDSCAPE, TURF, AND IRRIGATION SYSTEM.



FIRE SERVICE SIZE	DETECTOR METER SIZE
4"	1"
6"	1"
8"	1"
10"	1"

NOTES:
A. ALL FLANGE HARDWARE (BOLT/WASHER/NUT) SHALL BE STAINLESS STEEL - TYPE 304 WITH ANTI-SEIZE COMPOUND
B. ALL PIPE SHALL BE RESTRAINED JOINT DUCTILE IRON FROM TAP TO PROPERTY LINE VALVE.
C. METER BOX TO BE FLUSH WITH GROUND OR CONCRETE SIDEWALK, GROUND SHALL SLOPE AWAY FROM METER BOX.
D. ALL VALVES SHALL BE OPEN RIGHT - CLOCKWISE, EXCEPT NO. ⑦.
E. ONE INCH METER SHALL BE INSTALLED IN STANDARD CONCRETE METER BOX PER STD. DETAIL.
F. WRAP TAPPING SLEEVE WITH 2 LAYERS HDPE PLASTIC FILM (HDCPE FIRE ARMOR CP125), 10 MILS THICK OR 1 LAYER - EXTEND HDPE 2 FT. EACH WAY FROM EDGE OF SLEEVE. SECURE WITH DP TUCK TO END.
G. CONCRETE THRUST BLOCKING REQUIRED AT TAPPING SLEEVE.
H. ANGLE BALL VALVE ⑪ PERMANENT LOCK (WITH CMU SERIAL #) SHALL BE FURNISHED BY CMU.

NO.	DESCRIPTION
1	TAPPING SLEEVE & FL x MJ TAPPING VALVE ON EXISTING MAIN. MJ TEE AND MJ GATE VALVE ON NEW MAIN
2	STANDARD VALVE BOX ASSEMBLY (TYP) - ALL VALVES
3	RESTRAINED JOINT DUCTILE IRON PIPE
4	FLANGE x MJ GATE VALVE ON LONG SIDE SERVICES. FLANGE x FL ADAPTER ON SHORT SIDE SERVICE (NOT SHOWN)
5	DETECTOR CHECK VALVE (FLANGE x FLANGE)
6	FLANGE x MJ ADAPTOR (DIMT WHEN PROPERTY LINE VALVE ⑦ IS BOLTED DIRECTLY TO DETECTOR CHECK VALVE ⑤.)
7	MJ GATE VALVE (RESTRAINED, OPEN LEFT) AT PROPERTY LINE. (FL x MJ GATE VALVE BOLTED DIRECTLY TO DETECTOR CHECK VALVE ⑤ WHEN APPROVED)
8	2" PIPE GALV. STEEL (SCH 80), RED BRASS (SCH 40), HDPE (DR 9), OR DUCTILE IRON PIPE, WITH THREADED COUPLING
9	CTS x MNPT BRASS STRAIGHT COUPLING (WITH BRASS HEX REDUCING BUSHING - AS REQUIRED)
10	1" COPPER TUBE - TYPE K OR HDPE (PLOY TUBING) SDR 9
11	1" ANGLE BALL VALVE WITH LOCK WINGS (LOCK OPENYCTS COMPRESSION x YOKE STAR NUT)
12	1" METER YOKE BAR
13	1" SINGLE ANGLE CHECK VALVE (YOKE STAR NUT x CTS COMPRESSION)
14	1" METER ASSEMBLY WITH AMR ERT TRANSMITTER (BY CMU)
15	SOLID POLYETHYLENE (HDPE) METER BOX LID PER STD. DETAIL
16	17" x 24" CONCRETE METER BOX PER STANDARD DETAIL
17	SOLID STANDARD CONCRETE BRICKS - DIAGONAL AT CORNERS - 8 EACH
18	MALLEABLE IRON (GALV.) 90 ° BEND (FNPT x FNPT)
19	AWG #12 GAUGE COPPER TRACER WIRE (TWMN) WITH BLUE INSULATION, TERMINATE WITH 24 INCH EXCESS WIRE COILED AT METER BOX AND VALVE BOX (TYP.)

TYPICAL PLAN

TYPICAL ELEVATION

SIDE ELEVATION

NO SCALE | 1 | 8.3.2016

CHARLOTTE WATER | STANDARD DETAILS | APPROVED

4" - 10" FIRE LINE SERVICE WITH DETECTOR METER ASSEMBLY

1. CONTRACTOR IS FULLY RESPONSIBLE FOR CONTACTING APPROPRIATE PARTIES AND ASSURING THAT EXISTING UTILITIES ARE LOCATED PRIOR TO BEGINNING CONSTRUCTION.
2. CONTRACTOR IS RESPONSIBLE FOR PLACING BARRICADES USING FLAGMEN, ETC., AS NECESSARY TO INSURE SAFETY TO THE PUBLIC.
3. ALL PAVEMENT CUTS, CONCRETE OR ASPHALT, ARE TO BE REPLACED ACCORDING TO STANDARDS OF THE DEPARTMENT OF TRANSPORTATION.
4. SHORING WILL BE ACCORDING TO OSHA TRENCHING STANDARDS PART 1926 SUBPART P, OR AS AMENDED.

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W E
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NORTH ARROW
0 30 60 120
GRAPHIC SCALE 1"=60 FT.

NORTH CAROLINA REGISTERED LANDSCAPE ARCHITECT 2781 TIMOTHY S. FOLEY 10/29/2021

BLACK FARM FARMHOUSE CLUSTER

PIN #01126111
14700 BLACK FARM RD, HUNTERSVILLE, NC 28078

UTILITY PLAN

REVISIONS:

2021-09-03 TOWN AND NCDOT REV.

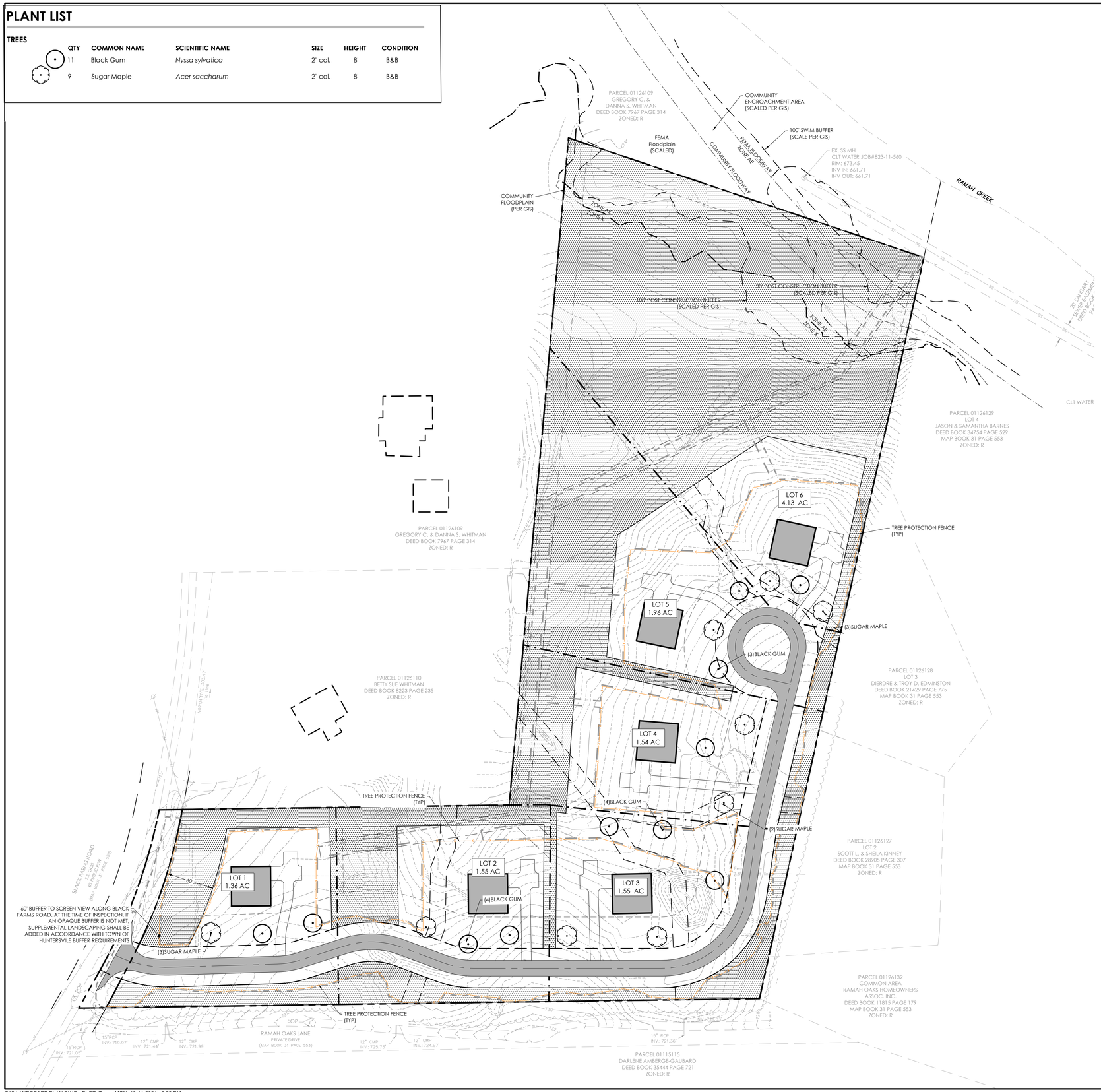
C14 UTILITY PLAN.DWG
PROJECT NUMBER: 220040
DATE: 06/04/2021 DRAWN BY: TSF
SHEET C16 OF 24

C14 UTILITY PLAN.DWG - PLOT: Tess - FRI. 9-3-2021 10:29 AM

PLANT LIST

TREES

	QTY	COMMON NAME	SCIENTIFIC NAME	SIZE	HEIGHT	CONDITION
⊙	11	Black Gum	*Nyssa sylvatica*	2" cal.	8'	B&B
⊙	9	Sugar Maple	*Acer saccharum*	2" cal.	8'	B&B



TREE PROTECTION NOTES:

PROTECTIVE BARRICADES SHALL BE PLACED AROUND ALL PROTECTED TREES DESIGNATED TO BE SAVED IN DEVELOPMENT AREAS, PRIOR TO THE START OF DEVELOPMENT ACTIVITIES OR GRADING. PROTECTIVE BARRICADES SHALL REMAIN IN PLACE UNTIL DEVELOPMENT ACTIVITIES ARE COMPLETE OR CONSTRUCTION IN ACCORDANCE WITH STANDARDS SET FORTH IN THIS SECTION COMMENCES. THE AREA WITHIN THE PROTECTIVE BARRICADE SHALL REMAIN FREE OF ALL BUILDING MATERIALS, DIRT OR OTHER CONSTRUCTION DEBRIS. CONSTRUCTION TRAFFIC, STORAGE OF VEHICLES AND MATERIALS, AND GRADING SHALL NOT TAKE PLACE WITHIN THE DRIPLINE OF THE EXISTING TREES TO BE PROTECTED. BARRICADES SHALL BE ERECTED AT A MINIMUM DISTANCE FROM THE BASE OF PROTECTED TREES ACCORDING TO THE FOLLOWING STANDARDS:

A. FOR TREES 10" OR LESS DBH: PROTECTIVE BARRICADES SHALL BE PLACED A MINIMUM DISTANCE OF 5' FROM THE BASE OF EACH PROTECTED TREE, OR OUTSIDE THE DRIPLINE, WHICHEVER IS GREATER.
B. FOR TREES GREATER THAN 10" DBH: PROTECTIVE BARRICADES SHALL BE PLACED AT A MINIMUM DISTANCE EQUAL TO 10' FROM THE BASE OF THE PROTECTED TREE PLUS AN ADDITIONAL 1' FOR EACH ADDITIONAL 1" DBH GREATER THAN 10" DBH, OR OUTSIDE THE DRIPLINE, WHICHEVER IS GREATER.
C. CONSTRUCTION ACCESS TO A SITE SHOULD OCCUR WHERE AN EXISTING OR PROPOSED ENTRANCE/EXIT IS LOCATED.
D. EXCEPT FOR DRIVEWAY ACCESS POINTS, SIDEWALKS, CURB AND GUTTER, NO PAVING WITH CONCRETE OR OTHER IMPERVIOUS MATERIALS WITHIN A TREE DRIPLINE SHALL BE ALLOWED.
E. WHERE GRADING WITHIN A TREE DRIPLINE CANNOT BE AVOIDED,
F. LIMIT CUT AND FILLS TO ½ TO ½ THE AREA WITHIN THE DRIPLINE.
G. AVOID CUT AND FILL AROUND ENTIRE CIRCUMFERENCE OF TRUNK.
H. WHERE GRADING LEAVES ROOTS EXPOSED, CUT ROOTS CLEAN.
I. AVOID FILLING WITHIN THE DRIPLINE OF A TREE WITHOUT SOME MECHANISM TO ALLOW AIR AND WATER TO REACH THE ROOTS.

SEED/SOD/MULCH:

1. TURF AREAS WILL BE SEEDED OR SODDED WITH REBEL II FESCUE WITH EXCEPTION OF SOD WITHIN THE FLOOR OF STORMWATER MANAGEMENT AND WATER QUALITY BASINS AND FILTERS. SOD WILL BE REQUIRED NEXT TO BUILDING STRUCTURES, DRIVEWAYS ENTRANCES AND AREAS DISTURBED IN THE FRONT SETBACK AS NOTED ON PLAN. LANDSCAPE CONTRACTOR TO SEED ALL OTHER DISTURBED AREAS.
2. PINE NEEDLE MULCH IS THE GENERALLY ACCEPTED MULCH, FOR THE INITIAL PLANTING, IT IS ALSO ACCEPTABLE TO UTILIZE DOUBLE HAMMERED BARK MULCH FOR GOOD SOIL AND BED MANAGEMENT. FUTURE YEARS, THOUGH, WILL REQUIRE THE PROPERTY TO BE CONVERTED TO PINE NEEDLES.

1.1 PLANTING SOIL MIX

A. MIX TOPSOIL WITH THE FOLLOWING SOIL AMENDMENTS IN THE FOLLOWING QUANTITIES:

1. WEIGHT OF LIME PER 1000 SQ. FT
2. RATIO OF LOOSE COMPOST TO TOPSOIL BY VOLUME: 1:4
3. RATIO OF LOOSE WOOD DERIVATIVES TO TOPSOIL BY VOLUME;
4. WEIGHT OF BONEMEAL PER 1000 SQ. FT.
5. WEIGHT OF COMMERCIAL FERTILIZER PER 1000 SQ. FT.
6. WEIGHT OF SLOW-RELEASE FERTILIZER PER 1000 SQ. FT.

SOIL TEST PROVIDED BY CONTRACTOR REQUIRED FOR TOPSOIL MIX.

INSTALLATION GUARANTEE REQUIRED

1. A FINAL CERTIFICATE OF OCCUPANCY MAY BE ISSUED PRIOR TO THE INSTALLATION OF TREES AND SHRUBS, EXCLUDING YARD TREES, DURING THE NON-PLANTING SEASON IF A CASH BOND, SURETY BOND OR LETTER OF CREDIT IS ISSUED FOR 120% OF THE COST OF MATERIALS AND INSTALLATION. PLANTING SHALL BE COMPLETED DURING THE NEXT PLANTING SEASON.
2. THE PLANTING SEASON SHALL RUN FROM OCTOBER 15 TO MARCH 15, EXCEPT FOR EXTREME WEATHER CONDITIONS AS DETERMINED BY STAFF. A FINAL CERTIFICATE OF OCCUPANCY SHALL NOT BE GIVEN DURING THE PLANTING SEASON UNLESS ALL OF THE LANDSCAPING IS COMPLETELY INSTALLED ACCORDING TO THIS ARTICLE.

MAINTENANCE SURETY REQUIRED

1. DEVELOPERS SHALL ENTER INTO A MAINTENANCE SURETY AGREEMENT WITH MECKLENBURG COUNTY GUARANTEEING THE VIABILITY OF STREET TREES AND TREES AND SHRUBS PLANTED IN BUFFER YARDS FOR A PERIOD OF 1 YEAR FOLLOWING PLANTING. THE AMOUNT OF THE SURETY SHALL BE EQUAL TO 50% OF THE VALUE OF THE NEW TREES OR LANDSCAPE MATERIAL AND THEIR INSTALLATION. THE MAINTENANCE SURETY SHALL BE PROVIDED WHEN ALL OF THE REQUIRED TREES AND SHRUBS HAVE BEEN PLANTED.

RESIDENTIAL LOT TREE TABLE

- 3 FRONT AND 3 REAR YARD TREES REQUIRED FOR LOTS GREATER THAN 20,000 SF

LOT 1 TREES REQUIRED	3 FRONT YARD, 3 REAR YARD
LOT 1 TREES PROVIDED	3 FRONT YARD TREES, ALL EXISTING TREES IN REAR YARD
LOT 2 TREES REQUIRED	3 FRONT YARD, 3 REAR YARD
LOT 2 TREES PROVIDED	3 FRONT YARD TREES, ALL EXISTING TREES IN REAR YARD
LOT 3 TREES REQUIRED	3 FRONT YARD, 3 REAR YARD
LOT 3 TREES PROVIDED	3 FRONT YARD TREES, 2 REAR YARD TREES WITH EXISTING TREES
LOT 4 TREES REQUIRED	3 FRONT YARD, 3 REAR YARD
LOT 4 TREES PROVIDED	3 FRONT YARD TREES, ALL EXISTING TREES IN REAR YARD
LOT 5 TREES REQUIRED	3 FRONT YARD, 3 REAR YARD
LOT 5 TREES PROVIDED	3 FRONT YARD TREES, ALL EXISTING TREES IN REAR YARD
LOT 6 TREES REQUIRED	3 FRONT YARD, 3 REAR YARD
LOT 6 TREES PROVIDED	3 FRONT YARD TREES, ALL EXISTING TREES IN REAR YARD

GENERAL PLANTING NOTES:

1. THIS PLAN FOR PLANTING LOCATIONS ONLY. IF FOUND CONDITIONS VARY FROM THIS, CONTRACTOR TO CONTACT OWNER'S REPRESENTATIVE FOR RESOLUTION. FAILURE TO DO SO WILL RESULT IN CONTRACTOR'S LIABILITY TO REPLACE PLANT MATERIALS.
2. CONTRACTOR TO COORDINATE WITH OWNER'S REPRESENTATIVE FOR EXISTING PLANT MATERIAL TO BE REMOVED AND/OR RELOCATED.
3. CONTRACTOR WILL BE RESPONSIBLE FOR LOCATING AND PROTECTING ALL UNDERGROUND AND ABOVE GROUND UTILITIES. CONTRACTOR SHALL BE LIABLE FOR DAMAGE TO ANY AND ALL PUBLIC OR PRIVATE UTILITIES. CONTRACTOR WILL BE HELD RESPONSIBLE FOR THE COST OF REPAIR TO ALL DAMAGED UTILITIES.
4. CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL PLANT MAINTENANCE, INCLUDING SHRUBS AND GROUNDCOVER, AND SHALL MAINTAIN AREA IN A WEED AND DEBRIS FREE CONDITION, THROUGHOUT GUARANTEE PERIOD.
5. WHERE TREES ARE PLANTED IN ROWS, THEY SHALL BE UNIFORM IN SIZE AND SHAPE.
6. SIZES SPECIFIED IN THE PLANT LIST ARE MINIMUM SIZES TO WHICH THE PLANTS ARE TO BE JUDGED. FAILURE TO MEET MINIMUM SIZE ON ANY PLANT WILL RESULT IN REJECTION OF THAT PLANT.
7. PLANTING SIZE DETERMINATION:
   SHADE TREES: HEIGHT SHALL BE MEASURED FROM THE CROWN OF THE ROOT BALL TO THE TOP OF MATURE GROWTH. SPREAD SHALL BE MEASURED TO THE END OF BRANCHING EQUALLY AROUND THE CROWN FROM THE CENTER OF THE TRUNK. MEASUREMENTS ARE NOT TO INCLUDE ANY TERMINAL GROWTH. SINGLE TRUNK TREES SHALL BE FREE OF "V" CROTCHES THAT COULD BE POINTS OF WEAK LIMB STRUCTURE OR DISEASE INFESTATION.

   SHRUBS: HEIGHT SHALL BE MEASURED FROM THE CROWN OF THE ROOT BALL TO THE AVERAGE HEIGHT OF THE TOP OF THE PLANT. SPREAD SHALL BE MEASURED TO THE END OF BRANCHING EQUALLY AROUND THE SHRUB MASS. MEASUREMENTS ARE NOT TO INCLUDE ANY TERMINAL GROWTH.
8. ALL PLANTS SHALL BE FRESHLY DUG, SOUND, HEALTHY, VIGOROUS, WELL BRANCHED, FREE OF DISEASE, INSECT EGGS, AND LARVAE, AND SHALL HAVE ADEQUATE ROOT SYSTEMS.
9. ALL CONTAINER GROWN MATERIAL SHALL BE HEALTHY, VIGOROUS, WELL-ROOTED PLANTS AND ESTABLISHED IN THE CONTAINER IN WHICH THEY ARE SOLD. THE PLANTS SHALL HAVE TOPS WHICH ARE GOOD QUALITY AND ARE IN A HEALTHY GROWING CONDITION. ALL ROOT BOUND PLANTS SHALL BE REJECTED.
10. GROUPS OF SHRUBS SHALL BE PLACED IN A CONTINUOUS MULCH BED WITH SMOOTH CONTINUOUS LINES. ALL MULCHED BED EDGES SHALL BE CURVILINEAR IN SHAPE FOLLOWING THE CONTOUR OF THE PLANT MASS. TREES LOCATED WITHIN FOUR FEET OF SHRUB BEDS SHALL SHARE SAME MULCH BED.
11. CONTRACTOR TO SLIGHTLY ADJUST PLANT LOCATIONS IN THE FIELD AS NECESSARY TO BE CLEAR OF DRAINAGE SWALES AND UTILITIES. FINISHED PLANTING BEDS SHALL BE GRADED SO AS TO NOT IMPEDE DRAINAGE AWAY FROM BUILDINGS. IF SIGNIFICANT RELOCATIONS ARE REQUIRED, CONTRACTOR SHALL CONTACT OWNER'S REPRESENTATIVE FOR RESOLUTION. FAILURE TO MAKE SUCH RELOCATIONS KNOWN TO THE OWNER'S REPRESENTATIVE WILL RESULT IN CONTRACTOR'S LIABILITY OF PLANT MATERIALS.
12. ALL PLANT MATERIAL SHALL BE SPACED AND LOCATED PER PLAN. IF CONFLICTS ARISE BETWEEN ACTUAL SIZE OF AREA AND PLANS, CONTRACTOR SHALL CONTACT OWNER'S REPRESENTATIVE FOR RESOLUTION. FAILURE TO MAKE SUCH CONFLICTS KNOWN TO THE OWNER'S REPRESENTATIVE WILL RESULT IN CONTRACTOR'S LIABILITY TO RELOCATE MATERIALS.
13. ALL SUBSTITUTIONS OF PLANT MATERIAL ARE TO BE REQUESTED IN WRITING TO THE OWNER'S REPRESENTATIVE AND APPROVED IN WRITING BY THE OWNER PRIOR TO INSTALLATION. FAILURE TO OBTAIN SUBSTITUTION APPROVAL IN WRITING MAY RESULT IN LIABILITY TO THE CONTRACTOR.
14. ALL CONTRACTORS SHALL BE REQUIRED TO COMPLETELY REMOVE ALL TRASH, DEBRIS AND EXCESS MATERIALS FROM THE WORK AREA AND THE PROPERTY (ESPECIALLY AT ALL CURB, GUTTERS AND SIDEWALKS) DAILY DURING INSTALLATION.
15. CONTRACTOR SHALL GUARANTEE ALL LANDSCAPE IMPROVEMENTS, INCLUDING SEEDING. CONTRACTOR MUST CONTACT THE OWNER AT LEAST 10 WORKING DAYS IN ADVANCE TO SCHEDULE ACCEPTANCE INSPECTION(S). CONTRACTOR MUST REPLACE ALL DEAD OR UNACCEPTABLE PLANTS DURING THE FOLLOWING RECOMMENDED PLANTING SEASON.
16. ADJUST TREE PLANTING LOCATIONS TO AVOID UNDERGROUND UTILITIES WHERE POSSIBLE. CONTACT OWNER'S REPRESENTATIVE FOR A COORDINATED SOLUTION FOR ANY UTILITY CONFLICTS. CONTRACTOR SHALL BE LIABLE FOR DAMAGE TO ANY AND ALL PUBLIC OR PRIVATE UTILITIES.
17. REFER TO PLANTING DETAILS FOR ADDITIONAL PLANTING INFORMATION.
18. ALL PLANTINGS SHALL COMPLY WITH CURRENT LOCAL ORDINANCES AND GUIDELINES.
19. LANDSCAPE AREAS TO BE IRRIGATED WITH AUTOMATIC IRRIGATION SYSTEM.

TREE PLANTING NOTES:

1. ALL TREES SHALL BE PLANTED PER TOWN OF HUNTERSVILLE STANDARDS AND DETAILS
2. ALL STRAPPING AND TOP 2/3 OF WIRE BASKET MUST BE CUT AWAY AND REMOVED FROM THE ROOT BALL PRIOR TO BACKFILLING PLANTING PIT.
3. LARGE MATURING TREES MAY NOT BE PLANTED WHERE OVERHEAD DISTRIBUTION OR TRANSMISSION LINES EXIST. IF TREES CONFLICT WITH POWER LINES OR SIGNS, CALL THE URBAN FORESTER TO RESOLVE BEFORE PLANTING.
4. ADJUST TREE PLANTING LOCATIONS TO AVOID UNDERGROUND UTILITIES.
5. NEW TREES SHALL BE A MINIMUM 2" CALIPER FOR STREET TREE REQUIREMENTS.
6. SEE TREE PRESERVATION NOTES ON GRADING AND EROSION CONTROL SHEETS.
7. ALL TREES ARE TO BE NURSERY GROWN, BALL AND BURLAP (B&B) PREFERRED. MINIMUM TREE SIZE IS 2" CALIPER (MEASURED 6" ABOVE ROOT BALL), 8' MINIMUM HEIGHT.
8. STAKING IS OPTIONAL. RUBBER HOSE AND ROPE OR WIRE FOR STAKING IS NOT RECOMMENDED. NO WIRE OR ROPE IS TO BE IN DIRECT CONTACT WITH TRUNK. REMOVE ALL TRUNK WRAP, TREE STRAPS, AND STAKING WIRE OR ROPE AFTER ONE GROWING SEASON.
9. GUY WIRES ARE NOT PERMITTING IN THE STREET RIGHT-OF-WAY.
10. ALL TREES AND SHRUBS SHALL MEET THE NORMAL REQUIREMENTS FOR THE AMERICAN STANDARD FOR NURSERY STOCK, LATEST EDITION, PUBLISHED BY THE AMERICAN ASSOCIATION OF NURSERYMAN (AANJ.
11. NEW AND EXISTING TREES ARE PERMITTED WITHIN SITE TRIANGLE, BUT MUST BE LIMED UP TO 6' HEIGHT CLEARANCE PER ADA REQUIREMENTS.
12. SIMILAR CRITERIA FOR TREE PLACEMENT AND PRUNING UP SHOULD BE CONSIDERED AT DRIVEWAY/STREET INTERSECTIONS.
13. CONTRACTOR TO MAINTAIN CLEAR LEVEL BETWEEN 30" AND 72" ABOVE STREET. AREA MUST BE TREE OF LIMBS AND FOLIAGE FOR SAFE CROSS VISIBILITY.

1. CONTRACTOR IS FULLY RESPONSIBLE FOR CONTACTING APPROPRIATE PARTIES AND ASSURING THAT EXISTING UTILITIES ARE LOCATED PRIOR TO BEGINNING CONSTRUCTION.
2. CONTRACTOR IS RESPONSIBLE FOR PLACING BARRICADES USING FLAGMEN, ETC., AS NECESSARY TO INSURE SAFETY TO THE PUBLIC.
3. ALL PAVEMENT CUTS, CONCRETE OR ASPHALT, ARE TO BE REPLACED ACCORDING TO STANDARDS OF THE DEPARTMENT OF TRANSPORTATION.
4. SHORING WILL BE ACCORDING TO OSHA TRENCHING STANDARDS PART 1926 SUBPART P, OR AS AMENDED.

811 Know what's below. Call before you dig.

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Landscape Architecture Civil Engineering
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NC LANDSCAPE ARCHITECTURE BOARD LICENSE #: C-399

N W E S
NORTH ARROW
0 2.5 5 10
GRAPHIC SCALE 1"=10 FT.

NORTH CAROLINA PROFESSIONAL SEAL 51555 ENGINEER JUSTIN D. COBB

BLACK FARM FARMHOUSE CLUSTER

PIN #01126111
14700 BLACK FARM RD, HUNTERSVILLE, NC 28078

LANDSCAPE PLAN

REVISIONS:
2021-09-03 TOWN AND NCDOT REV.
2021-10-07 TOWN AND NCDOT REV.

C15 LANDSCAPE PLAN.DWG
PROJECT NUMBER: 220040
DATE: 06/04/2021 DRAWN BY: TSF
SHEET C17 OF 02

C15 LANDSCAPE PLAN.DWG - PLOT: Tess - MON. 10-11-2021 2:52 PM

GENERAL NOTES:

1. FOR STREAMS CARRYING 500 ACRES OR MORE OF SURFACE RUNOFF, THE EASEMENT REQUIREMENT IS TO BE THE WIDTH OF THE STREAM FROM TOP OF BANK TO TOP OF BANK, PLUS (+) 10' ON EACH SIDE OF STREAM. (40' MINIMUM WIDTH)
2. FOR OPEN CHANNELS THE MINIMUM EASEMENT MUST CONTAIN THE WIDTH OF THE STREAM FROM TOP OF BANK TO TOP BANK.
3. WIDER EASEMENT WIDTHS MAY BE REQUIRED FOR PIPE DEPTHS GREATER THAN TEN FEET.
4. PIPE SYSTEMS AND OPEN CHANNELS ON PRIVATE PROPERTY SHALL BE PLACED IN A STORM DRAINAGE EASEMENT.

Easement Requirements for Open Storm Drainage Channels

Area in Acreage	Easement Requirement
0–45 ac.	20'
45–120 ac.	30'
120–500 ac.	40'
500 ac.+	see note

Easement Requirements for Storm Drain Pipe

Pipe Size	Easement Requirement
15"	15'
18"	15'
24"	15'
30"	20'
36"	20'
42"	25'
48"	25'
54"+	30'MIN (VARIES)

NOT TO SCALE

Town of Huntersville NORTH CAROLINA STANDARD DRAWING

MINIMUM DRAINAGE EASEMENT REQUIREMENTS FOR STORM DRAIN PIPES AND OPEN CHANNELS

REV. DATE 10/7/09 | STD. NO. 314.1

PLANTINGS IN STREET RIGHT–OF–WAY

GENERAL NOTES

1. TREE GRATES AND ASSOCIATED IRRIGATION SYSTEMS REQUIRED BY TOWN ARE TO COMPLY WITH THE TOWN ZONING REQUIREMENTS. ALL INSTALLATIONS OF IRRIGATION SYSTEMS WITHIN THE RIGHT–OF–WAY OF STATE MAINTAINED STREETS REQUIRE AN ENCROACHMENT AGREEMENT EXECUTED THROUGH NCDOT. TREES INSTALLED WITHIN TOWN MAINTAINED RIGHT–OF–WAY LIMITS SHALL BE PER TOWN REQUIREMENTS. TREES INSTALLED WITHIN THE RIGHT OF WAY OF STATE MAINTAINED STREETS REQUIRE A PLANTING PERMIT FROM NCDOT. NCDOT'S REVIEW AND APPROVAL PROCESS MAY INCLUDE ADDITIONAL REQUIREMENTS.
2. A DRAINAGE SYSTEM IS REQUIRED FOR ALL IRRIGATED PLANTING AREAS LOCATED ADJACENT TO STREETS. ALL IRRIGATION/DRAINAGE SYSTEMS REQUIRE AN ENCROACHMENT AGREEMENT EXECUTED BY NCDOT FOR STATE–MAINTAINED ROADS. CONTACT NCDOT FOR ADDITIONAL INFORMATION REGARDING COST, SUBMITTAL AND LIABILITY INSURANCE COVERAGE REQUIREMENTS.
3. LANDSCAPE INSPECTIONS MAY INCLUDE THE FOLLOWING:

   SUBDRAINAGE INSPECTION
   TREE PIT/WELL OR PLANTING STRIP INSPECTION
   SOIL MIX APPROVALS/INSPECTIONS
   TREE APPROVALS/INSPECTIONS
   TREE PLANTING INSPECTION
   IRRIGATION INSPECTION
   FINAL WALK THROUGH

   ALL INSPECTIONS SHALL BE PERFORMED BY TOWN AND/OR TOWN REPRESENTATIVE.

NOT TO SCALE

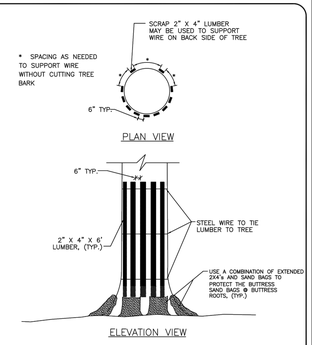
Town of Huntersville NORTH CAROLINA STANDARD DRAWING

TREE PLANTING–NOTES (DRAINAGE AND INSPECTION)

REV. DATE 10/14/09 | STD. NO. 615.1

NOTES:

1. THIS TREE BUMPER DETAIL SHALL BE USED WHEN WORKING WITHIN 10' OF AN EXISTING TREE TO BE PROTECTED.
2. ALL TREES SHALL BE SAVED UNLESS NOTED OTHERWISE ON THE PLANS OR DIRECTED BY THE ENGINEER.
3. LUMBER, WIRE, AND SANDBAGS MAY BE REUSED FOR OTHER TREES.
4. THE INTENT OF THIS DETAIL IS TO PROTECT EXISTING TREES FROM DAMAGE DURING CONSTRUCTION ESPECIALLY FROM BACKHOE ARM SWING. AN ALTERNATE APPROACH MAY BE USED IF APPROVED IN WRITING BY THE ENGINEER AFTER CONSULTATION WITH THE TOWN ARBORIST OR HIS DULY AUTHORIZED REPRESENTATIVE.

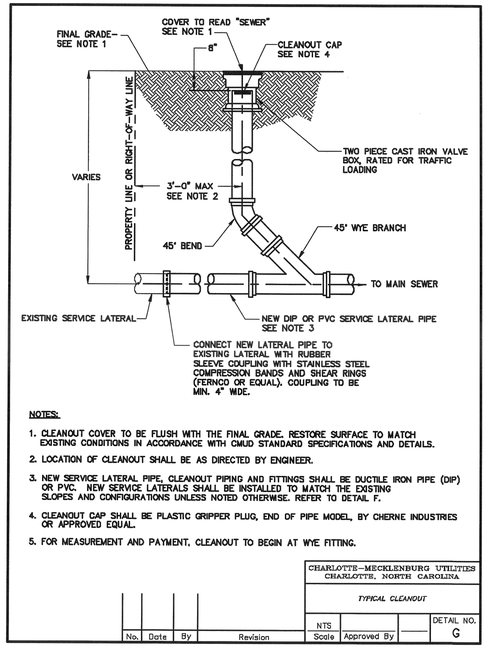


NOT TO SCALE

Town of Huntersville NORTH CAROLINA STANDARD DRAWING

TEMPORARY TREE PROTECTION DETAIL

REV. DATE 10/14/09 | STD. NO. 617.1



NOTES:

1. CLEANOUT COVER TO BE FLUSH WITH THE FINAL GRADE. RESTORE SURFACE TO MATCH EXISTING CONDITIONS IN ACCORDANCE WITH CMUD STANDARD SPECIFICATIONS AND DETAILS.
2. LOCATION OF CLEANOUT SHALL BE AS DIRECTED BY ENGINEER.
3. NEW SERVICE LATERAL PIPE, CLEANOUT PIPING AND FITTINGS SHALL BE DUCTILE IRON PIPE (DIP) OR PVC. NEW SERVICE LATERALS SHALL BE INSTALLED TO MATCH THE EXISTING SLOPES AND CONFIGURATIONS UNLESS NOTED OTHERWISE. REFER TO DETAIL F.
4. CLEANOUT CAP SHALL BE PLASTIC GRIPPER PLUG, END OF PIPE MODEL, BY CHERNE INDUSTRIES OR APPROVED EQUAL.
5. FOR MEASUREMENT AND PAYMENT, CLEANOUT TO BEGIN AT WYE FITTING.

No.	Date	By	Revision

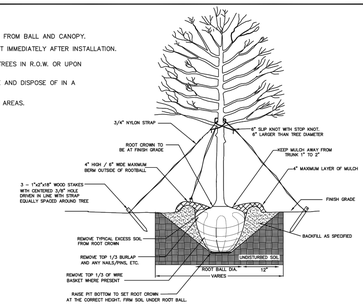
CHARLOTTE–MECKLENBURG UTILITIES
CHARLOTTE, NORTH CAROLINA

TYPICAL CLEANOUT

NTS | Scale | Approved By | DETAIL NO. G

NOTES:

1. REMOVE WIRE AND NYLON TWINE FROM BALL AND CANOPY.
2. SOAK ROOT BALL AND PLANT PIT IMMEDIATELY AFTER INSTALLATION.
3. STAKING IS REQUIRED FOR ALL TREES IN R.O.W. OR UPON REQUEST OF ARBORIST.
4. REMOVE EXCESS SOIL FROM SITE AND DISPOSE OF IN A LEGAL MANNER.
5. RESEED UNMULCHED, DISTURBED AREAS.



ALL TREES SHALL MEET AMERICAN STANDARD FOR NURSERY STOCK (ANSI Z60.1–2004)

FOR EXAMPLE:	CALIPER	HEIGHT (RANGE)	MAX. HEIGHT	MIN. ROOT BALL DIA.	MIN. ROOT BALL DEPTH
	2"	12–14'	16'	24"	16"
	3"	14–16'	18'	32"	21"

NOT TO SCALE

Town of Huntersville NORTH CAROLINA STANDARD DRAWING

TREE PLANTING (FOR SINGLE AND MULTI–STEM TREES)

REV. DATE 10/14/09 | STD. NO. 600.1

GENTLE SLOPES / STEEP SLOPES

	GENTLE SLOPES	STEEP SLOPES
SEEDING MIXTURE	80 lbs/acre of tall fesue	100 lbs/acre tall fescue 30 lbs/acre Sericea lespedeza (unscarified after August 15) 10 lbs/acre Kobe lespedeza
SEEDING DATES	FALL: August 25 – October Late winter: February 15 – April 15 To extend spring seeding into June, add 15 lbs/acre hulled Bermudograss Overseeding of Kobe lespedeza over fall–seeded tall fescue is very effective.	FALL: August 25 – October 15 Late winter: February 15 – April 15 To extend spring seeding into June, add 15 lbs/acre hulled Bermudograss Overseeding of Kobe lespedeza over fall–seeded tall fescue is very effective.
SEEDING AMENDMENTS	Apply lime and fertilizer per soil tests, or 4000 lbs/acre limestone and 1000 lbs/acre 10–10–10 fertilizer.	Apply lime and fertilizer per soil tests, or 4000 lbs/acre limestone and 1000 lbs/acre 10–10–10 fertilizer.

NOTE 1
Ground Cover– – Protective cover must be established on all disturbed areas within 14 calendar days after land disturbing activity is completed or has temporarily ceased.

NOTE 2
Graded slopes and fills– – Protective cover must be established on all graded slopes and fills within 7 calendar days after a phase of grading is completed or has temporarily ceased.

NOTE 3
Enhanced Controls– – Protective cover must be established on all disturbed areas, graded slopes, and fills within 5 calendar days after land disturbing activity or a phase of grading is completed or has temporarily ceased.

NOT TO SCALE

Town of Huntersville NORTH CAROLINA STANDARD DRAWING

SEEDING SCHEDULE

REV. DATE 08/01/17 | STD. NO. 521.1

TEMPORARY SEEDING FOR WARM AND COOL SEASON

EARLY SUMMER SEASON / STEEP SLOPES

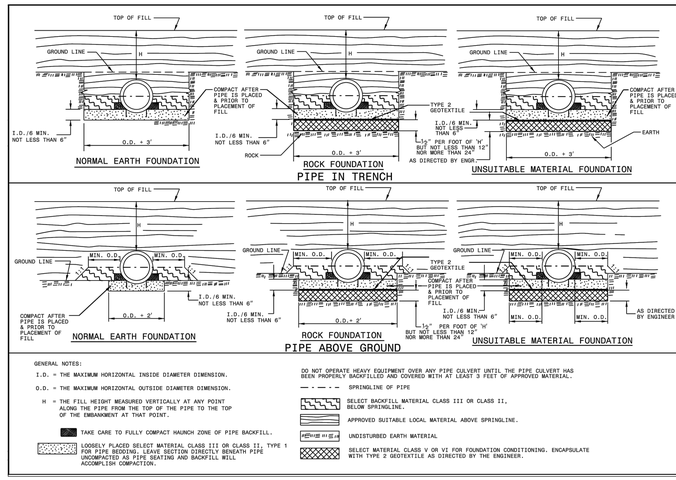
	EARLY SUMMER SEASON	STEEP SLOPES
SEEDING MIXTURE	40 lbs/acre of German millet 80 lbs/acre of tall fesue	120 lbs/acre Rye (grain) 80 lbs/acre tall fesue
SEEDING DATES	May 1 – August 15 Refertilize if growth is not fully adequate. Apply 4000 lbs/acre straw or equivalent hydroseeding.	October 25 – December 30 Between December 30 – February 15, add 50 lbs/acre of annual Kobe lespedeza. Apply 4000 lbs/acre straw or equivalent hydroseeding.
SEEDING AMENDMENTS	Apply lime and fertilizer per soil tests, or 2000 lbs/acre limestone and 750 lbs/acre 10–10–10 fertilizer.	Apply lime and fertilizer per soil tests, or 2000 lbs/acre limestone and 750 lbs/acre 10–10–10 fertilizer.

NOT TO SCALE

Town of Huntersville NORTH CAROLINA STANDARD DRAWING

SEEDING SCHEDULE (SEASONAL)

REV. DATE 10/14/09 | STD. NO. 522.1



GENERAL NOTES:

I.D. = THE MAXIMUM HORIZONTAL INSIDE DIAMETER DIMENSION.
O.D. = THE MAXIMUM HORIZONTAL OUTSIDE DIAMETER DIMENSION.
H = THE FULL HEIGHT MEASURED VERTICALLY AT ANY POINT ALONG THE PIPE FROM THE TOP OF THE PIPE TO THE TOP OF THE EMBANKMENT AT THAT POINT.

TAKE CARE TO FULLY COMPACT HAUNCH ZONE OF PIPE BACKFILL.

LOOSELY PLACED SELECT MATERIAL CLASS III OR CLASS II, TYPE 1 FOR PIPE BEDDING. LEAVE SECTION DIRECTLY BENEATH PIPE UNCOMPACTED AS PIPE SEATING AND BACKFILL WILL ACCOMPLISH COMPACTION.

DO NOT OPERATE HEAVY EQUIPMENT OVER ANY PIPE CULVERT UNTIL THE PIPE CULVERT HAS BEEN PROPERLY BACKFILLED AND COVERED WITH AT LEAST 3 FEET OF APPROVED MATERIAL.

– – – – SPRINGLINE OF PIPE

SELECT BACKFILL MATERIAL CLASS III OR CLASS II, BELOW SPRINGLINE.

APPROVED SUITABLE LOCAL MATERIAL ABOVE SPRINGLINE.

UNDISTURBED EARTH MATERIAL

SELECT MATERIAL CLASS V OR VI FOR FOUNDATION CONDITIONING. ENCAPSULATE WITH TYPE 2 GEOTEXTILE AS DIRECTED BY THE ENGINEER.

STATE OF NORTH CAROLINA DEPT. OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N.C.

1:18

ROADWAY STANDARD DRAWING FOR **METHOD OF PIPE INSTALLATION** RIGID PIPE

SHEET 2 OF 3 | **300.01**

FLEXIBLE PIPE

Round Corrugated Steel Pipe
2 2/3 x ½ corrugation **

Diameter (inches)	Minimum cover (inches)	(Ga)	Maximum Height of Cover (feet) 16	14	12	10	8
12	12		204	256			
15	12		162	204			
18	12		135	169	239		
21	12		115	145	204		
24	12		100	126	178		
30	12		79	100	142		
36	12		65	83	117	152	
42	12		55	70	100	130	160
48	12		48	61	87	113	139
54	12			54	77	100	123
60	12				69	90	111
66	12					81	100
72	12					74	91
78	12						81
84	12						69

Round Corrugated Aluminum Pipe
2 2/3 x ½ corrugation **

Diameter (inches)	Minimum cover (inches)	(Ga)	Maximum Height of Cover (feet) 16	14	12	10	8
12	12		123	155	218	281	344
15	12		98	123	174	224	275
18	12		81	102	144	187	228
21	12		69	87	123	160	195
24	12		60	76	108	139	171
27	12			67	95	123	151
30	12			60	85	111	136
36	12			50	71	92	113
42	12				60	78	96
48	12				52	68	84
54	12				46	50	74
60	12					50	62
66	12						51
72	12						41

** FOR DIFFERENT CORRUGATIONS AND ARCH PIPES REFER TO ROADWAY DESIGN MANUAL OR MANUFACTURERS SPECIFICATION.

REFER TO THE FOLLOWING FOR PIPE SPECIFICATIONS
CSP - AASHTO M36
CAAP - AASHTO M196
HDPE - AASHTO M294
PVC - ASTM F949 or AASHTO M304

HDPE - * (Minimum fill) 2' for pipe diameters ≥ 12" and ≤ 60"
* (Maximum fill) 20' for pipe diameters ≤ 24"
17' for pipe diameters ≥ 30" and ≤ 60"

PVC - * (Minimum fill) 2' for pipe diameters ≥ 12" and ≤ 36"
* (Maximum fill) 30' for pipe diameters ≥ 12" and ≤ 36"

NOTES: FILL HEIGHTS SHOWN WERE CALCULATED USING AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS
1' MINIMUM COVER FOR ALL SIDE DRAIN PIPE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS

* FILL HEIGHT IS MEASURED FROM THE TOP OF THE PIPE TO THE BOTTOM OF THE PAVEMENT STRUCTURE

RIGID PIPE

RCP - * (Minimum fill) 1' for Class IV & CLASS V
2' for Class III & Class II

* (Maximum fill) 10' - Class II pipe
20' - Class III pipe
30' - Class IV pipe
40' - Class V pipe

(For fills > 40' & < 80' use LRFD Direct Design Method)

REFER TO THE FOLLOWING FOR PIPE SPECIFICATIONS
RCP - AASHTO M170

NOTES: FILL HEIGHTS SHOWN WERE CALCULATED USING AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS
1' MINIMUM COVER FOR ALL SIDE DRAIN PIPE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS

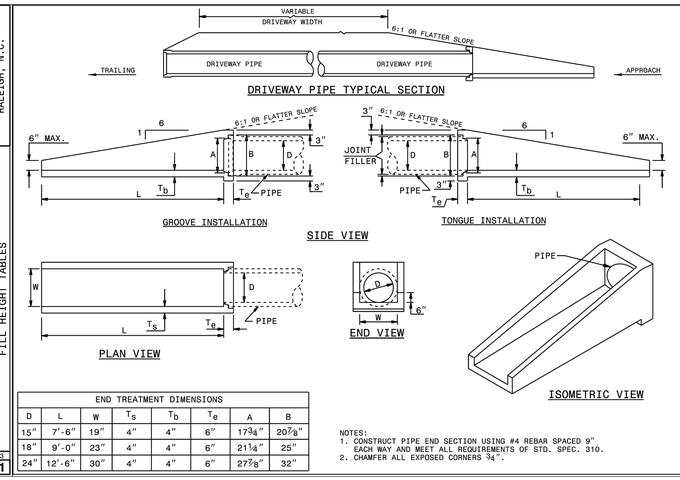
* FILL HEIGHT IS MEASURED FROM THE TOP OF THE PIPE TO THE BOTTOM OF THE PAVEMENT STRUCTURE

STATE OF NORTH CAROLINA DEPT. OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N.C.

1:18

ROADWAY STANDARD DRAWING FOR **METHOD OF PIPE INSTALLATION** FILL HEIGHT TABLES

SHEET 3 OF 3 | **300.01**



END TREATMENT DIMENSIONS							
D	L	W	T_s	T_b	T_e	A	B
15"	7'–6"	19"	4"	4"	6"	17¾"	20⅞"
18"	9'–0"	23"	4"	4"	6"	21¼"	25"
24"	12'–6"	30"	4"	4"	6"	27⅞"	32"

NOTES:
1. CONSTRUCT PIPE END SECTION USING #4 REBAR SPACED 9" EACH WAY AND MEET ALL REQUIREMENTS OF STD. SPEC. 310.
2. CHAMFER ALL EXPOSED CORNERS ¾".

STATE OF NORTH CAROLINA DEPT. OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N.C.

1:18

ROADWAY STANDARD DRAWING FOR **PARALLEL PIPE END SECTION** PRECAST CONCRETE SECTION FOR 15" TO 24" PIPE

SHEET 1 OF 1 | **310.02**

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NORTH CAROLINA REGISTERED LANDSCAPE ARCHITECT SEAL 1005 TIMOTHY S. FOLEY 10/07/2021

BLACK FARM FARMHOUSE CLUSTER

PIN #01126111
14700 BLACK FARM RD, HUNTERSVILLE, NC 28078

SITE DETAILS

REVISIONS:

2021-09-03 TOWN AND NCDOT REV.

C16 SITE DETAILS.DWG
PROJECT NUMBER: 220040
DATE: 06/04/2021 DRAWN BY: TSF
SHEET C18 OF 24

C16 SITE DETAILS.DWG - PLOT: Justin - FRI, 9-3-2021 10:17 AM

GROUND STABILIZATION AND MATERIALS HANDLING PRACTICES FOR COMPLIANCE WITH THE NCG01 CONSTRUCTION GENERAL PERMIT

Implementing the details and specifications on this plan sheet will result in the construction activity being considered compliant with the Ground Stabilization and Materials Handling sections of the NCG01 Construction General Permit (Sections E and F, respectively). The permittee shall comply with the Erosion and Sediment Control plan approved by the delegated authority having jurisdiction. All details and specifications shown on this sheet may not apply depending on site conditions and the delegated authority having jurisdiction.

SECTION E: GROUND STABILIZATION

Required Ground Stabilization Timeframes			
	Site Area Description	**Stabilize within this many calendar days after ceasing land disturbance**	**Timeframe variations**
(a)	Perimeter dikes, swales, ditches, and perimeter slopes	7	None
(b)	High Quality Water (HQW) Zones	7	None
(c)	Slopes steeper than 3:1	7	If slopes are 10' or less in length and are not steeper than 2:1, 14 days are allowed
(d)	Slopes 3:1 to 4:1	14	-7 days for slopes greater than 50' in length and with slopes steeper than 4:1 -7 days for perimeter dikes, swales, ditches, perimeter slopes and HQW Zones -10 days for Falls Lake Watershed
(e)	Areas with slopes flatter than 4:1	14	-7 days for perimeter dikes, swales, ditches, perimeter slopes and HQW Zones -10 days for Falls Lake Watershed unless there is zero slope

Note: After the permanent cessation of construction activities, any areas with temporary ground stabilization shall be converted to permanent ground stabilization as soon as practicable but in no case longer than 90 calendar days after the last land disturbing activity. Temporary ground stabilization shall be maintained in a manner to render the surface stable against accelerated erosion until permanent ground stabilization is achieved.

GROUND STABILIZATION SPECIFICATION

Stabilize the ground sufficiently so that rain will not dislodge the soil. Use one of the techniques in the table below:

Temporary Stabilization	Permanent Stabilization
• Temporary grass seed covered with straw or other mulches and tackifiers • Hydroseeding • Rolled erosion control products with or without temporary grass seed • Appropriately applied straw or other mulch • Plastic sheeting	• Permanent grass seed covered with straw or other mulches and tackifiers • Geotextile fabrics such as permanent soil reinforcement matting • Hydroseeding • Shrubs or other permanent plantings covered with mulch • Uniform and evenly distributed ground cover sufficient to restrain erosion • Structural methods such as concrete, asphalt or retaining walls • Rolled erosion control products with grass seed

POLYACRYLAMIDES (PAMS) AND FLOCCULANTS

1. Select flocculants that are appropriate for the soils being exposed during construction, selecting from the *NC DWR List of Approved PAMS/Flocculants*.
2. Apply flocculants at or before the inlets to Erosion and Sediment Control Measures.
3. Apply flocculants at the concentrations specified in the *NC DWR List of Approved PAMS/Flocculants* and in accordance with the manufacturer's instructions.
4. Provide ponding area for containment of treated Stormwater before discharging offsite.
5. Store flocculants in leak-proof containers that are kept under storm-resistant cover or surrounded by secondary containment structures.

EQUIPMENT AND VEHICLE MAINTENANCE

1. Maintain vehicles and equipment to prevent discharge of fluids.
2. Provide drip pans under any stored equipment.
3. Identify leaks and repair as soon as feasible, or remove leaking equipment from the project.
4. Collect all spent fluids, store in separate containers and properly dispose as hazardous waste (recycle when possible).
5. Remove leaking vehicles and construction equipment from service until the problem has been corrected.
6. Bring used fuels, lubricants, coolants, hydraulic fluids and other petroleum products to a recycling or disposal center that handles these materials.

LITTER, BUILDING MATERIAL AND LAND CLEARING WASTE

1. Never bury or burn waste. Place litter and debris in approved waste containers.
2. Provide a sufficient number and size of waste containers (e.g dumpster, trash receptacle) on site to contain construction and domestic wastes.
3. Locate waste containers at least 50 feet away from storm drain inlets and surface waters unless no other alternatives are reasonably available.
4. Locate waste containers on areas that do not receive substantial amounts of runoff from upland areas and does not drain directly to a storm drain, stream or wetland.
5. Cover waste containers at the end of each workday and before storm events or provide secondary containment. Repair or replace damaged waste containers.
6. Anchor all lightweight items in waste containers during times of high winds.
7. Empty waste containers as needed to prevent overflow. Clean up immediately if containers overflow.
8. Dispose waste off-site at an approved disposal facility.
9. On business days, clean up and dispose of waste in designated waste containers.

PAINT AND OTHER LIQUID WASTE

1. Do not dump paint and other liquid waste into storm drains, streams or wetlands.
2. Locate paint washouts at least 50 feet away from storm drain inlets and surface waters unless no other alternatives are reasonably available.
3. Contain liquid wastes in a controlled area.
4. Containment must be labeled, sized and placed appropriately for the needs of site.
5. Prevent the discharge of soaps, solvents, detergents and other liquid wastes from construction sites.

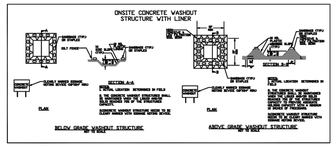
PORTABLE TOILETS

1. Install portable toilets on level ground, at least 50 feet away from storm drains, streams or wetlands unless there is no alternative reasonably available. If 50 foot offset is not attainable, provide relocation of portable toilet behind silt fence or place on a gravel pad and surround with sand bags.
2. Provide staking or anchoring of portable toilets during periods of high winds or in high foot traffic areas.
3. Monitor portable toilets for leaking and properly dispose of any leaked material. Utilize a licensed sanitary waste hauler to remove leaking portable toilets and replace with properly operating unit.

EARTHEN STOCKPILE MANAGEMENT

1. Show stockpile locations on plans. Locate earthen-material stockpile areas at least 50 feet away from storm drain inlets, sediment basins, perimeter sediment controls and surface waters unless it can be shown no other alternatives are reasonably available.
2. Protect stockpile with silt fence installed along toe of slope with a minimum offset of five feet from the toe of stockpile.
3. Provide stable stone access point when feasible.
4. Stabilize stockpile within the timeframes provided on this sheet and in accordance with the approved plan and any additional requirements. Soil stabilization is defined as vegetative, physical or chemical coverage techniques that will restrain accelerated erosion on disturbed soils for temporary or permanent control needs.

NORTH CAROLINA *Environmental Quality*



CONCRETE WASHOUTS

1. Do not discharge concrete or cement slurry from the site.
2. Dispose of, or recycle settled, hardened concrete residue in accordance with local and state solid waste regulations and at an approved facility.
3. Manage washout from mortar mixers in accordance with the above item and in addition place the mixer and associated materials on impervious barrier and within lot perimeter silt fence.
4. Install temporary concrete washouts per local requirements, where applicable. If an alternate method or product is to be used, contact your approval authority for review and approval. If local standard details are not available, use one of the two types of temporary concrete washouts provided on this detail.
5. Do not use concrete washouts for dewatering or storing defective curb or sidewalk sections. Stormwater accumulated within the washout may not be pumped into or discharged to the storm drain system or receiving surface waters. Liquid waste must be pumped out and removed from project.
6. Locate washouts at least 50 feet from storm drain inlets and surface waters unless it can be shown that no other alternatives are reasonably available. At a minimum, install protection of storm drain inlet(s) closest to the washout which could receive spills or overflow.
7. Locate washouts in an easily accessible area, on level ground and install a stone entrance pad in front of the washout. Additional controls may be required by the approving authority.
8. Install at least one sign directing concrete trucks to the washout within the project limits. Post signage on the washout itself to identify this location.
9. Remove leavings from the washout when at approximately 75% capacity to limit overflow events. Replace the tarp, sand bags or other temporary structural components when no longer functional. When utilizing alternative or proprietary products, follow manufacturer's instructions.
10. At the completion of the concrete work, remove remaining leavings and dispose of in an approved disposal facility. Fill pit, if applicable, and stabilize any disturbance caused by removal of washout.

HERBICIDES, PESTICIDES AND RODENTICIDES

1. Store and apply herbicides, pesticides and rodenticides in accordance with label restrictions.
2. Store herbicides, pesticides and rodenticides in their original containers with the label, which lists directions for use, ingredients and first aid steps in case of accidental poisoning.
3. Do not store herbicides, pesticides and rodenticides in areas where flooding is possible or where they may spill or leak into wells, stormwater drains, ground water or surface water. If a spill occurs, clean area immediately.
4. Do not stockpile these materials onsite.

HAZARDOUS AND TOXIC WASTE

1. Create designated hazardous waste collection areas on-site.
2. Place hazardous waste containers under cover or in secondary containment.
3. Do not store hazardous chemicals, drums or bagged materials directly on the ground.

NCG01 GROUND STABILIZATION AND MATERIALS HANDLING

EFFECTIVE: 04/01/19

PART III
SELF-INSPECTION, RECORDKEEPING AND REPORTING

SECTION A: SELF-INSPECTION

Self-inspections are required during normal business hours in accordance with the table below. When adverse weather or site conditions would cause the safety of the inspection personnel to be in jeopardy, the inspection may be delayed until the next business day on which it is safe to perform the inspection. In addition, when a storm event of equal to or greater than 1.0 inch occurs outside of normal business hours, the self-inspection shall be performed upon the commencement of the next business day. Any time when inspections were delayed shall be noted in the Inspection Record.

Inspect	**Frequency (during normal business hours)**	**Inspection records must include:**
(1) Rain gauge maintained in good working order	Daily	Daily rainfall amounts. If no daily rain gauge observations are made during weekend or holiday periods, and no individual-day rainfall information is available, record the cumulative rain measurement for those un-attended days (and this will determine if a site inspection is needed). Days on which no rainfall occurred shall be recorded as "zero." The permittee may use another rain-monitoring device approved by the Division.
(2) E&SC Measures	At least once per 7 calendar days and within 24 hours of a rain event ≥ 1.0 inch in 24 hours	1. Identification of the measures inspected, 2. Date and time of the inspection, 3. Name of the person performing the inspection, 4. Indication of whether the measures were operating properly, 5. Description of maintenance needs for the measure, 6. Description, evidence, and date of corrective actions taken.
(3) Stormwater discharge outfalls (SDOs)	At least once per 7 calendar days and within 24 hours of a rain event ≥ 1.0 inch in 24 hours	1. Identification of the discharge outfalls inspected, 2. Date and time of the inspection, 3. Name of the person performing the inspection, 4. Evidence of indicators of stormwater pollution such as oil sheen, floating or suspended solids or discoloration, 5. Indication of visible sediment leaving the site, 6. Description, evidence, and date of corrective actions taken.
(4) Perimeter of site	At least once per 7 calendar days and within 24 hours of a rain event ≥ 1.0 inch in 24 hours	If visible sedimentation is found outside site limits, then a record of the following shall be made: 1. Actions taken to clean up or stabilize the sediment that has left the site limits, 2. Description, evidence, and date of corrective actions taken, and 3. An explanation as to the actions taken to control future releases.
(5) Streams or wetlands onsite or offsite (where accessible)	At least once per 7 calendar days and within 24 hours of a rain event ≥ 1.0 inch in 24 hours	If the stream or wetland has increased visible sedimentation or a stream has visible increased turbidity from the construction activity, then a record of the following shall be made: 1. Description, evidence and date of corrective actions taken, and 2. Records of the required reports to the appropriate Division Regional Office per Part IB, Section C, Item (2)(a) of this permit of this permit.
(6) Ground stabilization measures	After each phase of grading	1. The phase of grading (installation of perimeter E&SC measures, clearing and grubbing, installation of storm drainage facilities, completion of all land-disturbing activity, construction or redevelopment, permanent ground cover). 2. Documentation that the required ground stabilization measures have been provided within the required timeframe or an assurance that they will be provided as soon as possible.

NOTE: The rain inspection resets the required 7 calendar day inspection requirement.

PART III
SELF-INSPECTION, RECORDKEEPING AND REPORTING

SECTION B: RECORDKEEPING

1. E&SC Plan Documentation

The approved E&SC plan as well as any approved deviation shall be kept on the site. The approved E&SC plan must be kept up-to-date throughout the coverage under this permit. The following items pertaining to the E&SC plan shall be documented in the manner described:

Item to Document	**Documentation Requirements**
(a) Each E&SC Measure has been installed and does not significantly deviate from the locations, dimensions and relative elevations shown on the approved E&SC Plan.	Initial and date each E&SC Measure on a copy of the approved E&SC Plan or complete, date and sign an inspection report that lists each E&SC Measure shown on the approved E&SC Plan. This documentation is required upon the initial installation of the E&SC Measures or if the E&SC Measures are modified after initial installation.
(b) A phase of grading has been completed.	Initial and date a copy of the approved E&SC Plan or complete, date and sign an inspection report to indicate completion of the construction phase.
(c) Ground cover is located and installed in accordance with the approved E&SC Plan.	Initial and date a copy of the approved E&SC Plan or complete, date and sign an inspection report to indicate compliance with approved ground cover specifications.
(d) The maintenance and repair requirements for all E&SC Measures have been performed.	Complete, date and sign an inspection report.
(e) Corrective actions have been taken to E&SC Measures.	Initial and date a copy of the approved E&SC Plan or complete, date and sign an inspection report to indicate the completion of the corrective action.

2. Additional Documentation

In addition to the E&SC Plan documents above, the following items shall be kept on the site

and available for agency inspectors at all times during normal business hours, unless the Division provides a site-specific exemption based on unique site conditions that make this requirement not practical:

(a) This general permit as well as the certificate of coverage, after it is received.

(b) Records of inspections made during the previous 30 days. The permittee shall record the required observations on the Inspection Record Form provided by the Division or a similar inspection form that includes all the required elements. Use of electronically-available records in lieu of the required paper copies will be allowed if shown to provide equal access and utility as the hard-copy records.

(c) All data used to complete the Notice of Intent and older inspection records shall be maintained for a period of three years after project completion and made available upon request. [40 CFR 122.41]

PART III
SELF-INSPECTION, RECORDKEEPING AND REPORTING

SECTION C: REPORTING

1. Occurrences that must be reported

Permittees shall report the following occurrences:

(a) Visible sediment deposition in a stream or wetland.

(b) Oil spills if:
- They are 25 gallons or more,
- They are less than 25 gallons but cannot be cleaned up within 24 hours,
- They cause sheen on surface waters (regardless of volume), or
- They are within 100 feet of surface waters (regardless of volume).

(a) Releases of hazardous substances in excess of reportable quantities under Section 311 of the Clean Water Act (Ref: 40 CFR 110.3 and 40 CFR 117.3) or Section 102 of CERCLA (Ref: 40 CFR 302.4) or G.S. 143-215.85.

(b) Anticipated bypasses and unanticipated bypasses.

(c) Noncompliance with the conditions of this permit that may endanger health or the environment.

2. Reporting Timeframes and Other Requirements

After a permittee becomes aware of an occurrence that must be reported, he shall contact the appropriate Division regional office within the timeframes and in accordance with the other requirements listed below. Occurrences outside normal business hours may also be reported to the Division's Emergency Response personnel at (800) 662-7956, (800) 858-0368 or (919) 733-3300.

Occurrence	**Reporting Timeframes (After Discovery) and Other Requirements**
(a) Visible sediment deposition in a stream or wetland	• ***Within 24 hours***, an oral or electronic notification. • ***Within 7 calendar days***, a report that contains a description of the sediment and actions taken to address the cause of the deposition. Division staff may waive the requirement for a written report on a case-by-case basis. • If the stream is named on the NC 303(d) list as impaired for sediment-related causes, the permittee may be required to perform additional monitoring, inspections or apply more stringent practices if staff determine that additional requirements are needed to assure compliance with the federal or state impaired-waters conditions.
(b) Oil spills and release of hazardous substances per Item 1(b)-(c) above	• ***Within 24 hours***, an oral or electronic notification. The notification shall include information about the date, time, nature, volume and location of the spill or release.
(c) Anticipated bypasses [40 CFR 122.41(m)(3)]	• ***A report at least ten days before the date of the bypass, if possible***. The report shall include an evaluation of the anticipated quality and effect of the bypass.
(d) Unanticipated bypasses [40 CFR 122.41(m)(3)]	• ***Within 24 hours***, an oral or electronic notification. • ***Within 7 calendar days***, a report that includes an evaluation of the quality and effect of the bypass.
(e) Noncompliance with the conditions of this permit that may endanger health or the environment[40 CFR 122.41(l)(7)]	• ***Within 24 hours***, an oral or electronic notification. • ***Within 7 calendar days***, a report that contains a description of the noncompliance, and its causes; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time noncompliance is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance. [40 CFR 122.41(l)(6). • Division staff may waive the requirement for a written report on a case-by-case basis.

NORTH CAROLINA *Environmental Quality*

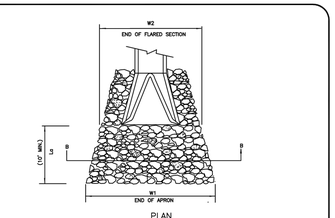
NCG01 SELF-INSPECTION, RECORDKEEPING AND REPORTING

EFFECTIVE: 04/01/19

NOTES:

1. CLASS OR MEDIAN SIZE OF RIPRAP AND LENGTH, WIDTH AND DEPTH OF APRON TO BE DESIGNED BY THE ENGINEER.
2. REFER TO THE CHARLOTTE MECKLENBURG STORM WATER DESIGN MANUAL FOR RIPRAP APRON DESIGN STANDARDS.
3. RIPRAP SHOULD EXTEND UP BOTH SIDES OF THE APRON AND AROUND THE END OF THE PIPE OR CULVERT AT THE DISCHARGE OUTLET AT A MAXIMUM SLOPE OF 2:1 AND A HEIGHT NOT LESS THAN TWO THIRDS THE PIPE DIAMETER OR CULVERT HEIGHT.
4. THERE SHALL BE NO OVERFLOW FROM THE END OF THE APRON TO THE SURFACE OF THE RECEIVING CHANNEL. THE AREA TO BE PAVED OR RIPRAPPED SHALL BE UNDERCUT SO THAT THE INVERT OF THE APRON SHALL BE AT THE SAME GRADE (FLUSH) WITH THE SURFACE OF THE RECEIVING CHANNEL. THE APRON SHALL HAVE A CUTOFF OR TOE WALL AT THE DOWNSTREAM END.
5. THE WIDTH OF THE END OF THE APRON SHALL BE EQUAL TO THE BOTTOM WIDTH OF THE RECEIVING CHANNEL. MAXIMUM TAPER TO RECEIVING CHANNEL 0:1.
6. ALL SUBGRADE FOR STRUCTURE TO BE COMPACTED TO 95% OR GREATER.
7. THE PLACING OF FILL, EITHER LOOSE OR COMPACTED IN THE RECEIVING CHANNEL SHALL NOT BE ALLOWED.
8. NO BENDS OR CURVES IN THE HORIZONTAL ALIGNMENT OF THE APRON WILL BE PERMITTED.
9. FILTER FABRIC SHALL BE INSTALLED ON COMPACTED SUBGRADE PRIOR TO PLACEMENT OF RIP RAP.
10. ANY DISTURBED AREA FROM END OF APRON TO RECIEVING CHANNEL MUST BE STABILIZED.

USE USDA NOMOGRAPH FROM NC SEDIMENT AND EROSION CONTROL MANUAL OR CHARLOTTE MECKLENBURG STORM WATER DESIGN MANUAL FOR DESIGN DATA.



RIPRAP SUMMARY CHART							
OUTLET	La	W1	W2	H	d50	dmax	*T
CULVERT - 01	12'	14'	6'	1.5'	0.4'	0.6'	1.125'
CULVERT - 02	10'	11.5'	4.5'	12"	0.4'	0.6'	1.125'
CULVERT - 03	10'	11.5'	4.5'	12"	0.4'	0.6'	0.9'
CULVERT - 04	8'	9.5'	4.0'	10"	0.3'	0.45'	0.9'
CULVERT - 05	10'	11.5'	4.5'	12"	0.3'	0.45'	0.9'

* d50 (see fig 8.06 a&b "NC SEDIMENT AND EROSION CONTROL MANUAL"
dmax = 1.5 X d50
T = 1.5 X dmax.

NOT TO SCALE

Town of Huntersville NORTH CAROLINA STANDARD DRAWING

RIPRAP APRON AT PIPE OUTFALLS OTHER THAN SWIM

REV. DATE
08/01/2017
STD. NO.
306.1

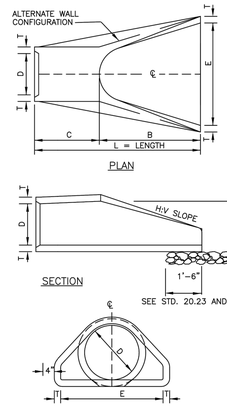


TABLE OF DIMENSIONS									
D	T	A	B	C	E	L	H:V	WT.
12"	2-1/4"	4"	2'-0"	4'-1"	2'-0"	6'-1"	3:1	730
15"	2-1/4"	6"	2'-3"	3'-10"	2'-0"	6'-1"	3:1	730
18"	2-1/2"	9"	2'-3"	3'-10"	3'-0"	6'-1"	3:1	1190
24"	3"	10"	3'-6"	3'-6"	4'-0"	6'-2"	3:1	1770
30"	3-1/2"	1'-0"	4'-6"	1'-8"	5'-0"	6'-2"	3:1	2380
36"	4"	1'-3"	5'-3"	2'-11"	6'-0"	8'-2"	3:1	5320
42"	4-1/2"	1'-9"	5'-3"	2'-11"	6'-6"	8'-2"	3:1	5920
48"	5"	2'-0"	6'-0"	2'-2"	7'-0"	8'-2"	3:1	7470
54"	5-1/2"	2'-3"	5'-6"	2'-10"	7'-6"	8'-4"	3:1	8810
60"	6"	2'-6"	5'-0"	3'-3"	8'-0"	8'-3"	3:1	11180
66"	6-1/2"	3'-0"	6'-0"	2'-3"	8'-6"	8'-3"	3:1	12530
72"	7"	3'-0"	6'-6"	1'-9"	9'-0"	8'-3"	3:1	13980

GENERAL NOTES:

1. SEE FORMER NCDOT STANDARD 310.01 FOR DETAILS.
2. REINFORCEMENT SHALL CONFORM TO THE REQUIREMENTS OF REINFORCED CONCRETE PIPE OF LIKE DIAMENTER PER AASHTO M170, TABLE 2, WALL B.
3. ALL CONCRETE TO BE 4000 P.S.I COMPRESSIVE STRENGTH.
4. PROVIDE TONGUE OR SPIGOT JOINT AT INLET END SECTION.
5. PROVIDE GROOVE OR BELL JOINT AT OUTLET END SECTION.
6. THE DIMENSIONS FOR END SECTIONS SHALL SUBSTANTIALLY AGREE WITH THE TABLE. MINOR VARIATIONS WILL BE PERMITTED BASED ON THE MANUFACTURER'S STANDARD FORMS AND TEMPLATES.
7. NOT TO BE USED IN NCDOT MAINTAINED RIGHT OF WAY.

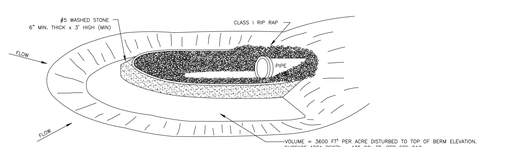
NOT TO SCALE

Town of Huntersville NORTH CAROLINA STANDARD DRAWING

FLARED END SECTION 12" THRU 72" PIPE

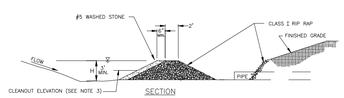
REV. DATE
10/7/09
STD. NO.
307.1

BASIN NO.	DRAINAGE AREA (ACRES)	DENUDED AREA (ACRES)	BASIN VOLUME		BASIN SURFACE AREA		CLEANOUT DEPTH H/2 (FT.)	H (FEET)
			REQUIRED (S.F.)	PROVIDED (S.F.)	REQUIRED (S.F.)	PROVIDED (S.F.)		



GENERAL NOTES:

1. GRAVEL AND RIP RAP FILTER BERM BASIN SHOULD BE USED TO PROTECT EXISTING PIPE INVERTS THAT DRAIN 5 ACRES OR LESS.
2. DIMENSIONS SHOWN ARE THE MINIMUM ACCEPTED UNLESS OTHERWISE NOTED.
3. CLEANOUT PRIOR TO SEDIMENT REACHING HALF OF BERM HEIGHT.



NOT TO SCALE

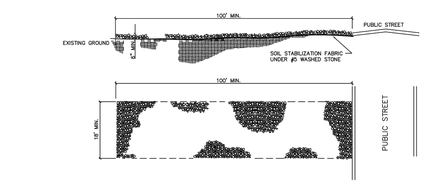
Town of Huntersville NORTH CAROLINA

GRAVEL AND RIPRAP FILTER BERM BASIN

REV. DATE
10/14/09
STD. NO.
516.1

NOTES:

1. A STABILIZED ENTRANCE PAD OF #5 WASHED STONE OR RAIL ROAD BALLAST SHALL BE LOCATED WHERE TRAFFIC WILL ENTER OR LEAVE THE CONSTRUCTION SITE ONTO A PUBLIC STREET.
2. FILTER FABRIC OR COMPACTED CRUSHER RUN STONE SHALL BE USED AS A BASE FOR THE CONSTRUCTION ENTRANCE.
3. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC STREETS OR EXISTING PAVEMENT. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS WARRANT AND REPAIR OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT.
4. ANY SEDIMENT SPILLED, DROPPED, WASHED, OR TRACKED ONTO PUBLIC STREETS MUST BE REMOVED IMMEDIATELY.
5. WHEN APPROPRIATE, WHEELS MUST BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTERING A PUBLIC STREET. WHEN WASHING IS REQUIRED, IT SHALL BE DONE IN AN AREA STABILIZED WITH CRUSHED STONE WHICH DRAINS INTO AN APPROVED SEDIMENT BASIN SEE STD. NO. 515.1.
6. TOWN MAY REQUIRE A STANDARD COMMERCIAL DRIVEWAY (STD. 108.1 – 116.1) TO ACCESS THE CONSTRUCTION SITE IF THE DRIVEWAY IS ON A THOROUGHFARE.



NOT TO SCALE

Town of Huntersville NORTH CAROLINA STANDARD DRAWING

STABILIZED CONSTRUCTION ENTRANCE

REV. DATE
10/14/09
STD. NO.
514.1

HensonFoley
Landscape Architecture Civil Engineering
8712 Lindholm Dr Suite 202A, Huntersville NC 28078
p: 704.875.1615f: | 704.875.0959 | www.hensonfoley.com
NC ENGINEERING BOARD LICENSE #: C-3781
NC LANDSCAPE ARCHITECTURE BOARD LICENSE #: C-399

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NORTH CAROLINA REGISTERED LANDSCAPE ARCHITECT SEAL 1005 TIMOTHY J. HENSON 10/14/2021

BLACK FARM FARMHOUSE CLUSTER
PIN #01126111
14700 BLACK FARM RD, HUNTERSVILLE, NC 28078

EC DETAILS

REVISIONS:
2021-09-03 TOWN AND NCDOT REV.

C16 SITE DETAILS.DWG
PROJECT NUMBER: 220040
DATE: 06/04/2021 DRAWN BY: TSF
SHEET C19 OF 24

C16 SITE DETAILS.DWG - PLOT: Justin - FRI. 9-3-2021 10:17 AM

STD. & SPEC. #	TITLE	SPECIAL REQUIREMENTS & NOTES
6.17	ROLLED EROSION CONTROL PRODUCTS	—
6.51	HARDWARE CLOTH & GRAVEL INLET PROTECTION	—
6.60	TEMPORARY SEDIMENT TRAP	WEIR TOP WIDTH 10' MIN., BOTTOM 7' MIN.
6.61	SEDIMENT BASIN	FLASH BOARD RISER NOT PERMITTED
6.64	SKIMMER SEDIMENT BASIN	1ST BAFFLE: RIP RAP & WASHED STONE BERM 2ND BAFFLE: STANDARD BAFFLE 3RD BAFFLE: HARDWARE CLOTH SURROUNDING THE SKIMMER

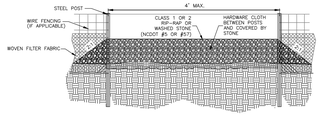
THE STANDARDS & SPECIFICATIONS SHOWN ARE FROM THE "NORTH CAROLINA EROSION AND SEDIMENT CONTROL PLANNING AND DESIGN MANUAL" (NCESCPDM) PREPARED BY NC DEPT. OF ENVIRONMENT AND NATURAL RESOURCES (NCDENR).

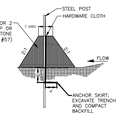
NOT TO SCALE

Town of Huntersville NORTH CAROLINA

SPECIAL EROSION CONTROL REQUIREMENTS AND NOTES

REV. DATE
10/14/09
STD. NO.
500.1





GENERAL NOTES:

1. SEDIMENT FILTER OUTLET AND HARDWARE CLOTH SHALL BE 16 INCHES HIGH BUT NO TALLER THAN 18 INCHES.
2. NCDOT #5 OR #57 WASHED STONE MAY BE USED WITH HARDWARE CLOTH OR CLASS 1 OR 2 RIP-RAP SHALL BE USED AND COVERED WITH 4 INCHES OF NCDOT #5 OR #57 WASHED STONE ON THE UPSLOPE SIDE WITH HARDWARE CLOTH.
3. HARDWARE CLOTH SHALL BE ANCHORED TO THE STEEL POSTS SECURELY USING APPROPRIATE ANCHORS. HARDWARE CLOTH SHALL BE KEYED IN A MINIMUM OF 12 INCHES IN LENGTH AND BACKFILLED PROPERLY AS SHOWN IN ABOVE DETAIL. HARDWARE CLOTH TO BE SAME AS STD. #512.1 (19 GAUGE, 1/4" SPACING).
4. POSTS SHALL BE NO MORE THAN 4 FEET APART.
5. SITE OUTLETS AT ANY POINT SMALL CONCENTRATED FLOWS ARE ANTICIPATED AND AT THE DIRECTION OF THE INSPECTOR.
6. ONE ACRE MAXIMUM DRAINAGE AREA PER OUTLET.

MAINTENANCE NOTES:

1. FILTER OUTLETS SHALL BE INSPECTED BY THE FINANCIALLY RESPONSIBLE PARTY OR HIS AGENT IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL. ANY REPAIRS NEEDED SHALL BE MADE IMMEDIATELY.
2. THE STONE SHALL BE REPLACED PROMPTLY AFTER ANY EVENT THAT HAS CLOGGED OR REMOVED IT.
3. SEDIMENT DEPOSITS SHOULD BE REMOVED WHEN DEPOSITS REACH HALF THE HEIGHT OF THE BARRIER. ANY SEDIMENT DEPOSITS REMAINING IN PLACE AFTER THE SILT FENCE OUTLET IS REMOVED SHALL BE DRESSED TO CONFORM TO THE EXISTING GRADE, PREPARED AND SEEDED.

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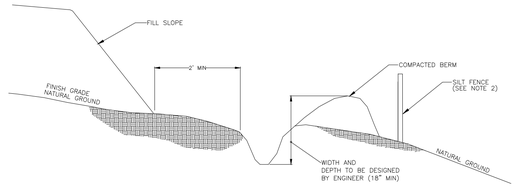
Town of Huntersville NORTH CAROLINA

SILT FENCE OUTLET OPTION 2

REV. DATE
10/14/09
STD. NO.
509.1



NOTE:

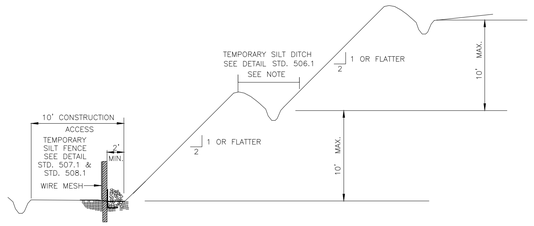
1. DITCH SHOULD HAVE LONGITUDINAL SLOPE OF 1%.
2. SILT FENCE MAY BE REQUIRED BEHIND BERM

NOT TO SCALE

Town of Huntersville NORTH CAROLINA

TEMPORARY SILT DITCH

REV. DATE
08/01/17
STD. NO.
506.1



NOTE:

DIVERSION DITCH SHOULD FLOW INTO SEDIMENT BASIN ROCK CHECK DAM, OR SLOPE DRAIN

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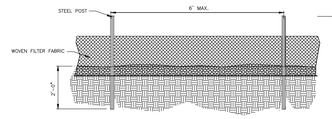
Town of Huntersville NORTH CAROLINA

SLOPE STABILITY

REV. DATE
11/13/09
STD. NO.
520.1



GENERAL NOTES:

1. FILTER FABRIC FENCE SHALL BE A MINIMUM OF 32" IN WIDTH AND SHALL HAVE A MINIMUM OF 6 LINE WIRES WITH 12" STAY SPACING.
2. WOVEN FILTER FABRIC BE USED WHERE SILT FENCE IS TO REMAIN FOR A PERIOD OF MORE THAN 30 DAYS.
3. STEEL POSTS SHALL BE 5'-0" IN HEIGHT AND BE OF THE SELF-FASTENER ANGLE STEEL TYPE.
4. TURN SILT FENCE UP SLOPE AT ENDS.
5. ORANGE SAFETY FENCE IS REQUIRED AT BACK OF SILT FENCE WHEN GRADING IS ADJACENT TO SWIM BUFFERS, STREAMS OR WETLANDS (REFER TO SWIM BUFFER GUIDELINES). THE COLOR ORANGE IS RESERVED FOR VISUAL IDENTIFICATION OF ENVIRONMENTALLY SENSITIVE AREAS.
6. DRAINAGE AREA CAN NOT BE GREATER THAN 1/4 ACRE PER 100 FT OF FENCE.
7. SLOPE LENGTHS CAN NOT EXCEED CRITERIA SHOWN IN TABLE 6.62A NORTH CAROLINA EROSION AND SEDIMENT CONTROL PLANNING AND DESIGN MANUAL.
8. DO NOT INSTALL SEDIMENT FENCE ACROSS STREAMS, DITCHES, WATERWAYS OR OTHER AREAS OF CONCENTRATED FLOW.

MAINTENANCE NOTES:

1. FILTER BARRIERS SHALL BE INSPECTED BY THE FINANCIALLY RESPONSIBLE PARTY OR HIS AGENT IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL. ANY REPAIRS NEEDED SHALL BE MADE IMMEDIATELY.
2. SHOULD THE FABRIC DECOMPOSE OR BECOME INEFFECTIVE PRIOR TO THE END OF THE EXPECTED USABLE LIFE AND THE BARRIER STILL IS NECESSARY, THE FABRIC SHALL BE REPLACED PROMPTLY.
3. SEDIMENT DEPOSITS SHOULD BE REMOVED WHEN DEPOSITS REACH APPROX. HALF THE HEIGHT OF THE BARRIER. ANY SEDIMENT DEPOSITS REMAINING IN PLACE AFTER THE SILT FENCE IS REMOVED SHALL BE DRESSED TO CONFORM TO THE EXISTING GRADE, PREPARED AND SEEDED.

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Town of Huntersville NORTH CAROLINA

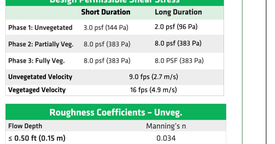
TEMPORARY SILT FENCE

REV. DATE
10/14/09
STD. NO.
507.1

GENERAL NOTES:

1. RIPRAP SIZE TO BE DESIGNED BY ENGINEER.
2. CHECK DAMS MAY BE USED IN SLOPING DITCHES OR CHANNELS TO SLOW VELOCITY OR TO CREATE SEDIMENT TRAPS.
3. ENSURE THAT MAXIMUM SPACING BETWEEN DAMS PLACES THE TOE OF THE UPSTREAM DAM AT THE SAME ELEVATION AS THE DOWNSTREAM DAM (SEE DIAGRAM BELOW).

A AND B ARE AT EQUAL ELEVATIONS



CROSS SECTION

PLAN

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Town of Huntersville

TEMPORARY CHECK DAM

REV. DATE
11/13/09
STD. NO.
513.1

STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N.C.

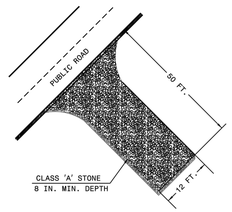
EL-12

ENGLISH STANDARD DRAWING FOR

GRAVEL CONSTRUCTION ENTRANCE

SHEET 1 OF 1

1607.01



NOTES

1. PROVIDE TURNING RADIUS SUFFICIENT TO ACCOMMODATE LARGE TRUCKS.
2. LOCATE ENTRANCES TO PROVIDE FOR UTILIZATION BY ALL CONSTRUCTION VEHICLES.
3. MUST BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR DIRECT FLOW OF MUD ONTO STREETS. PERIODIC TOPDRESSING WITH STONE WILL BE NECESSARY.
4. ANY MATERIAL TRACKED ONTO THE ROADWAY MUST BE CLEANED UP IMMEDIATELY.
5. LOCATE GRAVEL CONSTRUCTION ENTRANCE AT ALL POINTS OF INGRESS AND EGRESS UNTIL SITE IS STABILIZED. PROVIDE FREQUENT CHECKS OF THE DEVICE AND TIMELY MAINTENANCE.
6. NUMBER AND LOCATION OF CONSTRUCTION ENTRANCES TO BE DETERMINED BY THE ENGINEER.
7. USE CLASS 'A' STONE OR OTHER COARSE AGGREGATE APPROVED BY THE ENGINEER.
8. INSTALL CONSTRUCTION ENTRANCES IN A WAY TO PREVENT VEHICLES FROM BYPASSING CONSTRUCTION ENTRANCE LEAVING PROJECT SITE.

NOTE: PLACE FILTRATION GEOTEXTILE BENEATH STONE

EL-12

STATE OF NORTH CAROLINA DEPT. OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N.C.

ENGLISH STANDARD DRAWING FOR

GRAVEL CONSTRUCTION ENTRANCE

SHEET 1 OF 1

1607.01

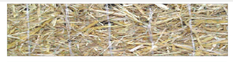
ROLLMAX™
ROLLED EROSION CONTROL

Specification Sheet
EroNet™ S75® Erosion Control Blanket

DESCRIPTION

The short-term single net erosion control blanket shall be a machine-produced mat of 100% agricultural straw with a functional longevity of up to 12 months. (NOTE: functional longevity may vary depending upon climatic conditions, soil, geographical location, and elevation). The blanket shall be of consistent thickness with the straw evenly distributed over the entire area of the mat. The blanket shall be covered on the top side with a lightweight photodegradable polypropylene netting having an approximate 0.50 x 0.50 in. (1.27 x 1.27 cm) mesh. The blanket shall be sewn together on 1.50 inch (3.81 cm) centers with degradable thread. The blanket shall be manufactured with a colored thread stitched along both outer edges (approximately 2-5 inches [5-12.5 cm] from the edge) as an overlap guide for adjacent mats.

The S75 shall meet Type 2.C specification requirements established by the Erosion Control Technology Council (ECTC) and Federal Highway Administration's (FHWA) FP-03 Section 713.17



Index Property	Test Method	Typical
Thickness	ASTM D6525	0.50 in. (12.7 mm)
Resiliency	ECTC Guidelines	78.8%
Water Absorbency	ASTM D1117	301%
Mass/Unit Area	ASTM D6475	9.76 oz/sy (332 g/sm)
Swell	ECTC Guidelines	15%
Smolder Resistance	ECTC Guidelines	Yes
Stiffness	ASTM D1388	6.31 oz-in
Light Penetration	ASTM D6567	6.0%
Tensile Strength - MD	ASTM D6818	122.4 lbs/ft (1.81 kN/m)
Elongation - MD	ASTM D6818	36.1%
Tensile Strength - TD	ASTM D6818	79.2 lbs/ft (1.17 kN/m)
Elongation - TD	ASTM D6818	26.8%
Biomass Improvement	ASTM D7322	301%

Material Content

Matrix	100% Straw Fiber	0.5 lbs/sq yd (0.27 kg/sm)
Netting	Top side only, lightweight photodegradable	1.5 lb/1000 sq ft (0.73 kg/100 sm)
Thread	Degradable	

Standard Roll Sizes

Width	6.67 ft (2.03 m)	8.0 ft (2.4 m)	16 ft (4.87 m)
Length	108 ft (32.92 m)	112 ft (34.14 m)	112 ft (34.14 m)
Weight ± 10%	40 lbs (18.14 kg)	50 lbs (22.68 kg)	100 lbs (45.36 kg)
Area	80 sq yd (66.9 sm)	100 sq yd (83.61 sm)	200 sq yd (167.22 sm)

Design Permissible Shear Stress

Unvegetated Shear Stress	1.55 psf (74 Pa)
Unvegetated Velocity	5.00 fps (1.52 m/s)

Slope Design Data: C Factors

Slope Gradients (S)			
Slope Length (L)	≤ 3:1	3:1 – 2:1	≥ 2:1
≤ 20 ft (6 m)	0.029	N/A	N/A
20-50 ft	0.11	N/A	N/A
≥ 50 ft (15.2 m)	0.19	N/A	N/A

NTPEP Large-Scale Slope Testing
ASTM D6459 - C-Factor = 0.012

Roughness Coefficients – Unveg.

Flow Depth	Manning's n
≤ 0.50 ft (0.15 m)	0.055
0.50 – 2.0 ft	0.055-0.021
≥ 2.0 ft (0.60 m)	0.021

NORTH AMERICAN GREEN

Western Green
4609 E. Boonville-New Harmony Rd.
Evansville, IN 47725

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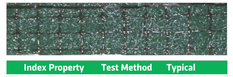
EC_RMX_MPDS_S75_1.19

ROLLMAX™
ROLLED EROSION CONTROL

Specification Sheet
EroNet™ P300® Permanent Erosion Control Blanket

DESCRIPTION

The permanent erosion control blanket shall be a machine-produced mat of 100% UV stable polypropylene fiber. The matting shall be of consistent thickness with the synthetic fibers evenly distributed over the entire area of the mat. The matting shall be covered on the top side with black heavyweight UV-stabilized polypropylene netting having ultraviolet additives to delay breakdown and an approximate 0.50 x 0.50 inch (1.27 x 1.27 cm) mesh. The bottom net shall also be UV-stabilized polypropylene with a 0.63 x 0.63 inch (1.57 x 1.57 cm) mesh size. The blanket shall be sewn together on 1.5 inch (3.81 cm) centers with non-degradable thread. All mats shall be manufactured with a colored thread stitched along both outer edges as an overlap guide for adjacent mats. The P300 shall meet Type 5A, 5B, specification requirements established by the Erosion Control Technology Council (ECTC) and Federal Highway Administration's (FHWA) FP-03 Section 713.18



Index Property	Test Method	Typical
Thickness	ASTM D6525	0.47 in. (11.94 mm)
Resiliency	ASTM D6524	91.5%
Density	ASTM D792	0.916 g/cm³
Mass/Unit Area	ASTM 6566	13.03 oz/sy (443 g/m2)
UV Stability	ASTM D4355/ 1000 hr	90%
Porosity	ECTC Guidelines	95.89%
Stiffness	ASTM D1388	0.94 in-lb (1085378 mg-cm)
Light Penetration	ASTM D6567	17.9%
Tensile Strength - MD	ASTM D6818	438 lbs/ft (6.49 kN/m)
Elongation - MD	ASTM D6818	28.1%
Tensile Strength - TD	ASTM D6818	291.9 lbs/ft (4.32 kN/m)
Elongation - TD	ASTM D6818	26.7%
Biomass Improvement	ASTM D7322	457%

Material Content

Matrix	100% UV stable Polypropylene Fiber	0.7 lbs/sq yd (0.38 kg/sm)
Netting	Top: UV-stabilized Polypropylene	5 lbs/1000 sq ft (24.4 g/sm)
	Bottom: UV-stabilized Polypropylene	3 lbs/1000 sq ft (14.7 g/sm)
Thread	Polypropylene, UV stable	

Standard Roll Sizes

Width	6.67 ft (2.03 m)	8 ft (2.44 m)	
Length	108 ft (32.92 m)	112 ft (35.14 m)	
Weight ± 10%	61 lbs (27.66 kg)	76.25 lbs (34.59 kg)	
Area	80 sq yd (66.0 sm)	100 sq yd (83.61 sm)	

Design Permissible Shear Stress

	Short Duration	Long Duration
Phase 1: Unvegetated	3.0 psf (144 Pa)	2.0 psf (96 Pa)
Phase 2: Partially Veg.	8.0 psf (383 Pa)	8.0 psf (383 Pa)
Phase 3: Fully Veg.	8.0 psf (383 Pa)	8.0 PSF (383 Pa)
Unvegetated Velocity	9.0 fps (2.7 m/s)	
Vegetaged Velocity	16 fps (4.9 m/s)	

Slope Design Data: C Factors

Slope Gradients (S)			
Slope Length (L)	≤ 3:1	3:1 – 2:1	≥ 2:1
≤ 20 ft (6 m)	0.001	0.029	0.082
20-50 ft	0.036	0.060	0.086
≥ 50 ft (15.2 m)	0.070	0.090	0.110

Roughness Coefficients – Unveg.

Flow Depth	Manning's n
≤ 0.50 ft (0.15 m)	0.034
0.50 – 2.0 ft	0.034-0.020
≥ 2.0 ft (0.60 m)	0.020

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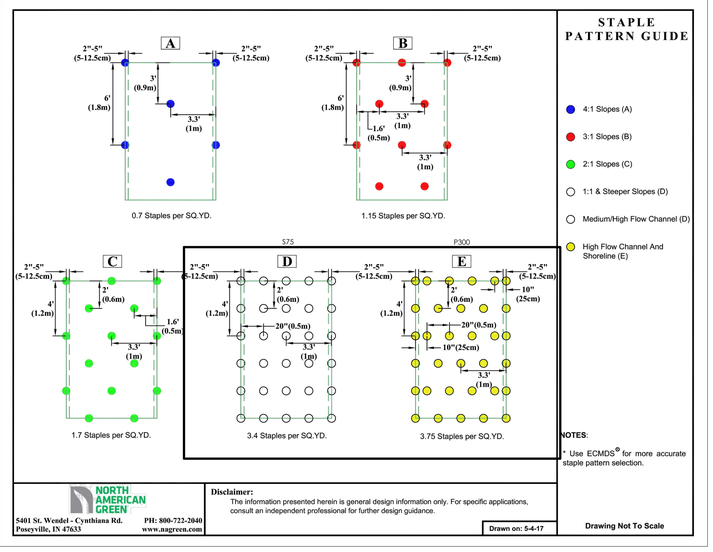
EC_RMX_MPDS_P300_1.19



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Poseyville, IN 47633

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Disclaimer:
The information presented herein is general design information only. For specific applications, consult an independent professional for further design guidance.

Drawn on: 5-4-17

Drawing Not To Scale

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NORTH CAROLINA REGISTERED LANDSCAPE ARCHITECT 2331 TIMOTHY A. HENSON

BLACK FARM FARMHOUSE CLUSTER

PIN #01126111

14700 BLACK FARM RD, HUNTERSVILLE, NC 28078

EC DETAILS

REVISIONS:

2021-09-03 TOWN AND NCDOT REV.

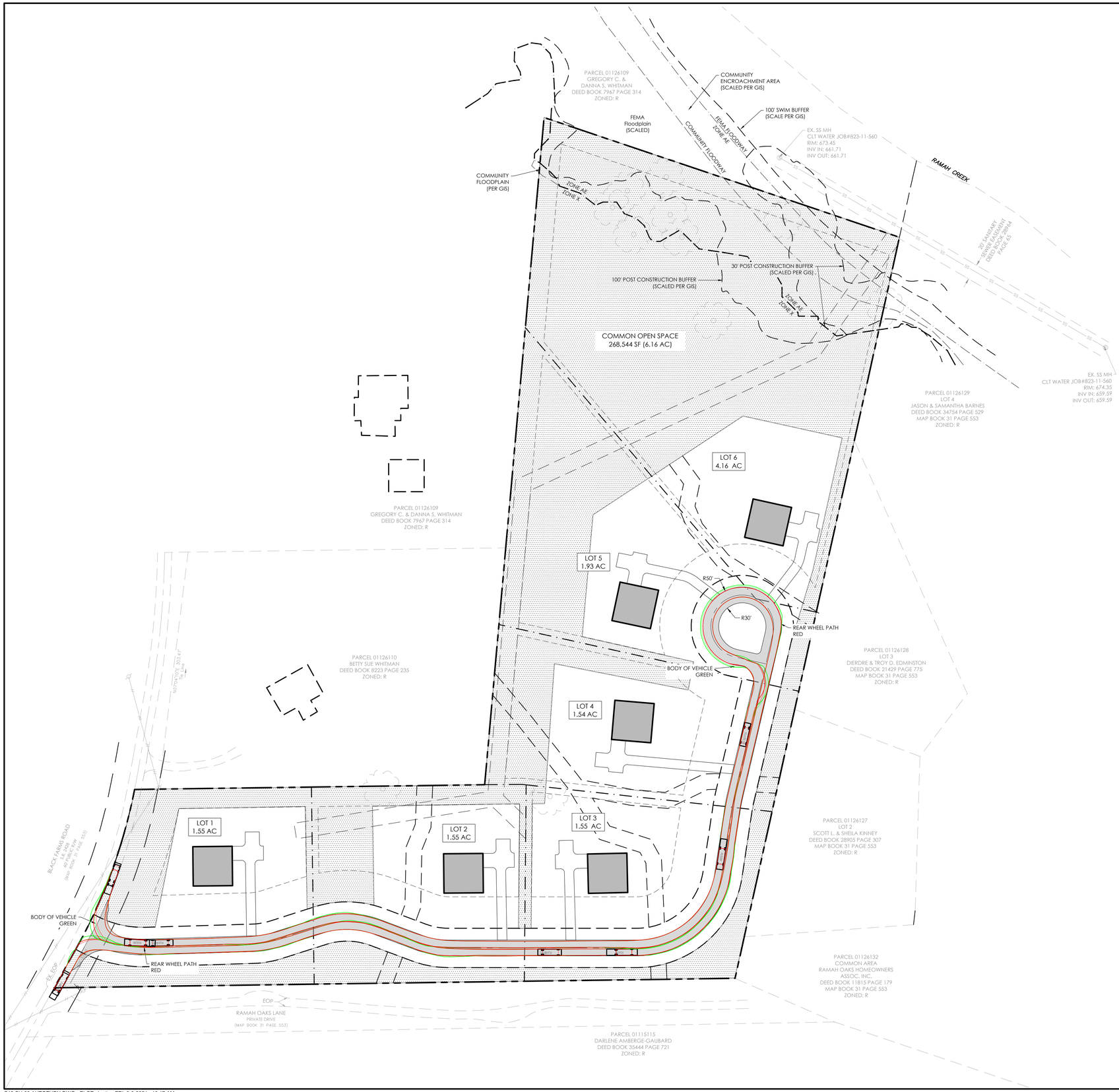
C16 SITE DETAILS.DWG

PROJECT NUMBER: 220040

DATE: 06/04/2021 DRAWN BY: TSF

SHEET C20 OF 24

C16 SITE DETAILS.DWG - PLOT: Justin - FRI. 9-3-2021 10:17 AM



1. CONTRACTOR IS FULLY RESPONSIBLE FOR CONTACTING APPROPRIATE PARTIES AND ASSURING THAT EXISTING UTILITIES ARE LOCATED PRIOR TO BEGINNING CONSTRUCTION.
2. CONTRACTOR IS RESPONSIBLE FOR PLACING BARRICADES USING FLAGMEN, ETC., AS NECESSARY TO INSURE SAFETY TO THE PUBLIC.
3. ALL PAVEMENT CUTS, CONCRETE OR ASPHALT, ARE TO BE REPLACED ACCORDING TO STANDARDS OF THE DEPARTMENT OF TRANSPORTATION.
4. SHORING WILL BE ACCORDING TO OSHA TRENCHING STANDARDS PART 1926 SUBPART P, OR AS AMENDED.

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N
W E
S
NORTH ARROW
0 30 60 120
GRAPHIC SCALE 1"=60 FT.

NORTH CAROLINA REGISTERED LANDSCAPE ARCHITECT 2019 TIMOTHY A. PENSA

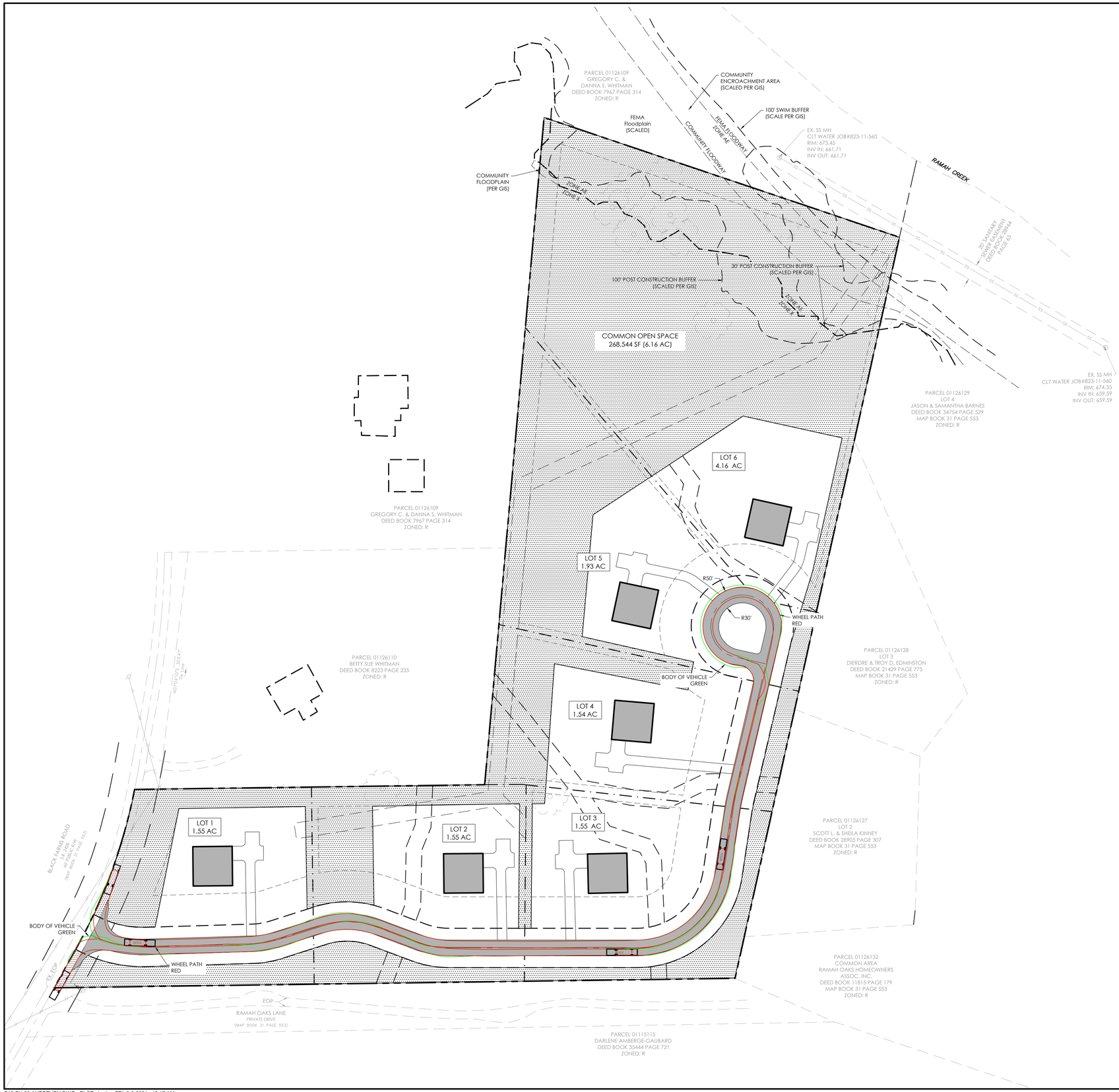
BLACK FARM FARMHOUSE CLUSTER

PIN #01126111
14700 BLACK FARM RD, HUNTERSVILLE, NC 28078

SU-30 AUTOTURN

REVISIONS:
2021-09-03 TOWN AND NCDOT REV.

C19 SU-30 AUTOTURN.DWG
PROJECT NUMBER: 220040
DATE: 06/04/2021 DRAWN BY: TSF
SHEET C21 OF 24



1. CONTRACTOR IS FULLY RESPONSIBLE FOR CONTACTING APPROPRIATE PARTIES AND ASSURING THAT EXISTING UTILITIES ARE LOCATED PRIOR TO BEGINNING CONSTRUCTION.
2. CONTRACTOR IS RESPONSIBLE FOR PLACING BARRICADES USING FLAGMEN, ETC., AS NECESSARY TO INSURE SAFETY TO THE PUBLIC.
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N
W E
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NORTH ARROW
0 30 60 120
GRAPHIC SCALE 1"=60 FT.

NORTH CAROLINA REGISTERED LANDSCAPE ARCHITECT No. 1001 TIMOTHY A. HENSON
10/15/2021

BLACK FARM FARMHOUSE CLUSTER

PIN #01126111

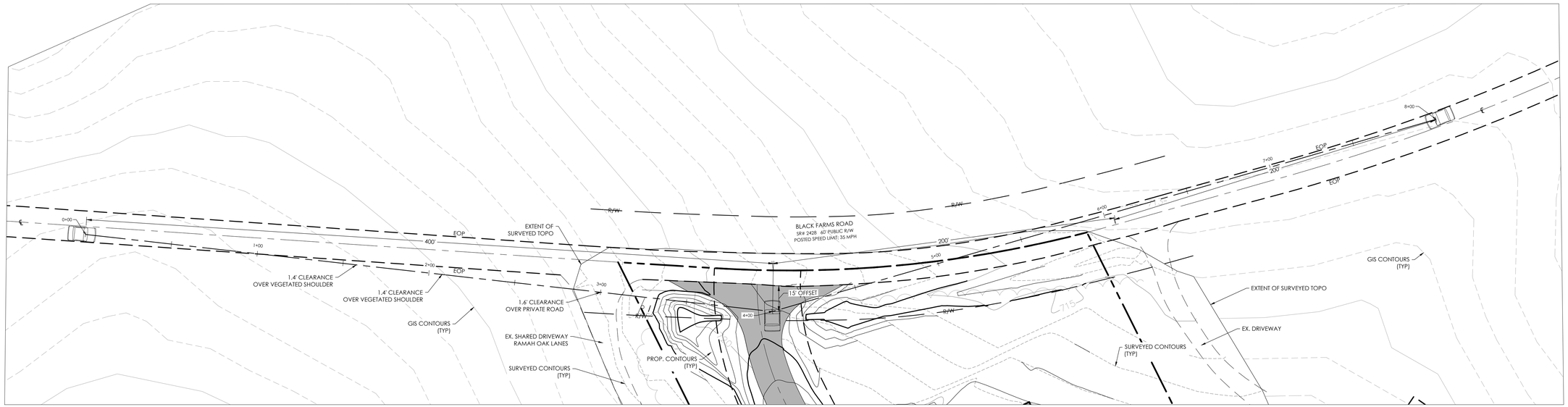
14700 BLACK FARM RD, HUNTERSVILLE, NC 28078

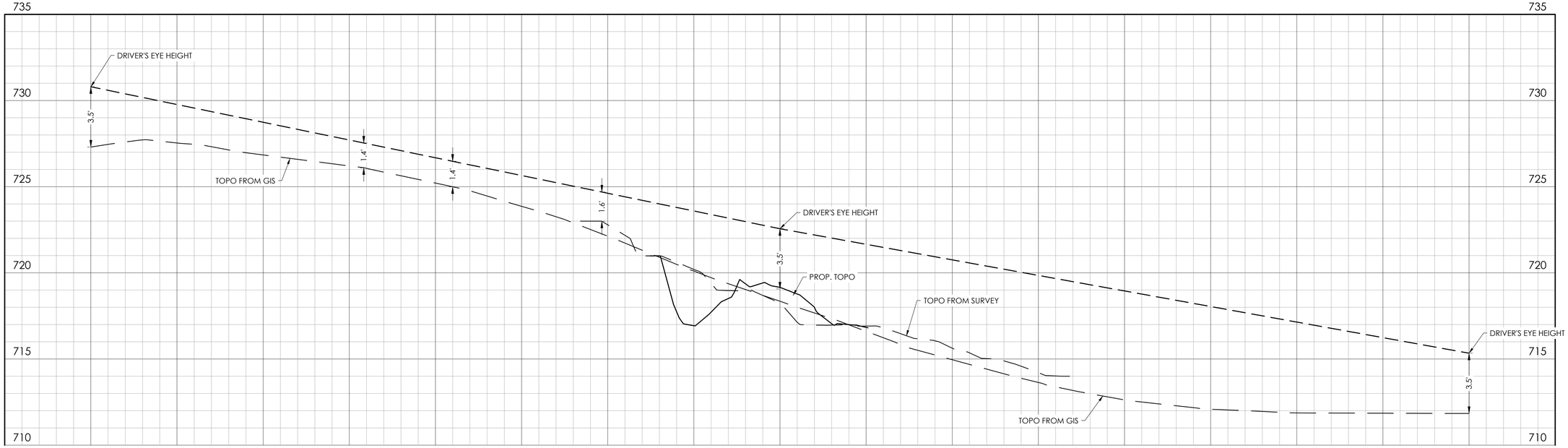
FIRETRUCK AUTOTURN

REVISIONS:
2021-09-03 TOWN AND NCDOT REV.

C19 SU-30 AUTOTURN.DWG
PROJECT NUMBER: 220040
DATE: 06/04/2021 DRAWN BY: TSF
SHEET C22 OF 24

C19 SU-30 AUTOTURN.DWG - PLOT: Justin - FRI. 9-3-2021 10:17 AM





SIGHT DISTANCE PROFILE
H: 1"=30'
V: 1"=3'

1. CONTRACTOR IS FULLY RESPONSIBLE FOR CONTACTING APPROPRIATE PARTIES AND ASSURING THAT EXISTING UTILITIES ARE LOCATED PRIOR TO BEGINNING CONSTRUCTION.
2. CONTRACTOR IS RESPONSIBLE FOR PLACING BARRICADES USING FLAGMEN, ETC., AS NECESSARY TO INSURE SAFETY TO THE PUBLIC.
3. ALL PAVEMENT CUTS, CONCRETE OR ASPHALT, ARE TO BE REPLACED ACCORDING TO STANDARDS OF THE DEPARTMENT OF TRANSPORTATION.
4. SHORING WILL BE ACCORDING TO OSHA TRENCHING STANDARDS PART 1926 SUBPART P, OR AS AMENDED.

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NORTH ARROW

0 15 30 60
GRAPHIC SCALE 1"=30 FT.

NORTH CAROLINA REGISTERED LANDSCAPE ARCHITECT No. 1007 TIMOTHY S. FOSTER
9/3/2021

BLACK FARM FARMHOUSE CLUSTER

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SIGHT DISTANCE PROFILE

REVISIONS:
2021-09-03 TOWN AND NCDOT REV.

C21 SIGHT DISTANCE PROFILE.DWG
PROJECT NUMBER: 220040
DATE: 06/04/2021 DRAWN BY: TSF
SHEET C23 OF 24

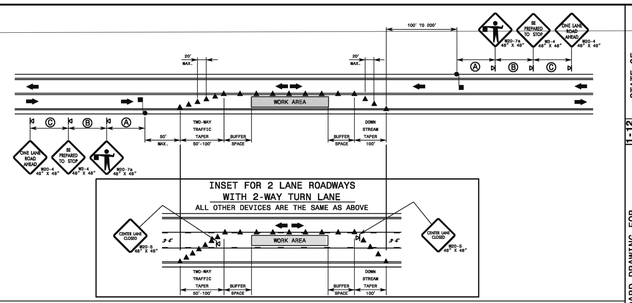
C21 SIGHT DISTANCE PROFILE.DWG - PLOT: Justin - FRI. 9-3-2021 10:17 AM

STATE OF NORTH CAROLINA
DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
RALEIGH, N.C.

1-12

ENGLISH STANDARD DRAWING FOR
TEMPORARY LANE CLOSURES
2-LANE, 2-WAY ROADWAY-1 LANE CLOSED

SHEET 1 OF 15
1101.02



INSET FOR 2 LANE ROADWAYS
WITH 2-WAY TURN LANE
ALL OTHER DEVICES ARE THE SAME AS ABOVE

GENERAL NOTES FOR FLAGGER OPERATIONS

1- REFER TO STD. 1101.11 SHEET 4 FOR SIGN SPACING.

2- INSTALL LANE CLOSURES WITH THE TRAFFIC FLOW, BEGINNING WITH DEVICES ON THE UPSTREAM SIDE OF TRAFFIC.

3- REMOVE LANE CLOSURES AGAINST THE TRAFFIC FLOW, BEGINNING WITH DEVICES ON THE DOWNSTREAM SIDE OF TRAFFIC.

4- PLACE CONES 1NRU THE WORK AREA AT THE MAXIMUM SPACING EQUAL IN FEET TO 2 TIMES THE POSTED SPEED LIMIT.

5- EXTEND LANE CLOSURES THE BUFFER SPACE SUCH THAT STOPPING SIGHT DISTANCE IS PROVIDED TO THE FLAGGER (REFER TO STD. 1101.11 SHEET 2).

6- DO NOT STOP TRAFFIC IN ANY ONE DIRECTION FOR MORE THAN 5 MINUTES AT A TIME.

7- DRUMS OR SKINNY-DRUMS MAY BE USED IN LIEU OF CONES. REFER TO ROADWAY STANDARD DRAWING 1180.01 FOR SKINNY-DRUM REQUIREMENTS.

8- USE FLAGGERS TO CONTROL TRAFFIC AT INTERSECTIONS AFFECTED BY THE LANE CLOSURE. USE [W20-7a] SIGN(S) LOCATED AT INTERSECTIONS WITH FLAGGER AHEAD SIGNS [W20-7a] PLACED APPROXIMATELY 200 FT. IN ADVANCE OF THE FLAGGER. FOR SIGNALIZED INTERSECTIONS PLACE SIGNALS IN THE FLASH MODE AND RECOMMEND THE USE OF LAW ENFORCEMENT.

9- REFER TO 2009 MUTCD, CHAPTER 6, FOR FLAGGER CONTROL, REQUIREMENTS, AND PROCEDURES.

10- DO NOT EXCEED A 1 MILE LANE CLOSURE LENGTH UNLESS OTHERWISE SHOWN IN THE TMP OR AS DIRECTED BY THE ENGINEER.

GENERAL NOTES FOR PILOT CAR OPERATIONS

1- USE PILOT CARS WHEN DIRECTED BY THE ENGINEER.

2- IF ROADWAY WIDTH IS LESS THAN 22 FEET (EOP TO EOP), CONES MAY NOT BE REQUIRED ALONG WORK AREA AND AT THE DISCRETION OF THE ENGINEER, CONES MAY BE OMITTED ALONG THE WORK AREA IF USING A PILOT CAR.

3- CONES ARE ALWAYS REQUIRED IN THE UPSTREAM AND DOWNSTREAM TAPERS.

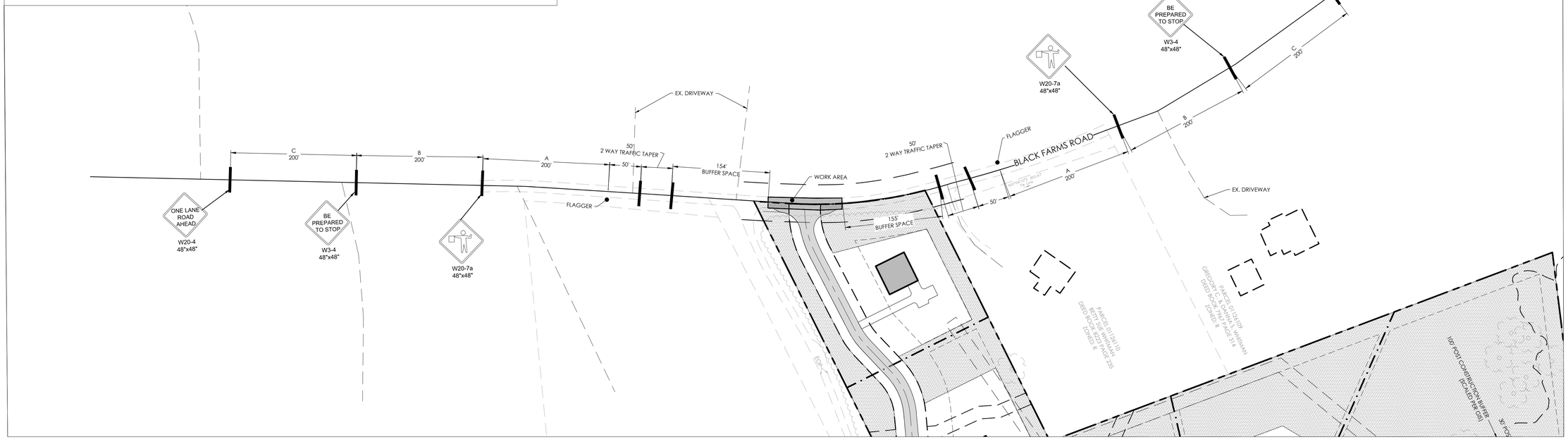
4- MOUNT SIGN G20-4 "PILOT CAR FOLLOW ME" AT A CONSPICUOUS POSITION ON THE REAR OF THE PILOT VEHICLE.

5- DO NOT INSTALL MORE THAN ONE (1) MILE OF LANE CLOSURE, MEASURED FROM THE BEGINNING OF THE MERGE TAPER TO THE END OF THE LANE CLOSURE.

6- ADVISE RESIDENTS AND BUSINESSES WITHIN THE LANE CLOSURE LIMITS ABOUT METHODS OF SAFE EGRESS AND INGRESS FROM DRIVEWAYS DURING FLAGGING AND PILOT CAR OPERATIONS.

LEGEND

- FLAGGER
- CONE
- PORTABLE SIGN
- DIRECTION OF TRAFFIC FLOW



STATE OF NORTH CAROLINA
DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
RALEIGH, N.C.

1-12

ENGLISH STANDARD DRAWING FOR
TRAFFIC CONTROL DESIGN TABLES
BUFFER SPACE & SIGHT DISTANCE

SHEET 2 OF 4
1101.11

DESIGN SPEED (MPH)	MINIMUM SIGHT DISTANCE		MINIMUM LONGITUDINAL BUFFER SPACE (FEET)
	STOPPING SIGHT DISTANCE (FEET)	PASSING SIGHT DISTANCE (FEET)	
30	200	1090	85
35	250	1280	120
40	305	1470	155
45	360	1625	195
50	425	1835	240
55	495	1985	290
60	570	2135	345
65	645	2285	405
70	730	2480	470
75	820	2580	540
80	910	2680	615

GENERAL NOTES

1- TABLES ARE BASED ON THE AASHTO GREEN BOOK "A POLICY ON GEOMETRIC DESIGN OF HIGHWAYS AND STREETS" AND THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES". MINIMUM SIGHT DISTANCE VALUES ARE FOR PASSENGER CAR VEHICLES ON WET AND LEVEL ROADWAYS. CONSULT THE AASHTO GREEN BOOK TO MAKE FINAL DETERMINATION OF STOPPING SIGHT DISTANCE REQUIREMENTS.

2- BUFFER SPACE TABLE IS BASED ON THE BRAKING DISTANCE PORTION OF STOPPING SIGHT DISTANCE FOR WET AND LEVEL PAVEMENTS.

3- USE OF STOPPING SIGHT DISTANCE IN TRAFFIC CONTROL PLAN APPLICATIONS INCLUDES PROVIDING SIGHT DISTANCE FOR TRAFFIC APPROACHING A LANE CLOSURE. PROVIDE 2-LANE, 2-WAY ROADWAYS STOPPING SIGHT DISTANCE TO THE FLAGGER. FOR LANE CLOSURES ON MULTILANE ROADWAYS PROVIDE STOPPING SIGHT DISTANCE TO THE BEGINNING OF THE LANE CLOSURE MERGE TAPER, OR FLASHING ARROW BOARD. EXTEND LANE CLOSURES AT THE BUFFER SPACE SUCH THAT STOPPING SIGHT DISTANCE IS PROVIDED.

4- USE OF MINIMUM PASSING SIGHT DISTANCE TABLE IN TRAFFIC CONTROL PLAN APPLICATIONS INCLUDES PROVIDING SIGHT DISTANCE REQUIREMENTS FOR PLACEMENT OF PAVEMENT MARKING PASSING/NO-PASSING ZONES FOR 2-LANE, 2-WAY ROADWAYS.

STATE OF NORTH CAROLINA
DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
RALEIGH, N.C.

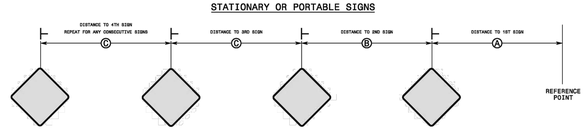
1-12

ENGLISH STANDARD DRAWING FOR
TRAFFIC CONTROL DESIGN TABLES
SPACING OF TEMPORARY SIGNS IN SERIES

SHEET 4 OF 4
1101.11

ADVANCE WARNING SIGN SPACING CHART			
POSTED SPEED LIMIT (MPH)	RECOMMENDED DISTANCE BETWEEN SIGNS (FEET)*		
	(A)	(B)	(C)
≤ 35	200	200	200
40-50	350	350	350
55	500	500	500
CONTROLLED ACCESS ROADS (≥ 55)	1000	1500	2700

STATIONARY OR PORTABLE SIGNS



GENERAL NOTES

1- REFER TO 2009 MUTCD.

2- USE THIS STANDARD DRAWING IN CONJUNCTION WITH OTHER TRAFFIC CONTROL ROADWAY STANDARD DRAWINGS WHERE SIGN SPACING DISTANCES A, B, C, ARE SPECIFIED.

3- APPLY THE ADVANCE WARNING SIGN SPACING CHART WHERE A SERIES OF 2 OR MORE SIGNS ARE USED. ALL SIGN SPACING DIMENSIONS ARE APPROXIMATE. FIELD ADJUST AS VARIOUS CONDITIONS OCCUR, SUCH AS LIMITED SIGHT DISTANCE, OBSTRUCTION INTERFERENCE, ETC.

STATE OF NORTH CAROLINA
DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
RALEIGH, N.C.

1-12

ENGLISH STANDARD DRAWING FOR
TRAFFIC CONTROL DESIGN TABLES
SPACING OF TEMPORARY SIGNS IN SERIES

SHEET 4 OF 4
1101.11

HensonFoley
Landscape Architecture Civil Engineering
8712 Lindholm Dr Suite 202A, Huntersville NC 28078
p: 704.875.1615f: | 704.875.0959 | www.hensonfoley.com
NC ENGINEERING BOARD LICENSE #: C-3781
NC LANDSCAPE ARCHITECTURE BOARD LICENSE #: C-399

NORTH CAROLINA REGISTERED LANDSCAPE ARCHITECT 1000 A. HENSON 2021 FOUNDATION

09/03/2021

BLACK FARM FARMHOUSE CLUSTER

PIN #0112611

14700 BLACK FARM RD, HUNTERSVILLE, NC 28078

TRAFFIC CONTROL

REVISIONS:

2021-09-03 TOWN AND NCDOT REV.

1. CONTRACTOR IS FULLY RESPONSIBLE FOR CONTACTING APPROPRIATE PARTIES AND ASSURING THAT EXISTING UTILITIES ARE LOCATED PRIOR TO BEGINNING CONSTRUCTION.
2. CONTRACTOR IS RESPONSIBLE FOR PLACING BARRICADES USING FLAGMEN, ETC., AS NECESSARY TO INSURE SAFETY TO THE PUBLIC.
3. ALL PAVEMENT CUTS, CONCRETE OR ASPHALT, ARE TO BE REPLACED ACCORDING TO STANDARDS OF THE DEPARTMENT OF TRANSPORTATION.
4. SHORING WILL BE ACCORDING TO OSHA TRENCHING STANDARDS PART 1926 SUBPART P, OR AS AMENDED.

811 Know what's **below.** **Call** before you dig.

C22 TRAFFIC CONTROL.DWG
PROJECT NUMBER: 220040
DATE: 06/04/2021 DRAWN BY: TSF
SHEET C24 OF 24

Town of Huntersville
Town Board
October 18, 2021

To: Town Board

From: Brian Richards

Date: October 18, 2021

Subject: Quasi-judicial Hearing on Birkdale Village Subdivision Sketch Plan Revision

---

EXPLAIN REQUEST:
Conduct quasi-judicial hearing on Birkdale Village Subdivision Sketch Plan Revision. A request by DDRTC Birkdale Village, LLC to subdivide +/- 1.78 acres of land located along Birkdale Commons Parkway to create 4 additional lots and abandon a portion of Lindholm Drive. Parcel IDs: 00537115, 00537156, 00537163,00537198.

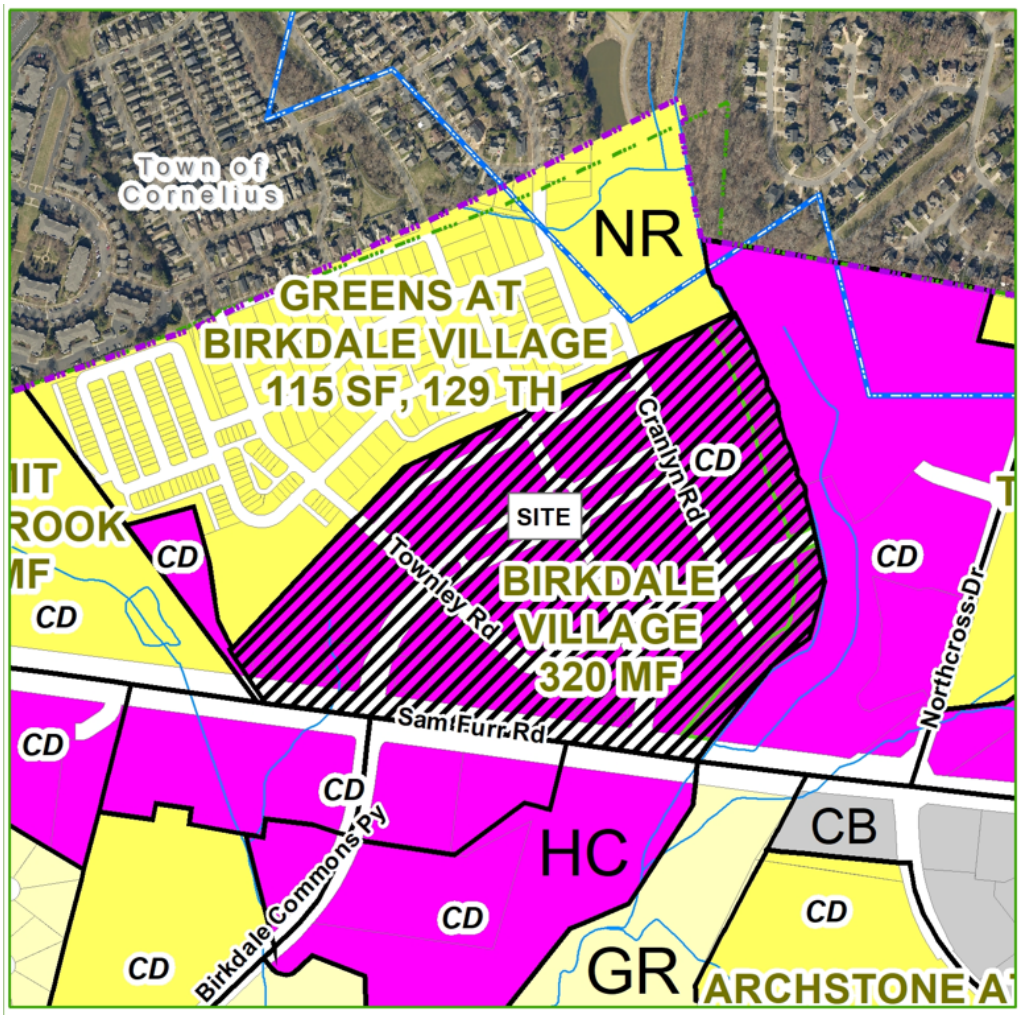
ACTION RECOMMENDED:
Conduct quasi-judicial hearing on Birkdale Village Subdivision Sketch Plan Revision. A request by DDRTC Birkdale Village, LLC to subdivide +/- 1.78 acres of land located along Birkdale Commons Parkway to create 4 additional lots and abandon a portion of Lindholm Drive. Parcel IDs: 00537115, 00537156, 00537163,00537198.

FINANCIAL IMPLICATIONS:
N/A

ATTACHMENTS:
1. BDV2021 Staff Report (TB) 101821
2. Attachment A - Application
3. Attachment B - BDV Sketch Plan
4. Attachment C - BDV Neighborhood Meeting
5. Attachment D - BDV Development Standards 2-9-01
6. Attachment E - BDV Sketch Unsigned 7-22-04
7. Attachment F - BDV Plat Map 1 MB34 Page 795

Birkdale Village Subdivision Sketch Plan Revision

PART 1: PROJECT SUMMARY



Applicant: DDRTC Birkdale Village, LLC

Property Owner(s): DDRTC Birkdale Village LLC

Property Address: 16912 Birkdale Commons Pkwy.

Project Area Size: (+/-) 1.78 acres
Birkdale Village 53.39 acres

Parcel Number(s): 00537155, 00537156, 00537163, 00537198

Current Zoning: Highway Commercial Conditional District HC(CD).

Current Land Use: Common Open Space

Proposed Land Use: Commercial, Common Open Space, Urban Open Space.

PART 2: SITE PLAN DESCRIPTION AND ISSUES

1. Purpose: Subdivide existing parcels to create properties for commercial use (repurpose 0.8 acres of Common Open Space) and to abandon right of way (Lindholm Dr) to revise common areas.
2. Adjoining Zoning and Land Uses:
   North: Neighborhood Residential (NR) – Single Family and Townhomes: Greens at Birkdale Village
   South: Highway Commercial (HC) – Commercial Development: Birkdale & Birkdale Landing
   East: Highway Commercial (HC) – Office Buildings
   West: Neighborhood Residential (NR) & Highway Commercial (HC) – Single-family, Townhomes, and Apartments: Greens at Birkdale Village, Birkdale Active Adult (under construction)
3. A neighborhood meeting was held on August 11th, 2021. The complete meeting summary is provided in Attachment C.
4. Birkdale Village was originally rezoned in 1996 (R96-07) and has had two revisions (R97-23 & R01-03).
5. The original subdivision was approved for 20 lots. The proposed Sketch Plan amendment would allow for 24 lots.

6. The project area contains 142 trees. 32 are to be removed due to construction and sight distance. The developer is offering to replant 21 trees. The 2001 Zoning Ordinance Article 7 requires the developer to make every reasonable effort to protect and retain all existing trees not lying in the roadways, drainageways, and building foundations.
7. The subdivision will be redeveloped in one phase.
8. A water quality concept plan is not needed as there will be no additional impervious area.
9. Required Urban Open Space is provided via the McDowell Creek Greenway (4.62 acres) and a Promenade (0.16 acres). There will be 2.2 acres of Common Open Space. 0.8 acres of existing Common Open Space will be converted to buildable lots.

Existing:

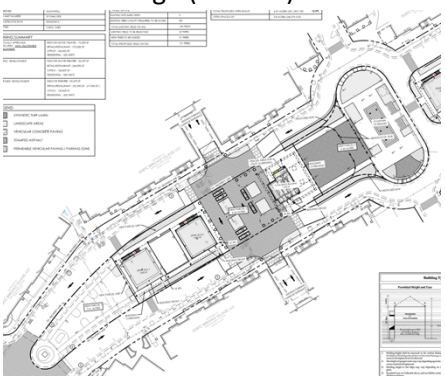
Proposed:

10. The redevelopment will reduce parking by 78 spaces. The Ordinance requires 1,082 parking spaces and the revised development plan offers 1,940 parking spaces and introduces a formalized valet parking service.
11. The applicant is requesting the following modifications to Ordinance Requirements:
    - <u>Block Length:</u> The applicant is requesting a block length modification per Article 5.2 which states major residential subdivision blocks are not to exceed 500 linear feet. This Article also allows the Town Board to authorize greater block lengths where a longer block will reduce the number of railroad grade crossings, major stream crossings; or, where longer blocks will result in an arrangement of street connections, lots and public space more consistent with Article 5 and Article 7.

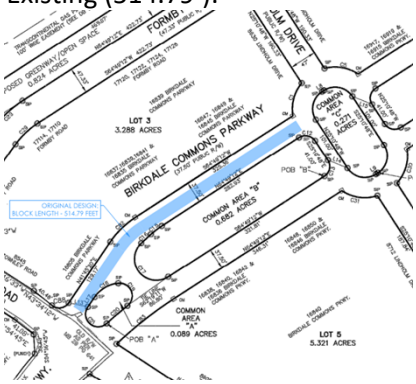
      Block Length for Birkdale Commons Parkway would be 575.54' feet.

      Staff supports this modification request as the road design allows for a larger contiguous open space that will serve as the centerpiece of Birkdale Village.

Revised Design (575.54'):



Existing (514.79'):



PART 3: TRANSPORTATION ISSUES/TRAFFIC IMPACT ANALYSIS (TIA)

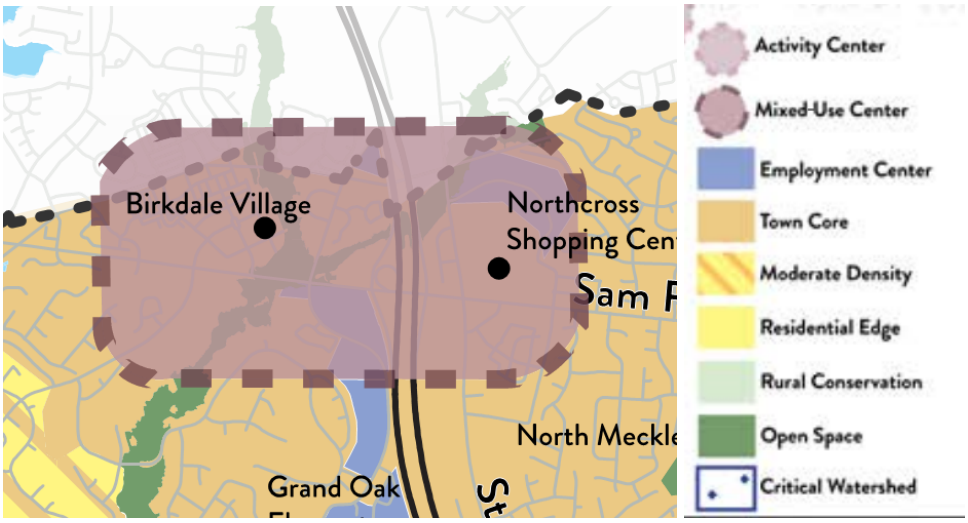
Traffic Impact Analysis (TIA)

A TIA was not required for the development.

PART 4: PLANNING STAFF ANALYSIS

Section 6.200 of the Subdivision Ordinance outlines the "general requirements and policies to be used in the design, review, and approval" of subdivisions in the Town of Huntersville. The following staff findings are provided for the Board's consideration of the Birkdale Village Subdivision Revision.

1. **Consistency with adopted public plans and policies.**



Town Core

The Town Core designation includes a variety of neighborhoods containing a mix of residential housing types, including single-family homes, townhomes, and apartments. Their design focuses on traditional neighborhood planning principles, including short blocks, connected streets, streetscape standards, and other features that improve walkability. These areas are denser than the "Moderate Density" and "Residential Edge" character areas and may include non-residential development as specified in small area plans and at other sites that meet locational criteria.

Mixed-Use Centers

Mixed-Use Centers contain vertical mixed-use along key frontages. New development includes wide sidewalks, buildings are close to the street with high levels of transparency, and parking is located in the rear. A mix of housing is allowed, including urban options throughout (apartments, townhomes, cottage homes, etc.). Downtown has specific requirements for streetscape and development intensity, including a maximum first floor footprint.

The following sections of the 2040 Huntersville Community Plan apply to this request:

- Birkdale Village lies completely within the "Town Core" & "Mixed-Use Centers" Future Land Use Character Areas of the 2040 Community Plan.

- **Policy LU 5.1: Allow more intense development only where transportation infrastructure and utilities already exist.**

- **Policy LU 6.2: Commercial uses are encouraged in the Town Core and as specified in adopted Small Area Plans**.
- **Policy LU 8.1: Continue to emphasize form and flexibility in development regulations for these areas.** The current zoning ordinance has basic form and based standards with flexibility built-in. Key elements include allowing multiple types of land uses, a mix of uses, minimal setbacks, and parking requirements.
- **Policy EV 2.1: Promote and encourage local businesses, particularly small business.**

2. Conformity.
The redevelopment is consistent with the existing Birkdale Village development.

3. Access between Adjoining Properties.
The subdivision provides three (3) connections to the Greens at Birkdale Village and two (2) to Sam Furr Rd. Additionally Townley Rd provided a street stub to the east for future connectivity.

4. Relation to topography.
The street network and lot layout have been designed to respect the general topography of the site.

5. Mature trees and natural vegetation.
The project area contains 142 trees. 32 are to be removed due to construction and sight distance. The developer is offering to replant 21 trees, as outlined in Part 2, Item 6.

6. Access to parks, schools, etc.
Birkdale Village is adjacent to the McDowell Creek Greenway.

7. Discourage through traffic.
All streets are appropriately sized for traffic.

8. Relationship to railroad rights-of-way.
Not Applicable.

9. Half streets.
Not Applicable.

10. Parallel streets along thoroughfares.
Not Applicable.

11. **Public School and Public Park Sites**
The parcels associated with the Birkdale Village Subdivision Sketch Plan have not been identified for a school or park site.

12. Public Facilities
The parcels associated with the Birkdale Village Subdivision Sketch Plan have not been identified for a public facility.

13. Proposed Street names
No new names are needed.

14. Easements.
Easements have been identified and the plans have been sent to the respective Engineering and Utility Departments.

15. Proposed water and sewerage system.
Water and sewer service are already being provided to the development.

16. Restrictions on the subdivision of land subject to flooding.
There are no streams identified on the site.

17. Open Space
Two types of Urban Open Space are being provided (Greenway and Promenade) as well as Common Open Space, as outlined in Part 2, Item 9.

18. Impact of Development on Public Facilities
There is no indication the proposed subdivision will adversely impact the public.

PART 5: STAFF RECOMMENDATION

In considering Birkdale Village Subdivision, staff finds:

- The application is complete.
- The request is in keeping with the spirit and intent of the Town's future land use plans as mentioned above.
- The Birkdale Village Subdivision Revision can be supported by staff subject to the following:
  - The block length modification request is approved.
  - All other plan comments are addressed.

The Birkdale Village Subdivision Revision Sketch Plan complies with all applicable requirements once the conditions listed above are addressed. Staff recommends approval of the proposed Subdivision Sketch Plan subject the block length modification being approved and all other plan comments are addressed.

PART 6: PLANNING BOARD RECOMMENDATION

Planning Board met on Tuesday, September 28th, 2021.

F. Gammon made a Motion to Approve Birkdale Village Subdivision sketch plan revision as the Planning Board finds the application is complete. The Birkdale Village Subdivision sketch plan revision is consistent with adopted public plans and policies and complies with all applicable requirements of the Zoning Ordinance and the Huntersville 2040 Community Plan as stated within the findings of facts in parts 2-4 of the staff report. The proposed Birkdale Village Subdivision sketch plan revision lies completely within the Huntersville 2040 Plan Town Core future land use character area and is supported by policies LU 5.1, LU 6.2, LU 8.1 AND EV-2.1. Based upon these findings the Planning Board recommends approval of the Birkdale Village Subdivision sketch plan revision. The Planning Board also recommends approval of the requested block length modification for Birkdale Commons Parkway not to exceed 575.54 linear feet. The recommendation is contingent upon approval of the block length modification approval by the Town Board and all remaining redline comments are satisfactorily addressed with the staff. J. Davis seconded the motion. The motion passed unanimously (9-0).

PART 7: ATTACHMENTS AND ENCLOSURES

A – Subdivision Sketch Plan Application
B – Proposed Birkdale Village Subdivision Sketch Plan
C – Neighborhood Meeting Report
D – Birkdale Village Development Standards 2-9-01
E – Birkdale Village Sketch Plan Unsigned 7-2-04
F – Birkdale Village Plat

PART 8: DECISION STATEMENTS

Please refer to Part 5 of this report for recommendation.

In considering whether to approve an application for a subdivision sketch plan, the Planning and Town Board must complete the following (a full version can be found in Section 6.320.5 of the Subdivision Ordinance).

- Is the application complete (lacking any particular requirement)? *If no member of the Board moves that the application is incomplete, then this inaction is taken as an affirmative finding that the application is complete.*
- Does the application comply with all the applicable requirements? *A statement must be made that the application complies or does not comply that includes the support documentation of the particular motion.*
- Lastly, the Board must make a motion to approve or deny based on the previous statements.

General Application

INCOMPLETE SUBMISSIONS WILL NOT BE ACCEPTED. PLEASE CHECK ALL ITEMS CAREFULLY.

1. Application Type

Please indicate the type of application you are submitting. In addition to the application, the submission process for each application type can be found at https://www.huntersville.org/528/Permits-Process

☐ Change of Use ☐ Commercial Site Plan ☐ Conditional Rezoning ☐ General Rezoning ☐ Master Signage Program ☐ Special Use Permit ☐ Revision to Original Project # _____ ☐ Other _____	SUBDIVISION CATEGORIES: Per the Huntersville Subdivision Ordinance ☒ Sketch Plan ☐ Preliminary Plan ☐ Final Plat (Includes Minor Subdivision) ☐ Exempt Subdivision ☐ Final Plat Revision ☐ Farmhouse Cluster

2. Project Data

Date of Application 06-04-2021

Name of Project Birkdale Village Phase # (if subdivision) _____

Project Address 16912 and 16834 Birkdale Commons Py, Huntersville NC 28078

Parcel Identification Number(s) (PIN) 00537155, 00537156, 00537163, and 00537198

Current Zoning District HC-CD Proposed District (for rezoning only) _____

Property Size (acres) 1.78 acres total Street Frontage (feet) 2,234 feet total

Current Land Use Commercial Common Area

Proposed Land Use(s) Commercial Common Area, Retail, Restaurant

Is the project within Huntersville's corporate limits?
Yes X No_____ If no, does the applicant intend to voluntarily annex? _____

3. Description of Request

Explain the nature of this request. If a separate sheet is necessary, please attach to this application.
This project is the redevelopment of the Birkdale Village Commercial Common Area. We will be subdividing the existing parcels to accommodate new properties for new retail and restaurant buildings. This project will also include Right of Way abandonment to connect the new common areas.

4. Site Plan Submittals

Consult the particular type of *Review Process* for the application type selected above. These can be found at https://www.huntersville.org/528/Permits-Process.

5. Outside Agency Information

Other agencies may have applications and fees associated with the land development process. The *Review Process* list includes plan documents needed for most town and county reviewing agencies. For major subdivisions, commercial site plans, and rezoning petitions please enclose a copy of the Charlotte-Mecklenburg Utility *Willingness to Serve* letter for the subject property.

6. Applicant

Printed Name DDRTC Birkdale Village, LLC Phone 404-946-0939

☐ Corporation ☒ Limited Liability Company ☐ Trust ☐ Partnership ☐ Other: _____

☐ By signature below, I hereby acknowledge, as/on behalf of (circle one) the applicant my understanding this application will be considered in a quasi-judicial proceeding and that neither I, nor anyone on my behalf, may contact the Board of Commissioners except through sworn testimony at the public hearing. (Applicable for Special Use Permits and Subdivisions)

Signature _____ Printed Name: Mike Lant

Title Senior VP Development Email Mike.Lant@NAProperties.com

Address of Applicant 1175 Peachtree Street, Suite 1650, Atlanta, Georgia 30361

7. Property Owner (if different than applicant)

*Printed Name _____ Phone _____

☐ Corporation ☐ Limited Liability Company ☐ Trust ☐ Partnership ☐ Other: _____

☐ By signature below, I hereby acknowledge, as/on behalf of (circle one) the owner my understanding this application will be considered in a quasi-judicial proceeding and that neither I, nor anyone on my behalf, may contact the Board of Commissioners except through sworn testimony at the public hearing. (Applicable for Special Use Permits and Subdivisions)

Signature _____ Printed Name _____

Title _____ Email _____

Address of Property Owner _____

* Property owner hereby grants permission to the Town of Huntersville personnel to enter the subject property for any purpose required in processing this application.

Every owner of each parcel included in this application, or the owner (s) duly authorized agent, must sign this application. If signed by an agent on behalf of the Owner, this application MUST be accompanied by a notarized Limited Power of Attorney signed by the property owner (s), specifically authorizing the agent to act on the owner (s) behalf in signing this application. Failure of each owner, or their duly authorized agent, to sign, or failure to include the authority of the agent signed by the property owner, will result in an INVALID APPLICATION. **If additional space is needed for signatures, attach the Town of Huntersville Signature Addendum Form.**

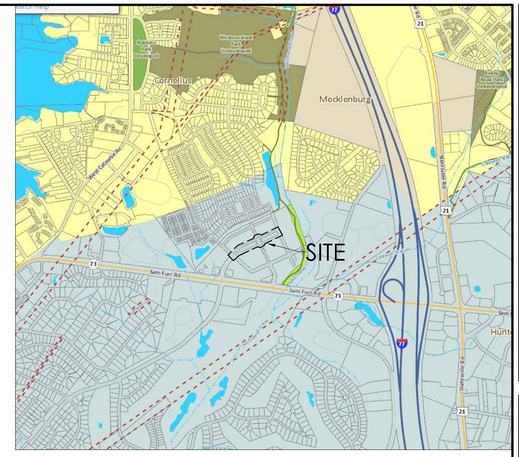
8. Development/Design Firm Contact Information

North American Properties	Nick Lombardo	404-946-0939	Nick.Lombardo@NAProperties.com
Development Firm	Name of Contact	Phone	Email
HensonFoley Design	Jay Henson	704-875-1615	jay@hensonfoley.com
Design Firm	Name of Contact	Phone	Email

Contact Information

Town of Huntersville	Phone:	704-875-7000
Planning Department	Fax:	704-992-5528
PO Box 664	Physical Address:	105 Gilead Road, Third Floor
Huntersville, NC 28070	Website:	https://www.huntersville.org/228/Planning-Department

Sheet List Table	
Sheet Number	Sheet Title
C01	COVER
C02	SURVEY
C02A	SURVEY
C03	OVERALL SITE PLAN
EX01	IMPERVIOUS EXHIBIT - EXISTING
EX01A	IMPERVIOUS EXHIBIT - PROPOSED
EX02	PARKING EXHIBIT
EX03	TREE EXHIBIT



VICINITY MAP
SCALE: N.T.S.

SUBDIVISION SKETCH PLAN PACKAGE
PROPOSED

BIRKDALE MAIN ENTRY
HUNTERSVILLE, MECKLENBURG COUNTY, NC

EPM # 424415

REFERENCE PREVIOUS REZONING
DOCUMENT: **R 01-03**

OWNER/DEVELOPER:

DDRTC BIRKDALE VILLAGE, LLC
C/O NORTH AMERICAN PROPERTIES
8712 LINDHOLM DR SUITE 206
HUNTERSVILLE, NC 28078
PH: (404) 946-0939

1. CONTRACTOR IS FULLY RESPONSIBLE FOR CONTACTING APPROPRIATE PARTIES AND ASSURING THAT EXISTING UTILITIES ARE LOCATED PRIOR TO BEGINNING CONSTRUCTION.
2. CONTRACTOR IS RESPONSIBLE FOR PLACING BARRICADES USING FLAGMEN, ETC., AS NECESSARY TO INSURE SAFETY TO THE PUBLIC.
3. ALL PAVEMENT CUTS, CONCRETE OR ASPHALT, ARE TO BE REPLACED ACCORDING TO STANDARDS OF THE DEPARTMENT OF TRANSPORTATION.
4. SHORING WILL BE ACCORDING TO OSHA TRENCHING STANDARDS PART 1926 SUBPART P, OR AS AMENDED.

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NC ENGINEERING BOARD LICENSE #: C-3781
NC LANDSCAPE ARCHITECTURE BOARD LICENSE #: C-399

NORTH CAROLINA REGISTERED LANDSCAPE ARCHITECT
8-31-2021

BIRKDALE VILLAGE
PARCEL ID : 00537155, 00537156, 00537163, 00537198
BIRKDALE COMMONS PARKWAY, HUNTERSVILLE NC 28078

COVER

REVISIONS:
2021/08/03 - TOWN/COUNTY COMM.
2021/08/31 - TOWN/COUNTY COMM.

C01 - COVER.DWG
PROJECT NUMBER: 221012
DATE: 03/22/2021 DRAWN BY: TSF
SHEET C01 OF 3

VICINITY MAP

SITE LOCATION – LATITUDE: 35° 26' 45" LONGITUDE: 80° 52' 46"

SITE PHOTOGRAPHS

GRID NORTH – NORTH CAROLINA ZONE

GeoSurvey

N/F PROPERTY OF
DDRTC BIRKDALE VILLAGE, LLC
DEED BOOK 21859 / PAGE 546

BIRKDALE COMMONS PARKWAY
(37.5' RIGHT OF WAY)
(ASPHALT – PUBLIC – ONE WAY)

TOWNLEY ROAD
(VARIABLE RIGHT OF WAY)
(VARIABLE WIDTH ASPHALT PUBLIC)

2-STORY PARKING GARAGE

APPROXIMATE PROPERTY LINE

ASPHALT DRIVE

CONCRETE SIDEWALK

CONCRETE STEPS W/BRICK WALLS

3 STORY BRICK & FRAME BUILDING

3 STORY FRAME BUILDING

ARTIFICIAL TURF AREA

LANDSCAPED MULCH AREA (TYPICAL)

BENCH MARK
60D NAIL SET
N: 622319.13
E: 1439893.51
ELEV: 732.00

BENCH MARK
60D NAIL SET
N: 622490.29
E: 1440189.42
ELEV: 732.87

SECURITY BOLLARD (TYPICAL)

BOLLARD (TYPICAL)

ELECTRICAL OUTLET

DOG WASTE RECEPTACLE

TRENCH DRAIN

DIRECTORY SIGN

METAL LID

3'METAL FENCE

6'METAL FENCE

PILLAR – STATUE

UTILITY NOTE

THE UNDERGROUND UTILITIES SHOWN HEREON ARE BASED ON LOCATION OF MARKINGS PROVIDED BY:

SUBSURFACE UTILITY INVESTIGATIONS, LLC
898 SWEET BRIAR TRAIL
CONYERS, GEORGIA 30094
(770) 557-4142

SUBSURFACE UTILITY INVESTIGATIONS, LLC UTILIZED SEVERAL TECHNIQUES INCLUDING, BUT NOT LIMITED TO, ELECTROMAGNETIC, MAGNETIC LOCATION FOR FERROUS METALS, ACOUSTIC AND PASSIVE FREQUENCIES TO DESIGNATE AND MARK BURIED UTILITIES ON THE SURFACE WITH PAINT AND FLAGS COVERING THE ENTIRE AREA OF THE PROJECT.

THE SURVEYOR MAKES NO GUARANTEES THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN-SERVICE OR ABANDONED. UNDERGROUND UTILITIES NOT OBSERVED OR LOCATED UTILIZING THIS TECHNIQUE MAY EXIST ON THIS SITE BUT NOT BE SHOWN, AND MAY BE FOUND UPON EXCAVATION. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED ALTHOUGH THE SURVEYOR DOES CERTIFY THAT THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM INFORMATION AVAILABLE.

INFORMATION REGARDING MATERIAL AND SIZE OF UTILITIES IS BASED ON RECORDS ACQUIRED FROM THE UTILITY OWNERS.

LEGEND

STANDARD ABBREVIATIONS

AC	AIR CONDITIONER
BH	BORE HOLE
BSL	BUILDING SETBACK LINE
CI	CURB INLET
CMP	CORRUGATED METAL PIPE
CMF	CONCRETE MONUMENT FND
CO	SANITARY CLEANOUT
CPED	COMMUNICATION PEDESTAL
CTP	CRIMPED TOP PIPE
DI	DROP INLET
DIP	DUCTILE IRON PIPE
DWCB	DOUBLE WING CATCH BASIN
FNC	FENCE
FND	FOUND
GM	GAS METER
INV	INVERT
JB	JUNCTION BOX
MH	MANHOLE
OCS	OUTLET CONTROL STRUCTURE
OTP	OPEN TOP PIPE
PM	POWER METER
PKS	PK NAIL SET
POB	POINT OF BEGINNING
POC	POINT OF COMMENCEMENT
RCP	REINFORCED CONCRETE PIPE
RBR	IRON REINFORCING BAR
SS	SANITARY SEWER
SWCB	SINGLE WING CATCH BASIN
TRANS	ELECTRIC TRANSFORMER

STANDARD SYMBOLS

	OVERHEAD TRAFFIC SIGNAL LIGHT
	POWER POLE
	GUY WIRE
	POWER LINE
LP	LIGHT POLE
	ELECTRIC TRANSFORMER
	WATER VAULT
GV	GAS VALVE
GM	GAS METER
WV	WATER VALVE
WM	WATER METER
	FIRE HYDRANT
E	UNDERGROUND ELECTRIC LINE
G	UNDERGROUND GAS LINE
CM	UNDERGROUND COMMUNICATION LINE
W	UNDERGROUND WATER LINE
1	PHOTO POSITION INDICATOR
XX	REGULAR PARKING SPACE COUNT
	HANDICAP PARKING SPACE
	TREE POSITION INDICATOR
	SIGN

GENERAL NOTES

THIS SURVEY HAS BEEN PREPARED FOR THE EXCLUSIVE USE OF THE PERSON OR ENTITIES NAMED HEREON. NO EXPRESS OR IMPLIED WARRANTIES WITH RESPECT TO THE INFORMATION SHOWN HEREON IS TO BE EXTENDED TO ANY PERSONS OR ENTITIES OTHER THAN THOSE SHOWN HEREON.

THIS SURVEY HAS BEEN PREPARED WITHOUT THE BENEFIT OF A CURRENT TITLE INSPECTION REPORT. EASEMENTS OR OTHER ENCUMBRANCES MAY EXIST ON PUBLIC RECORD BUT NOT BE SHOWN HEREON.

THIS PROPERTY IS NOT LOCATED IN A SPECIAL FLOOD HAZARD AREA BASED ON THE FLOOD INSURANCE RATE MAP FOR THIS AREA. THE MAP NUMBERS FOR THIS AREA ARE 3710463200K AND 3710464200K, AND THE DATE OF SAID MAPS ARE SEPTEMBER 2, 2015. THIS DETERMINATION WAS MADE BY GRAPHICALLY DETERMINING THE POSITION OF THIS SITE ON SAID FIRM MAPS UNLESS OTHERWISE NOTED.

THE DATUM FOR THIS SITE WAS ESTABLISHED UTILIZING GLOBAL POSITIONING SYSTEMS, AND BASED ON POSITIONAL VALUES ESTABLISHED BY NGS OPUS-RS SOLUTION REPORTS. THE HORIZONTAL REFERENCE FRAME IS NORTH AMERICAN DATUM OF 1983(CORS96)–STATE PLANE COORDINATE SYSTEM OF ALABAMA–EAST ZONE. THE VERTICAL REFERENCE FRAME IS NORTH AMERICAN VERTICAL DATUM OF 1988(GEOID09). ANY DIRECTIONS OR DIMENSIONS SHOWN ARE A RECTANGULAR, GROUND LEVEL PROJECTION OF THE STATE PLANE COORDINATE SYSTEM.

RIGHT-OF-WAY LINES SHOWN ON THIS SURVEY THAT ARE NOT ACTUAL BOUNDARIES OF THE SUBJECT TRACT(S) ARE DEPICTED GRAPHICALLY AND ARE SHOWN APPROXIMATELY FOR INFORMATIONAL PURPOSES ONLY. SAID RIGHT-OF-WAY LINES SHOULD NOT BE UTILIZED FOR DESIGN PURPOSES

NO BOUNDARY SURVEY PERFORMED BY GEOSURVEY, LTD. PROPERTY LINES SHOWN ARE APPROXIMATE PER THE FINAL PLAT FOR BIRKDALE VILLAGE AS RECORDED IN MAP BOOK 36, PAGE 349, MECKLENBURG COUNTY, NC.

CLOSURE STATEMENT

THE FIELD CLOSURE UPON WHICH THIS PLAT IS BASED HAS A CLOSURE PRECISION OF ONE FOOT IN 39,219 AND WAS ADJUSTED USING THE LEAST SQUARES METHOD. A TRIMBLE "S" SERIES TOTAL STATION AND TRIMBLE TSC-3 DATA COLLECTOR WERE USED TO COLLECT THIS FIELD DATA.

THIS PLAT HAS BEEN CALCULATED FOR CLOSURE AND WAS FOUND TO BE ACCURATE WITHIN ONE FOOT IN N/A FEET. CAJ INIT.

IF YOU DIG

811

Know what's **below.**
Call before you dig.
Dial 811
Or Call 877-632-5050

GRAPHIC SCALE

0 10 20 50 100
1" = 20'

NORTH CAROLINA PROFESSIONAL SEAL L-4913 LAND SURVEYOR JAMES R. COLEMAN

SHEET 1 OF 2

GeoSurvey
Land Surveying • 3D Laser Scanning
1660 Barnes Mill Road
Marietta, Georgia 30062
Phone: (770) 795-9900
Fax: (770) 795-8880
www.geosurvey.com
EMAIL: info@geosurvey.com

PARTIAL TOPOGRAPHIC SURVEY OF

Birkdale Village

FOR

DDRTC Birkdale Village, LLC

GS JOB NO:	20206860	DRAWING SCALE:	1"= 20'
FIELD WORK:	ZM	CITY:	HUNTSVILLE
PROJ MGR:	CAJ	STATE:	NC
REVIEWED:	JTN	COUNTY:	MECKLENBURG
DWG FILE:	20206860.dwg	SURVEY DATE:	01/21/2021

REVISIONS (SEE GENERAL NOTES)

No.	Date	Description

UTILITY NOTE

THE UNDERGROUND UTILITIES SHOWN HEREON ARE BASED ON LOCATION OF MARKINGS PROVIDED BY:

SUBSURFACE UTILITY INVESTIGATIONS, LLC
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INFORMATION REGARDING MATERIAL AND SIZE OF UTILITIES IS BASED ON RECORDS ACQUIRED FROM THE UTILITY OWNERS.

SITE PHOTOGRAPHS

(9)

(10)

(11)

(12)

(13)

(14)

(15)

(16)

VICINITY MAP

SITE LOCATION – LATITUDE: 35° 26' 45" LONGITUDE: 80° 52' 46"

SITE
McDowell Creek
McDowell Creek
McDowell Creek
Sam Wilson Rd
Nations Ford Rd
Nations Ford Rd
Wilkinson Blvd
Wilkinson Blvd
Billy Graham Pkwy
Billy Graham Pkwy
Arrowood Rd
Arrowood Rd
Yorkmont Rd
Yorkmont Rd
Steele Creek Park
Steele Creek Park
Steele Creek Rd
Steele Creek Rd
Westinghouse Blvd
Westinghouse Blvd
Westinghouse Blv

SITE DATA

LOCATION: 16912, 16908 AND 16834 BIRKDALE COMMONS PY (PIN# 00537155, 00537156, HUNTERSVILLE, MECKLENBURG COUNTY 28078 00537163, 00537198)	
CURRENT ZONING: HC (CD)	
CURRENT USE:	COMMERICAL COMMON AREA
CONTACT:	HENSONFOLEY (JAY HENSON) 704-875-1615
ITEM	**PROVIDED**
TOTAL BIRKDALE VILLAGE AREA	53.39 AC (2,325,668 SF)
TOTAL LOT ACREAGE (EX. PARCELS)	1.78 AC (77,764 SF)
TOTAL PROJECT AREA	2.34 AC (101,972 SF)
PRINCIPAL USE(S)	RETAIL/RESTAURANT/COMMON OPEN SPACE
LOT & BUILDING TYPE	SHOP FRONT BUILDING
ZONING DISTRICT	HC-CD
OVERLAY DISTRICT	PA-2 MTN ISLAND LAKE WATERSHED
PERCENT IMPERVIOUS ALLOWED	HIGH DENSITY - 70%
PERCENT IMPERVIOUS SHOWN	NO NET GAIN WITHIN DISTURBED AREA
EXISTING LOT # (TOTAL BIRKDALE)	20 LOTS
PROPOSED LOT # (TOTAL BIRKDALE)	24 LOTS
LOT SIZE RANGE	0.16 ACRES - 0.54 ACRES
LOT WIDTH RANGE	40' - 81'
BUILD TO LINE	4' - 18'
CORNER SETBACK	REPLICATE FRONTAGE CONDITIONS
WATERSHED	McDOWELL
FEMA MAP NUMBER	3710465100K
FEMA EFFECTIVE DATE	09/02/2015
SOIL TYPE	CeD2, CeB2

ZONING SUMMARY

PREVIOUSLY APPROVED GROSS AREA - MAX. ALLOWABLE DEVELOPMENT	INDOOR MOVIE THEATRE - 75,000 SF RETAIL/RESTAURANT - 275,000 SF OFFICE - 160,000 SF RESIDENTIAL - 320 UNITS
EXISTING DEVELOPMENT	INDOOR MOVIE THEATRE - 53,270 SF RETAIL/RESTAURANT - 244,590 SF OFFICE - 150,829 SF RESIDENTIAL - 320 UNITS
PROPOSED DEVELOPMENT	INDOOR THEATRE - 53,270 SF RETAIL/RESTAURANT - 252,090 SF (+7,500 SF) OFFICE - 150,829 SF RESIDENTIAL - 320 UNITS

LEGEND

- SYNTHETIC TURF LAWN
- LANDSCAPE AREAS
- VEHICULAR CONCRETE PAVING
- STAMPED ASPHALT
- PERMEABLE VEHICULAR PAVING / PARKING ZONE

PARKING COUNT

PROJECT SCOPE	
EXISTING PARALLEL PARKING	71
EXISTING PARALLEL PARKING TO REMAIN	57 (-14)
EXISTING ANGLED PARKING	90
EXISTING ANGLED PARKING TO REMAIN	26 (-64)
TOTAL PARKING TO BE REMOVED	78 PARKING SPACES
TOTAL BIRKDALE VILLAGE	
EXISTING RESIDENTIAL SF @ 1 SPACES PER DWELLING UNIT (1 BR) 1.5 SPACES PER DWELLING UNIT (2+ BR)	164 (1 BR) X 1 = 164 SPACES 134 (2 BR) X 1.5 = 201 SPACES 22 (3 BR) X 1.5 = 33 SPACES TOTAL 398 PARKING SPACES
REQUIRED PARKING SPACES	
EXISTING COMMERCIAL SF @2 SPACES/1,000 SF	334,573 SF (334.57 x 2 = 669)
REQUIRED PARKING SPACES	669 PARKING SPACES
PROPOSED COMMERCIAL SF @2 SPACES/1,000 SF ADDITIONAL REQUIRED PARKING SPACES	7,500 SF (7.5 x 2 = 15) 15 PARKING SPACES
TOTAL PROPOSED COMMERCIAL SF @2 SPACES/1,000 SF TOTAL REQUIRED PARKING SPACES	342,073 SF (342.07 x 2 = 684) 684 PARKING SPACES
TOTAL REQUIRED PARKING (RESIDENTIAL+COMMERCIAL)	1,082 PARKING SPACES
TOTAL PROVIDED PARKING (RESIDENTIAL+COMMERCIAL)	1,940 PARKING SPACES

TREE SAVE

EXISTING SPECIMEN TREES	0
EXISTING TREE CANOPY REQUIRED TO BE SAVED	0%
TOTAL EXISTING TREES ON SITE	142 TREES
EXISTING TREES TO BE REMOVED	32 TREES
NEW TREES TO BE ADDED	21 TREES
TOTAL PROPOSED TREES ON SITE	131 TREES

IMPERVIOUS SUMMARY - SITE

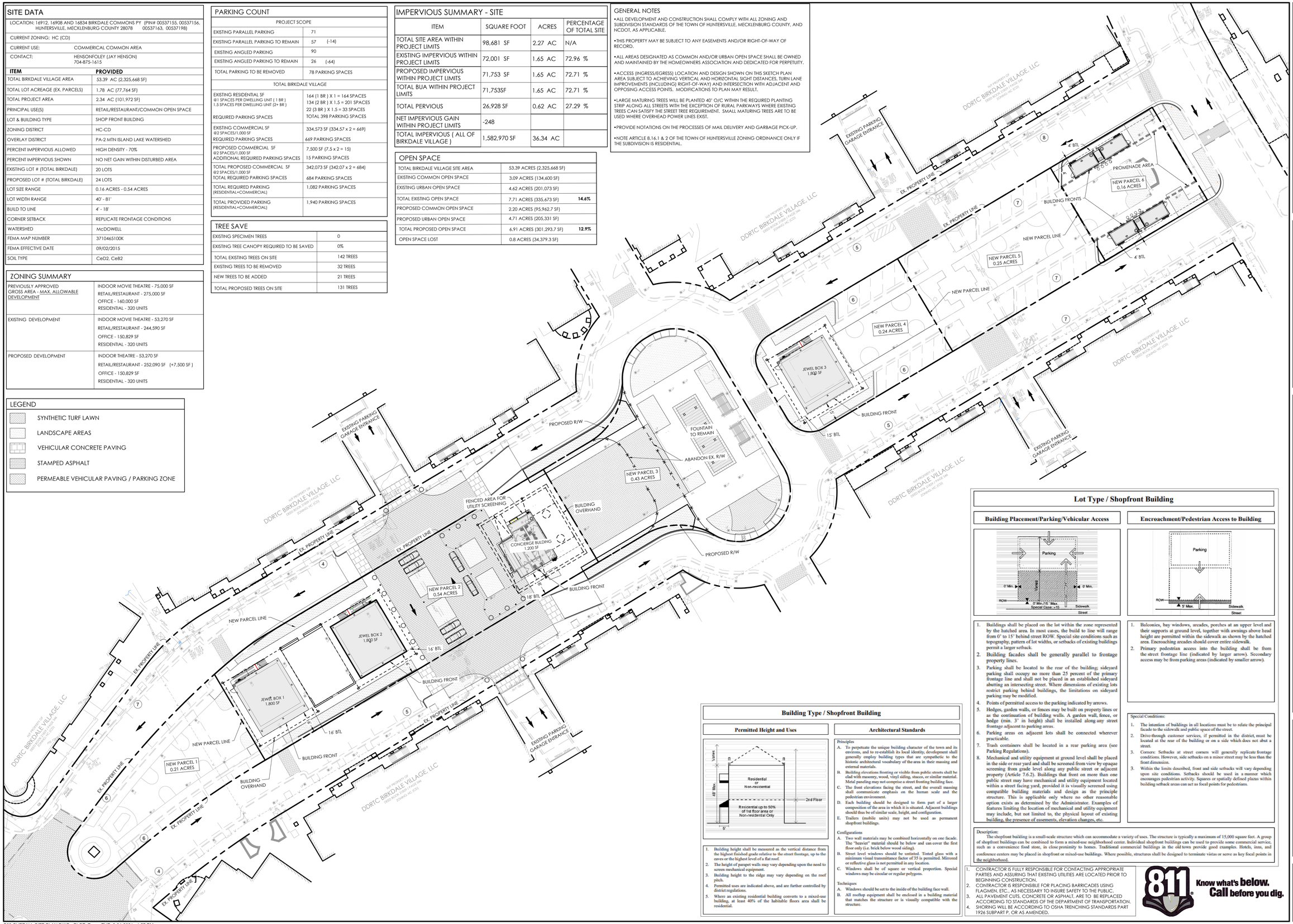
ITEM	SQUARE FOOT	ACRES	PERCENTAGE OF TOTAL SITE
TOTAL SITE AREA WITHIN PROJECT LIMITS	98,681 SF	2.27 AC	N/A
EXISTING IMPERVIOUS WITHIN PROJECT LIMITS	72,001 SF	1.65 AC	72.96 %
PROPOSED IMPERVIOUS WITHIN PROJECT LIMITS	71,753 SF	1.65 AC	72.71 %
TOTAL BUA WITHIN PROJECT LIMITS	71,753SF	1.65 AC	72.71 %
TOTAL PERVIOUS	26,928 SF	0.62 AC	27.29 %
NET IMPERVIOUS GAIN WITHIN PROJECT LIMITS	-248		
TOTAL IMPERVIOUS (ALL OF BIRKDALE VILLAGE)	1,582,970 SF	36.34 AC	

OPEN SPACE

TOTAL BIRKDALE VILLAGE SITE AREA	53.39 ACRES (2,325,668 SF)	
EXISTING COMMON OPEN SPACE	3.09 ACRES (134,600 SF)	
EXISTING URBAN OPEN SPACE	4.62 ACRES (201,073 SF)	
TOTAL EXISTING OPEN SPACE	7.71 ACRES (335,673 SF)	**14.6%**
PROPOSED COMMON OPEN SPACE	2.20 ACRES (95,962.7 SF)	
PROPOSED URBAN OPEN SPACE	4.71 ACRES (205,331 SF)	
TOTAL PROPOSED OPEN SPACE	6.91 ACRES (301,293.7 SF)	**12.9%**
OPEN SPACE LOST	0.8 ACRES (34,379.3 SF)	

GENERAL NOTES

- ALL DEVELOPMENT AND CONSTRUCTION SHALL COMPLY WITH ALL ZONING AND SUBDIVISION STANDARDS OF THE TOWN OF HUNTERSVILLE, MECKLENBURG COUNTY, AND NCDOT, AS APPLICABLE.
- THIS PROPERTY MAY BE SUBJECT TO ANY EASEMENTS AND/OR RIGHT-OF-WAY OF RECORD.
- ALL AREAS DESIGNATED AS COMMON AND/OR URBAN OPEN SPACE SHALL BE OWNED AND MAINTAINED BY THE HOMEOWNERS ASSOCIATION AND DEDICATED FOR PERPETUITY.
- ACCESS (INGRESS/EGRESS) LOCATION AND DESIGN SHOWN ON THIS SKETCH PLAN AREA SUBJECT TO ACHIEVING VERTICAL AND HORIZONTAL SIGHT DISTANCES, TURN LANE IMPROVEMENTS (INCLUDING) RIGHT-OF-WAY) AND INTERSECTION WITH ADJACENT AND OPPOSING ACCESS POINTS. MODIFICATIONS TO PLAN MAY RESULT.
- LARGE MATURING TREES WILL BE PLANTED 40' O/C WITHIN THE REQUIRED PLANTING STRIP ALONG ALL STREETS WITH THE EXCEPTION OF RURAL PARKWAYS WHERE EXISTING TREES CAN SATISFY THE STREET TREE REQUIREMENT. SMALL MATURING TREES ARE TO BE USED WHERE OVERHEAD POWER LINES EXIST.
- PROVIDE NOTATIONS ON THE PROCESSES OF MAIL DELIVERY AND GARBAGE PICK-UP.
- NOTE ARTICLE 8.16.1 & 2 OF THE TOWN OF HUNTERSVILLE ZONING ORDINANCE ONLY IF THE SUBDIVISION IS RESIDENTIAL.


EXISTING PARKING GARAGE ENTRANCE
PROPOSED R/W
FOUNTAIN TO REMAIN
ABANDON EX. R/W
NEW PARCEL 3
0.43 ACRES
FENCED AREA FOR UTILITY SCREENING
BUILDING OVERHAND
CONCIERGE BUILDING
1,200 SF
NEW PARCEL 2
0.54 ACRES
JEWEL BOX 2
1,800 SF
JEWEL BOX 1
1,800 SF
NEW PARCEL 1
0.21 ACRES
NEW PARCEL 4
0.24 ACRES
JEWEL BOX 3
1,800 SF
NEW PARCEL 5
0.25 ACRES
NEW PARCEL 6
0.16 ACRES
PROMENADE AREA
BUILDING FRONTS
NEW PARCEL LINE
EX. PROPERTY LINE
BUILDING FRONT
BUILDING OVERHANG
18' BTL
16' BTL
15' BTL
4' BTL
DDRTC BIRKDALE VILLAGE, LLC
NOT PROPERTY OF
DEED BOOK 35897 PG 546
DEED BOOK 35897 PG 546
DEED BOOK 35897 PG 546

1. CONTRACTOR IS FULLY RESPONSIBLE FOR CONTACTING APPROPRIATE PARTIES AND ASSURING THAT EXISTING UTILITIES ARE LOCATED PRIOR TO BEGINNING CONSTRUCTION.
2. CONTRACTOR IS RESPONSIBLE FOR PLACING BARRICADES USING FLAGMEN, ETC., AS NECESSARY TO INSURE SAFETY TO THE PUBLIC.
3. ALL PAVEMENT CUTS, CONCRETE OR ASPHALT, ARE TO BE REPLACED ACCORDING TO STANDARDS OF THE DEPARTMENT OF TRANSPORTATION.
4. SHORING WILL BE ACCORDING TO OSHA TRENCHING STANDARDS PART 1926 SUBPART P, OR AS AMENDED.

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NC ENGINEERING BOARD LICENSE #: C-3781
NC LANDSCAPE ARCHITECTURE BOARD LICENSE #: C-399

N
W E
S
NORTH ARROW
0 15 30 60
GRAPHIC SCALE 1"=30 FT.

NORTH CAROLINA REGISTERED LANDSCAPE ARCHITECT 3781 TESS A. PERSON
8-31-2021

BIRKDALE VILLAGE

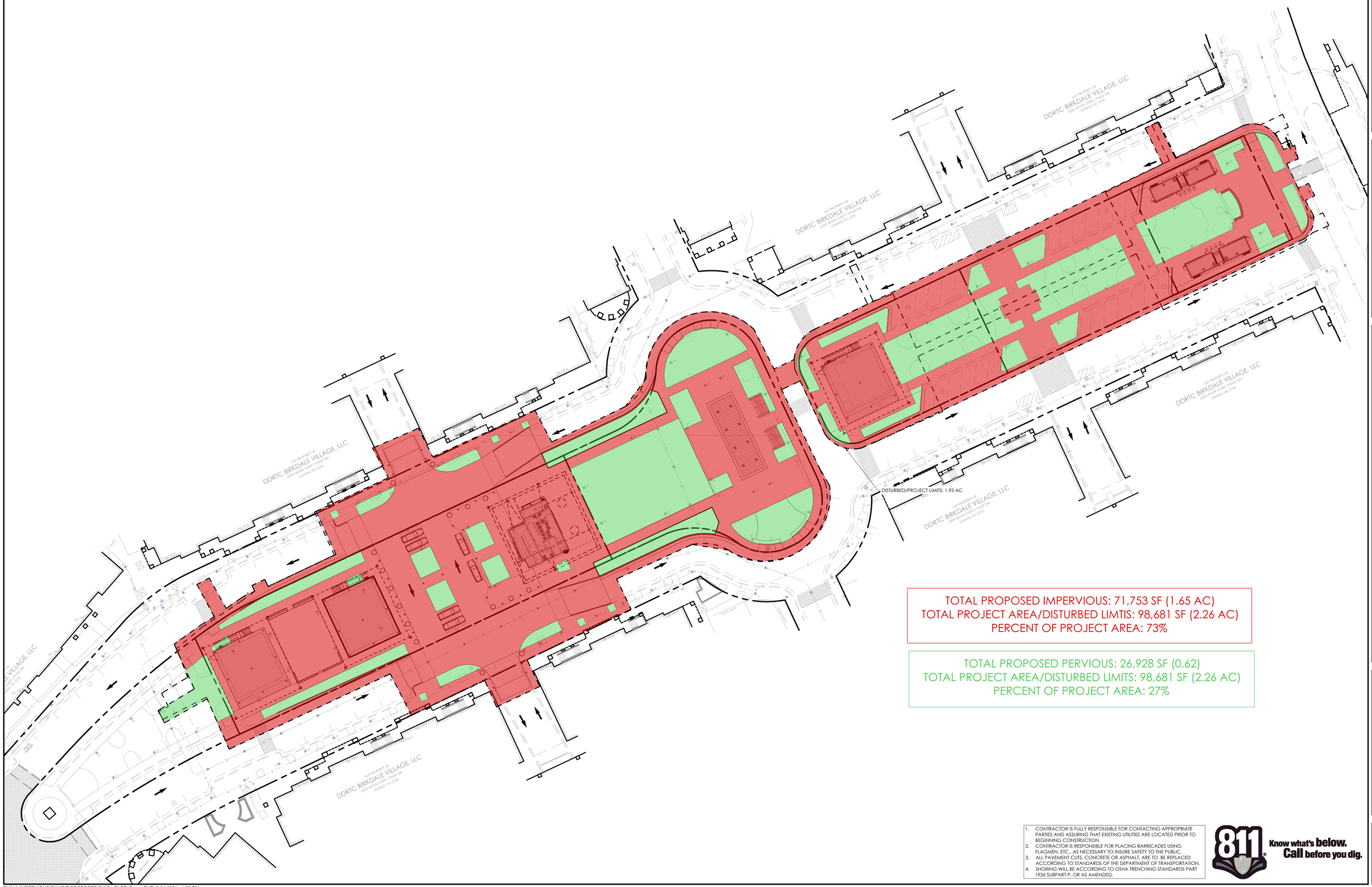
PARCEL ID : 00537155, 00537156, 00537163, 00537198
BIRKDALE COMMONS PARKWAY, HUNTERSVILLE NC 28078

IMPERVIOUS EXHIBIT - EXISTING

REVISIONS:
2021/08/03 - TOWN/COUNTY COMM.
2021/08/31 - TOWN/COUNTY COMM.

EX01 IMPERVIOUS EXHIBIT - EXISTING.DWG
PROJECT NUMBER: 221012
DATE: 03/22/2021 DRAWN BY: TSF
SHEET EX01 OF 3

EX01 IMPERVIOUS EXHIBIT - EXISTING.DWG - PLOT: Tess - TUE. 8-31-2021 1:57 PM



TOTAL PROPOSED IMPERVIOUS: 71,753 SF (1.65 AC)
TOTAL PROJECT AREA/DISTURBED LIMTIS: 98,681 SF (2.26 AC)
PERCENT OF PROJECT AREA: 73%

TOTAL PROPOSED PERVIOUS: 26,928 SF (0.62)
TOTAL PROJECT AREA/DISTURBED LIMITS: 98,681 SF (2.26 AC)
PERCENT OF PROJECT AREA: 27%

1. CONTRACTOR IS FULLY RESPONSIBLE FOR CONTACTING APPROPRIATE PARTIES AND ASSURING THAT EXISTING UTILITIES ARE LOCATED PRIOR TO BEGINNING CONSTRUCTION.
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p: 704.875.1615f: | 704.875.0959 | www.hensonfoley.com
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N
W E
S
NORTH ARROW
0 15 30 60
GRAPHIC SCALE 1"=30 FT.

NORTH CAROLINA LANDSCAPE ARCHITECT SEAL 3781 TIMOTHY A. HENSON
8-31-2021

BIRKDALE VILLAGE

PARCEL ID : 00537155, 00537156, 00537163, 00537198
BIRKDALE COMMONS PARKWAY, HUNTERSVILLE NC 28078

IMPERVIOUS EXHIBIT - PROPOSED

REVISIONS:
2021/08/03 - TOWN/COUNTY COMM.
2021/08/31 - TOWN/COUNTY COMM.

EX01A IMPERVIOUS EXHIBIT PROPOSED.DWG
PROJECT NUMBER: 221012
DATE: 03/22/2021 DRAWN BY: TSF
SHEET EX01A OF 3

EX01A IMPERVIOUS EXHIBIT PROPOSED.DWG - PLOT: Tess - TUE. 8-31-2021 1:58 PM

PARKING COUNT

PROJECT SCOPE	
EXISTING PARALLEL PARKING	71
EXISTING PARALLEL PARKING TO REMAIN	57 (-14)
EXISTING ANGLED PARKING	90
EXISTING ANGLED PARKING TO REMAIN	26 (-64)
TOTAL PARKING TO BE REMOVED	78 PARKING SPACES
TOTAL BIRKDALE VILLAGE	
EXISTING RESIDENTIAL SF @1 SPACES PER DWELLING UNIT (1 BR) 1.5 SPACES PER DWELLING UNIT (2+ BR) REQUIRED PARKING SPACES	164 (1 BR) X 1 = 164 SPACES 134 (2 BR) X 1.5 = 201 SPACES 22 (3 BR) X 1.5 = 33 SPACES TOTAL 398 PARKING SPACES
EXISTING COMMERCIAL SF @2 SPACES/1,000 SF REQUIRED PARKING SPACES	334,573 SF (334.57 x 2 = 669) 669 PARKING SPACES
PROPOSED COMMERCIAL SF @2 SPACES/1,000 SF ADDITIONAL REQUIRED PARKING SPACES	7,500 SF (7.5 x 2 = 15) 15 PARKING SPACES
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TOTAL REQUIRED PARKING (RESIDENTIAL+COMMERCIAL)	1,082 PARKING SPACES
TOTAL PROVIDED PARKING (RESIDENTIAL+COMMERCIAL)	1,940 PARKING SPACES

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N
W E
S
NORTH ARROW
0 40 80 160
GRAPHIC SCALE 1"=80 FT.

NORTH CAROLINA REGISTERED LANDSCAPE ARCHITECT TESS FOLEY SEAL 1615
8-31-2021

BIRKDALE VILLAGE

PARCEL ID : 00537155, 00537156, 00537163, 00537198
BIRKDALE COMMONS PARKWAY, HUNTERSVILLE NC 28078

PARKING EXHIBIT

REVISIONS:

2021/08/03 - TOWN/COUNTY COMM.
2021/08/31 - TOWN/COUNTY COMM.

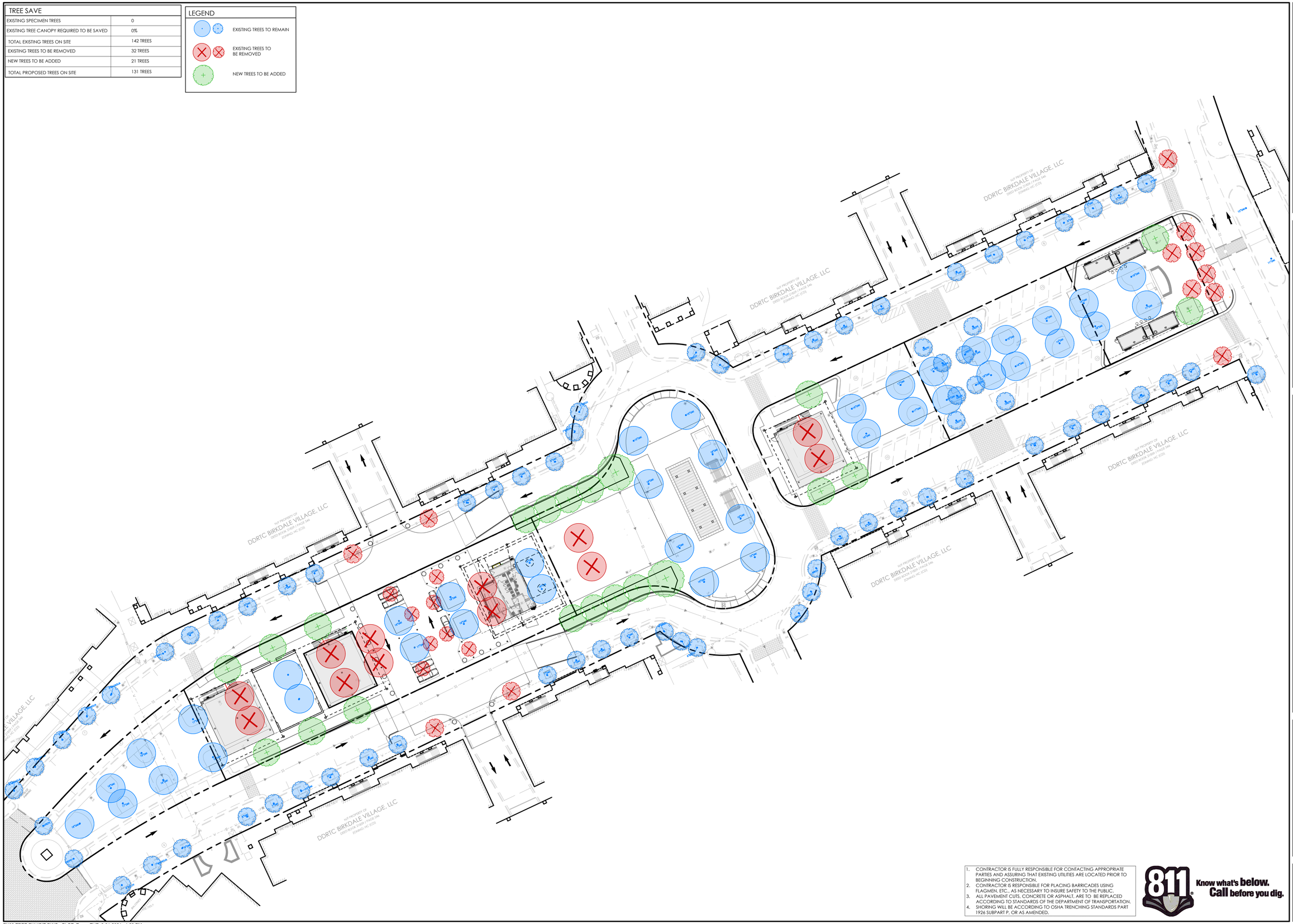
EX02 PARKING EXHIBIT.DWG
PROJECT NUMBER: 221012
DATE: 03/22/2021 DRAWN BY: TSF
SHEET EX02 OF 3

EX02 PARKING EXHIBIT.DWG - PLOT: Tess - TUE. 8-31-2021 1:58 PM

TREE SAVE	
EXISTING SPECIMEN TREES	0
EXISTING TREE CANOPY REQUIRED TO BE SAVED	0%
TOTAL EXISTING TREES ON SITE	142 TREES
EXISTING TREES TO BE REMOVED	32 TREES
NEW TREES TO BE ADDED	21 TREES
TOTAL PROPOSED TREES ON SITE	131 TREES

LEGEND

- EXISTING TREES TO REMAIN
- EXISTING TREES TO BE REMOVED
- NEW TREES TO BE ADDED



1. CONTRACTOR IS FULLY RESPONSIBLE FOR CONTACTING APPROPRIATE PARTIES AND ASSURING THAT EXISTING UTILITIES ARE LOCATED PRIOR TO BEGINNING CONSTRUCTION.
2. CONTRACTOR IS RESPONSIBLE FOR PLACING BARRICADES USING FLAGMEN, ETC., AS NECESSARY TO INSURE SAFETY TO THE PUBLIC.
3. ALL PAVEMENT CUTS, CONCRETE OR ASPHALT, ARE TO BE REPLACED ACCORDING TO STANDARDS OF THE DEPARTMENT OF TRANSPORTATION.
4. SHORING WILL BE ACCORDING TO OSHA TRENCHING STANDARDS PART 1926 SUBPART P, OR AS AMENDED.

811 Know what's below. Call before you dig.

HensonFoley
Landscape Architecture Civil Engineering
8712 Lindholm Dr Suite 202A, Huntersville NC 28078
p: 704.875.1615f: | 704.875.0959 | www.hensonfoley.com
NC ENGINEERING BOARD LICENSE #: C-3781
NC LANDSCAPE ARCHITECTURE BOARD LICENSE #: C-399

N
W E
S
NORTH ARROW
0 15 30 60
GRAPHIC SCALE 1"=30 FT.

NORTH CAROLINA REGISTERED LANDSCAPE ARCHITECT 1015 TESS A. FOLEY
8-31-2021

BIRKDALE VILLAGE

PARCEL ID : 00537155, 00537156, 00537163, 00537198
BIRKDALE COMMONS PARKWAY, HUNTERSVILLE NC 28078

TREE EXHIBIT

REVISIONS:
2021/08/03 - TOWN/COUNTY COMM.
2021/08/31 - TOWN/COUNTY COMM.

EX03 TREE EXHIBIT.DWG
PROJECT NUMBER: 221012
DATE: 03/22/2021 DRAWN BY: TSF
SHEET EX03 3 OF

EX03 TREE EXHIBIT.DWG - PLOT: Tess - TUE. 8-31-2021 1:58 PM

BIRKDALE
VILLAGE

MEMORANDUM

To: Town of Huntersville

CC: Jay Henson, Tess Fallova, Mike Lant

From: Nick Lombardo

Re: Birkdale Village – Neighborhood Meeting

Date: August 16, 2021

As per the Subdivision Sketch Plan approval process, North American Properties held a neighborhood meeting on August 11th, 2021 at Birkdale Village to present the new development plan as well as update the community on current property operations and projects. The neighboring HOA groups, Town Planning and Town Council members were invited to this meeting. The meeting was also available virtually for those uncomfortable or unable to attend in person. The meeting was well-attended with 65 in-person attendees and 84 online attendees.

For reference, we have attached the meeting minutes and online social media feedback.

We are happy that our presentation was well-received by the public and community and look forward to taking their valuable feedback under consideration.

Sincerely,

Nick C Lombardo

Nick Lombardo
Development Manager – North American Properties, LLC
DDRTC Birkdale Village, LLC

Meeting Minutes:

Intro to HPD:
-Officers addressed loud mufflers and skateboarders etc - explained that they have an undercover operations that will be rolling out to address these issues. Details unable to be divulged.
Questions for HPD:
- Attendee asked why his calls to 911 get routed to other offices - officer explained it depends on cell towers etc. and that there should be no delays.
- How can we (neighborhood community) be more proactively get engaged with the community and HPD (to make more integrated part of neighborhood) – officer explained keeping them updated, maybe adding one to their FB page. Communication and keeping things on their radar.

Presentation:
-**Tim:** Talked about being an experience maker and what that means
-Showed experience maker video

-**Aniela**: Introduced Management team and spoke about the pillars of development and management.

-**Cayley**: Touched on Sig events and building community through these events.
- showed events video and spoke about how they impact a property and a community to create an environment worth spending time in.
- Showed 4th of July video and touched on foot traffic.
-Talked about remainder of marketing calendar.
-Spoke about Haven and their events for the year.

-**Nick**: Started with property and operations updates:
- Security updates on operational level. Enhanced hours for security. Hired third party consultant to oversee security. DAR's system.
-Talked about initial projects: monument signs, way finding signs, branding. Dog park - Mentioned adding shade structures. (Mentioned that we will find a home for the garden of Haven residents). Lion's Fountain. Pressure Washer investment and consistency. Lights in trees. Conduit's project / Why - music and Wi-Fi for common areas (September). Enhancements around Tree Grates. Painting of multifamily. Pool renovations. Apartment renovations. Stoop renovations. Brand expression - store fronts. Pier one trade space.

-**Tim**: Started with Vision - progress - baby steps. Spoke about changes more changes: Landscaping now being full service instead of once a week. Emphasized how NAP invests in time and tools for success.

- Site plan: create new and unique experiences. Jewel boxes - 1800 sq ft expanded on concept and what they bring to community.
- Bier garden rendering
- Concierge: hands on, manage events, first interface with guests. Explain location of concierge court. Plaza behind concierge and why. Showed concierge renderings. Arrival experience. Showed behind where plaza area will be and expanded on the activations of this space.

-parking decks entry
-Fountain: why to connect to concierge - safety. Activation piece. Scottsdale inspirations. Ice skating rink.
-public restrooms!!!!!
-talked through blown up rendering
-outdoor seating
-tiny retail: spoke about how it will change all throughout the seasons.
-parking: separate pedestrian and public realm from traffics realm. (Safety)

Questions:

1. Isn't it going to cause more traffics in neighborhood with less parking? Answer - parking counts, spoke about valet helping with controlling parking. Work together to take care of if there is an issue please reach out. ***valet is parking in the greens**** ☹
2. why is the valet court so large? Answer - Gets people out without having to go all the way down to each side and keeps the plaza safe.
3. How do you make a left turn from valet area? The intersection south of island still remains. The valet also allows people to turn to make up for the abandoned side of circle.
4. Wanted clarification on store fronts and expansions. Answer – Returned to Sephora slide and expanded.
5. How do you choose retailers? Answer - Leasing Team engages brands, thinks about how a brand that resonates, and if it matches the community, Etc. "what fits?"
6. Supporting business? Answer - We drive sales (Could not hear this question/response well)
7. Giving Back -events and charities. Answer- talked about angels and sparrow's partnership
8. Farmer's market - NOTED
9. When will be done? Nov 2022
10. Retaining wall date? Sept 1
11. How can we hold the movie theater accountable? Agreed it needs to be held accountable. Spoke about how we are friends with regal, etc. we don't draw the line at this is us and this is you. We will partner with them for the benefit of the community

Michelle Angela
14 hrs ·

Great setup for the meeting. Giftbags for all. Refreshments. Come down!!! This Village will be better than we expected. 😀

Tempi Wilkinson
Watching virtual 😎
Like · Reply · 13h 1

Birkdale Village
Thank you for coming! 3
Like · Reply · Commented on by **Cayla Stauffer** · 13h

Michelle Angela Author
Birkdale Village It was such a wonderful experience to see the vision. Bravo!!!
Like · Reply · 11h

Reply to Birkdale Village...

Lauren Watkins
I was super happy with what I saw!!! They did a great presentation via Zoom. Exciting!!! Hopefully tacos and tequila is coming!!!
Like · Reply · 13h 4

Tempi Wilkinson
Great job! We are very excited and hope that the entire transition goes smooth and swift
Like · Reply · 13h 1

Lauren Watkins
Here go our house prices!!! 👏👏👏

Like · Reply · 13h 6

↪ Kristina Greenwald replied · 1 Reply

Megan Starnes Finlay
Loved the meeting!! So informative and exciting!! Im with **Lauren Watkins** - pass me the tequila! And I'm guessing it was **Sheila Cary** in the front row asking for it??? 😂😂😂

Any other fun things that they shared?!

Like · Reply · 12h

Lauren Watkins
Ray Giovanelli google images of Avalon Atlanta and you'll get a good idea of the plan.

1

Like · Reply · 12h

↪ View 1 more reply

Lauren Watkins
Ray Giovanelli said William Sonoma isn't leaving. They also said maybe some things that want to leave north lake. Also said there have been lots of restaurants that want to move in. They couldn't disclose specifics since I'm sure deals are still being ... **See More**

2

Like · Reply · 11h

Kim Zarsadias
Ray Giovanelli ice skating

Like · Reply · 9h

Reply as Birkdale Village

Kristina Greenwald Admin +2
That was so exciting to witness all that they plan to do🙌👏

3

Like · Reply · 12h

Julie Salbinski Schwarzenegger
So exciting! Come on now . . . a TEQUILA BAR trumps the fountain 😉😁!

3

Like · Reply · 10h

Sheila Cary
Julie Salbinski Schwarzenegger but a tequila fountain.... 😛

2

Like · Reply · 6h

Reply as Birkdale Village

Brenda Titus
Any other new restaurants or stores talked about?

Terri Gaar
11 hrs ·

We had a great presentation tonight by North American, the new owners of Birkdale Village. Many wonderful, exciting developments are planned for this coming year. Ann Kabaklian is the general manager and offices the Village. She asked if we have any concerns or suggestions to feel free to contact her. She is looking forward to having a partnership with the residents of The Greens.

34 12 Comments

Jen Petroski Admin +1
I missed it. 😥 Hopefully you can catch me up. Did they say anything about the splash pad area?

Like · **Reply** · 10h

Nellie Hughes Herring
Jen Petroski making it to about 2 inches deep, with lights in the summer and ice skating in winter.

3

Like · **Reply** · 10h

Pam Boileau
This is so awesome!

Like · **Reply** · 10h

Christy Cox Gripp
I was going to try to attend virtually but I had an in person meeting at the same time

1

Like · **Reply** · 10h · Edited

Kim Haarberg DiBenedictis
Awesome news. Thank you for attending & for sharing! 👏🤗

1

Like · **Reply** · 10h

Kim Zarsadias
Kim Haarberg DiBenedictis it's going to be amazing!

2

Like · **Reply** · 10h

Sheila Cary
It was great meeting the entire team - this is very exciting!

1

Like · **Reply** · 6h

Kerry Edelstein
Am I the only one with a laundry list of concerns, that starts with: "How exactly is that dark wood beam aesthetic going to blend into cottage white and pastel Birkdale?" and "Um, y'all know those flyer photos aren't Birkdale, right?" and "Unless your VIP concierge is gonna to babysit my dog while I try on clothes I don't need, and then sherpa my purchases home, it better not cut out convenient parking." ??? Just me? Ok. But if you're gonna promise me five star hospitality, it definitely better include free dog sitting + sherpa service.

Also, where are these glorious valets going to park overflow cars, if not on the streets of our neighborhood? Also, they know there's a national staffing shortage, right?

Once I got past the delight of sliders, satay, and egg rolls, I wasn't terribly impressed. Don't get me wrong, I'll balcony dine, beer garden drink, and ice skate my heart out. These are all things I love. It's just a stretch to believe they can redesign a space to serve our community, when they can't even manage to design a flyer, remember an audience mic, or think of "Farmers market" on their own. And we had a ton of folks on Zoom, I don't think any of them even got to submit a question. Heck of an oversight that implies the mgmt co was either disorganized/unprepared or uninterested in our feedback.

Devil's in the details...

Like · **Reply** · 4h · Edited 1

Merlin Villar
Kerry Edelstein, valid points, particularly the parking. Many neighbors may not realize it but the valets routinely park-up all along Bridgeton, Lindholm (in the Greens) and all around the park. The apartment dwellers occupy the upper levels of the p... **See More**

Like · **Reply** · 2h 1

View 1 more reply

Christy Cox Gripp
Merlin Villar I did not realize that was where the valets parked the cars 😐 I often wondered why there were so many cars parked on Lindholm when we arrived late sometimes.

Like · **Reply** · 54m 1

Reply as Birkdale Village

Michelle Angela
I was at the meeting and I have to say it was wonderful for North A.erican Properties to invite us to be there to experience their vision. Inclusivity is so important nowadays. Birkdale Village will truly be a village. 😊

Like · **Reply** · 1h · Edited 1

Like · Reply · 3h

1

Jen Petroski Admin +1

My husband thinks we should charge the village to use our neighborhood for valet.

Like · Reply · 1h

1

Kerry Edelstein

Merlin Villar exactly, and this thread illustrates what I was getting at. That was a heck of a promise to lob, and while I appreciate the unwavering commitment to not using the streets, I was laughing to myself that he obviously doesn't know about Dresslers.

Tammy, I kind of feel the same, though I do truly like their ideas (other than the concierge, which struck me as ridiculously unnecessary, save for my doggie daycare fantasy). My impression is that they've done a lot of beautiful new developments, but not existing community redevelopment. And that they need to take a beat and listen before burying us in construction for 18 months. But it's definitely an improvement over the predecessors, and they seem open to feedback, so I'm hopeful that they'll read these threads and give all this a bit more depth of thought. I often wish we had better dining and hangout options in Birkdale, so I'm fully on board with that. Just not at the expense of what makes it compelling today - the green spaces, the convenience, etc. And I'd like to see them get more creative too. Let's bring in a pop-up gallery, a farmers market, a bodega, etc. Stuff that's useful and engaging when you LIVE here!

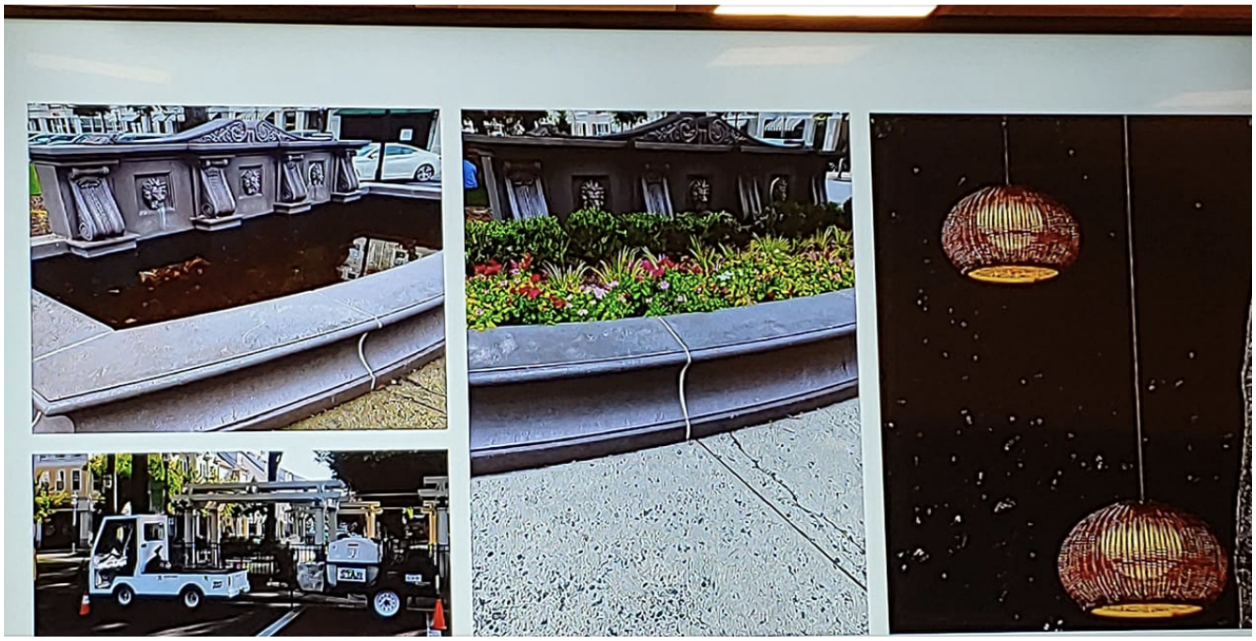
Like · Reply · 1h

1

Reply as Birkdale Village

Michelle Angela
13 hrs ·

The trees that run along the greens in Birkdale Village will ha e lights added. Should be completed by September.
The lights are shown on the right side of pic.
It will be so great when completed



14 2 Comments

Like Comment

Maria Kosches
Very nice
Like · Reply · 14h

Melissa Hulett Boardman
Love the lights! My kids miss the lion fountain being on, but using it as a planter is a beautiful change. Any mention of what they'll do with the splash pad area?
Like · Reply · 12h

Kim Haarberg DiBenedictis
Yay! I love lights in trees 🌟
Like · Reply · 18m

Re: Birkdale Village Neighborhood Meeting Invitation

MS

Melissa Shoemaker <missyshoemaker@icloud.com>

To: Stauffer, Cayla

Today at 8:00 AM

You replied to this message on 8/12/21, 8:06 AM.

External Email

Totally get it!! Y'all did a great job! Exciting stuff. I'm one of the (almost) original owners back in The Greens. Been here since 2003!! 🥰

Sent from my iPhone

10:35 AM

Thank you for the presentation last night. I think everyone there appreciated the information!

11:42 AM

Thank you for coming! Please let us know if you need anything in the future.

Sent by Cayla Stauffer [?]

Mentions · taylor.made.mortgages 3h

Really cool concepts coming from @birkdalevillagenc new owners @naprop1954 presentation last night

Really excited to be so close to what will be an even more lively area 🤩

Birkdale
VILLAGE

DEVELOPMENT STANDARDS FOR BIRKDALE VILLAGE

REZONING PETITION NO.(R0103)

Original Draft 01/14/98
Amended Draft 01/06/01
Amended Draft 02/09/01

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REZONING PETITION NO.(R0103)

Original Draft 01/14/98
Amended Draft 01/06/01
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REZONING PETITION NO.(R0103)
HUNTERSVILLE DEVELOPMENT. LLC
("PETITIONER")

DEVELOPMENT STANDARDS FOR BIRKDALE VILLAGE

Original Draft 01/14/98
Amended Draft 01/06/01
Amended Draft 02/09/01

PART I

Commitment

Development of the real estate identified on the accompanying Zoning Plan prepared by Dalton Moran Robinson Architecture, dated November 25, 1997, revised December 22, 1997 and January 14, 1998, consisting of 53.39 acres, exclusive of the area within street rights-of way, more or less (the "Site") and its individual components will be governed by the conditions of these Development Standards, the Zoning Plan and applicable provisions of the Town of Huntersville Zoning Ordinance (the "Ordinance").

PART II

Statement of Intent

Petitioner intends to create within the Site a high quality, pedestrian friendly, mixed-use commercial and residential development to be known as BIRKDALE VILLAGE (the "DEVELOPMENT"), offering shopping, living, business and employment opportunities along Sam Furr Road near its intersection with NorthCross Drive. The commercial and residential dwelling units uses shall be integrated by means of a variety of building scales, building materials and roof lines. These different uses shall be interconnected by use of pedestrian and vehicular connectors, such as roadways, pedestrian ways, open space and sidewalks. Connectors will include landscaping and tree plantings, benches and plazas, and unique architectural elements and features.

PART III

Permitted Development Within the Site

The HIGHWAY COMMERCIAL DISTRICT (the "DISTRICT"), encompassing the entire area within the Site, may be devoted to any use (including any accessory use) which is permitted by right or under prescribed conditions in the Ordinance for the Highway Commercial District except for the following:

(a) armories for meetings and training of military organizations;
(b) auction sales;
(c) pawnshops and second-hand sales;
(d) vocational and technical schools;
(e) boarding or rooming houses;
(f) fraternal or club facilities;
(g) adult establishments;

(h) sales, service, rental and mechanical and/or body repair of boats or motor vehicles, but not including gas stations, car washes or tune-up facilities;

(i) outdoor kennels; and

(j) "fast food" restaurants which primarily sell hamburgers, cheeseburgers, chicken or Mexican food, or combinations of the same, such as a McDonald's, Wendy's, Hardees, Burger King, Taco Bell, Bojangles or KFC. For purposes of these Development Standards, "fast food" restaurants shall mean restaurants whose primary method of service is ordering over the counter, but shall not include cafeterias or restaurants with cafeteria-style service and table dining, but which also offer take out service of prepared or bulk foods, such as a Pasta & Provisions or a Boston Market, coffee, doughnut or bagel shops or yogurt or ice cream shops.

Within the DISTRICT, commercial and residential components may be developed as follows:

Section 1. COMMERCIAL COMPONENT.

(a) In an effort to maintain a variety of storefronts along the public streets, the petitioner reserves the right to develop any number of and size of retail spaces with no one tenant exceeding 85,000 square feet. The operator of an indoor motion picture theater shall be permitted to occupy no more than 75,000 square feet of ground floor area within a theater building. All other tenants, occupants or single users of retail space shall be permitted to occupy the square feet of floor area in such amounts and at such locations as are depicted on the Zoning Plan, subject to the provisions of Section 4 of this Part III.

(b) Subject to the requirements of subparagraph (a), the total ground floor area which may be constructed within the commercial component and which shall be exclusively dedicated to commercial use shall not exceed 435,800 square feet. The commercial component may consist of the following individual uses:

• Indoor Motion Picture Theater (may not exceed)	75,000 sq.ft.
• Retail Stores/Restaurants (may not exceed)	275,000 sq.ft.
• Office Space (may not exceed)	160,000 sq.ft.
~~• Hotel/Conference Center with maximum 200 rooms (may not exceed)~~	~~60,000 sq.ft.~~

Section 2. RESIDENTIAL COMPONENT

The total number of Residential dwelling units (multi-family) shall not exceed 320 units including 60 live/work units consisting of residential, office or retail uses.

Section 3. SUBSEQUENT CHANGES

The Zoning Plan depicts preliminary parking areas, building shapes and sizes. The location and configuration of these may vary from what is depicted on the Zoning Plan as architectural designs and tenants are finalized. Subdivision of buildings and/or individual tenant spaces shall be permitted. Combinations or re-combinations of buildings and/or individual tenant spaces depicted on the Zoning Plan shall be permitted (~~except~~ as noted in Section 1(a) of Part III), ~~provided Petitioner shall not be permitted, as a result of such combinations or re-combinations, to develop more than one 30,000 square foot facility for a single retail user or two 20,000 square foot facilities for two single retail users.~~ Notwithstanding variations in building sizes, shapes and configurations, subdivision of buildings and/or individual tenant spaces or combinations or recombinations of buildings or individual tenant spaces as permitted hereinabove, the relationship to the streets, the architectural character, exterior materials and elevations of all of such buildings shall be in compliance with the provisions of Section 1 of Part V hereof.

Section 4. DEVELOPMENT PHASING.

In order to Phase the implementation of the Zoning Plan, the Petitioner shall not receive Building Permits exceeding a total of 200,000 sq.ft. of the Commercial Component without first obtaining Permits for the Residential Component.

Section 5. CONFLICTS.

The Zoning Plan and these Development Standards represent a firm intention on the part of Petitioner to develop the Site in accordance with the Zoning Plan and as specified by these Development Standards. In the event of a conflict between the Zoning Plan and these Development Standards:

(a) if the conflict concerns the location, configuration or spatial relationship of buildings, driveways, streets, parking areas or other improvements, then the Zoning Plan will control; and

(b) if the conflict concerns any item not within the categories listed in subparagraph (a) above, these Development Standards will control.

PART IV

Transportation Commitments

The roadway system which Petitioner is proposing for the DEVELOPMENT is in agreement with the approved Thoroughfare Plan for the Town of Huntersville, generally and the Site in particular.

PART V

Design Guidelines

Section 1. ARCHITECTURAL CHARACTER.

(a) The elevations of buildings within the commercial and residential components shall be designed to reflect a "town center".

(b) Building elevations will include changes in building height, orientation, roof lines and other facade articulation. These changes will provide a strong sense of pedestrian scale and orientation creating an urban character which, in concert with sidewalk and street development, will foster the "town center" theme.

(c) All building elevations which front on a primary street shall provide at least one (1) entry of a pedestrian scale on each such elevation, ~~provided, the anchor tenant occupying up to 85,000 square feet of floor area shall be required to provide points of entry of a pedestrian scale on two of its four building elevations~~. Where a building elevation abuts a secondary street parking area and/or pedestrian way and is designed or functions as a side or rear elevation, the building face will incorporate architectural details and screening intended to avoid a blank or monotonous appearance (e.g., windows, gables/dormers, awnings, exterior materials or textures, color, cornice treatment, landscaping, walls, etc.)

(d) Building entries will be defined by the use of varied forms and/or other architectural details. Primary elevations (i.e., elevations along a primary street or the principal point of entry into a building) will also be articulated through the use of color, patterning and other architectural designing.

(e) Parking decks will relate to the building elevations in scale and character utilizing similar materials and facade articulation. The street edge of the parking decks will be screened with landscape according to the Ordinance.

(f) Examples of proposed building elevations, facade articulation and architectural details are depicted in the Exhibits attached. The individual elevations and details shown in the Exhibits may be varied or re-combined to provide alternative elevations or facade articulation.

Section 2. YARD RESTRICTIONS.

In every instance the side yard, setback and rear yard for each parcel developed within the Site shall comply with at least the minimum standards of the Ordinance. Within the parameters of these minimum standards, setbacks will be utilized in a manner to encourage pedestrian activity.

Section 3. DRIVEWAYS AND STREETS.

(a) The Zoning Plan is intended to illustrate Petitioner's firm commitment to establish, develop and construct three primary streets within the Site providing vehicular access to and from Sam Furr Road and three secondary streets providing vehicular access from the Site to the adjacent residential development. The precise location of these primary and secondary streets may be varied (but not substantially changed) due to existing topographical considerations or final development plans. In addition to the primary and secondary streets specified above, Petitioner may provide additional streets as depicted on the Zoning Plan, but the Zoning Plan is not intended to fix or determine the ultimate number of these additional streets nor their precise location; however, Petitioner intends to provide a hierarchical street network as defined in the Ordinance with automobile routes and sidewalks to permit the comfortable use of the streets by motorists and pedestrians.

(b) All streets shall be public streets in accordance with the requirements of the Ordinance. Several streets (see Exhibits) will provide adequate space for on-street parking.

(c) All streets and highway improvements will be constructed in accordance with standards established by the governmental authorities having jurisdiction over their maintenance and operation.

(d) Typical street cross-sections including sidewalk and landscaped areas, are depicted in the Exhibits attached.

Section 4. OPEN SPACE.

(a) Open space will be designed to incorporate natural drainage ways and wooded areas. Three significant open spaces are depicted on the Zoning Plan and are to remain as open spaces (See Exhibit 4.1 attached) as follows:

(i) Transco Pipeline:
Subject to approval by the appropriate utility operator, Petitioner reserves the right to use the area within the Transco Pipeline easement for pedestrian pathways, trails, bridges and boardwalks, drainage, utility lines and to construct and maintain three secondary streets providing access to and from the Site and the adjacent residential development in the locations depicted on the Zoning Plan.

(ii) McDowell Creek Buffer:
The 100' buffer (measured from top of bank) adjacent to McDowell Creek shall remain largely undisturbed, except the first 40 feet adjacent to the DEVELOPMENT which, subject to Mecklenburg County EPA approval, may be cleared, regraded and replanted in accordance with the Ordinance. The Petitioner reserves the right to install appropriate landscaping and to construct and maintain a maximum of two pedestrian bridges, crossing McDowell Creek at approximately 90 degree angles, to provide pedestrian access to areas lying outside of the Site.

(iii) Sam Furr Frontage:
Petitioner will preserve existing trees along Sam Furr Road outside of the McDowell Creek Buffer in the areas depicted on the Zoning Plan. Prior to grading in the vicinity of this tree preservation area, the limits of the tree preservation area will be staked and clearly marked. Following completion of grading activities and installation of landscaping along Sam Furr Road as depicted in the Zoning Plan and in accordance with the Landscaping Plan to be prepared by Petitioner and approved by the Town of Huntersville, Petitioner reserves the right to use this open space for pedestrian pathways, trails, bridges and boardwalks, walls, fences, lighting fixtures, drainage and utility lines (all lines crossing at 90 degree angles) and, along the frontage lying between the entry points as depicted on the Zoning Plan, for signs in accordance with the provisions of Section 5 hereof.

(b) All pedestrians ways, including sidewalks and paths, shall be clearly defined and where such zones intersect with nearby vehicular circulation they should be adequately separated to function in an inviting manner.
(c) The pedestrian network plan (see Exhibit 4.2 attached) illustrates a hierarchy of major pedestrian paths of travel throughout the center. Sidewalk widths provided will be as follows: 10 feet wide (minimum and including tree grating in some locations) along the storefronts of the retail shops; 5 feet wide for pedestrian connections from the shops to parking areas; and 5 feet sidewalks adjacent to streets.

Section 5. SIGNS AND GRAPHICS.

A master signage and graphics system will be adopted and, at a minimum, will satisfy the requirements of the Town of Huntersville Sign Ordinance.

(a) All freestanding building and tenant identification signs and graphics installed will be complementary in scale and appearance to the structures which they identify.
(b) Entryway signage shall be monument-type construction and no pylon signage will be permitted. Directory signage along Sam Furr Road identifying tenants and other occupants of the Site shall be limited to that portion of Sam Furr Road lying between the entry points depicted on the Zoning Plan.

(c) No sign may be mounted on the roof or parapet of any structure.

(d) Public information signs and graphics will be easily understood and complementary in scale and appearance.

(e) Major signage locations at entry points along Sam Furr Road are depicted in Exhibit *5.1* attached.

Section 6. STORM WATER MANAGEMENT AND WATERSHED PROTECTION.

(a) Storm water runoff from the Site will be managed through a variety of proven techniques which at a minimum satisfy the standards imposed by Mecklenburg County for a P-A2 Protected Area.

(b) No detention ponds may be located within the 100' buffer (measured from top of bank) adjacent to McDowell Creek as depicted on the Zoning Plan.

Section 7. ENTRYWAYS

(a) Special attention will be given to the entryways to the Site from Sam Furr Road.

(b) Landscape materials including street trees, shrubs and ground cover will establish continuity at each entryway, while creating a pleasant and harmonious interface with other site elements, such as signage, pedestrian circulation ways, lighting and adjacent buildings.

(c) Exhibits 7.1 and 7.2 attached generally depict the landscaping plan intended for each such entryway.

Section 8. BUFFER YARDS.

(a) Exterior buffer yards are established on the Zoning Plan. Additional buffer yards will be provided when required by the Ordinance. All buffer yards at a minimum will satisfy the requirements of Section 8.20 of the Ordinance.

(b) The 100' buffer (measured from top of bank) adjacent to McDowell Creek as depicted on the Zoning Plan shall remain largely undisturbed (See Section 4. (a) (ii) in Part III). Other buffer yards are to remain as undisturbed open space, except to the extent necessary to accommodate pedestrian pathways, trails, bridges and boardwalks, access points, walls, fences, lighting fixtures and drainage and utility lines and facilities, provided the same shall cross any buffer yard at a 90 degree angle.

(c) In all buffer yards along Sam Furr Road where existing trees and natural vegetation have been cleared to accommodate walls, fences and the installation of utility construction, the cleared, unimproved areas will be landscaped in a manner consistent with the Landscaping Plan to be prepared by Petitioner and approved by the Town of Huntersville.

(d) Landscape materials within any buffer yard shall be maintained by the Petitioner and/or subsequent Owner(s) of all or any portion of the Site in accordance with the provisions of Section 8.23 of the Ordinance.

Section 9. LANDSCAPE AREAS AND SCREENING.

(a) Existing trees along Sam Furr Road as depicted on the Zoning Plan will be preserved. Additional landscaping and screening shall satisfy or exceed the requirements Section 8.21 of the Ordinance. Landscaping for parking lots shall conform to the Design Standards of Article 6.

(b) Landscape Areas designated on the Zoning Plan shall be in the location and of the dimensions shown on the Zoning Plan.

(c) Landscape Areas are to remain as undisturbed open space, except to the extent necessary to accommodate pedestrian pathways, trails, bridges and boardwalks, access points, walls, fences, lighting fixtures and drainage and utility lines and facilities, provided the same shall cross Landscape Areas at a 90 degree angle.

(d) Additional landscaping within the Site will be planted and improved in sequences which are keyed to the development taking place, but may be seasonally accelerated or delayed, as reasonably prudent, to improve survival. Petitioner will file a letter of compliance with the Zoning Administrator as building permits are issued as required by Section 8.23 of the Ordinance.

(e) All dumpsters and service areas will be screened from public streets and from adjacent properties as required by the Ordinance. All mechanical equipment shall be screened from view as required by the Ordinance.

(f) The periphery of parking lots shall provide adequate landscaping/screening that complies with or exceeds required standards. The Exhibits attached illustrate typical landscaping treatment for parking areas within the Site.

(g) No buildings or parking lots may be placed within any Landscape Area.

(h) Maintenance of Landscape Areas and landscaping within the Site shall be the responsibility of Petitioner and/or subsequent Owner(s) of all or any portion of the Site in accordance with the provisions of Section 8.23 of the Ordinance.

PART VI

Dedication of Greenway

If this Rezoning Petition is approved, each Owner of a parcel involved agrees to dedicate those areas depicted on the Zoning Plan as "Greenway" to Mecklenburg County for Greenway purposes, provided such dedication does not create a new sideyard, setback or non-conforming condition, prior to issuance of the first certificate of occupancy for any development taking place within the Site; or, if earlier, within 30 days following a written request from the Mecklenburg County Parks and Recreation Commission who will maintain the Greenway after dedication. Each such Owner may, however, reserve the right and/or easement to enter the area to be dedicated for purposes of implementing wetland impact mitigation and to reserve such other easements, including, but not limited to, easements for drainage, maintenance and utilities, as may reasonably be necessary in connection with developing the Site.

PART VII

Graphic Representations in Zoning Plan

The Zoning Plan depicts preliminary parking areas, building shapes and sizes. The location and configuration of these may vary from what is depicted on the Zoning Plan as architectural designs and tenants are finalized, subject to the provisions of Part III and Part V hereof.

PART VIII

Amendments to Conditional Plan

Future amendments to the DISTRICT, the Zoning Plan and these Development Standards involving one or more parcels within the Site may be applied for by the then Owner or Owners of the parcel or parcels involved in accordance with Article 11 of the Ordinance.

PART IX

Binding Effect of the Rezoning Application

Section 1.

If the Petitioner's Rezoning Petition is approved, the development program established under these Development Standards, the Zoning Plan and other supportive documents shall, unless amended in the manner provided under the Ordinance, be binding upon and inure to the benefit of the Petitioner and each of the Owners and their respective heirs, devisees, personal representatives, successors in interest and assigns.

Section 2.

Throughout this Rezoning Petition, the terms "Petitioner", "Owner" or "Owners" shall, with respect to each portion of the Site, be deemed to include the heirs, devisees, personal representatives, successors in interest and assigns of each of the Owners of parcels within the Site who may be involved in the DEVELOPMENT from time to time.

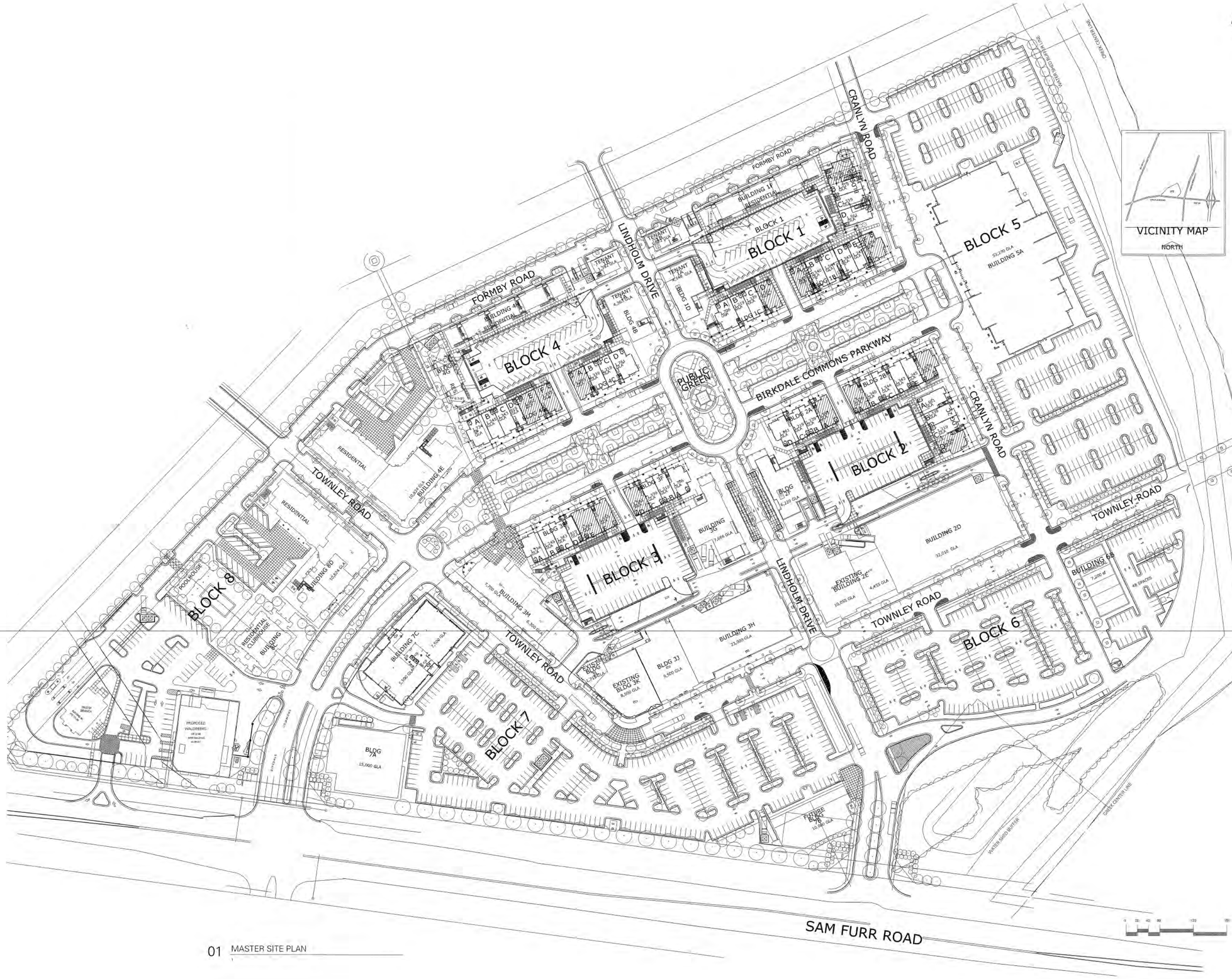
PART X

Exhibits

The Exhibits attached hereto as Exhibits 1.1-1.6, 3.1-3.9, 4.1 and 4.2, 5.1, 7.1 and 7.2 and 9.1 and 9.2 are made a part hereof by reference.

Revd 7-22-04

UPDATED MASTER PLAN



01 MASTER SITE PLAN

shook kelley

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SHOOK, KELLEY, INC. ARCHITECTURAL CORPORATION NORTH CAROLINA 637 CHARLOTTE, N.C.

CHARLES TERRY SHOOK REGISTERED ARCHITECT NORTH CAROLINA 9761 CHARLOTTE, N.C.

NOT FOR CONSTRUCTION

Key Plan

Birkdale Village Site Plan

Revision - 13MAY04

This Drawing is the property of Shook Kelley, Inc. and is not to be reproduced in whole or in part. It is to be used for the project and site specifically identified herein and are not to be used on any other project. This Drawing is to be returned upon the written request of Shook Kelley, Inc.

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shook kelley

G002

#200102581 4

MAP BOOK 34 PAGE 795

FILED FOR REGISTRATION
FEB 22 2001
AT 10:19
JUDITH A. GIBSON
MECKLENBURG COUNTY, N. C.
REGISTER OF DEEDS

NORTH ORIENTED TO NGS GRID (NAD 83)

CURVE TABLE					
CURVE	RADIUS	LENGTH	BEARING	CHORD	DELTA
C1	70.50'	60.64'	N22°25'17"E	58.79'	49°17'06"
C2	150.00'	60.37'	N53°17'22"E	59.97'	23°03'39"
C3	20.00'	33.01'	N89°01'29"E	29.39'	94°31'52"
C4	688.95'	140.96'	S58°57'31"W	140.71'	11°43'21"
C5	70.50'	60.64'	N72°46'34"W	58.79'	49°17'06"
C6	20.00'	31.42'	N70°10'48"W	28.28'	90°00'00"
C7	20.00'	31.42'	N19°49'12"E	28.28'	90°00'00"
C8	35.50'	55.76'	N19°49'12"E	50.20'	90°00'00"
C9	35.50	55.76'	S70°10'48"E	50.20'	90°00'00"
C10	35.50'	55.76'	S19°49'12"W	50.20'	90°00'00"
C11	35.50'	55.76'	S19°49'12"W	50.20'	90°00'00"
C12	20.00'	35.50'	S19°49'12"W	28.28'	90°00'00"
C13	20.00'	35.50'	S19°49'12"W	28.29'	90°00'00"
C15	155.00'	23.66'	N60°26'49"E	23.64'	08°44'46"
C16	624.73'	22.79'	N55°01'44"E	22.79'	02°04'12"
C17	38.00'	112.19'	N30°35'53"W	75.66'	169°50'21"
C18	57.00'	49.24'	N67°15'26"E	47.72'	49°29'36"
C19	22.00'	56.43'	S14°38'49"E	42.18'	146°57'53"
C20	726.45'	47.05'	S57°06'48"W	47.04'	03°42'39"
C21	22.00'	64.17'	N41°11'06"W	43.72'	167°06'51"
C22	30.00'	57.47'	S80°03'24"E	49.07'	109°45'11"
C23	185.00'	70.38'	N53°55'15"E	69.96'	21°47'53"
C24	185.00'	20.04'	N67°55'23"E	37.68'	97°47'55"
C28	137.67'	14.91'	N67°55'23"E	14.91'	06°12'23"
C29	137.67'	52.38'	S53°55'15"W	52.06'	21°47'53"
C30	70.50'	64.29'	N23°54'11"E	62.09'	52°14'55"
C31	70.50'	64.29'	N74°15'48"W	62.09'	52°14'55"
C35	20.00'	31.42'	N52°26'48"E	28.28'	90°00'00"
C36(TOT.)	20.00'	31.42'	S37°33'12"E	28.28'	90°00'00"
C75	44.17'	29.80'	N86°39'27"E	29.24'	38°39'27"
C76	48.03'	83.83'	S31°17'42"E	73.58'	100°00'19"
C77	80.40'	26.83'	S34°46'15"W	26.71'	19°07'14"
C78	265.50'	25.27'	N57°02'30"E	25.76'	05°33'37"
C79	265.50'	320.04'	N19°43'44"E	301.01'	69°03'56"
C80	20.00'	10.60'	N07°44'36"W	10.48'	30°22'48"
C81	315.50'	389.44'	S18°53'59"W	365.18'	70°43'26"
C82	150.00'	60.37'	N53°17'08"E	59.97'	23°03'39"
C83	688.95'	125.88'	S59°35'08"W	125.70'	10°28'07"
C84	20.50'	24.05'	S82°38'03"E	22.69'	67°13'06"
C85	89.50'	103.34'	S82°06'10"E	97.69'	66°09'17"
C86	502.00'	400.51'	N30°30'31"E	389.98'	45°42'46"
C88	20.00'	33.01'	N89°01'29"E	29.39'	94°31'52"

LINE TABLE		
LINE	BEARING	DISTANCE
L1	S64°49'12"W	25.00'
L5	N64°49'12"E	5.00'
L6	S64°49'12"W	9.11'
L7	S25°10'48"E	16.00'
L8	N64°49'12"E	4.00'
L9	S64°49'12"W	4.00'
L13	N70°25'47"W	34.06'
L14	S60°10'13"E	36.62'
L15	N60°10'20"W	36.62'
L16	N28°26'26"W	37.54'
L17	N42°22'37"E	28.34'
L19	N71°01'35"E	21.22'
L21	S25°10'48"E	16.00'
L22	S53°39'57"E	79.97'
L23	N64°49'12"E	16.00'
L24	N71°01'35"E	21.22'
L25	S64°49'12"W	3.50'
L26	S64°49'12"W	3.50'
L27	S25°10'48"E	37.50'
L28	N53°39'57"W	41.23'
L29	N02°24'00"E	41.92'
L30	N13°11'33"W	56.09'
L31	S02°24'00"W	35.71'
L32	S55°01'45"W	50.21'
L33	S38°03'22"W	68.41'
L34	S39°44'39"W	277.47'
L35	S54°32'39"W	19.55'
L36	N29°47'25"E	210.95'
L37	S29°47'25"W	74.92'
L38	S07°39'08"W	33.18'

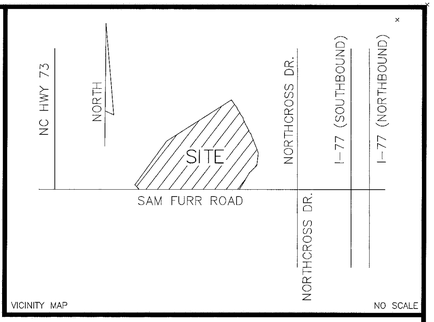
LINE TABLE		
LINE	DIRECTION	DISTANCE
L49	N64°49'12"E	176.72'
L50	S64°49'12"W	149.00'
L51	N73°56'38"W	31.13'
L52	N81°25'20"W	39.74'
L53	N41°13'14"E	61.42'
L54	S48°46'46"E	50.00'
L55	S41°13'14"W	65.54'
L56	S81°25'20"E	37.85'
L57	N39°44'34"E	271.48'
L58	N38°03'22"E	76.86'
L59	N54°15'42"E	9.78'
L60	N54°15'42"E	19.84'
L61	N13°44'45"W	63.61'
L62	N23°33'57"W	81.28'
L63	N22°12'21"W	89.10'
L64	N17°18'24"W	139.74'
L65	N12°50'22"W	21.31'
L66	N21°33'34"W	193.13'
L67	N09°41'56"W	60.91'
L68	N24°47'29"W	141.04'
L69	S64°49'12"W	259.00'
L71	S27°26'31"E	67.57'
L72	S30°06'41"E	80.80'
L73	S22°46'39"E	31.69'
L74	S27°03'45"E	36.55'
L75	S05°42'31"W	21.60'
L76	S04°35'11"E	37.65'
L77	N41°13'14"E	123.81'
L78	N79°15'34"E	24.71'
L79	S79°40'33"E	70.91'
L80	N39°44'34"E	46.59'
L81	N64°49'08"E	101.68'

APPROVED IN ACCORDANCE WITH THE ENGINEERING REQUIREMENTS OF THE SUBDIVISION ORDINANCE OF MECKLENBURG COUNTY, NORTH CAROLINA.

ENGINEERING STAFF — DATE 2/22/01

N/F HUNTERSVILLE DEVELOPMENT LLC DB 9332 PG 418

DETAIL "A" (NO SCALE)



I HEREBY CERTIFY THAT THE SUBDIVISION PLAT SHOWN HEREON HAS BEEN FOUND TO COMPLY WITH THE SUBDIVISION REGULATIONS FOR HUNTERSVILLE, NORTH CAROLINA AND HAS BEEN APPROVED BY THE BOARD OF COMMISSIONERS FOR RECORDING IN THE OFFICE OF THE REGISTER OF DEEDS OF MECKLENBURG COUNTY. THE TOWN ACCEPTS NO RESPONSIBILITY TO OPEN OR MAINTAIN ANY STREETS, EASEMENTS, RIGHTS-OF-WAY, OR OTHER LANDS SHOWN HEREON AND ACCEPTED HEREBY FOR PUBLIC PURPOSES UNTIL THE OPINION OF THE BOARD OF COMMISSIONERS IS IN THE PUBLIC INTEREST TO DO SO.

PLANNING DEPARTMENT STAFF — DATE 2/22/01

State of North Carolina
County of Mecklenburg

I, J. Stuart Mullen, Review Officer for Mecklenburg County, certify that the map or plat to which this certification is affixed meets all statutory requirements for recording.

2/22/01 Date — Review Officer

ALLOTTED IMPERVIOUS AREAS BY GEOSCIENCE GROUP, INC.			
	BMP#1	FOREST CITY BMP	HOLE #18 BMP
LOT 1	0.0 ACRES	4.1 ACRES	0.0 ACRES
LOT 2	0.0 ACRES	1.6 ACRES	0.0 ACRES
LOT 3	0.0 ACRES	0.3 ACRES	2.1 ACRES
LOT 4	0.0 ACRES	0.0 ACRES	3.5 ACRES
LOT 5	3.1 ACRES	0.0 ACRES	1.0 ACRES
LOT 6	0.3 ACRES	2.6 ACRES	0.0 ACRES
LOT 7	2.5 ACRES	0.0 ACRES	0.0 ACRES
LOT 8	2.1 ACRES	0.2 ACRES	0.0 ACRES

NOTE:
THE PURPOSE OF THE "BMP" IS TO PROVIDE WATER QUALITY TREATMENT FOR LOTS 5 THROUGH 8. THE PIPES/CHANNELS LOCATED IN THIS DEVELOPMENT SERVE AS A MEANS OF STORMWATER CONVEYANCE TO THE "BMP". (THIS "BMP" AND THE ACCOMPANYING CONVEYANCE SYSTEMS ACTS AS A MEAMS FOR UNDETAINED STORMWATER DISCHARGE TO DRAIN TO THE "BMP" TO SERVE AS A DETENTION FACILITY FOR LOTS 5 THOUGH 8.

LEGEND
- PO = POWER POLE
- X = FENCE
- CI = CURB INLET
- ECM = EXIST. CONCRETE MONUMENT
- R/W = RIGHT-OF-WAY
- CMUD = CHARLOTTE MECKLENBURG UTILITY DEPT.
- T = UNDERGROUND TELEPHONE
- G = UNDERGROUND GAS
- W = WATER LINE
- GUY WIRE
- P = SOVORHEAD POWER LINE
- SS = SANITARY SEWER LINE
- EIP = EXIST. IRON PIN (#5 REBAR, UNLESS NOTED)
- SIP = SET IRON PIN (#5 REBAR, UNLESS NOTED OTHERWISE)
- RCP = REINFORCED CONCRETE PIPE
- (NTS) = NOT TO SCALE
- (PUNCH) = PUNCH HOLE IN CONCRETE
- FES = FLARED END SECTION
- (S) = STORM SEWER MANHOLE
- ST = STORM SEWER LINE
- ℄ = CENTERLINE
- (S) = SANITARY SEWER MANHOLE
- N/F = NOW OR FORMERLY
- NMS = NO MONUMENTATION SET
- E = UNDERGROUND ELECTRIC
- 1 = SUBDIVISION LOT NUMBER
- 227-251-99 = TAX PARCEL NUMBER
- PROPERTY LINE SURVEYED
- PROPERTY LINE NOT SURVEYED
- PROPERTY LINE
- (S33.20') = MEASUREMENT OF RECORD
- S33.12' = ACTUAL FIELD MEASUREMENT
- U.G.U. = UNDERGROUND UTILITIES
- C/G = CURB AND GUTTER
- S.W.M. = SURFACE WATER IMPROVEMENT AND MANAGEMENT

N/F GREENS AT BIRKDALE VILLAGE TAX # 005-062-03 DB 10819 PG 751

N/F HARRY C. KNOX TAX MAP # 005-062-10 DB 10181 PG 786

N/F SUMMIT PROPERTIES PARTNERSHIP TAX MAP # 005-081-20 DB 8426 PG 57

EASTERN FEDERAL CORPORATION TRACT LOT 1 DB 11069 PG 786 5.992 ACRES 16950 CRANLYN ROAD

LOT 2 2.108 ACRES
LOT 3 3.288 ACRES
LOT 4 5.514 ACRES
LOT 5 5.321 ACRES
LOT 6 3.499 ACRES
LOT 7 7.143 ACRES
LOT 8 5.867 ACRES

COMMON AREA "A" 0.089 ACRES
COMMON AREA "B" 0.682 ACRES
COMMON AREA "C" 0.271 ACRES
COMMON AREA "D" 0.686 ACRES

FORMBY ROAD (47.5' PUBLIC R/W)
LINDHOLM DRIVE (47' PUBLIC R/W)
BIRKDALE COMMONS PARKWAY (57.50' PUBLIC R/W)
CRANLYN ROAD (61' PUBLIC R/W)
TOWNLEY ROAD (VARIABLE PUBLIC WIDTH)
TOWNLEY ROAD FORMERLY PORTAL DRIVE (69' PUBLIC R/W)
BIRKDALE COMMONS PKWY. (VARIABLE PUBLIC WIDTH)

SAM FURR ROAD S.R. 2145 (VARIABLE PUBLIC WIDTH)

TRANSCONTINENTAL GAS PIPELINE CORPORATION 100' WIDE EASEMENT (SEE DB 3306 PG 277)
PROPOSED GREENWAY/OPEN SPACE 0.824 ACRES
PROPOSED GREENWAY/OPEN SPACE 1.659 ACRES
PROPOSED GREENWAY/OPEN SPACE 1.63 ACRES
PROPOSED GREENWAY/OPEN SPACE 2.505 ACRES
GAS PIPELINE EASEMENT
25' DRAINAGE EASEMENT
25' PRIVATE LANDSCAPE EASEMENT
30' DRAINAGE EASEMENT
20' STORM EASEMENT
BMP (BEST MANAGEMENT PRACTICE) EASEMENT (FOR ENTIRE 6.01 ACRE PARCEL SEE MB 30 PG 437)
30' RCP W/ TIES
STORM EASEMENT
PROPERTY LINE IS THE CENTERLINE OF MCDOWELL CREEK AS TAKEN FROM MB 30 PG 437
30' STREAMSIDE 45' MANAGED USE ZONE 25' UPLAND ZONE
S.W.M. STREAM BUFFER
S.W.M. BUFFER (AREA NOT TO BE DISTURBED)
BMP POND EASEMENT
30' WIDE OVER SANITARY SEWER EASEMENT (SEE DB 5911 PG 602)
10' HOA EASEMENT
PROPOSED GREENWAY/OPEN SPACE 1.63 ACRES
PROPOSED GREENWAY/OPEN SPACE 2.505 ACRES
PROPOSED GREENWAY/OPEN SPACE 1.659 ACRES
PROPOSED GREENWAY/OPEN SPACE 0.824 ACRES
PROPOSED GREENWAY/OPEN SPACE 0.469 ACRES
PROPOSED GREENWAY/OPEN SPACE 1.63 ACRES
PROPOSED GREENWAY/OPEN SPACE 0.469 ACRES
PROPOSED GREENWAY/OPEN SPACE 1.659 ACRES
PROPOSED GREENWAY/OPEN SPACE 0.824 ACRES
PROPOSED GREENWAY/OPEN SPACE 2.505

Town of Huntersville
Town Board
October 18, 2021

To: Town Board

From: Lauren Speight

Date: October 18, 2021

Subject: TA21-07 Metal Panels for Shopfront Buildings

EXPLAIN REQUEST:
Consider a decision on Petition #TA 21-07, a text amendment request made by Nick Lombardo on behalf of North American properties to amend Article 4: Shopfront Building, Architectural Standards of the Huntersville Zoning Ordinance. The purpose of the amendment is to allow shopfront buildings to use decorative metal panels such as Aluminum Composite Material (ACM) panels as an accent or trim material.

ACTION RECOMMENDED:
Consider a decision on TA21-07.

FINANCIAL IMPLICATIONS:
N/A

ATTACHMENTS:
1. TA21-07 Metal Panel - FA Staff Report _10 18 21 Webv2

TA 21-07 – Metal Panels for Shopfront Buildings Types

PART 1: DESCRIPTION

TA21-07 is a text amendment request made by Nick Lombardo on behalf of North American properties to amend Article 4: Shopfront Building, Architectural Standards of the Huntersville Zoning Ordinance. The purpose of the amendment is to allow shopfront buildings to use decorative metal panels such as Aluminum Composite Material (ACM) panels as an accent or trim material.

PART 2: BACKGROUND

North American Properties contacted Town Planning Department Staff to inquire about regulations regarding allowed material types for building facades. Mr. Lombardo and Staff subsequently discussed allowed material types. According to current Zoning Ordinance regulations (Article 4) Urban Workplace and Highway Commercial building types are allowed to use decorative metal accents and trim. For both Urban workplace and Highway Commercial building types, decorative metal panel accents may not exceed 30% of any façade visible from the street. Apartment building types allow two wall materials to be combined horizontally on one facade.

PART 3: RELEVANT SECTIONS OF THE HUNTERSVILLE 2040 COMMUNITY PLAN

- Policy LU-8 and LU 8.1: Emphasize form and flexibility in Mixed-Use Centers, Employment Centers, the Town Core, and Activity Centers. Continue to emphasize form and flexibility in development regulations for these areas. COMMENT: The proposed text amendment is appropriate as Urban Workplace and Highway Commercial building types already allow mental panels as accents and trim for buildings. And, the Zoning Ordinance currently allows Apartment building types to combine two wall materials.

PART 4: STAFF RECOMMENDATION

Planning staff recommends approval of the proposed text amendment application. LU-8 and LU-8.1 support flexibility in development regulations for areas including Mixed-Use Centers, Employment Centers, the Town Core, and Activity Centers. Shopfront building types are not exclusive to Mixed-Use Centers, Employment Centers, the Town Core, and Activity Centers, but are likely to be located within these areas. Both Urban workplace and Highway Commercial building types, decorative metal panel accents may not exceed 30% of any façade visible from the street. Apartment building types allow two wall materials to be combined horizontally on one facade. This text amendment is proposing the same allowance for metal panels and the same restriction as Highway Commercial and Urban Workplace building types. This text amendment will allow greater flexibility materials allowed for Shopfront Buildings. While the applicant intends to use metal accents specifically within Birkdale Village on storefront entablature or columns, Shopfront buildings are not specific to Birkdale Village and are an allowed building lot in multiple zoning districts..

Please see the drafted text below and the proposed amendment ordinance included in the agenda packet. Removed language is struck out, new language is **bold underline**.

Article 4: Shopfront Building, Architectural Standards Principles, B

B. Building elevations fronting or visible from public streets shall be clad with masonry, wood, vinyl siding, stucco, or similar material. ~~Metal paneling may not comprise a street fronting building face.~~ **Decorative metal panels such as Aluminum Composite Material (ACM) panels may be used as an accent or trim material and as cladding for building accent elements such as column wraps, entablature, canopies, and their supporting structure. Decorative metal panel accents, however, may not exceed 30% of any façade visible from the street.**

PART 5: HUNTERSVILLE ORDINANCE ADVISORY BOARD

The Huntersville Ordinances Advisory Board (HOAB) reviewed the proposed text June 1, 2021 and recommended approval.

PART 6: PUBLIC HEARING

The Public Hearing took place September 7, 2021.

PART 7: PLANNING BOARD RECOMMENDATION

C. Boyd made a Motion to Approve TA 21-07 during the September 28, 2021 Planning Board meeting and the motion passed unanimously (9-0).

PART 8: ATTACHMENTS AND ENCLOSURES

- Attachment 1 - Draft Language Ordinance
- Attachment 2 - Text Amendment Application

PART 9: STATEMENT OF CONSISTENCY – TA21-07

Planning Department	Planning Board	Board of Commissioners
APPROVAL: In considering the proposed amendment TA21-07, to amend Article 4: Shopfront Building, Architectural Standards of the Huntersville Zoning Ordinance to allow shopfront buildings to use decorative metal panels such as Aluminum Composite Material (ACM) panels as an accent or trim material., the Planning Staff recommends approval of the application based on the amendment being consistent with policies LU-8 and LU 8.1 of the Huntersville 2040 Community Plan. It is reasonable and in the public interest to amend the Zoning Ordinance because it allows greater flexibility in exterior material types for shopfront buildings and the Zoning Ordinance currently allows metal panels as accent and trim materials for Highway Commercial and Urban Workplace building types.	**APPROVAL:** C. Boyd made a Motion to Approve TA 21-07, to amend Article 4: Shopfront Building, Architectural Standards of the Huntersville Zoning Ordinance to allow shopfront buildings to use decorative metal panels such as Aluminum Composite Material (ACM) panels as an accent or trim material, the Planning Staff recommends approval of the application based on the amendment being consistent with policies LU-8, LU 8.1 of the Huntersville 2040 Community Plan. It is reasonable and in the public interest to amend the Zoning Ordinance because it allows greater flexibility in exterior material types for shopfront buildings and the Zoning Ordinance currently allows metal panels as accent and trim materials for Highway Commercial and Urban Workplace building types. D. Partee seconded the motion. The motion passed unanimously (9-0).	**APPROVAL:** In considering the proposed amendment TA21-07, the Town Board recommends approval based on the amendment being consistent with **(insert applicable plan reference)** It is reasonable and in the public interest to amend the Zoning Ordinance because…*(Explain)*
		DENIAL: In considering the proposed amendment TA21-07, the Town Board recommends denial based on the amendment being **(consistent OR inconsistent)** with **(insert applicable plan reference).** It is not reasonable and in the public interest to amend the Zoning Ordinance because….*(Explain)*

AN ORDINANCE TO AMEND ARTICLE 4: Shopfront Building, Architectural Standards Principles OF THE ZONING ORDINANCE TO ALLOW METAL PANELING ON ANY FACADE VISIBLE FROM THE STREET

Section 1. Be it ordained by the Board of Commissioners of the Town of Huntersville that Article 4: Shopfront Building, Architectural Standards Principles, B of the **Zoning Ordinance** is hereby amended as follows:

B. Building elevations fronting or visible from public streets shall be clad with masonry, wood, vinyl siding, stucco, or similar material. ~~Metal paneling may not comprise a street fronting building face.~~ **Decorative metal panels such as Aluminum Composite Material (ACM) panels may be used as an accent or trim material and as cladding for building accent elements such as column wraps, entablature, canopies, and their supporting structure. Decorative metal panel accents, however, may not exceed 30% of any façade visible from the street.**

Section 2. That this ordinance shall become effective immediately.

HUNTERSVILLE ORDINANCE ADVISORY BOARD: July 1, 2021, recommended approval
PUBLIC HEARING DATE: September 7, 2021
PLANNING BOARD MEETING: September 28, 2021
TOWN BOARD DECISION: October 18, 2021

Town of Huntersville
NORTH CAROLINA

Text Amendment Application

Date of Application 6/17/21

Fee

See Current Town of Huntersville Fee Schedule for Text Amendment to the Zoning/Subdivision Ordinance

Type of Change

_____ New Addition to text of Zoning Ordinance / Subdivision Ordinance / Other

__X__ Revision/Modification to text of Zoning Ordinance / Subdivision Ordinance / Other

Description of Change

Proposed text amendment will affect the following:

Ordinance(s): Zoning Article(s): 4: Lot and Building Type Section(s): Shopfront Building; Arch. Standards & Principles

Current Ordinance

B. Building elevations fronting or visible from public streets shall be clad with masonry, wood, vinyl siding, stucco, or similar material. Metal paneling may not comprise a street fronting building face.

Proposed Text

B. Building elevations fronting or visible from public streets shall be clad with masonry, wood, vinyl siding, stucco, or similar material. Metal paneling may not comprise a street front building face.Decorative metal panels such as Aluminum Composite Material (ACM) panels may be used as an accent or trim material and as cladding for building accent elements such as column wraps, entablature, canopies and their supporting structure. Decorative metal panel accents however, may not exceed 30% of any façade visible from the street.

Reason for Proposed Change

Our intent would be to use this material on occasion at storefront entablature or columns at Birkdale Village.Aluminum composite metal panel technology has come a long way and now provides a durable, resistant and clean finish. They are easy to maintain and hold up over a longer period of time. As Huntersville competes in market for best-in-class tenants, we would like to afford tenants the opportunity to use a popular and aesthetic building material. With a 30% limit, we can encourage the use of metal panel material while still maintaining the historic architectural vocabulary of Huntersville.

Attach additional pages if needed.

NOTE: If the proposed text amendment effects property located along Hwy 73; is 2000 feet from an adjoining municipality, and/or the Mountain Island and Lake Norman Watersheds, additional peer review is required.

Applicant

Printed Name Nick Lombardo

☐ Corporation ☐Limited Liability Company ☐ Trust ☐ Partnership ☒ Other: _____

Signature Nick C Lombardo Date 6/17/21

Title Development Manager Email Nick.Lombardo@naproperties.com

Address of Applicant 1175 Peachtree St NE, Atlanta, GA 30361

Property Owner (if different than applicant)

* Printed Name DDRTC Birkdale Village, LLC

☐ Corporation ☐Limited Liability Company ☐ Trust ☒ Partnership ☐ Other: _____

Signature [signature] Date 6/17/21

Title Mike Lant - Authorized Signateur Email Mike.Lant@naproperties.com

Address of Property Owner 8712 Linholm Drive, Suite 202, Huntersville, NC 28078

* Property owner hereby grants permission to the Town of Huntersville personnel to enter the subject property for any purpose required in processing this application.

Every owner of each parcel included in this application, or the owner (s) duly authorized agent, must sign this application. If signed by an agent on behalf of the Owner, this petition MUST be accompanied by a Limited Power of Attorney signed by the property owner (s) and notarized, specifically authorizing the agent to act on the owner (s) behalf in signing this application. Failure of each owner, or their duly authorized agent, to sign, or failure to include the authority of the agent signed by the property owner, will result in an INVALID APPLICATION. **If additional space is needed for signatures, attach the Town of Huntersville Signature Addendum Form.**

Contact Information

Town of Huntersville
Planning Department
PO Box 664
Huntersville, NC 28070

Phone: 704-875-7000
Fax: 704-875-6546
Physical Address: 105 Gilead Road, Third Floor, Huntersville, NC 28078
Website: https://www.huntersville.org/228/Planning-Department

Date Received By Planning Department: _____

Staff Initials: _____

Town of Huntersville
Town Board
October 18, 2021

To: Town Board

From: Jack Simoneau

Date: October 18, 2021

Subject: TA 21-13

EXPLAIN REQUEST:
Consider a decision on Petition #TA21-13, a request by Trinity Capital Advisors to amend the Zoning Ordinance allowing the Board of Commissioners to approve modification of a small stream buffer in the Mountain Island Lake Overlay zone through a conditional rezoning process in the Corporate Business zoning district.

ACTION RECOMMENDED:
Take Action

FINANCIAL IMPLICATIONS:

ATTACHMENTS:
1. TA21-13 Action Staff
2. Signed Text Amendment Application
3. Text Amendment Application Attachment 9.6.21
4. Ordinance TA 21-13

TA 21-13 – Trinity Capital Advisors Mountain Island Lake Text Amendment

PART 1: DESCRIPTION

TA 21-13 is a text amendment request by Trinity Capital Advisors, LLC allowing small stream buffers **located in the PA-2 areas of the Mountain Island Lake Overlay Zone** to be impacted in the Corporate Business district with a conditional district rezoning and mitigation.

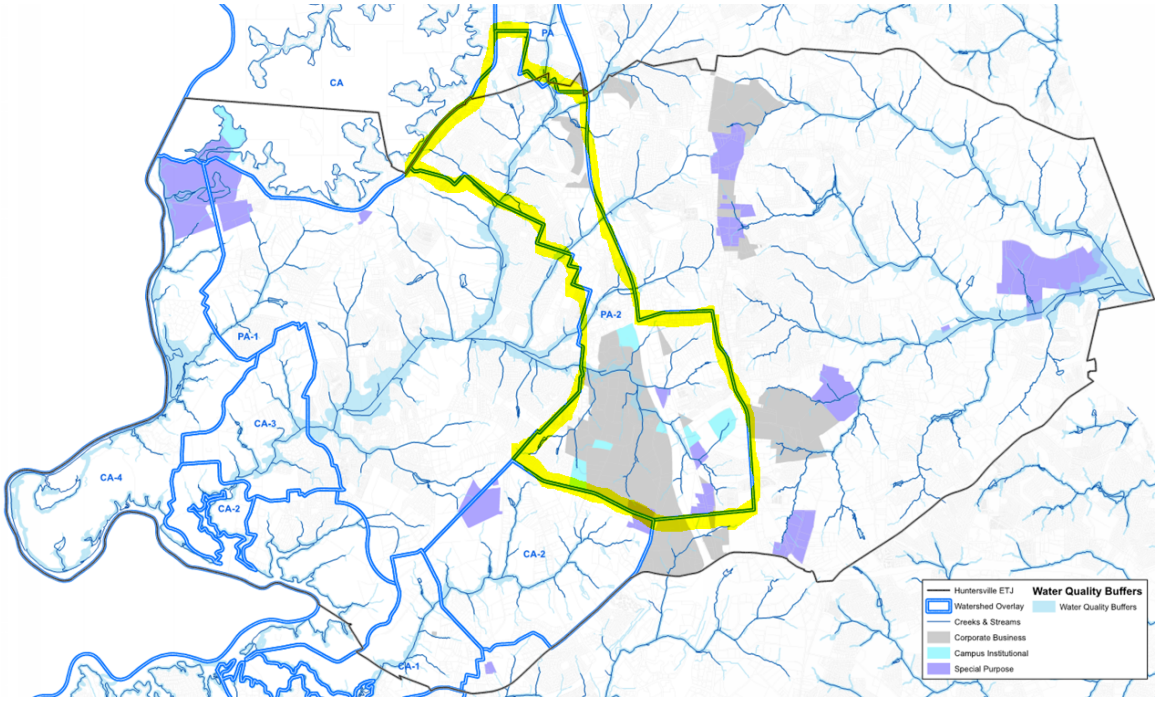
PART 2: BACKGROUND

The Zoning Ordinance establishes three levels of protection for streams:

1. Surface Water Improvement & Management Stream Buffers (SWIM Buffers; Section 8.25)
2. Water Quality Buffers (Section 8.17)
3. Mountain Island Lake Watershed Overlay District (Section 3.3.2)

Up until recently, the only way to impact SWIM and Water Quality Buffers was by being one of the eight exceptions listed in Section 8.25.10 **OR** by variance in accordance with Section 11.3 and implementing one of the nine mitigation options listed in Section 8.25.11(b).Text amendment TA 21-09, approved in September 2021, allows an additional option to impact small SWIM & Water Quality Buffers (intermittent streams & perennial streams draining less than 50 acres) through a Corporate Business conditional district rezoning.

However, text amendment TA 21-09 **does not apply** to small stream buffers that are **also located in the PA-2 area of the Mountain Island Lake Overlay Zone** UNLESS TA 21-13 is also approved. The below map illustrates the location of streams throughout the entire Huntersville zoning jurisdiction AND the Mountain Island Lake Over Zone (dark blue lines on the western side of Huntersville draining to Mountain Island Lake - yellow highlighted line is the PA-2 boundaries applicable to this text amendment). Small stream buffers within the Mountain Island Lake Overlay Zone PA-2 areas would be eligible to be impacted subject to a Corporate Business Conditional District rezoning and mitigation under TA 21-13. (NOTE Critical Areas 1, 2, 3 & 4 and PA-1 will not be impacted by this text amendment).



Because the Mountain Lake Overlay District is part of the state required Water Supply Watershed Protection regulations, text amendments must be approved by the State. On September 2, 2021, Mr. Paul Clark, NC Water Supply Watershed Protection Coordinator, gave preliminary approval for the text amendment.

Huntersville Planning Department supports a text amendment providing an additional option to impact small stream Buffers through conditional rezoning in the Mountain Island Lake Overlay Zone because it is difficult for large footprint flex space buildings to design around them and the text amendment would require mitigation of any impacts. Mr. Rusty Rozzelle, Program Manager for Mecklenburg County's Water Quality Program is not opposed to the text amendment because of the limited number of properties potentially impacted and because mitigation would be provided to offset any negative water quality impacts.

PART 3: RELEVANT SECTIONS OF THE HUNTERSVILLE 2040 COMMUNITY PLAN

Policy LU-8: Emphasize form and flexibility in Mixed-Use Centers, Employment Centers, the Town Core, and Activity Centers.

Comment: Proposed amendment provides flexibility in the employment center where development options are limited for large footprint flex space buildings. Conditional zoning process and mitigation per Section 8.25(11)(b) allows town to consider impact on small stream buffers in the Mountain Island Lake Overlay zone on the merits of each case.

Policy EV-1: Support a balanced economy through job growth in target industry sectors.

EV 1.4: Review development standards to support business growth.

- Support efforts to improve efficiency and responsiveness of the development review process for development proposals. Regularly review the market to ensure that standards are in line with current demand.

Comment: Staff finds providing another option for minor stream buffer impacts in the Mountain Island Lake Overlay zone through conditional zoning in the CB district reflects a proper balance of environmental protection and economic development.

Policy EOS-1: Support the preservation and enhancement of the natural environment, along with its scenic and cultural assets.

Comment: While the amendment allows impacts to intermittent streams and perennial streams draining under 50 acres in the Mountain Island Lake Overlay Zone, mitigation per Section 8.25.11(b) would be required.

PART 4: STAFF RECOMMENDATION

Staff recommends approval of the text amendment language (see Part 9 below).

PART 5: HUNTERSVILLE ORDINANCE ADVISORY BOARD

The Huntersville Ordinances Advisory Board (HOAB) recommended approval of the proposed text amendment 6-1 on September 2, 2021.

PART 6: PUBLIC HEARING

October 4, 2021

PART 7: PLANNING BOARD RECOMMENDATION

October 14, 2021

PART 8: ATTACHMENTS

1. Applicant's Text Amendment Application
2. Applicant's Text Amendment Language
3. Ordinance

PART 9: STATEMENT OF CONSISTENCY – TA 21-13

Planning Department	Planning Board	Board of Commissioners
APPROVAL: In considering the proposed amendment TA21-13, Planning Staff recommends approval based on consistency with LU-8, EV-1 and EOS-1 of the Huntersville 2040 Community Plan. It is reasonable and in the public interest to amend the Zoning Ordinance because the amendment allows an additional option to impact stream buffers subject to a conditional rezoning and mitigation.	**APPROVAL:** In considering the proposed amendment TA21-13, Planning Board recommends approval based on the amendment being consistent with **(insert applicable plan reference)** It is reasonable and in the public interest to amend the Zoning Ordinance because… *(Explain)*	**APPROVAL:** In considering the proposed amendment TA21-13, the Town Board recommends approval based on the amendment being consistent with **(insert applicable plan reference)** It is reasonable and in the public interest to amend the Zoning Ordinance because*…(Explain)*
DENIAL: N/A	**DENIAL:** N/A In considering the proposed amendment TA20-13, the Planning Board recommends denial based on the amendment being **(consistent OR inconsistent)** with **(insert applicable plan reference).** It is not reasonable and in the public interest to amend the Zoning Ordinance because…. *(Explain)*	**DENIAL:** In considering the proposed amendment TA20-13, the Town Board recommends denial based on the amendment being **(consistent OR inconsistent)** with **(insert applicable plan reference).** It is not reasonable and in the public interest to amend the Zoning Ordinance because…. *(Explain)*

Town of Huntersville
NORTH CAROLINA

Text Amendment
Application

Date of Application August 26, 2021

Fee

See Current Town of Huntersville Fee Schedule for Text Amendment to the Zoning/Subdivision Ordinance

Type of Change

_____ New Addition to text of Zoning Ordinance / Subdivision Ordinance / Other

__X__ Revision/Modification to text of Zoning Ordinance / Subdivision Ordinance / Other

Description of Change

Proposed text amendment will affect the following:

Ordinance(s): Zoning Article(s): 8 Section(s): 8.25.10

Current Ordinance

Proposed Text

See Attached

Reason for Proposed Change

See Attached

Attach additional pages if needed.

NOTE: If the proposed text amendment effects property located along Hwy 73; is 2000 feet from an adjoining municipality, and/or the Mountain Island and Lake Norman Watersheds, additional peer review is required.

Applicant

Printed Name Sherrie Chaffin / Trinity Capital Advisors, LLC

☐ Corporation ☒Limited Liability Company ☐ Trust ☐ Partnership ☐ Other: _____

Signature _____ Date 8/26/21

Title Director of Development Email sls@trinitycapitaladvisors.com

Address of Applicant 440 S. Church Street, Suite 800, Charlotte, NC 28202

Property Owner (if different than applicant)

* Printed Name _____

☐ Corporation ☐Limited Liability Company ☐ Trust ☐ Partnership ☐ Other: _____

Signature _____ Date _____

Title _____ Email _____

Address of Property Owner _____

* Property owner hereby grants permission to the Town of Huntersville personnel to enter the subject property for any purpose required in processing this application.

Every owner of each parcel included in this application, or the owner (s) duly authorized agent, must sign this application. If signed by an agent on behalf of the Owner, this petition MUST be accompanied by a Limited Power of Attorney signed by the property owner (s) and notarized, specifically authorizing the agent to act on the owner (s) behalf in signing this application. Failure of each owner, or their duly authorized agent, to sign, or failure to include the authority of the agent signed by the property owner, will result in an INVALID APPLICATION. **If additional space is needed for signatures, attach the Town of Huntersville Signature Addendum Form.**

Contact Information

Town of Huntersville
Planning Department
PO Box 664
Huntersville, NC 28070

Phone: 704-875-7000
Fax: 704-875-6546
Physical Address: 105 Gilead Road, Third Floor, Huntersville, NC 28078
Website: https://www.huntersville.org/228/Planning-Department

Date Received By Planning Department: _____

Staff Initials: _____

8.25. 10 and 3.3.2 B.(g) ATTACHMENT TO TEXT AMENDMENT

ORDINANCE: Huntersville Zoning Ordinance

Sections:

Section 8.25.10 Buffer Impacts Permitted Under Section 8.25, S.W.I.M.

Section 3.3.2-B Protected Areas (PA-1, PA-2)

Party Proposing the Amendment: Trinity Capital Advisors, LLC

Reason for Requested Change:

1. The proposed amendment is consistent with the Purposes of the Huntersville Zoning Ordinance (the "Ordinance") as set forth in Article 1.2 which states that the purpose of the zoning regulations is to encourage the most appropriate use of land throughout the corporate area in accordance with the Huntersville Community Plan and other adopted long range plans for the Town of Huntersville.

2. The proposed amendment is consistent with the Vision Statement, 2040 Town of Huntersville Community Plan, by, among other things, helping to provide meaningful economic development, balance the tax base, attract target industries, and provide more opportunities for people to work in Huntersville due to expansion of the industrial and commercial base.

3. The proposed amendment is consistent with the Policy Recommendations, 2040 Town of Huntersville Community Plan, by facilitating industrial and commercial growth in areas that are suitable for business and industrial development.

4. The proposed amendment is consistent with the Policy Recommendations, 2040 Town of Huntersville Community Plan, because the amendment improves a development standard that supports business growth.

5. The proposed amendment adds the Protected Area (PA2) of the Mountain Island Lake Watershed Overlay District (MIL District) to Section 8.25.10 and allows, as part of a conditional zoning, the Board of Commissioners to approve a modification of perennial tributary buffers in the PA2 areas of the MIL District which drain less than 50 acres, without a variance as long as one of the nine mitigation techniques set forth in Subsection 11(b) are implemented. The provision is applicable only to those streams not indicated on the most recent version of the United States Geological Survey (USGS) 1:24,000 scale (7.5 minute) quadrangle topographic maps and therefore do not meet the criteria for a State water supply watershed buffer.

6. Section 3.3.2, Mountain Island Lake Watershed Overlay District, imposes additional buffer restrictions on property that is located in the critical and protected areas of the overlay district. The PA2 of the MIL District is the larger, less restricted area of the overlay district and, as such, a significant amount of property that is designated for Corporate Business in the Community Plan is in the PA2. The PA2 area has fewer restrictions than critical areas because the risk of water quality degradation from pollution is less in the protected areas than in the critical areas. This amendment will allow for industrial and commercial buildings in the Corporate Business, PA2 of the MIL District, that are shown in the 2040 Community Plan as preserved for industrial and commercial businesses, to be built without being required to reduce the size of the building, or not built at all, due to a perennial tributary. Mitigation is

still required and the amendment is limited only to those streams not indicated on the most recent version of the United States Geological Survey (USGS) 1:24,000 scale (7.5 minute) quadrangle topographic maps and therefore do not meet the criteria for a State water supply watershed buffer.

Proposed Changes to the Ordinance:

In order to accomplish this purpose, the Applicant proposes the following changes to the Ordinance:

Amend Section 8.25.10 by adding the underlined section to .10:

The following buffer impacts are permitted, but design and construction shall comply with the specifications provided in the Charlotte-Mecklenburg Buffer Implementation Guidelines for stabilization of disturbed areas to minimize negative effects on the quality of surface waters.

- Near perpendicular (75° or greater) road crossings for connectivity or transportation links where the Town of Huntersville has granted site plan approval.
- Near perpendicular (75° or greater) utility crossings as approved by Charlotte-Mecklenburg Utilities.
- Parallel water and sewer utility installation as approved by Charlotte-Mecklenburg Utilities, where a logical and appropriate basis for the impact is demonstrated, where disturbance of the Stream Side Zone is minimized to the maximum extent practicable, and where guidelines for restoring vegetation within buffers disturbed as a result of parallel utility installation are met. These guidelines are specified in the Charlotte-Mecklenburg Buffer Implementation Guidelines.
- Public paths and trails parallel to the creek outside the Stream side Zone and near perpendicular stream crossings in any zone. Pathways must use existing and proposed utility alignments or previously cleared areas and minimize tree cutting to the maximum extent practicable. To the extent possible, pathways shall preserve existing drainage patterns and avoid drainage structures that concentrate stormwater.
- Incidental drainage improvements/repairs for maintenance.
- Individual pedestrian paths connecting homeowners to the stream in the form of narrow, pervious footpaths with minimal tree disturbance.
- New domesticated animal trails (farming) where existing trails are lost as a result of action beyond the farmer's control. Stream crossings should be constructed to minimize impacts to the Stream Side Zone and be maintained with fencing perpendicular to and through the buffer to direct animal movement.
- Mitigation approved by a state or federal agency acting pursuant to Sections 401 or 404 of the federal Clean Water Act.
- In the Corporate Business Zoning District as part of an approved conditional zoning, the Board of Commissioners may approve a modification to an intermittent stream buffer and perennial stream buffer draining under 50 acres without a variance subject to implementing one of the nine mitigation techniques in Subsection 11(b) below
- <u>In the event the property is also in the Protected Area (PA2), of the Mountain Island Lake Watershed Overlay District, as defined in Section 3.3.2, and as part of an approved conditional zoning in the Corporate Business Zoning District, the Board of Commissioners may approve a modification to a perennial stream buffer draining under 50 acres without a variance subject to implementing one of the</u>

nine mitigation techniques in Subsection 11(b) below. This provision is applicable only to those streams not indicated on the most recent version of the United States Geological Survey (USGS) 1:24,000 scale (7.5 minute) quadrangle topographic maps and therefore do not meet the criteria for a State water supply watershed buffer.

Amend Section 3.3.2. B. g) by adding the underlined section as 10):

g) Buffer Protection
No permanent structures, impervious covers, septic tank systems or any other disturbance of existing vegetation shall be allowed within the buffer except as follows:

1) The surveyed buffer boundary must be clearly marked on-site with orange "tree-protection" or "high-hazard" fence prior to any land disturbing activities. Tree protection is required by Section 7.4(3) of this Ordinance.

2) The surveyed buffer boundary must be permanently marked with an iron pin at the intersection of the watershed buffer and each property line following the completion of land disturbing activities and prior to occupancy. Properties greater than 200' in width shall be marked at a maximum of 100' intervals.

3) No trees larger than 2-inch caliper, measured at 6 inches above the existing grade, are to be removed except for dead or diseased trees. Undergrowth and trees less than 2-inch caliper, measured at 6 inches above existing grade, may be removed to be replaced by an effective stabilizing and filtering ground cover based upon the most recent edition of the "Watershed Buffer Guidelines for Mecklenburg County, NC" and as approved by the Mecklenburg County Water Quality Program.

4) Stream bank or shoreline stabilization is allowed as approved on a plan submitted to the Mecklenburg County Engineering Department and the Mecklenburg County Water Quality Program.

5) Water dependent structures and public projects such as road crossings and greenway paths are allowed where no practical alternatives exist. These activities should minimize built-upon area, direct runoff away from surface waters, and maximize the utilization of nonstructural BMPs and pervious materials.

6) During new development or the expansion of existing development, the Town, upon the advice of the Mecklenburg County Water Quality Program, can require enhancement of the existing vegetation in the buffer if necessary so that the buffer can effectively perform its filtering and absorption functions. Buffer enhancement requirements shall be based on the most recent edition of the "Watershed Buffer Guidelines for Mecklenburg County, NC".

7) Mitigation of disturbed buffers required. Should existing vegetation within the buffer be disturbed (except as allowed by this Ordinance) or should vegetation added to a buffer pursuant to paragraph 6) be disturbed, the property owner shall be required to enhance the buffer in accordance with the most recent edition of the "Watershed Buffer Guidelines for Mecklenburg County, NC" so that the buffer can effectively perform its filtering and absorption functions.

8) Non-impervious recreational development and non-impervious pedestrian trails are allowed in the required buffer in compliance with paragraph 3), above. Pathway guidelines are available in the most recent edition of the "Watershed Buffer Guidelines for Mecklenburg County, NC." If in a common area, such development and trails must be located a minimum of 30 feet from the top of the bank on each side of all perennial streams; except for waterfront access points approved by the Town, upon the advice of the Mecklenburg County Water Quality Program.

9) Non-conforming structures and increasing built-upon area may permitted if the following criteria are met:

a. The existing structure (to be expanded) was built prior to the enactment of the 1993_watershed ordinance.

b. The Built-upon area (BUA) of the existing structure must cover a minimum of 10% of the 100-foot buffer on the lot.

c. In Critical Area 1 (CA1), which has a 6% BUA cap, the maximum allowable increase in BUA in the buffers is 2%. In Critical Area 2 (CA2) and Critical Area 3 (CA3), which have a 12% BUA cap and Critical Area 4 (CA4), which has a 24% BUA cap, the maximum allowable increase in BUA is the buffer is 4%.

d. Existing BUA shall not be increased within the State minimum 50-foot buffer.

e. Best Management Practices (BMPs) (including rain gardens and plantings) must be installed to achieve the following removal efficiencies for all BUA on the lot (not just the BUA in the buffer):

i. 85% removal of Total Suspended Solids (TSS)

ii. 60% removal of Total Phosphorus (TP)

f. All BMPs shall be installed or planted in accordance with the Charlotte-Mecklenburg BMP Design Manual and in accordance with Huntersville's Water Quality Ordinance.

g. Maintenance Agreements and Maintenance Plans must be recorded for all BMPs installed and/or planted and the location of the BMP and corresponding notes must be recorded on the deed in compliance with Huntersville's Water Quality Ordinance.

h. Mitigation measures, including all BMPs, must be installed, inspected and approved and the provisions described in item g (above) satisfied prior to the release of any certificates of occupancy for the structural expansion.

i. All structural BMPs must be inspected and certified annually for compliance with design criteria by a licensed NC. engineer in accordance with the Huntersville Water Quality Ordinance. Inspection reports must be submitted to Mecklenburg County for approval.

j. Any deficiencies detected to the BMP or any other mitigation measure must be corrected within 30 days of detection at the sole expense of the property owner. Failure to do so will be in violation of the Huntersville Water Quality Ordinance and could result in the assessment of penalties.

10) Property in the Mountain Island Lake Overlay District Protected Area (PA2), which is also part of an approved conditional zoning in the Corporate Business Zoning District, may request the Board of Commissioners to approve a modification to a perennial stream buffer draining under 50 acres without a variance subject to implementing one of the nine mitigation techniques in Section 8.25. 11(b). This provision is applicable only to those streams not indicated on the most recent version of the United States Geological Survey (USGS) 1:24,000 scale (7.5 minute) quadrangle topographic maps and therefore do not meet the criteria for a State water supply watershed buffer.

TA 21-13 Attachment 3: AN ORDINANCE TO AMEND ARTICLE 3.3.2-B(g)(10)

Section 1. Be it ordained by the Board of Commissioners of the Town of Huntersville that Article 3.3.2-B(g) of the **Zoning Ordinance** is hereby amended by adding (10) below:

10) Property in the Mountain Island Lake Overlay District Protected Area (PA2), which is also part of an approved conditional zoning in the Corporate Business Zoning District, may request the Board of Commissioners to approve a modification to a perennial or intermittent stream buffer draining under 50 acres without a variance subject to implementing one of the nine mitigation techniques in Section 8.25. 11(b). This provision is applicable only to those streams not indicated on the most recent version of the United States Geological Survey (USGS) 1:24,000 scale (7.5 minute) quadrangle topographic maps and therefore do not meet the criteria for a State water supply watershed buffer.

Section 2. That this ordinance shall become effective upon adoption.

HUNTERSVILLE ORDINANCE ADVISORY BOARD: September 2, 2021 (Approval 6-1)
PUBLIC HEARING DATE: 10-4-2021
PLANNING BOARD MEETING: 10-14-2021
TOWN BOARD DECISION: 10-18-2021

Town of Huntersville
Town Board
October 18, 2021

To: Town Board

From: Jack Simoneau

Date: October 18, 2021

Subject: Petition #R21-11

EXPLAIN REQUEST:
Consider decision on Petition #R21-11, a request by Trinity Capital Acquisitions, LLC and Mike Clapp to rezone 23.14 acres from SP-CD to CB-CD at 10695 Hambright Road (Parcel 01740104).

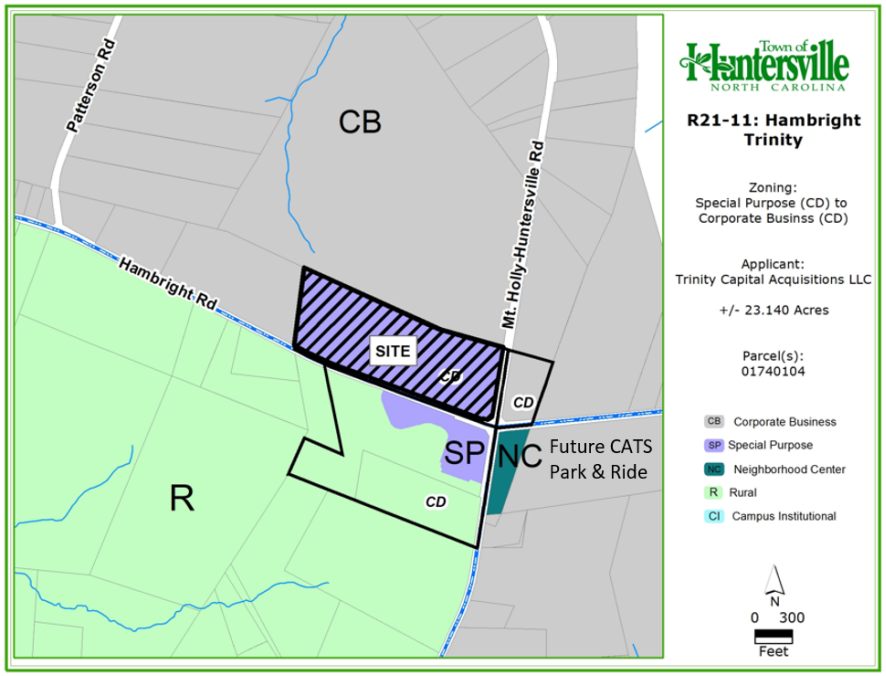
ACTION RECOMMENDED:
Take Action

FINANCIAL IMPLICATIONS:

ATTACHMENTS:
1. R21-11 Trinity 9-20-21 Action
2. Conditional_Rezoning_Application
3. 2021.08.26--Re-Zoning_1st_Submittal_Planset
4. Development Notes 9.1.21 clean
5. HAMBRIGHT A201 Elevations (1)
6. List of Adjacent Property Owners 8-24-21 (003)
7. Community Meeting Minutes Final

Petition R 21-11: Trinity Capital Acquisition & Mike Clapp

PART 1: PROJECT SUMMARY



Applicant: Trinity Capital Acquisition & Mike Clapp

Property Owners: See application attached in the agenda packet.

Property Address: 10695 Hambright Road

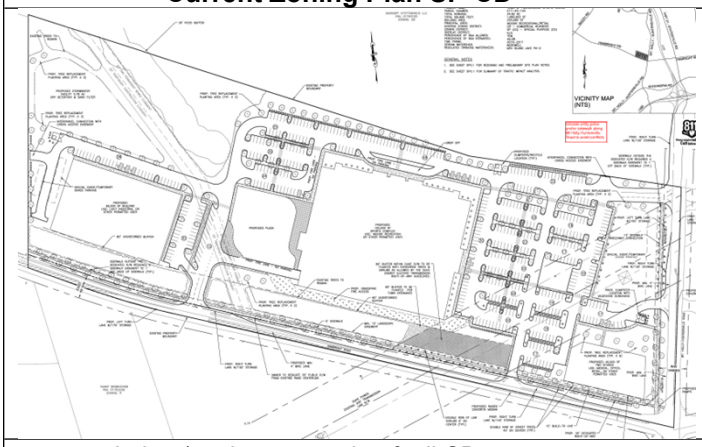
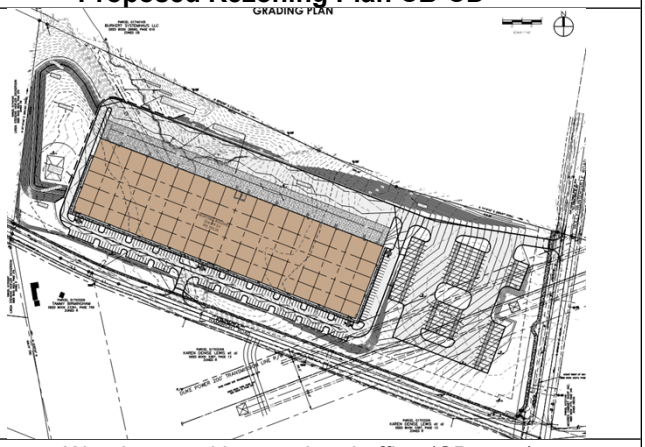
Project Size: 23.14 Acres

Parcel Number: 01740104

Existing Zoning: Special Purpose-CD

Proposed Zoning: Corporate Business Conditional District (CB-CD)

1. Petition #R21-11 is a request by Trinity Capital Acquisition & Mike Clapp to rezone 23.14 acres at 10695 Hambright Road from SP-CD (Huntersville Sports Village, R-16-08) to CB-CD (Corporate Business-Conditional District).
2. The purpose of the conditional district rezoning application is to seek changes to the existing SP-CD zoning (R 16-08 approved 2-6-2017). A summary of the existing and proposed zoning is provided below.

Current Zoning Plan SP-CD	Proposed Rezoning Plan CB-CD
	
• Indoor/outdoor recreation & all CB uses • 225,000 sq. ft. building	• Warehouse with associated office (CB uses) • Under 225,000 sq. ft. building • Parking lot 40' setback **modification** on Hambright Rd. (**Not needed: TA 21-10 is approved**) • Impact to stream buffer draining under 50 acres (**requires approval of TA 21-13 & mitigation**)

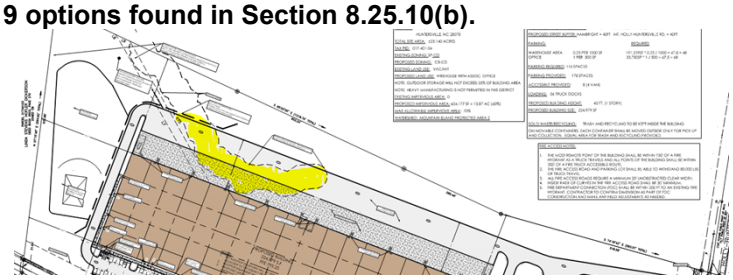
3. Adjoining zoning and land uses:

North: CB; Burkert Systems
South: SP-CD & R-CD; Vacant but approved for outdoor/indoor recreation
East: CB-CD; contractors office/storage, auto inspections
West: CB; Vacant now; R21-10 Rezoning, North Chase at the Park (industrial/warehouse/flex space)

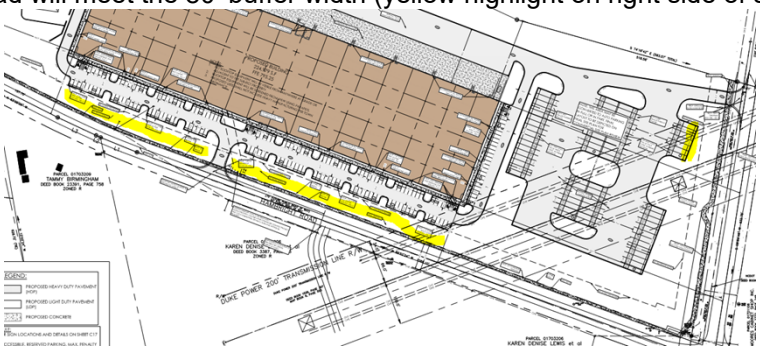
4. A neighborhood meeting for this application was held virtually on Wednesday, September 8, 2021. An invitation list and meeting summary is included in the agenda packet.
5. Jack Simoneau of the Planning Staff certifies that the required notifications were made for the application's public hearing. Notice was advertised in the local paper, adjacent property owner notice post cards were sent and a sign was installed at the subject property per state statute requirements.

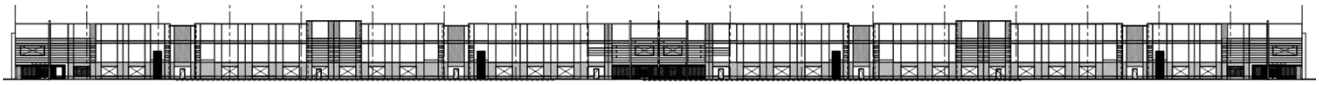
PART 2: REZONING/SITE PLAN ISSUES

1. The applicant is requesting a modification to impact the strem buffer (highlight below) located in the PA-2 Mountain Island Lake Overlay Zone. That modification is contingent on TA 21-13 being approved (action scheduled October 16). **Staff supports the modification if TA 21-13 is approved which also requires mitigation using 1 of 9 options found in Section 8.25.10(b).**



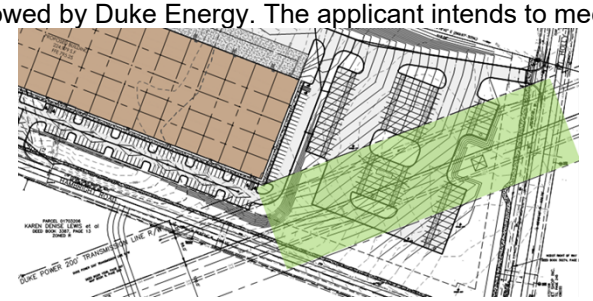
2. The applicant is requesting a modification of the buffer width on Hambight Rd. **Text amendment TA 21-10 was approved September 18, 2020 allowing a 40' setback with vegetation. Therefore, this modification is no longer needed.** The applicant will modify the plan such that all trailer parking on Mount Holly-Huntersville Road will meet the 80' buffer width (yellow highlight on right side of site plan)





1 FRONT ELEVATION

3. Along Hambright Road a 10'wide bike sidepath is recommended per the adopted Huntersville Bile Plan.
4. Staff recommends evergreen shrubs planted in the power line easement highlighted below (between the street and parking area) are staggered in such a way as to maximize screening and be the type of plants to reach a maximum height allowed by Duke Energy. The applicant intends to meet that recommendation



5. Street trees shall be large maturing trees except under power lines where they shall be small maturing trees.
6. The proposed development will comply with the approved conditional rezoning plan and all other applicable Zoning Ordinance standards.

PART 3: TRANSPORTATION ISSUES

A Traffic Impact Analysis (TIA) determination form was submitted for warehouse with support offices and the trip generation was under the threshold to prepare a TIA.

The modification note below indicates the applicants want to defer to NCDOT requirements at the time of construction permit.

"Modification to allow off-site street improvements as required by NCDOT to be approved prior to the issuance of the construction building permit. This would permit the improvements to tie into other improvements that are being required as part of the development of nearby parcels."

Please note that TA 21-12 is an amendment to the Traffic Impact Analysis. The public hearing was held October 4, 2021 and action is tentatively scheduled for November 1, 2021. The proposed amendment has 2 options:

1. Increase the TIA threshold to 150 or more peak hour trips or 1,500 or more daily trips
2. Repeal the TIA ordinance and defer to NCDOT requirements.

PART 4: REZONING CRITERIA

Article 11.4.7(d) of the Zoning Ordinance states that "in considering any petition to reclassify property, the Planning Board in its recommendation and the Town Board in its decision shall take into consideration any identified relevant adopted land-use plans for the area including, but not limited to, comprehensive plans, strategic plans, district plans, area plans, neighborhood plans, corridor plans, and other land-use policy documents".

STAFF COMMENT – Staff finds the proposed use consistent with the following policies of the ***Huntersville 2040 Community Plan***:

- **Policy LU 1.1 –** *Utilize the Future Land Use Map during development approval process to ensure compatibility with long-range plans.* STAFF COMMENT: The application proposed includes office, light industrial, warehousing, and distribution uses in the appropriate Employment Center character area of the 2040 plan. This area is intended to accommodate such employment generating uses. Please see the Employment Center description below on page 4.
- **Policy LU 5.1 –** *Allow more intense development only where transportation infrastructure and utilities already exist.* STAFF COMMENT: The location of the proposed development is appropriately located adjacent to two thoroughfares and .4 miles from Interstate 77.
- **Policy LU 7.1 -** *Require new development to adhere to the following design principles: In defined employment centers some flexibility in the form-based design principles is allowed including: Exceptions to building frontage requirements and public street requirements may be allowable for internal streets in an industrial park or near interstates*. STAFF COMMENT: The

rezoning application is located in an identified employment center and the project is utilizing the recently approved public street buffer requirement flexibility.

- **Policy EV 1.2 –** *Focus economic development in areas that support growth.* STAFF COMMENT: The large commercial development would add to the Town's commercial tax base in an area with easy access to the Interstate and across the street from a proposed CATS bus Park and Ride facility.

Article 11 Section 11.4.7(e) of the Zoning Ordinance states that: "in considering any petition to reclassify property the Planning Board in its recommendation and the Town Board in its decision should consider:

1. Whether the proposed reclassification is consistent with the overall character of existing development in the immediate vicinity of the subject property.

   STAFF COMMENTS:

   - The proposal would rezone the property from Special Purpose Conditional District to Corporate Business Conditional District (CB-CD). The main purpose of the rezoning is to modify the 80 foot buffer requirements **(no longer required by TA 21-10)** and allow the stream buffer to be modified. Therefore the underlying zoning category and uses proposed would not change. The uses proposed are consistent with existing and surrounding development.
   - The proposed development is surrounded by other Corporate Business and approved commercial uses.
   - Buffers and visual separation between uses can also assist in making uses blend in with the character of existing development.
   - Considering the information above, staff finds the proposal is consistent with the overall character of existing development in the immediate vicinity of the subject properties.

2. The adequacy of public facilities and services intended to serve the subject property, including but not limited to roadways, transit service, parks and recreational facilities, police and fire protection, hospitals and medical services, schools, storm water drainage systems, water supplies, and wastewater and refuse disposal.

   STAFF COMMENT:

   - In regard to the roadway system, please see Part 3 above concerning the Traffic Impact Analysis.
   - Staff has no additional findings indicating there would be inadequate public facilities to service the intended development. The concept plan for storm water drainage systems are currently under review and must meet ordinance requirements. A willingness to serve letter from Charlotte Water will need to be provided for utilities once the applicants submit for the land development permits.

3. Whether the proposed reclassification will adversely affect a known archeological, environmental, historical or cultural resource."

STAFF COMMENT:

- See Part 2 above relating to the environmental impact of the stream buffer in the Mountain Island Lake Overlay zone. If TA 21-13 is approved, any impacts would have to be mitigated. Otherwise, staff has no findings to show that other archeological, environmental, historical or cultural resources will be negatively affected by the proposal.

PART 5: PUBLIC HEARING

September 20, 2021: Staff and applicant's team were the only speakers.

PART 6: STAFF RECOMMENDATION

Provided miscellaneous staff site plan and plan note comments are addressed (i.e. bike sidepath, street tree planting, etc.), **staff supports** the proposed rezoning including:

1. Modification to allow impact of the strem buffer in the Mountain Island Lake Overlay Zone subject to approval of TA 21-13 and required buffer mitigation being met.

In considering the proposed rezoning petition R21-11, the **Planning Staff** recommends approval based on the rezoning being consistent with Policies LU 1.1, LU 5.1, LU 7.1 and EV 1.2 of the Huntersville 2040 Plan

It is reasonable and in the public interest to rezone the property to CB-CD because the proposed development will help expand Huntersville's economic base and any impact to the stream buffer will be mitigated.
.

PART 7: PLANNING BOARD RECOMMENDATION

The Planning Board meeting was held on September 28, 2021. Frank Gammon made a Motion to Approve the rezoning petition R 21-11. The amendment is consistent with Article 11.4.7(d) of the Huntersville Zoning Ordinance, and as such is consistent with Huntersville 2040 Community Plan polices LU 1.1, LU 5.1, LU 7.1, and EV 1.2. Further, the amendment is consistent with Article 11.4.7(e) of the Huntersville Zoning Ordinance in that the property is located within a designated Employment Center, and the proposed rezoning is consistent with the overall character of development in the immediate vicinity. In fact, prior to being rezoned to Special Purpose-CD the property had previously been zoned Corporate Business-CD. It is reasonable and in the public interest to amend the Rezoning Plan because the rezoning is consistent with the envisioned uses and development pattern set forth in the 2040 Community Plan. In addition, the proposed development will expand the Huntersville economic base. This recommendation for approval is contingent upon: 1) Approval of "TA 21-13, Mountain Island Lake Buffer." 2) A Text Amendment which would allow impact of SWIM buffers within the Mountain Island Lake Protected Area 2 Overlay Zone, with required buffer mitigation being met. 3) Approval of Storm Water Drainage Systems Concept Plan. 4) Receipt of Charlotte Water Willingness to serve letter. 5) All outstanding redline comments are satisfactorily addressed with the staff. S. Hensley seconded the motion. The motion passed unanimously (9-0).

PART 8 CONSISTENCY STATEMENT – R21-11

Town Board:

Approve (Consistent w/ Plans)	**Approve (Inconsistent w/ Plans and Plans Change___?)**	**Deny (Inconsistent w/ Plans)**
In considering the proposed rezoning petition R21-11, the **Town Board** recommends approval based on the amendment being consistent with [insert applicable plan reference(s)] It is reasonable and in the public interest to amend the Zoning Ordinance because*…[Explain]*	In considering the proposed rezoning petition R21-011, the Town Board recommends approval of the amendment but finds the request inconsistent with [insert applicable plan reference(s)], therefore amends [insert plan reference(s) **AND** detail the ways the policy or reference is to be amended]. The Town Board took into account the following change in conditions in recommending approval to meet the development needs in Huntersville: [List and explain the change in conditions] It is reasonable and in the public interest to amend the approve the rezoning because*…[Explain]*	In considering the proposed rezoning petition R21-11, the Town Board recommends denial based on the amendment being [consistent OR inconsistent] with [insert applicable plan reference(s)]. It is not reasonable and in the public interest to amend the Zoning Ordinance because*…[Explain]*

ATTACHMENTS:

1. Application
2. Rezoning plan
3. Development notes
4. Elevations
5. Neighborhood meeting invitees
6. Neighborhood meeting minutes

Town of Huntersville
NORTH CAROLINA

General Application

INCOMPLETE SUBMISSIONS WILL NOT BE ACCEPTED. PLEASE CHECK ALL ITEMS CAREFULLY.

1. Application Type

Please indicate the type of application you are submitting. In addition to the application, the submission process for each application type can be found at https://www.huntersville.org/528/Permits-Process

- ☐ Change of Use
- ☐ Commercial Site Plan
- ☒ Conditional Rezoning
- ☐ General Rezoning
- ☐ Master Signage Program
- ☐ Special Use Permit
- ☐ Revision to Original Project # _____
- ☐ Other _____

SUBDIVISION CATEGORIES: Per the Huntersville Subdivision Ordinance

- ☐ Sketch Plan
- ☐ Preliminary Plan
- ☐ Final Plat (Includes Minor Subdivision)
- ☐ Exempt Subdivision
- ☐ Final Plat Revision
- ☐ Farmhouse Cluster

2. Project Data

Date of Application 08/10/2021

Name of Project Hambright Industrial Phase # (if subdivision) N/A

Project Address 10695 Hambright Road

Parcel Identification Number(s) (PIN) 01740104

Current Zoning District Special Purpose (CD) Proposed District (for rezoning only) Corporate Business (CD)

Property Size (acres) 23 Street Frontage (feet) Approx. 1600

Current Land Use Special Purpose

Proposed Land Use(s) Industrial

Is the project within Huntersville's corporate limits?
Yes X No _____ If no, does the applicant intend to voluntarily annex? _____

3. Description of Request

Explain the nature of this request. If a separate sheet is necessary, please attach to this application.
Rezone the property to corporate business (CD) to allow for parcel to utilize the current text amendments for both SWIM buffer and landscape buffer.

4. Site Plan Submittals

Consult the particular type of *Review Process* for the application type selected above. These can be found at https://www.huntersville.org/528/Permits-Process.

5. Outside Agency Information

Other agencies may have applications and fees associated with the land development process. The *Review Process* list includes plan documents needed for most town and county reviewing agencies. For major subdivisions, commercial site plans, and rezoning petitions please enclose a copy of the Charlotte-Mecklenburg Utility *Willingness to Serve* letter for the subject property.

6. Applicant

Printed Name Trinity Capital Acquisitions LLC Phone 704-295-0455

☐ Corporation ☒ Limited Liability Company ☐ Trust ☐ Partnership ☐ Other:

☒ By signature below, I hereby acknowledge, as/on behalf of (circle one) the applicant my understanding this application will be considered in a quasi-judicial proceeding and that neither I, nor anyone on my behalf, may contact the Board of Commissioners except through sworn testimony at the public hearing. (Applicable for Special Use Permits and Subdivisions)

Signature _____ Printed Name: Sherrie Chaffin

Title Director of Development Email sls@trinitycapitaladvisors.com

Address of Applicant 440 S. Church Street Suite 800 Charlotte, NC 28202

7. Property Owner (if different than applicant)

* Printed Name MICHAEL S. CLAPP

☐ Corporation ☒ Limited Liability Company ☐ Trust ☐ Partnership ☐ Other:

Signature _____ Date 8/12/2021

Title MANAGER, OWNER Email msclapp6@yahoo.com

Address of Property Owner 18635 STARCREEK DR UNIT F CORNELIUS NC 28031

* Property owner hereby grants permission to the Town of Huntersville personnel to enter the subject property for any purpose required in processing this application.

Every owner of each parcel included in this application, or the owner (s) duly authorized agent, must sign this application. If signed by an agent on behalf of the Owner, this petition MUST be accompanied by a Limited Power of Attorney signed by the property owner (s) and notarized, specifically authorizing the agent to act on the owner (s) behalf in signing this application. Failure of each owner, or their duly authorized agent, to sign, or failure to include the authority of the agent signed by the property owner, will result in an INVALID APPLICATION. If additional space is needed for signatures, **attach the Town of Huntersville Signature Addendum Form.**

8. Development/Design Firm Contact Information

DNA Wolverine	Chris Fleck	704-494-9776	chris@dnawolverine.com
Development Firm	Name of Contact	Phone	Email
Design Firm	Name of Contact	Phone	Email

Contact Information

Town of Huntersville	Phone:	704-875-7000
Planning Department	Fax:	704-992-5528
PO Box 664	Physical Address:	105 Gilead Road, Third Floor
Huntersville, NC 28070	Website:	https://www.huntersville.org/228/Planning-Department

TCA - HAMBRIGHT INDUSTRIAL

TOWN OF HUNTERSVILLE, MECKLENBURG COUNTY, NORTH CAROLINA

REZONING SUBMITTAL EPM # TBD

VICINITY MAP
NOT TO SCALE

SITE DATA TABLE

ADDRESS: 10695 HAMBRIGHT RD,
HUNTERSVILLE, NC 28078

TOTAL SITE AREA: ±23.140 ACRES

TAX PID: 017-401-04

EXISTING ZONING: SP-CD

PROPOSED ZONING: CB-CD

EXISTING LAND USE: VACANT

PROPOSED LAND USE: WAREHOUSE WITH ASSOC. OFFICE

NOTE: OUTDOOR STORAGE WILL NOT EXCEED 25% OF BUILDING AREA

NOTE: HEAVY MANUFACTURING IS NOT PERMITTED IN THIS DISTRICT

EXISTING IMPERVIOUS AREA: 0

PROPOSED IMPERVIOUS AREA: 604,177 SF = 13.87 AC (60%)

MAX ALLOWABLE IMPERVIOUS AREA: 70%

WATERSHED: MOUNTAIN ISLAND PROTECTED AREA 2

PROPOSED BUILDING SETBACKS: FRONT = 40FT, SIDE = 0 FT, REAR = 0 FT

PROPOSED STREET BUFFER: HAMBRIGHT = 40FT MT. HOLLY-HUNTERSVILLE RD. = 40FT

PARKING:		REQUIRED
WAREHOUSE AREA	0.25 PER 1000 SF	191,229SF * 0.25 / 1000 = 47.8 = 48
OFFICE	1 PER 500 SF	33,750SF * 1 / 500 = 67.5 = 68

PARKING REQUIRED: 116 SPACES

PARKING PROVIDED: 178 SPACES

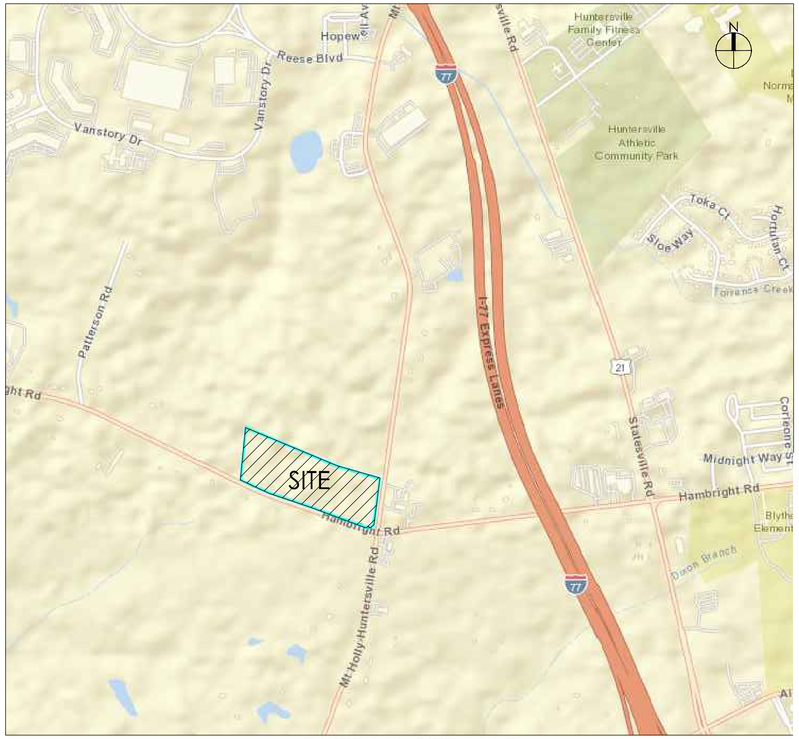
ACCESSIBLE PROVIDED: 8 (4 VAN)

LOADING: 56 TRUCK DOCKS

PROPOSED BUILDING HEIGHT: 45 FT. (1 STORY)

PROPOSED BUILDING SIZE: 224,979 SF

SOLID WASTE/RECYCLING: TRASH AND RECYCLING TO BE KEPT INSIDE THE BUILDING ON MOVABLE CONTAINERS. EACH CONTAINER SHALL BE MOVED OUTSIDE ONLY FOR PICK UP AND COLLECTION. EQUAL AREA FOR TRASH AND RECYCLING PROVIDED.



OVERALL SITE MAP
NOT TO SCALE

NOTES:

1. ALL PROPOSED UTILITIES SHALL BE UNDERGROUND
2. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH APPLICABLE STANDARDS.
3. SIGNS SHOWN ARE FOR APPROXIMATE LOCATION ONLY. ALL SIGNAGE WILL BE APPROVED AND PERMITTED SEPARATELY BY THE TOWN OF HUNTERSVILLE.
4. STORMWATER MANAGEMENT SHALL COMPLY WITH TOWN OF HUNTERSVILLLE REGULATIONS UNLESS NOTED OTHERWISE.
5. SOIL EROSION CONTROL SHALL COMPLY WITH TOWN OF HUNTERSVILLLE REGULATIONS UNLESS NOTED OTHERWISE.
6. LANDSCAPING SHALL COMPLY WITH TOWN OF HUNTERSVILLLE REGULATIONS UNLESS NOTED OTHERWISE.
7. LIGHTING SHALL COMPLY WITH TOWN OF HUNTERSVILLLE REGULATIONS.
8. PROPOSED WATER AND SEWER SHALL BE PER CHARLOTTE WATER STANDARDS AS APPLICABLE.
9. EXISTING SANITARY SEWER MAIN TO BE RELOCATED ALONG PROPERTY LINE AS APPROVED BY CLT-W.
10. ROAD IMPROVEMENTS ON HAMBRIGHT ROAD AS REQUIRED BY NCDOT TO ACCOMODATE PROPOSED DRIVEWAY.
11. ROAD IMPROVEMENTS ON MT. HOLLY-HUNTERSVILLE ROAD AS REQUIRED BY NCDOT TO ACCOMODATE PROPOSED DRIVEWAY.
12. ONSITE STREAMS AND WETLANDS IMPACTED VIA APPLICABLE 401 & 404 PERMITS AND MITIGATED ACCORDINGLY PER USACE & DWR STANDARDS.
13. SITE DEVELOPMENT INCLUDES MODIFICATION OF MOUNTAIN ISLAND PA-2 WATERSHED BUFFER TO ACCOMMODATE PROPOSED DISTURBED AREA.

Know what's below. Call before you dig. 811

NORTH CAROLINA PROFESSIONAL SEAL 034556 ENGINEER CHRISTOPHER M. FLECK
8/06/2021

SHEET INDEX

SHEET NO.	SHEET NAME
RZ-1	COVER SHEET
RZ-2	EXISTING CONDITIONS
RZ-3	SITE PLAN
RZ-4	GRADING PLAN
RZ-5	LANDSCAPING PLAN

APPLICANT:
TRINITY CAPITAL ACQUISITIONS
440 SOUTH CHURCH ST, STE 800
CHARLOTTE, NC 28202
CONTACT: SHERRIE CHAFFIN
PHONE: 704.400.1348
EMAIL: sls@trinitycapitaladvisors.com

PROPERTY OWNER:
SPORTS VILLAGE LAND GROUP LLC
18635 STARCREEK DR.
UNIT F
CORNELIUS NC 28031
CONTACT: MICHAEL S. CLAPP MANAGER/OWNER
EMAIL: MSCLAPP6@YAHOO.COM

ARCHITECT:
MERRIMAN SCHMITT ARCHITECTS
605 LEXINGTON AVE, SUITE 300
CHARLOTTE, NC 28203
CONTACT: STEVE SCHMITT, AIA
PHONE: 704-295-7743
EMAIL: sschmitt@msacharlotte.com

CIVIL ENGINEER: (NCBELS #P-1223)
D&A WOLVERINE PLLC
6120 BROOKSHIRE BLVD. UNIT R
CHARLOTTE, NC 28216
CONTACT: CHRISTOPHER FLECK, PE
PHONE: 704.494.9776
EMAIL: chris@dnawolverine.com
www.dnawolverine.com

DATE	BY	REVISION
08/06/2021	FLG	REZONING SUBMITTAL

PROJECT #:	DATE:	SHEET:
212006	08/06/2021	RZ-1

EXISTING CONDITIONS

SCALE: 1"=60'

PARCEL 01740105
BURKERT SYSTEMHAUS LLC
DEED BOOK 29690, PAGE 610
ZONED CB

PARCEL 01740103
LINDA STEVENS HOFLER DICKERSON
DEED BOOK 6503, PAGE 270
ZONED R

PARCEL 01703209
TAMMY BIRMINGHAM
DEED BOOK 23391, PAGE 758
ZONED R

PARCEL 01703207
LINDA STEVENS HOFLER DICKERSON
DEED BOOK 6503, PAGE 270
ZONED R

PARCEL 01740104
SPORTS VILLAGE LAND GROUP LLC
10695 HAMBRIGHT RD
HUNTERSVILLE, NC 28078
23.140 ACRES
ZONED SPA-CD

PARCEL 01703206
KAREN DENISE LEWIS et al
DEED BOOK 3387, PAGE 13
ZONED R

PARCEL 01703206
KAREN DENISE LEWIS et al
DEED BOOK 3387, PAGE 13
ZONED R

PARCEL 01721106
MOORES CABINET SHOP INC.
DEED BOOK 2772, PAGE 245
ZONED CB(CD)

HAMBRIGHT ROAD
(100' PUBLIC RIGHT OF WAY)
(SR 1136)

DUKE POWER 200' TRANSMISSION LINE R/W
DUKE POWER 200' TRANSMISSION LINE R/W
DEED BOOK 1528, PAGE 397
MAP BOOK 6, PAGE 563

NCDOT RIGHT OF WAY
DEED BOOK 30274, PAGE 2

EXISTING POINT OF INTERSECTION

S 65°03'05" E (1218.79' TOTAL)

S 74°16'42" E (563.57' TOTAL)
518.56'

265.46'

N 89°52'38" W
384.10'

N 89°59'45" W
632.28'

N 1°20'24" W
628.72' (TIE)

N 89°59'45" W
632.88'

N 89°59'45" W
161.70'

31.84'

L1 L2 L3 L4 L5 L6 L7 L8 L9 L10 L11 L12 L13

D&A WOLVERINE PLLC
CIVIL ENGINEERING
D&A WOLVERINE, PLLC
6120 BROOKSHIRE BLVD, UNIT R
CHARLOTTE, NC 28216
P: 704-494-9776
WWW.DNAWOLVERINE.COM
NCBELS LICENSE NO: P-1223

SEAL:

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 034556 CHRISTOPHER M. FLECK

FOR REZONING ONLY
NOT FOR BIDDING OR CONSTRUCTION

8/6/2021

TRINITY CAPITAL

TCA - HAMBRIGHT INDUSTRIAL REZONING SUBMITTAL

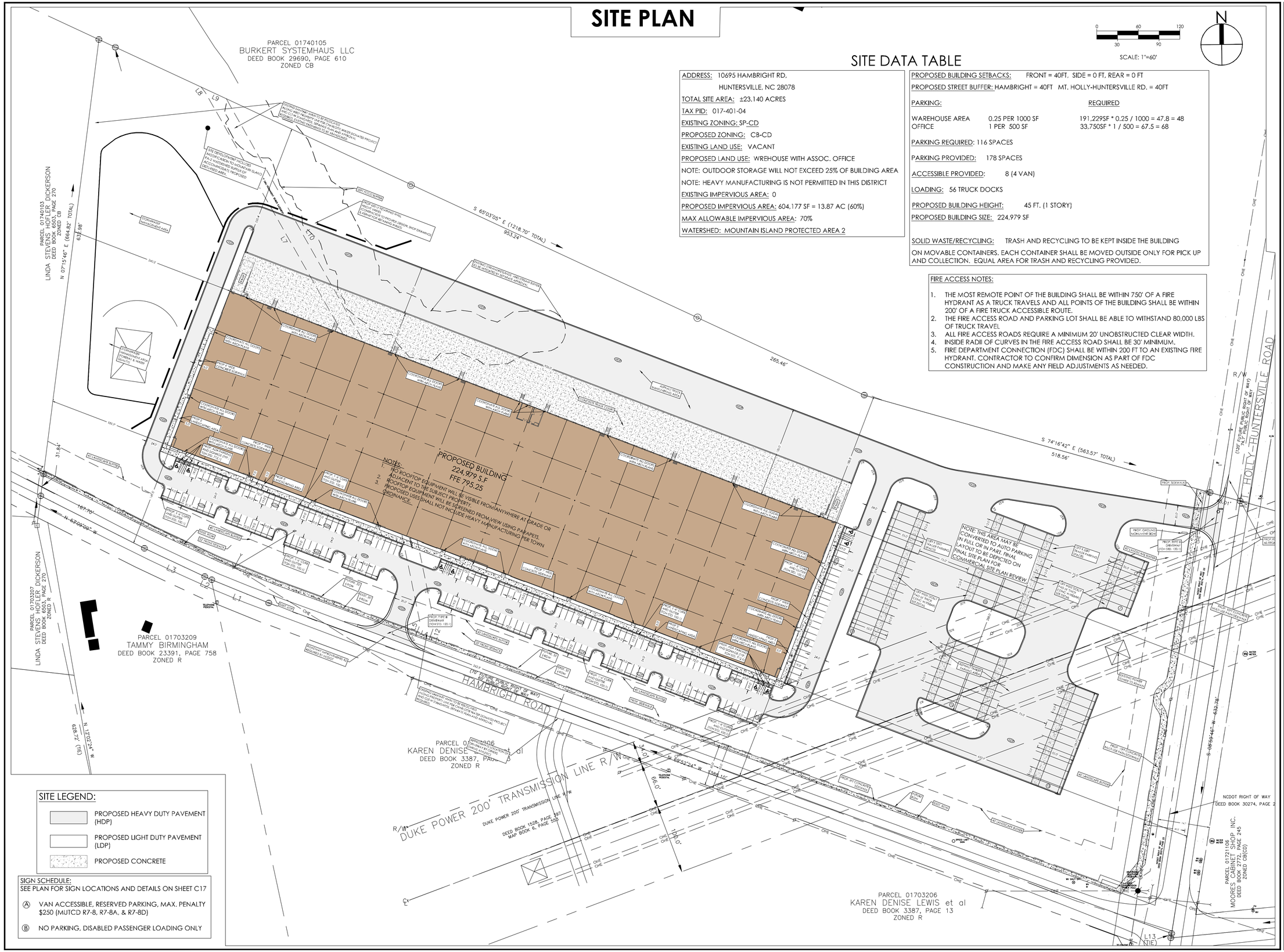
TRINITY CAPITAL ACQUISITIONS
440 SOUTH CHURCH STREET, SUITE 800
CHARLOTTE, NC 28202

EXISTING CONDITIONS

DATE	BY	REVISION
8/6/2021	FLG	FOR REZONING

PROJECT #: 212006	DRAWN BY: FLG
	CHECKED BY: GLC
DATE: 08/06/2021	APPROVED BY: CMF
SCALE: 1"=60'	SHEET: RZ-2

SITE PLAN


PARCEL 01740105
BURKERT SYSTEMHAUS LLC
DEED BOOK 29690, PAGE 610
ZONED CB
PARCEL 01740103
LINDA STEVENS HOFLER DICKERSON
DEED BOOK 6503, PAGE 270
ZONED CB
N 07°15'46" E (664.82' TOTAL)
637.88'
S 65°03'05" E (1218.70' TOTAL)
953.24'
265.46'
S 74°16'42" E (563.57' TOTAL)
518.56'
PROPOSED BUILDING
224,979 S.F
FFE 795.25
NOTES:
1. NO ROOFTOP EQUIPMENT WILL BE VISIBLE FROM ANYWHERE AT GRADE OR ADJACENT TO THE SUBJECT PROPERTY.
2. ROOFTOP EQUIPMENT WILL BE SCREENED FROM VIEW USING PARAPETS.
3. PROPOSED USES SHALL NOT INCLUDE HEAVY MANUFACTURING PER TOWN ORDINANCE.
NOTE: THIS AREA MAY BE CONVERTED TO AUTO PARKING IN FULL OR IN PART. FINAL LAYOUT TO BE DEPICTED ON FINAL SITE PLAN FOR COMMERCIAL SITE PLAN REVIEW.
PARCEL 01703209
TAMMY BIRMINGHAM
DEED BOOK 23391, PAGE 758
ZONED R
PARCEL 01703207
LINDA STEVENS HOFLER DICKERSON
DEED BOOK 6503, PAGE 270
ZONED R
N 12°02'24" W
628.72' (TIE)
HAMBRIGHT ROAD
(VARIABLE WIDTH PUBLIC RIGHT OF WAY)
PARCEL 01703206
KAREN DENISE LEWIS et al
DEED BOOK 3387, PAGE 13
ZONED R
DUKE POWER 200' TRANSMISSION LINE R/W
DUKE POWER 200' TRANSMISSION LINE R/W
DEED BOOK 1528, PAGE 287
MAP BOOK 6, PAGE 505
N 65°52'24" W 1384.10'
666'
100'-0"
HOLLY-HUNTERSVILLE ROAD
(120' FUTURE PUBLIC RIGHT OF WAY)
(PUBLIC RIGHT OF WAY)
NCDOT RIGHT OF WAY
DEED BOOK 30274, PAGE 2
PARCEL 01721106
MOORES CABINET SHOP INC.
DEED BOOK 2772, PAGE 245
ZONED GB(CD)
S 08°59'45" W 632.28'
L13 (TIE)
L1
L2
L3
L7
L8
L9
L10
L11
L12
L13
L14
L15
L16
L17
L18
L19
L20
L21
L22
L23
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L26
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L28
L29
L30
L31
L32
L33
L34
L35
L36
L37
L38
L39
L40
L41
L42
L43
L44
L45
L46

GRADING PLAN

SCALE: 1"=60'

PARCEL 01740105
BURKERT SYSTEMHAUS LLC
DEED BOOK 29690, PAGE 610
ZONED CB

PARCEL 01740103
LINDA STEVENS-HOFLER DICKERSON
DEED BOOK 6503, PAGE 270
ZONED CB
N 07°15'46" E (664.82' TOTAL)
502.38'

S 65°03'05" E (1218.70' TOTAL)
953.24'

265.46'

S 74°16'42" E (563.57' TOTAL)
518.56'

PROPOSED BUILDING
224,979 S.F
FFE 795.25

PARCEL 01703207
LINDA STEVENS HOFLER DICKERSON
DEED BOOK 6503, PAGE 270
ZONED R

N 65°03'05" W
161.70'

PARCEL 01703209
TAMMY BIRMINGHAM
DEED BOOK 23391, PAGE 758
ZONED R

N 12°02'24" W
628.72' (TIE)

HAMBRIGHT ROAD
(100' FUTURE PUBLIC ROAD R/W WAY)
(SEE SHEET RZ-5 FOR ROAD CROSS SECTION)

PARCEL 01703206
KAREN DENISE LEWIS et al
DEED BOOK 3387, PAGE 13
ZONED R

DUKE POWER 200' TRANSMISSION LINE R/W

DUKE POWER 200' TRANSMISSION LINE R/W
DEED BOOK 1528, PAGE 397
MAP BOOK 6, PAGE 505

N 65°03'05" W 384.10'

66.0'

110.0'

PARCEL 01703206
KAREN DENISE LEWIS et al
DEED BOOK 3387, PAGE 13
ZONED R

PARCEL 01721108
MOORES CABINET SHOP INC.
DEED BOOK 2772, PAGE 245
ZONED CB(CD)

NCDOT RIGHT OF WAY
DEED BOOK 30274, PAGE 2

HOLLY HUNTERSVILLE ROAD
(120' FUTURE PUBLIC R/W, WAY)
(SEE SHEET RZ-5 FOR ROAD CROSS SECTION)

L13
(TIE)

D&A WOLVERINE, PLLC
CIVIL ENGINEERING
6120 BROOKSHIRE BLVD, UNIT R
CHARLOTTE, NC 28216
P: 704-494-9776
WWW.DNAWOLVERINE.COM
NCBELS LICENSE NO: P-1223

SEAL:

NORTH CAROLINA PROFESSIONAL SEAL 034556 ENGINEER CHRISTOPHER M FLECK

FOR REZONING ONLY
NOT FOR BIDDING OR CONSTRUCTION

8/6/2021

TRINITY CAPITAL

TCA - HAMBRIGHT INDUSTRIAL
REZONING SUBMITTAL

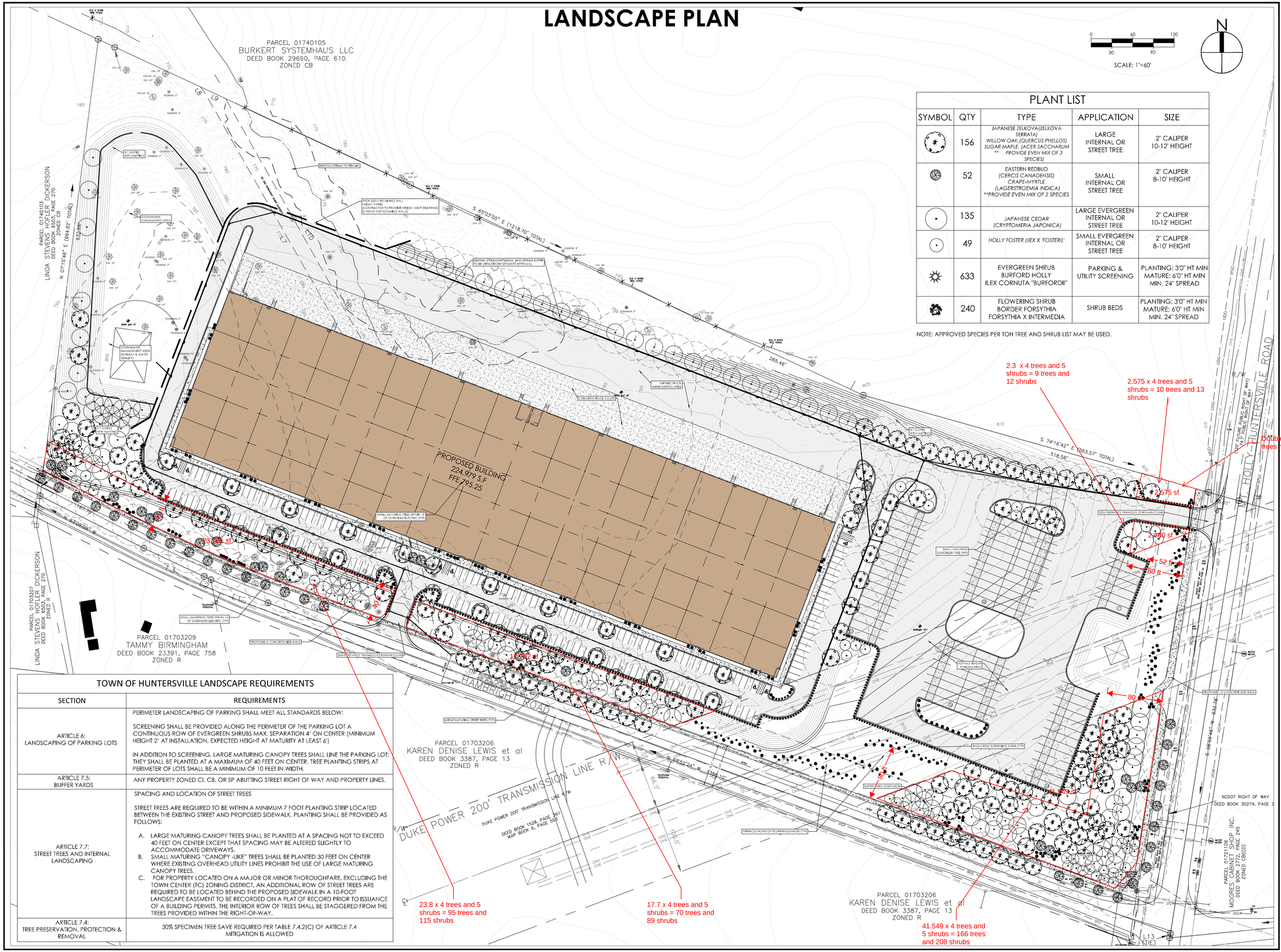
TRINITY CAPITAL ACQUISITIONS
440 SOUTH CHURCH STREET, SUITE 800
CHARLOTTE, NC 28202

GRADING PLAN

DATE	BY	REVISION
8/6/2021	FLG	FOR REZONING

PROJECT #: 212006	DRAWN BY:	FLG
	CHECKED BY:	GLC
DATE: 08/06/2021	APPROVED BY:	CMF
SCALE: 1"=60'	SHEET:	RZ-4

LANDSCAPE PLAN



SCALE: 1"=60'

PLANT LIST

SYMBOL	QTY	TYPE	APPLICATION	SIZE
	156	JAPANESE ZELKOVA(ZELKOVA SERRATA) *WILLOW OAK.(QUERCUS PHELLOS) SUGAR MAPLE. (ACER SACCHARUM* ** PROVIDE EVEN MIX OF 3 SPECIES*	LARGE INTERNAL OR STREET TREE	2" CALIPER 10-12' HEIGHT
	52	EASTERN REDBUD *(CERCIS CANADENSIS)* CRAPE-MYRTLE (LAGERSTROEMIA INDICA) **PROVIDE EVEN MIX OF 2 SPECIES*	SMALL INTERNAL OR STREET TREE	2" CALIPER 8-10' HEIGHT
	135	JAPANESE CEDAR *(CRYPTOMERIA JAPONICA)*	LARGE EVERGREEN INTERNAL OR STREET TREE	2" CALIPER 10-12' HEIGHT
	49	*HOLLY FOSTER (IIEX X 'FOSTERI)'*	SMALL EVERGREEN INTERNAL OR STREET TREE	2" CALIPER 8-10' HEIGHT
	633	EVERGREEN SHRUB BURFORD HOLLY ILEX CORNUTA "BURFORDII"	PARKING & UTILITY SCREENING	PLANTING: 3'0" HT MIN MATURE: 6'0" HT MIN MIN. 24" SPREAD
	240	FLOWERING SHRUB BORDER FORSYTHIA FORSYTHIA X INTERMEDIA	SHRUB BEDS	PLANTING: 3'0" HT MIN MATURE: 6'0" HT MIN MIN. 24" SPREAD

NOTE: APPROVED SPECIES PER TOH TREE AND SHRUB LIST MAY BE USED.

TOWN OF HUNTERSVILLE LANDSCAPE REQUIREMENTS

SECTION	REQUIREMENTS
ARTICLE 6: LANDSCAPING OF PARKING LOTS	PERIMETER LANDSCAPING OF PARKING SHALL MEET ALL STANDARDS BELOW: SCREENING SHALL BE PROVIDED ALONG THE PERIMETER OF THE PARKING LOT A CONTINUOUS ROW OF EVERGREEN SHRUBS MAX. SEPARATION 4' ON CENTER (MINIMUM HEIGHT 2' AT INSTALLATION, EXPECTED HEIGHT AT MATURITY AT LEAST 6') IN ADDITION TO SCREENING, LARGE MATURING CANOPY TREES SHALL LINE THE PARKING LOT; THEY SHALL BE PLANTED AT A MAXIMUM OF 40 FEET ON CENTER. TREE PLANTING STRIPS AT PERIMETER OF LOTS SHALL BE A MINIMUM OF 10 FEET IN WIDTH.
ARTICLE 7.5: BUFFER YARDS	ANY PROPERTY ZONED CI, CB, OR SP ABUTTING STREET RIGHT OF WAY AND PROPERTY LINES.
ARTICLE 7.7: STREET TREES AND INTERNAL LANDSCAPING	SPACING AND LOCATION OF STREET TREES STREET TREES ARE REQUIRED TO BE WITHIN A MINIMUM 7 FOOT PLANTING STRIP LOCATED BETWEEN THE EXISTING STREET AND PROPOSED SIDEWALK. PLANTING SHALL BE PROVIDED AS FOLLOWS: A. LARGE MATURING CANOPY TREES SHALL BE PLANTED AT A SPACING NOT TO EXCEED 40 FEET ON CENTER EXCEPT THAT SPACING MAY BE ALTERED SLIGHTLY TO ACCOMMODATE DRIVEWAYS. B. SMALL MATURING "CANOPY -LIKE" TREES SHALL BE PLANTED 30 FEET ON CENTER WHERE EXISTING OVERHEAD UTILITY LINES PROHIBIT THE USE OF LARGE MATURING CANOPY TREES. C. FOR PROPERTY LOCATED ON A MAJOR OR MINOR THOROUGHFARE, EXCLUDING THE TOWN CENTER (TC) ZONING DISTRICT, AN ADDITIONAL ROW OF STREET TREES ARE REQUIRED TO BE LOCATED BEHIND THE PROPOSED SIDEWALK IN A 10-FOOT LANDSCAPE EASEMENT TO BE RECORDED ON A PLAT OF RECORD PRIOR TO ISSUANCE OF A BUILDING PERMITS. THE INTERIOR ROW OF TREES SHALL BE STAGGERED FROM THE TREES PROVIDED WITHIN THE RIGHT-OF-WAY.
ARTICLE 7.4: TREE PRESERVATION, PROTECTION & REMOVAL	30% SPECIMEN TREE SAVE REQUIRED PER TABLE 7.4.2(C) OF ARTICLE 7.4 MITIGATION IS ALLOWED

D&A WOLVERINE PLLC
CIVIL ENGINEERING
D&A WOLVERINE, PLLC
6120 BROOKSHIRE BLVD, UNIT R
CHARLOTTE, NC 28216
P: 704-494-9776
WWW.DNAWOLVERINE.COM
NCBELS LICENSE NO: P-1223

SEAL:

NORTH CAROLINA PROFESSIONAL SEAL 034556 ENGINEER CHRISTOPHER M FLECK

FOR REZONING ONLY NOT FOR BIDDING OR CONSTRUCTION 8/6/2021

TRINITY CAPITAL

TCA - HAMBRIGHT INDUSTRIAL
REZONING SUBMITTAL

TRINITY CAPITAL ACQUISITIONS
440 SOUTH CHURCH STREET, SUITE 800
CHARLOTTE, NC 28202

LANDSCAPE PLAN

DATE	BY	REVISION
8/6/2021	FLG	FOR REZONING

PROJECT #: 212006		DRAWN BY:	FLG
		CHECKED BY:	GLC
DATE: 08/06/2021		APPROVED BY:	CMF
SCALE: 1"=60'		SHEET:	RZ-5

REZONING NOTES

TCA Hambright - Corporate Business

1. Rezoning Petition. These rezoning notes comprise the development standards ("Development Standards") associated with the rezoning petition (the "Rezoning Petition") filed by ("Petitioner") on August ___, 2021 (the "Filing Date") as Rezoning Petition (the "Rezoning Plan") and Sketch Plan ("Sketch Plan") for that approximately 23.140 acre tract of land, identified on this Site Plan as TCA- Hambright Industrial (the "Project") in connection with part of tax parcel number 01740104(the "Property"). The purpose of the Rezoning Petition is to convert the zoning classification of the Property from Special Purpose- Conditional Zoning (SP-CD) to Corporate Business- Conditional District (CB-CD) classification in accordance with the provisions of the Town of Huntersville Zoning Ordinance (the "Ordinance").

2. Development Standards. Development of the Property will be governed by these Development Standards, which are part of the Rezoning Petition, and the applicable provisions of the Ordinance in place on the date of the filing of the Rezoning Plan. Unless the Rezoning Plan establishes a more stringent standard(s), or unless otherwise noted on the Rezoning Plan or in these Development Standards, the regulations established under the Ordinance in place on the date of the filing of the Rezoning Plan govern development of the Property as shown on the Rezoning Plan.

3. Schematic Nature of Rezoning Plan. The lot and building shown on the Rezoning Plan is schematic in nature and the exact location, architecture, and size, of the building may be modified, with Planning Staff approval, during design, engineering and construction phases of the development so long as such modification does not exceed the square footage in the TIA and meets the applicable requirements of the Zoning Ordinance and the Modifications. The exact alignments of the internal drives and internal public streets have not been determined and are subject to final design and engineering plans, and minor modifications or alterations of these alignments may take place during design development and construction phases.

4. Vested Rights. This Rezoning Plan is a site-specific development plan and approval thereof constitutes vested rights in the Rezoning Plan pursuant to the provisions of the Ordinance. Notwithstanding any other provisions of these Development Standards, if, at some point, modifications are made to the Ordinance by the Town Board, Petitioner may voluntarily agree to apply such modifications to the Rezoning Plan in a manner consistent with the Rezoning Plan and the Ordinance as it changes from time to time, and without pursuing a rezoning. Such modifications to the Ordinance shall in no way impact the Petitioner's vested rights. Approval of this conditional rezoning shall constitute establishment of vested rights in the landowner (and its successors or assigns) for a period of five years pursuant to N.C. Gen. Stat. § 160A-385.1.

5. Permitted Uses. The Property may be developed for the uses shown on the Rezoning Plan, subject to the development standards associated with such uses.

6. Access. The number of site access points, driveways and connections to roads are schematic in nature. To the extent permitted by applicable driveway permit requirements, future driveways, access points and road connections may cross the setback and shall not require a rezoning of the Property but shall otherwise comply with applicable driveway permit requirements.

7. Subdivision. The Property is one development and may be subdivided without a rezoning to allow separate owners of individual parcels so long as such subdivision is consistent with the general design of the Rezoning Plan, in compliance with applicable law, including subdivision regulations and consistent with the Ordinance. However, recombination, condominiumization, or reduction in the number of parcels may occur in accordance with the regulations of the Ordinance. Requirements that are met by the Project as a whole, such as open space, tree save and impervious requirements, need not be met by individual parcels.

8. Street Improvements. Petitioner shall be required to install sidewalks, street trees, planting strips, bicycle lanes or other street improvements as a condition of the approval of this Rezoning Plan as specifically shown on the Rezoning Plan and as required by the Zoning Ordinance, Subdivision Ordinance, applicable Huntersville/NCDOT TIA, or driveway permit requirements.

9. Buffers. As more particularly depicted on the Rezoning Plan, , the Site shall include 40-foot wide buffer along Hambright Road.

10. Amendment. Future amendments to the Rezoning Plan and/or these Development Standards may be applied for by the then owner of owners of the Property in accordance with the provisions of the Ordinance; provided, however, in the event any portion of the Property is conveyed to a third party, Petitioner may request an amendment to the Rezoning Plan without the written consent of any other owner of all or any portion of the Property unless such amendment constitutes a change in the building or use of the portion of the Property owned by such owner,

provided Petitioner provides for such amendment right in the recorded private restrictive covenants that govern the Project. All requirements in connection with the amendment will be calculated on the Property as a whole in the same manner such requirements were calculated at the time of the initial approval. This note shall be shown on the final plat when recorded.

11. BMPS. The designs for the BMPs shown on the Rezoning Plan shall be finalized during the construction phase and shall be completed as a part of the infrastructure improvements.

12. Lightning. Lighting will be in compliance with Article 8.26 of the Ordinance.

13. Parking Lots. Except as shown on the Rezoning Plan parking lots will be in compliance with Article 6 of the Ordinance.

14. ~~Sketch Plan. At the election of the Applicant, any modifications to the Sketch Plan, may be reviewed administratively by Planning Staff as permitted by the Ordinance as long as the sketch plan is consistent with the Rezoning Plan.~~ No sketch plan required.

15. Binding Effect of the Rezoning Documents and Definitions. If this Rezoning Application is approved, all conditions applicable to the use and development of the Site imposed under these Development Standards and the Rezoning Plan will, unless amended in the manner provided under the Ordinance, be binding upon and inure to the benefit of Petitioner and the current and subsequent owners of the Site and their respective successors in interest and assigns. Throughout these Development Standards, the term "Petitioner" shall be deemed to include the heirs, devisees, personal representatives, successors in interest and assigns of Petitioner or the owner or owners of the Site from time to time who may be involved in any future development thereof.

16. Requested Modifications to Standards. Pursuant to Section 11.4.7(k) of the Ordinance, the standards of the Ordinance are modified to permit the following Modifications:

Modification Request and Explanation:

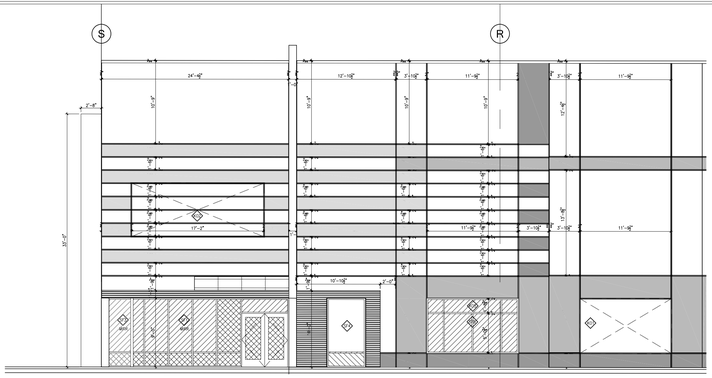
SWIM Buffer Modification: This Property is being rezoned from SP-CD to CB-CD in order to request a buffer modification as permitted by the recent Section 8.25.10 amendment. The Section 8.25.10 amendment (SWIM buffer amendment) permits the Board, as part of Corporate Business District conditional rezoning, to approve a modification to an intermittent or perennial stream buffer draining under 50 acres without a variance.

Mountain Island Lake P2 SWIM Buffer Modification: The reason for this modification is because this property, like most industrial and commercial property in the Hambright Road area, is also in the Protected Area (PA2) of the Mountain Island Lake Overlay District. The SWIM Buffer amendment permits the Board to modify buffers through a Corporate Business District rezoning, however, because the Property is also in the PA2 area, a modification from the PA2 overlay restriction is also required. *

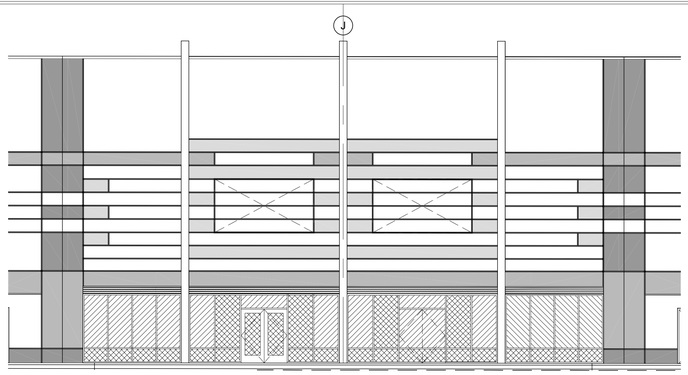
A 100' buffer is required along all perennial streams in the PA2. Although the stream is shown in Polaris as an intermittent stream and it is not a blue line stream according to the USGS map, an independent environmental survey shows the stream as a perennial stream which drains less than 50 acres. This modification accomplishes precisely what the SWIM buffer amendment was intended to accomplish in the Corporate Business Zoning District which is to facilitate industrial and commercial growth in areas suitable for commercial and industrial development as shown in the 2040 Community Plan. The corporate district is reserved for uses which require very large buildings and/or large parking and loading facilities such as warehouse/distribution operations. This amendment will allow the warehouse industrial building, as shown on the site plan, to be built without a reduction in size, or not built at all, due to a perennial stream. The stream is allowed to be impacted by the USACE and mitigation as outlined in the Zoning Ordinance is still required.

*The PA2 district regulations are intended to allow development with fewer restrictions than in the MIL critical area because the risk of water degradation is less in the protected area than the critical area.

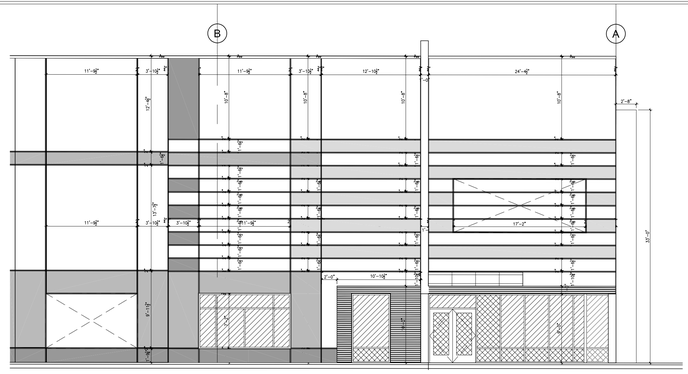
Modification to allow off-site street improvements as required by NCDOT to be approved prior to the issuance of the construction building permit. This would permit the improvements to tie into other improvements that are being required as part of the development of nearby parcels.



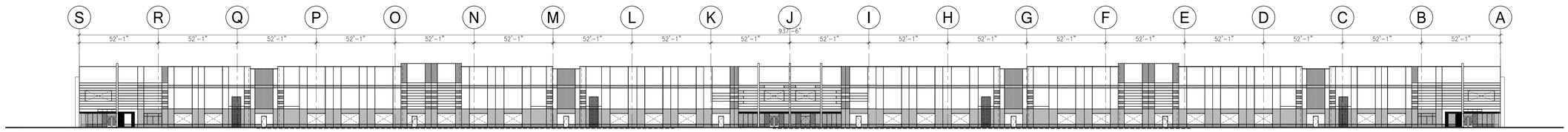
5 PARTIAL FRONT CORNER ENTRY ELEVATION
SCALE: 1/4" = 1'-0"



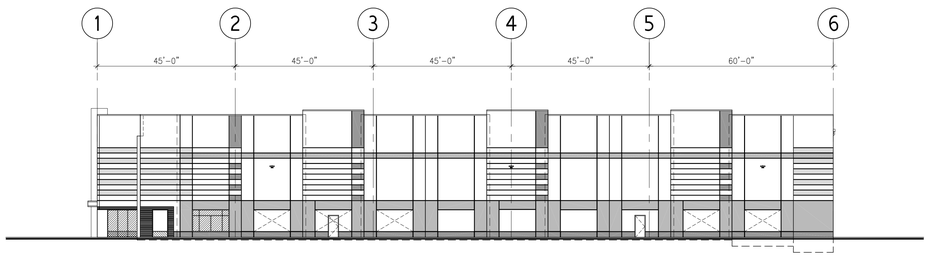
6 PARTIAL CENTER ENTRY ELEVATION
SCALE: 1/4" = 1'-0"



7 PARTIAL FRONT CORNER ENTRY ELEVATION
SCALE: 1/4" = 1'-0"



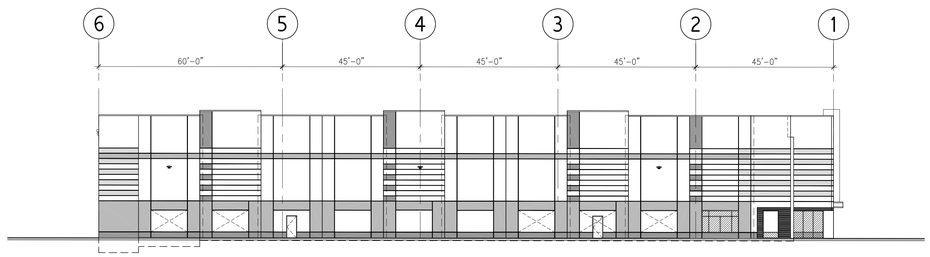
1 FRONT ELEVATION
SCALE: 1" = 30'-0"



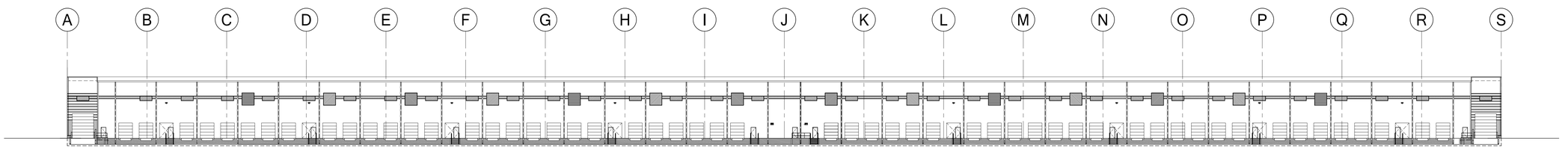
2 SIDE ELEVATION
SCALE: 1" = 20'-0"

ELEVATION MATERIAL KEY

	1" SOLARBAN 60 - GLAZING - TINT COLOR (TBD)
	1" SOLARBAN 60 - TEMPERED GLAZING - TINT COLOR (TBD)
	ACM METAL PANELS OVER LIGHT GAUGE FRAMING - (ON CANOPIES ONLY) COLOR - MICA ANODIC CLEAR
	EXTERIOR PAINT COLORS - ALL SHERWIN WILLIAMS PAINTS
"A"	BASEWALL - MEDIUM TEXTURED PAINT COLOR: SHERWIN WILLIAMS SW7666 FLEUR DE SEL
"B"	ACCENT #1 - MEDIUM TEXTURED PAINT COLOR: SHERWIN WILLIAMS SW7668 MARCH WIND
"C"	ACCENT #2 - MEDIUM TEXTURED PAINT COLOR: SHERWIN WILLIAMS SW7673 PEWTER CAST
"D"	ACCENT #3 - MEDIUM TEXTURED PAINT COLOR: SHERWIN WILLIAMS SW7674 PEPPERCORN
"E"	FORMLINER CUSTOMROCK PATTERN # 4005



3 SIDE ELEVATION
SCALE: 1" = 20'-0"



4 REAR ELEVATION
SCALE: 1" = 30'-0"

architects
msa
merriman schmitt
architecture · planning
interior design
605 LEXINGTON AVE
SUITE 300
CHARLOTTE, NC 28203
704.377.1177
704.377.3060 (fax)

CLIENT:

TRINITY CAPITAL

SEALS:

09/13/2021

HAMBRIGHT INDUSTRIAL
SHELL BUILDING
HAMBRIGHT ROAD
HUNTERSVILLE, NC

DRAWING STATUS:

- NOT FOR CONSTRUCTION
- ISSUED FOR BIDDING
- ISSUED FOR CONSTRUCTION

OWNER / CLIENT SIGNATURE

DATE

REVISIONS

MARK	DATE	DESCRIPTION
1	TBD	ISSUED FOR CONSTRUCTION

MINIMUM 44 FT. CLEAR HEIGHT UNDER STRUCTURE, TYPICAL

PROJECT NUMBER: C21098
PERMIT TRACKING: ENTER NUMBER

SHEET TITLE:
ELEVATIONS

SHEET NUMBER:
A201

©2021 MERRIMAN SCHMITT ARCHITECTS, INC.

Hambright Industrial
10695 Hambright Road, Huntersville, NC
Parcel: 01740104

Who to Notify (per §11.4.3 d):

1. Owner;
2. Owner of each abutting property;
3. Owner of each property within 250 feet of the petitioned property;
4. Owner of each property directly across a street, easement, or right-of-way, public or private, from the petitioned property;
5. Owner of each property across a street, easement, or right-of-way, and within 250 feet of the right-of way boundary opposite the petitioned property;
6. Contact person for each neighborhood association, property owner association, and homeowner association registered with the Town Planning Department that has jurisdiction over property within 2000 feet of any portion of the rezoning site. If fewer than two registered associations are identified within 2000 feet of any portion of the rezoning site, it is the responsibility of the petitioner to identify and include unregistered associations or associations beyond 2000 feet of the site, such that no fewer than two neighborhood, property owner, or homeowner associations are notified of the community meeting;
7. Senior Planner, Mayor, Board of Commissioners, Planning Board Members, Town Manager, Town Clerk, Project Manager.

Town Official Name and Address	**Email**
Jack Simoneau, Planning Director Town of Huntersville 105 Gilead Road, Third Floor Huntersville, NC 28070	jsimoneau@huntersville.org
Brian Richards Town of Huntersville 105 Gilead Road, Third Floor Huntersville, NC 28070	brichards@huntersville.org
John Aneralla, Mayor of Huntersville 15705 Framingham Lane Huntersville, NC 28078	janeralla@huntersville.org
Melinda Bales, Commissioner 15426 Ranson Road Huntersville, NC 28078	mbales@huntersville.org
Dan Boone, Commissioner 317 Southland Road Huntersville, NC 28078	dboone@huntersville.org
Lance Munger, Commissioner 11708 Warfield Avenue Huntersville, NC 28078	lmunger@huntersville.org
Brian Hines 15925 Bayshore Drive	bhines@huntersville.org

Huntersville, NC 28078	
Stacy Phillips, Commissioner Town of Huntersville P.O. Box 664 Huntersville, NC 28078	sphillips@huntersville.org
Nick Walsh 10320 Drake Hill Drive Huntersville, NC 28078	nwalsh@huntersville.org
Anthony Roberts, Town Manager Town of Huntersville P.O. Box 664, Huntersville, NC 28070	aroberts@huntersville.org
Jackie Huffman, Assistant Town Manager P.O. Box 664, Huntersville, NC 28070	jhuffman@huntersville.org
Janet Pierson, Town Clerk P.O. Box 664, Huntersville, NC 28070	jpierson@huntersville.org
Planning Board Members	
Jennifer Davis, Vice -Chairman 7530 McIlwaine Road Huntersville, NC 28078	jenniferdavis078@gmail.com
Stephen Swanick, Chairman 203 Mt. Holly-Huntersville Rd. Huntersville, NC 28078	stephen.swanick@gmail.com
Derek Partee P.O. Box 664 Huntersville, NC 28070	dpartee755@gmail.com
Catherine Graffy 15120 Pavilion Loop Drive Huntersville, NC 28078	cgraffy@outlook.com
Frank Gammon 8012 Deerland Ct Huntersville, NC 28078	gammonf@roadrunner.com
Scott Hensley 15133 Ewart Road Huntersville, NC 28078	hensleyscott1@gmail.com
Greg Baber 12601 Cliffcreek Drive Huntersville, NC 28078	bogeybaber@gmail.com
Jeff Sny 13945 Old Vermillion Drive Huntersville, NC 28078	jeffrey.sny@gmail.com

#	Owners Names	Mailing Address	Parcel ID
1	Richard D Hofler and Alicia S Hofler	136 Twin Lake Circle Newport News, VA 23608	01703207
2	Tammy Birmingham	1093 Readsboro Drive Mount Ulla, NC 28125	01703209
3	Richard D Hofler and Alicia S Hofler	136 Twin Lake Circle Newport News, VA 23608	01703210
4	Karen Denise Lewis Brenda Ellen Moore Elaine Renee Bowers Susan Annette Moretz	627 Pinnacle Drive Iron Station, NC 28080	01703206
5	ADE 883 LLC	3715 Northside PKWY Atlanta , GA 30327	01740103
6	Burkert Systemhaus, LLC	11425 Mount Holly- Huntersville Rd Huntersville, NC 28078	01740105
7	Clutch Investments of North Carolina	15316 Resse Blvd West B-15 Huntersville, NC 28078	01721106
8	Piraino Investments LLC	5137 South Parview Drive Charlotte, NC 28226	01721105
9	United Oil of the Carolinas, INC	PO Box 68 Gastonia, NC 28053	01704212

	Nearby HOA:		
1	StoneyBrook Station Homeowners Association	1515 Mockingbird Lane Charlotte, NC 28209	
2	Plum Creek Property Owners Association INC	PO Box 87 Huntersville, NC 28078	

TCA- Hambright Industrial Community Meeting Minutes

Applicant: Trinity Capital Advisors

September 8, 2021

The community meeting for TCA-Hambright Industrial project was held on September 8, 2021, at 6:30 PM via Zoom.

The attached PowerPoint was shared by the Applicant.

Community meeting attendees: Diann Norwood, Richard Hofler, Commissioner Boone, and Jack Simoneau

Attendees for Applicant: Sherrie Chaffin, Chris Fleck and Cindy Reid

Summary of community comments, questions, and answers:

1. Mr. Hofler, who lives in Louisiana and owns property in the vicinity, asked about the truck traffic and whether truck traffic will be limited to Hambright Road. Ms. Chaffin explained that the distribution warehouses built by the applicant in many other locations, like the warehouse shown on the site plan, do not have excessive traffic with trucks. This is not like an Amazon facility. It is a low traffic generator, so low that a TIA was not required by the NCDOT or the Town. The truck traffic will mostly come from Mt. Holly Huntersville Road. Distribution is typically not a 24/7 operation, but hours can't be limited because distribution hours vary.

2. Mr. Hofler also asked about a single-family home that he thought was adjacent to this project. Mr. Simoneau explained that the home is not adjacent to this parcel but is adjacent to another industrial project- R-21-10. The house is actually on the West side of the adjacent 15 acre parcel beside the subject property.

3. Ms. Norwood, who represents Burkert Systems, an adjacent property, asked about water run-off. The project engineer explained that the storm water control system has to be designed to county and town standards. Mr. Simoneau pointed out that there will be strict controls in place to collect water runoff from the site.

4. Ms. Norwood also asked how the right turn lane on Hambright will affect the Burkert property. She wanted to know if an easement would be required from

Burkert. Engineer noted that an easement should not be required because widening should take place in the ROW.

5. Mr. Simoneau said that a text amendment which is has been filed along with the rezoning will allow modification to a perennial stream buffer, but that mitigation is required as set forth in the planning ordinance.

Respectfully submitted,

Cindy Reid

Town of Huntersville
Town Board
October 18, 2021

To: Town Board

From: Michael Jaycocks

Date: October 18, 2021

Subject: Resolution Approving Construction Contract - Phase 2 Downtown Greenway

---

EXPLAIN REQUEST:

The Town opened bids on October 1st for the Construction of Phase 2 of the Downtown Greenway. This section of Greenway will run from Sherwood Drive to Commerce Center Drive. JD Goodrum was the lowest responsive responsible bidder with a bid of $885,670.84. The town received three bids. The contract period is for 240 days. Additional funds of $570,000 are needed for the Downtown Greenway due to changes from the original concept plans. These changes include adding the trailhead/parking area on Hwy 115 and more boardwalk and retaining walls due to the tighter easement. Construction costs have also increased over the last 2-3 years since this project was being designed.

ACTION RECOMMENDED:

Consider approving the Construction Contract and Resolution for Phase 2 of the Downtown Greenway.

FINANCIAL IMPLICATIONS:

$885,670.84

ATTACHMENTS:

1. 2021.10.01 - Bid Tab - Phase 2 Greenway
2. JD Goodrum Bid- Phase 2 Greenway
3. Downtown_Huntersville_Greenway_Phase_2_Project Manual
4. Downtown Greenway_Phase 2_ Addendum_7
5. Downtown Greenway_Phase 2_ Addendum_6
6. Downtown Greenway_Phase 2_ Addendum_5
7. Downtown Greenway_Phase 2_ Addendum_4 signed
8. Downtown Greenway_Phase 2_ Addendum_3
9. Town of Huntersville Downtown Greenway_Phase 2_ Addendum_2 signed

10. Town of Huntersville Downtown Greenway_Phase 2_ Addendum_1 signed
11. R-2021-67 Resolution awarding the contract-Downtown Greenway Phase 2 Project

Bidder	Shop Dwgs for Boardwalk Rec'd	Lic # on Envelope (Y/N)	Bid Bond (Y/N)	Bid Bond Amt ($)	Bid Proposal Form (Y/N)	7 Addenda Aknowledged (Y/N)	Non-Collusion Affidavit (Y/N)	Substitution Listing Form (Y/N)	Base Bid ($)	
JD Goodrum	Y	Y	Y	44,283.54	Y	Y	Y	N/A	885,670.80	
Blythe	Y	Y	Y	86,517.88	Y	Y	Y	N/A	1,630,357.50	
Greenwater	Y	Y	Y	44,672.05	Y	Y	Y	N/A	893,440.98	

SINGLE PRIME GENERAL CONSTRUCTION CONTRACT
BID PROPOSAL

TOWN OF HUNTERSVILLE DOWNTOWN GREENWAY – PHASE 2

ALTERING THE FACE OF THIS FORM IN ANY MANNER, OR PROVIDING INFORMATION NOT SPECIFICALLY REQUESTED SHALL RENDER THIS BID PROPOSAL NON-RESPONSIVE AND INELIGIBLE FOR CONSIDERATION BY THE TOWN

Date: 10/01/2021

TO: Town of Huntersville
North Carolina

To Whom It May Concern:

The undersigned Bidder, having examined carefully the site, the Invitation to Bid, Instructions to Bidders, Construction Drawings, the form Construction Agreement, Supplementary Documents (if any) and subsequent Addenda (as acknowledged herein) for the construction of approximately 1,965-lf of asphalt greenway with pedestrian boardwalk and associated site improvements for Phase 2 of the Downtown Huntersville Greenway. Work shall also include associated demolition/clearing, grading, erosion control, installation of stormwater conveyance measures, installation of pavement and boardwalk, and associated site furnishings. Bidder hereby proposes to furnish all labor, materials, equipment and services necessary to perform the Work required in the Construction Documents and terms of this Proposal for the amounts listed below.

Base Bid Total: $586,942.99 (Lump Sum)
Five Hundred Eighty Six Thousand Nine Hundred Forty Two Dollars and Ninety Nine Cents

Alternate #1 Total: $298,727.85 (Lump Sum)
Two Hundred Ninety Eight Thousand Seven Hundred Twenty Seven Dollars and Eighty Five Cents

Bid Total: $885,670.84 (Lump Sum)
Eight Hundred Eighty Five Thousand Six Hundred Seventy Dollars and Eighty Four Cents

The undersigned further agrees that this Bid Proposal shall be valid for a period of sixty (60) days from the date of receipt of the Bid Proposal and that if this Bid Proposal is accepted by the Town within this period, the Bidder will execute the Construction Agreement provided as part of the Contract Documents.

The undersigned further agrees to begin the work promptly upon receipt of the Notice to Proceed and to pursue the work with an adequate work force to complete the work within 240 calendar days from receipt of the Notice to Proceed. Liquidated Damages of $500.00 per calendar day are hereby agreed upon as an assessment from the Contractor for failure to complete the work within the time period stated herein.

The undersigned Bidder further proposes and agrees to commence the work promptly upon notice, with an adequate force to satisfactorily complete the Project.

The undersigned acknowledges receipt of the following addenda which will be considered as part of the Contract Documents.

Addendum No. 1 Dated 09/03/2021 Addendum No. 6 - 09/29/2021

Addendum No. 2 Dated 09/17/2021 Addendum No. 7 - 09/29/2021

Addendum No. 3 Dated 09/22/2021

Addendum No. 4 Dated 09/27/2021

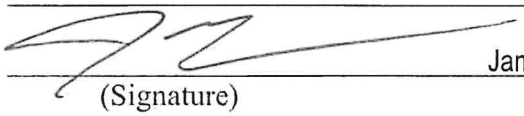
Addendum No. 5 Dated 09/28/2021

CONTRACTOR: J.D. Goodrum Company, Inc.
(Company)

Contractor ☐ is or ☒ is not a historically underutilized business, registered with the North Carolina Office of Historically Underutilized Businesses. (Must be completed by all Bidders.)

ADDRESS: 18339-F Old Statesville Road

Cornelius, NC 28031

BY:  Jamie Yoxtheimer
(Signature) (Typed Name)

TITLE: President

NC General Contractor's License No. 19284

NC State Sales and Use Tax Registration 56-1506393

☒ Non-collusion Affidavit has been completed and is attached to this Bid Proposal Form (Required)

TOWN OF HUNTERSVILLE DOWNTOWN GREENWAY - PHASE 2 - Unit Price Spreadsheet:

	Item Description	Base Bid Quantity	Unit	Unit Cost	Total-Base Bid
1	Mobilization/General Conditions	1	LS	$ 29,158.45	$ 29,158.45
2	Construction Surveying	1	LS	$ 10,044.45	$ 10,044.45
3	Selective Demolition	1	LS	$ 2,954.25	$ 2,954.25
4	Clearing and Grubbing	1.65	Acre	$ 11,817.00	$ 19,498.05
5	8" of Topsoil Stripping & Haul Off	825	CY	$ 7.09	$ 5,849.25
6	8" Topsoil Compact and Reuse On-Site	275	CY	$ 3.55	$ 976.25
7	Construction Access Drive (gravel) 18'x100'x6"	2	EA	$ 4,135.95	$ 8,271.90
8	Import Soil to Job Site and Compact in Place	425	CY	$ 26.00	$ 11,050.00
9	Earthwork-Rough Grading	1	LS	$ 179,913.83	$ 179,913.83
10	Earthwork-Fine Grading	44850	SF	$ 0.18	$ 8,073.00
11	Temporary Silt Fencing	1863	LF	$ 2.66	$ 4,955.58
12	Temporary High Hazard Silt Fence	386	LF	$ 5.91	$ 2,281.26
13	Accessible Ramp	2	EA	$ 2,954.25	$ 5,908.50
14	Painted Pedestrian Crosswalk	1	EA	$ 3,190.59	$ 3,190.59
15	Elevated Pedestrian Crosswalk	1	EA.	$ 15,362.10	$ 15,362.10
16	E. C. Devices Silt Fence Outlets	11	EA	$ 295.43	$ 3,249.73
17	EC Maintenance	10	MONTH	$ 1,004.45	$ 10,044.50
18	Temporary Seeding	1.65	AC	$ 2,363.40	$ 3,899.61
19	Permanent Seeding/Hydroseeding	1.25	AC	$ 3,426.93	$ 4,283.66
20	Temporary Traffic Control	1	LS	$ 5,908.50	$ 5,908.50
21	Segmental Wall	1,160	SF	$ 49.76	$ 57,721.60
22	Design/Build Concrete Boardwalk with Handrail	1	LS	$ -	$ -
23	4" Concrete Sidewalk	140	SY	$ 59.09	$ 8,272.60
24	Geo-grid textile fabric	1900	SY	$ 7.09	$ 13,471.00
25	6" Aggregate Base Course	640	TON	$ 40.18	$ 25,715.20
26	2" SF9.5B Asphalt Surface Course	212	TON	$ 129.99	$ 27,557.88
27	18" RCP Storm Pipe (Class III)	33	LF	$ 138.82	$ 4,581.06
28	18" Concrete Flared End Section	1	EA	$ 1,403.27	$ 1,403.27
29	18" Concrete Headwall	1	EA	$ 1,689.25	$ 1,689.25
30	Installation of Storm Drainage Structure with Frame and Grate	1	LS	$ 4,835.52	$ 4,835.52
31	Rip Rap Outlets	1	TON	$ 177.26	$ 177.26
32	Trees	3	EA	$ 443.14	$ 1,329.42
33	Owner Provided Benches	2	EA	$ 177.26	$ 354.52
34	Owner Provided Trash Cans	2	EA	$ 177.26	$ 354.52
35	Install Collapsible Bollard	4	EA	$ 177.26	$ 709.04
36	Tree Protection	1353	LF	$ 1.78	$ 2,408.34
37	Curb and Gutter	45	LF	$ 33.09	$ 1,489.05
	Subtotal:				$ 486,942.99
	Undercut and Unsuitable Soil Replacement Allowance				$25,000
	Contingency				$75,000
	Bid Total:				$ 885,670.84
38	Alternate #1: Poured in Place Boardwalk	1	LS	$ 298,727.85	$ 298,727.85

FORM OF BID BOND

KNOW ALL MEN BY THESE PRESENTS THAT _____

J.D. Goodrum Co., Inc. as

principal, and Fidelity and Deposit Company of Maryland, as surety, who is duly licensed to act as surety in North Carolina, are held and firmly bound unto

Town of Huntersville as obligee,

in the penal sum of Five Percent of Amount Bid 5% DOLLARS, lawful money of the United States of America, for the payment of which, well and truly to be made, we bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

Signed, sealed and dated this 1st day of October, 2021

WHEREAS, the said principal is herewith submitting proposal for

Huntersville Downtown Greenway Phase 2

and the principal desires to file this bid bond in lieu of making the cash deposit as required by G.S. 143-129.

NOW, THEREFORE, THE CONDITION OF THE ABOVE OBLIGATION is such, that if the principal shall be awarded the contract for which the bid is submitted and shall execute the contract and give bond for the faithful performance thereof within ten days after the award of same to the principal, then this obligation shall be null and void; but if the principal fails to so execute such contract and give performance bond as required by G.S. 143-129, the surety shall, upon demand, forthwith pay to the obligee the amount set forth in the first paragraph hereof. Provided further, that the bid may be withdrawn as provided by G.S. 143-129.1

J.D. Goodrum Co., Inc. (SEAL)

By: _____ (SEAL)

_____ (SEAL)

Fidelity and Deposit Company of Maryland (SEAL)

By: _____ (SEAL)

Wendy E Lahm, Attorney-in-Fact

Bond Number Bid Bond

Obligee Town of Huntersville

ZURICH AMERICAN INSURANCE COMPANY
COLONIAL AMERICAN CASUALTY AND SURETY COMPANY
FIDELITY AND DEPOSIT COMPANY OF MARYLAND
POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS: That the ZURICH AMERICAN INSURANCE COMPANY, a corporation of the State of New York, the COLONIAL AMERICAN CASUALTY AND SURETY COMPANY, a corporation of the State of Illinois, and the FIDELITY AND DEPOSIT COMPANY OF MARYLAND a corporation of the State of Illinois (herein collectively called the "Companies"), by **Robert D. Murray, Vice President,** in pursuance of authority granted by Article V, Section 8, of the By-Laws of said Companies, which are set forth on the reverse side hereof and are hereby certified to be in full force and effect on the date hereof, do hereby nominate, constitute, and appoint Wendy E Lahm, its true and lawful agent and Attorney-in-Fact, to make, execute, seal and deliver, for, and on its behalf as surety, and as its act and deed: **any and all bonds and undertakings,** and the execution of such bonds or undertakings in pursuance of these presents, shall be as binding upon said Companies, as fully and amply, to all intents and purposes, as if they had been duly executed and acknowledged by the regularly elected officers of the ZURICH AMERICAN INSURANCE COMPANY at its office in New York, New York., the regularly elected officers of the COLONIAL AMERICAN CASUALTY AND SURETY COMPANY at its office in Owings Mills, Maryland., and the regularly elected officers of the FIDELITY AND DEPOSIT COMPANY OF MARYLAND at its office in Owings Mills, Maryland., in their own proper persons.

The said Vice President does hereby certify that the extract set forth on the reverse side hereof is a true copy of Article V, Section 8, of the By-Laws of said Companies, and is now in force.

IN WITNESS WHEREOF, the said Vice-President has hereunto subscribed his/her names and affixed the Corporate Seals of the said **ZURICH AMERICAN INSURANCE COMPANY, COLONIAL AMERICAN CASUALTY AND SURETY COMPANY, and FIDELITY AND DEPOSIT COMPANY OF MARYLAND,** this 19th day of June, A.D. 2019.

ATTEST:
ZURICH AMERICAN INSURANCE COMPANY
COLONIAL AMERICAN CASUALTY AND SURETY COMPANY
FIDELITY AND DEPOSIT COMPANY OF MARYLAND

By: Robert D. Murray
Vice President

By: Dawn E. Brown
Secretary

State of Maryland
County of Baltimore

On this 19th day of June, A.D. 2019, before the subscriber, a Notary Public of the State of Maryland, duly commissioned and qualified, **Robert D. Murray, Vice President and Dawn E. Brown, Secretary** of the Companies, to me personally known to be the individuals and officers described in and who executed the preceding instrument, and acknowledged the execution of same, and being by me duly sworn, deposeth and saith, that he/she is the said officer of the Company aforesaid, and that the seals affixed to the preceding instrument are the Corporate Seals of said Companies, and that the said Corporate Seals and the signature as such officer were duly affixed and subscribed to the said instrument by the authority and direction of the said Corporations.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed my Official Seal the day and year first above written.

Constance A. Dunn

Constance A. Dunn, Notary Public
My Commission Expires: July 9, 2023

EXTRACT FROM BY-LAWS OF THE COMPANIES

"Article V, Section 8, Attorneys-in-Fact. The Chief Executive Officer, the President, or any Executive Vice President or Vice President may, by written instrument under the attested corporate seal, appoint attorneys-in-fact with authority to execute bonds, policies, recognizances, stipulations, undertakings, or other like instruments on behalf of the Company, and may authorize any officer or any such attorney-in-fact to affix the corporate seal thereto; and may with or without cause modify of revoke any such appointment or authority at any time."

CERTIFICATE

I, the undersigned, Vice President of the ZURICH AMERICAN INSURANCE COMPANY, the COLONIAL AMERICAN CASUALTY AND SURETY COMPANY, and the FIDELITY AND DEPOSIT COMPANY OF MARYLAND, do hereby certify that the foregoing Power of Attorney is still in full force and effect on the date of this certificate; and I do further certify that Article V, Section 8, of the By-Laws of the Companies is still in force.

This Power of Attorney and Certificate may be signed by facsimile under and by authority of the following resolution of the Board of Directors of the ZURICH AMERICAN INSURANCE COMPANY at a meeting duly called and held on the 15th day of December 1998.

RESOLVED: "That the signature of the President or a Vice President and the attesting signature of a Secretary or an Assistant Secretary and the Seal of the Company may be affixed by facsimile on any Power of Attorney...Any such Power or any certificate thereof bearing such facsimile signature and seal shall be valid and binding on the Company."

This Power of Attorney and Certificate may be signed by facsimile under and by authority of the following resolution of the Board of Directors of the COLONIAL AMERICAN CASUALTY AND SURETY COMPANY at a meeting duly called and held on the 5th day of May, 1994, and the following resolution of the Board of Directors of the FIDELITY AND DEPOSIT COMPANY OF MARYLAND at a meeting duly called and held on the 10th day of May, 1990.

RESOLVED: "That the facsimile or mechanically reproduced seal of the company and facsimile or mechanically reproduced signature of any Vice-President, Secretary, or Assistant Secretary of the Company, whether made heretofore or hereafter, wherever appearing upon a certified copy of any power of attorney issued by the Company, shall be valid and binding upon the Company with the same force and effect as though manually affixed.

IN TESTIMONY WHEREOF, I have hereunto subscribed my name and affixed the corporate seals of the said Companies, this 1st day of October, 2021.

Brian M. Hodges, Vice President

TO REPORT A CLAIM WITH REGARD TO A SURETY BOND, PLEASE SUBMIT A COMPLETE DESCRIPTION OF THE CLAIM INCLUDING THE PRINCIPAL ON THE BOND, THE BOND NUMBER, AND YOUR CONTACT INFORMATION TO:

Zurich Surety Claims
1299 Zurich Way
Schaumburg, IL 60196-1056
www.reportsfclaims@zurichna.com
800-626-4577

SHOWN ON THE BID FORM

By _____

END OF SUBSTITUTION LISTING
Standard Form Contract
NON-COLLUSION AFFIDAVIT

I, on behalf of the Bidder, being first duly sworn or as the Contractor, do hereby represent on behalf of the Bidder that the Bid Proposal submitted was made without collusion or fraud and that neither I, nor anyone else affiliated with the Bidder to my knowledge, have offered or received any kickbacks or inducements from any other supplier, manufacturer or subcontractor in connection with their Bid Proposal, and neither I, nor anyone else affiliated with the Bidder to my knowledge, have conferred on any public employee having official responsibility for this procurement transaction any payment, loan, subscription, deposit of money, services or anything of more than nominal value, present or promised, unless consideration of substantially equal or greater value was exchanged.

This the 1st day of October, 2021.

BIDDER: J.D. Goodrum Company, Inc.

_____
Print Name: Jamie Yoxtheimer
Print Title: President

State of North Carolina
County of Mecklenburg

Sworn to or subscribed before me this the 1st day of October, 2021.

(Official Seal)

STACIE LEAVITT
Notary Public, North Carolina
Iredell County
My Commission Expires
November 01, 2025

_____
Notary Public
Print Name: Stacie Leavitt

(Note: Inclusion of the non-collusion affidavit is mandatory. A bid will be rejected as non-responsive if not included in the bid submission.)

Select One (One or the other must be chosen by the Bidder):

☐ Substitution Listing (if substitutions are being proposed) is attached to this Bid Proposal Form.
(Note: Failure to include the Substitution Listing with this Bid Proposal will render the substitutions ineligible for consideration by the Town.) OR

☒ Substitution Listing is not attached to this Bid Proposal Form (No substitutions are proposed.)

SUBSTITUTION LISTING

TO: Town of Huntersville, North Carolina
Hereinafter called "Owner"

1. A Bidder requesting a substitution must submit this form to the Project Manager and Project Landscape Architect at least five (5) business days prior to the time stated for Bid Opening.

2. Pursuant to bidding requirements for the Work titled:

   TOWN OF HUNTERSVILLE DOWNTOWN GREENWAY – PHASE 2

   The Contract Sum proposed by the under signed on the Bid Proposal form is for the Work as shown on the Drawings, and otherwise defined in the Contract Documents. However, the undersigned proposes the following substitutions for the Owner's consideration. Should the Owner accept any or all of the proposed substitutions, the Bidder's proposed contract sum will be reduced by the amount shown.

3.

Specified Product Or Material	Drawing Number	Proposed Substitution	Proposed Reduction In Contract Sum
	NONE		

PROVIDE SIGNATURE IDENTICAL TO THAT

BIDDER: J.D. Goodrum Company, Inc.

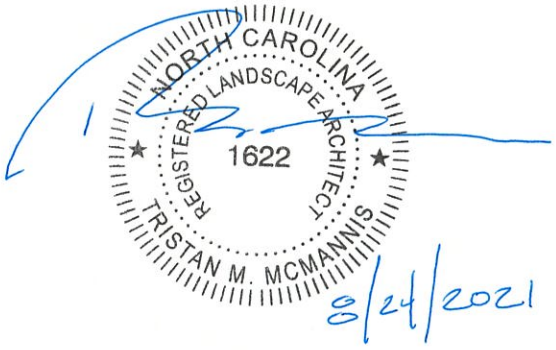
PROJECT MANUAL

TOWN OF HUNTERSVILLE
DOWNTOWN GREENWAY – PHASE 2

SITE ADDRESS: 14707 Old Statesville Road
HUNTERSVILLE, NC 28078

PROJECT MANAGER:
Town of Huntersville
Tracy Houk
704-766-2227
thouk@huntersville.org

PROJECT LANDSCAPE ARCHITECT:
Tristan McMannis, PLA, LEED AP BD+C
Dewberry Engineers Inc
9300 Harris Corners Pkwy., Suite 220
Charlotte, NC 28269
NCBOLA #C-478



OWNER:
Town of Huntersville
ATTN: Parks and Recreation Department
105 Gilead Road, Third Floor
Huntersville, NC 28078
August 24, 2021

TOWN OF HUNTERSVILLE
DOWNTOWN GREENWAY – PHASE 2

100% CONSTRUCTION DOCUMENTS
August 19, 2021

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INVITATION TO BID

FOR THE CONSTRUCTION OF DOWNTOWN GREENWAY – PHASE 2

Town of Huntersville, North Carolina

Sealed, single prime bids for the construction of approximately 1,965-lf of asphalt greenway with pedestrian boardwalk and associated site improvements for Phase 2 of the Downtown Huntersville Greenway. Work shall also include associated demolition/clearing, grading, erosion control, installation of stormwater conveyance measures, installation of pavement and boardwalk, and associated site furnishings. Bids for the improvements will be received by the Town of Huntersville Parks and Recreation Department, 105 Gilead Road, 3rd Floor, P.O. Box 2879, Huntersville, NC, 28070 until **2:00 PM, local time, Friday, October 1, 2021**, and there at said office, at said time, publicly opened and read aloud. Bid Proposals will be received for

THE CONSTRUCTION OF TOWN OF HUNTERSVILLE DOWNTOWN GREENWAY PHASE 2 FOR HUNTERSVILLE PARKS AND RECREATION

The Bid Package, consisting of the Invitation to Bid, Instructions to Bidders, Bid Proposal Form, Non-collusion Affidavit, Substitution Listing Form, General Conditions of the Contract, and Contract Drawings may be obtained from the Huntersville Parks and Recreation Department, 105 Gilead Road, 3rd Floor, Huntersville, NC, or may be accessed at the following web address: www.huntersville.org. Contract documents will not be mailed to Bidders.

Copies of the Contract Documents may be examined at the Huntersville Department of Recreation, Huntersville, North Carolina 28078

Each Bid must be accompanied by cash, cashier's check, certified check on a bank or trust company insured by the Federal Deposit Insurance Corporation, or Bid Bond in the amount not less than five percent (5%) of the amount of the Bid in the form and subject to the conditions provided in the Information for Bidders.

1. The Contract Drawings for this Project were provided to the Town by Dewberry Engineers Inc. If awarded, the Project will be awarded to the lowest responsive, responsible Bidder, taking into account quality, performance and time specified in the Contract Documents. The lowest, responsive, responsible bid will be determined based upon the lowest cost to the Town.

A pre-bid meeting shall be held on **Monday, August 30, 2021, at 9:00 A.M.** at the project site located at Holbrook Park, 100 Sherwood Rd, Huntersville, NC 28078. Any questions regarding this meeting should be directed to Tracy Houk, Assistant Director of Parks and Recreation at 704-766-2228.

The Town reserves the right to waive any informalities in the Bid Proposal and to reject any or all Bid Proposals.

Town of Huntersville
End of Invitation to Bid

INSTRUCTIONS TO BIDDERS:

Project Landscape Architect: Tristan McMannis, PLA, LEED AP BD+C
Dewberry Engineers Inc
9300 Harris Corners Pkwy., Suite 220
Charlotte, NC 28269

PLEASE NOTE: ALL QUESTIONS REGARDING THE CONTRACT DRAWINGS, AND THE CONSTRUCTION SPECIFICATIONS INDICATED ON SAID DRAWINGS SHOULD BE DIRECTED TO THE PROJECT LANSCAPE ARCHITECT. ALL QUESTIONS AND ANSWERS PROVIDED WILL BE POSTED ON THE TOWN'S WEBSITE AS AN ADDENDUM TO THE CONTRACT DOCUMENTS. BIDDERS WILL BE RESPONSIBLE FOR ENSURING THAT THEY HAVE RECEIVED AND RELIED UPON ALL ADDENDA FOR THE PROJECT IN SUBMITTING THEIR BIDS.

1. **FAMILIARITY WITH WORK AND CONDITIONS:** Before preparing Bid Proposals, Bidders are urged to visit the site of the Project to inform and familiarize themselves with all conditions involved and under which the Project is to be constructed or apparatus erected or installed. The Town of Huntersville will not be responsible to the Contractor for payments other than as set out in the contract price, should conditions be different than those assumed or contemplated by the Contractor. The Contractor is required to satisfy himself, before bidding, as to the correctness of the site as indicated by the plans.

2. **FAMILIARITY WITH LAWS, ETC.:** The Bidder is assumed to have made himself familiar with all Federal, State, and Local Laws, ordinances and regulations which may in any manner affect those engaged or employed in work or the materials or equipment in or upon the work, or in any way affect the conduct of the work, and no pleas of misunderstanding will be considered on account of the ignorance thereof. If the Bidder or Contractor shall discover any provisions in the plans, specifications, or contract which are contrary or inconsistent with any such law, ordinance, or regulation, he shall forthwith report it to the Project Engineer in writing before the bid opening.

3. **INTERPRETATIONS OF PLANS:** If any prospective Bidder is in doubt as to the true meaning of any part of the plans, or other proposed contract documents, he may submit to the Project Landscape Architect, a written request for an interpretation thereof, who will either answer or secure an answer based upon their relative expertise. The person submitting such request will be responsible for its prompt delivery. Note, requests for clarification or interpretation must be submitted no later than 5:00 pm on May 7, 2021. Any interpretation of the proposed documents will be made only by addendum duly issued and posted on the Town's website. The Project Landscape Architect will not be responsible for any other explanations or interpretations of the proposed document. The Contractor shall acknowledge receipt of all addenda in the space provided in the Bid Proposal.

4. **CONTRACT DOCUMENTS**: The Contract Documents consist of the Invitation to Bid, Instructions to Bidders, Bid Proposal Form, Non-collusion Affidavit, Substitution Listing, all Addenda issued, the Contract Drawings, the Town's Standard Form Contract, and the General Conditions of the Construction Contract.

5. **BID PROPOSAL FORM:** Each Bidder must submit a Bid Proposal on the blank forms herewith provided. Each Bidder must include both the Bid Proposal Form and the Noncollusion Affidavit with their Bid Proposal, otherwise the Bid Proposal will not be considered. Each Bidder shall sign his Bid Proposal correctly by one duly authorized, and Bid Proposals may be rejected if they show any omissions, alterations of form, additions not called for, or other irregularities of any kind. Conditioning and unbalancing of bids will not be permitted.

6. **BID PROPOSAL REPRESENTATIONS:** Submission of a Bid Proposal Form shall be a representation of the Bidder of all of the following:

   a. The Bidder has carefully examined the **CONTRACT DOCUMENTS** and fully understands them.

   b. The Bidder has carefully examined the site or sites of the Project and is familiar with the conditions under which the Work, or any part of it, is to be done, and the conditions which must be fulfilled in the furnishing and/or erection or construction of any or all items of the Project.

   c. The Bidder has the financial means and stability to provide all materials and all necessary tools, machinery, and all means necessary to do all the Work in the manner prescribed in the Contract Documents and according to the Plans and the requirements of the Town of Huntersville, in a workmanlike manner, consistent with the standards of the profession in and around Huntersville.

   d. The Bid has been made without connection with any other person, company, or parties making a similar Bid Proposal, and that it is in all respects fair and in good faith, without collusion or fraud.

   e. The Bidder understands that it is the intention of the Town of Huntersville, North Carolina, to award the Contract on the basis of Bid Proposals received at this letting, however, the Town reserves the right to reject any or all bids.

   f. If the Bid Proposal is made by a Corporation or Contractor, the Bid Proposal Form has been signed by its proper officers or members, as applicable, in a legal manner and its official address stated therein.

   g. The Bidder will enter into the Town's Construction Agreement, included as part of the Contract Documents, and will perform all of the work necessary for the construction of facilities outlined in the **CONTRACT DOCUMENTS** for the Town of Huntersville, North Carolina, for the bid price stated in the Bid Proposal Form.

   h. The Bidder has received and completely understood the Addenda and the bid price stated in the Bid Proposal Form reflects all Addenda.

7. **SUBMISSION OF BID PROPOSALS:** It is the responsibility of each Bidder, without excuse, to ensure that their Bid Proposal is submitted at the right place by the deadline. Each Bid Proposal must be submitted in a sealed envelope, to indicate its contents without being opened. The name of the Bidder, his address and his license number must be marked on the outside of the envelope. **This envelope shall be placed in another one** addressed to the attention of Tracy Houk, Town of Huntersville Recreation

Department, 105 Gilead Road, P.O. Box 2879, Huntersville, North Carolina, 28070, and if forwarded otherwise than by mail, must be delivered to Ms. Tracy Houk at the above address. If the mail is delayed beyond the date and hour set for the Bid Proposal opening, proposals thus delayed will not be considered. The outer envelope must also state the Project Name and the name of the Bidder. Bid Proposals will be accepted until 2:00 PM on the date of the Bid Proposal Opening. Bid Proposals submitted after this time cannot be accepted.

8. **OPENING OF BID PROPOSALS:** Bid Proposals will be opened publicly and read promptly at the time, on the date, and at the place set forth in the "Invitation to Bid". Bidders or their authorized agents and other interested parties are invited to be present. The Bid Proposal shall be deemed valid for a period of sixty (60) calendar days after the opening thereof. The Bidder may request to withdraw their Bid Proposal in writing, received prior to the time for opening of the Bid Proposals, directed to the Town of Huntersville. Bid Proposals may be withdrawn after the opening of the Bid Proposals **for clerical errors or math computational errors only (not for mistakes in judgment)** if the request is made in writing to and received by Tracy Houk, Huntersville Parks and Recreation Assistant Director, within seventy-two hours after the time for opening Bid Proposals. Such written request of withdrawal must include sufficient documentation of the clerical error or math computational error.

9. **AWARDING OF CONTRACT:** If awarded, the Town of Huntersville, North Carolina will award the contract conditioned upon funds being made available for such construction. If awarded, the contract will be awarded to the lowest responsive responsible Bidder taking into account quality, performance, and time specified in the Contract Documents. The lowest, responsive, responsible Bid Proposal will be determined based upon the lowest cost to the Town. Consideration will be given only to Bid Proposals of contractors who are experienced in the class of work proposed and who can refer to projects of similar magnitude and/or character as have been completed by them. The Town also reserves to itself the right to reject any or all Bid Proposals and to waive informalities or technicalities, as it may deem to be in the Town's best interest.

10. **EXECUTION OF CONTRACT:** The successful Bidder will be required to enter into the Town's Standard Form Contract, included as part of this Project Manual, and must execute the Contract no later than ten (10) consecutive calendar days following receipt of the Notice of Award from the Town. Failure of a Bidder to execute the Contract within said ten (10) day period shall give the Town the right to reject the Bid Proposal and award the contract to the next lowest responsive, responsible Bidder.

11. **CHECKS, CASH, OR BID BOND:** Each proposal must be accompanied by a Bid Bond executed by a corporate surety licensed under the laws of North Carolina to execute such bonds, conditioned that the surety will, upon demand for with make payment to the Owner if the bidder fails to execute the Contract. The Bid Bond shall be in the amount of five percent (5%) of the total bid plus all of the alternates. The Bid Bond shall be valid for a minimum of ninety (90) calendar days. In lieu of a Bid Bond, a deposit equal to five percent (5%) of the total bid plus all alternates in the form of a Cashier's Check or Certified Check on some bank or trust company insured by the Federal Deposit Insurance Corporation and payable to the Town of Huntersville may be provided. The purpose of the Bid Deposit or Bid Bond is to ensure that the bidder will enter into a Contract with the Owner with the terms stipulated in the Bid Proposal and the bidder guarantees that a Performance, Labor and Material will be executed. If the Contractor fails to execute a Contract, the Bid Bond or Bid Deposit shall be seized. Bid security shall be submitted separately for each project bid.

12. PERFORMANCE BOND: The successful Bidder shall provide a performance bond equal to 100% of the contract sum, and shall conform to the Owner's requirements. Bond/surety shall be provided in a form as noted in item 11 above.

13. PAYMENT BOND: The successful Bidder shall provide a payment bond equal to 100% of the contract sum, and shall conform to the Owner's requirements. Bond/surety shall be provided in a form as noted in item 11 above.

14. COORDINATION OF WORK: During the performance of the contract it shall be the responsibility of the successful Bidder to pursue the orderly progress of all work stages throughout the Project and to assure that all work is completed within the time period stipulated herein as the Contract Period. In executing the duties incurred by these responsibilities, the successful Bidder shall provide sufficient executive and supervisory staff in the field to enable efficient and expeditious progress of the work. The Owner relies upon the organization, management, skill, cooperation, and efficiency of the successful Bidder to supervise, direct, control and manage the work and the efforts of the sub-contractors so as to deliver the intended construction to the Contract Documents and within the scheduled time.

15. LIQUIDATED DAMAGES: The successful Bidder is required to complete the Project as outlined in the Project progress schedule and as defined by the Contract Period. Should the successful Bidder fail to assure the completion of the total Project satisfactorily within the time period specified in the contract, the successful Bidder shall be charged with liquidated damages at a rate of **Five Hundred Dollars ($500.00) per calendar day** until the total Project is successfully completed.

If in the event the successful Bidder is granted substantial completion by the Project Landscape Architect and fails to complete and/or correct all of the remaining list of items to be corrected within **30** days of the date of substantial completion, the successful Bidder shall be charged with **liquidated damages at a rate of Five Hundred Dollars ($500.00) per calendar day** until all of the remaining items on the list are completed and corrected and approved by the Project Manager or Landscape Architect.

The successful Bidder shall indemnify the Owner for any claim or legal action against the Owner by any subcontractor or supplier as a result of injury or damages caused by that Contractor to others, including paying judgements against the Owner, all costs and expenses, legal or otherwise, incurred by the Owner in defending the suit.

16. CONTRACT REDUCTION: The Town of Huntersville retains the exclusive right to reduce any or all of the scope of work within the Contract Documents after award of the contract for budgetary or other reasons. Should the Town of Huntersville choose to reduce any or all of said scope of work, the successful Bidder shall not be allowed any claims for anticipated profit or overhead on such deleted work.

17. CONTRACTORS LICENSE: All Bidders must possess an up to date North Carolina General Contractors License to do work in North Carolina as required by N.C.G.S. Chapter 87, plus any other applicable licenses. A copy of these requirements is included in the bid documentation.

18. TIME OF CONSTRUCTION: The Successful Bidder shall begin work on the date specified in the Notice to Proceed and shall pursue all necessary phases of construction in order to substantially

complete the base bid work within **240 consecutive calendar days**. This time of construction shall be defined as the Contract Period.

19. **CONSTRUCTION SCHEDULES**: The Contractor, promptly after being awarded the Contract, shall prepare and submit for the Owner and Consultant's information, a construction schedule. The construction schedule shall be a detailed bar chart or Critical Path Method, for the Work to be performed. The schedule shall not exceed time limits current under the Contract Documents and shall include weather delays and delays due to delivery of the equipment. The schedule shall be related to the entire Project to the extent required by the Contract Documents, and shall provide for expeditious and practicable execution of Work.

    The Contractor shall maintain the construction schedule, making monthly adjustments, updates, and corrections. The construction schedule shall be reviewed at each construction meeting.

    The Contractor shall also prepare a schedule of submittals which shall be coordinated with the Contractor's construction schedule. The submittal schedule shall also be reviewed at each construction meeting and adjusted as necessary.

    The following chart is the anticipated adverse weather delays for this project.

Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec
10	10	11	6	6	6	6	5	6	6	7	9

    The construction schedule shall reflect the anticipated adverse weather delays.

    National Oceanic and Atmospheric Administration (NOAA) data shall be used to claim addition construction days beyond the above chart for critical path activities.
    Weather days occurring on holidays or Sundays will not be considered as delays significant to the Contract completion date. The request for a weather delay must be submitted to the Consultant in writing with supporting data within (20) days following the occurrence.

    The Contractor shall allocate sufficient resources to meet the current construction schedule.

20. **TECHNICAL SPECIFICATIONS.** Technical specifications are included both on the Contract Drawings themselves, and within the Project Manual and are included in the bid documents. It is up to each Bidder to satisfy themselves that these technical specifications are sufficient to enable them to perform the Work. If a Bidder determines that the technical specifications are not sufficient, the Bidder should pose appropriate questions to the Project Manager who will secure answers from the Project Landscape Architect. All such inquiries and answers will be put out in the form of an Addendum prior to the time for opening bids.

21. **SUBSTITUTIONS:** Requests for approval of substitutions for specified products or "or equal" or "equivalent" submittals other than those listed as acceptable products will be considered only upon submission of samples and manufacturers' data, in triplicate, of both the product specified and the product intended for substitution. All such requests for substitutions must be received for consideration by the Project Landscape Architect no later than 10 business days prior to the Bid Proposal opening. All substitutions approved will be put into an Addendum. The Town reserves the right to consider and accept any and all substitutions proposed in determining the lowest responsible bidder.

END OF INSTRUCTIONS TO BIDDERS

SINGLE PRIME GENERAL CONSTRUCTION CONTRACT
BID PROPOSAL

TOWN OF HUNTERSVILLE DOWNTOWN GREENWAY – PHASE 2

ALTERING THE FACE OF THIS FORM IN ANY MANNER, OR PROVIDING INFORMATION NOT SPECIFICALLY REQUESTED SHALL RENDER THIS BID PROPOSAL NON-RESPONSIVE AND INELIGIBLE FOR CONSIDERATION BY THE TOWN

Date: _____

TO: **Town of Huntersville**
North Carolina

To Whom It May Concern:

The undersigned Bidder, having examined carefully the site, the Invitation to Bid, Instructions to Bidders, Construction Drawings, the form Construction Agreement, Supplementary Documents (if any) and subsequent Addenda (as acknowledged herein) for the construction of approximately 1,965-lf of asphalt greenway with pedestrian boardwalk and associated site improvements for Phase 2 of the Downtown Huntersville Greenway. Work shall also include associated demolition/clearing, grading, erosion control, installation of stormwater conveyance measures, installation of pavement and boardwalk, and associated site furnishings. Bidder hereby proposes to furnish all labor, materials, equipment and services necessary to perform the Work required in the Construction Documents and terms of this Proposal for the amounts listed below.

Base Bid Total: _____ (Lump Sum)

Bid Total: _____ (Lump Sum)

TOWN OF HUNTERSVILLE DOWNTOWN GREENWAY - PHASE 2 - Unit Price Spreadsheet:

	Item Description	Base Bid Quantity	Unit	Unit Cost	Total-Base Bid
1	Mobilization/General Conditions	1	LS		
2	Construction Surveying	1	LS		
3	Selective Demolition	1	LS		
4	Clearing and Grubbing	1.65	Acre		
5	8" of Topsoil Stripping & Haul Off	825	CY		
6	8" Topsoil Compact and Reuse On-Site	275	CY		
7	Construction Access Drive (gravel) 18'x100'x6"	2	EA		
8	Import Soil to Job Site and Compact in Place	425	CY		
9	Earthwork-Rough Grading	1630	CY		
10	Earthwork-Fine Grading	44850	SF		
11	Temporary Silt Fencing	1863	LF		
12	Temporary High Hazard Silt Fence	386	LF		
13	Accessible Ramp	2	EA		
14	Painted Pedestrian Crosswalk	1	EA		
15	Elevated Pedestrian Crosswalk	1	EA.		
16	E. C. Devices Silt Fence Outlets	11	EA		
17	EC Maintenance	10	MONTH		
18	Temporary Seeding	1.65	AC		
19	Permanent Seeding/Hydroseeding	1.25	AC		
20	Temporary Traffic Control	1	LS		
21	Segmental Wall	472	SF		
22	Design/Build Concrete Boardwalk with Handrail	1	LS		
23	4" Concrete Sidewalk	140	SY		
24	Geo-grid textile fabric	1900	SY		
25	6" Aggregate Base Course	640	TON		
26	2" SF9.5B Asphalt Surface Course	212	TON		
27	18" RCP Storm Pipe (Class III)	33	LF		
28	18" Concrete Flared End Section	1	EA		
29	18" Concrete Headwall	1	EA		
30	Installation of Storm Drainage Structure with Frame and Grate	1	LS		
31	Rip Rap Outlets	1	TON		
32	Trees	3	EA		
33	Owner Provided Benches	2	EA		
34	Owner Provided Trash Cans	2	EA		
35	Install Collapsible Bollard	4	EA		
36	Tree Protection	1353	LF		
	Subtotal:				
	Undercut and Unsuitable Soil Replacement Allowance				$25,000
	Contingency				$75,000
	Bid Total:				

The undersigned further agrees that this Bid Proposal shall be valid for a period of sixty (60) days from the date of receipt of the Bid Proposal and that if this Bid Proposal is accepted by the Town within this period, the Bidder will execute the Construction Agreement provided as part of the Contract Documents.

The undersigned further agrees to begin the work promptly upon receipt of the Notice to Proceed and to pursue the work with an adequate work force to complete the work within 240 calendar days from receipt of the Notice to Proceed. Liquidated Damages of $500.00 per calendar day are hereby agreed upon as an assessment from the Contractor for failure to complete the work within the time period stated herein.

The undersigned Bidder further proposes and agrees to commence the work promptly upon notice, with an adequate force to satisfactorily complete the Project.

The undersigned acknowledges receipt of the following addenda which will be considered as part of the Contract Documents.

Addendum No. _____ Dated _____

Addendum No. _____ Dated _____

Addendum No. _____ Dated _____

Addendum No. _____ Dated _____

CONTRACTOR: _____
(Company)

Contractor ☐ is or ☐ is not a historically underutilized business, registered with the North Carolina Office of Historically Underutilized Businesses. (Must be completed by all Bidders.)

ADDRESS: _____

_____

_____

BY: _____
(Signature) (Typed Name)

TITLE: _____

NC General Contractor's License No. _____

NC State Sales and Use Tax Registration _____

☐ Non-collusion Affidavit has been completed and is attached to this Bid Proposal Form (Required)

(Note: Inclusion of the non-collusion affidavit is mandatory. A bid will be rejected as non-responsive if not included in the bid submission.)

Select One (One or the other must be chosen by the Bidder):

☐ Substitution Listing (if substitutions are being proposed) is attached to this Bid Proposal Form.
(Note: Failure to include the Substitution Listing with this Bid Proposal will render the substitutions ineligible for consideration by the Town.) OR

☐ Substitution Listing is not attached to this Bid Proposal Form (No substitutions are proposed.)

SUBSTITUTION LISTING

TO: Town of Huntersville, North Carolina
Hereinafter called "Owner"

1. A Bidder requesting a substitution must submit this form to the Project Manager and Project Landscape Architect at least five (5) business days prior to the time stated for Bid Opening.

2. Pursuant to bidding requirements for the Work titled:

   TOWN OF HUNTERSVILLE DOWNTOWN GREENWAY – PHASE 2

   The Contract Sum proposed by the under signed on the Bid Proposal form is for the Work as shown on the Drawings, and otherwise defined in the Contract Documents. However, the undersigned proposes the following substitutions for the Owner's consideration. Should the Owner accept any or all of the proposed substitutions, the Bidder's proposed contract sum will be reduced by the amount shown.

3.

Specified Product Or Material	Drawing Number	Proposed Substitution	Proposed Reduction In Contract Sum
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

PROVIDE SIGNATURE IDENTICAL TO THAT

BIDDER:

SHOWN ON THE BID FORM _____

By _____

END OF SUBSTITUTION LISTING

Standard Form Contract

NON-COLLUSION AFFIDAVIT

I, on behalf of the Bidder, being first duly sworn or as the Contractor, do hereby represent on behalf of the Bidder that the Bid Proposal submitted was made without collusion or fraud and that neither I, nor anyone else affiliated with the Bidder to my knowledge, have offered or received any kickbacks or inducements from any other supplier, manufacturer or subcontractor in connection with their Bid Proposal, and neither I, nor anyone else affiliated with the Bidder to my knowledge, have conferred on any public employee having official responsibility for this procurement transaction any payment, loan, subscription, deposit of money, services or anything of more than nominal value, present or promised, unless consideration of substantially equal or greater value was exchanged.

This the _____ day of _____, 2020.

BIDDER:_____

_____
Print Name:
Print Title:

State of _____
County of _____

Sworn to or subscribed before me this the _____ day of _____, 2020.

(Official Seal)

_____
Notary Public
Print Name:_____

GENERAL CONDITIONS OF THE CONSTRUCTION CONTRACT

1. DEFINITIONS

   Owner: "Owner" shall mean, The State of North Carolina through (Mecklenburg County)

   Contractor: "Contractor" shall mean the entity that will provide the services for the Owner.

   Designer: The designer(s) are those referred to within the Contract documents, or their authorized representatives. The Designer(s), as referred to herein, shall mean landscape architect and/or engineer responsible for preparing the Project plans and specifications. They will be referred to hereinafter as if each were of the singular number, masculine gender.

2. Scope of Services. The Contractor agrees to perform for the Town the following services according to the following requirements:

   The Contractor agrees to complete the construction of the Project in accordance with the Contract Documents. Such construction of the Project shall constitute the "Work." The Contractor agrees to provide all of the personnel, contract personnel, subcontractors, financial resources, materials, supplies, and equipment necessary to complete the Work in a timely and professional manner in accordance with the standards of the profession for similar work in the Mecklenburg County area at the time of the performance of the Work.

3. Contract Documents. The Contract Documents consist of the Invitation to Bid, Instructions to Bidders, Bid Proposal Form, Non-collusion Affidavit, Substitution Listing, all Addenda issued, the Contract Drawings, the Town's Standard Form Contract, and the General Conditions of the Construction Contract. The drawings and specifications are complementary, one to the other. That which is shown on the drawings or called for in the specifications shall be as binding as if it were both called for and shown. The intent of the drawings and specifications is to establish the scope of all labor, materials, transportation, equipment, and any and all other things necessary to provide a complete job. In case of discrepancy or disagreement in the Contract Documents, the order of precedence shall be the Construction Contract, the Bid Proposal Form, the Substitution Listing (only those items accepted by the Town), Addenda, the Contract Drawings, the Instructions to Bidders, the General Conditions of the Contract, the Invitation to Bid, and the Non-collusion Affidavit.

4. Licensure Required. The Contractor must be a licensed General Contractor as required by North Carolina General Statutes Section 87-1, and must have a good ethical and professional standing with the North Carolina General Contractor's Licensing Board. The Contractor will be responsible for providing properly qualified, licensed (if required) personnel to complete the Work in accordance with the standard of care ordinarily used by members of the Contractor's profession practicing under similar circumstances and at the same time in Mecklenburg County.

5. Coordination With Others. The Contractor agrees to coordinate its Work with the work of any other unaffiliated contractors or with the work of the Town's own forces to avoid delaying or interfering with their work.

6. Contract Insurance. Contractor shall be required to purchase and maintain during its performance under this Contract insurance coverage as shown on the Insurance Requirements as stated in Exhibit A, which is incorporated herein by reference. With the exception of Worker's Compensation and Professional Liability policies, all insurance purchased shall have a specific endorsement, copy of which shall be provided to the Town, naming the Town as an additional insured and for all insurance purchased, an endorsement providing that such insurance will not be cancelled without providing thirty (30) days advance written notice to the Town.

7. Time for Performance of the Work. The Work will begin within ten (10) days of receipt of the Notice to Proceed from the Town. The Contractor will have 240 consecutive calendar days to complete the Work from the date of Contractor's receipt of the Notice to Proceed.

8. Payment for Services. In consideration of the above services, the Town will pay the Contractor, in accordance with the Contractor's, plus reimbursable expenses at the Contractor's actual cost (without markup). Contractor will submit monthly Requests for Payment for Work performed to the Project Manager who will forward them to the Project Landscape Architect for Review. The Request for payment shall be based upon the Contractor's estimate of the percentage of the total Work completed during the period represented on the Request for Payment. The Project Landscape Architect must certify that the Work represented in the Contractor's Request for Payment has been completed in accordance with the Contract Documents, and certify that the Request for Payment is appropriate for payment before the Town shall be obligated to make such payment to the Contractor. If any Request for Payment is disputed by the Town, in whole or in part, the Town shall provide a written explanation for such dispute to Contractor

within five days of receipt of the certified Request for Payment from the Architect and shall pay all undisputed amounts therein.

a. The designer with the approval of the Owner may withhold payment for the following reasons:

(1) Faulty work not corrected.

(2) The unpaid balance on the contract is insufficient to complete the work in the judgment of the designer.

(3) To provide for sufficient contract balance to cover liquidated damages that will be assessed.

(4) The secretary of the Department of Administration may authorize the withholding of payment for the following reasons:

(5) Claims filed against the Contractor or evidence that a claim will be filed.

(6) Evidence that subcontractors have not been paid.

(7) When grounds for withholding payments have been removed, payment will be released. Delay of payment due the Contractor without cause will make owner liable for payment of interest to the Contractor as provided in G.S. 143 134.1. As provided in G.S. 143-134.1(e), the owner shall not be liable for interest on payments withheld by the owner for unsatisfactory job progress, defective construction not remedied, disputed work, or third-party claims filed against the owner or reasonable evidence that a third-party claim will be filed.

b. Final payment will be made within forty-five (45) consecutive days after acceptance of the work, receipt of marked-up "as-built" drawings and specifications and the submission both of notarized Contractor's affidavit and final pay request. All pay requests shall be submitted to the Designer/Owner for approval.

THE CONTRACTOR'S FINAL PAYMENT AFFIDAVIT SHALL STATE: "THIS IS TO CERTIFY THAT ALL COSTS OF MATERIALS, EQUIPMENT, LABOR, SUBCONTRACTED WORK, AND ALL ELSE ENTERING INTO THE ACCOMPLISHMENT OF THIS CONTRACT, INCLUDING PAYROLLS, HAVE BEEN PAID IN FULL."

9. Acceptance. Execution of the Contract constitutes an agreement to the terms contained within the Contract Documents. The terms and provisions set forth in the Contract Documents shall constitute the entire agreement between Contractor and the Town with respect to the performance of the Work as described in the Contract Documents. The agreements set forth in the Contract Documents are sometimes referred to herein as the "Contract." Except as provided herein, no additional or supplemental provision or provisions in variance with the Contract Documents that may appear in Contractor's proposal, acknowledgment, Requests for Payment, or in any other communication from Contractor to the Town shall be deemed accepted by or binding on the Town. The Town hereby expressly rejects all such provisions which supplement, modify or otherwise vary from the terms of the Contract Documents, and such provisions are superseded by the terms and conditions stated in the Contract Documents, unless and until the Town's authorized representatives expressly assent, in writing, to such provisions. Stenographic and clerical errors and omissions by the Town are subject to correction.

10. Working Drawings And Specifications At The Job Site. The Contractor shall maintain, in readable condition at his job site one complete set of working drawings and specifications for his work including all shop drawings. Such drawings and specifications shall be available for use by the owner, designer or his authorized representative. The Contractor shall also maintain at the job site, a day-to-day record of work-in-place that is at variance with the contract documents. Such variations shall be fully noted on Project drawings by the Contractor and submitted to the designer upon Project completion and no later than 30 days after acceptance of the Project.

11. Materials, Equipment, Employees. The Contractor shall, unless otherwise specified, supply and pay for all labor, transportation, materials, tools, apparatus, lights, power, fuel, heat, sanitary facilities, water, scaffolding and incidentals necessary for the completion of his work, and shall install, maintain and remove all equipment of the construction, other utensils or things, and be responsible for the safe, proper and lawful construction, maintenance and use of same, and shall construct in the best and most workmanlike manner, a complete job and everything incidental thereto, as shown on the plans, stated in the specifications, or reasonably implied therefrom, all in accordance with the contract documents.

a. All materials shall be new and of quality specified, except where reclaimed material is authorized herein and approved for use. Workmanship shall at all times be of a grade accepted as the best practice of the particular trade involved, and as

stipulated in written standards of recognized organizations or institutes of the respective trades except as exceeded or qualified by the specifications.

b. Upon notice, the Contractor shall furnish evidence as to quality of materials.

c. Products are generally specified by ASTM or other reference standard and/or by manufacturer's name and model number or trade name. When specified only by reference standard, the Contractor may select any product meeting this standard, by any manufacturer. When several products or manufacturers are specified as being equally acceptable, the Contractor has the option of using any product and manufacturer combination listed. However, the Contractor shall be aware that the cited examples are used only to denote the quality standard of product desired and that they do not restrict bidders to a specific brand, make, manufacturer or specific name; that they are used only to set forth and convey to bidders the general style, type, character and quality of product desired; and that equivalent products will be acceptable. Request for substitution of materials, items, or equipment shall be submitted to the designer for approval or disapproval; the designer prior to the opening of bids shall make such approval or disapproval. Alternate materials may be requested after the award if it can clearly be demonstrated that it is an added benefit to the owner and the designer and owner approves.

d. The designer is the judge of equality for proposed substitution of products, materials or equipment.

e. If at any time during the construction and completion of the work covered by these contract documents, the language, conduct, or attire of any workman of the various crafts be adjudged a nuisance to the owner or designer, or if any workman be considered detrimental to the work, the Contractor shall order such parties removed immediately from grounds.

f. The Contractor shall cooperate with the designer and the owner in coordinating construction activities.

g. The Contractor shall maintain qualified personnel and effective supervision at the site at all times during the Project, and exercise the appropriate quality control program to ensure compliance with the Project drawings and specifications. The designer is responsible for determining compliance with the drawings and specifications.

12. Cleaning Up And Restoration Of Site. The Contractor shall keep the sites and surrounding area reasonably free from rubbish at all times and shall remove debris from the site from time to time or when directed to do so by the Owner. Before final inspection and acceptance of the Project, the Contractor shall thoroughly clean the sites, and completely prepare the Project and site for use by the Owner. At the end of construction, the Contractor shall oversee and implement the restoration of the construction site to its original state. Restoration includes but not limited to walks, drives, lawns, trees and shrubs, corridors, stairs and other elements shall be repaired, cleaned or otherwise restored to their original state.

13. Codes, Permits And Inspections. The Contractor shall obtain the required permits, if required, give all notices, and comply with all laws, ordinances, codes, rules and regulations bearing on the conduct of the work under this contract. If the Contractor observes that the drawings and specifications are at variance therewith, he shall promptly notify the Designer in writing. All work under this contract shall conform to the current North Carolina Building Code and other state and national codes as are applicable. If the Contractor performs any work knowing it to be contrary to such laws, ordinances, codes, rules and regulations, and without such notice to the Owner, he shall bear all cost arising there from.

    All fire alarm work shall be in accordance with the latest State Construction Office (SCO) Guidelines for Fire Alarm Installation (NFPA72). Where the contract documents are in conflict with the SCO guidelines, the SCO guidelines shall govern. The Contractor shall be responsible for all the costs for the correction of the work where he installs it in conflict with the latest edition of the SCO Guidelines for Fire Alarm Installation.

14. Protection Of Work, Property, The Public And Safety. The Contractor shall be solely responsible for the entire site and the building or construction of the same and provide all the necessary protections, as required by the owner or designer, and by laws or ordinances governing such conditions. The Contractor shall be responsible for any damage to the owner's property or of that of others on the job, by them, their personnel, or their subcontractors, and shall make good such damages. The Contractor shall be responsible for and pay for any damages caused to the owner. Contractor shall have access to the Project at all times.

    a. The Contractor shall provide cover and protect all portions of the structure when the work is not in progress, provide and set all temporary roofs, covers for doorways, sash and windows, and all other materials necessary to protect all the work on the building, whether set by him, or any of the subcontractors. Any work damaged through the lack of proper protection or from any other cause, shall be repaired or replaced without extra cost to the owner.

    b. No fires of any kind will be allowed inside or around the operations during the course of construction without special permission from the designer and owner.

    c. The Contractor shall protect all trees and shrubs designated to remain in the vicinity of the operations by building substantial boxes around it. He shall barricade all walks, roads, etc., as directed by the designer to keep the public away from the

construction. All trenches, excavations or other hazards in the vicinity of the work shall be well barricaded and properly lighted at night.

d. The Contractor shall provide all necessary safety measures for the protection of all persons on the job, including the requirements of the A.G.C. Accident Prevention Manual in Construction, as amended, and shall fully comply with all state laws or regulations and North Carolina State Building Code requirements to prevent accident or injury to persons on or about the location of the work. He shall clearly mark or post signs warning of hazards existing, and shall barricade excavations, elevator shafts, stairwells and similar hazards. He shall protect against damage or injury resulting from falling materials and he shall maintain all protective devices and signs throughout the progress of the work.

e. The Contractor shall adhere to the rules, regulations and interpretations of the North Carolina Department of Labor relating to Occupational Safety and Health Standards for the Construction Industry (Title 29, Code of Federal Regulations, Part 1926, published in Volume 39, Number 122, Part II, June 24, 1974, Federal Register), and revisions thereto as adopted by General Statutes of North Carolina 95-126 through 155.

f. In the event of emergency affecting the safety of life, the protection of work, or the safety of adjoining properties, the Contractor is hereby authorized to act at his own discretion, without further authorization from anyone, to prevent such threatened injury or damage. Any compensation claimed by the Contractor on account of such action shall be determined as provided for under Article 13(b).

Any and all costs associated with correcting damage caused to adjacent properties of the construction site or staging area shall be borne by the Contractor. These costs shall include but not be limited to flooding, mud, sand, stone, debris, and discharging of waste products.

15. As-Built Marked-Up Construction Documents. Contractor shall provide one complete set of legible "as-built" marked-up construction drawings and specifications recording any and all changes made to the original design during the course of construction. In the event no changes occurred, submit construction drawings and specifications set with notation "No Changes." The Designer/Owner must receive "As-built" marked-up construction drawings and specifications before the final pay request can be processed.

16. Entire Agreement. The Contract Documents constitute and represent the complete and entire agreement between the Town and Contractor and supersede all previous communications, either written or verbal with respect to the subject matter of this Contract.

17. Changes, Additions, Deletions. No changes, additions, deletions or modifications (other than substitutions accepted by the Town at the time the contract is awarded) of the scope of work, specifications, terms and conditions, quantity, unit of issue, delivery date, delivery charges or price will be permitted unless the same are incorporated into a written Change Order, signed by the Town and the Contractor. However, the Contractor will not be liable for delays caused by circumstances beyond its control including without limitation, delays caused by acts of God, the Town or its other consultants/contractors, federal, state, and local government authorities, strikes, riots, civil unrest, war, or unknown or concealed conditions, and if such delays occur, the Contractor will be entitled to an equitable adjustment in the time for the performance of the Work and compensation.

18. Change Orders. Change orders shall be submitted by the Contractor in writing to the owner/designer for review and approval. The Contractor will provide such proposal and supporting data in suitable format. The designer shall verify correctness. Delay in the processing of the change order due to lack of proper submittal by the Contractor of all required supporting data shall not constitute grounds for a time extension or basis of a claim. Within five (5) days after receipt of the Contractor's accepted proposal including all supporting documentation required by the designer, the designer shall prepare the change order and forward to the Contractor for his signature or otherwise respond, in writing, to the Contractor's proposal. Within five (5) days after receipt of the change order executed by the Contractor, the designer shall, certify the change order by his signature, and forward the change order and all supporting data to the owner for the owner's signature. The owner shall execute the change order, within five (5) days of receipt.

    a. A change order, when issued, shall be full compensation, or credit, for the work included, omitted or substituted. It shall show on its face the adjustment in time for completion of the Project as a result of the change in the work.

    b. If, during the progress of the work, the owner requests a change order and the Contractor's terms are unacceptable, the owner, may require the Contractor to perform such work on a time and material basis whereupon the Contractor shall proceed and keep accurately on such form as specified by the Designer or owner, a correct account of cost together with all proper invoices, payrolls and supporting data. Upon completion of the work a change order will be prepared with allowances for overhead and profit per paragraph d. above and "net cost" and "cost" per paragraph e. above. Without prejudice, nothing in this paragraph shall preclude the owner from performing or to have performed that portion of the work requested in the change order.

19. Relationship of the Parties. The Contractor is an independent Contractor and not an affiliate of the Town. The conduct and control of the work will lie solely with the Contractor. The Contract shall not be construed as establishing a joint venture, partnership or any principal-agent relationship for any purpose between the Contractor and the Town. Employees of the Contractor shall remain subject to the exclusive control and supervision of the Contractor, which is solely responsible for their compensation.

20. Sales Taxes. Any applicable sales taxes shall be invoiced as a separate item.

21. Substitutions. Substitutions proposed by the Contractor on the Substitution Listing Form, submitted with the Contractor's Bid Proposal, which are accepted by the Town shall be considered a modification to the Contract Documents. No other substitutions shall be made by the Contractor unless the same is put into a Change Order, signed by the Owner and Contractor.

22. Indemnification. To the greatest extent allowed by the law the Contractor shall indemnify and hold harmless the Town, its officers, agents, employees and assigns from and against all claims, losses, costs, damages, expenses, attorneys' fees ("Claims"), but only to the extent the fault of the Consultant or its derivative parties (as defined in N.C.G.S §22B-1) is a proximate cause of the Claim. In the event that any portion of the Work performed under the Contract shall be defective in any respect whatsoever, the Contractor shall indemnify and save harmless the Town, its officers, agents, employees and assigns from all loss or the payment of all sums of money, but only to the extent the fault of the Consultant or its derivative parties (as defined in N.C.G.S §22B-1) is a proximate cause of the Claim.

23. Anti-Discrimination. During the performance of the Contract, the Contractor shall not discriminate against or deny the Contract's benefits to any person on the basis of sexual orientation, national origin, race, ethnic background, color, religion, gender, age or disability.

24. Insurance. The Contractor shall provide the insurance coverages shown on Exhibit A, attached hereto and incorporated herein by reference. The Contractor shall provide the Town with a North Carolina Certificate of Insurance and such endorsements as may be required by the Contract Documents PRIOR to the commencement of any work under the Contract and agrees to maintain such insurance until the completion of the Contract. Such certificates of insurance shall be considered part of the Contract.

25. Ethics in Public Contracting. By submitting their prices and acceptance of this Contract, the Contractor certifies that their proposal was made without collusion or fraud and that they have not offered or received any kickbacks or inducements from any other supplier, manufacturer or subcontractor in connection with their proposal, and that they have not conferred on any public employee having official responsibility for this procurement transaction any payment, loan, subscription, deposit of money, services or anything of more than nominal value, present or promised, unless consideration of substantially equal or greater value was exchanged.

26. Applicable Laws and Courts. This Contract shall be governed in all respects by the laws of the State of North Carolina. All matters, whether sounding in contract or tort relating to the validity, construction, interpretation and enforcement of the Contract, shall be governed in all respects by the laws of the State of North Carolina and venue shall be proper only in a court of competent jurisdiction located in Mecklenburg County, North Carolina. The Contractor represents and warrants that it shall comply with all applicable federal, state and local laws, regulations and orders.

27. Strict Compliance. The Town may at any time insist upon strict compliance with these terms and conditions notwithstanding any previous course of dealing or course of performance between the parties to the contrary.

28. Assignment. The Contractor shall not assign, subcontract or otherwise transfer any interest in the Contract without the prior written approval of the Town.

29. General Provisions. The Town's remedies as set forth herein are not exclusive. Any delay or omission by the Town in exercising any right hereunder, or any waiver by the Town of any single breach or default hereunder, shall not be deemed to be a waiver of such right or of any other right, breach, or default.

30. Risk of Loss. Risk of Loss for all supplies, materials, the Work performed, and the Project as it is being constructed, shall be on the Contractor until such time as substantial completion is achieved, certified by the Architect, and approved by the Town.

31. Warranties. The Contractor warrants it shall adhere to all applicable laws, codes, ordinances, and regulations of the United States, the State of North Carolina, the County of Mecklenburg, and the Town of Huntersville in the performance of the Work outlined in this Contract and any attached specifications. The Contractor warrants that any finished Work completed hereunder shall also adhere to all applicable laws, codes, ordinances, and regulations of the United States, the State of North Carolina, the County of Mecklenburg, and the Town of Huntersville. The Contractor warrants that all Work will be performed in accordance with this Contract and the standard of care ordinarily used by members of the Contractor's engineering profession practicing under similar circumstances and at the same time in Mecklenburg County. The Contractor makes no additional warranties, express or implied,

in connection with the Work. In addition to any other rights available at law or in equity, the Town shall be entitled to consequential and incidental damages.

32. Default. In the event of a breach by the Contractor, addition to any other remedies available to the Town in law or equity, the Town may procure upon such terms as the Town shall deem appropriate, construction services substantially similar to those so terminated, in which case the Contractor shall be liable to the Town for any excess costs for such similar services and any expenses incurred in connection therewith. This Contract shall not terminate if the alleged default is cured within a ten (10) day notice period. In the event this Contract is terminated by the Town for the default of the Contractor, the Town shall be entitled to keep and use Work, including materials and supplies on site provided by the Contractor in finishing the construction of the Project.

33. Termination for Convenience. The Town shall have the right, without assigning any reason therefore, to terminate any Work under the Contract, in whole or in part, at any time at its complete discretion by providing ten (10) day notice in writing from the Town to the Contractor. If the Contract is terminated by the Town in accordance with this paragraph, the Contractor will be paid for all Work performed and reimbursable expenses incurred up to the effective date of the termination. The Town will not be liable to the Contractor for any costs for materials acquired or contracted for, if such costs were incurred prior to the date of this Contract.

34. Assignment. Contractor may not assign, pledge, or in any manner encumber the Contractor's rights under this Contract, or delegate the performance of any of its obligations hereunder, without the Town's prior, express written consent. Hiring a subcontractor to perform any portion of the Work shall be at the Contractor's discretion; however Contractor shall remain liable and responsible to the Town for all such Work completed by subcontractors.

35. No Third Party Beneficiaries. There shall be no intended nor incidental third party beneficiaries of this Contract. The Contractor shall include in all contracts, subcontracts or other agreements relating to the Contract an acknowledgment by the contracting parties that the Contract creates no third party beneficiaries.

36. Valid Contract. In order for this Contract to be valid, it must be executed by the Town Manager or his or her authorized designee, and must be preaudited in that manner required by the Local Government Budget and Fiscal Control Act, as the same may be amended.

37. Verification of Work Authorization. The Contractor shall comply with, and require all contractors and subcontractors to comply with, the requirements of Article 2 of Chapter 64 of the North Carolina General Statutes, "Verification of Work Authorization," sometimes known as E-verify for all contractors and subcontractors.

38. Iran Divestment List. With the execution hereof, Contractor, certifies that they are not on the Iran Final Divestment List created by the N.C. State Treasurer pursuant to N.C.G.S. § 147-86.58, and will not contract with anyone on such List in performance of the work hereunder.

39. Severability. If any provision of this Contract is found to be invalid or unlawful, then remainder of this Agreement shall not be affected thereby, and each remaining provision shall be valid and enforced to the fullest extent permitted by law.

40. Dispute Resolution. As a precondition for filing a lawsuit related to a dispute under this Agreement, a party must comply with the Town of Huntersville Rules Implementing Mediated Settlement Conferences for Town of Huntersville Construction Projects, the "Dispute Resolution Procedure."

SECTION 01 11 00 – SUMMARY OF WORK

PART 1 - GENERAL

1.1 RELATED DOCUMENTS and REQUIREMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and all Divisions of the Technical Specifications, apply to this Section.

1.2 WORK COVERED BY CONTRACT DOCUMENTS

A. Project Identification: Town of Huntersville, Downtown Greenway Phase 2.

B. Consultant Identification: The Contract Documents, dated September 03, 2020 and revised July 19, 2021, were prepared for the Project by Dewberry Engineers Inc., 9300 Harris Corners Parkway, Suite 220, Charlotte, NC 28269-3797.

C. The work consists construction of approximately 17,100-sf of asphalt greenway, associated site furnishings, landscaping, existing hardscape improvements, and approximately 250-lf of boardwalk. Work shall also include associated grading, erosion control, and installation of stormwater conveyance measures.

1. Contractor shall furnish all material, labor, tools, supplies, equipment, transportation, superintendence, temporary construction of every nature, insurance, taxes, contributions and all services and facilities, unless specifically excepted, and install all materials, items and equipment required to complete the construction of the Project, as set forth in the Contract Documents and as required to provide complete and operational systems.

2. The General Contractor shall act as the Project Expediter and be responsible for coordinating the work and schedules of others hired by him/her.

1.3 CONTRACT

A. Project will be constructed as a Single-Prime Unit Priced.

1.4 WORK SEQUENCE

A. The Work shall be conducted in one single phase.

1.5 WORK UNDER OTHER CONTRACTS

A. Separate Contract: Owner reserves the right to award a separate contract for performance of certain construction operations at Project site. Those operations may be conducted simultaneously with Work under this Contract.

B. Contractor shall cooperate fully with separate contractors so work on other contracts may be carried out smoothly, without interfering with or delaying Work under this Contract.

1.6 SPECIFICATION FORMATS AND CONVENTIONS

A. Technical Specifications Format: The Specifications are organized into Divisions and Sections using the 48-division format and Construction Specifications Institute / Construction Specifications Canada (CSI/CSC's) 2004 "Master Format" numbering system.

1. Section Identification: The Technical Specifications use section numbers and titles to help cross-referencing in the Contract Documents. Sections in the Project Manual are in numeric sequence; however, the sequence is incomplete. Consult the table of contents at the beginning of the Project Manual to determine numbers and names of sections in the Contract Documents.

B. Technical Specifications Content: The Technical Specifications use certain conventions for the style of language and the intended meaning of certain terms, words, and phrases when used in particular situations. These conventions are as follows:

1. Abbreviated Language: Language used in the Technical Specifications and other Contract Documents is abbreviated. Words and meanings shall be interpreted as appropriate. Words implied, but not stated, shall be inferred as the sense requires. Singular words shall be interpreted as plural, and plural words shall be interpreted as singular where applicable as the context of the Contract Documents indicates.

2. Imperative mood and streamlined language are generally used in the Technical Specifications. Requirements expressed in the imperative mood are to be performed by Contractor. Occasionally, the indicative or subjunctive mood may be used in the Section Text for clarity to describe responsibilities that must be fulfilled indirectly by Contractor or by others when so noted.

a. The words "shall," "shall be," or "shall comply with," depending on the context, are implied where a colon (:) is used within a sentence or phrase.

PART 2 - PRODUCTS

2.1 PRODUCTS ORDERED IN ADVANCE

A. Unless otherwise stated in the Contract Documents, Costs for receiving, handling, storage if required, and installation of material and equipment shall be included in the Contract Sum.

2.2 OWNER-FURNISHED PRODUCTS

1. Inventory of Owner-Provided Items is as follows:

a. May include but not limited to:
1) Benches
2) Trash Receptacles
3) Collapsible Bollards
4) Bike Rack

2. Contractor shall inspect all owner-provided materials prior to accepting their possession. Once Contractor takes possession for the installation of Owner- provided items, contractor

shall assume liability and provide all warranties typical of such products as specified in the technical sections of this specification manual.

3. Contractor is responsible for handling Owner-furnished items at Project site.

4. Contractor is responsible for all concrete pads under Owner Provided items.

5. After Contractor takes possession of Owner-furnished items, he shall protect them from damage during storage and handling, including damage from exposure to the elements.

6. If Owner-furnished items are damaged as a result of Contractor's operations, Contractor shall repair or replace them.

7. Contractor shall provide/review Shop Drawings, Product Data, and Samples and return them to the Consultant noting discrepancies or anticipated problems in use of any product.

PART 3 - EXECUTION (Not Used)

END OF SECTION 01 11 00

SECTION 01 14 00 - WORK RESTRICTIONS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and all Divisions of the Technical Specifications, apply to this Section.

1.2 USE OF PREMISES

A. Use of Site: Limit use of premises to work in areas indicated on the drawings. Do not disturb portions of site beyond areas in which the Work is indicated.

1. Limits: Confine constructions operations to areas shown in the construction documents.

2. Owner Occupancy: Allow for Owner (Town of Huntersville Staff) to occupy property throughout construction. Public may use property during time frames and locations shown in the construction documents.

3. Driveways and Entrances: Keep driveways and entrances serving premises clear and available to Owner, Owner's employees, and emergency vehicles at all times. Do not use these areas for parking or storage of materials.

a. Schedule deliveries to minimize use of driveways and entrances.
b. Schedule deliveries to minimize space and time requirements for storage of materials and equipment on-site.

4. Construction hours shall be as follows: 7am-7pm Monday through Friday. Weekend work can occur with permission from owner.

a. All work delineated within the contract documents to take place outside of normal business hours shall be provided as such.

1) The contractor shall include all aspects of related work that will be required to complete work delineated to take place outside of normal business hours.

1.3 OCCUPANCY REQUIREMENTS

Partial Owner Occupancy: Owner reserves the right to occupy and to place and install equipment in completed areas of greenway before Substantial Completion, provided such occupancy does not interfere with completion of the Work. Such placement of equipment and partial occupancy shall not constitute acceptance of the total Work.

1. Consultant will prepare a Certificate of Substantial Completion for each specific portion of the Work to be occupied before Owner occupancy.
2. Contractor shall obtain a Certificate of Occupancy from authorities having jurisdiction before Owner occupancy.

3. Upon occupancy, Owner will provide, operate, and maintain mechanical and electrical systems serving occupied portions of greenway and park.
4. Upon occupancy, Owner will assume responsibility for maintenance and custodial service for occupied portions of greenway.
5. Others

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 01 14 00

SECTION 01 21 16 – CONTINGENCY ALLOWANCES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and all Divisions of the Technical Specifications, apply to this Section.

1.2 SUMMARY

A. This Section includes administrative and procedural requirements governing allowances.

B. Types of allowances include the following:

1. Contingency: $ 75,000.00
   Unsuitable Soil: $ 25,000

   a. For non-specified item(s) and anticipated expenses. Place above dollar amount on the bid form.

C. Related Sections include the following:

1. Division 1, Technical Specifications Section "Contract Modification Procedures" for procedures for submitting and handling Change Orders.

1.3 SELECTION AND PURCHASE

A. At the earliest practical date after award of the Contract, advise Consultant of the date when final selection and purchase of each product or system described by an allowance must be completed to avoid delaying the Work.

B. At Consultant's request, obtain proposals for each allowance for use in making final selections. Include recommendations that are relevant to performing the Work.

C. Purchase products and systems selected by Consultant from the designated supplier.

1.4 SUBMITTALS

A. Submit proposals for purchase of products or systems included in allowances, on the “Proposed Request” and “Proposal Request Log” forms.

B. Submit invoices or delivery slips to show actual quantities of materials delivered to the site for use in fulfillment of each allowance.

1.5 CONTINGENCY ALLOWANCES

A. Use the contingency allowance only as directed by Consultant for Owner's purposes and amount(s) to be charged to the allowance.

B. At Project closeout, credit unused amounts remaining in the contingency allowance to Owner by Change Order.

1.6 UNUSED MATERIALS

A. Return unused materials purchased under an allowance to manufacturer or supplier for credit to Owner, after installation has been completed and accepted.

1. If requested by Consultant, prepare unused material for storage by Owner when it is not economically practical to return the material for credit. If directed by Consultant, deliver unused material to Owner's storage space. Otherwise, disposal of unused material is Contractor's responsibility.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine products covered by an allowance promptly on delivery for damage or defects. Return damaged or defective products to manufacturer for replacement.

3.2 PREPARATION

A. Coordinate materials and their installation for each allowance with related materials and installations to ensure that each allowance item is completely integrated and interfaced with related work.

END OF SECTION 01 21 16

SECTION 01 22 00 - UNIT PRICES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and all Divisions of the Technical Specifications, apply to this Section.

1.2 SUMMARY

A. This Section includes administrative and procedural requirements for unit prices.

B. Related Sections include the following:

1. Division 1, of the Technical Specifications Section "Contract Modification Procedures" for procedures for submitting and handling Change Orders.
2. Division 1, of the Technical Specifications Section "Quality Requirements" for general testing and inspecting requirements.

1.3 DEFINITIONS

A. Unit price is an amount proposed by bidders, stated on the Bid Form, as a price per unit of measurement for materials or services added to or deducted from the Contract Sum by appropriate modification, if estimated quantities of Work required by the Contract Documents are increased or decreased.

1.4 PROCEDURES

A. Unit prices include all necessary material, plus cost for delivery, installation, insurance, taxes, overhead, and profit.

B. Measurement and Payment: Refer to individual of the Technical Specifications Sections for work that requires establishment of unit prices. Methods of measurement and payment for unit prices are specified in those Sections.

C. Owner reserves the right to reject Contractor's measurement of work-in-place that involves use of established unit prices and to have this work measured, at Owner's expense, by an independent agent.

D. If one or more unit prices on a bid form are out of line with prevailing market rates, the Owner reserves the right to reject the bidder as non-responsive if the bidder is not willing to negotiate mutually acceptable unit prices with the Owner prior to the time for contract award that are consistent with prevailing market rates.

E. List of Unit Prices: A list of unit prices is included at the end of this of the Technical Specifications Section. Specification Sections referenced in the schedule contain requirements for materials described under each unit price.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 LIST OF UNIT PRICES

A. Unit Price Items from pages 2 &3 on General Construction Proposal – Bid Form

Unit Price Item #1: Mobilization/General Conditions:
DESCRIPTION: The work consists of the requirements of all front-end documents including, but not limited to, Notice to Bidders, Instructions to Bidders, General Conditions of the Contract for Construction, Supplementary Conditions, MWSBE Provisions and Division 01: General Requirements. The work also consists of preparatory work and operations to mobilize personnel, materials and equipment to the project site.

MEASUREMENT AND PAYMENT: Mobilization/General Conditions will be paid as contract lump sum price.

PAY ITEM PAY UNIT: General Conditions Lump Sum

Unit Price Item #2: Construction Surveying
DESCRIPTION: As required by the contract and contract documents, provide all construction layout, surveying, stakeout, supplemental surveying and engineering necessary for the proper control of construction operations in accordance with these drawings and specifications.

MEASUREMENT AND PAYMENT: Construction Surveying will be paid as contract lump sum price.

PAY ITEM PAY UNIT: Construction Surveying Lump Sum

Unit Price Item #3: Selective Demolition
DESCRIPTION: Remove and dispose of existing site materials per drawings and specifications.

MEASUREMENT AND PAYMENT: Demolition will be paid as contract lump sum price.

PAY ITEM PAY UNIT: Selective Demolition Lump Sum

Unit Price Item #4: Clearing and Grubbing
DESCRIPTION: Perform the work of clearing and grubbing in all the wooded areas between the construction limits. Perform the work of clearing and grubbing in all non-wooded areas between the construction limits and the limits of the project right of way or in easements shown on the project plans where seeding and mulching or other work as indicated. Clear and grubbing work shall be as indicated on plans and per Specification Sections 31 11 00 Site Clearing and Grubbing.

MEASUREMENT AND PAYMENT: Clearing and Grubbing will be paid as on a per Acre

price.

PAY ITEM PAY UNIT: Clearing and Grubbing Per Acre

Unit Price Item #5: 8" of Topsoil Stripping & Haul Off

DESCRIPTION: Perform the work of 8" of Topsoil Stripping & Haul Off in all the wooded areas between the construction limits. Perform the work of clearing and grubbing in all non-wooded areas between the construction limits and the limits of the project right of way or in easements shown on the project plans where seeding and mulching or other work as indicated. Clear and grubbing work shall be as indicated on plans and per Specification Section 31 23 00 Excavation and Section 31 00 00 Earthwork.

MEASUREMENT AND PAYMENT: 8" of Topsoil Stripping & Haul Off will be paid as on a

per Cubic Yard price.

PAY ITEM PAY UNIT: 8" of Topsoil Stripping & Haul Off Per Cubic Yard

Unit Price Item #6: 8" Topsoil Compact and Reuse On-Site

DESCRIPTION: Perform the work of 8" Topsoil Compact and Reuse On-Site in all the wooded areas between the construction limits. Perform the work of clearing and grubbing in all non-wooded areas between the construction limits and the limits of the project right of way or in easements shown on the project plans where seeding and mulching or other work as indicated. Clear and grubbing work shall be as indicated on plans and per Specification Section 31 23 00 Excavation and Section 31 00 00 Earthwork.

MEASUREMENT AND PAYMENT: 8" Topsoil Compact and Reuse On-Site will be paid as

on a per Cubic Yard price.

PAY ITEM PAY UNIT: 8" Topsoil Compact and Reuse On-Site Per Cubic Yard

Unit Price Item #7: Construction Access Drives

DESCRIPTION: Perform the work for the Construction Access Drives as indicated in the drawings and specified herein. Construction Access Drives work shall be as indicated on plans and per Specification Sections 31 25 00 Erosion and Sedimentation Control.

MEASUREMENT AND PAYMENT: Construction Access Drives will be paid in units of each which shall include but is not limited to all necessary labor and materials to install the Construction Access Drives.

PAY ITEM PAY UNIT: Construction Access Drives Each

Unit Price Item #8: Import Soil to Job Site and Compact in Place

DESCRIPTION: Perform the work of 8" of Topsoil Stripping & Haul Off in all the wooded areas between the construction limits. Perform the work of clearing and grubbing in all non-wooded areas between the construction limits and the limits of the project right of way or in easements shown on the project plans where seeding and mulching or other work as indicated. Clear and grubbing work shall be as indicated on plans and per Specification Section 31 23 00 Excavation and Section 31 00 00 Earthwork.

MEASUREMENT AND PAYMENT: Import Soil to Job Site and Compact in Place will be paid as on a per Cubic Yard price.

PAY ITEM PAY UNIT: 8" of Topsoil Stripping & Haul Off Per Cubic Yard

Unit Price Item #9: Earthwork – Rough Grading
DESCRIPTION: Work covered by rough grading consists of all elements of work covered by NCDOT 2018 Standard Specification Sections 200, 225,230, 235, 250 500 and 560 as well contract document specification sections in Division 31 00 00 Earthwork and Grading Plan Sheets L4.0-L4.8.

MEASUREMENT AND PAYMENT: Rough grading be paid as on a cubic yard price per the construction documents and NCDOT 2012 Standard Specifications.

PAY ITEM PAY UNIT: Rough Grading Per Cubic Yard

Unit Price Item #10: Earthwork – Fine Grading
DESCRIPTION: Work covered by fine grading consists of all elements of work covered by NCDOT 2018 Standard Specification Sections 200, 225,230, 235, 250 500 and 560 as well contract document specification sections in Division 31 00 00 Earthwork and plans.

MEASUREMENT AND PAYMENT: Fine grading be paid as on a per square foot price per the construction documents and NCDOT 2012 Standard Specifications.

PAY ITEM PAY UNIT: Fine Grading Per Square Foot

Unit Price Item #11: Temporary Silt Fencing
DESCRIPTION: Perform the work for the Temporary Silt Fencing as indicated in the drawings and specified herein. Temporary Silt Fencing work shall be as indicated on plans and per Specification Sections 31 25 00 Erosion and Sedimentation Control.

MEASUREMENT AND PAYMENT: Temporary Silt Fencing will be paid in units of Lineal Feet which shall include but is not limited to all necessary labor and materials to install the Temporary Silt Fencing.

PAY ITEM PAY UNIT: Temporary Silt Fencing Per Lineal Foot

Unit Price Item #12: Temporary High Hazard Silt Fencing
DESCRIPTION: Perform the work for the Temporary High Hazard Silt Fencing as indicated in the drawings and specified herein. Temporary Silt Fencing work shall be as indicated on plans and per Specification Sections 31 25 00 Erosion and Sedimentation Control.

MEASUREMENT AND PAYMENT: Temporary High Hazard Silt Fencing will be paid in units of Lineal Feet which shall include but is not limited to all necessary labor and materials to install the Temporary Silt Fencing.

PAY ITEM PAY UNIT: Temporary High Hazard Silt Fencing Per Lineal Foot

Unit Price Item #13: Accessible Ramp
DESCRIPTION: This unit price item shall include all labor and materials for the installation only of the Accessible Ramp in accordance with the construction drawings and the contract. Footings are to be installed and included in this Unit Price items. This unit price is to provide the installation of the Accessible Ramp in the location(s) shown on the plans.

CONSTRUCTION METHODS: Accessible Ramp

MEASUREMENT AND PAYMENT: Accessible Ramp will be paid for in units of each which shall include but is not limited to all necessary labor and materials to install the Accessible Ramp

PAY ITEM PAY UNIT: Accessible Ramp Per Each

Unit Price Item #14: Painted Pedestrian Crosswalk

DESCRIPTION: Perform the work covered by this unit price item including, but not limited to, all pedestrian crosswalk pavement striping. The existing asphalt surface shall be cleaned and prepared for the new asphalt as required and in accordance with NCDOT Standard Specifications. Work included in this unit price installation shall be per plans.

MATERIALS: Materials shall be as specified in Section 32 12 16 Asphalt Paving and per NCDOT Standard Specifications for Roads and Surfaces, Latest Edition.

MEASUREMENT AND PAYMENT: Painted Pedestrian Crosswalk will be paid in units of

each.

PAY ITEM PAY UNIT: Painted Pedestrian Crosswalk Each

Unit Price Item #15: Elevated Pedestrian Crosswalk

DESCRIPTION: Perform the work covered by this unit price item including, but not limited to, all pedestrian crosswalk pavement striping. The existing asphalt surface shall be cleaned and prepared for the new asphalt as required and in accordance with NCDOT Standard Specifications. Work included in this unit price installation shall be per plans.

MATERIALS: Materials shall be as specified in Section 32 12 16 Asphalt Paving and per NCDOT Standard Specifications for Roads and Surfaces, Latest Edition.

MEASUREMENT AND PAYMENT: Elevated Pedestrian Crosswalk will be paid in units of

each.

PAY ITEM PAY UNIT: Elevated Pedestrian Crosswalk Each

Unit Price Item #16: Erosion Control Devices Check Dams/Silt Fence Outlets
DESCRIPTION: Perform the work for the Erosion Control Devices Check Dams/Silt Fence Outlets as indicated in the drawings and specified herein. Erosion Control Devices Check Dams/Silt Fence Outlets work shall be as indicated on plans and per Specification Sections 31 25 00 Erosion and Sedimentation Control.

MEASUREMENT AND PAYMENT: Erosion Control Devices Check Dams/Silt Fence Outlets will be paid in units of each which shall include but is not limited to all necessary labor and materials to install the Erosion Control Devices Check Dams/Silt Fence Outlets.

PAY ITEM PAY UNIT: Erosion Control Devices Check Dams/Silt Fence Outlets Each

Unit Price Item #17: Erosion Control Maintenance
DESCRIPTION: Perform the work for Erosion Control Maintenance as indicated in the drawings and specified herein. Erosion Control Devices Check Dams/Silt Fence Outlets work shall be as indicated on plans and per Specification Sections 31 25 00 Erosion and Sedimentation Control.

MEASUREMENT AND PAYMENT: Erosion Control Maintenance will be paid in units of per month.

PAY ITEM PAY UNIT: Erosion Control Maintenance Month

Unit Price Item #18: Temporary Seeding
DESCRIPTION: Perform the work for the Temporary Seeding as indicated in the drawings and specified herein. Temporary Seeding work shall be as indicated on plans and per Specification Sections 31 25 00 Erosion and Sedimentation Control.

MEASUREMENT AND PAYMENT: Temporary Seeding will be paid in units of per acre price which shall include but is not limited to all necessary labor and materials to install the Temporary Seeding.

PAY ITEM PAY UNIT: Temporary Seeding Per Acre

Unit Price Item #19: Permanent Seeding/Hydroseeding
DESCRIPTION: Perform the work for the Permanent Seeding/Hydroseeding as indicated in the drawings and specified herein. Seeding/Hydroseeding work shall be as indicated for all disturbed areas on the plans, and per Specification Sections 32 92 00 Turf and Grasses.

MEASUREMENT AND PAYMENT: Permanent Seeding/Hydroseeding will be paid in units of per acre price which shall include but is not limited to all necessary labor and materials to install the Seeding/Hydroseeding.

PAY ITEM PAY UNIT: Permanent Seeding /Hydroseeding Per Acre

Unit Price Item #20: Temporary Traffic Control
DESCRIPTION: Perform the work for the Traffic Control as indicated in the drawings and details specified herein. Traffic Control work shall be as indicated on the plans. Traffic Control on east side of Bailey Rd.

MEASUREMENT AND PAYMENT: Temporary Traffic Control will be paid as contract

lump sum price.

PAY ITEM PAY UNIT: Temporary Traffic Control Lump Sum

Unit Price Item #21: Segmental Wall
DESCRIPTION: The work consists of all work for the Segmental Wall as shown on drawings. Work included in this unit price installation includes all labor and materials to install the Segmental Wall as indicated on plans.

MEASUREMENT AND PAYMENT: Segmental Wall will be paid in units of Square feet of face which shall include but is not limited to all necessary labor and materials to install the Segmental Wall.

PAY ITEM PAY UNIT: Segmental Wall Square Feet

Unit Price Item #22: Design/Build Concrete Boardwalk with Handrail

DESCRIPTION: The work consists of all work for the Design/Build Concrete Boardwalk with Handrail shown on drawings. Work included in this unit price installation includes all labor and materials to install the Design/Build Concrete Boardwalk with Handrail as indicated on plans and Drawings provided by others.

MEASUREMENT AND PAYMENT: Design/Build Concrete Boardwalk with Handrail will be paid in units of lump sum which shall include but is not limited to all necessary labor and materials to install the Concrete Boardwalk with Handrail.

PAY ITEM PAY UNIT: Design/Build Concrete Boardwalk with Handrail Lump Sum

Unit Price Item #23: 4" Concrete Sidewalk

DESCRIPTION: The work consists of all work for 4" Concrete Sidewalk as shown on drawings. Work included in this unit price installation of all concrete paving per plans and per Specification Section 03 00 00.

MEASUREMENT AND PAYMENT: 4" Concrete Sidewalk will be paid as on a per Square Yard price.

PAY ITEM PAY UNIT: Concrete (all 4") Square Yard

Unit Price Item #24: Geo-Grid Textile Fabric

DESCRIPTION: This item shall include all labor and materials to install Geo-Grid Textile Fabric (13 wide) under all areas of the asphalt trails and as required by the soil conditions in accordance with the construction drawings and the contract.

MATERIALS: Geo-Grid Textile Fabric (13' wide) to be placed on the compacted sub-grade, under the ABC, shall consist of an integrally formed grid structure manufactured of a stress resistant polypropylene material with molecular weight and molecular characteristics which impart a) high resistance to loss of load capacity or structural integrity when the geo-grid is subjected to mechanical stress in installation; b) high resistance to deformation when the geo-grid is subjected to applied force in use; c) high resistance to loss of load capacity or structural integrity when the geo-grid is subjected to long term environmental stress.

The Geo-Grid Textile Fabric shall accept force in use by positive mechanical interlock (i.e. by direct mechanical keying) with: a) compacted soil or construction fill materials; b) contiguous sections of itself when overlapped and embedded in compacted soil or construction fill materials; c) rigid mechanical connectors such as bodkins, pins or hooks. The structural geo-grid shall possess sufficient flexural stiffness to enable efficient installation over weak or wet in situ soils and sufficient tensional stiffness to resist in-plane movement of compacted soil or construction fill materials when these are subject to rotating displacement forces such (i.e. what a moving vehicle causes in a roadway foundation). The structural geo-grid shall possess complete continuity of all properties throughout its structure and shall be suitable for internal reinforcement of compacted soil or particulate construction fill materials to improve their systems. The structural geo-grid shall otherwise have the following characteristics:
Product Type Integrally Formed Structural Geo-Grid Load Transfer Mechanism Positive mechanical Interlock

For product properties units and MD Values XMD Values, see specification section 32 12 16

CONSTRUCTION METHODS: Shall be as manufacturer specifications and Section 270 of the NCDOT Standard Specifications for Roads and Surfaces, Latest Edition.

MEASUREMENT AND PAYMENT: Geo-Grid Reinforcement Fabric shall be measured and paid in Square Yards. Geo-Grid Reinforcement Fabric will be measured along the ground surface as the square yards of exposed Geo-Grid Reinforcement Fabric before placing backfill material.
No measurement will be made for overlapping Geo-Grid Reinforcement Fabric. The contract unit price for Geo-Grid Reinforcement Fabric will be full compensation for providing, transporting and placing geo-grid, wire staples and anchor pins.

PAY ITEM PAY UNIT: Geo-Grid Reinforcement Fabric Square Yard

Unit Price Item #25: 6" Aggregate Base Course
DESCRIPTION: Perform the work covered by this unit price item including, but not limited to, construction of a base composed of an approved aggregate material hauled to the trail, placed on the trail, mixed, compacted and shaped in accordance with the lines, grades, depths and typical sections shown in the plans.

MATERIALS: Refer to NCDOT Standard Specifications for Roads and Structures, Specification Section 32 12 16 and as shown on the plans

MEASUREMENT AND PAYMENT: 6" Aggregate Base Course will be paid at the contract unit price per ton for the actual number of tons of 6" Aggregate Base Course which has been incorporated into the completed and accepted work.

PAY ITEM PAY UNIT: 6" Aggregate Base Course Ton

Unit Price Item #26: 2" Asphalt Surface Course S9.5B
DESCRIPTION: Perform the work covered by this unit price item including, but not limited to, construction of a surface composed of an approved aggregate material hauled to the site and placed on the trail, mixed, compacted and shaped in accordance with the lines, grades, depths and typical sections shown in the plans.

MATERIALS: Limit the amount of coarse aggregate of fine aggregate produced from crystalline limestone, crystalline-dolomitic limestone or marble to more than 50% of the total amount of coarse aggregate or fine aggregate in the asphalt mixture. Refer to NCDOT Standard Specifications for Roads and Structures, Specification Section 32 12 16 and Detail #4 on the plans

MEASUREMENT AND PAYMENT: Asphalt Surface Course S9.5B will be paid at the contract unit price per ton for the actual number of tons of Asphalt Surface Course S9.5B which has been incorporated into the completed and accepted work. The Asphalt Surface Course S9.5B should conform to ASTM D5821, AASHTO T 304 and AASHTO T 176.

PAY ITEM PAY UNIT: Asphalt Surface Course S9.5B Ton

Unit Price Item #27: 18" RCP Storm Pipe Class III
DESCRIPTION: This item shall include all labor and materials to construct the 18" RCP Storm Pipe Class III as shown on the plans and in accordance with the construction drawings and the contract. Including but not limited to furnishing all materials, labor and installation of

said materials, and pipe bedding.

MATERIALS: 18” RCP Storm Pipe Class III shall be in accordance with NC DOT Standard Specifications for Roads and Structures, latest edition, and per Specification Sections 34 00 00 and 31 23 00.

MEASUREMENT AND PAYMENT: 18” RCP Storm Pipe Class III will be measured and paid for at the contract unit price per linear foot. Such payment will be full compensation for all work including but not limited to furnishing, delivering and installing the 18” RCP Storm Pipe Class III; all excavation, bedding and backfilling.

PAY ITEM PAY UNIT: 18” RCP Storm Pipe Class III Per LF

Unit Price Item #28: Concrete Flared End Section - 18”

DESCRIPTION: This item shall include all labor and materials to construct the Concrete Flared End Section - 18” as shown on the plans and in accordance with the construction drawings and the contract. Including but not limited to furnishing all materials, labor and installation of said materials, and bedding.

MATERIALS: Concrete Flared End Section – 18” shall be in accordance with NC DOT Standard Specifications for Roads and Structures, latest edition, and per Specification Sections 34 00 00 and 31 23 00 and per Detail #1 Sheet L7.1.

MEASUREMENT AND PAYMENT: Concrete Flared End Section – 18” will be measured and paid for at the contract unit price per each. Such payment will be full compensation for all work including but not limited to furnishing, delivering and installing the Concrete Flared End Section – 18”; all excavation, bedding and backfilling.

PAY ITEM PAY UNIT: Concrete Flared End Section – 18” Each

Unit Price Item #29: Concrete Headwall - 18”

DESCRIPTION: This item shall include all labor and materials to construct the 18" Concrete Headwall as shown on the plans and in accordance with the construction drawings and the contract. Including but not limited to furnishing all materials, labor and installation of said materials, and bedding.

MATERIALS: 18" Concrete Headwall shall be in accordance with NC DOT Standard Specifications for Roads and Structures, latest edition, and per Specification Sections 34 00 00 and 31 23 00

MEASUREMENT AND PAYMENT: 18" Concrete Headwall will be measured and paid for at the contract unit price per each. Such payment will be full compensation for all work including but not limited to furnishing, delivering and installing the 18" Concrete Headwall; all excavation, bedding and backfilling.

PAY ITEM PAY UNIT: 18" Concrete Headwall Each

Unit Price Item #30: Installation of Storm Drainage Structure with Frame and Grate

DESCRIPTION: This item shall include all labor and materials to construct the Installation of

Storm Drainage Structure with Frame and Grate as shown on the plans and in accordance with the construction drawings and the contract. Including but not limited to furnishing all materials, labor and installation of said materials, and bedding.

MATERIALS: Installation of Storm Drainage Structure with Frame and Grate shall be in accordance with NC DOT Standard Specifications for Roads and Structures, latest edition, and per Specification Sections 34 00 00 and 31 23 00

MEASUREMENT AND PAYMENT: Installation of Storm Drainage Structure with Frame and Grate will be measured and paid for at the contract unit price per lump sum. Such payment will be full compensation for all work including but not limited to furnishing, delivering and installing the Installation of Storm Drainage Structure with Frame and Grate; all excavation, bedding and backfilling.

PAY ITEM PAY UNIT: Installation of Storm Drainage Structure with Frame and Grate Lump Sum

Unit Price item #31: Rip Rap Outlets

DESCRIPTION: The work consists of all work for Rip Rap Outlets as shown on drawings. Work included in this unit price installation includes all labor and materials to install the Rip Rap Outlets per plans.

MEASUREMENT AND PAYMENT: Rip Rap Outlets will be paid in units of ton which shall include but is not limited to all necessary labor and materials to install the Rip Rap Outlets.

PAY ITEM PAY UNIT: Rip Rap Outlets Ton

Unit Price item #32: Trees

DESCRIPTION: The work consists of all work for Trees as shown on drawings. Work included in this unit price installation includes all labor and materials to install the Trees per plans.

MEASUREMENT AND PAYMENT: Trees will be paid in units of each which shall include but is not limited to all necessary labor and materials to install the Trees.

PAY ITEM PAY UNIT: Tree Per Each

Unit Price Item #33: Park Bench – Owner Provided/Installation only

DESCRIPTION: This unit price item shall include all labor and materials for the installation only of the Owner Provided Park Bench in accordance with the construction drawings and the contract. Footings are to be installed and included in this Unit Price items. This unit price is to provide the installation of the Owner Provided Park Bench in the location shown on the plans. Concrete Pad under the Bench is not included herein and is included in Unit Price Item #31: 4" Concrete

CONSTRUCTION METHODS: Install the Park Bench in accordance with the plans.

MEASUREMENT AND PAYMENT: Park Bench – Installation only will be paid for in units of each which shall include but is not limited to all necessary labor and materials to install the Park Bench.

PAY ITEM PAY UNIT: Park Bench – Installation only Per Each

Unit Price Item #34: Owner Provided Trash Cans

DESCRIPTION: This unit price item shall include all labor and materials for the installation only of the Owner Provided Trash Cans in accordance with the construction drawings and the contract. Bolting the Trash Receptacle to the concrete pad is included in this Unit Price item.

This unit price is to provide assembly and the installation of the Owner Provided Trash Cans in the location shown on the plans. Concrete Pad under the Bike is not included herein and is included in Unit Price Item #28: 4" Concrete

CONSTRUCTION METHODS: Install the Trash Can in accordance with the plans.

MEASUREMENT AND PAYMENT: Trash Can – Installation only will be paid for in units of each which shall include but is not limited to all necessary labor and materials to install the Trash Can.

PAY ITEM PAY UNIT: Trash Can – Installation only Per Each

Unit Price Item #35: Collapsible Bollards – Owner Provided/Installation only

DESCRIPTION: This unit price item shall include all labor and materials for the installation only of the Owner Provided Collapsible Bollards in accordance with the construction drawings and the contract. Footings are to be installed and included in this Unit Price item. This unit price is to provide the installation of the Owner Provided Collapsible Bollards in the location shown on the plans. Concrete Pad around the Collapsible Bollards is not included herein and is included in Unit Price Item #28: 4" Concrete.

MATERIALS: Refer to Detail #1/L7.2 for all necessary materials and hardware necessary to install the Bike Rack.

CONSTRUCTION METHODS: Install the Collapsible Bollard in accordance with the plans.

MEASUREMENT AND PAYMENT: Collapsible Bollard – Installation only will be paid for in units of each which shall include but is not limited to all necessary labor and materials to install the Bollards.

PAY ITEM PAY UNIT: Collapsible Bollard – Installation only Per Each

Unit Price Item #36: Tree Protection

DESCRIPTION: The work consists of all work for the installation of Tree Protection shown on drawings. Work included in this unit price installation includes all labor and materials to install the Tree Protection per plans and as specified in Section 31 13 00 - Tree Protection and Trimming.

MEASUREMENT AND PAYMENT: Tree Protection will be paid per lineal foot which shall include but is not limited to all necessary labor and materials to install the Tree Protection.

PAY ITEM PAY UNIT: Tree Protection Per LF

END OF SECTION 01 22 00

SECTION 01 26 00 -CONTRACT MODIFICATION PROCEDURES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and all Divisions of the Technical Specifications, apply to this Section.

1.2 SUMMARY

A. This Section specifies administrative and procedural requirements for handling and processing Contract modifications whereas all parties agree to the following:

1. A modification in the Work or Contract Documents.

2. The amount of the adjustment in the Contract Sum, if any.

3. The extent of the adjustment in the Contract Time, if any.

1.3 NOTIFICATION TO SURETY

A. The Contractor shall notify the Surety of any modifications to the Work or provisions of the Contract Documents, including, but not limited to, the Contract Price or Contract Time.

1.4 MINOR CHANGES IN THE WORK

A. The Consultant shall have authority to order Minor Changes in the Work not involving adjustment to the Contract Sum or extension of the Contract Time, and consistent with the intent of the Contract Documents. Such changes shall be in a form of a written order and shall be binding for both the Owner and Contractor when fully executed.

1.5 CLAIMS FOR ADDITIONAL COST:

A. No claim for an adjustment in Contract Price or Contract Times will be valid if not submitted in accordance with the following:

1. Notice: Written notice stating the general nature of each claim shall be delivered by the claimant to the other party to the Contract promptly, but in no event later than thirty (30) days after the start of the event giving rise to the claim.

2. The responsibility to substantiate a claim shall rest with the party making the claim. The amount or extent of the claim, with supporting data, shall be delivered to the other party to the Contract within fifteen (15) days after the initial Notice of the Claim. Each claim shall be accompanied by claimant's written statement that the adjustment claimed is the entire adjustment to which the claimant believes it is entitled as a result of said event. The opposing party shall submit any response to the claimant within thirty (30) days after receipt of the claimant's last submittal. Prior notice is not required for Claims relating to an

emergency endangering life or property.

B. The Contractor shall submit a claim if he believes additional cost is involved for reasons including but not limited to the following:

1. A written interpretation from the Consultant,

2. An order by the Owner to stop the Work where the Contractor was not at fault,

3. A written order for a minor change in the Work issued by the Consultant,

4. A change in the Scope of the Work by the Consultant.

1.6 PROPOSAL REQUESTS

A. The Owner initiated Proposal Requests is generated by the Owner to modify the Work or Contract Documents. The Consultant will issue a detailed description of proposed modifications in the Work that may require adjustment to the Contract Sum or the Contract Time. If necessary, the description will include supplemental or revised Drawings and Specifications. The description is for information and shall be considered as a directive to automatically stop work or execute the proposed change.

1. Within ten (10) calendar days after receipt of the Proposal Request, the Contractor shall submit a Proposal Request Form with an estimate to adjust the Contract Sum and the Contract Time if necessary to execute the change. Proposal shall include support documents from Subcontractor, if applicable.

   a. Include a list of quantities of (plus or minus) the materials and/or products required with unit prices, total amount of purchases, and credits to be made. If requested, furnish survey data to substantiate quantities.

   b. Indicate applicable taxes, delivery charges, equipment rental, and amounts of trade discounts.

   c. Include costs of labor and supervision directly attributable to the change, including social security, old age and unemployment insurance, fringe benefits, and workmen’s compensation insurance.

   d. Include an updated Contractor's Construction Schedule that indicates the effect of the change, including, but not limited to, changes in activity duration, start, and finish times, and activity relationship. Use available total float before requesting an extension of the Contract Time.

2. The Contractor may initiate proposals if latent or unforeseen conditions require modifications to the Contract, Contractor may propose changes by submitting a request for a change to Consultant.

   a. Include a statement outlining reasons for the change and the effect of the change on the Work. Provide a complete description of the proposed change. Indicate the effect

of the proposed change on the Contract Sum and the Contract Time.

b. Include a list of quantities of (plus or minus) the materials and/or products required with unit prices, total amount of purchases, and credits to be made. If requested, furnish survey data to substantiate quantities.

c. Indicate applicable taxes, delivery charges, equipment rental, and amounts of trade discounts.

d. Include costs of labor and supervision directly attributable to the change, including social security, old age and unemployment insurance, fringe benefits, and workmen's compensation insurance.

e. Include an updated Contractor's Construction Schedule that indicates the effect of the change, including, but not limited to, changes in activity duration, start and finish times, and activity relationship. Use available total float before requesting an extension of the Contract Time.

f. Comply with requirements in Division 1 Section, of the Technical Specifications "Product Requirements" if the proposed change requires substitution of one product or system for product or system specified.

B. An alternative method to price the changes in the work is to utilize current "Mean's Cost Data".

C. Profit and Overhead shall not exceed ten percent (10%) of the cost of the changes to the Work.

D. Use Proposal Request Form provided by Owner. The Contractor shall prepare three copies, one for the Consultant, one for the Owner and one for himself and for all parties to sign. Each shall keep a copy.

E. The Contractor shall be responsible for keeping and updating a "Proposal Request Log", listing all Proposal Requests and Minor Changes. The log shall also indicate the date of the Proposal Request, approval date, action taken, running balances, and a complete description of the change.

F. After all parties have signed "The Proposal Request Form", it shall be the Contractor's authorization to proceed with the changes to the Work.

G. If the Owner and Contractor do not agree with the requested adjustment in the Contract Sum, the Contract Time or the method of determining each, the provisions for Mediation shall be utilized.

1.8 CHANGE ORDER PROCEDURES

A. The Consultant shall issue a Change Order for signatures once all of the Proposal Request(s) amounts exceeds the contingency amount or at the end of the project.

B. The Contractor shall not invoice for the Change Order until it has been executed by all parties.

1.9 CONSTRUCTION CHANGE DIRECTIVE

A. The Consultant may issue a Construction Change Directive that has been signed by the Owner to the Contractor directing a change in the Work. Construction Change Directive instructs Contractor to proceed with a change in the Work, for subsequent inclusion in a Change Order.

1. Work Change Directive contains a complete description of change in the Work. It also designates method to be followed to determine change in the Contract Sum or the Contract Time.

B. Upon receipt of a Construction Change Directive, the Contractor shall promptly proceed with the change in the Work involved. And the Contractor shall advise the Consultant of the Contractor's agreement or disagreement with the method, if any, provided in the Construction Change Directive for determining the proposed adjustment in the Contract Sum or Contract Time.

C. The Contractor shall maintain detailed records on a time and material basis of work required by the Construction Change Directive.

1. After completion of change, submit an itemized account and supporting data necessary to substantiate cost and time adjustments to the Contract.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 PROCESSING CHANGE ORDERS

A. The Change Order will be issued describing the change or changes to the Work and/or Contract Documents and will refer to the Proposal Requests.

B. The Consultant shall issue one copy of the Change Order to the Contractor. The Contractor shall promptly sign the copy and return the copy to the Consultant who will sign the Change Order and forward the Change Order to the Owner to execute.

C. Once the Change Order has been full executed, a copy shall be forwarded to the Consultant and to the Contractor for their files.

END OF SECTION 01 26 00

SECTION 01 29 00 - PAYMENT PROCEDURES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and all Divisions of the Technical Specifications, apply to this Section.

1.2 SUMMARY

A. This Section specifies administrative and procedural requirements necessary to prepare and process Applications for Payment.

B. Related Sections include the following:
1. Division 1, of the Technical Specifications Section "Unit Prices" for administrative requirements governing use of unit prices.
2. Division 1, of the Technical Specifications Section "Contract Modification Procedures" for administrative procedures for handling changes to the Contract.
3. Division 1, of the Technical Specifications Section "Construction Progress Documentation" for administrative requirements governing preparation and submittal of Contractor's Construction Schedule and Submittals Schedule.

1.3 DEFINITIONS

A. Schedule of Values: A statement furnished by Contractor allocating portions of the Contract Sum to various portions of the Work and used as the basis for reviewing Contractor's Applications for Payment.

1.4 SCHEDULE OF VALUES

A. Coordination: Coordinate preparation of the Schedule of Values with preparation of Contractor's Construction Schedule.
1. Correlate line items in the Schedule of Values with other required administrative forms and schedules, including the following:
a. Application for Payment forms AIA G702.
b. Continuation Sheets.

2. Submit the Schedule of Values to the Consultant at earliest possible date but no later than fourteen (14) calendar days before the date scheduled for submittal of initial Applications for Payment.

2. Sub-schedules: Where the Work is separated into phases requiring separately phased payments, provide sub-schedules showing values correlated with each phase of payment.

B. Format and Content: Use the Project Manual table of contents as a guide to establish line items for the Schedule of Values. Provide at least one line item for each of the Technical Specifications Section and line item for potential billing against the Construction Contingency Allowance.

1. Identification: Include the following Project information on the Schedule of Values:

a. Project name and location.
b. Name of Consultant.
c. Contract number.
d. EPM Number if applicable
e. Contractor's name and address.
f. Date of submittal.

2. Arrange the Schedule of Values in tabular form with separate columns to indicate the following for each item listed:
   a. Related Technical Specifications Section or Division.
   b. Description of the Work.
   c. Name of subcontractors.
   d. Name of manufacturer or fabricator.
   e. Name of suppliers.
   f. Change Orders (numbers) that affect value.
   g. Dollar value.

3. Group items that are "Non-Tangible & Non-Taxable and Tangible & Taxable Items" on the Schedule of Values.

4. Provide a breakdown of the Contract Sum in enough detail to facilitate continued evaluation of Applications for Payment and progress reports. Coordinate with the Project Manual table of contents. Provide several line items for principal subcontract amounts, where appropriate.

5. Round amounts to nearest whole dollar; total shall equal the Contract Sum.

6. Provide a separate line item in the Schedule of Values for each part of the Work where Applications for Payment may include labor and materials and/or equipment purchased or fabricated and stored, but not yet installed.
   a. Differentiate between items stored on-site and items stored off-site. Include evidence of insurance or bonded warehousing as required. Note, payment for items stored offsite shall be considered on a case-by-case basis, and the determination of whether those items are eligible for a payment on a pay application shall be at the discretion of the Owner or Owner's representative.

7. Provide separate line items in the Schedule of Values for initial cost of materials, for each subsequent stage of completion, and for total installed value of that part of the work.

8. Closeout documentation: Provide a separate line item in the Schedule of Values for close out documentation as set forth in the Supplementary Conditions.

9. Each item in the Schedule of Values and Applications for Payment shall be complete. Include total cost and proportionate share of general overhead and profit for each item.
   a. Temporary facilities and other major cost items that are not direct cost of actual work-in-place may be shown as separate line items in the Schedule of Values or distributed as general overhead expense, at Contractor's option.

10. Schedule Updating: Update and resubmit the Schedule of Values before the next Applications for Payment when Change Orders result in a change in the Contract Sum.

1.5 APPLICATIONS FOR PAYMENT

A. Each Application for Payment shall be consistent with previous applications and payments as certified by the Consultant and paid for by Owner.

1. Initial Application for Payment, Application for Payment at time of Substantial Completion, and final Application for Payment involves additional requirements.

2. Contractor Coordination Drawings are required within 60 calendar days of the issued Notice-to-Proceed. Failure to provide requirements shall result in delays of Application for Payment.

B. Such applications shall not include requests for payment of amounts the Contractor does not intend to pay to a Subcontractor or material supplier because of a dispute or other reason.

C. Unless otherwise provided in the Contract Documents, payments shall be made on account of materials and equipment delivered and suitably stored at the site for subsequent incorporation in the work. If approved in advance by the Owner, payment may similarly be made for materials and equipment suitably stored off the site at a location agreed upon in writing. Payment for material and equipment stored on or off the site shall be conditioned upon compliance by the Contractor with procedures satisfactory to the Owner to establish the Owner's title to such material and equipment or otherwise protect the Owner's interest, and shall include applicable insurance, storage and transportation to the site for such material and equipment stored off the site.

The Contractor warrants that title to all Work covered by an Application and Certificate for payment will pass to the Owner no later than the time of payment. The Contractor further warrants that upon submittal of an Application and Certificate for payment all work for which Certificates for payment have been previously issued and payment received from the Owner shall, to the best of the Contractor's knowledge, information, and belief, be free and clear of claims of liens, claims, security, interests, or encumbrances in favor of the Contractor, Subcontractors, material suppliers, or other persons or entities making a claim by reason of having provided labor, materials, and equipment relating to the Work.

D. Payment Application Times: Each Month, the Town can make a partial payment to the Contractor on the basis of a duly notarized Application and Certification for Payment approved and certified by the Consultant.

E. Application Preparation: Complete every entry on form. Notarize and execute by a person authorized to sign legal documents on behalf of Contractor. The Consultant will return incomplete applications without action.

1. Entries shall match data on the Schedule of Values and Contractor's Construction Schedule. Use updated schedules if revisions were made.

2. Include amounts of Change Orders and Construction Change Directives issued before last day of construction period covered by application.

3. The Town shall retain five (5%) percent of each payment to up fifty (50%) percent completion of the Contract.

    a. The Owner shall not retain more than five percent (5%) of any periodic payment due a prime Contractor.

    b. When the project is fifty percent (50%) complete, the Owner, with written consent of

the surety, shall not retain any further retainage from periodic payments due the Contractor if the Contractor continues to perform satisfactorily and any nonconforming work identified in writing prior to that time by the Consultant or Owner has been corrected by the Contractor and accepted by the Consultant and Owner. If the Consultant determines the Contractor's performance is unsatisfactory, the Owner may reinstate retainage for each subsequent periodic payment application as authorized in this subsection up to the maximum amount of five percent (5%). The project shall be deemed fifty percent (50%) complete when the Contractor's gross project invoices, excluding the value of materials stored off-site, equal or exceed fifty percent (50%) of the value of the contract, except the value of materials stored on-site shall not exceed twenty percent (20%) of the Contractor's gross project invoices for the purpose of determining whether the project is fifty percent (50%) complete.

c. Within 60 days after the submission of a pay request and one of the following occurs, as specified in the contract documents, the Owner with written consent of the surety shall release to the Contractor all retainage on payments held by the Owner:

1) The Owner receives a certificate of substantial completion from the Consultant in charge of the project; or (ii) the Owner receives beneficial occupancy or use of the project. However, the Owner may retain sufficient funds to secure completion of the project or corrections on any work. If the Owner retains funds, the amount retained shall not exceed two and one-half times the estimated value of the work to be completed or corrected. Any reduction in the amount of the retainage on payments shall be with the consent of the Contractor's surety.

d. The existence of any third-party claims against the Contractor or any additive change orders to the construction contract shall not be a basis for delaying the release of any retainage on payments.

1) Full payment, less authorized deductions, shall also be made for those trades that have reached one hundred percent (100%) completion of their contract by or before the project is fifty percent (50%) complete if the Contractor has performed satisfactorily. However, payment to the early finishing trades is contingent upon the Owner's receipt of an approval or certification from the Consultant of record or applicable engineer that the work performed by the subcontractor is acceptable and in accordance with the contract documents. At that time, the Owner shall reduce the retainage for such trades to five-tenths percent (0.5%) of the contract. Payments under this subsection shall be made no later than 60 days following receipt of the subcontractor's request or immediately upon receipt of the surety's consent, whichever occurs later. Early finishing trades under this subsection shall include structural steel, piling, caisson, and demolition. The early finishing trades for which line-item release of retained funds is required shall not be construed to prevent an Owner or an Owner's representative from identifying any other trades not listed in this subsection that are also allowed line-item release of retained funds. Should the Owner or Owner's representative identify any other trades to be afforded line-item release of retainage, the trade shall be listed in the original bid documents. Each bid document shall list the inspections required by the Owner before accepting the work, and any financial information required by the Owner to release payment to the trades, except the failure of the bid documents to contain this information shall not obligate the Owner to release the retainage if it has not received the required certification from the Consultant of record or applicable engineer.

2) Notwithstanding 3-a & b of this section, following fifty percent (50%) completion of the project, the Owner shall be authorized to withhold additional retainage from a subsequent periodic payment, not to exceed five percent (5%) as set forth in 3-a of this section, in order to allow the Owner to retain two and one-half percent (2.5%) total retainage through the completion of the project. In the event that the Owner elects to withhold additional retainage on any periodic payment subsequent to release of retainage pursuant to 3-d-i of this section, the General Contractor may also withhold from the subcontractors remaining on the project sufficient retainage to offset the additional retainage held by the Owner, notwithstanding the actual percentage of retainage withheld by the Owner of the project as a whole.

3) Neither the Owner's nor Contractor's release of retainage on payments as part of a payment in full on a line-item of work under 3-d-i of this section shall affect any applicable warranties on work done by the Contractor or subcontractor, and the warranties shall not begin to run any earlier than either the Owner's receipt of a certificate of substantial completion from the Consultant in charge of the project or the Owner receives beneficial occupancy.

e. Nothing in this section shall prevent the prime Contractor at the time of application and certification to the Owner from withholding application and certification to the Owner for payment to the subcontractor for unsatisfactory job progress; defective construction not remedied; disputed work; third party claims filed or reasonable evidence that claim will be filed; failure of subcontractor to make timely payments for labor, equipment, and materials; damage to prime Contractor or another subcontractor; reasonable evidence that subcontract cannot be completed for the unpaid balance of the subcontract sum; or a reasonable amount for retainage not to exceed the initial percentage retained by the Owner.

f. Nothing in this section shall prevent the Owner from withholding payment to the Contractor in addition to the amounts authorized by this section for unsatisfactory job progress, defective construction not remedied, disputed work, or third-party claims filed against the Owner or reasonable evidence that a third-party claim will be filed.

4. Provide a separate line item in the Schedule of values for close out documentation as set forth in the Supplementary Conditions.

F. Transmittal: Submit one (1) signed and notarized electronic copy via email of each Application for Payment to Consultant.

1. Transmit each copy with a transmittal form listing attachments and recording appropriate information about application.

G. With each Application and Certification for payment, the Contractor must furnish for themselves, as well as for all Subcontractors, certified statements stating the cost of the property purchased from each vendor and the amount of sales and/or use taxes paid. See General Conditions, Sales and Use Tax for additional information.

H. Application for Payment at Substantial Completion: After issuing the Certificate of Substantial Completion, submit an Application for Payment showing 100 percent completion for portion of the Work claimed as substantially complete.

I. Neither Final payment nor any remaining retained percentage shall become due until the Contractor submits the following to the Consultant for approval:

1. An affidavit that payrolls, bills for material and other indebtedness connected with the Work has been paid or otherwise satisfied,

2. A certificate evidencing that insurance required by the Contract Document to remain in force after Final payment is currently in effect and will not be canceled or allowed to expire until at least 30 days' prior written notice has been given to the Owner,

3. Consent of surety to Final payment and

4. If required by the Owner, other data establishing payment or satisfaction of obligations, such as receipts, releases and waivers of claim of liens, claims security interests or encumbrances arising out of the Contract, to the extent and in such form as may be designated by the Owner. If the Subcontractor refuses to furnish a release or waiver required by the Owner, the Contractor may furnish a bond satisfactory to the Owner to indemnify the Owner against such claim of lien. If such claim of lien remains unsatisfied after payments are made, the Contractor shall refund to the Owner all money that the Owner may be compelled to pay in discharging such claim, including all costs and reasonable attorneys' fees.

5. MWSBE form VI.

6. A list of all suppliers and subcontractors that were involved with the project. As part of the list, the Contractor shall include the address, phone number, what they supplied or Work performed, and a contact name.

7. "As-Builts" Drawings and all other specified closeout documents.

8. Maintenance and Operation instructions and guarantees.

J. Final Payment Application: Submit three originals with the final Application for Payment with releases and supporting documentation not previously submitted and accepted, including, but not limited, to the following:

1. Warranties and Test results required by the Contract Documents.

2. Updated final statement, accounting for final changes to the Contract Sum.

3. AIA Document G706, "Contractor's Affidavit of Payment of Debts and Claims."

4. AIA Document G706A, "Contractor's Affidavit of Release of Liens."

5. AIA Document G707, "Consent of Surety to Final Payment."

6. Additional Evidence that claims have been settled if required by the Owner. An example of the evidence could be a letter from a subcontractor indicating that he has been paid in full for the work that he has performed.

7. Certificates from all local and State Governing Agencies as required by Law.

8. Final liquidated damages settlement statement.

9. List of Subcontractors and Suppliers that has contributed to the completion of the Work. The list shall include:

    a. Material they supplied or type of construction they performed.

    b. Address

    c. Contact person

    d. Phone number

10. M/WSBE Form VI

11. Final Sales Tax Form.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 01 29 00

SECTION 01 31 00 - PROJECT MANAGEMENT AND COORDINATION

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and all Divisions of the Technical Specifications, apply to this Section.

1.2 SUMMARY

A. To enable orderly review during progress of the Work, and to provide for systematic discussion of problems, the Consultant will chair and conduct project meetings and compile an agenda for each meeting throughout the construction period.

B. This Section includes administrative provisions for coordinating construction operations on the Project including, but not limited to, the following:

1. General project coordination procedures.
2. Conservation.
3. Coordination Drawings.
4. Administrative and supervisory personnel.
5. Project meetings.

C. Related Sections: The following Sections contain requirements that relate to this Section:
1. Division 1, of the Technical Specifications Section "Construction Progress Documentation" for preparing and submitting the Contractor's Construction Schedule.
2. Division 1, of the Technical Specifications Section "Execution Requirements" for procedures for coordinating general installation and field-engineering services, including establishment of benchmarks and control points.
3. Division 1, of the Technical Specifications Section "Closeout Procedures" for coordinating Contract closeout.

1.3 COORDINATION

A. Coordination: Coordinate construction operations included in various Sections of the Technical Specifications to ensure efficient and orderly installation of each part of the Work. Coordinate construction operations included in different Sections that depend on each other for proper installation, connection, and operation.
1. Schedule construction operations in sequence required to obtain the best results where installation of one part of the Work depends on installation of other components.
2. Coordinate installation of different components with other contractors to ensure maximum accessibility for required maintenance, service, and repair.
3. Make adequate provisions to accommodate items scheduled for later installation.

B. If necessary, the Consultant shall prepare memoranda for distribution to each party involved, outlining special procedures required for coordination. Include such items as required notices, reports, and list of attendees at meetings.

1. Prepare similar memoranda for Owner and separate contractors if coordination of their Work is required.

C. Administrative Procedures: Coordinate scheduling and timing of required administrative procedures with other construction activities and activities of other contractors to avoid conflicts and to ensure orderly progress of the Work. Such administrative activities include, but are not limited to, the following:

1. Preparation of Contractor's Construction Schedule.
2. Preparation of the Schedule of Values.
3. Installation and removal of temporary facilities and controls.
4. Delivery and processing of submittals.
5. Progress meetings.
6. Pre-installation conferences.
7. Project closeout activities.

D. Conservation: Coordinate construction activities to ensure that operations are carried out with consideration given to conservation of energy, water, and materials.

1. Salvage materials and equipment involved in performance of, but not actually incorporated into, the Work.

1.4 SUBMITTALS

A. Coordination Drawings: Prepare Coordination Drawings if limited space availability necessitates maximum utilization of space for efficient installation of different components or if coordination is required for installation of products and materials fabricated by separate entities.

1. Indicate relationship of components shown on separate Shop Drawings.
2. Indicate required installation sequences.
3. Refer to Division 23, of the Technical Specifications Section "Basic Mechanical Materials and Methods" and Division 26, of the Technical Specifications Section "Basic Electrical Materials and Methods" for specific Coordination Drawing requirements for mechanical and electrical installations.

B. Staff Names: Fourteen days prior to the Pre-Construction conference, submit a list of principal staff assignments, including superintendent and other personnel in attendance at Project site. Identify individuals and their duties and responsibilities; list addresses and telephone numbers, including home and office telephone numbers. Provide names, addresses, and telephone numbers of individuals assigned as standbys in the absence of individuals assigned to Project.

1. Post copies of list in Project meeting room, in temporary field office, and by each temporary telephone.

1.5 ADMINISTRATIVE AND SUPERVISORY PERSONNEL

A. General: In addition to Project superintendent, provide other administrative and supervisory personnel as required for proper performance of the Work.

1.6 PROJECT MEETINGS

A. General: Schedule and conduct meetings and conferences at Project site, unless otherwise indicated.

1. Attendees: Inform participants and others involved, and individuals whose presence is required, of date and time of each meeting.
2. Agenda: The Consultant shall prepare the meeting agenda and distribute the agenda to all invited attendees.
3. Minutes:
    a. The Consultant will compile minutes of each project meeting, and will distribute copies to the Contractor and required copies to the Owner.
    b. Recipients of copies may make and distribute such other copies as they wish.

4. Attendance:
    a. To the maximum extent practical, assign the same person or persons to represent the Contractor at the project meetings throughout progress of the Work.
    b. Subcontractors, materials suppliers, and others may be invited to attend those project meetings in which their aspect of the Work is involved.

5. Minimum agenda:
    a. Review, revise as necessary, and approve minutes of previous meetings.
    b. Review progress of the Work since last meeting, including status of submittals for approval.
    c. Identify problems which impede planned progress.
    d. Develop corrective measures and procedures to regain planned schedule.
    e. Complete other current business.

B. Pre-construction Conference: Schedule a pre-construction conference before starting construction, at a time convenient to Owner and Consultant, but no later than 14 days after execution of the Construction Contract. Hold the conference at Project site or another convenient location. Conduct the meeting to review responsibilities and personnel assignments.

1. Attendees: Authorized representatives of Owner, Consultant, and their consultants; Contractor and its superintendent; major subcontractors and other concerned parties shall attend the conference. All participants at the conference shall be familiar with Project and authorized to conclude matters relating to the Work.

2. Agenda: Discuss items of significance that could affect progress, including the following:

    a. Tentative construction schedule.
    b. Phasing.
    c. Critical work sequencing.
    d. Designation of responsible personnel.
    e. Procedures for processing field decisions and Change Orders.
    f. Procedures for processing Applications for Payment.
    g. Distribution of the Contract Documents.
    h. Submittal procedures.
    i. Preparation of Record Documents.
    j. Use of the premises.

k. Responsibility for temporary facilities and controls.
l. Parking availability.
m. Office, work, and storage areas.
n. Equipment deliveries and priorities.
o. Security.
p. Working hours.

C. Pre-installation Conferences: Conduct a pre-installation conference at Project site before each construction activity that requires coordination with other construction.

1. Attendees: Installer and representatives of manufacturers and fabricators involved in or affected by the installation and its coordination or integration with other materials and installations that have preceded or will follow, shall attend the meeting. Advise Consultant of scheduled meeting dates.

2. Agenda: Review progress of other construction activities and preparations for the particular activity under consideration, including requirements for the following:

a. Contract Documents.
b. Options.
c. Related Change Orders.
d. Purchases.
e. Deliveries.
f. Submittals.
g. Review of mockups.
h. Possible conflicts.
i. Time schedules.
j. Weather limitations.
k. Manufacturer's written recommendations.
l. Temporary facilities and controls.
m. Space and access limitations.
n. Regulations of authorities having jurisdiction.
o. Testing and inspecting requirements.
p. Required performance results.
q. Protection of construction and personnel.

Record significant conference discussions, agreements, and disagreements.
Do not proceed with installation if the conference cannot be successfully concluded. Initiate whatever actions are necessary to resolve impediments to performance of the Work and reconvene the conference at earliest feasible date.

E. Progress Meetings: Conduct progress meetings at a minimum of once every two (2) weeks. Coordinate dates of meetings with preparation of payment requests.

1. Attendees: Representatives at the meeting shall be the Owner, Consultant, Subcontractors, and other entity concerned with current progress or involved in planning, coordination, or performance of future activities shall be represented at these meetings. All participants at the conference shall be familiar with Project and authorized to conclude matters relating to the Work.
2. Agenda: Review and correct or approve minutes of previous progress meeting. Review

other items of significance that could affect progress. Include topics for discussion as appropriate to status of Project.

a. Contractor's Construction Schedule: Review progress since the last meeting. Determine whether each activity is on time, ahead of schedule, or behind schedule, in relation to Contractor's Construction Schedule. Determine how construction behind schedule will be expedited; secure commitments from parties involved to do so. Discuss whether schedule revisions are required to ensure that current and subsequent activities will be completed within the Contract Time.
b. Review present and future needs of each entity present, including the following:

1) Interface requirements.
2) Sequence of operations.
3) Status of submittals.
4) Deliveries.
5) Access.
6) Work hours.
7) Hazards and risks.
8) Review of Record Drawings
9) Review of construction defects that has been identified by the Consultant

3. Reporting: Distribute minutes of the meeting to each party present and to parties who should have been present. Include a brief summary, in narrative form, of progress since the previous meeting and report.

a. Schedule Updating: Revise Contractor's Construction Schedule after each progress meeting where revisions to the schedule have been made or recognized. Issue revised schedule concurrently with the report of each meeting.

1.7 REQUESTS FOR INTERPRETATION (RFI's)

A. Procedure: Immediately on discovery of the need for interpretation of the Contract Documents, and if not possible to request interpretation at Project meeting, prepare and submit an RFI in the form specified.

1. RFI's shall originate with Contractor. RFIs submitted by entities other than Contractor will be returned with no response.

2. Coordinate and submit RFIs in a prompt manner so as to avoid delays in Contractor's work or work of subcontractors.

B. Content of the RFI: Include a detailed, legible description of item needing interpretation and the following:

1. Project Name
2. Date

3. Name of Contractor
4. Name of Consultant.
5. RFI number, numbered sequentially.
6. Specification Section number and title and related paragraphs, as appropriate.
7. Drawing number and detail references, as appropriate.
8. Field dimensions and conditions, as appropriate.
9. Contractor's suggested solution(s). If Contractor's solution(s) impact the Contract Time or the Contract Sum, Contractor shall state impact in the RFI.
10. Contractor's signature.
11. Attachments: Include drawings, descriptions, measurements, photos, Product Data, Shop Drawings, and other information necessary to fully describe items needing interpretation.

C. RFI Format: Contractor's standard form, submitted as hard-copy or PDF electronic submittal.

D. Standard Form

1. Identify each page of attachments with the RFI number and sequential page number.

E. Consultant's Action: Consultant will review each RFI, determine action required, and return it. Allow seven (7) working days for Architect's response for each RFI. RFIs received after 1:00 p.m. will be considered as received the following working day.

1. The following RFIs will be returned without action:

    a. Requests for approval of substitutions.
    b. Requests for coordination information already indicated in the Contract Documents.
    c. Requests for adjustments in the Contract Time or the Contract Sum.
    d. Requests for interpretation of Consultant's actions on submittals.
    e. Incomplete RFIs or RFIs with numerous errors.

2. Consultant's action may include a request for additional information, in which case Architect's time for response will start again.
3. Consultant's action on RFI's that may result in a change to the Contract Time or the Contract Sum does not constitute an approval to proceed with the additional Work. Contractor must submit a Change Proposal and receive written approval to proceed according to Division 1 Section "Contract Modification Procedures".
    a. If Contractor believes the RFI response warrants a change in the Contract Time or the Contract Sum, notify Consultant in writing within five (5) days of receipt of the RFI response.

F. On receipt of Consultant's action, update the RFI log and immediately distribute the RFI response to affected parties. Review response and notify Architect within seven (7) days if Contractor disagrees with response.

G. RFI Log: Prepare, maintain, and submit a tabular log of RFIs organized by the RFI number. Submit log biweekly. Include the following:

1. Project Name

2. Name and address of Contractor.
3. Name and address of Consultant.
4. RFI number including RFI's that were dropped and not submitted.
5. RFI description
6. Date the RFI was submitted.
7. Date Consultant's response was received.
8. Identification of the related Minor Change in the Work, Construction Change Directive and Proposal Request as appropriate.
9. Identification of related Field Order, Work Change Directive and Proposal Request as appropriate.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 01 31 00

SECTION 01 32 00 - CONSTRUCTION PROGRESS DOCUMENTATION

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and all Divisions of the Technical Specifications, apply to this Section.

1.2 SUMMARY

A. This Section includes administrative and procedural requirements for documenting the progress of construction during performance of the Work, including the following:

1. Preliminary Construction Schedule.

2. Contractor's Construction Schedule.

3. Submittals Schedule.

4. Daily construction reports.

5. CPM Reports

B. Related Sections include the following:

1. Division 1, of the Technical Specifications Section "Payment Procedures" for submitting the Schedule of Values.
2. Division 1, of the Technical Specifications Section "Project Management and Coordination" for submitting and distributing meeting and conference minutes.
3. Division 1, of the Technical Specifications Section "Submittal Procedures" for submitting schedules and reports.
4. Division 1, of the Technical Specifications Section "Quality Requirements" for submitting a schedule of tests and inspections.
5. Division 1, of the Technical Specifications Section "Closeout Procedures" for Project Record Documents at Project closeout.

1.3 SUBMITTALS

A. Qualification Data: For firms and persons specified in "Quality Assurance" Article to demonstrate their capabilities and experience. Include lists of completed projects with project names and addresses, names and addresses of Consultants and owners, and other information specified. The date shall be submitted for any change of construction personal.

B. Preliminary Construction Schedule: Submit three printed copies; one a single sheet, of

the Preliminary Construction Schedule.

C. Contractor's Construction Schedule: Submit three printed copies of initial schedule, large enough to show entire schedule for entire construction period.

1. If required, submit an electronic copy of schedule, using software indicated, on a CD and labeled to comply with requirements for submittals. Include type of schedule (Initial or Updated) and date on label.

D. Daily Construction Reports: Submit two copies at monthly intervals.

E. Submittals Schedule: Submit three copies of schedule. Arrange the following information in a tabular format:

1. Scheduled date for first submittal.

2. Of the Technical Specifications Section number and title.

3. Submittal category (action or informational).

4. Name of subcontractor.

5. Description of the Work covered.

6. Scheduled date for Consultant's final release or approval.

1.4 COORDINATION

A. Coordinate preparation and processing of schedules and daily construction reports with performance of construction activities and with scheduling and reporting of separate contractors.

B. Coordinate Contractor's Construction Schedule with the Schedule of Values, list of subcontracts, Submittals Schedule, payment requests, and other required schedules and reports.

1. Secure time commitments for performing critical elements of the Work from parties involved.

2. Coordinate each construction activity in the network with other activities and schedule them in proper sequence.

PART 2 - PRODUCTS

2.1 SUBMITTALS SCHEDULE

A. Preparation: Submit a schedule of submittals, arranged in chronological order by dates required by construction schedule. Include time required for review, re-submittal,

ordering, manufacturing, fabrication, and delivery when establishing dates.

1. Coordinate Submittals Schedule with list of subcontracts, the Schedule of Values, and Contractor's Construction Schedule.

2. Initial Submittal: Submit concurrently with preliminary bar-chart schedule. Include submittals required during the first 60 days of construction. List those required to maintain orderly progress of the Work and those required early because of long lead time for manufacture or fabrication.
   a) At Contractor's option, show submittals on the Preliminary Construction Schedule, instead of tabulating them separately.

3. Final Submittal: Submit concurrently with the first complete submittal of Contractor's Construction Schedule.

2.2 CONTRACTOR'S CONSTRUCTION SCHEDULE, GENERAL

A. Time Frame: Extend schedule from date established for the Notice to Proceed, through the date of Substantial Completion and Final Completion.

1. Contract completion date shall not be changed, unless specifically authorized by Change Order.

B. Activities: Treat a separate numbered activity for each principal element of the Work. Comply with the following:

1. Activity Duration: Define activities by number of days to complete.

2. Procurement Activities: Include procurement process activities for long lead items and major items, requiring a cycle of more than 60 days, as separate activities in schedule. Procurement cycle activities include, but are not limited to, submittals, approvals, purchasing, fabrication, and delivery.

3. Submittal Review Time: Include review and re-submittal times indicated in Division 1 Section "Submittal Procedures" in schedule. Coordinate submittal review times in Contractor's Construction Schedule with Submittals Schedule.

4. Startup and Testing Time: Include number days for startup and testing.

5. Substantial Completion: Indicate completion in advance of date established for Substantial Completion, and allow time for Consultant's administrative procedures necessary for certification of Substantial Completion.

C. Constraints: Include constraints and work restrictions indicated in the Contract Documents and as follows in the schedule, and show how the sequence of the Work is affected.

1. Phasing: Arrange list of activities on schedule by phase.

2. Work Restrictions: Show the effect of the following items on the schedule:

a) Coordination with existing construction.
b) Limitations of continued occupancies.
c) Uninterruptible services.
d) Partial occupancy before Substantial Completion.
e) Use of premises restrictions.
f) Environmental control.

3. Work Stages: Indicate important stages of construction for each major portion of the Work, including, but not limited to, the following:

a. Submittals.
b. Purchases.
c. Mockups.
d. Fabrication.
e. Sample testing.
f. Deliveries.
g. Installation.
h. Tests and inspections.
i. Startup and placement into final use and operation.

D. Milestones: If not included in the Construction Documents, milestones shall be indicated in the Construction Schedule for the Consultant's and Owner's approval and shall be reference points of the construction progress.

E. Contract Modifications: For each proposed contract modification and concurrent with its submission, prepare a time-impact analysis using fragments to demonstrate the effect of the proposed change on the overall project schedule.

2.3 PRELIMINARY CONSTRUCTION SCHEDULE

A. Bar-Chart Schedule: Submit preliminary horizontal bar-chart-type construction schedule within seven (7) days of date established for the Notice to Proceed

B. Preparation: Indicate each significant construction activity separately. Identify first workday of each week with a continuous vertical line. Outline significant construction activities for first 60 days of construction. Include skeleton diagram for the remainder of the Work.

2.4 REPORTS

A. Daily Construction Reports: Prepare a daily construction report recording the following information concerning events at Project site:

1. List of Subcontractors at Project site.

2. List of separate Contractors at Project site.

3. Approximate count of personnel at Project site.

4. High and low temperatures and general weather conditions.

5. Accidents.

6. Meetings and significant decisions.

7. Unusual events (refer to special reports).

8. Stoppages, delays, shortages, and losses.

9. Services connected and disconnected.

10. Equipment or system tests and startups.

11. Visitors to the site

12. Activities accomplished that day

PART 3 - EXECUTION

3.1 CONTRACTOR'S CONSTRUCTION SCHEDULE

A. Contractor's Construction Schedule Updating: At weekly intervals, update schedule to reflect actual construction progress and activities. Issue schedule one week before each regularly scheduled progress meeting.

1. Revise schedule immediately after each meeting or other activity where revisions have been recognized or made. Issue updated schedule concurrently with the report of each such meeting.

2. Include a report with updated schedule that indicates every change, including, but not limited to, changes in logic, durations, actual starts and finishes, and activity durations.

3. As the Work progresses, indicate Actual Completion percentage for each activity.

B. Distribution: Distribute copies of approved schedule to Consultant, Owner, separate Contractors, testing and inspecting agencies, and other parties identified by Contractor with a need-to-know schedule responsibility.

1. Post copies in Project meeting rooms and temporary field offices.

2. When revisions are made, distribute updated schedules to the same parties and post in the same locations. Delete parties from distribution when they have completed their assigned portion of the Work and are no longer involved in performance of construction activities.

END OF SECTION 01 32 00

SECTION 01 33 00 - SUBMITTAL PROCEDURES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and all Divisions of the Technical Specifications, apply to this Section.

1.2 SUMMARY

A. This Section includes administrative and procedural requirements for submitting Shop Drawings, Product Data, Samples, and other miscellaneous submittals.

B. Related Sections include the following:

1. Division 1, of the Technical Specifications Section "Payment Procedures" for submitting Applications for Payment.
2. Division 1, of the Technical Specifications Section "Project Management and Coordination" for submitting Coordination Drawings.
3. Division 1, of the Technical Specifications Section "Construction Progress Documentation" for submitting schedules and reports, including Contractor's Construction Schedule and the Submittals Schedule
4. Division 1, of the Technical Specifications Section "Photographic Documentation" for submitting periodic construction photographs.
5. Division 1, of the Technical Specifications Section "Quality Requirements" for test and inspection reports and Delegated-Design Submittals and for erecting mockups.
6. Division 1, of the Technical Specifications Section "Closeout Procedures" for submitting warranties Project Record Documents and operation and maintenance manuals.
7. Division 1, of the Technical Specifications Section "Project Record Documents" for submitting Record Drawings, Record Specifications, and Record Product Data.
8. Division 1, of the Technical Specifications Section "Operation and Maintenance Data" for operation and maintenance manual requirements.

1.3 DEFINITIONS

A. Action Submittals: Written and graphic information that requires Consultant's responsive action.

B. Informational Submittals: Written information that does not require Consultant's approval. Submittals may be rejected for not complying with requirements.

1.4 SUBMITTAL PROCEDURES

A. The Contractor shall provide the submittals as required by the Consultant’s Submittal Log and the Contract Documents.

B. General: Electronic copies of CAD Drawings of the Contract Drawings will be provided by Consultant for Contractor's use in preparing submittals.

C. Coordination: Coordinate preparation and processing of submittals with performance of construction activities.

1. Coordinate each submittal with fabrication, purchasing, testing, delivery, other submittals, and related activities that require sequential activity.
2. Coordinate transmittal of different types of submittals for related parts of the Work so processing will not be delayed because of need to review submittals concurrently for coordination.

    a. Consultant reserves the right to withhold action on a submittal requiring coordination with other submittals until related submittals are received.

D. Submittals Schedule: Comply with requirements in Division 1, of the Technical Specifications Section "Construction Progress Documentation" for list of submittals and time requirements for scheduled performance of related construction activities. (Submittal Log)

E. Processing Time: Allow enough time for submittal review, including time for re- submittals, as follows. Time for review shall commence on Consultant's receipt of submittal.

1. Initial Review: Allow seven (7) days for initial review of each submittal. Allow additional time if processing must be delayed to permit coordination with subsequent submittals. Consultant will advise Contractor when a submittal being processed must be delayed for coordination.
2. Concurrent Review: Where concurrent review of submittals by Consultant's consultants, Owner, or other parties is required, allow twenty-one (21) days for initial review of each submittal.
3. If intermediate submittal is necessary, process it in same manner as initial submittal.
4. Allow seven (7) days for processing each re-submittal.
5. No extension of the Contract Time will be authorized because of failure to transmit submittals enough in advance of the Work to permit processing.

F. Identification: Place a permanent label or title block on each submittal for identification.

1. Indicate name of firm or entity that prepared each submittal on label or title block.
2. Provide a space approximately 4 by 5 inches on label or beside title block to record Contractor's review and approval markings and action taken by Consultant.
3. Include the following information on label for processing and recording action taken:

    a. Project name.
    b. Date.
    c. Name and address of Consultant.
    d. Name and address of Contractor.
    e. Name and address of subcontractor.
    f. Name and address of supplier.
    g. Name of manufacturer.
    h. Unique identifier, including related specification section/number and revision

number.

i. Number and title of appropriate Technical Specifications Section.

j. Drawing number and detail references, as appropriate.

k. Other necessary identification.

G. Deviations: Highlight, encircle, or otherwise identify deviations from the Contract Documents on submittals.

H. Additional Copies: Unless additional copies are required for final submittal, and unless Consultant observes noncompliance with provisions of the Contract Documents, initial submittal may serve as final submittal.

1. Submit one copy of submittal to concurrent reviewer in addition to specified number of copies to Consultant.
2. Additional copies submitted for maintenance manuals will be marked with action taken and will be returned.

I. Transmittal: Package each submittal individually and appropriately for transmittal and handling. Transmit each submittal using a transmittal form. Consultant will return submittals, without review, received from sources other than Contractor.

1. On an attached separate sheet, prepared on Contractor's letterhead, record relevant information, requests for data, revisions other than those requested by Consultant on previous submittals, and deviations from requirements of the Contract Documents, including minor variations and limitations. Include the same label information as the related submittal.
2. Include Contractor's certification stating that information submitted complies with requirements of the Contract Documents.
3. Transmittal Form: Use on form to be defined by the Consultant.

J. Distribution: Furnish copies of final submittals to manufacturers, Subcontractors, suppliers, fabricators, installers, authorities having jurisdiction, and others as necessary for performance of construction activities. Show distribution on transmittal forms.

K. Use for Construction: Use only final submittals with mark indicating action taken by Consultant in connection with construction.

PART 2 - PRODUCTS

2.1 ACTION SUBMITTALS

A. General: Prepare and submit Action Submittals required by individual Specification Sections.

1. Number of Copies: Submit 6 copies of each submittal, unless otherwise indicated. Consultant will return 5 copies. Mark up and retain three returned copy as a Project Record Document.

B. Product Data: Collect information into a single submittal for each element of construction and

type of product or equipment.

1. If information must be specially prepared for submittal because standard printed data are not suitable for use, submit as Shop Drawings, not as Product Data.
2. Mark each copy of each submittal to show which products and options are applicable.
3. Include the following information, as applicable:

    a. Manufacturer's written recommendations.
    b. Manufacturer's product specifications.
    c. Manufacturer's installation instructions.
    d. Standard color charts.
    e. Manufacturer's catalog cuts.
    f. Wiring diagrams showing factory-installed wiring.
    g. Printed performance curves.
    h. Operational range diagrams.
    i. Mill reports.
    j. Standard product operating and maintenance manuals.
    k. Compliance with recognized trade association standards.
    l. Compliance with recognized testing agency standards.
    m. Application of testing agency labels and seals.
    n. Notation of coordination requirements.
    o. Manufacturer’s location.

C. Shop Drawings: Prepare Project-specific information, drawn accurately to scale. Do not base Shop Drawings on reproductions of the Contract Documents or standard printed data.

1. Preparation: Include the following information, as applicable:

    a. Dimensions.
    b. Identification of products.
    c. Fabrication and installation drawings.
    d. Roughing-in and setting diagrams and existing conditions.
    e. Wiring diagrams showing field-installed wiring, including power, signal, and control wiring.
    f. Shopwork manufacturing instructions.
    g. Templates and patterns.
    h. Schedules.
    i. Design calculations.
    j. Compliance with specified standards.
    k. Notation of coordination requirements.
    l. Notation of dimensions established by field measurement.

2. Wiring Diagrams: Differentiate between manufacturer-installed and field- installed wiring.
3. Sheet Size: Except for templates, patterns, and similar full-size drawings, submit Shop Drawings on sheets at least 8-1/2 by 11 inches but no larger than 30 by 40 inches.
4. Number of Copies: Submit 6 blue- or black-line prints of each submittal, print will be required for operation and maintenance manuals. Consultant will retain two prints; remainder will be returned.

D. Coordination Drawings: Comply with requirements in Division 1 Section "Project Management and Coordination."

E. Samples: Prepare physical units of materials or products, including the following:

1. Comply with requirements in Division 1 Section "Quality Requirements" for mockups. Verify the samples are true presentation of the materials to be used.
2. Samples for Initial Selection: Submit manufacturer's color charts consisting of units or sections of units showing the full range of colors, textures, and patterns available.
3. Preparation: Mount, display, or package Samples in manner specified to facilitate review of qualities indicated. Prepare Samples to match Consultant's sample where so indicated. Attach label on unexposed side that includes the following:

    a. Generic description of Sample.
    b. Product name or name of manufacturer.
    c. Sample source.

4. Additional Information: On an attached separate sheet, prepared on Contractor's letterhead, provide the following:

    a. Size limitations.
    b. Compliance with recognized standards.
    c. Availability.
    d. Delivery time.

5. Submit Samples for review of kind, color, pattern, and texture for a final check of these characteristics with other elements and for a comparison of these characteristics between final submittal and actual component as delivered and installed.

    a. If variation in color, pattern, texture, or other characteristic is inherent in the product represented by a Sample, submit at least three sets of paired units that show approximate limits of the variations. The consultant will return submittal with the option selected.
    b. Refer to individual Specification Sections for requirements for Samples that illustrate workmanship, fabrication techniques, details of assembly, connections, operation, and similar construction characteristics.

6. Disposition: Maintain sets of approved Samples at Project site, available for quality-control comparisons throughout the course of construction activity. Sample sets may be used to determine final acceptance of construction associated with each set.

    a. Samples that may be incorporated into the Work are indicated in individual Specification Sections. Such Samples must be in an undamaged condition at time of use.
    b. Samples not incorporated into the Work, or otherwise designated as Owner's property, are the property of Contractor.

F. Product Schedule or List: Prepare a written summary indicating types of products required for the

Work and their intended location. Include the following information in tabular form:

1. Type of product. Include unique identifier for each product.
2. Number and name of room or space.
3. Location within room or space.

G. Delegated-Design Submittal: Comply with requirements in Division 1 Section "Quality Requirements."

H. Submittals Schedule: Comply with requirements in Division 1 Section "Construction Progress Documentation."

I. Application for Payment: Comply with requirements in Division 1 Section "Payment Procedures."

J. Schedule of Values: Comply with requirements in Division 1 Section "Payment Procedures."

K. Subcontract List: Prepare a written summary identifying individuals or firms proposed for each portion of the Work, including those who are to furnish products or equipment fabricated to a special design. Include the following information in tabular form:

1. Name, address, and telephone number of entity performing subcontract or supplying products.

2.2 INFORMATIONAL SUBMITTALS

A. General: Prepare and submit Informational Submittals required by other Specification Sections.

1. Number of Copies: Submit two copies of each submittal, unless otherwise indicated. Consultant will not return copies.
2. Certificates and Certifications: Provide a notarized statement that includes signature of entity responsible for preparing certification. Certificates and certifications shall be signed by an officer or other individual authorized to sign documents on behalf of that entity.

B. Contractor's Construction Schedule: Comply with requirements in Division 1 Section "Construction Progress Documentation."

C. Qualification Data: If requested, prepare written information that demonstrates capabilities and experience of firm or person. Include lists of completed projects with project names and addresses, names and addresses of Consultants and owners, and other information specified.

D. Product Certificates: Prepare written statements on manufacturer's letterhead certifying that product complies with requirements.

E. Welding Certificates: Prepare written certification that welding procedures and personnel comply with requirements. Submit record of Welding Procedure Specification (WPS) and Procedure Qualification Record (PQR) on AWS forms. Include names of firms and personnel certified.

F. Installer Certificates: Prepare written statements on manufacturer's letterhead certifying that Installer complies with requirements and, where required, is authorized for this specific Project.

G. Manufacturer Certificates: Prepare written statements on manufacturer's letterhead certifying that manufacturer complies with requirements. Include evidence of manufacturing experience where required.

H. Material Certificates: Prepare written statements on manufacturer's letterhead certifying that material complies with requirements.

I. Compatibility Test Reports: Prepare reports written by a qualified testing agency, on testing agency's standard form, indicating and interpreting results of compatibility tests performed before installation of product. Include written recommendations for primers and substrate preparation for the application.

J. Product Test Reports: Prepare written reports indicating current product produced by manufacturer complies with requirements. Base reports on evaluation of tests performed by manufacturer and witnessed by a qualified testing agency, or on comprehensive tests performed by a qualified testing agency.

K. Coordinate individual Specification Sections with paragraph below by including specific model code organization in that Section. If all are same, insert name below. Maintenance Data: Prepare written and graphic instructions and procedures for operation and normal maintenance of products and equipment. Comply with requirements in Division 1 Section "Closeout Procedures Operation and Maintenance Data."

L. Manufacturer's Instructions: Prepare written or published information that documents manufacturer's recommendations, guidelines, and procedures for installing or operating a product or equipment. Include name of product and name, address, and telephone number of manufacturer. Include the following, as applicable:

1. Preparation of substrates.
2. Required substrate tolerances.
3. Sequence of installation or erection.
4. Required installation tolerances.
5. Required adjustments.
6. Recommendations for cleaning and protection.

M. Manufacturer's Field Reports: Prepare written information documenting factory- authorized service representative's tests and inspections. Include the following, as applicable:

1. Name, address, and telephone number of factory-authorized service representative making report.
2. Statement on condition of substrates and their acceptability for installation of product.
3. Statement that products at Project site comply with requirements.
4. Summary of installation procedures being followed, whether they comply with requirements and, if not, what corrective action was taken.
5. Results of operational and other tests and a statement of whether observed performance complies with requirements.

6. Statement whether conditions, products, and installation will affect warranty.
7. Other required items indicated in individual Specification Sections.

N. Material Safety Data Sheets: Submit two copies for the Consultant and the Owner and keep a copy at the job site. Post warning signs when appropriate.

PART 3 - EXECUTION

3.1 CONTRACTOR'S REVIEW

A. Review each submittal and check for compliance with the Contract Documents. Note corrections and field dimensions. Mark with approval stamp before submitting to Consultant.

B. Approval Stamp: Stamp each submittal with a uniform, approval stamp. Include Project name and location, submittal number, Specification Section title and number, name of reviewer, date of Contractor's approval, and statement certifying that submittal has been reviewed, checked, and approved for compliance with the Contract Documents.

3.2 CONSULTANT'S ACTION

A. General: Consultant will not review submittals that do not bear Contractor's approval stamp and will return them without action.

B. Action Submittals: Consultant will review each submittal, make marks to indicate corrections or modifications required, and return it. Consultant will stamp each submittal with an action stamp and will mark stamp appropriately to indicate action taken, as follows:

C. Informational Submittals: Consultant will review each submittal and will not return it, or will reject and return it if it does not comply with requirements. Consultant will forward each submittal to appropriate party.

D. Submittals not required by the Contract Documents will not be reviewed and may be discarded unless a justification is also submitted.

END OF SECTION 01 33 00

SECTION 01 40 00 - QUALITY REQUIREMENTS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and all Divisions of the Technical Specifications, apply to this Section.

1.2 SUMMARY

A. This Section includes administrative and procedural requirements for quality assurance and quality control.

B. Testing and inspecting services are required to verify compliance with requirements specified or indicated. These services do not relieve Contractor of responsibility for compliance with the Contract Document requirements.

1. Specific quality-control requirements for individual construction activities are specified in the Sections that specify those activities. Requirements in those Sections may also cover production of standard products.
2. Specified tests, inspections, and related actions do not limit Contractor's quality- control procedures that facilitate compliance with the Contract Document requirements.
3. Requirements for Contractor to provide quality-control services required by Consultant, Owner, or authorities having jurisdiction are not limited by provisions of this Section.

C. Related Sections include the following:

1. Division 1, of the Technical Specifications Section "Construction Progress Documentation" for developing a schedule of required tests and inspections.
2. Division 1, of the Technical Specifications Section "Cutting and Patching" for repair and restoration of construction disturbed by testing and inspecting activities.
3. Divisions 2 through 48, of the Technical Specifications Sections for specific test and inspection requirements.

1.3 DEFINITIONS

A. Quality-Assurance Services: Activities, actions, and procedures performed before and during execution of the Work to guard against defects and deficiencies and ensure that proposed construction complies with requirements.

B. Quality-Control Services: Tests, inspections, procedures, and related actions during and after execution of the Work to evaluate that completed construction comply with requirements. Services do not include contract enforcement activities performed by Consultant.

C. Mockups: Full-size, physical example assemblies to illustrate finishes and materials. Mockups

are used to verify selections made under Sample submittals, to demonstrate aesthetic effects and, where indicated, qualities of materials and execution, and to review construction, coordination, testing, or operation; they are not Samples. Mockups establish the standard by which the Work will be judged.

D. Testing Agency: An entity engaged to perform specific tests, inspections, or both. Testing laboratory shall mean the same as testing agency.

1.4 SUBMITTALS

A. Schedule of Tests and Inspections: Prepare in tabular form and include the following:

1. Technical Specifications Section number and title.
2. Description of test and inspection.
3. Identification of applicable standards.
4. Identification of test and inspection methods.
5. Number of tests and inspections required.
6. Time schedule or time span for tests and inspections.
7. Entity responsible for performing tests and inspections.
8. Requirements for obtaining samples.
9. Unique characteristics of each quality-control service.

1.5 QUALITY ASSURANCE

A. Fabricator Qualifications: A firm experienced in producing products similar to those indicated for this Project and with a record of successful in-service performance, as well as sufficient production capacity to produce required units.

B. Factory-Authorized Service Representative Qualifications: An authorized representative of manufacturer who is trained and approved by manufacturer to inspect installation of manufacturer's products that are similar in material, design, and extent to those indicated for this Project.

C. Installer Qualifications: A firm or individual experienced in installing, erecting, or assembling work similar in material, design, and extent to that indicated for this Project, whose work has resulted in construction with a record of successful in-service performance.

D. Manufacturer Qualifications: A firm experienced in manufacturing products or systems similar to those indicated for this Project and with a record of successful in- service performance.

E. Professional Engineer Qualifications: A professional engineer who is legally qualified to practice in jurisdiction where Project is located and who is experienced in providing engineering services of the kind indicated. Engineering services are defined as those performed for installations of the system, assembly, or product that are similar to those indicated for this Project in material, design, and extent for a second option.

F. Testing Agency Qualifications: An agency with the experience and capability to conduct testing and inspecting indicated, as documented by ASTM E 548, and that specializes in types of tests

and inspections to be performed.

1.6 QUALITY CONTROL

A. Owner Responsibilities: Where quality-control services are indicated as Owner's responsibility, Owner will engage a qualified testing agency to perform these services.

1. Owner will furnish Contractor with names, addresses, and telephone numbers of testing agencies engaged and a description of the types of testing and inspecting they are engaged to perform.
2. Costs for retesting and re-inspecting construction that replaces or is necessitated by work that failed to comply with the Contract Documents will be charged to Contractor, and the Contract Sum will be adjusted by Change Order.

B. Contractor Responsibilities: Unless otherwise indicated, provide quality-control services specified and required by authorities having jurisdiction.

1. Where services are indicated as Contractor's responsibility, engage a qualified testing agency to perform these quality-control services.

    a. Contractor shall not employ the same entity engaged by Owner, unless agreed to in writing by Owner.

2. Notify testing agencies at least 24 hours in advance of time when Work that requires testing or inspecting will be performed.
3. Where quality-control services are indicated as Contractor's responsibility, submit a certified written report, in duplicate, of each quality-control service.
4. Testing and inspecting requested by Contractor and not required by the Contract Documents are Contractor's responsibility.
5. Submit additional copies of each written report directly to authorities having jurisdiction, when they so direct.

C. Special Tests and Inspections: Owner will engage a testing agency to conduct special tests and inspections required by authorities having jurisdiction as the responsibility of Owner.

1. Testing agency will notify Consultant and Contractor promptly of irregularities and deficiencies observed in the Work during performance of its services.
2. Testing agency will submit a certified written report of each test, inspection, and similar quality-control service to Consultant with copy to Contractor and to authorities having jurisdiction.
3. Testing agency will submit a final report of special tests and inspections at Substantial Completion, which includes a list of unresolved deficiencies.
4. Testing agency will interpret tests and inspections and state in each report whether tested and inspected work complies with or deviates from the Contract Documents.
5. Testing agency will retest and re-inspect corrected work.

D. Manufacturer's Field Services: Where indicated, engage a factory-authorized service representative to inspect field-assembled components and equipment installation, including service connections. Report results in writing.

E. Retesting/Re-inspecting: Regardless of whether original tests or inspections were Contractor's responsibility, provide quality-control services as requested by the Consultant at the Contractor's expense, including retesting and re-inspecting, for construction that revised or replaced Work, at the Contractor's expense, that failed to comply with requirements established by the Contract Documents.

F. Testing Agency Responsibilities: Cooperate with Consultant and Contractor in performance of duties. Provide qualified personnel to perform required tests and inspections.

1. In the event there is a need for the Contractor to have testing performed.

2. Notify Consultant and Contractor promptly of irregularities or deficiencies observed in the Work during performance of its services.
3. Interpret tests and inspections and state in each report whether tested and inspected work complies with or deviates from requirements.
4. Submit a certified written report, in duplicate, of each test, inspection, and similar quality-control service through Contractor.
5. Do not release, revoke, alter, or increase requirements of the Contract Documents or approve or accept any portion of the Work.
6. Do not perform any duties of Contractor.

G. Associated Services: Cooperate with agencies performing required tests, inspections, and similar quality-control services, and provide reasonable auxiliary services as requested. Notify agency sufficiently in advance of operations to permit assignment of personnel. Provide the following:

1. Access to the Work.
2. Incidental labor and facilities necessary to facilitate tests and inspections.
3. Adequate quantities of representative samples of materials that require testing and inspecting. Assist agency in obtaining samples.
4. Facilities for storage and field-curing of test samples.
5. Delivery of samples to testing agencies.
6. Preliminary design mix proposed for use for material mixes that require control by testing agency.
7. Security and protection for samples and for testing and inspecting equipment at Project site.

H. Coordination: Coordinate sequence of activities to accommodate required quality- assurance and quality-control services with a minimum of delay and to avoid necessity of removing and replacing construction to accommodate testing and inspecting.

1. Schedule times for tests, inspections, obtaining samples, and similar activities.

I. Schedule of Tests and Inspections: Prepare a schedule of tests, inspections, and similar quality-control services required by the Contract Documents. Submit schedule within 30 days of date established for the Notice to Proceed.

1. Distribution: Distribute schedule to Owner, Consultant, testing agencies, and each party involved in performance of portions of the Work where tests and inspections are required.

PART 2 - PRODUCTS: (NOT USED)

PART 3 - EXECUTION

3.1 REPAIR AND PROTECTION

A. General: On completion of testing, inspecting, sample taking, and similar services, repair damaged construction and restore substrates and finishes.

1. Provide materials and comply with installation requirements specified in other Sections of these Specifications. Restore patched areas and extend restoration into adjoining areas in a manner that eliminates evidence of patching.
2. Comply with the Contract Document requirements for Division 1, of the Technical Specifications Section "Cutting and Patching."

B. Protect construction exposed by or for quality-control service activities.

C. Repair and protection are Contractor's responsibility, regardless of the assignment of responsibility for quality-control services.

END OF SECTION 01 40 00

SECTION 01 50 00 TEMPORARY FACILITIES AND CONTROLS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and all Divisions of the Technical Specifications, apply to this Section.

1.2 SUMMARY

A. This Section includes requirements for temporary facilities and controls, including temporary utilities, support facilities, and security and protection facilities.

B. Supervision: Enforce strict discipline in use of temporary facilities. To minimize waste and abuse, limit availability of temporary facilities to essential and intended uses.

C. Temporary utilities include, but are not limited to, the following:

1. Sewers and drainage.
2. Water service and distribution.
3. Sanitary facilities, including toilets, wash facilities, and drinking-water facilities.
4. Electric power service.
5. Lighting.

D. Support facilities include, but are not limited to, the following:

1. Temporary roads and paving.
2. Dewatering facilities and drains.
3. Project identification and temporary signs.
4. Waste disposal facilities.
5. Storage and fabrication sheds.
6. Lifts and hoists.
7. Construction aids and miscellaneous services and facilities.

E. Security and protection facilities include, but are not limited to, the following:

1. Environmental protection.
2. Stormwater control.
3. Tree and plant protection.
4. Pest control.
5. Site enclosure fence.
6. Security enclosure and lockup.
7. Barricades, warning signs, and lights.
8. Temporary enclosures.
9. Temporary partitions.

10. Fire protection.

F. Related Sections include the following:
1. Division 1, of the Technical Specifications Section "Submittal Procedures" for procedures for submitting copies of implementation and termination schedule and utility reports.
2. Division 1, of the Technical Specifications Section "Execution Requirements" for progress cleaning requirements.

1.3 DEFINITIONS

A. Permanent Enclosure: As determined by Consultant, permanent or temporary roofing is complete, insulated, and weather tight; exterior walls are insulated and weather tight; and all openings are closed with permanent construction or substantial temporary enclosures.

1.4 USE CHARGES

A. General: Cost or use charges for temporary facilities are not chargeable to Owner or Consultant and shall be included in the Contract Sum. Allow other entities to use temporary services and facilities without cost, including, but not limited to, the following:

1. Owner's construction forces.
2. Occupants of Project.
3. Consultant.
4. Testing agencies.
5. Personnel of authorities having jurisdiction.

B. Sewer Service: Pay sewer service use charges for sewer usage, by all parties engaged in construction, at Project site.

C. Water Service: Pay water service use charges, whether metered or otherwise, for water used by all entities engaged in construction activities at Project site.

D. Electric Power Service: Pay electric power service use charges, whether metered or otherwise, for electricity used by all entities engaged in construction activities at Project site.

E. Communications: Pay all charge associated with communications.

F. Streets, Sidewalks, and Temporary Easements: Pay all charges associated with the Work where charges will occur.

1.5 SUBMITTALS

A. Implementation and Termination Schedule: Within 15 days of date established for submittal of Contractor's Construction Schedule, submit a schedule indicating implementation and termination of each temporary utility.

1.6 QUALITY ASSURANCE

A. Standards: Comply with ANSI A10.6, NECA's "Temporary Electrical Facilities," and NFPA 241.

1. Trade Jurisdictions: Assigned responsibilities for installation and operation of temporary utilities are not intended to interfere with trade regulations and union jurisdictions.
2. Electric Service: Comply with NECA, NEMA, and UL standards and regulations for temporary electric service. Install service to comply with NFPA 70.

B. Tests and Inspections: Arrange for authorities having jurisdiction to test and inspect each temporary utility before use. Obtain required certifications and permits.

1.7 PROJECT CONDITIONS

A. Temporary Utilities: At earliest feasible time, when acceptable to Owner, change over from use of temporary service to use of permanent service.

1. Temporary Use of Permanent Facilities: Installer of each permanent service shall assume responsibility for operation, maintenance, and protection of each permanent service during its use as a construction facility before Owner's acceptance, regardless of previously assigned responsibilities.

B. Conditions of Use: The following conditions apply to use of temporary services and facilities by all parties engaged in the Work:

1. Keep temporary services and facilities clean and neat.
2. Relocate temporary services and facilities as required by progress of the Work.

PART 2 - PRODUCTS:

2.1 MATERIALS

A. General: Provide new materials. Undamaged, previously used materials in serviceable condition may be used if indicated on the plans and/or specifications. Provide materials suitable for use intended.

B. Chain-Link Fencing: Minimum 2-inch , 0.148-inch- thick, galvanized steel, chain-link fabric fencing; minimum 6 feet high with galvanized steel pipe posts; minimum 2-3/8- inch- OD line posts and 2-7/8-inch- OD corner and pull posts, with 1-5/8-inch- OD top rails.

C. Water: Potable.

2.2 EQUIPMENT

A. General: Provide equipment suitable for use intended.

B. Fire Extinguishers: Hand carried, portable, UL rated. Provide class and extinguishing agent as indicated or a combination of extinguishers of NFPA-recommended classes for exposures.

1. Comply with NFPA 10 and NFPA 241 for classification, extinguishing agent, and size required by location and class of fire exposure and the requirements of the local Governing agency.

C. Self-Contained Toilet Units: Single-occupant units of chemical or aerated recirculation or combustion type; vented; fully enclosed with a glass-fiber-reinforced polyester shell or similar nonabsorbent material.

D. Drinking-Water Fixtures: Containerized, tap-dispenser, bottled-water drinking-water units, including paper cup supply.

E. Electrical Outlets: Properly configured, NEMA-polarized outlets to prevent insertion of 110- to 120-V plugs into higher-voltage outlets; equipped with ground-fault circuit interrupters, reset button, and pilot light.

F. Power Distribution System Circuits: Where permitted and overhead and exposed for surveillance, wiring circuits, not exceeding 125-V ac, 20-A rating, and lighting circuits may be nonmetallic sheathed cable.

PART 3 - EXECUTION

3.1 INSTALLATION, GENERAL

A. Locate facilities where they will serve Project adequately and result in minimum interference with performance of the Work. Relocate and modify facilities as required.

B. Provide each facility ready for use when needed to avoid delay. Maintain and modify as required. Do not remove until facilities are no longer needed or are replaced by authorized use of completed permanent facilities.

3.2 TEMPORARY UTILITY INSTALLATION

A. General: Engage appropriate local utility company to install temporary service or connect to existing service. Where utility company provides only part of the service, provide the remainder with matching, compatible materials and equipment. Comply with utility company recommendations.

1. Arrange with utility company, Owner, and existing users for time when service can be interrupted, if necessary, to make connections for temporary services.
2. Provide adequate capacity at each stage of construction. Before temporary utility is available, provide trucked-in services.
3. If existing easements cannot be used, the Contractor shall consult and coordinate with the Consultant and Owner to secure, as necessary, the temporary easement. Add provisions for

work not in the Contract but served by temporary facilities if required.

B. Sanitary Facilities: Provide temporary toilets, wash facilities, and drinking-water fixtures. Comply with regulations and health codes for type, number, location, operation, and maintenance of fixtures and facilities.

1. Disposable Supplies: Provide toilet tissue, paper towels, paper cups, and similar disposable materials for each facility. Maintain adequate supply. Provide covered waste containers for disposal of used material.
2. Toilets: Install self-contained toilet units. Shield toilets to ensure privacy. Subparagraph below may be excessive for small- and medium-size projects.
3. Wash Facilities: Install wash facilities supplied with potable water at convenient locations as required. Dispose of drainage properly. Supply cleaning compounds appropriate for each type of material handled.
4. Drinking-Water Facilities: Provide drinking-water.

C. Heating and Cooling: Provide temporary heating and cooling as required by construction activities.

D. Electric Power Service: Provide weatherproof, grounded electric power service and distribution system of sufficient size, capacity, and power characteristics during construction period. Include meters, transformers, overload-protected disconnecting means, automatic ground-fault interrupters, and main distribution switchgear as required.

E. Electric Distribution: Provide receptacle outlets adequate for connection of power tools and equipment.

1. Provide waterproof connectors to connect separate lengths of electrical power cords if single lengths will not reach areas where construction activities are in progress. Do not exceed safe length-voltage ratio.

F. Telephone Service: Provide temporary telephone service throughout construction period for common-use facilities used by all personnel engaged in construction activities.

1. At each telephone, post a list of important telephone numbers in Spanish and English.

a. Police and fire departments.
b. Ambulance service.
c. Contractor's home office.
d. Consultant's office.
e. Engineers' offices.
f. Owner Representative’s office.
g. Principal subcontractors' field and home offices.

3.3 SUPPORT FACILITIES INSTALLATION

A. General: If required, Comply with the following:

1. Locate field offices, storage sheds, sanitary facilities, and other temporary construction and support facilities for easy access.
2. Maintain support facilities until approved by the Consultant to be removed.

B. Temporary Roads and Paved Areas: If applicable/as needed, construct and maintain temporary roads and paved areas to avoid damage to the site. Locate temporary roads and paved areas in same location as permanent roads and paved areas. If applicable, extend temporary roads and paved areas, within construction limits indicated, as necessary for construction operations.

C. Traffic Controls: Provide temporary traffic controls at junction of temporary roads with public roads. Include warning signs for public traffic and "STOP" signs for entrance onto public roads. Comply with requirements of authorities having jurisdiction.

D. Project Identification and Temporary Signs: Prepare Project identification and other signs in sizes indicated. Install signs where indicated to inform public and persons seeking entrance to Project. Do not permit installation of unauthorized signs. The General Contractor shall provide one construction sign. The construction sign shall be installed within the first two weeks of construction and shall be removed when the project is substantially complete. The sign shall be as follows:

a) Project Name
b) Town of Huntersville Park and Recreation Department
c) Name of Contractor
d) Plans and Specifications prepared by: Dewberry, Inc.
e) In case of Emergency, call: John Doe at 888-888-8888
f) Letter sizes to be as shown on the detail. All lettering shall be Optima Semi- Bold typeface.
g) Location shall be approved by Consultant.
h) Sign shall be constructed of marine grade ¾ inch plywood, size per detail, 4x4 post(s). The sign shall be single-sided with the plywood on one side.
i) The colors:
Top Panel/Border-Pratt & Lambert Yale Blue Middle
Panel- Pratt & Lambert Silver Mink #2291 Bottom
Panel- Pratt & Lambert Old Mistic #2286 All other
letters- 3M White #7216

E. Waste Disposal Facilities: Provide waste-collection containers in sizes adequate to handle waste from construction operations. Containerize and clearly label hazardous, dangerous, or unsanitary waste materials separately from other waste. Comply with “Construction and Demolition Waste Management Recycling.

F. Storage and Fabrication Sheds: Provide sheds sized, furnished, and equipped to accommodate materials and equipment involved.

3.4 SECURITY AND PROTECTION FACILITIES INSTALLATION

A. Environmental Protection: Provide protection, operate temporary facilities, and conduct

construction in ways and by methods that comply with environmental regulations and that minimize possible air, waterway, and subsoil contamination or pollution or other undesirable effects.

B. Storm water Control: Comply as indicated on the erosion control plan/measures before any earth disturbing activities start.

C. Tree and Plant Protection: Comply with the plans and specifications for protection.

D. Barricades, Warning Signs, and Lights: Comply with standards and code requirements for erecting structurally adequate barricades. Paint with appropriate colors, graphics, and warning signs to inform personnel and public of possible hazard. Where appropriate and needed, provide lighting, including flashing red or amber lights.

E. Temporary Enclosures: Provide temporary enclosures for protection of construction, in progress and completed, from exposure, foul weather, other construction operations, and similar activities. Provide temporary weather tight enclosure for building exterior.

F. Temporary Partitions: Erect and maintain dustproof partitions and temporary enclosures to limit dust and dirt migration and to separate areas from fumes and noise.

G. Temporary Fire Protection:

1. Until fire-protection needs are supplied by permanent facilities, install and maintain temporary fire-protection facilities of types needed to protect against reasonably predictable and controllable fire losses. Comply with NFPA 241.

3.5 OPERATION, TERMINATION, AND REMOVAL

A. Maintenance: Maintain facilities in good operating condition until removal. Protect from damage caused by freezing temperatures and similar elements.

1. Maintain operation of temporary enclosures, heating, cooling, humidity control, ventilation, and similar facilities on a 24-hour basis where required to achieve indicated results and to avoid possibility of damage.

2. Prevent water-filled piping from freezing. Maintain markers for underground lines. Protect from damage during excavation operations.

B. Temporary Facility Changeover: Except for using permanent fire protection as soon as available. Do not change over from using temporary security and protection facilities to permanent facilities until Substantial Completion.

C. Termination and Removal: Remove each temporary facility when need for its service has ended, when it has been replaced by authorized use of a permanent facility, or no later than Substantial Completion. Complete or, if necessary, restore permanent construction that may have been delayed because of interference with temporary facility. Repair damaged Work, clean exposed surfaces, and replace construction that cannot be satisfactorily repaired.

1. Materials and facilities that constitute temporary facilities are the property of Contractor. Owner reserves right to take possession of Project identification signs.

2. At Substantial Completion, clean and renovate permanent facilities used during construction period. Comply with final cleaning requirements in Division 1, of the Technical Specifications Section "Closeout Procedures."

END OF SECTION 01 50 00

SECTION 01 60 00 - PRODUCT REQUIREMENTS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and all Divisions of the Technical Specifications, apply to this Section.

1.2 SUMMARY

A. This Section includes the following administrative and procedural requirements: selection of products for use in Project; product delivery, storage, and handling; manufacturers' standard warranties on products; special warranties; product substitutions; and comparable products.

B. Related Sections include the following:
   1. Division 1, of the Technical Specifications Section "Alternates" for products selected under an alternate.

1.3 DEFINITIONS

A. Products: Items purchased for incorporating into the Work, whether purchased for Project or taken from previously purchased stock. The term "product" includes the terms "material," "equipment," "system," and terms of similar intent.
   1. Named Products: Items identified by manufacturer's product name, including make or model number or other designation, shown or listed in manufacturer's published product literature that is current as of date of the Contract Documents.
   2. New Products: Items that have not previously been incorporated into another project or facility, except that products consisting of recycled-content materials are allowed, unless explicitly stated otherwise. Products salvaged or recycled from other projects are not considered new products.

1.4 SUBMITTALS

A. Product List: Submit a list, in tabular from, showing specified products. Include generic names of products required. Include manufacturer's name and proprietary product names for each product.
   1. Coordinate product list with Contractor's Construction Schedule and the Submittals Schedule.
   2. Form: Tabulate information for each product under the following column headings:
      a. Specification Section number and title.
      b. Generic name used in the Contract Documents.
      c. Proprietary name, model number, and similar designations.
      d. Manufacturer's name and address.
      e. Supplier's name and address.
      f. Installer's name and address.

g. Projected delivery date or time span of delivery period.
h. Identification of items that require early submittal approval for scheduled delivery date.

3. Initial Submittal: Within 30 days after date of commencement of the Work, submit 3 copies of initial product list. Include a written explanation for omissions of data and for variations from Contract requirements.
4. Completed List: Within 60 days after date of commencement of the Work, submit 3 copies of completed product list. Include a written explanation for omissions of data and for variations from Contract requirements.
5. Consultant's Action: Consultant will respond in writing to Contractor within 15 days of receipt of completed product list. Consultant's response will include a list of unacceptable product selections and a brief explanation of reasons for this action. Consultant's response, or lack of response, does not constitute a waiver of requirement that products comply with the Contract Documents.

1.5 PRODUCT DELIVERY, STORAGE, AND HANDLING

A. Deliver, store, and handle products using means and methods that will prevent damage, deterioration, and loss, including theft. Comply with manufacturer's written instructions.
1. Schedule delivery to minimize long-term storage at Project site and to prevent overcrowding of construction spaces.
2. Coordinate delivery with installation time to ensure minimum holding time for items that are flammable, hazardous, easily damaged, or sensitive to deterioration, theft, and other losses.
3. Deliver products to Project site in an undamaged condition in manufacturer's original sealed container or other packaging system, complete with labels and instructions for handling, storing, unpacking, protecting, and installing.
4. Inspect products on delivery to ensure compliance with the Contract Documents and to ensure that products are undamaged and properly protected.
5. Store products to allow for inspection and measurement of quantity or counting of units.
6. Store materials in a manner that will not endanger Project structure.
7. Store products that are subject to damage by the elements, under cover in a weather tight enclosure above ground, with ventilation adequate to prevent condensation.
8. Comply with product manufacturer's written instructions for temperature, humidity, ventilation, and weather-protection requirements for storage.
9. Protect stored products from damage.

B. Storage: Provide a secure location and enclosure at Project site for storage of materials and equipment by Owner's construction forces. Coordinate location with Owner.

PART 2 - PRODUCTS: (NOT USED)

PART 3 - EXECUTION: (NOT USED)

END OF SECTION 01 60 00

SECTION 01 70 00 – EXECUTION AND CLOSEOUT REQUIREMENTS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and all Divisions of the Technical Specifications, apply to this Section.

1.2 SUMMARY

A. This Section includes general procedural requirements governing execution of the Work including, but not limited to, the following:
   1. Construction layout.
   2. Field engineering and surveying.
   3. Progress cleaning.
   4. Starting and adjusting.
   5. Protection of installed construction.
   6. Correction of the Work.

B. Related Sections include the following:
   1. Division 1, of the Technical Specifications Section "Project Management and Coordination" for procedures for coordinating field engineering with other construction activities.
   2. Division 1, of the Technical Specifications Section "Submittal Procedures" for submitting surveys.
   3. Division 1, of the Technical Specifications Section "Cutting and Patching" for procedural requirements for cutting and patching necessary for the installation or performance of other components of the Work.
   4. Division 1, of the Technical Specifications Section "Closeout Procedures" for submitting final property survey with Project Record Documents, recording of Owner-accepted deviations from indicated lines and levels, and final cleaning.
   5. Division 1, of the Technical Specifications Section “Construction Waste Management” method of disposal of construction waste.

1.3 SUBMITTALS

A. Qualification Data: For land surveyor to demonstrate their capabilities and experience. Include lists of completed projects with project names and addresses, names and addresses of Consultants and owners, and other information specified.

B. Certificates: Submit certificate signed by land surveyor certifying that location and elevation of improvements comply with requirements.

C. Landfill Receipts: Submit copy of receipts issued by a landfill facility, licensed to accept hazardous materials, for hazardous waste disposal.

D. Certified Surveys: Submit two copies signed by land surveyor or professional engineer as required.

1.4 QUALITY ASSURANCE

A. Land Surveyor Qualifications: A licensed professional land surveyor who is legally qualified to practice in jurisdiction where Project is located and who is experienced in providing land-surveying services of the kind indicated.

PART 2 - PRODUCTS: (NOT USED)

PART 3 - EXECUTION:

3.1 EXAMINATION

A. Existing Conditions: The existence and location of site improvements, utilities, and other construction indicated as existing are not guaranteed. Before beginning work, investigate and verify the existence and location of mechanical and electrical systems and other construction affecting the Work.
   1. Before construction, verify the location and points of connection of utility services.

B. Existing Utilities: The existence and location of underground and other utilities and construction indicated as existing are not guaranteed. Before beginning site work, investigate and verify the existence and location of underground utilities and other construction affecting the Work.
   1. Before construction, verify the location and invert elevation at points of connection of sanitary sewer, storm sewer, and water-service piping; and underground electrical services.
   2. Furnish location data for work related to Project that must be performed by public utilities serving Project site.

3.2 PREPARATION

A. Existing Utility Information: Furnish information to local utility, Owner, and Consultant that is necessary to adjust, move, or relocate existing utility structures, utility poles, lines, services, or other utility appurtenances located in or affected by construction. Coordinate with authorities having jurisdiction.

B. Existing Utility Interruptions: Do not interrupt utilities serving facilities occupied by Owner or others unless permitted under the following conditions and then only after arranging to provide temporary utility services according to requirements indicated:
   1. Notify Consultant, Owner, adjacent property owners not less than two days in advance of proposed utility interruptions.
   2. Do not proceed with utility interruptions without Consultant's and Owner's written permission.

C. Field Measurements: Take field measurements as required to fit the Work properly. Recheck measurements before installing each product. Where portions of the Work are indicated to fit to other construction, verify dimensions of other construction by field measurements before fabrication. Coordinate fabrication schedule with construction progress to avoid delaying the Work.

D. Space Requirements: Verify space requirements and dimensions of items shown diagrammatically on Drawings.

E. Review of Contract Documents and Field Conditions: Immediately on discovery of the need for

clarification of the Contract Documents, submit a request for information to Consultant. Include a detailed description of problem encountered, together with recommendations for modifications of the Contract Documents.

3.3 CONSTRUCTION LAYOUT

A. Verification: Before proceeding to lay out the Work, verify layout information shown on Drawings, in relation to the property survey and existing benchmarks. If discrepancies are discovered, notify Consultant promptly.

B. General: Engage a land surveyor to lay out the Work using accepted surveying practices.
   1. Establish benchmarks and control points to set lines and levels at each story of construction and elsewhere as needed to locate each element of Project.
   2. Establish dimensions within tolerances indicated. Do not scale Drawings to obtain required dimensions.
   3. Inform installers of lines and levels to which they must comply.
   4. Check the location, level and plumb, of every major element as the Work progresses.
   5. Notify Consultant when deviations from required lines and levels exceed allowable tolerances.
   6. Close site surveys with an error of closure equal to or less than the standard established by authorities having jurisdiction.
   7. Site Improvements: Locate and lay out site improvements, including pavements, grading, fill and topsoil placement, utility slopes, and invert elevations.
   8. Building Lines and Levels: Locate and lay out control lines and levels for structures, building foundations, column grids, and floor levels, including those required for mechanical and electrical work. Transfer survey markings and elevations for use with control lines and levels. Level foundations and piers from two or more locations.
   9. Record Log: Maintain a log of layout control work. Record deviations from required lines and levels. Include beginning and ending dates and times of surveys, weather conditions, name and duty of each survey party member, and types of instruments and tapes used. Make the log available for reference by Consultant.

3.4 FIELD ENGINEERING

A. Reference Points: Locate existing permanent benchmarks, control points, and similar reference points before beginning the Work. Preserve and protect permanent benchmarks and control points during construction operations.
   1. Do not change or relocate existing benchmarks or control points without prior written approval of Consultant. Report lost or destroyed permanent benchmarks or control points promptly. Report the need to relocate permanent benchmarks or control points to Consultant before proceeding.
   2. Replace lost or destroyed permanent benchmarks and control points promptly. Base replacements on the original survey control points.

B. Benchmarks: Establish and maintain a minimum of two permanent benchmarks on Project site, referenced to data established by survey control points. Comply with authorities having jurisdiction for type and size of benchmark.
   1. Record benchmark locations, with horizontal and vertical data, on Project Record Documents.
   2. Where the actual location or elevation of layout points cannot be marked, provide temporary reference points sufficient to locate the Work.
   3. Remove temporary reference points when no longer needed. Restore marked construction to

its original condition.

C. Certified Survey: On completion of foundation walls, major site improvements, and other work requiring field-engineering services, prepare a certified survey showing dimensions, locations, angles, and elevations of construction and site work.

3.5 PROGRESS CLEANING

A. General: Clean Project site and work areas daily, including common areas. Coordinate progress cleaning for joint-use areas where more than one installer has worked. Enforce requirements strictly.
   1. Comply with requirements in NFPA 241 for removal of combustible waste materials and debris.
   2. Do not hold materials more than 7 days during normal weather or 3 days if the temperature is expected to rise above 80 deg F.
   3. Containerize hazardous and unsanitary waste materials separately from other waste. Mark containers appropriately and dispose of legally, according to regulations. Dispose of material in accordance to Division 1, Section “Construction Waste Management”.

B. Site: Maintain Project site free of waste materials and debris.

C. Work Areas: Clean areas where work is in progress to the level of cleanliness necessary for proper execution of the Work.
   1. Remove liquid spills promptly.
   2. Where dust would impair proper execution of the Work, broom-clean or vacuum the entire work area, as appropriate.

D. Installed Work: Keep installed work clean. Clean installed surfaces according to written instructions of manufacturer or fabricator of product installed, using only cleaning materials specifically recommended. If specific cleaning materials are not recommended, use cleaning materials that are not hazardous to health or property and that will not damage exposed surfaces.

E. Concealed Spaces: Remove debris from concealed spaces before enclosing the space.

F. Exposed Surfaces: Clean exposed surfaces and protect as necessary to ensure freedom from damage and deterioration at time of Substantial Completion.

G. Cutting and Patching: Clean areas and spaces where cutting and patching are performed. Completely remove paint, mortar, oils, putty, and similar materials.
   1. Thoroughly clean surfaces and similar features before applying paint or other finishing materials.

H. Waste Disposal: Burying or burning waste materials on-site will not be permitted. Washing waste materials down sewers or into waterways will not be permitted.

I. During handling and installation, clean and protect construction in progress and adjoining materials already in place. Apply protective covering where required to ensure protection from damage or deterioration until Substantial Completion.

J. Clean and provide maintenance on completed construction as frequently as necessary through the

remainder of the construction period. Adjust and lubricate operable components to ensure operability without damaging effects.

K. Limiting Exposures: Supervise construction operations to assure that no part of the construction, completed or in progress, is subject to harmful, dangerous, damaging, or otherwise deleterious exposure during the construction period.

3.6 STARTING AND ADJUSTING

A. Start equipment and operating components to confirm proper operation. Remove malfunctioning units, replace with new units, and retest.

B. Adjust operating components for proper operation without binding. Adjust equipment for proper operation.

C. Test each piece of equipment to verify proper operation. Test and adjust controls and safeties. Replace damaged and malfunctioning controls and equipment.

D. Manufacturer's Field Service: If a factory-authorized service representative is required to inspect field-assembled components and equipment installation, comply with qualification requirements in Division 1 Section "Quality Requirements."

3.7 PROTECTION OF INSTALLED CONSTRUCTION

A. Provide final protection and maintain conditions that ensure installed Work is without damage or deterioration at time of Substantial Completion.

B. Comply with manufacturer's written instructions for temperature and relative humidity.

3.8 CORRECTION OF THE WORK

A. Repair or remove and replace defective construction. Restore damaged substrates and finishes. Comply with requirements in Division 1 Section "Cutting and Patching."

1. Repairing includes replacing defective parts, refinishing damaged surfaces, touching up with matching materials, and properly adjusting operating equipment.

B. Restore permanent facilities used during construction to their specified condition.

C. Remove and replace damaged surfaces that are exposed to view if surfaces cannot be repaired without visible evidence of repair.

D. Repair components that do not operate properly. Remove and replace operating components that cannot be repaired.

E. Remove and replace chipped, scratched, and broken glass or reflective surfaces.

END OF SECTION 01 70 00

SECTION 01 74 19 - CONSTRUCTION WASTE MANAGEMENT AND DISPOSAL

PART 1 - GENERAL

1.1 DESCRIPTION

A. The Owner has established that this Project shall include proactive measures for waste management participation by all parties to the contract.

1. The purpose of this program is to ensure that during the course of the Project all diligent means are employed to pursue practical and economically feasible waste management and recycling options.

2. Upon award, each subcontractor shall be required to furnish documentation from suppliers or manufacturers regarding waste management and recycling options for those products and procedures furnished.

3. Waste disposal to landfills shall be minimized.

B. Definitions:

1. Waste: Any material that has reached the end of its intended use. Waste includes salvageable, returnable, recyclable and reusable material.

2. Construction waste: Solid wastes including, but not limited to, building materials, packaging materials, debris, and trash resulting from construction operations.

3. Salvage: To remove a waste material from the Project site to another site for resale or reuse by others.

4. Hazardous waste: Any material or byproduct of construction that is regulated by the Environmental Protection Agency and that may not be disposed in any landfill or other waste end-source without adherence to applicable laws.

5. Trash: Any product or material unable to be returned, reused, recycled or salvaged.

6. Landfill: Any public or private business involved in the practice of trash disposal.

7. Waste Management Plan: A Project-related plan for the collection, transportation, and disposal of the waste generated at the construction site.

1.2 SUBMITTALS:

A. Project Information:
1. Contractor's Construction Waste Management Plan.

1.3 CONSTRUCTION WASTE MANAGEMENT PLAN

A. Waste Management Plan shall include the following:

1. Solid Waste Disposal and Diversion document.

    a. Identification of materials recycled.
    b. Identification of materials landfill.
    c. Identification of hazardous wastes and disposal.

2. Locations of sorting and waste storage facilities on Site Plan of project.

3. Final documentation of subcontractor/supplier waste management/recycling data.

4. Final documentation of hazardous waste disposal plan.

B. Construction Waste Management Plan Implementation:

1. The Contractor shall designate an on-site party (or parties) responsible for instructing workers and overseeing and documenting the Waste Management Plan.

2. The "Summary of Construction Waste/Recycling" shall be completed each month and submitted as part of Application For Payment.

    a. All materials identified in the Summary shall be reported by weight.
    b. Where weight is not applicable, Contractor shall report materials by units applicable to material recipient.
    c. Contractor shall procure receipts or other validation of waste management procedures and include them as part of the submittal.

3. The Contractor shall distribute copies of the "Summary of Construction Waste/Recycling" to the Consultant, Owner and each subcontractor involved in the plan.

4. The Contractor shall provide on-site instruction of appropriate separation, handling, and recycling, salvage, reuse and return methods to be used by all parties at appropriate stages of the Work.

5. Separation facilities:

    a. Contractor shall define specific areas to facilitate separation of materials for recycling, salvage, re-use or return.
    b. Recycle and waste bin areas are to be maintained in an orderly manner and clearly marked to avoid contamination of materials.
    c. Do not mix recyclable materials.
    d. Store hazardous wastes in secure areas.

6. Hazardous wastes:

    a. Hazardous wastes shall be separated, stored and disposed of in accordance with local and EPA regulations and additional criteria listed below:

1) Building products manufactured with PVC or containing chlorinated compounds shall not be incinerated.
2) Disposal of fluorescent tubes to open containers is not permitted.
3) Unused fertilizers shall not be co-mingled with construction waste.

C. Program profits:
1. All profits from recycling of construction waste shall be granted to the Contractor.

PART 2 - PRODUCTS: (NOT USED)

PART 3 - EXECUTION: (NOT USED)

END OF SECTION 01 74 19

SECTION 01 77 00 - CLOSEOUT PROCEDURES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and all Divisions of the Technical Specifications, apply to this Section.

1.2 SUMMARY

A. This Section includes administrative and procedural requirements for contract closeout, including, but not limited to, the following:
   1. Inspection procedures.
   2. Project As-Builts Documents.
   3. Operation and maintenance manuals.
   4. Warranties.
   5. Instruction of Owner's personnel.
   6. Final cleaning.

B. Related Sections include the following:
   1. Division 1, of the Technical Specifications Section "Payment Procedures" for requirements for Applications for Payment for Substantial and Final Completion.
   2. Division 1, of the Technical Specifications Section "Construction Progress Documentation" for submitting Final Completion construction photographs and negatives.
   3. Division 1, of the Technical Specifications Section “Construction Waste Management” method of disposal of construction waste.
   4. Division 1, of the Technical Specifications Section "Execution Requirements" for progress cleaning of Project site.
   5. Division 1, of the Technical Specifications Section “Project Record Documents”.
   6. Division 1, of the Technical Specifications Section “Operation and Maintenance Data”.
   7. Divisions 2 through 48, of the Technical Specifications Sections for specific closeout and special cleaning requirements for products of those Sections.

1.3 SUBSTANTIAL COMPLETION

A. Preliminary Procedures: The Contractor shall, before requesting inspection for determining date of Substantial Completion, complete the following. List items below that are incomplete in request.
   1. Prepare a list of items to be completed and corrected (punch list), the value of items on the list, and reasons why the Work is not complete.
   2. Advise Owner of pending insurance changeover requirements.
   3. Submit specific warranties, workmanship bonds, maintenance service agreements, final certifications, and similar documents.
   4. Obtain and submit releases permitting Owner unrestricted use of the Work and access to services and utilities. Include occupancy permits, operating certificates, and similar releases.

5. Prepare and submit Project Record Documents, “As-Builts” drawings, operation and maintenance manuals, Final Completion construction photographs and photographic negatives if required, damage or settlement surveys, property surveys, and similar final record information.
6. Deliver tools, spare parts, extra materials, and similar items to location designated by Owner. Label with manufacturer's name and model number where applicable.
7. Make final changeover of permanent locks and deliver keys to Owner. Advise Owner's personnel of changeover in security provisions.
8. Complete startup testing of systems.
9. Submit test/adjust/balance records.
10. Terminate and remove temporary facilities from Project site, along with mockups, construction tools, and similar elements.
11. Advise Owner of changeover in heat and other utilities.
12. Submit changeover information related to Owner's occupancy, use, operation, and maintenance.
13. Complete final cleaning requirements, including touchup.
14. Touch up and otherwise repair and restore marred exposed finishes to eliminate visual defects.

B. Inspection: Submit a written request for inspection for Substantial Completion. On receipt of request, Consultant will either proceed with inspection or notify Contractor of unfulfilled requirements. Consultant will prepare the Certificate of Substantial Completion after inspection or will notify Contractor of items, either on Contractor's list or additional items identified by Consultant, that must be completed or corrected before certificate will be issued. The Consultant’s Substantial Completion list is composed by verification of the punch list submitted by the Contractor and any additional defects in the work observed by the Consultant.
   1. Re-inspection: Request re-inspection when the Work identified in previous inspections as incomplete is completed or corrected.
   2. Results of completed inspection will form the basis of requirements for Final Completion.

1.4 FINAL COMPLETION

A. Preliminary Procedures: Before requesting final inspection for determining date of Final Completion, complete the following:
   1. Submit a final Application for Payment according to Division 1, of the Technical Specifications Section "Payment Procedures."
   2. Submit certified copy of Consultant's Substantial Completion inspection list of items to be completed or corrected (punch list), endorsed and dated by Consultant. The certified copy of the list shall state that each item has been completed or otherwise resolved for acceptance.
   3. Submit evidence of final, continuing insurance coverage complying with insurance requirements.
   4. Submit pest-control final inspection report and warranty.
   5. Instruct Owner's personnel in operation, adjustment, and maintenance of products, equipment, and systems. Submit demonstration and training videotapes if required.

B. Inspection: Submit a written request for final inspection for acceptance. On receipt of request, Consultant will either proceed with inspection or notify Contractor of unfulfilled requirements. Consultant will prepare a final Certificate for Payment after inspection or will notify Contractor of construction that must be completed or corrected before certificate will be issued.

1. Re-inspection: Request re-inspection when the Work identified in previous inspections as incomplete is completed or corrected.
2. The Contactor shall take immediate steps to correct the stated deficiencies, and send a written notice to the Consultant, certifying the Project is complete, at which time the Consultant will re-inspect the Work. This review and additional reviews by the Consultant where the Work is not considered Substantial Completion or Final Completion will be considered an additional service from the Consultant. The Contractor will be charged for these additional services incurred by such failure including travel time, observation time, and administrative time at the Consultant's hourly rate, as well as all expenses associated with the distribution of a written notice stating the reasons for failure to reach final completion.
3. In the event the Contractor is granted Substantial Completion by the Consultant and the Contractor fails to complete and/or correct all of the items listed in the Substantial Completion within 30 calendar days of the date of Substantial Completion, the liquated damages shall start to accrue until all of the items on the Substantial Completion list are completed and/or corrected and have been approved by the Consultant.
4. If the Consultant is required to make more than two inspections for the project to achieve Substantial Completion, the Contractor shall pay for the Consultant's time and expensive.

1.5 LIST OF INCOMPLETE ITEMS (PUNCH LIST)

A. Preparation: Submit three copies of list. Include name and identification of each space and area affected by construction operations for incomplete items and items needing correction including, if necessary, areas disturbed by Contractor that are outside the limits of construction.
1. Organize list of spaces in sequential order, use the room number as indicated on the drawings and on the exterior areas include a location diagram indicating the defects.
2. Organize items applying to each space by major element, including categories for ceiling, individual walls, floors, equipment, and building systems.
3. Include the following information at the top of each page:
    a. Project name.
    b. Date.
    c. Name of Consultant.
    d. Name of Contractor.
    e. Page number.

1.6 PROJECT RECORD DOCUMENTS

A. The Contractor shall provide Project Record Documents, O&M, "As-Builts" Drawings, and Warrantees as indicated in Division 1, of the Technical Specifications Section Project Record Documents. Use Division 1, of the Technical Specifications Section "Project Record Documents".

1.7 OPERATION AND MAINTENANCE MANUALS

A. See Section "Operation and Maintenance Manuals" for additional Information.

1.8 WARRANTIES

A. Submittal Time: Submit written warranties on request of Consultant for designated portions of

the Work where commencement of warranties other than date of Substantial Completion is indicated.

B. Partial Occupancy: Submit properly executed warranties within 15 days of completion of designated portions of the Work that are completed and occupied or used by Owner during construction period.

C. Organize warranty documents into an orderly sequence based on the table of contents of the Project Manual.

D. Provide copies of each warranty to include in operation and maintenance manuals.

PART 2 - PRODUCTS

2.1 MATERIALS

A. Cleaning Agents: Use cleaning materials and agents recommended by manufacturer or fabricator of the surface to be cleaned. Do not use cleaning agents that are potentially hazardous to health or property or that might damage finished surfaces.

PART 3 - EXECUTION:

3.1 FINAL CLEANING

A. General: Provide final cleaning. Conduct cleaning and waste-removal operations to comply with local laws and ordinances and Federal and local environmental and antipollution regulations.

B. Cleaning: Employ experienced workers or professional cleaners for final cleaning. Clean each surface or unit to condition expected in an average commercial building cleaning and maintenance program. Comply with manufacturer's written instructions.

1. Complete the following cleaning operations before requesting inspection for certification of Substantial Completion for entire Project or for a portion of Project:
    a. Clean Project site, yard, and grounds, in areas disturbed by construction activities, including landscape development areas, of rubbish, waste material, litter, and other foreign substances.
    b. Sweep paved areas broom clean. Remove petrochemical spills, stains, and other foreign deposits.
    c. Rake grounds that are neither planted nor paved to a smooth, even- textured surface.
    d. Remove tools, construction equipment, machinery, and surplus material from Project site.
    e. Remove snow and ice to provide safe access to building.
    f. Clean exposed exterior hard-surfaced finishes to a dirt-free condition, free of stains, films, and similar foreign substances. Avoid disturbing natural weathering of exterior surfaces. Restore reflective surfaces to their original condition.
    g. Leave Project clean and ready for occupancy.

C. Comply with safety standards for cleaning. Do not burn waste materials. Do not bury debris or

excess materials on Owner's property. Do not discharge volatile, harmful, or dangerous materials into drainage systems. Remove waste materials from Project site and dispose of lawfully.

END OF SECTION 01 77 00

SECTION 01 78 39 - PROJECT RECORD DOCUMENTS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and all Divisions of the Technical Specifications, apply to this Section.

1.2 SUMMARY

A. This Section includes administrative and procedural requirements for Project Record Documents, including the following:
   1. As-Built Drawings.
   2. Record Specifications.
   3. Record Product Data.

B. Related Sections include the following:
   1. Division 1, of the Technical Specifications, Section "Closeout Procedures" for general closeout procedures.
   2. Division 1, of the Technical Specifications, Section "Operation and Maintenance Data" for operation and maintenance manual requirements.
   3. Divisions 2 through 16, of the Technical Specifications, Sections for specific requirements for Project Record Documents of products in those Sections.

1.3 SUBMITTALS

A. As-Built Drawings: Comply with the following:
   1. Number of Copies: Submit two sets of marked-up As-Built Drawings to the Consultant for the Consultant to prepare the Record Drawings.

B. Record Specifications: Submit two copies of Project's marked up Specifications, including addenda and contract modifications.

C. Record Product Data: Submit two copies of each Product Data submittal.
   1. Where Record Product Data is required as part of operation and maintenance manuals, submit marked-up Product Data as an insert in the manual instead of submittal as Record Product Data.

PART 2 - PRODUCTS

2.1 AS-BUILT DRAWINGS

A. As-Built Drawings: Maintain one set of black-line white prints of the Contract Drawings and Shop Drawings.
   1. Preparation: Mark As-Built Drawings to show the actual installation where installation varies from that shown originally. Require individual or entity who obtained record data,

whether individual or entity is Installer, subcontractor, or similar entity, to prepare the marked-up As-Built Drawings.

a. Give particular attention to information on concealed elements that would be difficult to identify or measure and record later.
b. Accurately record information in an understandable drawing technique.
c. Record data as soon as possible after obtaining it. Record and check the markup before enclosing concealed installations.

2. Content: Types of items requiring marking include, but are not limited to, the following:
   a. Dimensional changes to Drawings.
   b. Revisions to details shown on Drawings.
   c. Depths of foundations below first floor.
   d. Locations and depths of underground utilities.
   e. Revisions to routing of piping and conduits.
   f. Revisions to electrical circuitry.
   g. Actual equipment locations.
   h. Duct size and routing.
   i. Locations of concealed internal utilities.
   j. Changes made by Change Order or Construction Change Directive.
   k. Changes made following Consultant's written orders.
   l. Details not on the original Contract Drawings.
   m. Field records for variable and concealed conditions.
   n. Record information on the Work that is shown only schematically.
   o. Clarification Drawings.
3. Mark the Contract Drawings or Shop Drawings, whichever is most capable of showing actual physical conditions, completely and accurately. If Shop Drawings are marked, show cross-reference on the Contract Drawings.
4. Mark record sets with erasable, red-colored pencil. Use other colors to distinguish between changes for different categories of the Work at the same location.
5. Mark important additional information that was either shown schematically or omitted from original Drawings.
6. Note Construction Change Directive numbers, alternate numbers, Change Order numbers, and similar identification, where applicable.
7. Identify and date each As-Builts Drawing; include the designation "PROJECT AS-BUILTS DRAWING" in a prominent location. Organize into manageable sets; bind each set with durable paper cover sheets. Include identification on cover sheets.

B. Newly Prepared As-Built Drawings: Prepare new Drawings instead of preparing As- Built Drawings where Consultant determines that neither the original Contract Drawings nor Shop Drawings are suitable to show actual installation.
   1. New Drawings may be required when a Change Order is issued as a result of accepting a substitution or other modification.
   2. Consult with Consultant for proper scale and scope of detailing and notations required to record the actual physical installation and its relation to other construction. Integrate newly prepared As-Built Drawings into Record Drawing sets; comply with procedures for formatting, organizing, copying, binding, and submitting.

2.2 RECORD SPECIFICATIONS

A. Preparation: Mark Specifications to indicate the actual product installation where installation

varies from that indicated in Specifications, addenda, and contract modifications.

1. Give particular attention to information on concealed products and installations that cannot be readily identified and recorded later.
2. Mark copy with the proprietary name and model number of products, materials, and equipment furnished, including substitutions and product options selected.
3. Record the name of the manufacturer, supplier, Installer, and other information necessary to provide a record of selections made.
4. For each principal product, indicate whether Record Product Data has been submitted in operation and maintenance manuals instead of submitted as Record Product Data.
5. Note related Change Orders, As-Built Drawings, and Product Data where applicable.

2.3 RECORD PRODUCT DATA

A. Preparation: Mark Product Data to indicate the actual product installation where installation varies substantially from that indicated in Product Data submittal.

1. Give particular attention to information on concealed products and installations that cannot be readily identified and recorded later.
2. Include significant changes in the product delivered to Project site and changes in manufacturer's written instructions for installation.
3. Note related Change Orders, As-Built Drawings, and Product Data where applicable.

2.4 MISCELLANEOUS RECORD SUBMITTALS

A. Assemble miscellaneous records required by other sections of the Technical Specifications for miscellaneous record keeping and submittal in connection with actual performance of the Work. Bind or file miscellaneous records and identify each, ready for continued use and reference.

PART 3 - EXECUTION:

3.1 RECORDING AND MAINTENANCE

A. Recording: Maintain one copy of each submittal during the construction period for Project Record Document purposes. Post changes and modifications to Project Record Documents as they occur; do not wait until the end of Project.

B. Maintenance of Record Documents and Samples: Store Record Documents and Samples in the field office apart from the Contract Documents used for construction. Do not use Project Record Documents for construction purposes. Maintain Record Documents in good order and in a clean, dry, legible condition, protected from deterioration and loss. Provide access to Project Record Documents for Consultant's reference during normal working hours.

END OF SECTION 01 78 39

SECTION 02 41 13 – SELECTIVE SITE DEMOLITION

PART 01 - GENERAL

1. Work Included:
   The work covered by this section consists of the complete demolition, removal and disposal of existing corrugated metal pipe, section of asphalt paving and removal of existing vegetation and curb and gutter as shown on the construction drawings.

2. Related Work:
   Earthwork (31 00 00)
   Clearing and Grubbing (31 11 00)

3. Codes and Permits:
   Conform to applicable codes and secure and pay permits.

4. Measurement and Payment:
   A. There shall be no separate measurement for any clearing operations, as it is a lump sum payment item.
   B. Payment for work under this section shall be paid for as a lump sum on the bid form.

PART 02 - PRODUCTS

Not applicable

PART 03 - EXECUTION

1. Utilities:
   Locate all existing active utility lines traversing the site and determine the requirements for their protection. Preserve in operating conditions all active utilities adjacent to or traversing the site and/or designated to remain.

2. Disposal:
   Unless otherwise indicated, all materials recovered during their demolition shall become the property of the Contractor, removed from the site, and properly disposed of by the Contractor. The site shall be left in a neat, orderly condition as found prior to demolition.

END OF SECTION 02 41 13

SECTION 31 00 00- EARTHWORK

PART 01 - GENERAL

1. Related Documents:
The General Provisions of the Contract, including General and Supplementary Conditions and General Requirements, apply to the work specified in this Section.

2. Description of Work: Cutting, filling, and compaction of soil for construction of a ten (10) foot wide asphalt greenway with associated storm drainage, segmental retaining wall, and appurtenances.

3. Work Included in This Section:
Stripping, stockpiling, and redistribution of topsoil, rough grading, rock removal, and excavation of the site.

4. Related Work Specified Elsewhere:
Sedimentation and Erosion Control (31 25 00)
Clearing and Grubbing (31 11 00)
NCDOT Division 2 - Earthwork

5. Existing Conditions:

A. Acceptance:
Contractor is required to accept actual conditions at site and do work specified without additional compensation for possible variation from grades and conditions shown, whether surface or subsurface. All grading work shall be unclassified except for rock and unsuitable soil as described herein and in Section 31 23 10.

1. Protection:

A. Benchmarks and Monuments:
Maintain carefully all benchmarks, monuments and other reference points. If disturbed or destroyed, replace as directed. If found at variance with the drawings, notify the Engineer before proceeding to lay out work.

B. Protection of Existing Work Remaining:
All existing curbs, sidewalks and paving damaged in performance of this work shall be restored without extra cost to the Owner in the manner prescribed by authorities having jurisdiction.

C. Tree Preservation and Protection:
During all phases of earthwork and site grading, the Contractor shall comply with Section 31 13 00.

PART 02 - PRODUCTS

1. MATERIALS

A. Topsoil:
Topsoil shall be as defined in Section 32 93 00, Part 02, B. Topsoil may or may not be required to be imported to the site. Topsoil shall come from stockpiles of topsoil excavated on site or from an off-site borrow pit approved by the Designer of Record, prior to importing.

2. Surplus Material:
Remove and legally dispose of unsuitable materials and surplus excavated materials from the site.

3. Fill Material:
Material as approved by the Owner's geotechnical engineer for fill shall be free from roots, wood or other organic material. Earth used for fill under floor slabs and other surfaced areas shall be approved by laboratory tests. Stones larger than 4" maximum dimension shall not be used in the upper 6" of fill or embankment. Use suitable excavated material for required fills and backfills. Provide any additional fill material as necessary to produce the required grades. The testing laboratory will determine the suitability of all materials to be used as fill.

PART 03 - EXECUTION

1. Inspection:
Examine the areas and conditions under which earthwork and site grading is to be performed and notify the Engineer in writing of conditions detrimental to the proper and timely completion of the work. Do not proceed with the work until unsatisfactory conditions have been corrected in an acceptable manner.

2. Testing:

A. Laboratory:
The Owner shall employ services of a testing laboratory to perform tests required under this section.

B. Quality Control Testing During Construction:
It is the responsibility of the Contractor to notify the Engineer and the testing lab at appropriate times when testing is required. Testing service must inspect and approve subgrades and fill layers before further construction work is performed thereon.

C. Perform field density tests in accordance with ASTM D-698.

D. Make field density tests for areas which are proof-rolled as requested by the Owner.

E. In each compacted fill layer, make one field density test for every 2500 sq. ft. of overlaying paved area, but in no case less than three (3) tests.

3. Stripping, Stockpiling, and Distributing of Topsoil:

A. Conditions:
This work shall be carried out when dry weather exists and the topsoil is reasonably loose and dry.

B. Extent:
Remove topsoil and unsuitable structural soil to its entire depth from the areas within lines 10 feet outside of foundation walls of buildings and from areas to be occupied by walks,

steps, paving, and from cut and filled areas.

C. Stockpiling:
Temporarily pile topsoil in designated or approved locations where it will not interfere with building or utility operations. Stockpiles shall be of such size and shape as will keep loss of topsoil by erosion and wind to a minimum. In no case will stockpiles violate the provisions of Section 31 13 00 - Tree Preservation and Protection.

4. Site Grading:

A. Grades:
Do all cutting, filling, compacting of fills and rough grading required to bring the entire area outside of building to sub-grades as follows:

For surface areas (roadways, parking areas, steps and walks) to the underside of the respective surfacing or base course, as fixed by the finished grades therefore.

For lawn and planted areas, to 4" min. below finished grade, or as indicated on grading plan.

B. Fills:
Where fill is required to raise the existing grades outside of building areas to the new subgrade elevation indicated, such fill shall be of earth, placed compacted as specified.

Remove all debris subject to termite attack, rot or corrosion, and all other deleterious materials from areas to be filled. Prior to placing fill material, the surface of the ground shall be scarified to a depth of 6" and the moisture content of the loosened material shall be such that it will readily bond with the first layer of fill material.

Place the material in successive horizontal layers in loose depths for the full width of the cross section. Deposit fill in layers no more than 6" thick under surfaced areas where compacting fill and 12" thick under lawn and planted areas. Against retaining walls, compact fills in 6" lifts for a distance of 8 feet outside of such walls.

Compact each layer of fill under walks, drives, and parking areas by rolling or tamping to 95 percent density as defined by ASTM D-698. Compaction shall be accomplished by the use of power rollers, machine tampers, or other approved mechanical equipment. If necessary, soil shall be moistened, or allowed to dry to the correct moisture content before compaction. Do not deposit any fill on a subgrade that is muddy, frozen, or containing frost. Compact fills under lawns and planting areas to the compaction of 90% Standard Proctor Dry Density by routing spreading equipment uniformly over the area up to 18" below finished grade. From 18" below finished grade to finished grade, place subsoil and topsoil loosely, light tamping only to limit settlement.

Testing service must inspect and approve all subgrades and fill layers before further construction work is performed thereon.

C. Rock Excavation:
See Section 31 23 10 for rock excavation and disposal.

D. Unsuitable Soils:
See Section 31 23 00 for unsuitable soil removal and disposal.

5. Field Quality Control:

A. Rough Grading:
Rough grading of all areas within the project, including excavated and filled sections and adjacent transition areas, shall be reasonably smooth, compacted, and free from irregular surface changes. Provide roundings at top and bottom of banks and at other breaks in grade. The degree of finish shall be that ordinarily obtainable from either blade-grader or scraper operations, except as otherwise specified.

B. Tolerances:
The finished subgrade surface generally shall be not more than 0.5 foot above or below the established grade or approved cross section, with due allowance for topsoil, sod and pavement depth; the tolerance for areas within 10 feet of buildings and all areas to pave shall not exceed 0.10 foot above or below the established subgrades.

C. Drainage Slope:
All ditches, swales and gutters shall be finished to drain readily. The subgrade shall be evenly sloped to provide drainage away from building walls in all directions at a grade not less than 2%.

6. Maintenance:

A. Protection of Graded Areas:
Protect newly graded areas from traffic and erosion. Keep free of trash and debris. Repair and re-establish grades in settled, eroded, and rutted areas to the specified tolerances.
Remove all softness or disturbed material and replace in compacted areas.

B. Reconditioning Compacted Areas:
Where completed compacted areas are disturbed by subsequent construction operations or adverse weather, scarify the surface, re-shape, and compact to the required density prior to further construction.

7. Redistribution of Topsoil:
Spread stored or imported topsoil to a depth of 4"minimum over graded areas to be planted with grass, additional for landscape planting areas. See Section 32 92 00 and 32 93 00 for specific instructions. If additional stockpile remains after spreading to specified depths, remainder of stockpile shall be utilized and spread on-site as either additional topsoil depth or as landscape berms as directed by the Owner’s Representative.

After topsoil is spread, remove all hard lumps of clay, stones over ½" in diameter, roots, limbs and other deleterious matter which would be harmful, or prevent proper establishment and/or maintenance of lawn and planting area.

END OF SECTION 31 00 00

SECTION 31 11 00 – CLEARING AND GRUBBING

PART 01 - GENERAL

1.01 Related Documents:
The General Provisions of the Contract, including General and Supplementary Conditions and General Requirements, apply to the work specified in this Section.

1.02 Description of Work:

Work Included in This Section:
Clearing of Site
Protection of Trees

Related Work Specified Elsewhere:
Erosion & Sediment Controls (31 25 00)
Tree Protection and Trimming (31 13 00)
Earthwork (31 00 00)

1.03 Existing Conditions:

A. Site Conditions:
Contractor shall visit the site, familiarize himself with actual conditions and verify existing conditions in the field.

B. Record Information:
Topographic maps and other recorded site information may be examined at the office of the Consultant.

1.04 Protection:

A. Bench Marks:
Maintain carefully all bench marks, monuments and other reference points. If disturbed or destroyed, replace as directed.

B: Existing Utilities:
Contractor shall notify Carolina One Call @ 1-800-632-4949 48 hours prior to beginning any clearing or excavation. Should any functioning underground utilities be uncovered during the work, the Contractor shall promptly notify the Engineer in writing. The Contractor shall be held responsible for any damage to underground or overhead utility services and shall immediately repair and restore services at no additional cost to the Owner.

C. Existing Trees and Vegetation:
Protect existing trees and other vegetation indicated to remain in place, against unnecessary cutting, breaking or skinning of roots, skinning and bruising of bark, smothering of trees by stockpiling construction materials or excavated materials

within drip line, excess foot or vehicular traffic, or parking of vehicles within drip line. Provide temporary guards to protect trees and vegetation to be left standing. Any vegetation designated to remain which is damaged by construction work shall be replaced as specified

in Section 31 13 00, part 3.06.

PART 02 - PRODUCTS

Not Used

PART 03 - EXECUTION

3.01 Clearing and Grubbing:
Clearing, grubbing, and disposition of debris shall be in accordance with Section 200 of NCDOT Standard Specifications for Roads and Structures, 1990.

END OF SECTION 31 10 00

SECTION 31 13 00 – SELECTIVE TREE AND SHRUB REMOVAL AND TRIMMING

PART 01 - GENERAL

1. Related Documents
   The General Provisions of the Contract, including General and Supplementary Conditions and General Requirements, apply to the work specified in this Section.

2. Description of Work:

   Work Included in This Section:
   Construction of Tree Protection Barricades, Replacement of Damaged Trees, Pruning.

   Related Work Specified Elsewhere:
   Temporary Chain Link Fencing (Section 01 50 00)
   Site Clearing and Grubbing (Section 31 11 00)
   Earthwork (Section 31 00 00)

PART 02 - PRODUCTS

1. Materials:

   Tree Protection Barricades:
   Barricades shall be as shown on the approved plans and details.

PART 03 - EXECUTION

1. Barricades:
   Barriers shall extend around trunk as shown on Tree Protection Detail. They shall encompass the trees with a radius of not less than one foot (1') for every one inch (1") of trunk diameter unless otherwise detailed. Deviations from this must be approved on an individual basis by the Owners Representative. All tree protection barriers shall be installed prior to any grading or other land disturbing activity. They shall be constructed from any material substantial enough to designate the protected area and to protect the roots, trunk, and crown of the tree. Example: 2 x 4 standards and 1 x 4 rails; 3' high orange safety fencing, etc.

2. Tree Removal:
   Existing trees located within the limits of the proposed pavement for the proposed greenway shall be completed removed include roots to a depth necessary install base material for proposed pavement or as directed by the Owner's geotechnical engineer. Any trees outside the limits of proposed pavement for the greenway may be cut flush to the ground, and roots left in place to limit site disturbance, especially within environmentally sensitive and wooded areas.

3. Fill Around Existing Trees to Remain:
   Fill dirt placement within the drip lines of trees to remain shall be minimized to the maximum extent practicable, and shall be no deeper than six inches (6") within the drip line of the tree without prior approval of Designer of Record or Owner's arborist.

4. Clearing Within Protected Root Zone:
In the protected root zone, any stumps, dead trees and shrub growth to be removed shall be cut flush or ground out. Stump grinding will be accomplished with equipment and methods acceptable in normal arboricultural operations. All holes will be backfilled completely the same day of the operation. Stumps to be ground out will be designated by the Owners Representative. No grubbing is permitted in the root zone areas.

5. Tree Damage:

Climbing irons, spurs or spikes shall not be used on trees to be pruned. Any tree damage caused by the Contractor is to be repaired immediately at no additional expense to the satisfaction of the Owner and Designer of Record. Any damages resulting in the disfigurement and/or shortened life expectancy of a tree will be evaluated by the Designer of Record and/or Owner's arborist. The entire value of the tree will be pro-rated by the loss of life expectancy and that value assessed to the Contractor. Trees damaged beyond repair, as judged by the Designer of Record and/or Owner's arborist, are to be removed at no expense to the Owner, and replaced by trees of size and species designated at no additional expense to the Owner; or the dollar value of such damaged trees as determined by the Designer of Record and/or Owner's arborist is deducted from the monies owed the Contractor.

6. Replacement of Damaged Trees:
Trees that die as a result of the Contractor's negligence to these specifications shall be removed and replaced in accordance with the following table under the direction of the Owners Representative.

DEAD OR DYING TREE	NEW TREE
Less than 12 inches DBH	1 - 4" caliper trees
12 - 20 inches DBH	2 - 4" caliper trees
20 - 28 inches DBH	3 - 4" caliper trees
28 - 36 inches DBH	4 - 4" caliper trees
Above 36 inches DBH	5 - 4" caliper trees

All planting shall be in accordance with these specifications.

7. Discontinuance of Work:
Any practice obviously hazardous to people or harmful to the trees, as determined by the Owner or Architect, shall be immediately discontinued by the Contractor upon receipt of either written or oral notice to discontinue such practice.

8. Root Pruning:
Root pruning shall be kept to an absolute minimum. Root pruning shall be started within 15 days after the award of the contract and shall be completed within 15 days after starting work. The cut is to be made no more than 6" behind the back of the curb. The cut shall be made to a depth of two feet below the soil surface. The roots shall be cut cleanly leaving a smooth surface. All cut surfaces of roots two inches or larger in diameter shall be covered immediately with tree wound dressing of the type used and approved by professional Arborist. Root pruning equipment shall be kept sharp to ensure that roots are cut cleanly and are not broken or torn by dull or unsuitable equipment. Root pruning shall be done in the presence of the Owners Representative.

9. Clean Up:
Remove all barriers upon completion of project and fill the holes with suitable soil and restore area to original condition.

END OF SECTION 31 13 00

SECTION 31 22 16- FINE GRADING

PART 01 - GENERAL

1. Related Documents:

   A. Drawings and general provisions of the Bidding and Contract Requirements, and Division l - General Requirements shall govern the work under this section.

2. Work Included:

   A. Provide all labor, materials, necessary equipment and services to complete the Fine Grading work, as indicated on the drawings, as specified herein or both, except as for items specifically indicated as "NIC ITEMS".

3. Related Work:
   A. Earthwork - Section 31 00 00
   B. Turf and Grasses - Section 32 92 00

4. Site Inspection:

   A. The contractor shall visit the site and acquaint himself with all existing conditions. The contractor shall be responsible for his own subsurface investigations, as necessary, to satisfy requirements of this Section. All subsurface investigations shall be performed only under time schedules and arrangements approved in advance by the Town's Representative.

5. EXISTING CONTOURS:

   A. Obtain drawings showing proposed final grading from Town's Representative.

   B. Verify that contours and grades established during rough grading and earthwork are within two tenths (.2) of a foot of proposed grades shown on grading plans. Make whatever corrections and/or repairs necessary to make finish grades consistent with the requirements of the grading drawings and specifications.

6. Utilities:

   A. Before starting site operations verify that the earlier contractors have disconnected all temporary utilities which might interfere with the fine grading work.

   B. Locate all existing, active utility lines traversing the site and determine the requirements for their protection. Observe in operating condition all active utilities adjacent to or traversing the site that are designated to remain.

   C. Observe rules and regulations governing respective utilities in working under requirements of this section. Adequately protect utilities from damage, remove or relocate as indicated, specified or required. Remove, plug or cap inactive or abandoned utilities encountered in excavation. Record location of active utilities.

7. Quality Assurance:

A. Requirements of all applicable building codes and other public agencies shall have jurisdiction upon the work.

B. Primary emphasis should be given to the aesthetic appearance and functioning of berming and swales, as directed by the Town's Representative. The contractor shall employ skilled personnel and any necessary equipment to ensure that finish grading is smooth, aesthetically pleasing, drains well and is ideal for receiving grass and plant materials.

PART 02 - MATERIALS

1. Existing Soil:

A. Use on-site material, unless otherwise directed by Town's Representative, free from debris, sod, biodegradable materials, and other deleterious materials. The Contractor shall insure that all existing soil has sufficient percolation and surface drainage to support grasses and plant material and that compaction occurs only in areas to insure stabilization for pavements and structures.

PART 03 - EXECUTION

1. Job Conditions:

A. Dust control: Use all means necessary to prevent dust from construction operations from being a nuisance to adjacent property owners. Methods used for dust control are subject to approval by the Town's Representative.

B. Burning: On-site burning will not be permitted.

C. Protection: Use all means necessary to protect curbs, gutters, sprinklers, utilities and vegetation designated to remain, and, in the event of damage, immediately make all repairs, replacements and dressings to damaged plants necessary to the approval of the Town's Representative. Contractor shall incur all cost for the replacement of damaged objects and vegetation.

2. Scheduling:

A. Schedule all work in a careful manner with all necessary consideration for adjoining property owners and the public.

B. Coordinate schedule with Town staff and other contractors to avoid conflicts with their work.

3. Excavation:

A. Excavate where necessary to obtain subgrades, percolation and surface drainage as required.

B. Materials to be excavated are unclassified, except as noted in Section 31 2310.

C. Remove entirely any existing obstructions after approval by the Town's Representative.

D. Remove from site and dispose of debris and excavated material not required.

4. Grading:

A. The contractor shall establish finished grades as shown on the approved grading plans and as directed by the Town's Representative, including areas where the existing grade has been disturbed by other work.

B. Finished grading shall be smooth, aesthetically pleasing, drain well and ready to receive seed and other plant material to full satisfaction of Town's Representative.

5. Compaction:

A. Compact each layer of fill in designated areas with approved equipment to achieve a maximum density at optimum moisture, as defined by ASTM D-698.

1. Under paved trails, compaction shall be to 95% of maximum dry density.

2. Under seeded area, compaction shall not exceed 90% of maximum dry density.

B. Compaction in limited areas shall be obtained by the use of mechanical tampers or approved hand tampers. When hand tampers are used, the materials shall be deposited in layers not more than four inches thick. The hand tampers used shall be suitable for this purpose and shall have a face area of not more than 100 square inches.

6. Correction of Grade:

A. Bring to required grade levels areas where settlement, erosion or other grade changes occur. Adjust grades as required to carry drainage to prevent ponding.

B. Remove all rock or objectionable material larger than ¾" any direction prior to commencing landscaping.

C. Contractor shall be responsible for stabilizing grades by approved methods prior to landscaping, and shall be responsible for correction of grades as mentioned above, and cleanup of any wash outs or erosion.

END OF SECTION 31 22 16

SECTION 31 23 00- EXCAVATION AND FILL

PART 1 GENERAL

1. SECTION INCLUDES:

A. Excavation for slabs-on-grade paving.

B. Excavation for site structures.

2. FIELD MEASUREMENTS:

A. Verify that survey benchmark and intended elevations for the Work are as indicated.

3. DEFINITIONS:

A. Excavation: Consists of removal of material encountered to subgrade elevations indicated and subsequent disposal of materials removed.

B. Unauthorized Excavation: Consists of removal of materials beyond indicated subgrade elevations or dimensions without specific direction of Designer of Record. Unauthorized excavation, as well as remedial work directed by Designer of Record, shall be at Contractor's expense.

1. Under footings, foundation bases, or retaining walls, use structural fill to fill unauthorized excavation by extending indicated bottom elevation of footing or base to excavation bottom, without altering required top elevation. Lean concrete fill may be used to bring elevations to proper position, when acceptable to the Owner's geotechnical engineer.

2. In locations other than those above, backfill and compact unauthorized excavations as specified for authorized excavations of same classification, unless otherwise directed by Owner's geotechnical engineer.

C. Additional Excavation and Fill for Unsuitable Soils Below Required Subgrade: When excavation has reached required subgrade elevations, notify Designer of Record and the Owner's geotechnical engineer. The Owner's Testing Laboratory will inspect conditions. If Owner's geotechnical Engineer determines that bearing materials at required subgrade elevations are unsuitable, continue excavation until suitable bearing materials are encountered and replace excavated material as directed by Owner's geotechnical engineer. The Contract Sum may be adjusted by an appropriate Contract Modification.

1. Removal of unsuitable material and its replacement as directed will be paid on basis of Conditions of the Contract relative to changes in work.

D. Subgrade: The undisturbed earth or the compacted soil layer immediately below granular subbase, drainage fill, or topsoil materials.

E. Structure: Buildings, foundations, slabs, tanks, curbs, or other man-made

stationary features occurring above or below ground surface.

F. Suitable Soil Material: Those materials complying with ASTM D-2487 Soil Classification and as approved by Owner's geotechnical engineer.

G. Structural Fill: Soil, stone or other material as approved by Owner's geotechnical engineer used to raise the grade of a site placed beneath a structure.

4. QUANTITIES:

A. Additional Excavation and Fill: The Contractor shall provide in the Base Bid for the removal and off-site disposal of unsuitable material below required subgrade as stated on the Bid Form. The Contractor shall also provide in the Base Bid for off-site structural fill-in-place, compacted to replace removed unsuitable material as stated on the Bid Form.

B. Adjustments: Actual quantities shall be documented by the Owner's Testing Laboratory by direct survey method and the Contract Sum shall be adjusted by an appropriate modification base on unit prices provided by the Contractor on the Bid Form.

5. REGULATORY REQUIREMENT:

A. Perform excavation work in compliance with North Carolina Building Code and requirements of authorities having jurisdiction.

PART 2 PRODUCTS

1. MATERIALS:

A. Structural Fill:

1. Earth used for structural fill, and fill under floor slabs and other surfaced areas shall be low plastic (PI < 20) nonorganic soil such as the excavated clean, natural soil found on site and shall be approved by Laboratory Test.

2. Weathered or hard rock in pieces 3" or less in diameter will be allowed in fill placed one foot or more beneath subgrade of paved areas if the rock is mixed adequately with a soil binder, and so long as the rock does not prevent earth work equipment from achieving required compaction results. Stone larger than 3" maximum dimension shall not be used in fill material.

3. Structural Fill Material shall have a maximum dry density of not less than 90 lbs per cubic foot as determined by ASTM D-698. The structural fill shall have a plastic index of less than 30. Laboratory compaction tests shall be conducted on soils prepared for filling prior to beginning actual filling operations.

PART 3 EXECUTION

1. PREPARATION FOR EXCAVATION:

A. Identify required lines, levels, contours, and datum.

B. Before any excavation is made, the entire area shall be proof-rolled with a 25 ton, minimum, roller or other approved equipment. Four passes being in the direction perpendicular to the proceeding one. Any areas that defect, rut or pump under the roller shall be undercut to depths and lateral extent determined by the Testing Laboratory, and shall be replaced with structural fill specified herein and proof- rolled in a similar manner to method above. This procedure shall be repeated as necessary until no deflection, etc occurs.

2. EXCAVATION:

A. Underpin adjacent structures which may be damaged by excavation work, including utilities and pipe chases.

B. Excavate subsoil required to accommodate building foundations, slabs-on-grade paving site structures, and other construction operations.

C. Slope sides of excavations to comply with local codes, ordinances and requirements of agencies having jurisdiction. Shore and brace where sloping is not possible because space restrictions or stability of material excavated. Maintain sides and slopes of excavations in safe condition until completion of filling.

D. Provide material for shoring and bracing, such as sheet piling, uprights, stringers, and cross braces, in good serviceable condition. Maintain shoring and bracing in excavations regardless of time period excavations will be open. Extend shoring and bracing as excavation progresses.

E. Excavation cut not to interfere with normal 45 degree bearing splay of foundation.

F. When freezing temperatures are expected, do not excavate to the full depth indicated, unless the footings of slabs can be placed immediately after the excavation has been completed. Protect the bottom of excavation from frost if placing of concrete is delayed.

G. Conform to elevations and dimensions shown within a tolerance of plus or minus 0.10 foot, and extending a sufficient distance from footings and foundations to permit placing and removal of concrete formwork, installation of services, and other construction and for inspection. Tolerance for brick or concrete pavers shall not exceed 0.04 foot above or below the established grade.

H. Excavations for footings and foundations: Do not disturb bottom of excavation. Excavate by hand to final grade just before concrete reinforcement is placed. Trim bottoms to required lines and grades to leave solid base to receive other work. Remove all loose matter. Where soil conditions permit, footing trenches may be excavated to the exact dimensions of the concrete, and side forms omitted.

I. Perform excavation by hand within drip line of large trees to remain. Protect root systems from damage or dryout to the greatest extent possible. Maintain moist condition for root system and cover exposed roots with moistened burlap.

J. Excavation for Underground Tanks, Basins, and Mechanical or Electrical Structures: Conform to elevations and dimensions indicated within a tolerance of plus or minus 0.10 foot; plus a sufficient distance to permit placing and removal of concrete formwork, installation of services, and other construction and for inspection. Do not disturb bottom of excavations, intended for bearing surface.

K. Cut surface under pavements to comply with cross-sections, elevations and grades as indicated.

L. Barricade open excavations occurring as part of this work with orange safety fencing, post(s), and warning lights. Operate warning lights as recommended by authorities having jurisdiction.

M. Protect structures utilities, sidewalks, pavements, and other facilities from damage caused by settlement, lateral movement, undermining, washout, and other hazards created by excavations.

N. Grade top perimeter of excavation to prevent surface and subsurface water from flowing into or standing in excavations. Remove water by pumping if necessary. Divert storm water away from excavation areas.

O. Remove vegetation, debris, unsatisfactory soil materials, obstructions, and deleterious materials from ground surface prior to placement of fills. Plow strip, or break up sloped surfaces steeper than 1 vertical to 4 horizontal so that fill material will bond with existing surface. When existing ground surface has a density less than that specified below for particular area classification, break up ground surface, pulverize, moisture-condition to optimum moisture content, and compact to required depth and percentage of maximum density.

P. Remove lumped subsoil, boulders, and rock up to 1/2 cu yd measured by volume. Remove buried items completely.

Q. Notify Designer of Record and Town's representative of unexpected subsurface conditions and discontinue affected Work in area until notified to resume work.

R. Correct areas over-excavated by error in accordance with Section 31 00 00 (Earthwork).

S. Correct unauthorized excavation at no extra cost to Owner. If excavations for foundations are carried below the indicated or specified levels, without proper authorization, they shall be refilled to the required levels with concrete of the class specified for footings, without extra cost to the Owner.

T. Stockpile excavated material in area designated on site and remove excess material not being reused, and material not acceptable for reuse, from site. Place, grade, and shape stockpiles for proper drainage. Provide silt fencing at toe of slope formed by stockpile.

1. SUITABLE BEARINGS:

A. If suitable bearing is not encountered at the depth indicated for foundations, the Contractor shall notify the Designer of Record and Owner's geotechnical engineer immediately.

B. Do not proceed further until instructions are given and necessary measurements made for the purpose of establishing additional volume of excavation and other extra work involved.

C. Where suitable bearing cannot be obtained at bottom elevations required in the Contract Documents, excavations shall be taken to adequate bearing soil, and then backfilled with structural fill to the elevation required.

D. Verification of design bearing pressure in excavations for footings will be performed by independent testing laboratory as required.

2. PLACING OF STRUCTURAL FILL:

A Do not deposit any fill on a subgrade that is muddy, frozen, or that contains frost.

B. Place the material in successive horizontal layers in loose depths as specified, for the full width of the cross section.

C. Deposit fill in layers not more than 4" thick in small areas where high energy tamper must be used in lieu of large rolling equipment.

D. Deposit fill in loose lifts not more than 4" thick in areas requiring structural fill, and under surfaced areas.

E. If necessary, soil shall be moistened, or allowed to dry to optimum moisture content before compaction.

3. COMPACTION:

A. See schedule 31 22 16-Page 3 3.05.

4. FIELD QUALITY CONTROL:

A. Provide for visual inspection of bearing surfaces.

B. Test and analysis of fill material will be performed in accordance with ASTM D698 and with Section 01 40 00 (QUALITY CONTROL).

C. Compaction testing will be performed in accordance with ASTM D698 and with Section 01 40 00 (QUALITY CONTROL).

D. Fill material shall be selected, placed, and compacted under the observation of a representative of the Testing Laboratory employed by the Owner.

E. When fill, residual, or alluvial soil materials are used for support of slabs and/or foundations, adequate soil placement and soil support testing are to be made to assure soil support installation complies with contract requirements. The tests are to cover fill placement, utility trenching backfill and subgrade support for fill. Reports stating contract compliance approval must be prepared and issued to contractor releasing him to place the foundations and the slabs. Copies of the report are to be furnished to the Construction Administration Section of the State Construction Office for review.

F. The Owner's geotechnical engineer or laboratory representative shall have the authority to approve or disapprove the condition of the subgrade on which fill is to be placed. He shall have the authority to approve or disapprove the fill material.

G. Compaction tests shall be made by the laboratory to determine that density required in the Contract Documents is achieved. Re-testing of faulty compaction shall be at the Contractor's expense.

H. The Contractor shall notify the laboratory at least 3 days prior to starting fill operations to assure checking of compaction and fill material. The contractor shall notify the laboratory before the fill is placed so that the laboratory representative may be present during filling operations.

I. Payment for additional fill and excavation shall be subject to the approval of the Testing Laboratory and Designer. Quantities of extra fill and excavation will be monitored by the Owner and the Designer.

1. PROTECTION:

A. Protect excavations by methods required to prevent cave-in or loose soil from falling into excavation.

B. Protect bottom of excavations and soil adjacent to and beneath foundation from freezing when atmospheric temperature is less than 35 degrees F.

2. MAINTENANCE:

A Protection of Graded Areas: Protect newly graded areas from traffic and erosion. Keep free of trash and debris.

B. Repair and reestablish grades in settled, eroded, and rutted areas to specified tolerances.

C. Reconditioning Compacted Areas: Where completed compacted areas are disturbed by subsequent construction operations or adverse weather, scarify surface, reshape, and compact to required density prior to further construction.

D. Settling: Where settling is measurable or observable at excavated areas during general project warranty period, remove surface (pavement, lawn, or other finish),

add backfill material, compact, and replace surface treatment. Restore appearance, quality, and condition of surface or finish to match adjacent work, and eliminate evidence of restoration to greatest extent possible.

E. Provide erosion control methods in accordance with requirements of Section 31 25 00 (EROSION AND SEDIMENTATION CONTROL).

END OF SECTION 31 23 00

SECTION 31 23 10 - ROCK AND UNSUITABLE SOIL REMOVAL

PART 1 - GENERAL

1. SECTION INCLUDES:

A. Removal of discovered rock and unsuitable soil

2. RELATED DOCUMENTS:

A. Section 31 00 00 - Earthwork

PART 02 - PRODUCTS

1. MATERIALS:

A. Site/Mass Rock (Definition): Solid mineral material with a volume in excess of one (1) cubic yard that cannot be removed with a ¾ cubic yard capacity power shovel or rippers mounted on D-8 track dozer without drilling or blasting. Material broken up by rippers, power shovel, or normal job equipment to be included in general excavation. Disposal shall be on site or off site as indicated in applicable unit price.

B. Trench Rock (Definition): solid mineral material with a volume in excess of one (1) cubic yard or solid material that cannot be removed with a ¾ cubic yard capacity power shovel or rippers mounted on D-8 track dozer without drilling or blasting. Material broken up by power shovel, rippers or normal job equipment to be included in general excavation. Disposal shall be on site or off site as indicated in applicable unit price.

C. Excavation and Disposal of Unsuitable Soil: This item shall include all labor, equipment and materials necessary to excavate unsuitable soil in areas designated by the architect/geotechnical engineer. Unsuitable soil will be as determined by the on-site geotechnical engineer and will generally be subgrade soil unsuitable for structural use due to content and structure of the soil. Soils with high organic content, unit weight of less than 90 lbs. per cubic foot or plastic-clay soils are typical of unsuitable soils. Final determination of suitability will be made on site by a geotechnical engineer. Soil that is too wet or too dry will not be considered unsuitable as defined here if soil characteristics would be acceptable at optimum moisture content. Unit price for excavation and disposal of unsuitable soil will be used only when defined as above by geotechnical engineer and when directed to be removed by Town’s representative. Disposal shall be on site or off site as indicated in applicable unit price.

PART 03 - EXECUTION

1. INSPECTION AND PAYMENT:

A. The removal and disposal of rock without drilling or blasting shall not be considered an extra to the contract.

B. Payment for removal and disposal of rock through means of drilling or blasting shall be on a unit cost basis, such as per cubic yard at rates to be established. Notify County representative for additional work as stated in General Conditions of Contract, for approval and measurement before removal. No payments will be approved if prior notification is not received and County representative does not observe removal process.

C. Unit price will be bid for on-site disposal of qualified rock and unsuitable soil; and for off-site disposal of qualified rock and unsuitable soil.

2. ROCK REMOVAL – MECHANICAL METHOD:

A. Excavate for and remove rock by the mechanical method.

B. Cut away rock at excavation bottom for level bearing.

C. Remove shaled layers to provide sound and unshattered base for footings.

D. Measurements for the determination of actual quantities of rock removed shall be confined to the limits below. There will be no quantities of rock allowed in excess of these limits

General site rock: 6" below proposed subgrade elevation.
Utility trench rock: 2'-0" greater than the diameter of the utility line at its widest point projected horizontally.
6" below the plan elevation of the bottom of the utility line.

E. Remove excavated material and dispose of in on-site location designated by County's representative.

F. Correct unauthorized rock removal in accordance with backfilling and compaction requirements of Section 31 00 00 at no expense to Owner.

3. FIELD QUALITY CONTROL:

A. Provide for visual inspection of bearing surfaces and cavities formed by removed rock.

END OF SECTION 31 23 10

SECTION 31 25 00 - EROSION AND SEDIMENTATION CONTROLS

PART 01 - GENERAL

1. Related Documents:
   The General Provisions of the Contract, including General and Supplementary Conditions and General Requirements, apply to the work specified in this Section.

2. Description of Work:

   Work Included in This Section:
   Temporary Sedimentation and Erosion Control Devices
   Permanent Erosion Control Measures

   Related Work Specified Elsewhere:
   Site Clearing (31 11 00)
   Earthwork and Site Grading (31 00 00)
   Storm Water Collection System (33 42 00)
   Turf and Grasses (32 92 00)

3. Existing Conditions:

   Site Conditions:
   Contractor shall visit the site, familiarize himself with actual conditions and verify existing conditions in the field.

4. Protection:
   Benchmarks, existing utilities and existing vegetation shall be identified prior to mobilization and shall be protected by this Contractor. Refer to Section 31 11 00, Site Clearing, for specific requirements.

5. Quality Assurance:
   The Sedimentation Pollution Control Act of 1973 governs the activities herein specified. As this is a performance-oriented law, it is the Contractor's responsibility to execute and to maintain erosion control measures to prevent visible off-site sedimentation.

PART 02 - PRODUCTS

1. Rip Rap Stone:
   Rip Rap Stone for erosion control shall be Class B or Class I as defined by NCDOT Standard Specifications for Roads and Structures, latest edition, Section 1042, as indicated on the plans.

2. Filter Stone:
   Filter stone for silt basins, check dams, etc., shall be NCDOT No. 57 stone.

3. Matting for Erosion Control:
   Matting for Erosion Control shall be woven jute netting with 1”x0.50” openings, a matrix of 100% straw fiber at a rate of 0.5-lbs/sy, and an overall at a weight of 8.71-oz/sy per ASTM D6475, or equal approved by the Designer of Record. Matting shall conform to Section 1060-8 of NCDOT Standard Specifications for Roads and Structures, latest edition.

4. Silt Fencing:
Silt Fence shall conform to NCDENR/NCDEQ Erosion and Sediment Control Planning and Design Manual. See Detail on drawings.

5. Grassing:
Permanent grassing shall be as shown on plans and as specified in Section 32 92 00 of these specifications. Temporary grassing shall be as specified in Table 8.02 of the Erosion and Sediment Control Planning and Design Manual, latest edition.

PART 03 - EXECUTION

1. Silt Fencing:
Silt fence shall be installed per NCDENR/NCDEQ Erosion and Sediment Control Planning and Design Manual. See Detail on drawings.

2. Temporary Gravel Construction Entrance:
Construction entrances, where shown on plan shall be constructed per details and specifications on plans and in Section 6.60, NCDENR/NCDEQ Erosion and Sediment Control Planning and Design Manual, latest edition.

3. Temporary Rock Check Dam:
Check dams in temporary or permanent ditches, shall be constructed per Section 6.83 of the NCDENR/NCDEQ Erosion and Sediment Control Planning and Design Manual, latest edition, as shown on plans and details.

4. Temporary Straw Wattle / Compost Sock:
Straw wattles or compost socks in temporary or permanent ditches, shall be constructed per Section 6.66 of the NCDENR/NCDEQ Erosion and Sediment Control Planning and Design Manual, latest edition, as shown on plans and details.

5. Temporary Filter Berm Basin:
Construct temporary filter berm basins per details and specifications on plans and in Section 6.54 of the NCDENR/NCDEQ Erosion and Sediment Control Planning and Design Manual, latest edition.

6. Temporary Diversion Swales:
Temporary diversion swales shall be constructed to convey runoff into silt basins and to prevent offsite sedimentation.

7. Inlet Protection for Storm Drainage:
Storm drain inlets shall be protected from siltation by one or more measures as described in Sections 6.50 - 6.53 of the NCDENR/NCDEQ Erosion and Sediment Control Planning and Design Manual, latest edition, as shown on plans and details.

8. Outlet Protection:
Storm drainage outlets shall be permanently protected as shown on plans and details and as specified in Section 6.40 - 6.41 of the NCDENR/NCDEQ Erosion and Sediment Control Planning and Design Manual, latest edition.

9. Maintenance:
All temporary sedimentation and erosion control measures shall be maintained at 50% minimum capacity. Once basins, swales, silt fences, check dams, etc., have reached 50% capacity, Contractor shall clean silt out of devices, distribute silt on site in an approved manner or dispose of in a legal

manner off site as determined by the Consultant.

10. Clean-Up:
Once site is fine graded, stabilized, and has been approved by the Consultant and the Environment Inspector, all temporary erosion control measures shall be removed and disposed of off-site in a legal manner. All areas disturbed in clean-up shall be fine graded and stabilized by grassing, planting, etc., as shown on plan. All permanent erosion control measures shall be completed at this time. Prior to final acceptance, site shall be clean, stabilized and all drainage facilities clean and functioning at 100%.

END OF SECTION 31 25 00

SECTION 32 12 16 - ASPHALT PAVING

PART 01 - GENERAL

1. Related Documents:
   The General Provisions of the Contract, including General and Supplementary Conditions and General Requirements, apply to the work specified in this Section.

2. Work Included in This Section:
   Provide subgrade, base course, bituminous concrete surface, concrete pavement, pavement painting and similar items necessary to complete the project.

3. Related Work Specified Elsewhere:
   Earthwork (31 00 00)
   Appropriate Divisions of NC DOT Standard Specifications for Roads and Structures, latest edition.

PART 02 - PRODUCTS

1. Asphalt Pavements:

   A. Aggregate Base Course: Base course for asphalt paving shall be crushed stone conforming to NCDOT Standard Specifications for Roads and Structures, Section 1005 & 520.

   B. Surface Course shall be Super-pave Type SF-9.5B conforming with requirements of NCDOT Standard Specifications for Roads and Structures, Section 610.

   C. Pavement Painting. Pavement paint markings shall be painted on asphalt pavement as indicated and as directed by Engineer. Paint used for pavement painting shall conform to Section 1087 NCDOT Standard Specifications for Roads and Structures, white color, and shall be used in strict accordance with the paint manufacturer's written instructions.

2. Geotextile Fabric:

   A. Geotextile fabric to be composed of high-tenacity polypropylene yarns, woven into a stable network such that the yarns retain their relative position. Geotextile fabric is to be inert to biological degradation and resistant to naturally encountered chemicals, alkalis and acids.

   B. Properties of geotextile fabric:

Mechanical Properties	Test Method	Unit	Minimum Average Roll Value	
			MD	CD
Grab Tensile Strength	ASTM D4632	lbs (N)	250 (1113)	250 (1113)
Grab Tensile Elongation	ASTM D4632	%	12	10
Trapezoid Tear Strength	ASTM D4533	lbs (N)	90 (401)	90 (401)
CBR Puncture Strength	ASTM D6241	lbs (N)	750 (3338)	
Apparent Opening Size (AOS)[1]	ASTM D4751	U.S. Sieve (mm)	40 (0.43)	
Permittivity	ASTM D4491	sec^{-1}	0.05	
Flow Rate	ASTM D4491	$gal/min/ft^2$ ($l/min/m^2$)	4 (163)	
UV Resistance (at 500 hours)	ASTM D4355	% strength retained	70	

[1] ASTM D4751, AOS is a Maximum Opening Diameter Value

Physical Properties	Test Method	Unit	Typical Value	
Weight	ASTM D5261	oz/yd^2 (g/m^2)	5.0 (170)	
Thickness	ASTM D5199	mils (mm)	20 (0.5)	
Roll Dimensions (width x length)	--	ft (m)	12.5 x 360 (3.8 x 110)	17.5 x 258 (5.3 x 78.7)
Roll Area	--	yd^2 (m^2)	500 (418)	
Estimated Roll Weight	--	lb (kg)	225 (102)	

C. Submit product data for approval.

PART 03 - EXECUTION

1. Subgrade. This item of work shall consist of the construction and preparation of the subgrade for all paved areas intended for vehicular use.

   A. Construction shall conform to applicable requirements of Section 500 of N.C. Department of Transportation and Highway Safety (NCDOT) Standard Specifications for Roads and Structures unless otherwise specified.

   B. Compaction of Subgrade shall be as required by the referenced highway specifications.

   C. Protection of Subgrade. Contractor shall protect subgrade in accordance with referenced highway specification except that any vehicle that is not essential to the work being done shall not be permitted on subgrade.

   D. Contractor shall establish blue top stakes, or other approved grade staking method on the prepared subgrade for all asphalt and concrete paving. Stakes shall be placed at 25 feet on centers at all changes in radii. The alignments and elevations of the stakes must be inspected and approved by Engineer before Contractor proceeds with subsequent work.

2. Shoulders. All shoulders of trail areas shall be constructed to the lines and grades indicated and in accordance with applicable requirements of NCDOT Standard Specifications for Roads and Structures, Section 560.

3. Fine Grading Subgrade, Shoulders and Ditches of drives and parking areas shall conform with applicable requirements of NCDOT Standard Specifications for Roads and Structures, Section 500.

4. Installation of Stabilization Fabric:

A. Install Geotextile Stabilization Fabric in accordance with manufacturer's instructions and as detailed on the drawings and as instructed by the Soils Engineer.

5. Stabilize Aggregate Base Course. After the subgrade has been brought to the lines and grades indicated and has been consolidated to the degree specified, a stabilized aggregate base course conforming with Section 520 of the NCDOT Standard Specifications for Roads and Structures, shall be constructed thereon. Thickness of stabilized aggregate base course shall be as shown on drawings. See plan and details for types and locations.

6. Asphalt Pavement

A. General. Asphalt pavements shall be provided where indicated. Asphalt pavement shall conform with applicable requirements of NCDOT Standard Specifications for Roads and Structures, Division 6, and Contractor shall submit evidence to Engineer that materials proposed for use in the work have been previously approved for highway use. Thickness of bituminous concrete surface course shall be as shown on drawings.

END OF SECTION 32 12 16

SECTION 32 13 13 – CONCRETE PAVEMENT

PART 01 - GENERAL

1. Related Documents

   A. The General Provisions of the Contract, including General and Supplementary Conditions and General Requirements, that apply to the work specified in this section.

2. Description of Work

   A. Work Included in This Section:
   Provide site concrete pavement, curbs and sidewalks.

   B. Related Work Specified Elsewhere:
      1. Fine Grading (31 22 16)
      2. Appropriate Divisions of NCDOT Standard Specifications for concrete.

PART 02 - PRODUCTS

1. Ready-Mixed Concrete

   A. Cement: ASTM C-150, normal Type 1
   B. Admixtures:
      - Air entraining: ASTM C-260
      - Chemical: Type (as required) ASTM C-494
   C. Coarse aggregate: Not less than 50% clean, hard, crushed stone conforming to requirements of Table 2, size number 467 ASTM C-33.
   D. Slump 5 in. maximum; plus tolerance 0, minus tolerance 1 in.
   E. Air content: 5% + 1.5%
   F. Mix proportioning:
      - 28 day compressive strength of most cured laboratory samples 3,600 PSI.
      - Minimum cement content 5 sacks/cubic yard.
   G. Curing Material: Liquid membrane, ASTM C-309, Type 1.
   H. Mixes:
      - ASTM C-94
      - Mix concrete only in quantities for immediate use.
      - Do not retemper or use set concrete.
   I. I. Fiber Reinforcement: Macro-Synthetic concrete fiber at 1.5 lbs/cy fibrillated concrete fibers 100 percent virgin polypropylene and designed for use in concrete paving, complying with ASTM C 1116/C 1116M, type III, ½ to 1 ½ inches long.

2. Formwork and Accessories

   A. Formwork: Matched, tight fitting and adequately stiffened to support weight of concrete without deflection detrimental to tolerances and appearance of concrete, conform with ACI 347, Chapter 3, Material and Form Work.

   B. Lumber:
      - Softwood framing lumber: Kiln dried, PS-20.
      - Boards less than 1-1/2" thick and 2 in. wide, used for basic forms: kiln dried.
      - Grade marked by grading rules agency approved by American Lumber Standards

Committee.

- Light framing or studs for board or plywood forms, 2 in. to 4 in. width and thickness Construction Standard grade.
- Boards for basic forms Construction Standard grade.
- Board surface: smooth.

C. Form coatings:
- Non-staining type
- Agent: Pine oil derivative

3. Expansion and Contraction Joints

A. Minimum 1/2 inch thick asphaltic impregnated fiberboard as per ASTM D-1751.

B. Contractor shall submit Joint Sealants for use in paving for approval.

C. Bituminous Expansion material shall be placed against all existing firm surfaces.

4. OTHER

A. Water: Clean and potable.

PART 03 - EXECUTION

1. Preparation For Pours

A. Notify the Consultant and other inspectors at least 36 hours prior to construction.
B. Equipment forms and reinforcing shall be clean and wet down, reinforcing firmly
C. secured in place, runways set up and not resting on or displaying reinforcing.

2. Placing Concrete

A. Place concrete, screed and wood float surfaces to a smooth and uniform finish, free of open texturing and exposed aggregate.

B. All surfaces to have a light broom finish.

C. Round all edges, including edges of expansion and contraction joints, with 1/2-inch radius edging tool.

D. Ensure finished surfaces do not vary from true lines, levels or grade by more than 1/8 inch in 10 feet when measured with straight edge.

E. Apply curing compound on finished surfaces immediately after placement. Apply in accordance with manufacturer's recommendations.

3. Control Joints

A. Transverse and Longitudinal sawed joints shall be constructed to a minimum depth of 1/4 the slab thickness x 1/8" width and at a spacing of not more than 2 times the slab thickness converted into feet.

4. Protection of Completed Work

A. During curing period, protect concrete from damaging mechanical disturbance, water flow, loading, shock and vibration.

5. Combination Concrete Curbs and Gutters

A. General. Combination concrete curbs and gutters shall be provided where indicated and shall be constructed to sizes and shapes shown.

A. Placing of concrete in the forms shall be done in a manner that will prevent segregation. Concrete shall be tamped or vibrated sufficiently to bring the mortar to the surface and prevent honeycombs.

B. Joints. Contraction joints shall be spaced at 10-foot intervals, except that a 15-foot spacing may be used when a machine is used or when satisfactory support for the face form can be obtained without the use of templates at 10 foot intervals. Joint spacing may be altered at the discretion of the Consultant to prevent uncontrolled cracking. Contraction joints may be installed by the use of templates or formed by other approved methods. Where such joints are not formed by templates, a minimum depth of 1 1/2" shall be obtained. All contraction joints shall be filled with joint sealer. Expansion joints shall be spaced at 40-foot intervals, and adjacent to all rigid objects. Bituminous Expansion material shall be placed against all existing firm surfaces.

C. Finishing. Exposed surfaces of all curbs and gutters shall be finished smooth and even by means of rollers, floats and similar tools. Edges shall be tooled as shown. All joints and edges shall be straight and neatly finished. Forms shall remain in place until they can be removed without injury to the finished work. When the forms are removed, the concrete shall be rubbed down to a smooth and uniform finish. Plastering will not be permitted; damaged sections shall be removed and replaced at Contractor's expense.

6. Concrete Vertical Curbs

A. General. Concrete vertical curbs shall be provided where indicated on the plan and shall be constructed to size and shape as shown.

B. Curbs may either be formed or machined, but shall be placed in a manner that will prevent segregation.

C. Joints. Contraction joints shall be spaced at 10-foot intervals, except that a 15-foot spacing may be used when a machine is used or when satisfactory support for the face form can be obtained without the use of templates at 10-foot intervals. Joint spacing may be altered at the discretion of the Consultant to prevent uncontrolled cracking. Contraction joints may be installed by the use of templates or formed by other approved methods. Where such joints are not formed by templates, a minimum depth of 1 1/2" shall be obtained. All contraction joints shall be filled with joint sealer. Expansion joints shall be spaced at 40-foot intervals, and adjacent to all rigid objects.

7. Concrete Paving, Steps and Walks

A. Concrete construction shall conform to applicable requirements of Division 3, unless otherwise specified herein or indicated on drawings. Concrete shall be air entrained type with 28-day compressive strength of 3,600 psi unless otherwise indicated on drawings.

B. General. Concrete walks, paved areas, and steps shall be provided in accordance with typical details shown on drawings.

C. Subgrade. The subgrade shall be excavated to a sufficient depth parallel to the surface of the pavement or walk to allow the placing of the concrete. All unsuitable materials for a foundation shall be removed and depressions filled with suitable materials. The entire subgrade shall be mechanically tamped in layers not exceeding 6 inches in thickness. On fill provide a shoulder of at least 18 inches beyond the edge of the concrete.

D. Forms. Substantial and suitable forms of wood or metal shall be furnished and used by the Contractor. The forms shall be straight and clean. They shall be firmly staked to the lines and grades indicated; their upper edges shall conform to the finished grades shown on plans. After the concrete is sufficiently set, the Contractor shall remove the forms in such a manner as not to injure the concrete.

E. Concrete shall be deposited on the foundation, compacted and struck off with a template. The surface shall be evenly finished with wood float and trowel.

F. Finish. After floating and toweling have been completed, concrete shall be lightly brushed with a stiff Tampico broom leaving a uniform, non-skid finish. When the concrete has set sufficiently, the edges of the concrete shall be carefully tooled (with an approved metal edging tool) to a 1/4-inch radius.

G. Joints shall conform to details shown on drawings or as directed by Consultant. Joint width shall be as specified in detail, no less than one inch deep, spaced as shown on drawings.

H. Curing and Protection. Curing shall conform to requirements of Section 700-14 of NCDOT Standard Specifications for Roads and Structures. After finishing of concrete has been completed, it shall be protected from pedestrian traffic for 3 days and from vehicular traffic for 10 days.

8. CLEAN-UP

A. Remove all debris and excess material immediately from project site.

B. Take down all barricades and signs only after all work included in this Section is finished and inspected.

C. Leave project area neat, orderly and free of any hazardous conditions.

END OF SECTION 32 13 13

SECTION 32 34 00 – PRECAST BOARDWALK

PART 01 - GENERAL

1. Related Documents

   A. The General Provisions of the Contract, including General and Supplementary Conditions and General Requirements, that apply to the work specified in this section.

2. Description of Work

   A. Work Included in This Section:
   Provide design-build precast concrete boardwalk with railings and pilings.

PART 02 - PRODUCTS

1. Description:
   A. These specifications are for a precast concrete boardwalk and shall be regarded as minimum standards for this project.

   B. This item shall also include the design, specification, and construction of a railing and foundation system that is attached to the proposed boardwalk system.

   C. Cast in place concrete abutments shall be included in this work.

   D. "Minimum Standards" as outlined below must be met.
      - A drawing of the precast boardwalk system (including tread layout, structural details designed for the design loads shown on the contract documents, foundation design and layout) must be submitted Owner and Consultant not less than 2 weeks prior to bid due date. Boardwalk drawings shall be signed and sealed by a Professional Engineer licensed in the State of North Carolina.

2. MINIMUM STANDARDS: The selected boardwalk shall have the following minimum characteristics:

   A. Boardwalk system (beams, treads, and curbs if applicable) must be reinforced concrete, either precast or cast-in-place.

   B. Boardwalk railing system shall be a treated timber system with vinyl coated welded wire mesh at 48" height minimum.

   C. Walking surface (treads) shall be made of reinforced concrete, and supported by reinforced precast concrete beams. Where applicable, edges of treads will receive concrete curbs.

   D. Walking surface (finish) of top surface of treads shall have a formliner finish with one of the following textures: sandblast, broom or timber. Texture shall be integral with the concrete. Use of an applied post pour wearing surface must be approved by the owner prior to boardwalk fabrication.

   E. Concrete treads shall be structural load bearing elements and shall interlock with one another via a "tongue and groove" connection.

F. All precast shall consist of integrally colored concrete in a color selected by the owner.

3. DESIGN LOADS: Designed for the following live loads:

A. Pedestrian live load of 90 psf.
B. H5 Design Truck – 10,000 lbs. total vehicular load (Applicable for boardwalk clearances exceeding 7 ft. but equal to or less than 10 ft.)

4. TREADS:

A. Treads shall maintain a "boardwalk appearance", specifically meaning each tread shall have a width: length ratio ranging from a minimum of 3:1 to a maximum of 14:1. Width is defined as the tread dimension perpendicular to the normal direction of travel. Length is defined as the tread dimension measured in the direction of travel.

B. Tread width shall be as noted on the contract drawings. Alignment should follow the horizontal and vertical alignment shown on the contract plans.

C. Connectors for curbs (if applicable) to treads shall not be visible to boardwalk users while viewed from the top of the walkway.

D. All tread-to-beam connectors shall be non-corrosive and hidden from view. Metallic tread-to-beam connectors are not acceptable for this project.

E. Boardwalk supplier shall provide a field representative on site for a minimum of 2 days. Field representative shall be knowledgeable in the installation of concrete boardwalks.

5. QUALITY ASSURANCE

A. The contractor performing the installation of the pile foundations shall have installed piles of size and length similar to those shown on the plans for a minimum of three (3) years prior to the bid date for this project. The contractor shall submit a list containing at least three (3) projects completed in the last three (3) years on which the contractor has installed piles of a size and length similar to those shown on the plans. The list of projects shall contain names and phone numbers of owner's representatives who can verify the Contractor's participation on those projects.

B. Manufacturer Qualifications: Not less than 10 years experience in the actual production of precast products as described below.

C. Boardwalk supplier shall have either a minimum experience of 5 years or 50 boardwalk projects in design, production, and field consultation.

D. Boardwalk supplier must be certified by PCI or NPCA.

E. Acceptability Criteria for Treads and Curbs (if applicable): The finished visible (in the final installed position) surface shall have no obvious imperfections other than minimal color or texture variations from the approved samples or evidence of repairs when viewed in good typical daylight illumination with the unaided naked eye at a 20 ft. viewing distance. Appearance of the surface shall not be evaluated when light is illuminating the surface from an extreme angle as it

tends to accentuate the minor surface irregularities. The following is a list of finish defects that shall be properly repaired, if obvious when viewed at a 20 ft. distance. Patching (by a trained skilled concrete repair person) is an acceptable repair method.

- Ragged or irregular surfaces.
- Excessive air voids (commonly called bug holes) larger than ¼ in. evident on the top surface of the tread or curbs (if applicable).
- Adjacent flat and return surfaces with greater texture and/or color differences than the approved samples or mockups.
- Casting and/or aggregate segregation lines evident from different concrete placement lifts and consolidation.
- Visible mold joints or irregular surfaces.
- Rust stains on exposed surfaces.
- Units with excessive variation in texture and/or color from the approved samples, within the unit or compared with adjacent units.
- Blocking stains evident on exposed surfaces.
- Areas of backup concrete bleeding through the facing concrete.
- Foreign material embedded in the surface.
- Visible repairs at a 20 ft. viewing distance.
- Reinforcement shadow lines.
- Cracks visible at a 20 ft. viewings distance.

F. Installer Qualifications: Firm with 3 years experience in installation of systems similar in complexity to those required for this Project.

G. Mock-Up: Provide, a mock-up for evaluation of the boardwalk showing the surface preparation techniques and application workmanship.

H. Finish areas designated by Consultant / Engineer.

I. Do not proceed with remaining work until mock-up is accepted by Consultant / Engineer.

J. Refinish mock-up area as required to produce acceptable work.

PART 03 - DESIGN

A. The designer of the boardwalk, foundation and railing system shall be a qualified registered Professional Engineer licensed in the State of North Carolina and having a minimum of 10 years of experience in the design of concrete structures, foundation and railing systems.

B. The foundation design shown on the boardwalk drawings shall be based on recommendations of the Owner's Geotechnical Engineer, to be provided after clearing of the area adjacent to the boardwalk is complete. **Contractor shall notify Owner and consultant as soon as possible when the area will be cleared so as to coordinate with the Owner's Geotechnical Engineer obtaining bores.**

1. DESIGN CRITERIA: The design of the boardwalk and railing system shall comply with the following guidelines:

A. AASHTO LRFD Guide Specifications for The Design of Pedestrian Bridges, 2nd Edition with 2015 Interim Revisions.

B. AASHTO LRFD Bridge Design Specifications for Highway Bridges, 7th Edition with 2015 and 2016 Interim Revisions.

C. American Concrete Institute 2014 – Building Code and Commentary.

D. In addition to the dead loads of the system, the structure shall be designed for the live loads defined in the construction documents.

2. SUBMISSIONS: Prior to the start of fabrication or construction, the Contractor shall submit to the Engineer a design package, which shall include, but is not limited to, the following:

A. DETAILED PLANS:

- REGISTRATION / SEAL: Sealed by a licensed Professional Engineer (North Carolina).
- PLAN VIEW: Full plan view of the boardwalk, foundation and railing system drawn to scale. The plan view must reflect the proposed horizontal alignment as shown on the design plans.
- ELEVATION VIEW: Full elevation view of the boardwalk, railing and foundation system drawn to scale which reflect the actual vertical alignment. Elevation views shall indicate the elevation at the top and bottom of the boardwalk and foundation system components, horizontal and vertical break points, and location of the finished grade.
- DETAILS: Details of all boardwalk and railing system components and their connections such as the length, size and where changes occur; connections; etc.
- CODE REFERENCE: Design parameters used along with AASHTO references.

B. DESIGN COMPUTATIONS: Computations shall:

- Be stamped by a licensed Professional Engineer in the State of North Carolina.
- Clearly refer to the applicable AASHTO provisions.
- Include documentation of computer programs including all design parameters.
- Clearly show that all reinforced precast treads and beams meet AASHTO requirements for the loading per Section 1.3.F.
- Include sketches of reinforcement in treads and beams, shear and moment diagrams, and all equations used shall be referenced to the applicable code.

C. CONSTRUCTION SPECIFICATIONS:

- Construction methods specific to the boardwalk vendor chosen. Submittal requirements such as certification, quality and acceptance/rejection criteria shall be included. Details on connection of boardwalk units and foundation system such that assurance of uniform load transfer shall be checked.

D. FINAL SUBMISSION: Once a boardwalk and foundation system design has been reviewed and accepted by the Owner, the Contractor shall submit the final plans. The designer of the boardwalk, foundation and railing system is responsible for the review of any drawings prepared for fabrication. One set of all approved shop drawings shall be submitted to the Engineer’s permanent records.

- Manufacturer to supply submittal drawings for approval to include the following:
- Section-thru details.
- Mounting methods.
- Typical Elevations.
- Key plan layout.

3. BUILDING PERMIT: The Contractor shall responsible for obtaining the required permits for the boardwalk construction from Mecklenburg County Building Standards. The cost of the permits shall be included in the cost of the Boardwalk Section.

4. SHOP DRAWINGS: Shop drawings shall:
   A. Be stamped by a licensed Professional Engineer in the State of North Carolina.
   B. Show actual field conditions and true elevation and location supplied after field verification.
   C. Clearly detail reinforcement in beams, treads and curbs including clear dimension from concrete edge, size and amount of rebar.
   D. Clearly state concrete reinforcement strength and epoxy coating where required as well as component weight and lifting locations.

5. DELIVERY, STORAGE, AND HANDLING

   A. Store products in manufacturer's unopened packaging until ready for installation.

   B. Field Measurements: Where handrails and railings are indicated to fit to other construction, check actual dimensions of other construction by accurate field measurements before fabrication; show recorded measurements on final shop drawings:

   C. Where field measurements cannot be made without delaying the railing fabrication and delivery, obtain guaranteed dimensions in writing by the Contractor and proceed with fabrication of products so as not to delay fabrication, delivery and installation.

   D. Coordinate fabrication and delivery schedule of handrails with construction progress and sequence to avoid delay of railing installation.

6. WARRANTY:

   A. Contractor will be responsible for installation defects associated with the boardwalk and abutment components, foundation system, and railings for a period of 12 calendar months from the date of final acceptance by the Owner.

   B. Boardwalk manufacturer shall warranty all concrete components against defects in material and workmanship for a period of 10 years.

7. MEASUREMENT AND PAYMENT

   A. Concrete boardwalk, railings, and foundations shall be paid for at the contract lump sum price as listed in the bid proposal for “Concrete Boardwalk”. This price shall include all materials, equipment, permits, labor and work necessary for and incidental to the design, construction, delivery, unloading, assembly, and placement of the boardwalk and foundation as shown in the contract plans including all railings on the superstructure.

B. Material & Testing

C. CONCRETE: shall conform to the following:

- The minimum compressive strength of the concrete shall be 4000 psi measured at 28 days.
- All concrete shall contain fiber reinforcing as well as structural steel reinforcement as designed by the Engineer of record.
- All concrete components shall be air entrained composed of Portland cement, fine and course aggregates, admixtures and water. The air-entraining feature may be obtained by the use of either an air entraining Portland cement or an air entraining admixture. The entrained air-content shall be not less than four percent or more than seven percent.

8. Execution

A. CONCRETE BOARDWALK

- Installation of the concrete boardwalk system and railings, if applicable, shall be performed in accordance to the approved plans and manufacturers installation instructions. Boardwalk manufacturer shall provide a field representative to review installation instructions with the Contractor and Engineer and to certify that the installation has been performed according to the approved drawings and manufacturer's instructions.

END OF SECTION 32 34 00

SECTION 32 92 00 – TURF AND GRASSES

PART 01 - GENERAL

1. Related Documents
The General Provisions of the Contract, including General and Supplementary Conditions and General Requirements, apply to the work specified in this Section.

2. Description of Work:
The work in this section is the furnishing and installation of turf.

3. Work Included in This Section:
Seeding of new lawn areas.

4. Related Work Specified Elsewhere:
Earthwork and Site Grading (31 00 00)
Fine Grading (31 22 16)

5. Substitutions:
The species or varieties, materials, or products specified herein by botanical and common name, shall be provided as specified. Substitutions will be permitted only upon written application by the Contractor to the Consultant, and when approved by said Consultant in writing. Request for permission to substitute will not be entertained unless adequate evidence substantiating the unavailability of the specified item accompanies the request for substitution.

PART 02 - PRODUCTS

1. Shipment and Delivery:
Promptly notify the Consultant in advance, when the seed, fertilizer, and soil amendments are to be delivered and the manner of shipment.

Furnish therewith an itemized list of the actual quantities. Materials shall be delivered to the site in sealed standard size containers, showing weight, analysis, name of vendor, and germination test. Materials which have become wet, moldy, or otherwise damaged will not be acceptable. Deliver the necessary inspection certificates to accompany each seed, fertilizer, and soil amendment bag.

When shipment is made by truck, pack all materials to provide adequate protection against climate and breakage during transit.

When shipment is made by rail, pack boxcars carefully and adequately ventilate materials to prevent "sweating" of materials during transit.

Use a suitable method to handle to insure careful, workmanlike delivery of materials.

2. Soil Materials

A. Planting Mix: Planting mix shall be made up of three (3) parts topsoil and one (1) part peat, thoroughly mixed by mechanical means. Peat shall be decomposed Canadian peat, with a water absorption capacity of not less than 30% of its weight when oven dried at 110 degrees centigrade. Fertilizer shall be thoroughly incorporated in the mix at a rate specified herein.

B. Topsoil: Shall be natural, fertile, agricultural soil, capable of sustaining vigorous turf growth. It shall be of uniform composition throughout, with admixture of subsoil. It shall be free of stones

larger than 1" in any dimension, lumps, live plants, roots, sticks, and any other material toxic to plant growth. Topsoil shall not be installed while in a frozen or muddy condition.

C. Topsoil shall contain the following specified percentages of constituents:

Maximum 30% clay (red clay, well pulverized); clay shall be sterile

Minimum 5% well-rotted sawdust, leaf mold or other approved partially decomposed organic matter.

Maximum 50% silt.

Maximum 45% coarse sand free of rock

Topsoil shall have an acidity range of ph 6.5 to 7.0 and shall contain not less than six percent (6%) organic matter, as determined by loss on ignition of moisture free samples dried at 65 degrees centigrade.

Contractor shall be responsible for verifying the suitability of the above, along with obtaining recommendations for other amendments from the local agricultural extension prior to installation.

A sample of the proposed topsoil and planting mix shall be submitted to the Landscape Architect 5 working days prior to installation and be approved prior to installation.

3. Fertilizer:
Lime shall be ground limestone (Dolomite) containing not less than 85% total carbonates and shall be ground to such fineness that 50% will pass through a 100-mesh sieve and 90% will pass through a 20 mesh sieve.

The following is a list of acceptable starter fertilizer for new lawn:

FERTILIZER PRODUCT	ANALYSIS	APPL.RATE	VENDOR
Lesco Starter	18-24-12	200 lbs./acre or 4.2 lbs/1000 ft.	Local Garden Center
Eastern Plant Food Co.	18-24-10	250 lbs./acre or 6 lbs./1000 sq. ft.	Local Garden Center
Sta-Green	18-24-10	250 lbs./acre or 6 lbs./1000 sq. ft.	Local Garden Center
Sta-Green Plant Food Co.		250 lbs./acre or 6 lbs./1000 sq. ft.	Sta-Green Sylacauga, AL

Or equal fertilizer approved by the Landscape Architect.

Commercial fertilizer applied at seeding time shall be per analysis listed above in which ½ of the nitrogen is slowly available. All fertilizer shall be uniform in composition, dry, free flowing and shall be delivered to the site in the original unopened container, each bearing the manufacturer's guaranteed analysis. Any fertilizer becoming caked or damaged will not be accepted.

4. Seed: Grass seed shall be a drought resistant tall fescue, unless specified otherwise on the plant list. New varieties will be considered for review. Seed shall have a 97% minimum purity and 85% minimum germination, and be free of noxious weed seeds, as certified by the North Carolina Co-op Improvement Association or its approved equivalent by the Landscape Architect.

   This mix shall be used in all disturbed areas not designated for Natural Seed Mix (see below).

5. Water: Clean, fresh, and free from harmful substances shall be provided by contractor. Water turf thoroughly until final acceptance of project. Contractor shall verify with owner if an existing irrigation system is available to meet watering requirements listed below. Contractor shall utilize existing irrigation system if available. In the event an on-site water source is not available the contractor shall provide water until final acceptance of project at the rate specified below.

   Provide water to new turf areas as follows:

0-14 days	170 gallons/1,000 s.f. every day
15-28 days	225 gallons/1,000 s.f. every other day
29-42 days	340 gallons/1,000 s.f. every three days
43-84 days	680 gallons/1,000 s.f. once per week
After 84 days	As needed to maintain acceptable turf

   In the event the project is accepted prior to the watering requirements being fulfilled, the contractor will be required to provide water until the turf is established.

6. Mulch: Lawn mulch shall be cleaned threshed wheat or oat straw from the latest available harvest crop and shall be free of noxious weed seeds and foreign materials.

7. Tack Coat: Shall be an asphaltic emulsion tack coat applied sufficiently over the mulch to prevent displacement. Provide tack coat on slopes 3:1 or greater.

PART 03 – EXECUTION

1. Turf Bed Preparation: The contractor shall take representative samples of existing soil conditions where turf is to be installed and have soil tested by a qualified soils testing lab. Test results shall be submitted to owner for review, and soil deficiencies corrected by the contractor. Any re-testing cost shall be at the contractor's expense.

2. Fine grading of Seedbed: Unless otherwise approved by the Engineer, all other site work required by this contract shall be complete and in place before grassing operations are begun. Work may be completed in parts if so requested by the contractor and approved by the Landscape Architect. Prior to planting operations, all proposed turf areas shall be scarified to 8" depth and pulverized until the surface is smooth, friable, and of a uniformly fine texture. Remove stones and foreign material over one inch in diameter, and grade for positive drainage as required to prevent ponding of water.

   Lime shall be broadcast and worked into the soil at all areas at the rate dictated by the soil test.

Provide a PH level in the range of 6.5-7.0.

3. Lawn Operations: Seed, fertilizer, and lime may be applied with a mechanical hand spreader in two (2) successive sowings with the second perpendicular to the first. The rate of each sowing shall be ½ the total seed rate specified. Immediately after seeding, all lawn areas shall be lightly rolled. If slope is to excessive then seed shall be raked into top ¼" of soil. Seed shall be installed uniformly over the entire area at the rates listedbelow:

Season	Type of Seed	Date	Rate
Fall	Tall Fescue	September 1 – November 15	8 lbs./1000 sf
Winter	Tall Fescue Annual Rye	November 15 – March 1 November 15 – March 1	5 lbs./1000 sf 3 lbs./1000 sf
Spring	Tall Fescue	March 1 – June 1	8 lbs./1000 sf

Written requests for a variance must be approved by the Landscape Architect.

After seeding installation apply fertilizer, mulch, tack, and water as specified herein.

4. Hydroseeding:

A. Hydraulic Mulching: Hydraulic mulching shall consist or the mixing of wood fiber mulch, grass seed, fertilizer, and/or other additives with water. It shall be mixed in standard hydraulic mulching equipment to form homogeneous slurry. This slurry shall be sprayed, under pressure, uniformly over the soil surface at the material application rate recommended by the manufacturer. The hydraulic mulching equipment shall contain a continuous agitation system that keeps all materials in uniform suspension throughout mixing and distribution cycle.

B. Application: Using standard hydraulic mulching equipment, the wood fiber mulch, seed and fertilizer slurry shall be applied as listed below evenly over the soil surface in a one-step operation.

Slope	Mulch Application Rate
Less than 3:1	1,500 lbs./acre (minimum rate)
3:1 – 2:1	2,000 lbs./acre
2:1 or greater	2,500 lbs./acre

Any areas susceptible to erosion or drought shall receive the maximum application rate.

The mulch material shall consist of virgin wood fibers manufactured expressly from whole wood chips. The chips shall be processed in such manner as to contain no growth or germination inhibiting factors. Fibers shall not be produced from recycled material such as sawdust, paper, cardboard, or residue from pulp and paper plants.

The wood cellulose fibers of the mulch must maintain uniform suspension in water under agitation. Upon application, the mulch material shall form a blotter like mat covering the ground. This mat shall have the characteristics of moisture absorption and percolation and shall cover and hold grass seed in contact with the soil.

The wood fiber mulch shall conform to the following specifications:

Moisture content:	10.0%, +/-3.0%
Organic matter (wood fiber):	99.2%, +/- 0.8% oven dried basis
Ash content:	0.8%, +/-0.2%
PH	4.8%, +/-0.5%
Water holding capacity (min.) (grams of water/100 grams of fiber)	1,000

After installation apply water as specified herein.

5. Maintenance: The contractor is immediately responsible for all maintenance of turf until final acceptance. This includes all necessary watering, fertilizing, mowing, trimming, pruning, leaf removal, and any necessary weed control. Also, this includes any erosion repair, reseeding, and incidental operations necessary to establish a vigorous, healthy and uniform stand of grass. All areas which fail to show a uniform stand of grass for any reason shall be treated repeatedly until a uniform stand of at least 90% coverage is attained with no bare areas greater than five square feet.

   Grass mowing operations shall be done by the contractor until final acceptance of work. Mowing shall be done only when the grass is dry. Mowing of fescue shall take place whenever grass height is 6", and shall be cut to a height of 3 ½". Mowing of Bermuda grass shall take place whenever grass height is 4", and shall be cut to a height of 2".

   When directed by the Landscape Architect, contractor shall top-dress turf areas as described in Section 886 of NCDOT Standard Specifications for Roads and Structures.

6. Guarantee: The contractor shall guarantee all new turf area materials and workmanship for a period of twelve (12) months from the date of final acceptance by the owner. Damage prior to final acceptance is the contractor's responsibility. Turf replacements shall be as specified here in.

7. Clean-Up: During installation, the contractor shall be required to keep all areas cleaned. Any defacements, stains, dirt, debris, or other trash caused by landscape operations shall be disposed by contractor. The contractor shall remove construction equipment, excess materials, tools, and all other debris and rubbish from the site.

8. Final Acceptance: Upon completion of planting operations, including clean-up, the contractor shall notify the Engineer for inspection of work. Any items found to be unsatisfactory shall be corrected. The one year guarantee period begins at the date of final acceptance.

END OF SECTION 32 92 00

SECTION 32 93 00 - PLANTS

PART 01 - GENERAL

1. Related Documents
The General Provisions of the Contract, including General and Supplementary Conditions and General Requirements, apply to the work specified inthis Section.

2. Description of Work:
The work in this section is the furnishing and installation of plant materials.

3. Work Included in This Section:
The work required under this Section consists of all preparation, planting and related items necessary to complete the work indicated as described in the Specifications, in addition to supplying all plants specified on plant list and shown on drawings.

All tree species, sizes, forms, shapes, and locations will be subject to approval by the Consultant.

4. Substitutions:
The species or varieties, materials, products or sizes specified herein by botanical and common name, shall be provided as specified. Substitutions will be permitted only upon written application by the Contractor to the Consultant, and when approved by said Consultant in writing. Request for permission to substitute will not be entertained unless adequate evidence substantiating the unavailability of the specified item accompanies the request for substitution.

If proof is submitted, substantiated in writing, that any plant specified is not obtainable, a proposal will be considered for use of the nearest available size or similar variety with a corresponding adjustment of the contract price.

5. Planting Season:
Planting shall be done within the following dates: September 1 – June 1. If project conditions are such that planting can not be installed during above dates, then planting shall be delayed to following season.

Schedule Change:
If special conditions exist which may warrant a change in the planting dates mentioned above, a written request shall be submitted to the Consultant stating the special conditions and the proposed schedule change. Permission for schedule change will be given if warranted in the opinion of the Engineer.

6. Grades:
When landscape work is ready to commence, the site shall be at finish grade. The contractor shall furnish and place additional topsoil if necessary to insure positive drainage.

PART 02 - PRODUCTS

1. Shipment and Delivery:
Promptly notify the Consultant, in advance, when the plant material is to be delivered and the manner of shipment.

Furnish therewith an itemized list of the actual quantity and sizes.

Deliver the necessary inspection certificates to accompany each plant or shipment prior to acceptance and planting.

When shipment is made by truck, pack all plant material to provide adequate protection against climate and breakage during transit, tie to prevent whipping.

Cover the tops with tarpaulin to minimize wind-whipping and drying, or spray adequately with antitranspirant.

When shipment is made by rail, pack boxcars carefully and adequately ventilate in accordance with plant requirements to prevent "sweating" of plants during transit.

Exercise care at all times during handling operations to prevent damage to bark, branches, and root system.
Use a suitable method of handling to insure the careful, workmanlike delivery of heavy balled plants to preclude cracked plant balls. All balls over 36" diameter are to be platformed.

2. Soil Materials:

A. Planting Mix: Planting Mix shall be made up of three (3) parts topsoil and one (1) part peat, thoroughly mixed by mechanical means. Peat shall be decomposed Canadian peat, with a water absorption capacity of not less than 30% of its weight when oven dried at 110 degrees centigrade. Fertilizer shall be thoroughly incorporated in the mix at a rate specified in section 2.04.

B. Topsoil: shall be natural, fertile, agricultural soil, capable of sustaining vigorous plant growth. It shall be of uniform composition throughout, with admixture of subsoil. It shall be free of stones, construction gravel, lumps, live plants and their roots, sticks, and other material toxic to plant growth. Topsoil shall not be used while in a frozen or muddy condition.

Topsoil shall contain the following specified percentages of constituents: Maximum

30% clay (red clay, well pulverized); clay shall be sterile.

Minimum 5% well-rotted sawdust, leaf mold or other approved partially decomposed organic matter.

Maximum 50% silt.

Maximum 45% coarse sand free of rock.

Topsoil shall have an acidity range of ph 6.5 to ph 7.0 and shall contain not less than six percent (6%) organic matter, as determined by loss on ignition of moisture-free samples dried at 65 degrees centigrade. A sample of the proposed topsoil and planting mix shall be submitted to the Consultant not less than three working days prior to installation and be approved prior to installation.

3. Plant Materials:

Contractor shall coordinate the inspection of plant materials by the Consultant no less than five days prior to delivery and/or installation on the site. Inspection of plants to be balled and burlapped must be made, and plants must be approved by the Consultant before they are planted. Inspection shall be for quality, size and variety only, and shall not in any way impair the right of rejection for failure to meet other requirements during progress of the work. This inspection will be conducted by a representative of the County at the Contractor's expense.

Supply all plants as specified in plant list as shown on drawings. Plants shall be typical of their species

and variety, have normal growth habits, have well-developed branches, be densely foliated, be vigorous, and have fibrous root systems. No plants will be accepted unless they show healthy growth and satisfactory foliage conditions. Plants shall be free from defects and injuries, and shall be certified by the State and Federal authorities to be free from plant diseases and insect infestations. Size of plants, spread of roots and size of balls shall be in accordance with "American Standard for Nursery Stock" 260.1-1980 or latest revision, as published by the American Association of Nurserymen, Inc. Quality shall appreciably exceed these standards. All plants of each particular variety shall be reasonably uniform in size and configuration, and shall be labeled with correct plant name and size.

Balled and burlapped plants shall be nursery grown and freshly dug. Nursery grown plants shall have been transplanted or root pruned at least once in the past three (3) years. No plants showing evidence of "made" root balls will be accepted. Ball and burlap (B & B) plants with firm, natural balls of earth, of diameter not less than recommended in the "Tree and Shrub Transplanting Manual", latest revision, and of sufficient depth to include the fibrous and feeding roots. Plants moved with a ball will not be accepted if the ball is dry, cracked, or broken before or during planting operations.

Containerized plants shall have a root system sufficient enough in development to hold the soil intact when removed from the container. The root system shall not be rootbound, a condition where the root system is dense in mass, excessively intertwined, and has established a circular growth pattern.

All new trees must have straight trunks with a single leader intact, unless multi-stem are specified. Bark shall be free of abrasions, and all cuts shall be completely callused over. Trees will not be accepted which have had their branches shortened, leaders cut or which have leaders damaged so that cutting is necessary. Unless otherwise specified, major deciduous trees shall be free of branches up to five feet (5') from top of ball, well branched, and have reasonably straight stems.

Labels shall be attached securely to all plants, bundles and containers of plant materials delivered. Plant labels shall be durable and legible, stating the correct plant name and size in weather-resistant ink or embossed process lettering. These labels shall be removed by the Contractor after inspection by the Consultant. Plants shall conform to measurements specified in the plant lists.

4. Fertilizer for Trees, Shrubs and Groundcover:
The fertilizer shall be one from the following listed below or equal fertilizer approved by the Consultant. The fertilizer shall have 50% water insoluble nitrogen. The chlorine content is not to exceed 5%.

FERTILIZER PRODUCT	ANALYSIS	APPL. RATE	KNOWN VENDOR
Nursery Special Sta-Green Plant Food Co.	12-6-6	2 lbs/100 Sq. Ft.	Byrum Seed Co. Charlotte, NC (704)537-0481 Pennington Seed Columbia, SC 1-800-334-6039
Nursery Special	14-7-7	2 lbs/100 Sq. Ft.	Maybank Fertilizer Corp. Ravel, SC (803)889-2231

The fertilizer granules are not to come in contact with any vegetative parts of the plant. Fertilizer for trees shall be at a rate .16 lb. minimum to a .20 lb. maximum nitrogen/inch caliper of tree. Source of

nitrogen shall be Urea Formaldehyde or a similar slow release source approved by the Consultant. In addition to the nitrogen, the following shall be used,
.05 lb. phosphorous and .05 lb. of pot ash per inch caliper:

EXAMPLE OF TREE FERTILIZATION:

1 cup (half pound) of 31-7-7 Analysis Fertilizer or 2 cups (1 pound of 12-6-6 Analysis Fertilizer such as "Sta-Green Nursery Special" or 1 cup (half pound) of Scotts-Turf builder per inch caliper.

Commercial fertilizer applied at planting time shall be per analysis listed above in which 1/2 of the nitrogen is slowly available. All fertilizer shall be uniform in composition, dry, free flowing and shall be delivered to the site in the original unopened container, each bearing the manufacturer's guaranteed analysis. Any fertilizer which becomes caked or otherwise damaged will not be accepted.

5. Mulch (Trees & Planting Beds): Mulch shall consist of hardwood chips and bark. Hardwood chips shall be 1/8 inch nominal thickness with at least 50 percent having an area of not less than 1 square inch, and no piece greater than 2 inches in diameter shall be acceptable. They shall be free of any hazardous materials. Contractor shall submit a sample to the Consultant for approval at least five days prior to installation.

   At contractor’s expense, Owner will accept the use of “Metro-mulch”. This mulch is available at Compost Central, which is located at 5631 West Blvd., Charlotte, NC (704-588- 9092).

6. Water: Clean, fresh, and free from harmful substances shall be the Contractor responsibility until final acceptance.

7. Antitranspirant: Wilt-Pruf, by Nursery Specialty Products, Inc., 202 East 47th Street, New York, New York, or approved equal. Apply according to manufacturer recommendations.

PART 03 - EXECUTION

1. Planting Preparation

   A. Herbicides: Prior to planting bed preparation, and at least three (3) working days before the planting of shrubs and trees, the Consultant shall be notified and present on site when the pre-emergent is applied to the plant beds. The first application of the chemical Dacthal 75 WP, or approved substitute by the Consultant should be applied per labeled instructions. (See instructions under Mulching for Application Rate).

   B. Plant Protection on Site: Protect plants at all times from sun or drying winds. Plants that cannot be planted immediately on delivery shall be in the shade, well protected with soil, wet wood chips, or other acceptable material and shall be kept well-watered.

      Plants shall not remain unplanted for longer than 3 days after delivery. Plants shall not be bound with wire or rope at any time so as to damage the bark or branches. Plants shall be lifted and handled using suitable support of the ball to avoid damage to same. Before plant pits are dug, cover the surrounding turf, if existing, in a manner that will satisfactorily protect all turfed areas that are to be trucked over, and upon which soil is to be temporarily stacked pending its removal or reuse. Barricade existing trees, shrubbery and beds that are to be preserved in a manner that will effectively protect them during planting operations or as specified on the plans.

   C. Utilities: Observe proper precautions so as not to disturb or damage existing utilities. Contractor

shall be financially responsible for repair of all damage caused by landscape operations.

Prior to excavations, Contractor shall notify ULOCO @ 1-800-632-4949 to ascertain locations of electrical cables, conduits, utility lines, oil tanks, supply lines, subsurface drainage, and irrigation lines, etc. Notify the Consultant should the above-mentioned utilities present an obstruction in locations designated for planting.

2. Planting Procedure:

A. Locations of Plants: Stake out, on the ground, locations for plants and outlines of areas to be planted, and obtain approval of the Consultant before installation is begun. A minimum of 30% total planting must be staked before inspection will be made.

B. Fine Grading of Plant beds: Prior to planting operations, all proposed planting beds shall be tilled to a depth of 8" until the soil is smooth, friable, and of a uniformly fine texture. Tilling shall be omitted under the dripline of existing trees. Remove stones and foreign material over one inch in diameter, and grade for positive drainage to prevent ponding of water. All excavations shall be in accordance with Typical Planting Detail shown on plans.

C. Detrimental Soil Conditions: Notify the Consultant prior to installation of any soil conditions which the Contractor considers detrimental to growth of plant material. Proper water drainage must be assured as follows:

D. Subsurface Drainage Investigation

1. Required Tests: Contractor shall make percolation tests, as may be necessary to determine if subsurface drainage conditions in landscape areas are so poor as to support moisture conditions potentially fatal to plantings. The following procedure is recommended:

a. Wait at least twenty-four hours after rain and dig test pit twelve inches (12") square or 13.5" in diameter to depth of bottom of plant bed, trench or pit. Remove all loose soil (if standing water is visible, notify the project representative.

b. Quickly fill pit bottom with six inches (6"), approximately 3¼ gallons of water.

c. Record length of time from filling until disappearance of water and divide the number of minutes by six (6) to give average time on one inch (1") fall.

d. Compare one inch (1") fall time with the following table:

-1 inch	in 0-3 minutes	indicates rapid absorption
-1 inch	in 3-5 minutes	indicates medium absorption
-1 inch	in 5-30 minutes	indicates slow absorption
-1 inch	in 30-60 minutes	indicates semi-impervious soil
-1 inch	in over 60 minutes	indicates impervious soil

e. If soil is indicated to be semi-impervious or impervious, or if water is initially found in test pit, notify project representative before proceeding further.

f. If contractor does not make test at representative locations of if he plants in areas shown to have poor drainage without written release from the County, he shall be liable for any future guaranteed replacements due to subsurface water damage.

g. If contractor makes proper tests and files complete records indicating no semi-impervious or worse conditions, he will not be held responsible for future subsurface water damage to work of contract within guarantee period. County or project representative may supervise testing at any time.

E. Obstructions: If rock, underground construction work, tree roots, or other obstructions are encountered in the excavation of plant pits, such that plants cannot be installed, coordinate with the Consultant an alternate planting location.

F. Planting Beds: The extent of the planting bed shall be as indicated on the construction plans. The planting bed for shrubs, groundcover plants, and trees shall be prepared wide enough to accommodate all roots without crowding or twisting. The entire planting bed shall contain the planting mix specified herein to a depth of 8", being tilled prior to planting. Planting mix depth shall be modified by the Consultant if a fill condition is within the dripline of existing trees.

All planting beds shall have a 4" V-cut trench installed at the perimeter of the planting bed and adjacent to concrete walks, curbing, and grassed areas. The V-cut trench shall form the bed line edge. Trench depth and width shall be consistent and uniform throughout. See detail shown on landscape plans.

G. Backfilling: When partially backfilled and compacted, cut the ball ties, wire basket, etc., and remove the burlap from the top and side of the root ball, and cut or adjust to prevent the formation of air pockets. No burlap shall be pulled from under the root ball.

Backfill one-half (½) of remaining hole with planting mixture hereinbefore specified, and water thoroughly. Backfill rest of hole with planting mixture. Firm down, eliminating all air pockets. Do not pack. Build a four inch (4") high berm around the edge of the root ball to form a basin for holding water. The bottom of the basin shall be at surrounding finish grade.

Shrubbery and ground covers shall be removed from containers. Set plant materials upright, plumb, and oriented to give the best appearance or relationship to each other and adjacent structures.

Pits for trees and large shrubs shall be circular in outline and shall have vertical sides and flat bottoms. The minimum depth and diameter of plant pits shall be as follows:

Diameter – 24” greater than diameter of ball of spread of roots.
Depth – 12” greater than depth of ball or roots. The minimum depth of pits shall be measured from finished grades. The bottom surface of all pits shall be fissured.

Set plant material 2"-3" above the finish grade. No filling shall be done around actual trunks or stems of plant material. Backfill around plant root ball to be done with specified planting mixture. Firm down backfill to eliminate all air pockets. Form 2" high collar around outer perimeter of drip zone of individual plants within planting beds which are not irrigated. Top dress soil with a specified granulated fertilizer at the recommended rate prior to mulch application. Fertilizer contact with foliage and plant stem shall be avoided. Should fertilizer come in contact with foliage or stem, remove immediately.

H. Watering: Containerized plants shall be watered prior to planting so as to provide adequate

moisture to the plant during the planting process.

Thoroughly water all plants immediately after planting. This shall mean full and thorough saturation of all backfill in the pits and beds during the same day of planting. Apply water only by open-end hose at a very low pressure to avoid air pockets and injury to the roots. When planted, watered, and fully settled, the plants shall be vertical and the top of the root ball shall not be below the existing grade.

Fill basin with water, being careful not to break down berm with hose stream, or to gouge out holes in the backfill.

I. Pruning: All pruning shall be performed in accordance with American Standard for Nursery Stock standards. Prune only after initial inspection and approval by the Consultant. Prune in a manner to preserve natural character of plant and in a manner appropriate to its particular requirement in the landscape design.

J. Wrapping and Staking: (a) Promptly after planting, the trunk of all single-stemmed trees of 2 inches caliper and over shall be wrapped with a commercial tree wrapping product of bituminous impregnated tape, or approved equal.

Wrap the tree spirally from the groundline to the height of the second branches, overlapping half of each spiral to form a double wrapping. All wrapping shall be neat and snug, at 2' intervals wrapping shall be secured with cotton twine or sisal binder twine.

Do not use wire, staples, or nylon cord around the trunk of the tree to secure wrapping. Tie the wrapping at the top, bottom, and at two-foot intervals along the trunk with twine. Wrap within four days after planting, but not before the condition of the trunks of the trees has been inspected and approved by the Consultant. Maintain in place for the entire guarantee period. Wrapping shall be removed at the 11-month inspection by the Contractor.

(b) Stake all trees 2 to 5 inches in caliper with (3) 2" X 2" X 30" wood stakes per tree.

Stake trees 5" and above with 4 stakes. Stakes shall be driven into undisturbed soil. Place rubber hose ½ to 1 inch in diameter, around the tree trunk to prevent damage to bark by supporting rope. No hose required with nylon strapping.

Use 1/4" sisal rope, 1/4" polypropylene rope, or 1/2" - 3/4" nylon strapping. Contractor shall be required to check the stakes on a monthly basis and adjust any stakes that have loosened.

K. Mulching Application: Within two (2) days after planting, mulch all planting areas, individual tree pits, entire shrub and groundcover beds with a 3-inch minimum layer of mulching material.

Prior to mulching, apply Dacthal 75WP preemergent herbicide or approved equal to surface at the rate of 10 lbs/acre or 1 lb./5000 sq. ft. A second application at 10 lbs/acre or 1 lb./5000 sq. ft. shall be made after mulching.

3. Relocation of Existing Trees:

A. Scope: Provide materials, equipment, and labor to relocate existing trees from areas to be cleared on site.

B. Execution: Trees to be relocated shall be as shown on the drawings and specified herein. Trees are to be relocated in areas staked by the County.

Trees shall be removed with a rootball sized in proportion to their calipers. Rootballs shall be 12" in diameter for each 1" of tree caliper. Trees 4" in caliper and smaller are to be measured 6" from the ground. Trees over 4" caliper are to be measured 12" from the ground.

Trees which are to be relocated in areas which do not require grading are to be placed directly into their new location and installed in accordance with the installation specifications contained herein.

Trees still in leaf when transplanted shall be covered with a tarpaulin while being transported to their final location.

Trees transplanted off site in full leaf shall be covered entirely with a protective cloth covering prior to transporting. Trees transplanted on site do not require the covering.

Trees which are to be relocated in areas to be graded are to be stockpiled in an area or areas identified by the Consultant. Stockpiled trees shall be well heeled in and protected from excessive wind and sun. Stockpiled trees shall be installed in their final position according to other provisions of Planting and Related Items. The Contractor shall provide water to maintain a healthy condition.

All transplanted trees will be maintained and guaranteed throughout the project and until its final acceptance. Replacement trees will be provided by the Contractor at no additional cost to the County and will be of the same caliper, species, and form. Exceptions for replacement stock from the site may be made by the Consultant. Payment for this item will be made at the unit price per each for "Relocation of Trees".

C. Abandoned Plant Pits: When utility lines or other unsuitable subsurface conditions are encountered in plant pits, the Contractor will coordinate new plant locations with Consultant prior to installation.

The Contractor shall backfill abandoned pits with suitable topsoil to compacted finished grade. Unsuitable material shall be removed from property by Contractor. These areas shall be seeded as specified with the seeding specifications.

4. Maintenance:

The Contractor is responsible for all maintenance of plants until final acceptance. This includes all watering, fertilizing, weeding, re-mulching, leaf removal, erosion repair, or other incidental operations necessary to establish vigorous, healthy plant growth. All plants are to receive the appropriate application of fungicides and insecticides necessary to maintain plants free from disease and insect activity. Watering of plant materials will be the responsibility of the Contractor until the final acceptance. The Contractor shall also be responsible for maintaining all plant beds and individual plants in a weed-free condition until final acceptance.

5. Guarantee and Replacement:

The Contractor shall guarantee all plants (trees, shrubs, ground covers, annual flowers) and all other materials and workmanship for a period of twelve (12) months from the date of final acceptance by the County. The Contractor shall replace any plants that become damaged or injured, or have more than one third dieback, and any other portion of the project that fails due to faulty materials or workmanship. All plants shall be insect and/or disease free. Plants damaged by pathogen activity through the warranty period shall be replaced. A six (6) month and eleven (11) month inspection will be held during the warranty period. Damage prior to final acceptance shall be the responsibility of the Contractor.

Plant replacements shall be the same species and size as specified in the plant list when plant replacements are made. Plants, plant soil mix, fertilizer and mulch etc., shall be replaced as originally specified.

As required under this contract, any plant that is dead or not in satisfactory growth, as determined by the Consultant, shall be removed from the site. It is the contractor's responsibility to remove and replace dead plant materials within five (5) days of notice from Consultant. These and any plants missing, shall be done by contractor during the normal planting season. All replacement plantings shall have an extended warranty period of (12) months from the date of replacement. Coordinate inspection scheduling with Consultant. Contractor shall be responsible to water new landscape plantings excluding lawn areas during the one-year guarantee period. Water shall be sufficient enough to keep plants in a living condition.

6. Cleanup:

During the installation, the Contractor will be required to keep all areas clean.

At the time of final inspection of work and before issuance of the final payment, the Contractor shall clean paved areas thoroughly by sweeping and/or washing. Any damage, defacements or stains caused by the work of this Section shall be removed.

The Contractor shall remove construction equipment, excess materials, tools, and all debris and rubbish from the site.

All dirt and debris caused by landscape operations shall be disposed of by the Contractor.

7. Final Acceptance:

Upon completion of all planting operations, including cleanup, the Contractor shall notify the Consultant and accompany him or her on inspection of planting. Any items found to be unsatisfactory shall be corrected prior to approval for final acceptance. The one-year guarantee period shall start at the date of final acceptance.

At the end of the one-year guarantee period, and upon written notice submitted by the Contractor at least ten days before the anticipated date, an inspection will be made by the Consultant and the Contractor. At this one-year inspection, the Contractor shall remove all guys, guy collars, and guy stakes from all guyed plants.

END OF SECTION 32 93 00

SECTION 33 32 00 – SEGMENTAL BLOCK RETAINING WALLS

PART 01 - GENERAL

1.05 SUBMITTALS

A. Product Data. At least 14 days prior to construction, the General Contractor shall submit a minimum of six (6) copies of the retaining wall product submittal package to the Owner's Representative for review and approval. The submittal package shall include technical specifications and product data from the manufacturer for the following:

1. Precast Modular Block System brochure
2. Precast Modular Block concrete test results specified in paragraph 2.01, subparagraph B of this section as follows:
    a. 28-day compressive strength
    b. Air content
    c. Slump or Slump Flow (as applicable)
3. Drainage Pipe
4. Geotextile
5. Geosynthetic Soil Reinforcement (if required by the retaining wall design). The contractor shall provide certified manufacturer test reports for the geosynthetic soil reinforcement material in the manufactured roll width specified. The test report shall list the individual roll numbers for which the certified material properties are valid.

B. Retaining Wall Design Calculations and Construction Shop Drawings. At least 14 days prior to construction, the General Contractor shall furnish six (6) sets of construction shop drawings and six (6) copies of the supporting structural calculations report to the Owner for review and approval. This submittal shall include the following:

1. Signed, sealed and dated drawings and engineering calculations by a North Carolina registered professional engineer and prepared in accordance with these specifications.

1.06 CONSTRUCTION SHOP DRAWING PREPARATION

A. The Retaining Wall Design Engineer shall coordinate the retaining wall construction shop drawing preparation with the project Landscape Architect, project Geotechnical Engineer and Owner's Representatives. The General Contractor shall furnish the Retaining Wall Design Engineer the following project information required to prepare the construction shop drawings. This information shall include, but is not limited to, the following:

1. Current versions of the site, grading, drainage, utility, erosion control, landscape, and irrigation plans;
2. electronic CAD file of the civil site plans listed in (1);
3. report of geotechnical investigation and all addenda and supplemental reports;
4. recommendations of the project Geotechnical Engineer regarding effective stress shear Strength and total stress shear strength (when applicable) parameters for in-situ soils in the vicinity of the proposed retaining wall(s) and for any fill soil that may potentially be used as backfill in retained and/or foundation zones of the retaining wall.

B. The Retaining Wall Design Engineer shall provide the Owner with a certificate of professional liability insurance verifying the minimum coverage limits of $1 million per claim and $2 million aggregate.

C. Design of the precast modular block retaining wall shall satisfy the requirements of this section. Where local design or building code requirements exceed these specifications, the local requirements shall also be satisfied.

D. The Retaining Wall Design Engineer shall note any exceptions to the requirements of this section by listing them at the bottom right corner of the first page of the construction shop drawings.

E. Approval or rejection of the exceptions taken by the Retaining Wall Engineer will be made in writing as directed by the Owner.
F. The precast modular block design, except as noted herein, shall be based upon AASHTO Load and Resistance Factor Design (LRFD) methodology.
G. Soil Shear Parameters. The Retaining Wall Design Engineer shall prepare the construction shop drawings based upon soil shear strength parameters from the available project data and the recommendations of the project Geotechnical Engineer. If insufficient data exists to develop the retaining wall design, the Retaining Wall Design Engineer shall communicate the specific deficiency of the project information or data to the Owner in writing.
H. Allowable bearing pressure requirements for each retaining wall shall be clearly shown on the construction drawings.
I. Global Stability. Overall (global) stability shall be evaluated in accordance with the principals of limit equilibrium analysis as set forth in FHWA-NHI-10-024 Volume I and FHWA-NHI-10-025 Volume II GEC 11 Design of Mechanically Stabilized Earth Walls and Reinforced Soil Slopes.
The minimum factors of safety shall be as follows:

Normal Service (Static) 1.4
Seismic 1.1
Rapid Drawdown (if applicable) 1.2

J. Seismic Stability. Seismic loading shall be evaluated in accordance with AASHTO Load and Resistance Factor Design (LRFD) methodology.

1.05 Description of Work:

The work shall consist of designing, permitting and furnishing materials, labor, equipment and supervision for the construction of a segmental block retaining wall structure in accordance with the requirements of this section and in acceptable conformity with the lines, grades, design and dimensions shown in the project site plans.

Related Work Specified Elsewhere:
Earthwork (31 00 00)

1.06 Existing Conditions:

A. Site Conditions:
Contractor shall visit the site, familiarize themselves with actual conditions and verify existing conditions in the field.

B. Record Information:
Topographic maps and other recorded site information may be examined at the office of the Engineer.

1.07 Protection:

A. Bench Marks:
Maintain carefully all bench marks, monuments and other reference points. If disturbed or destroyed, replace as directed.

B: Existing Utilities:
Contractor shall notify Carolina One Call @ 1-800-632-4949 48 hours prior to beginning any clearing or excavation. Should any functioning underground utilities be uncovered during the work, the Contractor shall promptly notify the Engineer in writing. The Contractor shall

be held responsible for any damage to underground or overhead utility services and shall immediately repair and restore services at no additional cost to the Owner.

PART 02 - PRODUCTS

2.01 Approved Segmental Block Suppliers:

Redi-Rock

Allan-Block

Keystone

PART 03 - EXECUTION

3.01 Clearing and Grubbing:

Clearing, grubbing, and disposition of debris shall be in accordance with Section 200 of NCDOT Standard Specifications for Roads and Structures, 1990.

END OF SECTION 32 32 00

SECTION 33 40 00 STORMWATER UTILITES

PART 1 - GENERAL

1. WORK INCLUDED

A. Provide all labor, materials, necessary equipment and services to complete the Storm Drainage Facilities work, as indicated on the drawings, as specified herein or both.

2. RELATED WORK

A. Section 31 00 00 – Earthwork and Site Grading

B. Section 31 25 00 - Sedimentation and Erosion Control

3. CLEARING

A. Clearing or installation of pipe and all drainage structures shall be confined within the working limits of the trenches. Trees, utility poles, survey monuments, underground and overhead utilities shall be suitably protected and preserved.

4. EXISTING UTILITIES

A. Furnish temporary support, adequate protection and maintenance of all underground and surface utility structures, drains, sewers, cables, etc., and other obstructions encountered in the progress of the work.

B. It shall be the responsibility of the Contractor to notify the Owner of existing utilities in the area of construction a minimum of 48 hours prior to any excavation adjacent to such utilities, so that field locations of said utilities may be established.

5. QUALITY ASSURANCE

A. All work shall conform to Town of Huntersville/Mecklenburg standards and other applicable state and county requirements.

B. All work shall be in accordance with NCDOT Standards and Specifications for Roads and Structures, latest edition.

PART 2 - PRODUCTS

1. PIPE

A. Polyvinyl Chloride Pipe (PVC)

1. PVC Pipe shall be schedule 40 and manufactured for gravity drainage applications with solvent weld bell ends.
2. PVC pipe shall conform to ASTM D1784 and ASTM D2729.

3. Pipe shall be solid wall type pipe, unless specified otherwise on the contract documents.

B. Reinforced Concrete Pipe (RCP)

1. Concrete pipe shall be produced by a reputable manufacturer of concrete pipe. Pipe manufacturer shall produce the pipe from an approved, permanent plant acceptable to the Designer of Record.

2. All concrete pipe shall be reinforced and shall conform to the requirements of ASTM C-76, Reinforced Concrete Culvert, Storm Drain, and Sewer Pipe. Pipe shall be the class III or class IV as identified on plans. Pipe shall have an interior surface which is smooth, uniform and free from rough spots, irregularities and projections. Nominal pipe lengths shall be 8' unless authorized otherwise by the Owners Representative. Lifting holes will be permitted, one (1) hole per length.

3. Concrete pipe may be either bell and spigot, tongue and groove or modified tongue and groove.

4. Cement grout joints shall be completely water tight and acceptable to the Owners Representative. A full bed of mortar shall be placed in the bell and/or groove and on the tongue and/or spigot. The annular space in the pipe joint shall be wiped with cement mortar to insure the joint is filled and to present a smooth surface. The complete exterior periphery of the joint shall have standard cement grout diaper joint. Diaper shall be installed with the aid of an approved cloth ring. Cement mortar joints shall be made in the dry. Mortar and grout shall be one part Portland Cement to two parts by weight of sand. Mortar shall have enough water to make a stiff mixture that can be molded and worked. Cement Mortar joints shall not be covered until inspected and approved by the Owners Representative

2. DRAINAGE STRUCTURES

A. Polyvinyl Chloride (PVC): Where specified, PVC drainage structures shall be water-tight with gasketed connections, and shall be manufactured to meet H-20 traffic loading.

B. Concrete: Unless otherwise specified, concrete and reinforced concrete shall conform to ASTM C-94 and have a minimum 28-day compressive strength of 600 psi. The concrete mixture shall have air content by volume of concrete, based on measurements made immediately after discharge from the mixer, of 3 to 6 percent when maximum size of coarse aggregates exceeds 1 1/2 inches. Air content shall be determined in accordance with ASTM C 231. The concrete covering over steel reinforcing shall be not less than 1 inch thick for covers and not less than 1 1/2 inches thick for walls and flooring. Concrete covering deposited directly against the ground shall have a thickness of at least 3 inches between steel and ground. Expansion-joint filler material shall conform to ASTM D 1725, D 1752, or AASHTO M 33 or shall be resin impregnated fiberboard conforming to the physical requirements of ASTM D 1752.

C. Mortar: Mortar for drainage structures, and brick or block construction shall conform to ASTM C 270, Type M. The quantity of water in the mixture shall be sufficient to

produce a stiff workable mortar but in no case shall exceed 7 gallons of water per sack of cement. Water shall be clean and free of harmful acids, alkaline, and organic impurities. The mortar shall be used within 30 minutes after ingredients are mixed with water.

D. Brick: Shall conform to ASTM C 623, Grade SW; ASTM C 55, Grade S-I or S-II; or ASTMC 32, Grade MS. Mortar for jointing and plastering shall consist of one part portland cement and two parts fine sand. Lime may be added to the mortar in a quantity not more than 25 percent of the volume of cement. The joints shall be filed completely and shall be smooth and free from surplus mortar on the inside of the structure. Brick structures shall be plastered with 1/2 inch of mortar over the entire outside surface of the walls. For square or rectangular structures, brick shall be laid in stretcher courses with a header course every sixth course. For round structures, brick shall be laid radially with every sixth course a stretcher course.

E. Reinforcing Steel: Steel reinforcement shall be protected at all times from damage and when placed in the work shall be free from dirt, dust, loose mill scale, loose rust, paint, oil, or other foreign materials. Deformed steel bar reinforcement shall conform to the requirements of ASTM A 615 for Grade 60. Tolerances for bending and cutting during fabrication shall be in accordance with the "Manual of Standard Practice" published by the Concrete Reinforcing Steel Institute. Bars shall be bent cold to the details shown on the plans. Cold drawn steel wire to be sued as spirals or in fabricated form for the reinforcement of concrete shall meet the requirements of ASTM A 82. Welded wire fabric shall conform to ASTM A 185.

F. Iron Casting: Castings shall be boldly filleted at angles, and the arises shall be sharp and perfect. No sharp, un-filleted angles or corners will be permitted. They shall be true to pattern in form and dimensions, free from pouring faults, sponginess, cracks, blow holes, and other defects affecting their strength and value for the service intended. All castings shall be sand blasted or otherwise effectively cleaned of scale.

G. Stone Bedding for Drainage Structures: Stone bedding for drainage structures shall be NCDOT standard size 78m.

H. Plain Rip Rap: Stone for plain rip rap shall consist of field stone or rough un-hewn quarry stone. The stone shall be sound, tough, dense, resistant to the action of air and water, and suitable in all other respects for the purpose intended. Stone shall vary in weight from 25 to 250 pounds. Rip-rap size shall be as specified on the drawings.

I. Concrete Flared End Sections: Shall meet all applicable requirements of AASHTO M 170 and ASTM C 76 as per NCDOT/Town of Huntersville Standards.

J. Drop inlets: Shall be constructed as per the NCDOT/Town of Huntersville Standards.

K. Manhole: Shall be constructed as per the NCDOT/Town of Huntersville Standards.

PART 3 - EXECUTION

1. EXCAVATIONS

A. Trenches shall be kept as nearly vertical as possible and, if required, shall be properly sheeted and braced. Where in the opinion of the Owners Representative, damage could result from withdrawing sheeting, the sheeting shall be left in place.

1. Except in rock, water-bearing earth or where a granular or concrete base is to be used, mechanical excavation of trenches shall be stopped above the final grade elevation so that the pipe may be laid on a firm, undisturbed native earth bed. If over digging occurs, all loosened earth shall be removed and the trench bottom brought back to grade with granular material.

2. Excavations and trenches in rock shall be carried to a depth of not less than 4" below the pipe bottom. This space shall be filled with granular material or washed rock.

3. Width of trenches shall be such as to provide adequate space for placing and jointing pipe properly, but in every case the trench shall be kept to a minimum width.

4. Any unstable soil encountered shall be removed and replaced with gravel, crushed rock or rock and sand suitably compacted.

2. PREPARATION TO TRENCH BOTTOM

A. Water shall not be allowed in the trenches while the trench bottom is being prepared or while pipe is being installed, unless directed by the Owner's Representative.

B. A continuous trough shall be shaped to receive the bottom quadrant of the pipe barrel. Bell holes shall be excavated so that after placement, only the barrel of the pipe receives bearing pressure from the trench bottom.

C. Preparation of the trench bottom and placement of the pipe shall be placed in the trench bottom a minimum of 4" below the bottom of the pipe, and a trough as described above shall be formed to uniformly support the bottom quadrant of the pipe barrel.

3. INSTALLATION OF DRAINAGE PIPE

A. Pipe shall be protected during handling against impact shocks and free falls. Pipe shall be kept clean at all times and no pipe shall be used that does not conform to these Specifications.

B. The laying of the pipe shall be commenced at the lowest point with spigot ends pointing in the direction of flow. All pipe shall be laid with ends abutting and true to line and grade. They shall be laid in accordance with manufacturer's requirements as approved by the Owner's Representative.

C. Pipe shall be laid accurately to the line and grade as designated on the plans. Preparatory to making pipe joints, all surfaces of the portions of the pipe to be jointed or of the factory made jointing material shall be clean and dry. Lubricant, primers, adhesive, etc., shall be used as recommended by the pipe or joint manufacturer's specifications. The jointing materials or factory fabricated joints shall then be placed,

fitted, joined and adjusted in such a manner as to obtain a water tight line. As soon as possible after the joint is made, sufficient backfill material shall be placed along each side of the pipe to prevent movement of pipe off line and grade.

1. The exposed ends of all pipes shall be suitably plugged to prevent earth, water, or other substances from entering the pipe when construction is not in progress.

4. INSTALLATION OF DRAINAGE STRUCTURES

A. Foundation: No masonry drainage structure shall be placed until the foundation has been approved by the Owner's Representative.

Where the foundation material is found to be of poor supporting value, the existing foundation material shall be removed by the undercutting to the depth directed by the Owner's Representative and backfilled with suitable material secured from locations along the project or from borrow sources. The backfill placed in the undercut area shall be compacted to a degree satisfactory to the Owner's Representative.

Where precast foundation slabs are used, the slab shall be set to within plus or minus 1/2 inch of grade on a bed of compacted bedding material which is 4 inches thick.

B. Cast-In-Place Concrete, Brick, and Block Masonry: Concrete shall be constructed in accordance with the plans and details and shall be given an ordinary surface finish.

Where necessary to fit field conditions, the dimensions of the structure and footings shall be varied as directed by the Owner's Representative.

C. Fittings and Connections: Where fittings enter the structure, they shall be placed as the work is built up, thoroughly bonded, and accurately spaced and aligned. Pipe connections shall be made so that the pipe does not project beyond the inside wall of the drainage structure and shall be grouted as necessary to make smooth and uniform surfaces on the inside of the structure. Metal frames for grates and covers shall be set in full mortar beds or secured by methods approved by the Owner's Representative.

5. BACKFILLING TRENCHES

A. No trenches or excavations shall be backfilled until the trench and installation has been inspected and written approval given by the Owner's Representative. Under no circumstances shall water be permitted to rise in un-backfilled trenches after pipe has been placed. Trenches shall be backfilled with approval material free from large clods, stones or rocks and carefully deposited in layers not to exceed 6" until enough fill has been placed to provide a cover of not less than 1' above the pipe. Each layer shall be placed, then carefully and uniformly tamped, so as to eliminate the possibility of pipe displacement. The remainder of backfill material shall then be placed, moistened and compacted 12" layers to 98% maximum A.A.S.H.T.O. T-180 density.

B. Whenever the trenches have been improperly filled or if settlement occurs, they shall be refilled, compacted, smoothed off and made to conform to grade. Unless otherwise directed or shown on the plans, backfill in trenches in or through roadways shall be made as specified above, except that the entire fill above 1' over the pipe shall be deposited in layers not to exceed 12" in thickness, moistened, and compacted to density

equal to or greater than that of adjacent material so that pavement can be placed immediately.

6. INSPECTION

A. All storm systems shall be inspected by the Owner’s Representative prior to acceptance of the work. Repairs or misalignment shown necessary by the tests shall be corrected at the Contractor's expense. All storm sewers shall be thoroughly cleaned before being placed into use and shall be kept clean until final acceptance by the Owner's Representative.

7. RESTORATION OF SURFACES AND/OR STRUCTURES

A. The Contractor shall restore and/or replace paving, curbing, sidewalks, fences and survey points, or any other disturbed surfaces or structures to a condition equal to that before the work was begun and to the restoration of surfaces and/or structures, the Contractor shall comply with all requirements of governing agencies including village, county and state.

END OF SECTION 33 40 00

SECTION 34 41 13 TRAFFIC CONTROL

PART 1 - GENERAL

1. WORK INCLUDED

A. Contractor shall provide traffic control in accordance with the approved plans. Traffic control shall comply with North Carolina Department of Transportation Standard Roadway Drawings, 2018 Edition and Manual on Uniform Traffic Control Devices, 2009 Edition with Revisions.

PART 2 - PRODUCTS – NOT USED

PART 3 - EXECUTION – NOT USED

END OF SECTION 34 41 13

ADDENDUM #7

September 29, 2021

PROJECT: **Downtown Huntersville Greenway Phase 2**
Huntersville, North Carolina

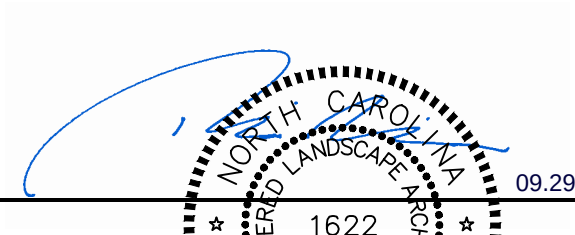
Response to Bidder Questions

1. Q: When is the cut-off for boardwalk shop drawing submittals?

   A: Shop drawings for the boardwalk will be accepted no later than 24 hours prior to bid closing.

All other terms, conditions and descriptions remain the same. Contractor must acknowledge issuance of this addendum in their Bid Proposal Form. The bid closing date remains as October 1, 2021 at 2 PM Local Time.

Attachments:



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Reason: I have reviewed this document
Date: 2021.09.29 11:32:00-04'00'

End of Addendum 7

ADDENDUM #6

September 29, 2021

PROJECT: **Downtown Huntersville Greenway Phase 2**
Huntersville, North Carolina

Response to Bidder Questions

1. Q: Please provide clarification on how the bid will be awarded/submitted.

   A: All bids for the project shall be submitted on a lump sum basis. The intent of providing the Unit Price Spreadsheet is to provide baseline quantities but it is up to the contractor to verify all quantities and provide unit prices. Project line items will not be measured by a third party.

All other terms, conditions and descriptions remain the same. Contractor must acknowledge issuance of this addendum in their Bid Proposal Form. The bid closing date remains as October 1, 2021 at 2 PM Local Time.

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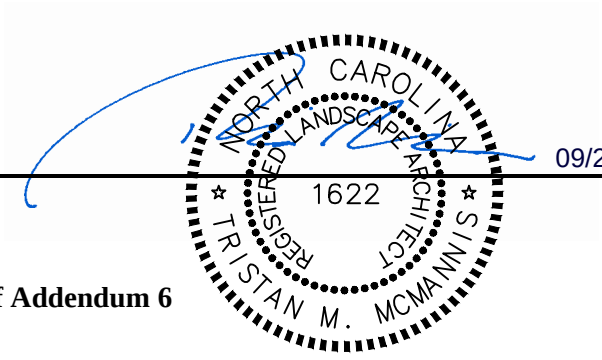

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End of Addendum 6

ADDENDUM #5

September 28, 2021

PROJECT: **Downtown Huntersville Greenway Phase 2**
Huntersville, North Carolina

Response to Bidder Questions

1. Q: Will RidgeRock II straight face retaining wall with Cotton Brown finish be acceptable?

   A: RidgeRock II straight face retaining wall with Cotton Brown finish is an acceptable product for the segmental block retaining wall assuming that the product is visually comparable to the newly constructed segmental block retaining wall associated with the Phase 1 greenway that was installed on Sherwood Drive.

2. Q: Can the designer confirm the quantity of segmental block retaining wall.

   A: Quantity of segmental block retaining wall has been confirmed and updated on the attached Unit Price Spreadsheet.

Changes and Clarifications to Project Manual

1. Replace specification section 33 32 00 – Segmental Block Retaining Walls with attached revised specification section 33 32 00. Ridge Rock has been added as an approved segmental block supplier.
2. Replace Unit Price Spreadsheet with attached Unit Price Spreadsheet.

All other terms, conditions and descriptions remain the same. Contractor must acknowledge issuance of this addendum in their Bid Proposal Form. The bid closing date remains as October 1, 2021 at 2 PM Local Time.

Attachments: **Revised Specifications Section 33 32 00 – Segmental Block Retaining Walls**
Revised Unit Price Spreadsheet

09/28/2021

Tristan M. McMannis, PLA NC Lic. # 1622

NORTH CAROLINA REGISTERED LANDSCAPE ARCHITECT 1622 TRISTAN M. MCMANNIS

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Date: 2021.09.28 14:21:35-04'00'

End of Addendum 5

SECTION 33 32 00 – SEGMENTAL BLOCK RETAINING WALLS

PART 01 - GENERAL

1.05 SUBMITTALS

A. Product Data. At least 14 days prior to construction, the General Contractor shall submit a minimum of six (6) copies of the retaining wall product submittal package to the Owner's Representative for review and approval. The submittal package shall include technical specifications and product data from the manufacturer for the following:

1. Precast Modular Block System brochure
2. Precast Modular Block concrete test results specified in paragraph 2.01, subparagraph B of this section as follows:
    a. 28-day compressive strength
    b. Air content
    c. Slump or Slump Flow (as applicable)
3. Drainage Pipe
4. Geotextile
5. Geosynthetic Soil Reinforcement (if required by the retaining wall design). The contractor shall provide certified manufacturer test reports for the geosynthetic soil reinforcement material in the manufactured roll width specified. The test report shall list the individual roll numbers for which the certified material properties are valid.

B. Retaining Wall Design Calculations and Construction Shop Drawings. At least 14 days prior to construction, the General Contractor shall furnish six (6) sets of construction shop drawings and six (6) copies of the supporting structural calculations report to the Owner for review and approval. This submittal shall include the following:

1. Signed, sealed and dated drawings and engineering calculations by a North Carolina registered professional engineer and prepared in accordance with these specifications.

1.06 CONSTRUCTION SHOP DRAWING PREPARATION

A. The Retaining Wall Design Engineer shall coordinate the retaining wall construction shop drawing preparation with the project Landscape Architect, project Geotechnical Engineer and Owner's Representatives. The General Contractor shall furnish the Retaining Wall Design Engineer the following project information required to prepare the construction shop drawings. This information shall include, but is not limited to, the following:

1. Current versions of the site, grading, drainage, utility, erosion control, landscape, and irrigation plans;
2. electronic CAD file of the civil site plans listed in (1);
3. report of geotechnical investigation and all addenda and supplemental reports;
4. recommendations of the project Geotechnical Engineer regarding effective stress shear Strength and total stress shear strength (when applicable) parameters for in-situ soils in the vicinity of the proposed retaining wall(s) and for any fill soil that may potentially be used as backfill in retained and/or foundation zones of the retaining wall.

B. The Retaining Wall Design Engineer shall provide the Owner with a certificate of professional liability insurance verifying the minimum coverage limits of $1 million per claim and $2 million aggregate.

C. Design of the precast modular block retaining wall shall satisfy the requirements of this section. Where local design or building code requirements exceed these specifications, the local requirements shall also be satisfied.

D. The Retaining Wall Design Engineer shall note any exceptions to the requirements of this section by listing them at the bottom right corner of the first page of the construction shop drawings.

E. Approval or rejection of the exceptions taken by the Retaining Wall Engineer will be made in writing as directed by the Owner.
F. The precast modular block design, except as noted herein, shall be based upon AASHTO Load and Resistance Factor Design (LRFD) methodology.
G. Soil Shear Parameters. The Retaining Wall Design Engineer shall prepare the construction shop drawings based upon soil shear strength parameters from the available project data and the recommendations of the project Geotechnical Engineer. If insufficient data exists to develop the retaining wall design, the Retaining Wall Design Engineer shall communicate the specific deficiency of the project information or data to the Owner in writing.
H. Allowable bearing pressure requirements for each retaining wall shall be clearly shown on the construction drawings.
I. Global Stability. Overall (global) stability shall be evaluated in accordance with the principals of limit equilibrium analysis as set forth in FHWA-NHI-10-024 Volume I and FHWA-NHI-10-025 Volume II GEC 11 Design of Mechanically Stabilized Earth Walls and Reinforced Soil Slopes.
The minimum factors of safety shall be as follows:

Normal Service (Static) 1.4
Seismic 1.1
Rapid Drawdown (if applicable) 1.2

J. Seismic Stability. Seismic loading shall be evaluated in accordance with AASHTO Load and Resistance Factor Design (LRFD) methodology.

1.01 Description of Work:

The work shall consist of designing, permitting and furnishing materials, labor, equipment and supervision for the construction of a segmental block retaining wall structure in accordance with the requirements of this section and in acceptable conformity with the lines, grades, design and dimensions shown in the project site plans.

Related Work Specified Elsewhere:
Earthwork (31 00 00)

1.02 Existing Conditions:

A. Site Conditions:
Contractor shall visit the site, familiarize themselves with actual conditions and verify existing conditions in the field.

B. Record Information:
Topographic maps and other recorded site information may be examined at the office of the Engineer.

1.03 Protection:

A. Bench Marks:
Maintain carefully all bench marks, monuments and other reference points. If disturbed or destroyed, replace as directed.

B: Existing Utilities:
Contractor shall notify Carolina One Call @ 1-800-632-4949 48 hours prior to beginning any clearing or excavation. Should any functioning underground utilities be uncovered during the work, the Contractor shall promptly notify the Engineer in writing. The Contractor shall

be held responsible for any damage to underground or overhead utility services and shall immediately repair and restore services at no additional cost to the Owner.

PART 02 - PRODUCTS

2.01 Approved Segmental Block Suppliers:

Redi-Rock
Allan-Block
Keystone
Ridge Rock

PART 03 - EXECUTION

3.01 Clearing and Grubbing:
Clearing, grubbing, and disposition of debris shall be in accordance with Section 200 of NCDOT Standard Specifications for Roads and Structures, 1990.

END OF SECTION 32 32 00

TOWN OF HUNTERSVILLE DOWNTOWN GREENWAY - PHASE 2 - Unit Price Spreadsheet:

	Item Description	Base Bid Quantity	Unit	Unit Cost	Total-Base Bid
1	Mobilization/General Conditions	1	LS		
2	Construction Surveying	1	LS		
3	Selective Demolition	1	LS		
4	Clearing and Grubbing	1.65	Acre		
5	8" of Topsoil Stripping & Haul Off	825	CY		
6	8" Topsoil Compact and Reuse On-Site	275	CY		
7	Construction Access Drive (gravel) 18'x100'x6"	2	EA		
8	Import Soil to Job Site and Compact in Place	425	CY		
9	Earthwork-Rough Grading	1	LS		
10	Earthwork-Fine Grading	44850	SF		
11	Temporary Silt Fencing	1863	LF		
12	Temporary High Hazard Silt Fence	386	LF		
13	Accessible Ramp	2	EA		
14	Painted Pedestrian Crosswalk	1	EA		
15	Elevated Pedestrian Crosswalk	1	EA.		
16	E. C. Devices Silt Fence Outlets	11	EA		
17	EC Maintenance	10	MONTH		
18	Temporary Seeding	1.65	AC		
19	Permanent Seeding/Hydroseeding	1.25	AC		
20	Temporary Traffic Control	1	LS		
21	Segmental Wall	1,160	SF		
22	Design/Build Concrete Boardwalk with Handrail	1	LS		
23	4" Concrete Sidewalk	140	SY		
24	Geo-grid textile fabric	1900	SY		
25	6" Aggregate Base Course	640	TON		
26	2" SF9.5B Asphalt Surface Course	212	TON		
27	18" RCP Storm Pipe (Class III)	33	LF		
28	18" Concrete Flared End Section	1	EA		
29	18" Concrete Headwall	1	EA		
30	Installation of Storm Drainage Structure with Frame and Grate	1	LS		
31	Rip Rap Outlets	1	TON		
32	Trees	3	EA		
33	Owner Provided Benches	2	EA		
34	Owner Provided Trash Cans	2	EA		
35	Install Collapsible Bollard	4	EA		
36	Tree Protection	1353	LF		
37	Curb and Gutter	45	LF		
	Subtotal:				
	Undercut and Unsuitable Soil Replacement Allowance				$25,000
	Contingency				$75,000
	Bid Total:				
38	Alternate #1: Poured in Place Boardwalk	1	LS		

ADDENDUM #4

September 27, 2021

PROJECT: **Downtown Huntersville Greenway Phase 4**
Huntersville, North Carolina

Response to Bidder Questions

1. Q: Is there maximum percentage for mobilization?

   A: The maximum percentage for mobilization shall not exceed 15%.

2. Q: Does town mind Shin grinding the smaller to medium size trees to reduce impact of the surrounding vegetation trying to drag brush out of site?

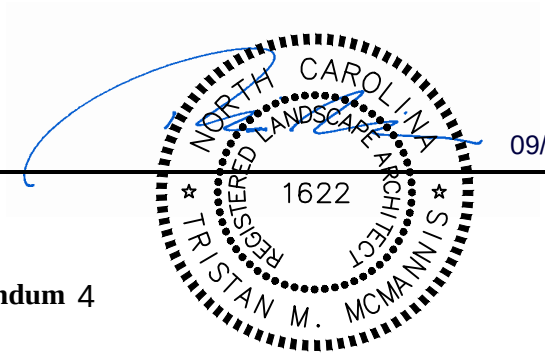
   A: Grinding of small and medium size trees is allowed to reduce haul-off. Trees shall be mulched and spread in wooded areas adjacent to the site outside of slopes and disturbed areas to be grassed.

Bid Clarifications and Revisions to the Project Specifications

1. BID CLARIFICATION: On the bid sheet, if a pre-cast boardwalk system is being proposed than the bid price shall be indicated on line item #22 of the bid sheet. If a poured-in-place boardwalk is being proposed, then the alternate line item #37 should include the bid price, but item #22 shall be left blank. If the contractor's base bid includes the pre-cast system but the poured-in-place option is being included as an alternate, than the pre-cast option price should be included on line item 22, and the deduct or add for poured-in-place shall be indicated on line #37.

All other terms, conditions and descriptions remain the same. Contractor must acknowledge issuance of this addendum in their Bid Proposal Form. The bid closing date remains as October 1, 2021 at 2 PM Local Time.

Attachments: Bid Proposal Form



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Date: 2021.09.27 10:44:56-04'00'

End of Addendum 4

ADDENDUM #3

September 22, 2021

PROJECT: **Downtown Huntersville Greenway Phase 2**
Huntersville, North Carolina

Response to Bidder Questions

1. Q: Unit Prices Item 9, Rough Grading, is to be paid by the cubic yard. How will the measurement of the actual number of cubic yards be made?

   A: See attached revised Unit Price spreadsheet. Rough Grading with be paid as a lump sum.

2. Q: Items 9 & 10, How will we differentiate between Rough Grading areas and Fine Grading areas?

   A: Rough grading areas are areas on site that will require mass grading operations for site preparation. Fine grading areas are areas on site that will require the contractor to achieve specific grades, including but not limited to, the asphalt trail, accessible curb ramps, etc.

3. Q: There appears to be several areas of 2'-6" curb & gutter that will need to be replaced but there is no line item for this. How will this be paid for?

   A: See attached revised Bid Proposal Form and Unit Prices specification section that includes a new line item for 2'6" curb and gutter. Note, there is one location of 2'-6" curb and gutter at Commerce Centre Drive where the proposed curb ramp is to be located. Curb and gutter shall be paid for on a lineal foot basis.

4. Q: There aren't details for the installation of the trash cans or the benches. Can these details be provided?

   A: See attached Bulletin Drawing #1.

5. Q: Item 8, Import Soil to Job Site and Compact. The description and measurement & payment are for 8" Top soil haul off. Can we get the proper description info for Item #8?

   A: See attached revised Unit Prices specification.

6. Q: Is there an engineer's estimate for this project?

   A: Preliminary Opinion of Probable Construction Cost for the project is approximately $684,600.

7. Q: Is there an anticipated start date?

   A: Anticipated start date of the project will be within 30 days of the award of bid.

8. Q: What are the specific M/WBE Requirements for the job? I don't see any forms to fill out in the bid package.

   A: Contractor shall make an effort to include minority or women owned businesses where possible but there is no specific target set for the project.

9. Q: Is there more specific details or plans for bid items 21, 33, and 34? The wall only appears to be 1 or 2 courses tall per plan call outs and we are not sure what would be involved with the installation of items 33 and 34.

   A: Segmental block retaining wall shall be design-build. See plan sheet CG102 for additional requirements and manufacturer recommendations. See attached Bulletin Drawing #1 for details of park bench and trash can installations. Locations of trash cans, benches, and bollards to be field located with owner during construction.

10. Q: Is there an option of drilling and concreting the piles as opposed to driving them? This will reduce the cost of mobilizing a crane and pile driver onto the site.

    A: Pile installation shall be per the contractor's means and methods assuming the piles meet the performance criteria contained in the boardwalk specification.

11. Q: Bid items 4, 5, 6, 8, 9, and 10 all mention Clearing and Grubbing as part of the measurement of payment. Most of these grading activities will happen all at the same time and it is hard to place an amount on each of them without double charging.

    A: See attached revised Unit Prices specification section.

12. Q: We have an idea of placing staging down both sides of the boardwalk to help ease in construction. Is this possible? We would have to work inside the buffer to set this up if we did.

    A: Material staging and laydown area has been identified on the plans. and may only occur within the areas of obtained easements. Additional buffer disturbance would require a revision to the approved plans and should not be anticipated as being granted at this time.

13. Q: Is it possible to use a small excavator within the buffer on the downstream side of the buffer to aid in the boardwalk construction? Any disturbances would of course be refurbished as soon as foundation construction is completed. If there are trees that need to come down inside the buffer, we would need a piece of equipment down there to do this anyways.

    A: Disturbance outside the approved denuded limits will require a revision to approved plans. The approval of increased disturbance cannot be guaranteed at this time, and contractor is advised to work within the currently approved disturbed limits and easements. Boardwalk shall be installed via a top-down method. Contractor shall only cut trees and brush within buffer as needed and all stumps and root masses to remain.

14. Q: We would like to walk the proposed site and were informed that the school should be notified. Who is a contact for this?

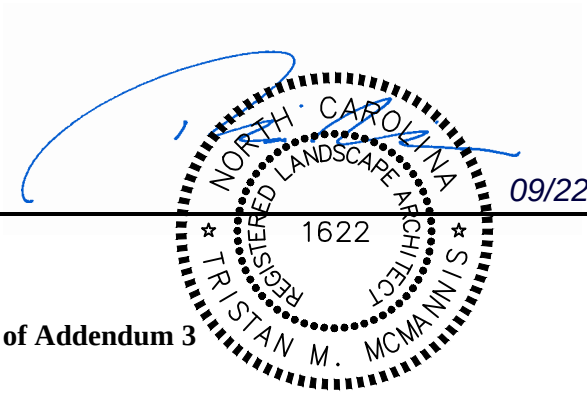
    A: Contractor shall contact Huntersville Elementary School at 980-343-3835 to coordinate walking the project site.

Changes and Clarifications to Project Manual

1. Replace Unit Price spreadsheet with attached Unit Price spreadsheet.
2. Replace specification section 01 22 00 – Unit Prices with the attached specification section 01 22 00 – Unit Prices.

All other terms, conditions and descriptions remain the same. Contractor must acknowledge issuance of this addendum in their Bid Proposal Form. The bid closing date remains as October 1, 2021 at 2 PM Local Time.

Attachments: Unit Price Spreadsheet
Specifications Section 01 22 00 – Unit Prices
Bulletin Drawing #1 – Park Bench and Trash/Recycle Details



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End of Addendum 3

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Reason: I have reviewed this document
Date: 2021.09.22 09:11:11-04'00'

TOWN OF HUNTERSVILLE DOWNTOWN GREENWAY - PHASE 2 - Unit Price Spreadsheet:

	Item Description	Base Bid Quantity	Unit	Unit Cost	Total-Base Bid
1	Mobilization/General Conditions	1	LS		
2	Construction Surveying	1	LS		
3	Selective Demolition	1	LS		
4	Clearing and Grubbing	1.65	Acre		
5	8" of Topsoil Stripping & Haul Off	825	CY		
6	8" Topsoil Compact and Reuse On-Site	275	CY		
7	Construction Access Drive (gravel) 18'x100'x6"	2	EA		
8	Import Soil to Job Site and Compact in Place	425	CY		
9	Earthwork-Rough Grading	1	LS		
10	Earthwork-Fine Grading	44850	SF		
11	Temporary Silt Fencing	1863	LF		
12	Temporary High Hazard Silt Fence	386	LF		
13	Accessible Ramp	2	EA		
14	Painted Pedestrian Crosswalk	1	EA		
15	Elevated Pedestrian Crosswalk	1	EA.		
16	E. C. Devices Silt Fence Outlets	11	EA		
17	EC Maintenance	10	MONTH		
18	Temporary Seeding	1.65	AC		
19	Permanent Seeding/Hydroseeding	1.25	AC		
20	Temporary Traffic Control	1	LS		
21	Segmental Wall	472	SF		
22	Design/Build Concrete Boardwalk with Handrail	1	LS		
23	4" Concrete Sidewalk	140	SY		
24	Geo-grid textile fabric	1900	SY		
25	6" Aggregate Base Course	640	TON		
26	2" SF9.5B Asphalt Surface Course	212	TON		
27	18" RCP Storm Pipe (Class III)	33	LF		
28	18" Concrete Flared End Section	1	EA		
29	18" Concrete Headwall	1	EA		
30	Installation of Storm Drainage Structure with Frame and Grate	1	LS		
31	Rip Rap Outlets	1	TON		
32	Trees	3	EA		
33	Owner Provided Benches	2	EA		
34	Owner Provided Trash Cans	2	EA		
35	Install Collapsible Bollard	4	EA		
36	Tree Protection	1353	LF		
37	Curb and Gutter	45	LF		
	Subtotal:				
	Undercut and Unsuitable Soil Replacement Allowance				$25,000
	Contingency				$75,000
	Bid Total:				
38	Alternate #1: Poured in Place Boardwalk	1	LS		

SECTION 01 22 00 - UNIT PRICES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and all Divisions of the Technical Specifications, apply to this Section.

1.2 SUMMARY

A. This Section includes administrative and procedural requirements for unit prices.

B. Related Sections include the following:

1. Division 1, of the Technical Specifications Section "Contract Modification Procedures" for procedures for submitting and handling Change Orders.
2. Division 1, of the Technical Specifications Section "Quality Requirements" for general testing and inspecting requirements.

1.3 DEFINITIONS

A. Unit price is an amount proposed by bidders, stated on the Bid Form, as a price per unit of measurement for materials or services added to or deducted from the Contract Sum by appropriate modification, if estimated quantities of Work required by the Contract Documents are increased or decreased.

1.4 PROCEDURES

A. Unit prices include all necessary material, plus cost for delivery, installation, insurance, taxes, overhead, and profit.

B. Measurement and Payment: Refer to individual of the Technical Specifications Sections for work that requires establishment of unit prices. Methods of measurement and payment for unit prices are specified in those Sections.

C. Owner reserves the right to reject Contractor's measurement of work-in-place that involves use of established unit prices and to have this work measured, at Owner's expense, by an independent agent.

D. If one or more unit prices on a bid form are out of line with prevailing market rates, the Owner reserves the right to reject the bidder as non-responsive if the bidder is not willing to negotiate mutually acceptable unit prices with the Owner prior to the time for contract award that are consistent with prevailing market rates.

E. List of Unit Prices: A list of unit prices is included at the end of this of the Technical Specifications Section. Specification Sections referenced in the schedule contain requirements for materials described under each unit price.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 LIST OF UNIT PRICES

A. Unit Price Items from pages 2 &3 on General Construction Proposal – Bid Form

Unit Price Item #1: Mobilization/General Conditions:
DESCRIPTION: The work consists of the requirements of all front-end documents including, but not limited to, Notice to Bidders, Instructions to Bidders, General Conditions of the Contract for Construction, Supplementary Conditions, MWSBE Provisions and Division 01: General Requirements. The work also consists of preparatory work and operations to mobilize personnel, materials and equipment to the project site.

MEASUREMENT AND PAYMENT: Mobilization/General Conditions will be paid as contract lump sum price.

PAY ITEM PAY UNIT: General Conditions Lump Sum

Unit Price Item #2: Construction Surveying
DESCRIPTION: As required by the contract and contract documents, provide all construction layout, surveying, stakeout, supplemental surveying and engineering necessary for the proper control of construction operations in accordance with these drawings and specifications.

MEASUREMENT AND PAYMENT: Construction Surveying will be paid as contract lump sum price.

PAY ITEM PAY UNIT: Construction Surveying Lump Sum

Unit Price Item #3: Selective Demolition
DESCRIPTION: Remove and dispose of existing site materials per drawings and specifications.

MEASUREMENT AND PAYMENT: Demolition will be paid as contract lump sum price.

PAY ITEM PAY UNIT: Selective Demolition Lump Sum

Unit Price Item #4: Clearing and Grubbing
DESCRIPTION: Perform the work of clearing and grubbing in all the wooded areas between the construction limits. Perform the work of clearing and grubbing in all wooded areas between the construction limits and the limits of the project right of way or in easements shown on the project plans where seeding and mulching or other work as indicated. Clear and grubbing work shall be as indicated on plans and per Specification Sections 31 11 00 Site Clearing and Grubbing.

MEASUREMENT AND PAYMENT: Clearing and Grubbing will be paid as on a per Acre

price.

PAY ITEM PAY UNIT: Clearing and Grubbing Per Acre

Unit Price Item #5: 8" of Topsoil Stripping & Haul Off
DESCRIPTION: Perform the work of 8" of Topsoil Stripping & Haul Off in all the wooded areas between the construction limits and the limits of the project right of way or in easements shown on the project plans where grading, paving, seeding and mulching, or other work as indicated. Work shall be as indicated on plans and per Specification Section 31 00 00 Earthwork.

MEASUREMENT AND PAYMENT: 8" of Topsoil Stripping & Haul Off will be paid as on a

per Cubic Yard price.

PAY ITEM PAY UNIT: 8" of Topsoil Stripping & Haul Off Per Cubic Yard

Unit Price Item #6: 8" Topsoil Compact and Reuse On-Site
DESCRIPTION: Perform the work of 8" topsoil compact and reuse on-site in areas outside of proposed pavement or other structural items such as retaining walls. Work shall be as indicated on plans and per Specification Section 31 00 00 Earthwork.

MEASUREMENT AND PAYMENT: 8" Topsoil Compact and Reuse On-Site will be paid as

on a per Cubic Yard price.

PAY ITEM PAY UNIT: 8" Topsoil Compact and Reuse On-Site Per Cubic Yard

Unit Price Item #7: Construction Access Drives
DESCRIPTION: Perform the work for the Construction Access Drives as indicated in the drawings and specified herein. Construction Access Drives work shall be as indicated on plans and per Specification Sections 31 25 00 Erosion and Sedimentation Control.

MEASUREMENT AND PAYMENT: Construction Access Drives will be paid in units of each which shall include but is not limited to all necessary labor and materials to install the Construction Access Drives.

PAY ITEM PAY UNIT: Construction Access Drives Each

Unit Price Item #8: Import Soil to Job Site and Compact in Place
DESCRIPTION: Perform the work of Import Soil to Job Site and Compact in Place per Specification Section 31 00 00 Earthwork.

MEASUREMENT AND PAYMENT: Import Soil to Job Site and Compact in Place will be paid as on a per Cubic Yard price.

PAY ITEM PAY UNIT: Import Soil to Job Site and Compact in Place Per Cubic Yard

Unit Price Item #9: Earthwork – Rough Grading
DESCRIPTION: Work covered by rough grading consists of all elements of work covered by NCDOT 2018 Standard Specification Sections 200, 225,230, 235, 250 500 and 560 as well contract document specification sections in Division 31 00 00 Earthwork and Grading Plan Sheets CG101-CG103.

MEASUREMENT AND PAYMENT: Rough grading shall be paid on a lump sum basis per the construction documents and NCDOT 2012 Standard Specifications.

PAY ITEM PAY UNIT: Rough Grading Lump Sum

Unit Price Item #10: Earthwork – Fine Grading

DESCRIPTION: Work covered by fine grading consists of all elements of work covered by NCDOT 2018 Standard Specification Sections 200, 225,230, 235, 250 500 and 560 as well contract document specification sections in Division 31 00 00 Earthwork and plans.

MEASUREMENT AND PAYMENT: Fine grading be paid as on a per square foot price per the construction documents and NCDOT 2012 Standard Specifications.

PAY ITEM PAY UNIT: Fine Grading Per Square Foot

Unit Price Item #11: Temporary Silt Fencing

DESCRIPTION: Perform the work for the Temporary Silt Fencing as indicated in the drawings and specified herein. Temporary Silt Fencing work shall be as indicated on plans and per Specification Sections 31 25 00 Erosion and Sedimentation Control.

MEASUREMENT AND PAYMENT: Temporary Silt Fencing will be paid in units of Lineal Feet which shall include but is not limited to all necessary labor and materials to install the Temporary Silt Fencing.

PAY ITEM PAY UNIT: Temporary Silt Fencing Per Lineal Foot

Unit Price Item #12: Temporary High Hazard Silt Fencing

DESCRIPTION: Perform the work for the Temporary High Hazard Silt Fencing as indicated in the drawings and specified herein. Temporary Silt Fencing work shall be as indicated on plans and per Specification Sections 31 25 00 Erosion and Sedimentation Control.

MEASUREMENT AND PAYMENT: Temporary High Hazard Silt Fencing will be paid in units of Lineal Feet which shall include but is not limited to all necessary labor and materials to install the Temporary Silt Fencing.

PAY ITEM PAY UNIT: Temporary High Hazard Silt Fencing Per Lineal Foot

Unit Price Item #13: Accessible Ramp

DESCRIPTION: This unit price item shall include all labor and materials for the installation only of the Accessible Ramp in accordance with the construction drawings and the contract. Footings are to be installed and included in this Unit Price items. This unit price is to provide the installation of the Accessible Ramp in the location(s) shown on the plans.

CONSTRUCTION METHODS: Accessible Ramp

MEASUREMENT AND PAYMENT: Accessible Ramp will be paid for in units of each which shall include but is not limited to all necessary labor and materials to install the Accessible Ramp

PAY ITEM PAY UNIT: Accessible Ramp Per Each

Unit Price Item #14: Painted Pedestrian Crosswalk

DESCRIPTION: Perform the work covered by this unit price item including, but not limited to, all pedestrian crosswalk pavement striping. The existing asphalt surface shall be cleaned and prepared for the new asphalt as required and in accordance with NCDOT Standard

Specifications. Work included in this unit price installation shall be per plans.

MATERIALS: Materials shall be as specified in Section 32 12 16 Asphalt Paving and per NCDOT Standard Specifications for Roads and Surfaces, Latest Edition.

MEASUREMENT AND PAYMENT: Painted Pedestrian Crosswalk will be paid in units of

each.

PAY ITEM PAY UNIT: Painted Pedestrian Crosswalk Each

Unit Price Item #15: Elevated Pedestrian Crosswalk

DESCRIPTION: Perform the work covered by this unit price item including, but not limited to, all pedestrian crosswalk pavement striping. The existing asphalt surface shall be cleaned and prepared for the new asphalt as required and in accordance with NCDOT Standard Specifications. Work included in this unit price installation shall be per plans.

MATERIALS: Materials shall be as specified in Section 32 12 16 Asphalt Paving and per NCDOT Standard Specifications for Roads and Surfaces, Latest Edition.

MEASUREMENT AND PAYMENT: Elevated Pedestrian Crosswalk will be paid in units of

each.

PAY ITEM PAY UNIT: Elevated Pedestrian Crosswalk Each

Unit Price Item #16: Erosion Control Devices Check Dams/Silt Fence Outlets
DESCRIPTION: Perform the work for the Erosion Control Devices Check Dams/Silt Fence Outlets as indicated in the drawings and specified herein. Erosion Control Devices Check Dams/Silt Fence Outlets work shall be as indicated on plans and per Specification Sections 31 25 00 Erosion and Sedimentation Control.

MEASUREMENT AND PAYMENT: Erosion Control Devices Check Dams/Silt Fence Outlets will be paid in units of each which shall include but is not limited to all necessary labor and materials to install the Erosion Control Devices Check Dams/Silt Fence Outlets.

PAY ITEM PAY UNIT: Erosion Control Devices Check Dams/Silt Fence Outlets Each

Unit Price Item #17: Erosion Control Maintenance
DESCRIPTION: Perform the work for Erosion Control Maintenance as indicated in the drawings and specified herein. Erosion Control Devices Check Dams/Silt Fence Outlets work shall be as indicated on plans and per Specification Sections 31 25 00 Erosion and Sedimentation Control.

MEASUREMENT AND PAYMENT: Erosion Control Maintenance will be paid in units of per month.

PAY ITEM PAY UNIT: Erosion Control Maintenance Month

Unit Price Item #18: Temporary Seeding
DESCRIPTION: Perform the work for the Temporary Seeding as indicated in the drawings and specified herein. Temporary Seeding work shall be as indicated on plans and per Specification Sections 31 25 00 Erosion and Sedimentation Control.

MEASUREMENT AND PAYMENT: Temporary Seeding will be paid in units of per acre price which shall include but is not limited to all necessary labor and materials to install the Temporary Seeding.

PAY ITEM PAY UNIT: Temporary Seeding Per Acre

Unit Price Item #19: Permanent Seeding/Hydroseeding
DESCRIPTION: Perform the work for the Permanent Seeding/Hydroseeding as indicated in the drawings and specified herein. Seeding/Hydroseeding work shall be as indicated for all disturbed areas on the plans, and per Specification Sections 32 92 00 Turf and Grasses.

MEASUREMENT AND PAYMENT: Permanent Seeding/Hydroseeding will be paid in units of per acre price which shall include but is not limited to all necessary labor and materials to install the Seeding/Hydroseeding.

PAY ITEM PAY UNIT: Permanent Seeding /Hydroseeding Per Acre

Unit Price Item #20: Temporary Traffic Control
DESCRIPTION: Perform the work for the Traffic Control as indicated in the drawings and details specified herein. Traffic Control work shall be as indicated on the plans. Traffic Control on east side of Bailey Rd.

MEASUREMENT AND PAYMENT: Temporary Traffic Control will be paid as contract

lump sum price.

PAY ITEM PAY UNIT: Temporary Traffic Control Lump Sum

Unit Price Item #21: Segmental Wall
DESCRIPTION: The work consists of all work for the Segmental Wall as shown on drawings. Work included in this unit price installation includes all labor and materials to install the Segmental Wall as indicated on plans.

MEASUREMENT AND PAYMENT: Segmental Wall will be paid in units of Square feet of face which shall include but is not limited to all necessary labor and materials to install the Segmental Wall.

PAY ITEM PAY UNIT: Segmental Wall Square Feet

Unit Price Item #22: Design/Build Concrete Boardwalk with Handrail
DESCRIPTION: The work consists of all work for the Design/Build Concrete Boardwalk with Handrail shown on drawings. Work included in this unit price installation includes all labor and materials to install the Design/Build Concrete Boardwalk with Handrail as indicated on plans and Drawings provided by others.

MEASUREMENT AND PAYMENT: Design/Build Concrete Boardwalk with Handrail will be paid in units of lump sum which shall include but is not limited to all necessary labor and materials to install the Concrete Boardwalk with Handrail.

PAY ITEM PAY UNIT: Design/Build Concrete Boardwalk with Handrail Lump Sum

Unit Price Item #23: 4" Concrete Sidewalk

DESCRIPTION: The work consists of all work for 4" Concrete Sidewalk as shown on drawings. Work included in this unit price installation of all concrete paving per plans and per Specification Section 03 00 00.

MEASUREMENT AND PAYMENT: 4" Concrete Sidewalk will be paid as on a per Square Yard price.

PAY ITEM PAY UNIT: Concrete (all 4") Square Yard

Unit Price Item #24: Geo-Grid Textile Fabric

DESCRIPTION: This item shall include all labor and materials to install Geo-Grid Textile Fabric (13 wide) under all areas of the asphalt trails and as required by the soil conditions in accordance with the construction drawings and the contract.

MATERIALS: Geo-Grid Textile Fabric (13' wide) to be placed on the compacted sub-grade, under the ABC, shall consist of an integrally formed grid structure manufactured of a stress resistant polypropylene material with molecular weight and molecular characteristics which impart a) high resistance to loss of load capacity or structural integrity when the geo-grid is subjected to mechanical stress in installation; b) high resistance to deformation when the geo-grid is subjected to applied force in use; c) high resistance to loss of load capacity or structural integrity when the geo-grid is subjected to long term environmental stress.

The Geo-Grid Textile Fabric shall accept force in use by positive mechanical interlock (i.e. by direct mechanical keying) with: a) compacted soil or construction fill materials; b) contiguous sections of itself when overlapped and embedded in compacted soil or construction fill materials; c) rigid mechanical connectors such as bodkins, pins or hooks. The structural geo-grid shall possess sufficient flexural stiffness to enable efficient installation over weak or wet in situ soils and sufficient tensional stiffness to resist in-plane movement of compacted soil or construction fill materials when these are subject to rotating displacement forces such (i.e. what a moving vehicle causes in a roadway foundation). The structural geo-grid shall possess complete continuity of all properties throughout its structure and shall be suitable for internal reinforcement of compacted soil or particulate construction fill materials to improve their systems. The structural geo-grid shall otherwise have the following characteristics:
Product Type Integrally Formed Structural Geo-Grid Load Transfer Mechanism Positive mechanical Interlock

For product properties units and MD Values XMD Values, see specification section 32 12 16

CONSTRUCTION METHODS: Shall be as manufacturer specifications and Section 270 of the NCDOT Standard Specifications for Roads and Surfaces, Latest Edition.

MEASUREMENT AND PAYMENT: Geo-Grid Reinforcement Fabric shall be measured and paid in Square Yards. Geo-Grid Reinforcement Fabric will be measured along the ground surface as the square yards of exposed Geo-Grid Reinforcement Fabric before placing backfill material.
No measurement will be made for overlapping Geo-Grid Reinforcement Fabric. The contract unit price for Geo-Grid Reinforcement Fabric will be full compensation for providing, transporting and placing geo-grid, wire staples and anchor pins.

PAY ITEM PAY UNIT: Geo-Grid Reinforcement Fabric Square Yard

Unit Price Item #25: 6" Aggregate Base Course

DESCRIPTION: Perform the work covered by this unit price item including, but not limited to, construction of a base composed of an approved aggregate material hauled to the trail, placed on the trail, mixed, compacted and shaped in accordance with the lines, grades, depths and typical sections shown in the plans.

MATERIALS: Refer to NCDOT Standard Specifications for Roads and Structures, Specification Section 32 12 16 and as shown on the plans

MEASUREMENT AND PAYMENT: 6" Aggregate Base Course will be paid at the contract unit price per ton for the actual number of tons of 6" Aggregate Base Course which has been incorporated into the completed and accepted work.

PAY ITEM PAY UNIT: 6" Aggregate Base Course Ton

Unit Price Item #26: 2" Asphalt Surface Course S9.5B

DESCRIPTION: Perform the work covered by this unit price item including, but not limited to, construction of a surface composed of an approved aggregate material hauled to the site and placed on the trail, mixed, compacted and shaped in accordance with the lines, grades, depths and typical sections shown in the plans.

MATERIALS: Limit the amount of coarse aggregate of fine aggregate produced from crystalline limestone, crystalline-dolomitic limestone or marble to more than 50% of the total amount of coarse aggregate or fine aggregate in the asphalt mixture. Refer to NCDOT Standard Specifications for Roads and Structures, Specification Section 32 12 16 and Detail #4 on the plans

MEASUREMENT AND PAYMENT: Asphalt Surface Course S9.5B will be paid at the contract unit price per ton for the actual number of tons of Asphalt Surface Course S9.5B which has been incorporated into the completed and accepted work. The Asphalt Surface Course S9.5B should conform to ASTM D5821, AASHTO T 304 and AASHTO T 176.

PAY ITEM PAY UNIT: Asphalt Surface Course S9.5B Ton

Unit Price Item #27: 18" RCP Storm Pipe Class III

DESCRIPTION: This item shall include all labor and materials to construct the 18" RCP Storm Pipe Class III as shown on the plans and in accordance with the construction drawings and the contract. Including but not limited to furnishing all materials, labor and installation of said materials, and pipe bedding.

MATERIALS: 18" RCP Storm Pipe Class III shall be in accordance with NC DOT Standard Specifications for Roads and Structures, latest edition, and per Specification Sections 34 00 00 and 31 23 00.

MEASUREMENT AND PAYMENT: 18" RCP Storm Pipe Class III will be measured and paid for at the contract unit price per linear foot. Such payment will be full compensation for all work including but not limited to furnishing, delivering and installing the 18" RCP Storm Pipe Class III; all excavation, bedding and backfilling.

PAY ITEM PAY UNIT: 18" RCP Storm Pipe Class III Per LF

Unit Price Item #28: Concrete Flared End Section - 18”

DESCRIPTION: This item shall include all labor and materials to construct the Concrete Flared End Section - 18” as shown on the plans and in accordance with the construction drawings and the contract. Including but not limited to furnishing all materials, labor and installation of said materials, and bedding.

MATERIALS: Concrete Flared End Section – 18” shall be in accordance with NC DOT Standard Specifications for Roads and Structures, latest edition, and per Specification Sections 34 00 00 and 31 23 00 and per Detail #1 Sheet L7.1.

MEASUREMENT AND PAYMENT: Concrete Flared End Section – 18” will be measured and paid for at the contract unit price per each. Such payment will be full compensation for all work including but not limited to furnishing, delivering and installing the Concrete Flared End Section – 18”; all excavation, bedding and backfilling.

PAY ITEM PAY UNIT: Concrete Flared End Section – 18” Each

Unit Price Item #29: Concrete Headwall - 18”

DESCRIPTION: This item shall include all labor and materials to construct the 18" Concrete Headwall as shown on the plans and in accordance with the construction drawings and the contract. Including but not limited to furnishing all materials, labor and installation of said materials, and bedding.

MATERIALS: 18" Concrete Headwall shall be in accordance with NC DOT Standard Specifications for Roads and Structures, latest edition, and per Specification Sections 34 00 00 and 31 23 00

MEASUREMENT AND PAYMENT: 18" Concrete Headwall will be measured and paid for at the contract unit price per each. Such payment will be full compensation for all work including but not limited to furnishing, delivering and installing the 18" Concrete Headwall; all excavation, bedding and backfilling.

PAY ITEM PAY UNIT: 18" Concrete Headwall Each

Unit Price Item #30: Installation of Storm Drainage Structure with Frame and Grate

DESCRIPTION: This item shall include all labor and materials to construct the Installation of Storm Drainage Structure with Frame and Grate as shown on the plans and in accordance with the construction drawings and the contract. Including but not limited to furnishing all materials, labor and installation of said materials, and bedding.

MATERIALS: Installation of Storm Drainage Structure with Frame and Grate shall be in accordance with NC DOT Standard Specifications for Roads and Structures, latest edition, and per Specification Sections 34 00 00 and 31 23 00

MEASUREMENT AND PAYMENT: Installation of Storm Drainage Structure with Frame and Grate will be measured and paid for at the contract unit price per lump sum. Such payment will be full compensation for all work including but not limited to furnishing, delivering and installing the Installation of Storm Drainage Structure with Frame and Grate; all excavation,

bedding and backfilling.

PAY ITEM PAY UNIT: Installation of Storm Drainage Structure with Frame and Grate Lump Sum

Unit Price item #31: Rip Rap Outlets

DESCRIPTION: The work consists of all work for Rip Rap Outlets as shown on drawings. Work included in this unit price installation includes all labor and materials to install the Rip Rap Outlets per plans.

MEASUREMENT AND PAYMENT: Rip Rap Outlets will be paid in units of ton which shall include but is not limited to all necessary labor and materials to install the Rip Rap Outlets.

PAY ITEM PAY UNIT: Rip Rap Outlets Ton

Unit Price item #32: Trees

DESCRIPTION: The work consists of all work for Trees as shown on drawings. Work included in this unit price installation includes all labor and materials to install the Trees per plans.

MEASUREMENT AND PAYMENT: Trees will be paid in units of each which shall include but is not limited to all necessary labor and materials to install the Trees.

PAY ITEM PAY UNIT: Tree Per Each

Unit Price Item #33: Park Bench – Owner Provided/Installation only

DESCRIPTION: This unit price item shall include all labor and materials for the installation only of the Owner Provided Park Bench in accordance with the construction drawings and the contract. Footings are to be installed and included in this Unit Price items. This unit price is to provide the installation of the Owner Provided Park Bench in the location shown on the plans. Concrete Pad under the Bench is not included herein and is included in Unit Price Item #31: 4" Concrete

CONSTRUCTION METHODS: Install the Park Bench in accordance with the plans.

MEASUREMENT AND PAYMENT: Park Bench – Installation only will be paid for in units of each which shall include but is not limited to all necessary labor and materials to install the Park Bench.

PAY ITEM PAY UNIT: Park Bench – Installation only Per Each

Unit Price Item #34: Owner Provided Trash Cans

DESCRIPTION: This unit price item shall include all labor and materials for the installation only of the Owner Provided Trash Cans in accordance with the construction drawings and the contract. Bolting the Trash Receptacle to the concrete pad is included in this Unit Price item.

This unit price is to provide assembly and the installation of the Owner Provided Trash Cans in the location shown on the plans. Concrete Pad under the Bike is not included herein and is included in Unit Price Item #28: 4" Concrete

CONSTRUCTION METHODS: Install the Trash Can in accordance with the plans.

MEASUREMENT AND PAYMENT: Trash Can – Installation only will be paid for in units of each which shall include but is not limited to all necessary labor and materials to install the

Trash Can.

PAY ITEM PAY UNIT: Trash Can – Installation only Per Each

Unit Price Item #35: Collapsible Bollards – Owner Provided/Installation only

DESCRIPTION: This unit price item shall include all labor and materials for the installation only of the Owner Provided Collapsible Bollards in accordance with the construction drawings and the contract. Footings are to be installed and included in this Unit Price item. This unit price is to provide the installation of the Owner Provided Collapsible Bollards in the location shown on the plans. Concrete Pad around the Collapsible Bollards is not included herein and is included in Unit Price Item #28: 4" Concrete.

MATERIALS: Refer to Detail #1/L7.2 for all necessary materials and hardware necessary to install the Bike Rack.

CONSTRUCTION METHODS: Install the Collapsible Bollard in accordance with the plans.

MEASUREMENT AND PAYMENT: Collapsible Bollard – Installation only will be paid for in units of each which shall include but is not limited to all necessary labor and materials to install the Bollards.

PAY ITEM PAY UNIT: Collapsible Bollard – Installation only Per Each

Unit Price Item #36: Tree Protection

DESCRIPTION: The work consists of all work for the installation of Tree Protection shown on drawings. Work included in this unit price installation includes all labor and materials to install the Tree Protection per plans and as specified in Section 31 13 00 - Tree Protection and Trimming.

MEASUREMENT AND PAYMENT: Tree Protection will be paid per lineal foot which shall include but is not limited to all necessary labor and materials to install the Tree Protection.

PAY ITEM PAY UNIT: Tree Protection Per LF

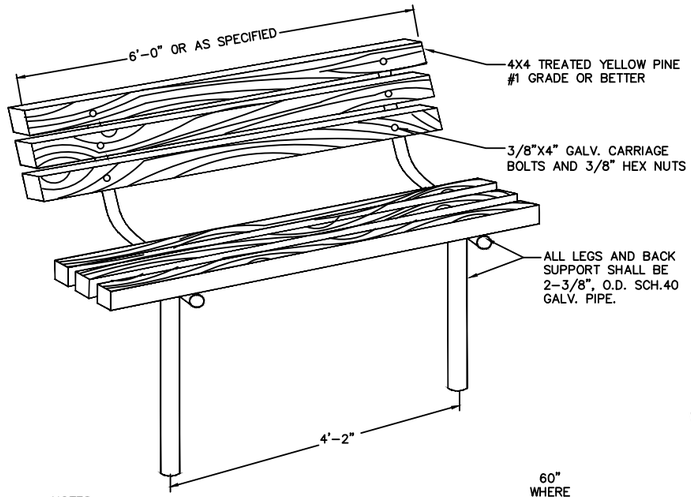
Unit Price Item #37: Curb and Gutter

DESCRIPTION: The work consists of all work for Curb and Gutter as shown on drawings. Work included in this unit price installation of all Curb and Gutter as indicated on the plans.

MEASUREMENT AND PAYMENT: Curb and Gutter will be paid as on a per Linear Foot price.

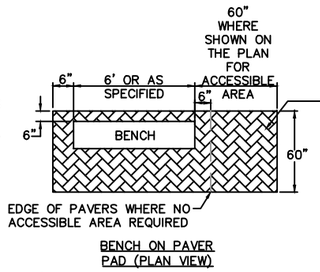
PAY ITEM PAY UNIT: Curb and Gutter LF

END OF SECTION 01 22 00

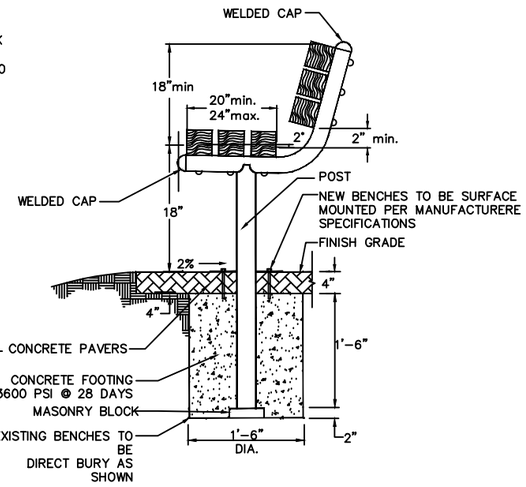


NOTES:

1. THIS DRWWING IS FOR INSTALATION INSTRUCTIONS AND GENERIC BENCH REQUIREMENTS.
2. ASSEMBLED AS PER MANUFACTURER'S INSTRUCTIONS. SEE SPECIFICATIONS FOR MANUFACTURER'S REQUIREMENTS.
3. ALL HARDWARE SHALL BE HOT DIP GALVANIZED.
4. ALL CONNECTIONS SHALL BE FULLY WELDED AND GROUND SMOOTH.
5. PROVIDE PRODUCT LITERATURE PER SPECIFICATIONS FOR PRODUCT APPROVAL PRIOR TO PURCHASE.

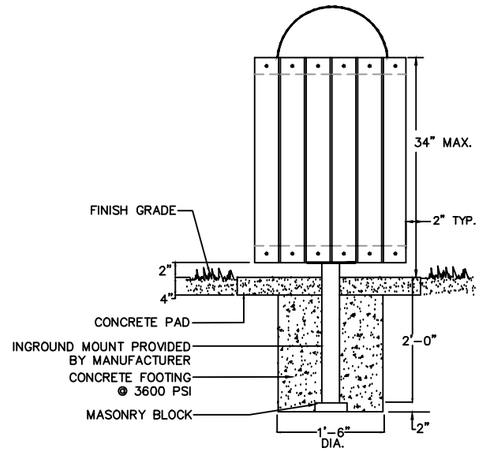


BENCH ON PAVER PAD (PLAN VIEW)



PARK BENCH DETAIL (FIELD LOCATE – COORDINATE WITH TOWN OF HUNTERSVILLE)

NTS



NOTES
1. THIS DRAWING IS FOR INSTALLATION PURPOSES ONLY. TRASH RECEPTACLES AND RECYCLE CONTAINERS ARE TO MATCH EXISTING TOWN OF CORNELIUS RECEPTACLES AND CONTAINERS.
2. PROVIDE PRODUCT LITERATURE PER SPECIFICATIONS FOR TOWN APPROVAL PRIOR TO PURCHASING PRODUCT.

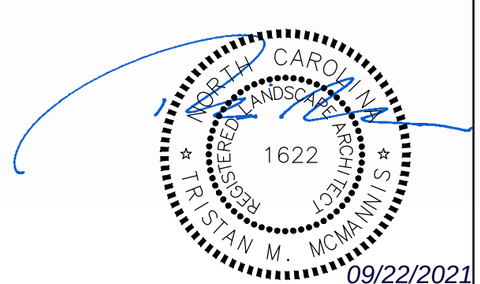
TRASH RECEPTACLE AND RECYCLE CONTAINER DETAIL (FIELD LOCATE – COORDINATE WITH TOWN OF HUNTERSVILLE)

NTS

NOTES:

1. SEE PLANS "TOWN OF HUNTERSVILLE DOWNTOWN GREENWAY - PHASE 2" DATED JULY 19, 2021 FOR MORE INFORMATION

2. LOCATIONS OF BENCHES AND TRASH CANS TO BE DETERMINED IN FIELD WITH OWNER DURING CONSTRUCTION



Dewberry
Dewberry Engineers Inc.
9300 Harris Corners Parkway,
Suite 220
Charlotte, NC 28269
704-509-9918
NCBELS# F-0929

TITLE	DATE	REVISION	SHEET NO.
PARK BENCH AND TRASH/RECYCLE DETAILS – BULLETIN DRAWING #1	09/22/2021	BD-1	BD-1
PROJECT	PROJ. NO.	SCALE:	
DOWNTOWN HUNTERSVILLE GREENWAY – PHASE 2	50110364	SEE PLAN	

ADDENDUM #2

September 17, 2021

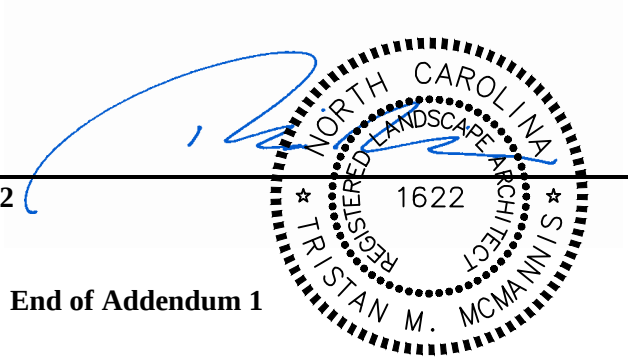
PROJECT: **Downtown Huntersville Greenway Phase 2**
Huntersville, North Carolina

Changes and Clarifications to Project Manual

1. The requirement for signed and sealed shop drawings for the boardwalk system as required per section 32 34 00, Part 2 (D) to be submitted 2 weeks prior to the bid, is hereby modified to be "Contractor shall, two (2) weeks prior to the bid date submit shop drawings indicating the general configuration and details associated with the construction of a proposed boardwalk meeting the performance criteria contained within the contract documents. Shop drawings do not need to be signed and sealed for the submittal prior to bid but shall contain enough information to indicate general compliance with the performance specification including but not limited to piles and bracing, concrete deck (whether poured in place or pre-cast), and railing system. Contractor shall be responsible for providing a delegated design performed by a licensed engineer in the state of North Carolina, and obtaining all permits prior to construction.".

All other terms, conditions and descriptions remain the same. Contractor must acknowledge issuance of this addendum in their Bid Proposal Form. The bid closing date remains as October 1, 2021 at 2 PM Local Time.

Attachments: Bid Proposal Form



09/17/2021

Tristan M. McMannis, PLA NC Lic. # 1622

End of Addendum 1

Tristan M. McMannis

Digitally signed by Tristan M. McMannis
DN: C=US, E=tmcmannis@dewberry.com, O=Dewberry Engineers Inc., OU=Charlotte, CN=Tristan M. McMannis
Reason: I am the author of this document
Date: 2021.09.17 10:17:00-04'00'

ADDENDUM #1

September 3, 2021

PROJECT: **Downtown Huntersville Greenway Phase 2**
Huntersville, North Carolina

Response to Bidder Questions

1. Q: Will you allow for a bid alternate to design-build a completely timber boardwalk that meets the design loads in the specifications?

   A: Bid alternate for the boardwalk structure to be built with a timber substructure and concrete deck is acceptable if it meets the following criteria:

   - Design Loads: Pedestrian live load of 90 psf
     H5 Design Truck – 10,000 lbs. total vehicular load (Applicable for boardwalk clearances exceed 7 ft. but equal to or less than 10 ft.)
   - Finish: Concrete deck shall have a medium broom-swept finish perpendicular to path of travel.
   - Concrete deck shall be a 4,000 psi normal weight concrete with an epoxy coated 4x4 – W4.0xW4.0 welded wire fabric. Welded wire fabric mesh shall have 8" min. laps and maintain 2" minimum clearance to all form angles and joints. Welded wire fabric shall be supported on 1-1/2" BBU supports spaced 4'-0" O.C.
   - Joints: Construct sawn joints spaced at 10'-0" O.C. Joints shall be constructed true to line with faces perpendicular to surface plane of concrete.
   - Please note per the specification section 32 34 00 for the precast boardwalk, the requirement for signed and sealed shop drawings to be provided prior to the bid date remains.

2. Q: Please confirm the clear-width of the boardwalk structure as 10'-0".

   A: Clear-width of the boardwalk structure is 10'-0".

Changes and Clarifications to Project Manual

1. Replace Bid Proposal Form with attached Bid Proposal Form. Amended Bid Proposal Form to include an alternate for poured in place boardwalk.

All other terms, conditions and descriptions remain the same. Contractor must acknowledge issuance of this addendum in their Bid Proposal Form. The bid closing date remains as October 1, 2021 at 2 PM Local Time.

Attachments: Bid Proposal Form

09/17/2021

Tristan M. McMannis, PLA NC Lic. # 1622

Tristan M. McMannis
Digitally signed by Tristan M. McMannis
DN: C=US, E=tmcmannis@dewberry.com, O=Dewberry Engineers Inc., OU=Charlotte, CN=Tristan M. McMannis
Reason: I am the author of this document
Date: 2021.09.17 10:48:51-04'00'

NORTH CAROLINA REGISTERED LANDSCAPE ARCHITECT 1622 TRISTAN M. MCMANNIS

End of Addendum 1

SINGLE PRIME GENERAL CONSTRUCTION CONTRACT
BID PROPOSAL

TOWN OF HUNTERSVILLE DOWNTOWN GREENWAY – PHASE 2

ALTERING THE FACE OF THIS FORM IN ANY MANNER, OR PROVIDING INFORMATION NOT SPECIFICALLY REQUESTED SHALL RENDER THIS BID PROPOSAL NON-RESPONSIVE AND INELIGIBLE FOR CONSIDERATION BY THE TOWN

Date: _____

TO: **Town of Huntersville**
North Carolina

To Whom It May Concern:

The undersigned Bidder, having examined carefully the site, the Invitation to Bid, Instructions to Bidders, Construction Drawings, the form Construction Agreement, Supplementary Documents (if any) and subsequent Addenda (as acknowledged herein) for the construction of approximately 1,965-lf of asphalt greenway with pedestrian boardwalk and associated site improvements for Phase 2 of the Downtown Huntersville Greenway. Work shall also include associated demolition/clearing, grading, erosion control, installation of stormwater conveyance measures, installation of pavement and boardwalk, and associated site furnishings. Bidder hereby proposes to furnish all labor, materials, equipment and services necessary to perform the Work required in the Construction Documents and terms of this Proposal for the amounts listed below.

Base Bid Total: _____ (Lump Sum)

Alternate #1 Total: _____ (Lump Sum)

Bid Total: _____ (Lump Sum)

TOWN OF HUNTERSVILLE DOWNTOWN GREENWAY - PHASE 2 - Unit Price Spreadsheet:

	Item Description	Base Bid Quantity	Unit	Unit Cost	Total-Base Bid
1	Mobilization/General Conditions	1	LS		
2	Construction Surveying	1	LS		
3	Selective Demolition	1	LS		
4	Clearing and Grubbing	1.65	Acre		
5	8" of Topsoil Stripping & Haul Off	825	CY		
6	8" Topsoil Compact and Reuse On-Site	275	CY		
7	Construction Access Drive (gravel) 18'x100'x6"	2	EA		
8	Import Soil to Job Site and Compact in Place	425	CY		
9	Earthwork-Rough Grading	1630	CY		
10	Earthwork-Fine Grading	44850	SF		
11	Temporary Silt Fencing	1863	LF		
12	Temporary High Hazard Silt Fence	386	LF		
13	Accessible Ramp	2	EA		
14	Painted Pedestrian Crosswalk	1	EA		
15	Elevated Pedestrian Crosswalk	1	EA.		
16	E. C. Devices Silt Fence Outlets	11	EA		
17	EC Maintenance	10	MONTH		
18	Temporary Seeding	1.65	AC		
19	Permanent Seeding/Hydroseeding	1.25	AC		
20	Temporary Traffic Control	1	LS		
21	Segmental Wall	472	SF		
22	Design/Build Concrete Boardwalk with Handrail	1	LS		
23	4" Concrete Sidewalk	140	SY		
24	Geo-grid textile fabric	1900	SY		
25	6" Aggregate Base Course	640	TON		
26	2" SF9.5B Asphalt Surface Course	212	TON		
27	18" RCP Storm Pipe (Class III)	33	LF		
28	18" Concrete Flared End Section	1	EA		
29	18" Concrete Headwall	1	EA		
30	Installation of Storm Drainage Structure with Frame and Grate	1	LS		
31	Rip Rap Outlets	1	TON		
32	Trees	3	EA		
33	Owner Provided Benches	2	EA		
34	Owner Provided Trash Cans	2	EA		
35	Install Collapsible Bollard	4	EA		
36	Tree Protection	1353	LF		
	Subtotal:				
	Undercut and Unsuitable Soil Replacement Allowance				$25,000
	Contingency				$75,000
	Bid Total:				
37	Alternate #1: Poured in Place Boardwalk	1	LS		

The undersigned further agrees that this Bid Proposal shall be valid for a period of sixty (60) days from the date of receipt of the Bid Proposal and that if this Bid Proposal is accepted by the Town within this period, the Bidder will execute the Construction Agreement provided as part of the Contract Documents.

The undersigned further agrees to begin the work promptly upon receipt of the Notice to Proceed and to pursue the work with an adequate work force to complete the work within 240 calendar days from receipt of the Notice to Proceed. Liquidated Damages of $500.00 per calendar day are hereby agreed upon as an assessment from the Contractor for failure to complete the work within the time period stated herein.

The undersigned Bidder further proposes and agrees to commence the work promptly upon notice, with an adequate force to satisfactorily complete the Project.

The undersigned acknowledges receipt of the following addenda which will be considered as part of the Contract Documents.

Addendum No. _____ Dated _____

Addendum No. _____ Dated _____

Addendum No. _____ Dated _____

Addendum No. _____ Dated _____

CONTRACTOR: _____
(Company)

Contractor □ is or □ is not a historically underutilized business, registered with the North Carolina Office of Historically Underutilized Businesses. (Must be completed by all Bidders.)

ADDRESS: _____

_____

_____

BY: _____
(Signature) (Typed Name)

TITLE: _____

NC General Contractor's License No. _____

NC State Sales and Use Tax Registration _____

□ Non-collusion Affidavit has been completed and is attached to this Bid Proposal Form (Required)

(Note: Inclusion of the non-collusion affidavit is mandatory. A bid will be rejected as non-responsive if not included in the bid submission.)

Select One (One or the other must be chosen by the Bidder):

☐ Substitution Listing (if substitutions are being proposed) is attached to this Bid Proposal Form.
(Note: Failure to include the Substitution Listing with this Bid Proposal will render the substitutions ineligible for consideration by the Town.) OR

☐ Substitution Listing is not attached to this Bid Proposal Form (No substitutions are proposed.)

SUBSTITUTION LISTING

TO: Town of Huntersville, North Carolina
Hereinafter called "Owner"

1. A Bidder requesting a substitution must submit this form to the Project Manager and Project Landscape Architect at least five (5) business days prior to the time stated for Bid Opening.

2. Pursuant to bidding requirements for the Work titled:

   TOWN OF HUNTERSVILLE DOWNTOWN GREENWAY – PHASE 2

   The Contract Sum proposed by the under signed on the Bid Proposal form is for the Work as shown on the Drawings, and otherwise defined in the Contract Documents. However, the undersigned proposes the following substitutions for the Owner's consideration. Should the Owner accept any or all of the proposed substitutions, the Bidder's proposed contract sum will be reduced by the amount shown.

3.

Specified Product Or Material	Drawing Number	Proposed Substitution	Proposed Reduction In Contract Sum
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

PROVIDE SIGNATURE IDENTICAL TO THAT

BIDDER:

SHOWN ON THE BID FORM _____

By _____

END OF SUBSTITUTION LISTING

Standard Form Contract

NON-COLLUSION AFFIDAVIT

I, on behalf of the Bidder, being first duly sworn or as the Contractor, do hereby represent on behalf of the Bidder that the Bid Proposal submitted was made without collusion or fraud and that neither I, nor anyone else affiliated with the Bidder to my knowledge, have offered or received any kickbacks or inducements from any other supplier, manufacturer or subcontractor in connection with their Bid Proposal, and neither I, nor anyone else affiliated with the Bidder to my knowledge, have conferred on any public employee having official responsibility for this procurement transaction any payment, loan, subscription, deposit of money, services or anything of more than nominal value, present or promised, unless consideration of substantially equal or greater value was exchanged.

This the _____ day of _____, 2020.

BIDDER:_____

_____
Print Name:
Print Title:

State of _____
County of _____

Sworn to or subscribed before me this the _____ day of _____, 2020.

(Official Seal)

_____
Notary Public
Print Name:_____

RESOLUTION OF THE TOWN OF HUNTERSVILLE TO AWARD THE BID FOR THE DOWNTOWN GREENWAY PHASE 2- PROJECT AND APPROVE THE CONSTRUCTION CONTRACT

Whereas, the Town of Huntersville received informal, written, sealed bids for the construction of the Downtown Greenway Phase 2 Project (the "Project"); and

Whereas, the lowest responsive responsible bidder was JD GOODRUM, LLC, a North Carolina limited liability company located in Cornelius, NC ("Low Bidder"); and

Whereas, the Town wishes to award the Project to the Low Bidder, accept certain alternates that were bid, and approve and establish administrative authority for the construction contract with the Low Bidder;

NOW THEREFORE, BE IT RESOLVED AS FOLLOWS:

1. The Board of Commissioners awards the Project to the Low Bidder, in accordance with the Bid Proposal submitted, as modified by the Contract Documents, and accepts the alternates bid as follows:

- Base Bid consisting of:

1.	Construction of the Greenway	$885,670.84 (lump sum)
	Total Bid Amount:	**$885,670.84 (lump sum)**

2. The draft Construction Contract, attached hereto as Exhibit 1, is hereby approved. As used herein, the Construction Contract is deemed to include Exhibit A, attached thereto, and all Contract Documents identified and incorporated therein by reference.
3. The Board hereby authorizes the Town Manager, acting on advice of counsel, to take any actions necessary to effect the provisions of this Resolution, including signing the Agreement attached with such modification as may be required. Provided a budget amendment is not necessary, the Town Manager shall have the authority to approve change orders to the Construction Contract for time and price, however the total of all change orders approved by the Town Manager may not exceed five percent (5%) of the Total Bid Amount stated in paragraph 1, above.
4. This Resolution shall be effective as of the date its adoption.

Adopted this 18th day of October, 2021.

ATTEST:

_____
Town Clerk

TOWN OF HUNTERSVILLE

_____
Town Mayor

APPROVED AS TO FORM:

_____
Town Attorney

Town of Huntersville
Town Board
October 18, 2021

To: Town Board

From: Pattie McGinnis

Date: October 18, 2021

Subject: Carolina Raptor Center

EXPLAIN REQUEST:
Appropriate $20,000 to Carolina Raptor Center (607103.0650.22015) in the Tourism fund. These funds will be transferred from the Historic Latta Plantation funding of $20,000. The Board removed funding from Historic Latta Plantation at the September 7th pre-meeting.

ACTION RECOMMENDED:
Approve Budget Amendment

FINANCIAL IMPLICATIONS:
No net impact to fund balance.

ATTACHMENTS:
None

Town of Huntersville
Town Board
October 18, 2021

To: Town Board

From: Janet Pierson

Date: October 18, 2021

Subject: Approval of Minutes - September 20

EXPLAIN REQUEST:
Consider approving the minutes of the September 20, 2021 Regular Town Board Meeting.

ACTION RECOMMENDED:
Approve Minutes

FINANCIAL IMPLICATIONS:
N/A

ATTACHMENTS:
1. 092021DraftForBoard

TOWN OF HUNTERSVILLE
TOWN BOARD MEETING
MINUTES

September 20, 2021
6:00 p.m. – Huntersville Recreation Center

PRE-MEETING

The Huntersville Board of Commissioners held a pre-meeting at Huntersville Recreation Center, 11836 Verhoeff Drive, at 5:15 p.m. on September 20, 2021.

GOVERNING BODY MEMBERS PRESENT: Mayor John Aneralla; Commissioners Melinda Bales, Dan Boone, Brian Hines, Lance Munger, Stacy Phillips and Nick Walsh.

Commissioner Walsh made a motion to go into closed session pursuant to N.C.G.S. 143-318.11(a)(6) for purposes of considering qualifications, performance, and conditions of appointment of a public employee.

Commissioner Phillips seconded motion.

Motion carried unanimously.

Upon return from closed session, there being no further business, the pre-meeting was adjourned.

REGULAR MEETING
TOWN OF HUNTERSVILLE
BOARD OF COMMISSIONERS

The Regular Meeting of the Huntersville Board of Commissioners was held at the Huntersville Recreation Center, 11836 Verhoeff Drive, at 6:00 p.m. on September 20, 2021.

GOVERNING BODY MEMBERS PRESENT: Mayor John Aneralla; Commissioners Melinda Bales, Dan Boone, Brian Hines, Lance Munger, Stacy Phillips and Nick Walsh.

Mayor Aneralla called the meeting to order.

Mayor Aneralla called for a moment of silence.

Mayor Aneralla led the Pledge of Allegiance.

MAYOR AND COMMISSIONER REPORTS – STAFF QUESTIONS

Mayor Aneralla

- Recognized two new Planning staff members.
- Expressed appreciation to Commissioner Bales for filling in for him at the last meeting.
- The agenda for the next Metropolitan Transit Commission meeting includes approval of three bus stop enhancements.

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- Staff and elected officials have requested multiple times for Colonial Pipeline to attend a Town Board meeting to provide an update on the leak, but they have declined to come.
- Would like media to focus on the good that is going on in the high schools. Hopewell High has two National Merit Scholarship finalists.

Commissioner Bales

- Expressed appreciation to the Daughters of the American Revolution, Alexandriana Post, for their Constitution Day event.
- Lake Norman Economic Corporation is currently working 53 active projects, 31 of which are in Huntersville.
- The EDC Work Force Development Manager and myself will be meeting with Hough, Hopewell and North Meck and their CTE programs to begin planning the speed networking event that we will be doing this fall.

Commissioner Boone

- Provided update from the Lake Norman Chamber of Commerce.
- Huntersville Fire Department is selling t-shirts as a fundraiser for the Purple Heart Homes and The 22 Project. The funds will be donated in the month of November.
- Reminded everyone to lock their vehicles and not leave valuables in them.

Commissioner Hines

- The NCDOT P6 list that was ongoing right now has been halted primarily due to funding shortfalls, cost overruns, and the cost of everything going up. The Charlotte Regional Transportation Organization is going back and looking at P3, 4 and 5 and are going to reprioritize based off of when we get funding. Highway 73 was supposed to get started in 2022/2023. That project was stopped and will restart in 2025 or 2026. The Main Street project is under construction in downtown Huntersville. Today they started on the Gilead Road and Statesville interchange.

Commissioner Munger

- Will be meeting with Mecklenburg County Government officials and various other town officials for a discussion on farmland preservation.
- Consider supporting local non-profits.

Commissioner Phillips

- Provided update from Ada Jenkins Center.
- Charlotte-Mecklenburg Animal Care and Control is at maximum capacity for dogs right now. Consider fostering or doing a staycation.

Commissioner Walsh

- Provided update from the Huntersville Regional Chamber.
- Provided update on Parks & Recreation events.
- Provided update from Visit Lake Norman.

PUBLIC COMMENTS, REQUESTS, OR PRESENTATIONS

BeeJay Caldwell, 14521 New Haven Drive, said a report has been submitted to the Town's elected officials. It is an in-depth history of Pottstown and the East Huntersville Communities. The purpose is to

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show how this 110-year-old area is significant and its residents are being erased or squeezed out. I and other members of the Pottstown Preservation for Change Committee are looking forward to working with you so that we can bring about a change. Who we are – the Pottstown Preservation Committee for Change, a multi-cultural group of homeowners living in Pottstown, East Huntersville, and New Haven Park, who feel they are expendable and not valued as humans. We want to work together to bring about hope and a positive change that will impact and strengthen each segment of our community and it's a place where any resident can be treated with dignity, feel valued, respected and whose dream is to catch the spirit of community so that he or she will be motivated to invest their time and talent in their neighborhoods and there is hope. I came up with this acronym for hope…….H – help, O – open, P – people's, E – eyes, so there's a lot of hope in Pottstown and East Huntersville and I am here today to say that the area is worth saving even though it has been gentrified, which means that more people than the original black folk, descendants of the enslaved who were originally relegated to that space, we've been inundated, we're out numbered and maybe out gunned. That's a joke. Help Pottstown and East Huntersville Communities. They are worth saving, so will you join in our effort.

Brent Green, Creech and Associates; Mike Carlisto, Edifice; Tim Bender, Edifice – presented PowerPoint presentation on the progress of advanced planning stage of design of new town hall. *PowerPoint attached hereto as Exhibit No. 1.* Requested direction in order to decide which one of these to move forward with and study in schematic design.

Mayor Aneralla said I think you incorporated a lot of what feedback I think the Board had already given you, as well as the community, and so thank you for that. I do want to rehash a little bit about why now as opposed to any other time. Over 2-1/2 years ago we started having discussion on whether we needed a new Town Hall. Mr. Roberts came on board, did an analysis of what it would take to house the number of employees that we would need over the course of the next 5-10-15 years. Huntersville is 63,000 – 65,000, we will be over 100,000, so how do we fit the number of people we have into the space we have. In addition, this Board made a comment a couple of years ago that we wouldn't really proceed with spending any money on this endeavor unless we sold one or two or some parcel that the Town owns. Last year we contracted with two entities, one for 2 acres next to Discovery Place Kids for about $600,000 and the old Police Station is under contract and should close within the next 30-45 days for $1.8 million. Previously, the Town had sold a number of acres near the Waymer Center for $600,000, some small portions of previous acquisition near the Vermillion Village for well over $300,000 and the current Town Hall was appraised for $1.7 million. That's a total of $5.4 million of potential sales or current sales that could go towards this Town Hall. I've been a proponent of trying to consolidate all of our assets because why do you have them if the Town doesn't need them. Let's get them sold, put them on the taxpayer rolls and consolidate everything into one town hall. As I have stated numerous times, I never thought I'd be here 6 years later thinking that we needed a town hall, but I think fiscally this is a good time for us. If we put $5 million or $6 million down on a $14 million project, we are borrowing right now at about 1 percent. We are AAA rated. We are the best funded community in North Carolina. We have the resources to go ahead and move forward and do all the other things that are necessary to keep either the Town safe, add greenways, sidewalks, roads and so forth. But why else would we want to do this. We are losing community space by selling the Blythe Building. We could have community space where we could have voting, we could have HOA meetings, civic organizations and then also as the Town is getting bigger, our needs are growing and we will need more services to come from Town Hall. For example, for a number of years we had a Veterans Liaison that would come just one day a week that allowed Veterans to come to Town Hall as opposed to driving all the way to Mecklenburg County and back, so we could offer that service again. Social Services – we are looking at the Police Department as potentially having a social worker on call to help with cases. Magistrate – we've talked about having a magistrate for decades, but maybe this will have a particular place where

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we could house the number of magistrates who we would need. We have on our agenda tonight something about the opioid settlement that we will join in with the county. In order to spend some of that money, you will need to have counseling services. Potentially we could have those services here in Huntersville as opposed to having to drive all the way down to Freedom Drive or someplace else in Charlotte. I think it's something that's necessary, and for all these reasons I think it's time to move forward. I do want Mr. Roberts, if you can answer the question of why this land is not necessarily commercially viable. I think it's a finer point that a lot of people don't understand, but the Town owns this land in conjunction with bonds that were issued to build the deck.

Anthony Roberts, Town Manager, said when I first came here, I think the Board tried to take RFQ's, RFP's on that property and I don't think you got any offers on it. The one thing with that property is the parking deck that's behind it was financed with LOBs, Local Obligation Bonds, so there's private use issues with that. If I were to go, Anthony Roberts LLC, were to go try to purchase that property, obviously when you go build a building on it, you've got to have parking. No bank is going to finance something that you can't park. That deck was paid for with public dollars and so it has restrictions on it, so I can't just give away parking to any entity that comes along that wants to build there. The short answer is being able to park a private use there would be next to impossible.

Mayor Aneralla said I've said my peace. One question I have is how big is the Chamber.

Mr. Green said the Chamber seats 150 people and has an 11-person dais to allow for future growth should you all head in that direction.

Mayor Aneralla said I'm for Option C, for whatever that's worth.

Commissioner Walsh said one of the narratives in the community is this idea I see up here, it says $14 million budget all in and my wife and I have purchased three new homes in our lifetime, new builds type of thing, so I feel like this is the time we are kind of going in and out of the sales trailer, looking at things and trying to decide, but at some point we sat down and we picked our options or she picked our options, and decided what we wanted and what upgrades etc. and then they said here's a number and we signed. Costs go up, but it's on the builder…….if it goes down, they make more profit, so in this timeline what number is that and approximately what month is that assuming we give some direction to say hey we want Option X.

Mr. Green said in terms of where we are in the overall schedule?

Commissioner Walsh said in the schedule here. At some point you guys will actually design it.

Mr. Green said so you are referring to when we get to the guaranteed maximum price.

Mr. Carlisto said the guaranteed maximum price cannot be determined until you have a public competitive bid process. That should happen next winter, early spring.

Commissioner Walsh said next winter as in this coming winter.

Mr. Carlisto said exactly. To me I always think of late winter/early spring.

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Commissioner Walsh said I have a question for Mr. Roberts. Some have said there are absolutely going to be cost overruns etc. and they have compared the Main Street Project as well as the Rec Center. Can you tell us what the difference is between this project and those?

Mr. Roberts said the Board has set $14 million as the budget, the GMP. At the end of the day we have instructed them $14 million is all we have to spend, unless a new board comes in and says we want it to be $16 million, $18 million, $20 million or whatever they want it to be, but $14 million is the direction that we have given them and that's the number. If you look back at their options, you notice there's finished square footage and unfinished square footage. Ultimately when they go to design this and they come back in the winter with those numbers, you would have slightly less finished space versus unfinished space. The $14 million is the number, unless a future board says otherwise. It won't be this Board because a new board will be sitting here and when that GMP comes back in the winter, there will be a new board sitting here.

Commissioner Walsh said if we are talking about in the next few months getting that price locked down, when we built this Rec Center there was many years before we built it, correct, as well as the Main Street Project took many years, so we are talking about a much shorter timeline.

Mr. Roberts said this is a different process, too. This process is the first, I think, design-build process that the Town has ever done, and there's a reason we did that.

Commissioner Walsh said I just have a quick question for Ms. Huffman. We are going to be straight financing this, correct?

Jackie Huffman, Deputy Town Manager, said we have not decided pen to paper exactly how we are going to do it. It would be my advice that we would finance it and here's why. When I look at the rest of our CIP, there are an awful lot of streets and greenways on that. You don't have any authorized bonds available to be issued. We don't have any General Obligation bonds, so it would be my recommendation that you preserve your existing fund balance to fund projects that are going to be more difficult to get financing for. If you are attempting to finance a town hall, a bank doesn't mind that type of collateral because we are AAA bond rated. When you issue debt, a bank is looking for good collateral. A town hall could be repossessed by a bank in the event that they had to and that could be used as office space. A bank is not interested in greenways or roads or sidewalks as collateral because they can't repossess that and sell that to somebody else, so we have to be cognizant of what's available to be financed using what instruments and so until we get additional GO bond funding, it would be my recommendation that you use installment financing for this and that's the rationale why.

Commissioner Walsh said to the Mayor's point, the funding right now is pretty cheap, right?

Ms. Huffman said you have items on your agenda tonight where you are issuing debt at less than 1.5 percent. I've been in local government 26 years and it's just unprecedented. I would have said that when we were issuing debt at 2 percent, but theoretically how much lower can you go.

Commissioner Walsh said you are probably not going to get much lower, so there's probably never a better time than now.

Commissioner Hines said I'm more leaning in favor of Option C. I think it kind of works better on that site. I think it provides a larger plaza. The plan is if this moves forward, the current town hall will most likely not be there long term. It would be sold and redeveloped. Is there a point if we were to say

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Option C, you are going to move forward with having this tower on top. Will you be moving in that direction or will we have the opportunity at a later date to look at that and say change these design elements of the façade.

Mr. Green said we are in the very early phases of this, so yes, if you say go forward with Option C with a caveat that we want to take further study on this idea of the tower, but we like the plan organization, that is certainly a direction that we could respond to.

Commissioner Bales said I have to say I'm a little bit surprised because I actually like Option C and I didn't think that I would. One of the things that sticks out for me is the amount of initial staff space, which I think is critical for this new space. Staff is on top of one another now. In addition to giving it the community space that flows out into the plaza, which I also agree having the larger plaza space for the community I think is a wonderful thing. I'm still a little iffy on asymmetrical, I like balance to things, so I'm still watching it, but I like the initial concept for everything that it provides.

Mr. Green said that's very interesting, we had that exact same discussion in our shop. I think that just proves the process that it's good to have options to evaluate. I think the good thing about where we are in this decision point is schematic design is just still the first real phase of design. This is all pre-planned, so there's lots of time to explore this before we come back with a refined option.

Commissioner Munger said one of the first things I look at is the number of people in this room. You wouldn't fit this number in the current Town Hall. There is absolutely no doubt in my mind that you wouldn't fit in the chamber. There would be people back in the waiting area like it used to be 2 years ago and it has nothing to do with COVID specifically. Assuming a non-COVID situation, you would be crowded up against the wall, someone would be leaning against the light switch dimming the lights, we've all been there, it's happened. I've done it personally. If we built on the current site and this is possibly a question for staff, would we move all of the existing employees that are currently on the third floor of DPK to the new building.

Mr. Roberts said if we build on the current Town Hall site, the existing employees that are in Town Hall right now, what would we do with those why they build.

Commissioner Munger said the existing employees in the Discovery Place Kids building, would they come to the new town hall or would they stay there.

Mr. Roberts said stay there.

Commissioner Munger said you are going to have employees in two different locations again.

Mr. Roberts said we would maybe move a couple over to free up some space over there because Planning and Engineering are growing, so we may move a few Parks & Rec staff over to wherever the new town hall is.

Commissioner Munger said again, employees crossing two intersections to get to and from meetings.

Mr. Roberts said I think the key of building on the existing site is I think you add another, I don't know, 12 or 15 parking spaces on top of what we've got, so most likely staff would probably take up all of the parking, so any type of meetings and functions and things like that pretty much they are parking in the parking deck.

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Commissioner Munger said that was my next question. There wouldn't be nearly enough parking in the existing Town Hall location if it were expanded to accommodate all of the staff parking and visitor parking.

Mr. Roberts said if you look at old 2006 plans and things like that, you will see where they had a parking deck, a Discovery Place Kids type venue and town hall expanding. That was buying additional land on the back of the white building behind Town Hall and also some land where Rafik's place is, the Italian place, so that was contemplated 15 years ago. The problem is that's more land to buy and I know what the price is on those properties now, which both of them combined are several million dollars and you've got to build a parking deck. To me if you are looking at all the different options that are there, whenever the Town decided to move DPK on the opposite side of the street and build a parking deck, you built two out of the three facilities you were looking to do in my mind when you moved it across that corner, so it made sense to me when you are looking at trying to do that plan we move town hall over there too because then you've got everything right there so the public can do everything right there on that corner.

Commissioner Munger said additionally, if we build on the lot in front of Discovery Place Kids, to the Mayor's point, I believe you said $1.8 million is the current assessed value of the current Town Hall.

Mayor Aneralla said $1.7 million.

Commissioner Munger said that's revenue that we would lose. In addition to that, if a commercial entity came in and decided that they wanted to build a business, take current town hall, take the building behind, bring in tax revenues, that's opportunity costs in addition to the actual upfront money, so over a period of time we would continue to lose money if we didn't sell off that particular portion as well. Would that be fair?

Mr. Roberts said as long as the government owns it, it pays no taxes.

Commissioner Munger said from everything I can see we absolutely have to build in front of Discovery Place Kids. It's the only sensible solution. It's the most cost-effective solution and in terms of what I've seen, I tend to be in agreement with almost everyone who has spoken up to this point. Option C I do enjoy. I like the idea of the top there that's similar to our current town hall. I like that transitional idea. I'm not as opposed to asymmetrical entrance.

Commissioner Boone said could you tell me who designed the current Town Hall.

Mr. Green said David Creech was the designer while with LS3P & Associates.

Commissioner Boone said they are still with you?

Mr. Green said yes.

Commissioner Boone said the people who designed the old town hall, that will be expensive to expand and you can't go up on it, we are going to hire you to build the new one if this is passed. Everything that I've seen is that everybody says the parking deck is already there……..$4 million or $5 million to build a new parking deck. Are we making any repairs to the parking deck now.

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Mr. Roberts said yes, sir.

Commissioner Boone said do you know how much that's going to cost and what do you think the timeline for that parking deck is. What's the lifetime of the parking deck. How long will it last?

Mr. Roberts said I don't know, but all that was built before me, but I would say it's probably a 30-year life on it.

Commissioner Boone said when you folks came up that you could build this building for $14 million, I'm sure you did your due diligence and your homework, but at the time all these costs of raw materials and availability has gotten very hard to find, they've escalated in price. They've come down some. You are still confident that you can build this for $14 million.

Mr. Green said we are because of the strategy that was mentioned earlier around the shell space and our ability to swing that back and forth as the market drives those costs unanticipatedly.

Commissioner Boone said if the costs go up we get more shell space and people aren't finished. And then my last comment is the 2 acres is private use would be impossible to develop. Why not just leave it the way it is now where people can enjoy that green space.

Commissioner Phillips said I was at the in-person thing. I think you guys did a great job. It would have been nice to see the percentage in numbers of the people who said no because there was a vast amount of noes to a new town hall. I feel like those voices need to be heard. I spoke to a builder this week and I think you guys would have a contingency plan, they said it was a 16 to 20 week wait right now for windows because of massive shortages and that's if you are an established customer. Are you guys established customers that could obtain windows.

Mr. Carlisto said yes, we can. We work with many vendors who are professionals in that market.

Commissioner Phillips said they were saying if you are not established it was like 6 months wait plus.

Mr. Carlisto said what we are having to do is plan things earlier than normal because of these long lead times, so not just windows – steel, roofing insulation, we're having to price and prepare those bids a few months ahead of time so we can time those deliveries when we need them onsite. There's a wild science for it right now.

Commissioner Phillips said everybody keeps saying like cost savings and it's like one of those things that like the grocery store, Kohls or Belk, they always say like when they hand you your receipt you saved $300 but it's really like I just spent $200, so there's not really like a cost savings involved. We're still spending money. I think we should be more mindful of how we are wording that because we are not saving anything, we are spending money and that's just the fact of it and then no disrespect to you guys, I think you guys have been great, especially because I have been such an opponent. I'm disappointed, and it's no fault of you, this presentation wasn't in our agendas because I feel like the public should have had a say in whichever one because you know it's their building, that building is going to outlast whoever is sitting up here, so I'm not in favor of any option because I'm not in favor of building the town hall, but I do appreciate the work you guys are doing and no hard feelings towards you guys.

Mayor Aneralla said remember there will be another public meeting sometime early fall.

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Commissioner Walsh said I am also in favor of Option C and before Commissioner Hines takes off the whatever that thing is called, you started to describe underneath it was light coming down and something else, was that in a conference area or the tower I guess you call it.

Mr. Green said we do sort of currently think of that as a unique conference space not too dissimilar from the one at the Town Center.

AGENDA CHANGES

Commissioner Bales moved Item 9.D to 9.B and then move Item 9.B to 9.D. We are leaving 9.C alone.

Commissioner Bales made a motion to adopt the agenda as amended.

Commissioner Walsh seconded motion.

Motion carried unanimously.

PUBLIC HEARINGS

Mayor Aneralla recognized Planning Board members present: Frank Gammon.

Petition #R21-06. Mayor Aneralla called to order public hearing on Petition #R21-06, North Creek Village Mixed-Use, a request by Magnolia Development, LLC to rezone +/- 84.00-acres south of the NC 73 and Davidson-Concord Road intersection from Rural to Highway Commercial and Traditional Neighborhood Development - Conditional District for a development consisting of 42,500 commercial sq. ft., 303 multi-family units, 65 attached units and 77 detached units (Parcels: 01107311, 01126101 & 01126113).

David Peete, Principal Planner, entered the Staff Report into the record. *Staff Report and Staff PowerPoint attached hereto as Exhibit No. 2.*

The property in question that you see in the black shading is located south of 73 where Davidson-Concord Road comes into NC 73.

The project on the west side abuts Black Farm Road and it does not abut any roads on the east side as it is presented. The red dash line that you see running through here is a future thoroughfare. You can see that as the extension of Davidson-Concord Road moving south. Overlaying some aerial, you can see a little clear, the pink line moving through the middle of this, that is the future thoroughfare. Of course, you can see some of the existing Black Farm, Ramah Church over here, and then 73 there. This does represent the northern boundary of Huntersville in this particular location. The request is for just a smidge over 84 acres. It is all in the area in yellow. It is all currently zoned Rural district. The proposal is to rezone to two zones – Highway Commercial Conditional District and Traditional Neighborhood Development Urban, which is a distinction, would also be indicated. The proposed use, as summarized by the Mayor in his introduction, is for 303 multi-family apartments, 65 attached units (townhomes) and then 77 detached units, as well as 42,500 sq. ft. of commercial. The area in yellow and those uses put together would have a density of 5.3 units for this proposal.

When you look in the 2040 Community Plan and the land use pattern that's going on, that I think is very important for the Board to understand is that there is already an approved project that is well over 10

years old. It was approved under the name of Huntersville East. It is now being developed under two, it's split, and you have what is North Creek Commercial and North Creek Residential. The commercial part is located here and again, for orientation purposes, north is now to the left, so this commercial area here will have a grocery store and then several outbuildings that will be commercial in nature. Behind that are townhomes and then some single-family homes. Again, the areas in white in the middle are approved. They are vested and they are moving through the review process and should be breaking ground relatively soon. We are talking about the yellow area, but what I've got right here is to show you that what do these two pieces together represent and that will lead into the Community Plan discussion.

You can see at the top, the Huntersville East Project, which was about 60 acres, has the ability to provide 181,000 sq. ft. I don't believe that that is what's being proposed, it's shy of that, but that would be the max. Then you can see there are 89 attached townhomes and 36 detached. You've got 125 total units for a density of 2.

One of the rationale that the Board used, as well as the Community Plan back in that day, was that all of the intensity and density, the commercial, was up at the intersection of 73 and Davidson-Concord and the future thoroughfare running south and then as you moved away from that intensification, you got into townhomes and then you stepped down into single-family, and so by the time you got down to the outer edge of the project where the creeks come together, you would almost approximated the Rural zoning density and so that is sort of the land use philosophy that lead to the approval of that project.

In this particular project, the 84 acres, you now are adding to the 181,000 possible square feet, another 42,500. That's not a significant amount, but when you add it to the whole, you can draw your own conclusion on that. The additional apartments will be 303 apartments and then you would have 65 townhomes, 77 detached, so now you've got 445 in total for the area in yellow. And then at the bottom you can see where everything comes together……..224,000 sq. ft. in total, 303 apartments, 154 attached, 113 detached, for 507 total units with a density of 3.96. There is a fair amount around the two creeks of area that is really undevelopable, so there's some open space there to help.

Let's look at the 2040 Plan and try to tie these together. You can see the red oval represents approximately from the western edge of Black Farm to down to where the creeks come together to splitting the difference almost to Ramah Creek, which is right about here, all the way up to 73 represents the site. Within that, you can see that there's a circle which denotes an activity center. The definition of an activity center comes from our 2040 Plan and it basically speaks to a compact walkable mixed-use center that moves it in terms of intensity it steps down as it gets to what's around it. On the left you can see the synopsis of what rural conservation is. I just mentioned that all of the area around this 84 acres is zoned Rural, as well as the 84 acres in question. The 2040 Plan calls for this area to stay Rural in nature. Our Zoning Ordinance allows for 0.9 units an acre, a lot of open space, very limited or no opportunity for non-residential. But the activity center that is called for very specifically really encourages mixing all kinds of housing types, all kinds of commercial, office, etc. Focusing in that area right there at those future thoroughfares where they are coming together is absolutely supported by the 2040 Plan. I think the distinction becomes sort of the rest of the elements, the intensity, and how are they transitioning down to the Rural. Those are going to be kind of the comments and the questions that we'll have as we go forward. This is really just a blow-up. You can see that the activity center as the 2040 Plan calls for is really looking for about 40,000 sq. ft. of commercial. I mentioned that they are proposing 42,500 sq. ft., but remember that the activity center already has quite a bit. That's background information. It's not before you, but it has a relevancy.

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I just wanted to sort of do a quick breakdown. This chart in the middle is the one that I just went over with the three components – the old project, the vested project, the new one before you, and then the total. What we thought we would do is sort of go around and break down the project into some smaller subareas. The blue color here is the vested project and this light green color here or yellow is also vested. You can see the callouts of where their densities are. You can see that you went from 4.9 almost 5 up here, down to just barely over 2 and again as I mentioned around the edges you would be at 0.9, so it was moving in a good direction.

The project here if you look on Black Farm Road, you are over 2.5 located in the pink, which is mostly single-family and some townhomes along the creek. You get into the orange area here and you've got some single-family which is right at 1.5. Again, less than its neighboring project that was approved and then you get to the townhomes, you've got 2.7. Again, remember that there are some creeks in there that are helping with the open space. I think it's safe to say that the pink, the blue and the orange are really not pushing boundaries too much. They are coming away from the activity center. I did fail to mention previously that you could see that there is a circle that is drawn in here. That's the approximate illustrative boundary of an activity center, but it is by no means the borders of property and it was not drawn that way. It is an approximation and it can morph as a project were to come before you. But what are the subzones that you need to take a stronger look at is where the apartments are. The apartments are almost 17.5 units per acre. For an apartment project, I think that's a sliding scale of whether that would be a problematic density or not, but the point to make here is while it is within that activity center circle, it is right on the edge of the rezoning potential and you've got Rural over here at 0.9. That's a pretty jarring transition and if that type of density next to each other is going to be palatable, then I think what the Community Plan would want is good buffers and good transitions. And there's a lot of ways to do that. You can do that with distance, you can do it with something like buffering. We talk about tree save, landscaping, etc., so there's a lot of ways that we can explore doing that and staff is doing that with the applicants almost on a daily basis.

I do want to point out very clearly that there is no development on the east side of the creek, so it would be set aside as common open space. We would hope that it is purely undisturbed and tree saved. That is not clear, so we would ask that the applicants clarify all of that. I do also want to point out that the distance from the edge of the property that's proposed to rezone to the first apartment building is over 230', so again you do have some distance. Hopefully, there will be some vegetation and some non-development on that edge. The question I think that the Board will still need to work through is 17 units going into 0.9, is again a significant number.

Moving forward, I just wanted to show you that the vested project is just over 2 in its totality, because again the commercial is not representing any units. There are not a whole lot of other projects in the immediate vicinity, but you do have some residential projects and they have mostly stayed close or not too far from the TR or the R. You've got right there at that 1.5 or under 2 is about what you are seeing in the vicinity of this particular project.

As far as transportation goes, the TIA is really still in the works. There has been review by our staff and we understand that there will be an updated version coming in probably today or tomorrow, so we do not have a detailed report to share with you about the TIA, obviously very critical. But the project as you can see, it only has access to 73 or to Black Farm as proposed. There would not be any connectivity to the south or to the east as it currently is proposed or stands. There are some stubs and we could go through that for future development, but the lion share of all of that development is going to be going to two locations.

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The CMS report is shown here. This is the third version of the plan and I have reached out to CMS from the first one to this one, so this is updated as of today. I will tell you that the needle didn't move much from the first version to the third, so that's not really relevant to say, but you can see in the gray box this is really I think the only one that distills down is this is the impact to the surrounding schools that this project would be served by. That's information for you.

The recommendation here is that we are offering tonight the issues at hand and some of the key components that we need to address. We are not making a recommendation at this point because we've had a lot of conversations since the preparation for tonight's hearing and as you all know we have a lock-in period with the plan set and so we can't make changes leading up to tonight, but we have had that dialogue. I've been working with the applicant. I can tell you that many of the initial concerns have been removed, but we still have some that we need to work through. The applicant during their presentation may shine a spotlight on some of that. But we are not offering a recommendation tonight because I don't believe that we have even their final version of the plan in front of us, but we again are happy to try to answer any of your questions.

I just want to quickly move through sort of the areas of concern at the moment. I've already given you sort of the larger overarching concerns about the 2040 plan and the consistency there, and then we will go into some more site specific, if you will. I do have some blow ups here that we can refer to as needed. They basically just represent a break of this would be the northern area and this would be the southern area and I can help define those as needed.

One of the issues that I've already touched on is sort of those buffers and what is proposed, the nature of them. The buffers in the yellow represent 50' of technically a buffer. That does not mean that is the only separation between the adjoining property and the proposed uses, but it is defined that way, so it is a 50' buffer in the yellow. The orange is a 40' buffer and the pink would be a 30' buffer. Again, very clear, they are over the minimums that the ordinance would ask for at 20', but again moving into are they in the appropriate places and the top box also speaks to the nature of those buffers – are they disturbed, are they to be replanted, these types of questions need to be clarified.

The TND-U that's being asked for for the apartments specifically, well all of the residential is looking for this zoning designation, and to be honest, the single-family down to the south doesn't really need the TND-U, but I think for simplicity sake they were looking to keep everything together. They are looking to have about 83 percent attached units. As you know, our ordinance would normally look at about 30 percent. To get to a TND district, you see the definition there, you are looking to provide a neighborhood which is structured on a very fine pedestrian-friendly network, very interconnected, the streets and the public spaces, the walkable, as well as the automobile, are all given equal footing. There's a mixture of housing types and prices. There's civic community buildings right next to stores, offices, workplace, etc. This balance of uses in this mix, which is very important to that zone, I think one of the questions before the Board ultimately will be has that been achieved, is that being represented in what's proposed.

There are some issues with the block lengths and the average perimeter of all of these blocks due to the way that they do or do not have public streets, it's kind of the way they are calculated on a block level and so we've seen quite a few variations on this and we need to see a little bit more to conclude where they stand and then we can weigh in on whether they are complying with the aspects of that zone.

Just a couple of other items here. Building elevations are something that we need to see through the TND-U and the CD rezoning is typical of what the Board wants to see, and so we would not necessarily

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need to see single-family housing, but for the commercial, the multi-family and the attached units, this is something that we would normally have provided. There are a few illustrative plans that we have been shown and I believe the applicants may show them tonight, but to see each of the public street frontages is something that we are still looking for or at least something that's very typical of what they're all going to be.

There are some alternative frontages that are being proposed and what that means is, as you know our ordinance compels for the buildings to be on a public street, but we do allow alternative frontages on urban open spaces. A greenway has been batted around as three of the apartment buildings would front on a greenway, but the set-up of that greenway is not quite there as we would interpret and recommend to you, but we've talked to the applicants about it. I think that they are looking to do that to a satisfactory degree and so we expect that will be a non-issue, but again speaking to what we have before us.

On-street parking is required. The apartments, the townhomes, and any of the lots under 50', these are situations where they are going to need to provide on-street parking and they don't have an on-street parking cross-section. In several sections there may need to be some augmentation to the plan.

The parking lot screening, again this just can be noted away, but wherever you've got a parking lot of any size on a public street, it needs to be screened. I believe the applicants are very willing to do that. It just needs to be noted as such.

I've already mentioned the alternative frontages, I won't belabor that.

The pedestrian circulation. Again, going back to why is the TNDU there and what is it trying to create. And so making sure that pedestrian connections are in the right places are creating those networks aren't putting you into the middle of a large parking field, it's just sort of abandoning you – completing the loops as it were. All of that is very important. In the commercial areas there's a lot of drive-through areas that are quite confusing and a pedestrian flow is not present through there. But these things can be provided, so we are working with the applicant on that.

There is a cell tower that currently exists on the western portion of the project and typically we would see a 200' setback from a cell tower, we just went through this with a project on Eastfield Road, however they are not proposing to provide such a setback. I believe that they would be offering up an ordinance modification to you. We don't have that, but if they are able to provide that the tower was engineered to collapse upon itself and their setback is reasonable to the height of the tower, then I think that's probably a modification that we could be supportive of, but we need to see the details on that.

The rezoning plan notes. This is something that I wanted to touch on. There are a couple of notes in the plan that speak to the sketch or illustrative nature of the rezoning plan that it's really a best informed assumption of what they are going to do, but there could be changes. We all understand that minor adjustments, adjusting the tie-in to a neighboring street, grades, things like that, these things definitely happen and we know that, but the note is a little too broad and you can see in the Staff Report that it really is a very all-encompassing type of note such that uses can change, uses can shift around and when we are talking about buffers and transitions in very specific places, that becomes a little problematic to just sort of say we're okay with A becoming B and B becoming A. There could certainly be areas that might be more clearly defined that something may be internalized, it doesn't have any external implication, if that's the type of thing that maybe could be changed up. I would like to see that there's

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more of a comfort level with what the applicant is envisioning, but we will continue to have that conversation as well.

There are a few lots fronting on a BMP that is located in the southern single-family portion of this project and it is a very tight area in between a loop road and that area, again from what we are seeing at this level without the full plan, looks very difficult to put in the maintenance that it might need, as well as any kind of screening or landscaping that would make that more palatable, otherwise we are going to have half of the single-family homes fronting on a BMP. Now BMP's can be done, I'm going to say in an attractive manner although obviously that's subjective, but we have a strong concern about what that is. However, the ordinance certainly doesn't prohibit you from creating a situation that's not attractive for the homeowners, but we would recommend because this is a conditional district, that hopefully we could work out a solution and the applicants would be agreeable to that.

Lastly, you can see here there are some redlines that are just drawn and some approximate locations, but the point is and it's not looking for two, the recommendation is just that this is a very large residential area here and this is a large one, too, that runs off of the page and linking those two areas together with a pedestrian connection, not a street, would be a recommendation just to tie this in to make it one cohesive project.

This is just showing you on the upper left you can see one of the first versions of the apartment development and you can see that one of the things that I wanted to illustrate was sort of how you could see that there was a public street down the middle and this is creating clearly a compact-type pedestrian friendly situation. Certainly, you would have to do a lot more screening of the parking facilities out on the thoroughfare which could be done, but I'm just offering that up as you sort of look through the TND district and what it looks for, because the TND is not a district that becomes you very often, so I just wanted to sort of illustrate what's possible.

We'll come back to the schedule in just a second and the applicants have their presentation. Are there any questions about the project at this point that I can help clarify.

Mayor Aneralla said the applicant has a presentation I assume.

Susan Irvin, representing the applicant, said I appreciate the 15 minutes that we have and we will try to stay well within that and we will stay well within that. The first thing I'd like to do is introduce the team. Up here we have Brian Jenest and Sean Paone with ColeJenest & Stone, Ramey Kemp with Ramey Kemp, and we also have Steve Vinson with Magnolia Development. I'd like to ask Steve to come up and just introduce the project, then we will have Brian Jenest talk very briefly about the land use plan and Sean Paone will go into detail about the revised site plan.

Mr. Vinson said our work on the plan that is before you has been ongoing for roughly the last 18 months. The plan has changed a lot as we have explored it internally and as we explored it with staff and received their comments. I think we'll show you tonight in the course of our presentation that we've come a long way toward addressing it might be all of the items that David pointed out as remaining open.

As David told you, Phase 1 was approved back in 2009. I've personally been working on it for about 5 years and we are excited now to be finally underway and looking forward to welcoming Publix Supermarkets to Huntersville next fall. Our goals for Phase 2 of North Creek Village were to make it a walkable, mixed-use, thoughtfully designed extension of Phase 1 with a variety of housing types and

done in a way that's consistent with the Town's Comprehensive Plan. I think our team has done a great job of accomplishing those goals and I hope that you will agree after we finish our presentation.

Brian Jenest said I'm just going to quickly acknowledge what David Peete has just said about your 2040 Plan and how it complies with what we are proposing. Obviously, there's history around us with the existing plan that Steve just mentioned, but the North Creek Village is located within an activity center, as we have all talked about. Here are some notes on the goals of the activity center, to create a vibrant pedestrian accessible mixed-use area, which I hope you have seen we are in fact providing and there is a location of the activity center and here it is in the macro and then I wanted to show you again just some images of the improvements to Highway 73. Obviously, we all know it's going to become more of a highway than it is today and again it's importance to this piece of property right here. Here are just a few other images of that expansion. Again, transportation is a big piece of what we are talking about.

Ms. Irvin said I won't dwell on this other than we went back and looked at our notes, and our initial meetings we began with the Town in July 2020. We've been meeting consistently since then. We filed the application on April 1. We were planning to come before you at the public hearing on the 16th of August. We got second round comments on the 11th and we asked for a delay of that public hearing so we could address those and we've been able to meet twice with staff and had numerous conversations with them to arrive at the changes that we are presenting to you tonight. The main thing that we want to do is just go over those revisions a little in detail. As David said, he is only allowed to comment on the plan that was submitted before the August 16 public hearing. We are going to spend our time tonight updating you on where we are after our work with staff.

Mr. Paone said I'm going to go through the site plan again just briefly, as well as some of the revisions made based in response to some of the Staff Analysis comments. This is the orientation, again moving from north to south. I'm going to actually change the slide, so just to reorient we are now looking from left to right as north to south. You've got Highway 73 on the western side of the plan. Black Farm Road is now on the south side of the plan sheet and then kind of moving through the uses proposed on the site plan, up again, 73 you've got our focus on the commercial section there which is a little harder to see here, but it's in darker orange. You then transition to the multi-family site here, which is kind of slightly less dark orange than what the commercial was, which again is in direct relationship to the higher commercial use proposed in Phase 1 of North Creek, which is as Steve said, currently under construction. It just broke ground not long ago.

As we move further south you transition into the townhome section here and then transitioning into the single-family detached which is comprised of 50' and 60' wide lots. Again, moving kind of around the plan with a connection to Black Farm Road with the detached single-family in that location as well, in order to be more consistent with the adjacent land uses. Just pointing out some connection points, we have several connection points to Prosperity Church Extension, which is kind of shown in between Phase 1 and Phase 2. The proposed connection points currently align with what was shown in Phase 1. We also have multiple street connections for [inaudible] traffic, linking all the different uses between commercial, multi-family, the attached residential and single-family, as well as two additional connections into the Phase 1 single-family at the south end of the project, just north of that cul-de-sac in Phase 1, as well as the connection along Black Farm that comes into the existing Phase 1 townhome section behind the Publix.

Kind of talking through some of the site plan modifications that we are proposing, again after the August 16 date in response to staff comments, we generally kind of looked at those and broke those down into four main categories. You had pedestrian connectivity, again kind of in response to the TNDU, and as

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part of that this is really showing a lot of the modifications that we are proposing here, but we broke up the center parking field within the multi-family section to allow for connection from Prosperity Church Road Extension through the multi-family area to be able to connect to the proposed greenway, as well as making horizontal and vertical connections through the multi-family and commercial areas to be able to link the proposed residential all the way up to the commercial on 73. As part of that additional pedestrian connectivity, one of the things I forgot to mention, this is Ramah Creek. There is a proposed greenway plan and as part of our proposed improvements we have an internal greenway connection that would actually link the Ramah Creek greenway all the way up to the commercial area. It's a little harder to see. It may be easier on your plans to see – it's a green dashed line that actually connects through. There are actually two locations….it comes up from Ramah Creek up to the commercial and then also from the Ramah Creek Greenway to the Black Farm Road section.

One of the other questions that needed clarification was the proposed buffers and I actually have a cross-section to illustrate a little bit more of the separation from the multi-family to the existing adjacent residential, but as it relates to the plan, David mentioned that we do have three, actually four, different buffer types. The minimum requirement is the 20' buffer that is going to remain undisturbed along the property boundary all along the existing adjacent residential. We've actually increased that to 50' in the higher intensity areas of multi-family and townhomes. We've got a 40' on the southern section here adjacent to the residential and then 30' along the property that is adjacent to Black Farm Road along with a 100' buffer at the intersection here where the internal street connection links to Black Farm Road. As part of that, some of the feedback that we heard from the community meeting was kind of making sure that there wasn't going to be this cross-connection of the proposed development into the existing adjacent residential, so we are proposing that any supplemental landscaping that's provided in those buffers prohibits or kind of deters people from actually crossing to the other property, making it more of a physical barrier and so that's going to happen anywhere outside of those adjacent boundaries. One of the other comments made by staff was we are showing a 10' path on the backside of the three multi-family buildings and whether or not that's actually comprised of the requirements for a greenway, so I mentioned we're actually adding a second more in keeping greenway path that's in the natural area that will have a pedestrian connection through the multi-family area to that main linkage down to the Ramah Creek Greenway. And then the last kind of primary identification was there were several notes that needed modifications. We are proposing modifications to those notes that Susan has provided to the Town for review and I think those are going to address the staff's comments.

The next one is we've got several conceptual perspectives, just going to kind of run through. These are to give a visual identification of the connection of the greenway, which is shown to the left side of the image. This image is actually being taken from the commercial just outside of Highway 73 at the kind of northeast property boundary. You can see identification in the bottom righthand corner. The point of that triangle is kind of the view corridor that we are looking at, so you can see this greenway connection coming linking the multi-family into the commercial area. The next view is taken actually from 73 looking back, again maintaining a lot of the existing vegetation with that stream section that David mentioned adjacent to the multi-family, as well as you can see that greenway path coming through there, but again trying to maintain a lot of the existing vegetation creating that natural buffer and separation between the multi-family and the adjacent residential.

Lastly, this one is taken from the intersection of Prosperity Church Road Extension and 73. Looking back from the commercial you can see the double row of street trees, a wider pedestrian connection path linking down Prosperity Church creating that connection between the commercial and the proposed residential uses. Again, there were a couple of questions about what the greenway may look like, what the storm water BMP that's related to the single-family residential units, as well as a little bit more

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description on maybe what the multi-family would look like, so we are proposing these precedent images. Again, a wide multi-purpose path. These ones on the left are related to the greenway, so you can see a wide multi-purpose path, a lot of existing vegetation. You've got the potential to do these park swing elements there to create a more of a pocket park, as well as this lower section here, again more kind of seating areas, stopping points, areas of interest along the greenway. The center three images are examples of a landscaped BMP area, whether or not it functions more as a rain garden or an enhanced swell area, these are all giving you examples of vegetated areas that both not only meet the requirements from a storm water BMP standpoint, but also aesthetically pleasing to the adjacent uses.

These on the right side are examples of the multi-family, again creating pedestrian linkage connections between the multi-family buildings to the other pedestrian connections on Prosperity Church Road to the greenway, the corner condition here where a building may abut up against a street intersection and these kind of pedestrian connection points here between uses. And then the last one is the cross-section that I mentioned. On the west side you are looking from the multi-family building to the closest residential use, so this is the multi-family building adjacent to the proposed greenway, so currently from the edge of that multi-family building it's 236' to our property line. You can see this section here is actually that existing stream. There's 127' of stream buffer and vegetated area associated with that. To the actual first structure that's closest to the multi-family, it's an existing barn, and it's actually 571' away; to the actual primary structure of the house, it's 952'. That's closest to the nearest multi-family building being proposed.

Ms. Irvin said lastly, I would like to go over the IMPLAN results. We've talked about this IMPLAN program before. Lake Norman Economic Development Commission and a lot of universities and towns use this. It shows various benefits and these are limited to just Huntersville, although we can expand benefits and look at Mecklenburg County. This is the number for the construction benefits, operational benefits. The last slide I'd like to end with is the property taxes showing you that the taxes to Huntersville only are about $6,000 with the vacant land and they will be over $300,000 a year at the property value of $129 million. More importantly, the taxes to the county will be about $800,000 at this valuation. One of the questions raised is school impacts. Although not relative to zoning, it's important to know that when you have a mixed-use development like this with commercial and other uses, that $800,000 every year can go to help towards schools and actually more benefit than detriment as far as this project goes.

Commissioner Phillips said I was curious with the commercial, have you guys lined up anybody yet or any talks, I know that's probably pretty preemptive.

Mr. Vince said no, we don't. At this point we don't have tenant commitments. We've designed the plan in a way that we think works for a variety of retail and restaurant and commercial users, but we don't have any specific commitments at this point.

Commissioner Phillips said price point. Is there going to be any affordable housing components to it, maybe senior housing, anything like that. Not Section 8, which is a different ballgame.

Mr. Vince said no plans specifically for senior housing. We have not contracted with a builder yet, so we don't have any firm commitments on pricing.

Commissioner Phillips said if this passes, this is going to increase the population on that side of Huntersville tremendously. I know we can't make requests, but something to consider as a good neighbor in the community, perhaps if this passes you guys could provide maybe a satellite office for our

police department, because that will add more patrolling for them. That's really the only comments I have for you guys. As far as the stubs, I hate stubs. I think they are ridiculous. I don't know if it's a Town ask because the people who back up to you guys, they don't really have any intentions of selling right now, correct.

Mr. Vince said as far as I know.

Commissioner Phillips said that has got a great tree save. I don't know, maybe something for Planning to consider are those two stubs, why even build them out, just let them be trees, green space and then one day if the people who own the other land want to sell, they sell. But I think something I ran into and it's not you guys' fault, I know the rules are the rules are the rules, but I think that you guys are trying your best with the green space right now and maybe that's something the Town could work with you on.

Mr. Vince said that's a comment we have received from others, and we are certainly open to it. We are happy to dedicate the right-of-way and plant the area that would be stubbed or leave it undisturbed. I think that's an ordinance thing we would have to work with staff on, but we are certainly open to it as a developer.

Commissioner Walsh said you mentioned the multi-use path by the apartments and then you said there will also be a greenway, I guess it would probably be to the east through the woods. We are talking about a paved greenway, correct?

Mr. Vinson said correct. The idea was to have a path on each side of the stream with a pedestrian bridge that would link the two.

Commissioner Hines said Mr. Peete, you had mentioned about the TIA was still being reviewed. Can you give us an update on that.

Mr. Peete said depending on how far you want to go into the details, Stephen Trott is here, but again he's seen a version of it. Adjustments have been made. I don't want to get too far out of it, but I think the TIA was trying to serve the Town and maybe DOT at the same time and I think that they are changing their tack a little bit. Certainly, DOT is going to have their say, no question, but I don't know unless Stephen offers differently, I don't think there's anything we can say about the TIA tonight.

Commissioner Munger said this might be a question for staff to start off with, but you had mentioned and maybe I misheard it, that there were some homes fronting on the BMP and I'm not seeing it here.

Mr. Peete said if it hasn't changed, this area here in between the circular road is a BMP, and so all of those homes in that southern half of the single-family would be fronting that.

Commissioner Munger said I thought the blue is BMPs, but I do see that now. In terms of the apartments, no on-street parking, is that something that can be modified.

Mr. Paone said we actually have a street coming through right here that these are fronting on. That does have on-street parking, as well as the one that runs in between the commercial and the multi-family on this side, that also has on-street parking. It would be difficult to add on-street parking on Prosperity Church Extension, so that is basically just a setback that is going to have a landscaped wide

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area there and the frontage with a pedestrian sidewalk, but that modification says associated with the attached residential that there will be on-street parking in front of those units.

Commissioner Munger said staff made a comment about the possibility of putting in a pedestrian creek crossing. Is that something that you guys would be willing to do.

Mr. Paone said I think it was directly related to the section here, but I think there was also a callout in other areas. We do have the pedestrian crossing here that links the multi-family to the proposed green area that we are showing here, but the staff they put those two red lines on the plan, so we do have this connection here and then we do have this other connection into the Phase One section. I think that's where we have identified that that would be the connection points.

Mr. Peete said you have the potential for a connection here across the thoroughfare, here across the thoroughfare, and then another one across the thoroughfare and then this single-family connects into this single-family, so there's a lot of good from the center to the east and so the recommendation was simply that all of this down here is only connected right here and so again not looking for a street, but thinking pedestrian connectivity made some sense, but purely recommendation.

Commissioner Munger said I'm just curious if you would be willing to address that and put in an actual not a road, a pedestrian crossing.

Mr. Vince said we are proposing that on the greenway to the plan north adjacent to the apartments, I guess that's something we could……..it's not something we have studied on the Black Farm rendering of the project, but it's something we could look at.

Mr. Paone said we do have a parallel greenway extension that comes along that creek section, but not directly going across right now. We're happy to review that.

Commissioner Boone said how are you going to address the cell tower.

Ms. Irvin said I guess one of the things we've been working with staff is trying to find the information about the cell tower, because it's been there a while. It is 90' high, so a lot of cell towers now are much higher than that. The staff found us that information. Once we had that information, we worked with staff on a modification that would allow a distance equal to or greater than the height of the tower between the tower and residences.

There being no further questions or comments, Mayor Aneralla closed the public hearing.

Petition #R21-11. Mayor Aneralla called to order public hearing on Petition #R21-11, a request by Trinity Capital Acquisitions, LLC and Mike Clapp to rezone 23.14 acres from SP-CD to CB-CD at 10695 Hambright Road (Parcel 01740104).

Jack Simoneau, Planning Director, entered the Staff Report into the record. *Staff Report and Staff PowerPoint attached hereto as Exhibit No. 3.*

This is a request by Trinity Capital Acquisitions. The property is 23 acres. It's today zoned Special Purpose Conditional District and the site is on the northwest corner intersection of Hambright Road and Mt. Holly-Huntersville Road and is just south of Burkert. It's across the street from some commercial on

the other side of Mt. Holly-Huntersville and then on Hambright Road there are some residences and vacant land and also a power line through that area. A portion of the tract is also wooded.

The Huntersville 2040 Plan calls for this area to be an employment center and so this proposed rezoning is consistent with that. What you see on your screen is included in the agenda packet Staff Report, but I wanted to highlight the existing, current zoning plan as Special Purpose Conditional District, it's kind of indoor and outdoor recreation, as well as all uses in the Corporate Business district. It has 225,000 sq. ft. of building. The proposed rezoning now is going to go to Corporate Business Conditional District. They are asking for a 40' parking setback modification. There is a case on your agenda later on tonight for Text Amendment TA21-10. If that is approved, that will already give them the flexibility that they need and they wouldn't need that special permission. They are also looking to impact the SWIM buffer that drains under 50 acres and that will require a text amendment which is found under TA21-13 and that case will be heard at a public hearing on October 4.

Just to make sure we are all talking about the same locations where the modifications are being asked, this is the site. Hambright Road is the long road that the building is front and so one of the modifications they are asking for is to go from 80' down to 40' in this area. Again, a text amendment later tonight would give that permission. It will be landscaped per the ordinance. The other thing that they are looking for is at the back of the building in this highlighted area here is an impact on the SWIM buffer and so there is a text amendment that would allow an impact on that SWIM buffer with a conditional district rezoning and then they would have to mitigate that impact as well.

Commissioner Bales said prior to this being zoned SP, it was zoned Commercial Business, correct.

Mr. Simoneau said Corporate Business, that's correct.

Commissioner Boone said during the Neighborhood Meeting the representative from Burkert, I think her name was Ms. Norwood, asked to be informed of the production scheduling and the water run-off, has that happened.

Mr. Simoneau said I don't know if the applicant has any update, but Burkert, which is located just to the north of this, did ask to be in the loop on that and hopefully the applicant can address any conversations they might have had with Burkert on that particular issue.

Commissioner Boone said I think being a good neighbor, I think that would be ideal for them to do that.

Cindy Reid, Irvin Law Group, said I'm here to talk with you about TCA Hambright industrial zoning. Jack has done such a good job that we won't go back over everything that he said, but I would like to introduce you to Sherrie Chaffin and Massie Flippin from the Trinity Capital Advisors Group to tell you a little bit about their projects and about their company.

Sherrie Chaffin, Trinity Capital Advisors, said the project, as Jack mentioned, is something that we are passionate about and excited to develop in the Town of Huntersville. We focus as a company on office and industrial and we're excited to take advantage of the robust industrial demand that we have right now and bring some jobs to the Town of Huntersville. I'll let Massie speak a little bit more about Trinity Capital.

Massie Flippin, Trinity Capital Advisors, said I don't have a whole lot to add. I just wanted to make sure everyone was aware that we are very much focused on quality development and attention to detail and

thoughtful development as it relates to how our company operates. We've been in business 20 years, developed and acquired roughly 23 million square feet. Through those years with my partners, 100+ years of experience, 20 years personally of doing just this type of development. I think we've really been able to hone in on what companies and employees want in environments and how to make them a little more special and we try to set the bar when it comes to quality of developments and not just deliver mundane projects. We are looking forward to this one being yet another high quality development.

Ms. Reid said Sherrie is going to go over a few slides that they have so that you can see a prototype of what their products look like. *PowerPoint slides attached hereto as Exhibit No. 4.*

Ms. Chaffin said on the screen you will see some of the examples of our industrial development across the Carolinas. As Massie mentioned, we try to do a little bit more and focus on quality, from the architecture to the landscaping and hopefully that will serve us well here in the town of Huntersville.

This is just a brief location overview. Surrounding land uses – Burkert as Jack mentioned to the north on the slide. We've already talked about the 2040 Plan. One thing that I think was important to point out, we will have industrial traffic with the trucks coming off of Mt. Holly-Huntersville, the car traffic will come off Hambright, so those will be segregated and I think that came up in a question in our Neighborhood Meeting. And then going back to the question I think a commissioner had with respect to the Neighborhood Meeting and the question from Burkert, we did answer the question about the storm water and the run-off and how that would be designed to the satisfaction of the Burkert folks. I think we are set with Diane on that.

Most of these slides are fairly redundant as far as what Jack had already mentioned with the text amendment.

Ms. Reid said this is an example of an existing stream on the site. I don't think that Jack's presentation had any actual pictures, but this is just an example of what the perennial stream looks like onsite. I would like to enter this into the record. I won't go over all of this because Susan just went over this in her last presentation, but this is a program that we use to show the economic benefits to the Town and it's used by the Lake Norman EDC and a number of cities around the country. These are the type of benefits, you've heard this before, so I will not go over it again, but the basic line is that the benefits to the Town from the construction of this industrial center are just shy of $21 million and the taxes are $28,000.

Commissioner Bales said in the Staff Report under the Transportation issues, there's some confusion, is this going to be warehouse space or flex space.

Mr. Simoneau said it was requested there be additional follow-up between Engineering and the applicants to make sure we fully understand what the use is. That has occurred. It is clearly warehouse with some minor office, so that has been addressed.

Petition #TA21-13. Mayor Aneralla called to order public hearing on Petition #TA21-13, a request by Trinity Capital Advisors to amend the Zoning Ordinance allowing the Board of Commissioners to approve modification of a SWIM buffer in the Mountain Island Lake Overlay zone through a conditional rezoning process in the Corporate Business zoning district.

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Commissioner Walsh made a motion to continue the public hearing for Petition #TA21-13 until October 4, 2021, at 6:00 p.m. to be held at the Recreation Center.

Commissioner Munger seconded motion.

Motion carried unanimously.

Installment Financing Contract. Mayor Aneralla called to order public hearing concerning the approval of an installment financing contract with Pinnacle Financial Partners in a principal amount not to exceed $8,400,000 for the purpose of achieving debt service savings by refinancing existing installment financing contracts, the proceeds of which were used to finance and refinance the costs of various facilities in the Town, including the Town's police facility.

Jackie Huffman, Deputy Town Manager, said we introduced at the September 7 meeting the idea that we would refinance three pieces of debt. We talked to our financial advisor. They had a very public process and invited 50 firms to offer proposals to refinance debt on our installment financing contract. An installment financing contract is comparable to a mortgage. On the installment financing contract we have at the Police Department, our current debt is issued with First Community Bank at 2.75 percent. The low bid proposal was to replace this with an installment financing contract at 1.25 percent interest. The term of the debt does not change, so it will be outstanding through the end of December 2031, but at that lower interest rate. Our net present value of our estimated savings is $229,000.

Anthony mentioned earlier tonight that we have the opportunity to refinance the limited obligation bonds (LOB's). It's currently outstanding at an interest rate of 1.775 percent. The interest rate would drop to 1.139 percent. Again, no change to the term, so the debt will be outstanding for the same length of time, but the estimated net present value of the savings on that debt will be $413,000. Those are the two items that you need to have a public hearing on. You are not required to have a public hearing on the General Obligation debt, but because that's an item on your Consent Agenda, I thought it was worthy that we would include that and show you that the proposal is that we will refinance that debt. The interest rate will go from a true interest cost of 3.2 percent to 1.6813 percent. That will save us an estimated net present value savings of $337,000 over the remaining term of the debt, which will pay off in June of 2033. We will save almost $1 million on these three items.

Mayor Aneralla said no prepayment penalty, right.

Ms. Huffman said that's correct.

There being no questions or comments, Mayor Aneralla closed the public hearing.

OTHER BUSINESS

Petition #R21-09. Petition #R21-09 Caldwell Crossing Mixed Use, is a request by CapRock LLC to rezone +/- 38.1 acres East of Old Statesville Rd, Caldwell Station Rd, and South of Mayes Rd from Corporate Business and Transitional Residential (TR) to Traditional Neighborhood Development – Urban Conditional District (TND-U-CD) for a mixed-use development with commercial, apartments, and townhomes; (Parcels:01103103, 01103204, 01103205, 01103206, 01103207, 01103208, 01103209, 01103210, 01103211).

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Brian Richards, Assistant Planning Director, entered the Staff Report into the record. *Staff Report and Staff PowerPoint attached hereto as Exhibit No. 5.*

This project we went over a few months ago. It's a conditional district rezoning from Corporate Business and Transitional Residential to TND-U-CD. The project contains two multi-family products, a market-rate apartment complex, an age restricted complex as well as townhomes on the perimeter, and in the southwest corner there's some commercial.

They are asking for three modifications. The first is a footprint increase modification. That's limited in the TND district. Staff is in support of that. The last time we met we were working with the applicant on solving a side yard parking modification. We have come to a solution with that. The applicant has offered to move their garages 50' back from the right-of-way and install garages as opposed to surface parking and evergreen screening. Staff is in support of that modification request.

The third, which is a new request that came about during the Planning Board, is a buffer disturbance modification request. As we know, buffers on the perimeter are to remain undisturbed. Due to solving a problem in the northern part of saving the buffer in that area near the historic school and church, they've shifted grading plans south which then impacts the grading for the thoroughfare adjacent to the WDAV radio tower. They have offered to replant that buffer at the rate prescribed in the ordinance and with all that being said, staff is in support of that modification.

They've provided staff with elevations and perspectives, as you can see here. Staff is in support of this. There's a laundry list of TIA requirements. The highlights being a new signalized intersection across from Coach Lane, the closing of Mayes Road and Caldwell Station Road. They will also be offering to build as a part of this a roughly quarter-mile of the Church Street minor thoroughfare as well as a quarter-mile of the Mooresville to Charlotte Trail. As you can see there, the northern railroad crossing is in Cornelius. I spoke to the Town of Cornelius and they are aware of this closing and they are in favor of that as well due to safety and a number of other reasons.

As you can see, the 2040 Plan supports this. There's a number of recommendations that support the plan. We took this to the Planning Board and Planning Board Member Gammon made a motion to approve. It passed unanimously 9-0. Staff is in support of this as well.

Commissioner Munger said a number of different road improvements and things that need to be done, I'm just curious, do you actually own the land that's necessary to do all of these improvements at this time.

Lucas Shires, ColeJenest & Stone, said there is sufficient right-of-way to accommodate all of the improvements.

Commissioner Munger said at one point we had a discussion about the possibility of you reaching out to CMS in regards to the impact on the schools. Did you have a chance to do that.

Michael Cox said I did. I have spoken with a number of people there. The end roads led to a gentleman by the name of Dennis Lacaria. Dennis and I have had numerous conversations about possible ways to try to help in that. Basically, the answer that has been provided to me is to try to help them find a potential site for an additional middle school in the area. We have been working on that, our team, to try to see if we can find something that makes sense to send it to Dennis. That was the recommendation on how I could help if we wanted to.

Commissioner Bales said because the sound in here is sometimes bouncy, did you say that Mr. Lacaria said that he needed to look for land for a middle school.

Mr. Cox said the impacts from the middle school, if you look at the percentages, was the one that was above capacity the most and so he said that really there's nothing he can do other than the Town would need another middle school. I think more it was off the cuff, just if you have a site that would be suitable, we would love to see it.

Commissioner Bales said CMS has a property identified for a middle school currently.

Commissioner Phillips said when we had the public hearing I asked if there was a way to maybe do some kind of affordable housing component or for seniors. Is that something you guys were able to work out.

Mr. Cox said 20 percent of the units within the senior living facility will be set aside for those with income that are 50 percent below the area median income.

Commissioner Hines said on the TIA, have you talked to Norfolk Southern about the rail crossings.

Mr. Cox said we actually have our first bit of new news, not good or bad. Norfolk Southern has reached out as of this morning and let us know that by the end of the week they are hoping to provide us with comments on all of our proposal, but as of right now I have no comments from Norfolk Southern in terms of how they stand on our proposal.

Commissioner Hines said so if they choose to not close a rail crossing, then will it be kind of administrative, you all will go back and forth if this were to get approved because it shows they have to do a revised TIA.

Mr. Richards said we would have to see what that revision would contain. Odds are we would be back in front of the Board at some point in time for a modification.

Commissioner Walsh made a motion in considering the proposed rezoning application #R21-09, Caldwell Crossing Mixed use, the Town Board approves based on the plan being consistent with Policies LU 2.1, 5.1, 6.1, 7.1, 9.1 and EV 1.3 of the Huntersville 2040 Community Plan. It is reasonable and in the public interest to amend the rezoning plan because the rezoning plan is consistent with the envisioned uses and development pattern set forth in the 2040 Community Plan. The Town Board approves with the following: increasing the first floor footprint to 8,500 sq. ft. for a total of 12,500 sq. ft. for each commercial building; allow side yard parking between apartments B and C, E and D, and H and I with screening of a 50' setback of garages and evergreens; allow the 20' buffer to be disturbed next to the eastern project boundary to install retaining walls and grade for the BMP, which is next to an existing radio tower; and address all outstanding redline comments from staff and any revisions by NCDOT.

Commissioner Munger seconded motion.

Motion carried unanimously.

Petition #TA21-09. Petition #TA21-09 is a request by Strategic Capital Partners to amend the Zoning Ordinance allowing the Board of Commissioners to approve modification of a SWIM buffer through a conditional rezoning process in the Corporate Business zoning district.

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Jack Simoneau, Planning Director, entered the Staff Report into the record. *Staff Report and Staff PowerPoint attached hereto as Exhibit No. 6.*

This is Text Amendment #TA21-09, Strategic Capital Partners. This is a map of Huntersville's 63 sq. miles. The blue lines that you see are streams and the blue that surrounds them are kind of the SWIM buffer areas and just to be clear, the text amendment is affecting the SWIM buffers that are intermittent streams and streams draining less than 50 acres, but it does not impact the Mt. Island Lake Overlay. As you look at the map here, I'm going to put on the dark blue lines, that's the Mt. Island Lake Protected Watershed area. We have different zones, but in essence, basically, the western half of Huntersville drains into Mt. Island Lake and so that has an additional layer of protection. I just wanted to be clear that this text amendment is not involving that. The public hearing we will have on October 4 will be talking about that, but I just wanted to be clear that this is not impacting those watershed protection buffers. Those are separate.

The text amendment has not changed since the public hearing. It would allow someone in a Corporate Business district through a conditional district rezoning to impact an intermittent stream and a perennial stream that drains less than 50 acres, that's Part 1. Part 2 modifies one of the nine mitigation options, that's Option #5, and just make sure that we don't double count the protecting of the hardwoods that would be required otherwise with our buffer requirements, so we didn't want to have that double count, so that's what the language is in Section 2. And then Section 3 is simply an adjustment to indicate that the water quality also is affected by this text change. The Planning Board and the Huntersville Ordinances Advisory Board did recommend approval of this request as does the Planning Staff.

Commissioner Munger made a motion in considering the proposed amendment #TA21-09, the Town Board recommends approval based on the amendment being consistent with Policies LU 8, EV 1 and EOS 1, of the Huntersville 2040 Community Plan. It is reasonable and in the public interest to amend the Zoning Ordinance because the amendment allows greater flexibility and an additional option to impact SWIM buffers subject to a conditional rezoning and mitigation.

Commissioner Boone seconded motion.

Commissioner Boone said I think it's important to note Rusty Rozzelle, Water Quality Program Manager for Charlotte-Mecklenburg Storm Water Services, is in favor of this proposal.

Motion carried unanimously.

Petition #TA21-06. Petition #TA21-06 is a request by Jason Richardson to amend Article 3.2.1 (e, 6) and Article 3.2.2 (e, 6) of the Huntersville Zoning Ordinance to allow detached garages in the side yard of home lots in farmhouse clusters.

Lauren Speight, Planner II, entered the Staff Report into the record. *Staff Analysis and Staff PowerPoint attached hereto as Exhibit No. 7.*

This is a proposal to change the location allowed for detached garages in farmhouse clusters only. The other regulations for accessory structures and detached garages will still apply. Impervious area requirements, watershed requirements and neighborhood covenants and restrictions still apply, although the Town does not enforce those neighborhood covenants and restrictions and if a farmhouse

cluster does not have an opaque vegetated buffer at the time that someone is requesting for a detached garage in a side yard, then it will be required before zoning approval.

Staff is in favor of the text amendment because the regulations for farmhouse clusters already have significant requirements for screening, vegetation, open space, etc. and the Huntersville Ordinances Advisory Board for the Town, as well as Planning Board have recommended approval as well.

Commissioner Munger made a motion in considering the proposed amendment #TA21-06 to amend Article 3.2.1 (e, 6) and Article 3.2.2 (e, 6) to allow detached garages in the side yard of home lots in farmhouse clusters, the Town Board recommends approval based on the amendment being consistent with Policies LU 7.1 and LU 9.2 of the Huntersville 2040 Community Plan. It is reasonable and in the public interest to amend the Zoning Ordinance because it allows home lots in farmhouse clusters to minimize grading and maintains a generally rural appearance of a farmhouse cluster a public street view.

Commissioner Boone seconded motion.

Motion carried unanimously.

Petition #R21-08. Petition #R21-08 is a request by the property owners of Parcel IDs 01704216, 01704208, 01704225, 01704220, 01704228, 01704209, 01704207, 01704227, 01704226, 01704210 and 01704215 to rezone the subject properties from Corporate Business to Corporate Business Conditional District to modify the ordinance buffer requirements for the proposed industrial development.

Jack Simoneau, Planning Director, entered the Staff Report into the record. *Staff Analysis and Staff PowerPoint attached hereto as Exhibit No. 8.*

This is a significant project for Corporate Business. The proposal is for the three buildings that you see. It is possible there could be some modification of some of these buildings, but the concept is to get a reduction of the buffer yard and also impact the SWIM buffer.

What this plan shows you is the connection to the south, that's Alexandriana and then there will be a new road that goes all the way up to the north and connect at the northern property line which is Hambright Road and I-77. The project that you see in the upper left-hand corner, that's the proposed Charlotte Area Transit Park and Ride facility, so these two projects will work hand-in-hand and create a new street that will connect Hambright Road all the way down to Alexandriana.

The proposed rezoning plan is over a million square feet of office, warehouse and distribution use. As indicated now, it's three buildings. Again, some of these plans could change based on tenant needs and that's noted on the plan. That does include the new street frontage. It will be from Corporate Business to Corporate Business Conditional District and the modifications are to have the 80' buffer reduced. We just amended the text to address that, so you might not have to see these in the future. There also is a disturbance of an I-77 buffer and the SWIM buffer, so the text amendment that was just approved will allow an impact of a perennial stream draining less than 50 acres. They will have to mitigate. That mitigation plan has been prepared and run through Rusty Rozzelle of Mecklenburg County Water Quality.

Staff recommends approval provided that SWIM buffer which was approved is done, the updated tree mitigation plan submitted showing conformance with 7.4 which they are working on, minor comments on the plan be addressed, and that all the TIA improvements that are recommended are added to the

plan. The applicant has agreed to do that and we stated all the consistency of the Land Use Plan with the proposed development. The Planning Board did recommend approval as well with the same staff comments.

Commissioner Boone made a motion in considering the proposed rezoning petition #R21-08, Beltway 77 Industrial, the Town Board recommends approval of the amendment being consistent with the 2040 Community Plan Policies LU 1.1, LU 5.1, LU 7.1 and the Economic Development Goal to maintain the current percentage of tax revenue in non-residential uses. It is reasonable and in the public's interest to amend the Zoning Ordinance because the proposed zoning CB is the same as the current zoning and therefore no additional uses are allowed due to the plan. The Board's recommendation is subject to five conditions: (1) that the SWIM buffer amendment is adopted and mitigation is approved; (2) the TIA is accepted and all required mitigation is committed to by the applicant; (3) updated tree mitigation plan is submitted showing conformance to Article 7.4; (4) the rezoning notes are amended to keep the general design of the buffer, the street and the frontage conditions; (5) the minor comments on the plan addresses the prior to final approval.

Commissioner Walsh seconded motion.

Motion carried unanimously.

Petition #TA21-10. Petition #TA21-10 is a request by the Huntersville Planning Department to amend the requirements of Article 7.5.3 of the Huntersville Zoning Ordinance to allow flexibility for CB/SP/CI buffers along public streets and rights-of-way.

Jack Simoneau, Planning Director, entered the Staff Report into the record. There's not been any changes to the text amendment since the public hearing. In essence what we are doing is today the ordinance says in these three different zones you can either build your building up to the street or have an 80' buffer. Under the proposed change, that 80' buffer goes down to 40' on thoroughfares and if it's a street that's internal to an industrial park, it goes down to 20'. It's still landscaped per the ordinance and staff recommends approval of this, as does the Planning Board.

This should help reduce some of the rezoning cases that are coming before you. Multiple ones have come before you to reduce this buffer, so this goes ahead and just codifies it, so they don't have to take that extra step.

Commissioner Boone made a motion in considering the proposed amendment #TA21-10 to amend Article 7.5.3 to add flexibility to the CB/Commissioner Phillips/CI buffer, the Town Board recommends approval based on the amendment being consistent with the 2040 Community Plan Policy LU-7.1 and EV-2. It is reasonable and in the public interest to amend the Zoning Ordinance because the amendment would allow economic development site design flexibility, while preserving the aesthetics of the public street and pedestrian realm.

Commissioner Walsh seconded motion.

Motion carried unanimously.

Ranson Road Subdivision Sketch Plan. Mayor Aneralla called to order quasi-judicial hearing.

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Mayor Aneralla called to order quasi-judicial hearing on Ranson Road Subdivision Sketch Plan, a request by Blue Heel Development to subdivide 12.42 acres of land located on Ranson Road to create a 36-lot single-family subdivision.

This is a little bit different, as I tried to tell some of you earlier, than the public hearings that you heard. I will read a bit of a script and then we are going to swear you in. People have standing typically if they are adjoining landowners.

A quasi-judicial hearing is an evidentiary hearing in nature. The Board must base quasi-judicial decisions upon competent, relevant and substantial evidence in the record.

Competent evidence is evidence that is sufficiently trustworthy and reliable, and that is legally fit and acceptable for consideration by the Board. Speculative, irrelevant or vague evidence, non-expert opinions as to something that requires an expert, and hearsay evidence will likely not be competent evidence.

Material evidence is evidence that shows that the standards will or will not be met.

Evidence is substantial if it is relevant and regarded by a reasonable person as sufficient to support a specific conclusion. Speculation, unsubstantiated fears of the community or vague assertions do not constitute substantial evidence.

Quasi-judicial hearings are constrained by the standards in the ordinance and the facts presented. Only parties with standing including the applicant, local government and individuals who can show they will suffer special damages, have the right to participate fully in the hearing. Parties may present evidence, call witnesses, and make legal arguments. Other individuals may speak as a witness, however they will not be allowed to participate fully as a party such as by questioning other witnesses or by calling other persons to testify. Witnesses must be sworn or affirm their testimony. General witness testimony is limited to facts, not personal preferences or opinions.

Certain topics require expert witnesses, including projections about impacts on property values and traffic impacts. Individuals providing expert opinion testimony must be qualified as experts and provide factual evidence upon which they base their expert opinion. Mere conclusory testimony lacking foundation of the expert's opinion is insufficient to establish the existence or non-existence of a fact or conclusion. Even though the Board may rely on other evidence if it is not objected to, the Board should rely on competent, reliable evidence in making its decision.

Let's call first our staff and the applicant and then I'll call several people that signed up. Please introduce yourselves and then I will swear you in.

Mack Gallagher, Blue Heel Development.
Matt Levesque, ESP Associates.
Stephen Trott, Director of Engineering with the Town.
Brian Richards, Assistant Planning Director.

Mayor Aneralla swore in Mack Gallagher, Matt Levesque, Stephen Trott and Brian Richards.

Mayor Aneralla said we have several people that have signed up – Patrick McHale, Susan Ckinzler, David Self, Tim Harper and Kellie Harper.

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Patrick McHale said my name is Patrick McHale.

Mayor Aneralla said you live adjacent to the rezoned property.

Mr. McHale said that is correct.

Susan Ckinzler, said I'm Susan Ckinzler and I live adjacent to the property.

David Self said my name is David Self. I live adjacent to the property.

Tim Harper said Tim Harper. I live adjacent to the property. My wife Kellie Harper had to step out, we have young children at home, so she had to go.

Mayor Aneralla said we are going to swear you all in and then after the applicant and the staff have talked, we will ask you to come back.

Mayor Aneralla swore in Patrick McHale, Susan Ckinzler, David Self, and Tim Harper.

Mayor Aneralla said the parties in this case are entitled to an impartial board. A board member may not participate in this hearing if he or she has a fixed opinion about the matter, a financial interest in the outcome of the matter, or a close relationship with the affected person. Does any board member have any partiality to disclose or conflict of interest to offer at this time.

Mayor Aneralla said I know Mr. Gallagher. He's had a couple of things in front of us, that's about it. I'm sure a lot of you do as well.

The parties to this case have rights for any ex parte communication to be disclosed. Ex parte is any communication about the case outside of the hearing. That may be email communications, as well as conversations with parties, staff, or the general public. Does any board member have any ex parte communications to disclose.

None were disclosed.

Mayor Aneralla said based on the disclosures we've heard or non-disclosures we've heard from the Board concerning partiality and ex-parte communications, does any member of the Board or any party to this matter have any objections to the Board's participation in this hearing.

There were none.

Brian Richards, Assistant Planning Director, said at this time I would like to submit my report into the record. *Staff Analysis and Staff PowerPoint attached hereto as Exhibit No. 9.*

This is a by-right subdivision, Ranson Road Subdivision, located on Ranson Road. The zoning is Neighborhood Residential. As you can see here, it's occupied by two single-family homes. The northern part is just going to be a portion of this subdivision. The southern part has one home and some accessory structures.

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The proposal is for 12.42 acres to be subdivided for 36 single-family homes which is 2.89 dwelling units per acre. The overall open space being provided is 1.6 acres. They will be meeting their urban open space requirement providing three types – a square, a plaza and a green, for a total of 15,383 sq. ft. of urban open space.

A tree survey was done. They are meeting our tree save requirements. There's 80 existing specimen trees on site and they are going to be saving 19. There are no heritage trees on the site.

The applicant is asking for a block length modification. This came about as a direct result from the Neighborhood Meeting that was held back in March earlier this year. As you can see on the righthand side, the original design of the subdivision had I think six or seven more homes and a small cul-de-sac adjacent to the Timberview neighborhood. As I said, the applicant worked with the neighbors. They have revised the subdivision and Cask Way has been looped back down into Quercus. They've also offered to have four larger lots on the outer portion of the subdivision as well as some additional open space. We do have that block length waiver. They are requesting the length to be 1,043' and staff is in support of that due to the redesign and the better compatibility with the adjacent subdivision. As you can see there's a context map of the area.

In regards to the 2040 Community Plan, the project is located in the Town Core. You can see a number of supporting materials from the Community Plan. Our staff recommendation is we find the application is complete. The request is in keeping with the spirit and intent of the Town's future land use plans as mentioned above. The Ranson Road Subdivision Sketch Plan can be supported by staff subject to the following: (1) that the block length modification request is approved; (2) we work with the applicant in maximizing the amount of on-street parking; and (3) other plan comments are addressed.

The Planning Board recommended approval on Tuesday, August 24. I'm here to answer any questions you may have.

Mayor Aneralla said any questions of staff.

Mayor Aneralla said any questions of the applicant. Would the applicant like to present?

Mr. Gallagher said our presentation is pretty much a mirror image of what Brian just did, so I'm here to answer any questions. Matt will take any technical questions from the engineering side if there are any, so ask away.

Commissioner Munger said one of the staff comments was will any additional on-street parking be accommodated. Is that something you are looking to address.

Matt Levesque said yes, that is something. What we are showing right now is just the on-street parking along some of the open space areas. We will have additional on-street parking on the roads in between some of the lots where it will fit in between the driveways. Obviously, we don't have those locations yet, so it's something we are going to work with staff on and then also the right-of-way from the first intersection out to Ranson Road has now been widened, so there's room for additional parking along that street frontage, depending on where that need arises, so there will be additional parking.

Commissioner Munger said are there any opportunities for connectivity to our greenway to run through.

Mr. Richards said there's no greenway in the area.

Commissioner Munger said the last one is more of a comment and I'm sure the Mayor will tell me I can't ask the question, but I'm going to. You sent a letter of March 5, 2021 detailing a meeting that was going to be March 18, 2021. I find it interesting that you sent it to former commissioner Mark Gibbons, former commissioner Charles Guignard, former commissioner Rob Kidwell and former commissioner Danny Phillips. You might want to update and make sure that you get it to the right people.

Mayor Aneralla said any other questions before we ask Commissioner Boone.

Commissioner Boone said I've got a question about Timberview Lane. That's a private road I believe and what is the buffer between Timberview Lane and the new lots. What's the distance there.

Mr. Gallagher said I'll have Matt give the specific number, but we have a 20' required buffer and then we extended it the full rectangle…..there is now all additional buffer on top of 20, but Matt will give the specifics.

Mr. Levesque said along lots 5, 6, 7 and 8, which are the four larger lots in the back of the community, that was a result of the Neighborhood Meeting, there's additional tree save that has been added there. That's the kind of a square that you can see….the northeast corner of the plan….those lots are 140' deep there and that distance from the back of the lot to the undisturbed buffer is more than 140'. I don't know the exact dimension, but it's in excess of 150'-160'.

Commissioner Bales said in each of these blocks up here, are those both BMP's.

Mr. Levesque said no, only the BMP's to the left or the northwest quadrant, open space, tree save to the northeast.

Commissioner Bales said and that open space tree save does that abut Timberview.

Mr. Levesque said it's close. It abuts the required 20' buffer and then there's some additional property on the other side of that that is central to Timberview as a private road…..it goes to the middle of the road approximately, so it's property we are not purchasing or don't have in our contract to purchase, so it's our tree save, the 20' buffer, and then there's a little bit of the Timberview right-of-way. It's a prescribed 60' right-of-way even though Timberview is probably only 14' wide.

Commissioner Bales said correct, but there's no connection onto Timberview.

Mr. Levesque said no connection.

Commissioner Bales said because that was a concern that I had.

Mayor Aneralla said let's have Mr. Patrick McHale come up.

Patrick McHale, 15235 Timberview Lane, said as I mentioned before I have property adjacent to the property in question and I've lived where I currently live at 15235 Timberview for 36 years, so I'm one of the original landowners in that community. First and foremost, I wanted to thank you for letting me talk to you this evening. I know you work long hours and don't get a lot of thanks for it, so I appreciate what you do for the residents of Huntersville, and I've been a resident of Huntersville since it had 2,500 people, so things change.

The item I would like to discuss tonight is of utmost importance to our small community and also to the greater Ranson Road corridor. Under the Freedom of Information Act I was able to review some correspondence between Blue Heel Development and the Huntersville Planning Board that occurred mostly in the last quarter of 2020. I wanted to applaud Blue Heel Development for asking a lot of the right questions back in October 2020 regarding covenants, deed restrictions and agreements. I noticed in the information that I was reading that the Irvin Group was requested by Blue Heel to do a deed search and a covenant review and in that they reviewed book 4126 page 375.

I don't want to bore you with a lot of details, but that's not the book and the deed restriction that our community is affected by. The communications between the planning group and Blue Heel asked questions like are there deed restrictions and the answers were they don't apply. In the Irvin Group's opinion said that they didn't apply, but in fact they were reviewing the wrong book, because the deed restrictions that we are under were written in 1982, not 1978. That's the concern that I have is that I think that there was some influence early on that promoted some decision-making based on information that might not have been completely accurate. The deed restrictions we have in effect require a single-family residential dwelling on each lot and each lot is defined by its perimeter.

In February 2021 Judge Hoover rendered that the 1982 covenant restrictions did apply to 15215, which is the property in question, and that the deed restrictions go with the land. The deed restrictions actually say that. The judge also reiterated that as well. In my opinion the title review conclusion that the Irvin Group arrived at was based on a review of the wrong deed restrictions. They were in the wrong book and on the wrong page. They should have been reviewed based on the 1982 deed restrictions versus the 1978.

I would respectfully request that the Town Board reconsider their deliberations on the Planning Board's Blue Heel Development submittal until an accurate and valid covenant restriction review and opinion can be obtained. Additionally, the proposed development would severely impact the safety of the entire Ranson Road community, including Rosedale, Cobblestone and Huntson Reserve subdivisions.

Mayor Aneralla said Mr. McHale, are you an attorney.

Mr. McHale said no.

Mayor Aneralla said are you an expert on traffic safety.

Mr. McHale said no.

Mayor Aneralla said I told you this was going to happen, so remember we have to deal with the facts. Are you a deed expert.

Mr. McHale said no. I think that concludes my concerns. I thank you very much for giving me the time and the opportunity.

Mayor Aneralla said Ms. Susan Ckinzler.

Susan Ckinzler said I'm going to waive my right to speak. Thank you.

Mayor Aneralla said if you decide, come back. David Self.

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David Self said I'm an adjacent owner. The little green section where the tree save is at, I'm just north of that at 15212, my wife and I own the property. What I'm asking this Board to do is neither approve nor deny the request. What I'm asking this Board to do is to continue the hearing because there is ongoing litigation between the eight homeowners on Timberview and Susan Ckinzler. That litigation is ongoing. It is pending in Superior Court of Mecklenburg County and as of right now there is no signed settlement agreement and the litigation is not over. Everyone of those or this drawing up here that's on Susan Ckinzler's property violates the current CCR's and that is why we are litigating and that is what Pat McHale was referencing. Until we have ended litigation and a signed separation agreement is wishful thinking……I am asking that this Board pause until the parties can come to an agreement or the litigation ends. That's what I'm asking you to do.

The second thing that I have is concerns regarding the transparency between the communication of the Town and the people on our street. In October 2020 we got wind that there was going to be a development. Susan Ckinzler would not tell us who the developer was citing a non-disclosure agreement. I don't know if there is a non-disclosure agreement, but she wouldn't tell us, so people in our community reached out to the Town to find out who the developer was. Karen Martin who lives on our street who is a litigant in the litigation against Susan Ckinzler tried to find that information out. And I have some emails if you would be inclined to consider them. *Emails attached hereto as Exhibit No. 10.* These emails were obtained through a Freedom of Information Request that was sent to the Town. What I want to draw your attention to is that on November 20 there was a meeting between Blue Heel and I believe ESP was there, engineering, surveying and planning, and Brian Richards and Sierra Saumenig, and I have that email confirming that there was a meeting. I also have from the Freedom of Information Request an email from Matt Mandle to the Town showing a very detailed rendering that they were going to do. This was sent in November. On November 24 Karen Thomas sent an email to Sierra. I have that email as well, it's November 24. As per our conversation I'm reaching out to ask for information that can be shared from the meeting. Didn't get a response. On December 2, Karen followed-up with Sierra. I know that you offered to let me know when the developer submits to the Town, but my neighbors are asking me if you've heard anything. Have you heard anything. That's on December 2, almost two weeks after a meeting and almost two weeks after ESP had submitted this drawing right here. Sierra responds back, likewise nothing has been submitted yet. I guess we could [inaudible] the language of what is submitted and what is not submitted, but when ESP submits plans to the Town via email and people in this community are asking who is the developer, what are they trying to do. We should get straight answers and how does it impact this directly. We were trying to negotiate with Blue Heel because we wanted to get something similar to this, but we couldn't. Susan Ckinzler wouldn't tell us who it was and the Town of Huntersville wouldn't tell us who the developer was.

Mayor Aneralla said Mr. Self, I appreciate the passion. You obviously have some emails and you are welcome to put those in the record and so forth. What we are discussing here today is the approval of this development and it's really boiling down to the block length waiver and on-street parking. Do you have anything in reference to that and we will take this and it will go into the record, but do you have anything in reference to those particular issues.

Mr. Self said I will go back to the fact that this hasn't worked its way through the litigation process and there is no signed agreement, and I would ask that this Board withhold judgment until it has worked through the litigation or we have an agreement.

Mayor Aneralla said do you have I guess whatever the litigation is, court case number.

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Mr. Self said I could probably look that up on my phone if you give me a few minutes.

Mayor Aneralla said you don't have to get it right now, but if you could give it to us and give it to the Town Clerk.

Mr. Self said I will do that. Thank you for your time. Also, I reiterate what Pat said. Thank you for your service. Quite honestly, I don't know how you all do this, but thank you.

Tim Harper, 15125 Timberview Lane, said unlike Pat we are the newest members there. We have lived there for just over a year now and we've been in litigation for a year now. We saved for 20 years to buy our home, bought it, had this dream to raise our kids in this community and we've been in litigation for a year. I'd just like to echo what David said, that we are in a lawsuit right now. We ask you to hold so that we can finalize this. We appreciate working with Blue Heel, but nothing is signed. Nothing is finalized, so I don't see how something can be approved when it's opposed to what the laws say. That's all I have.

Susan Ckinzler, 15215 Timberview Lane, said thank you so much for letting me come. And I appreciate you letting me go last. I recognize that this is a very emotional discussion between our neighbors and you guys have your job to do, Blue Heel has their job to do, and I think we need to do the best we can. I had a long, emotional dissertation I was going to give you, but I think I'll just stick to the facts.

Mayor Aneralla said just for clarification, you own all this property.

Ms. Ckinzler said I own the property…..can someone help point to my property.

Mr. Richards said she owns the northern part in the red boundary.

Ms. Ckinzler said see that black line that goes kind of almost horizontal along that side. The Town of Huntersville has a restriction in terms of being able to subdivide property on a private road. Timberview is absolutely a private road. There is no subdivision that's allowed to be done on a private road and I've never tried to question that when I've come to the Town.

I've lived in Huntersville for 30 years. I've lived on Timberview for 20 years and so I've been there a long time and when I bought this property it was for a number of reasons, but one was for an investment. When I started to try to figure out, well I'm going to back up and say I went to the bank for some reasons to try to lend some money that I needed at the time, and the bank basically said we'll give you a loan on your house and your immediate property around your house. The rest of your 7 acres we are not going to give you any value associated with that as it relates to lending value.

At that point, I realized gosh my only option is to subdivide. I didn't realize at that point in time that you couldn't subdivide on a private road, so once I learned that I said okay, that's out, I can't subdivide. Then I find out that Chris Ferrell who owns the property to the south or whatever, below that line, puts her property up for sale to a contractor and at that point I contacted Chris and I said what are you thinking. She said I'm selling for all my personal reasons and I only want to sell this to a contractor for all of her personal reasons and at that point I started investigating, wow this is a way I can actually receive some investment off of my property that I've had for 20 years.

I'm not going to bore you with all the emotional stuff about how hard it was to keep it, but it took a lot for me to be able to do that. I said I'm not going to try to do anything about the private road, there will

be an ability to have an access outside of the Timberview Lane and so at that point in time I began to pursue the opportunity for me to sell my property which belongs to me at this point in time. I'm blessed, I have no mortgage on it. It is all mine. In conjunction with the sell of the property, I'm not breaking any laws, I'm not asking the Town to allow a street to open up onto Timberview. To the contrary, I feel bad for Tim and Kellie because the previous owners knew what the plan was going to be for the property. They did not know who the developer was because I am under and still under a non-disclosure agreement under that contract. Whether anybody believes it or not, it's the truth.

At this point in time, I'm just asking the Town to keep the Town regulations first and foremost. It is an emotional decision, but there is nothing that is preventing this from happening in terms of the codes. I have lived by the codes of the Town. Again, I did not come to the Town and ask for there to be any exception on private road, even though that was very disappointing to me.

I believe that those are the facts and that those are the facts that you should be using to base your decision. What happens with my personal litigation relative to my neighbors is my business and my neighbors' business. It's not the Town of Huntersville's business. You are not responsible to comply with CCR's or make sure that CCR's are complied with. You are responsible for following the regulations of this town in making sure that we are not as a community going outside of those. I, too, appreciate all that you are doing. I apologize because I've never come to a hearing or any of your board meetings and I can tell you having been here for this one, my hat is off to you and I just appreciate tremendously all that you do.

Mayor Aneralla said any questions right now. Mr. Richards, you want to address some of the things that we just heard.

Commissioner Phillips said should we tap Emily in so she can tell us what we need to do.

Mayor Aneralla said we're going to get there.

Mr. Richards said I'm here to answer any questions. I'm not privy to any of the private litigation that's occurring between the neighbors.

Mayor Aneralla said Ms. Sloop, do you have any comments on what you have heard.

Emily Sloop, Town Attorney, said I would just agree that private litigation is not what is being discussed here tonight. The compliance with the ordinance is what is being discussed.

Mayor Aneralla said any other questions.

Commissioner Bales said this question, I believe, is for Ms. Sloop. In regards to deed restrictions, etc., that has no bearing here.

Ms. Sloop not as in terms of whether or not there is compliance with the ordinance, no it does not.

Mayor Aneralla said for all those that are still here, you have the ability as landowners to ask either staff or the applicant questions at this time.

Unidentified resident asked if he could speak.

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Mayor Aneralla said no, you can't, I'm sorry.

Commissioner Hines said this is quasi-judicial, which means basically a use by right. Based off of the current zoning, they can do what's before us. That's permitted under our ordinance. Before us, also, is two modification requests. Based off of what we are hearing tonight about……

Mr. Richards said just one modification.

Commissioner Hines said excuse me, thank you. What you said earlier, based off of land use, so with them being in litigation and whether or not whatever happens with that litigation, whether or not she can actually sell it to do this, is not anything we can consider tonight at all.

Ms. Sloop said no. Obviously, if there was a later court order or something of that nature that would affect this development then yes, but as of right now, no.

Ms. Ckinzler said because the lawsuit is public record and because we've already had one day in court, I do think it's important though for you all to know…….

Mayor Aneralla said Ms. Ckinzler, we're really not debating that. If you want to submit that…..

Ms. Ckinzler said what I'd like to submit is that there was a part of the original lawsuit that was a preliminary injunction so that all of this would stop immediately and that was denied by the same Judge Hoover that Mr. Self mentioned.

Mayor Aneralla said does the Board have a clear understanding of where we are. Is there any other questions, discussion, motion.

Commissioner Walsh made a motion in considering the Ranson Road Subdivision Sketch Plan, we the Town Board find the application is complete. The application is consistent with the 2040 Community Plan including Policies LU 2.1, POS 4.3, 5.3, 8.3, T 3.1 and 3.2. The sketch plan complies with all applicable standards. All of the following items must be addressed: the block length modification of Cask Way of 1,043' is approved as the road design allows for additional open space on the east side of the development and creates a better transition to the Timberview neighborhood; coordinate with staff to maximize on-street parking; no construction traffic should be permitted through Cobblestone Manner; and all outstanding redline comments from staff are addressed. I'd like to make a motion to approve the Ranson Road Subdivision Sketch Plan.

Commissioner Phillips seconded motion.

Mayor Aneralla said as a reminder the Board is tasked with deciding if, based on the evidence presented at the hearing before us, this proposal meets the applicable standards. If the applicant meets their burden of producing competent, material and substantial evidence that the standards in the ordinance will be met, the burden shifts to the other parties opposing the application to show by competent material and substantial evidence that the standards in the ordinance will not be met. The application as originally submitted was considered by the Planning Board and the Planning Board made a recommendation. Nothing that occurred at the Planning Board level, including the Planning Board's recommendation, is considered evidence that you can base your decision on. However, the Planning Board's recommendation may be useful to the Board in identifying issues that this Board may want to

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consider and evaluate based upon the evidence that was presented at the hearing before this Board. We have a motion, we have a second. Any other discussion?

Commissioner Boone said I've got to make a clarification here that when this hearing started, I did not mention that I knew anything about this. The names and the people that spoke today refreshed my memory and I have spoken to two or three of these people when I drove out there to investigate this, but it won't have any bearing on my decision.

Mayor Aneralla called for the vote.

Motion carried unanimously.

Staff will draft and I will sign a final written decision to reflect the vote and reasoning for this decision. The written decision will be provided to the applicant and the other parties with a right to such notice. Thank for all for attending our Ranson Road Subdivision hearing.

Memorandum of Agreement – Opioid Litigation Settlement. Emily Sloop, Town Attorney, said this Memorandum of Agreement is related to a national settlement in relation to litigation that was against opioid manufacturers and distributors. As a condition of the national settlement agreement, individual states have been requested to enter into Memorandum of Agreement with local government units with regards to how the funds from the settlement will be spent to help remediate opioid abuse. Huntersville, because we have over 50,000 in population, has been asked to sign on to the MOA for Mecklenburg County to ensure that the funds come at the highest dollar amount for the county.

Commissioner Phillips said I want to throw some statistics in here before I make this motion. I'm a volunteer at Queen City Harm Reduction and they work with the populations that will be impacted by this. If someone participates in a harm reduction program, their chances of getting sober is five times greater than someone who doesn't participate. Through Queen City Harm Reduction since January 2018, 4,893 Naloxone/Narcan have been distributed in Mecklenburg County. Of those, 1,220 have been reported to be used to reduce overdoses. Since January 2021 through August of this year, there have been 1,307 Naloxone/Narcan distributed and 309 reversals in Mecklenburg County. There are people that do not report reversals, and deaths are not reported. These are successful reported numbers by participants. These numbers also include overdoses that have happened in Huntersville. In 2021 alone there have been over 1,000 interactions between volunteers and employees with people who are using opioids. These are numbers just from the non-profit I volunteer with. These numbers do not include data from other agencies, first responders, or hospitals. The numbers also do not include non-reported overdoses from people who have obtained Narcan/Naloxone on their own, which can be done at any pharmacy. While this lawsuit won't solve the opioid crisis, we do have one here in Huntersville and I'm grateful that we are joining this and I think it's a step in the right direction to right many wrongs and potentially save lives in the future.

Commissioner Phillips made a motion to approve the Memorandum of Agreement between the State of North Carolina and local governments on proceeds relating to the settlement of opioid litigation.

Commissioner Boone seconded motion.

Motion carried unanimously.

Memorandum of Agreement attached hereto as Exhibit No. 11.

Commissioner Hines motion to approve consent agenda.

Commissioner Munger seconded motion.

Motion carried unanimously.

CONSENT AGENDA

Approval of Minutes. Commissioner Hines made a motion to approve the minutes of the September 7, 2021 Regular Town Board Meeting. Commissioner Munger seconded motion. Motion carried unanimously.

Budget Amendment – Non-profit Funding. Commissioner Hines made a motion to approve budget amendment appropriating Fund Balance in the amount of $35,000 as discussed by the Board at the pre-meeting on September 7 for the following agencies: Ada Jenkins Center $5,000 (increase to FY 22 budgeted $15,000); Angels and Sparrows $5,000; Caterpillar Ministries $15,000; and Hope House Foundation $10,000.

Commissioner Munger seconded motion.

Motion carried unanimously.

Bond Resolution – Refunding Taxable GO Bond. Commissioner Hines made a motion to adopt Bond Resolution for the Taxable GO Bond to advance refund the 2013 Bonds. Commissioner Munger seconded motion. Motion carried unanimously.

Resolution attached hereto as Exhibit No. 12.

Bond Resolution – Refunding Tax-exempt GO Bond. Commissioner Hines made a motion to adopt Bond Resolution for the Tax-Exempt GO Bond to refund the Taxable GO Bond as contemplated by a Forward Delivery Agreement. Commissioner Munger seconded motion. Motion carried unanimously.

Resolution attached hereto as Exhibit No. 13.

Resolution – Refunding Installment Financing. Commissioner Hines made a motion to adopt Resolution for the Installment Financing to refund the 2011 installment financing (tax-exempt) and the 2012 LOBs (taxable). Commissioner Munger seconded motion. Motion carried unanimously.

Resolution attached hereto as Exhibit No. 14.

ADA Transition Plan. Title II of the Americans with Disabilities Act (ADA) regulates programs, activities and services provided by state and local governments. As such, Town of Huntersville must comply with this section, which states: "no qualified individual with a disability shall, by reason of such disability, be excluded from participation in or be denied the benefits of the services, programs, or activities of a public entity, or be subjected to discrimination by any such entity" (42 USC Sec. 12132; 28 CFR Sec. 35.130). In accordance with Title II, the Town of Huntersville conducted an ADA compliance self-evaluation of its services, programs, activities, and facilities on public property and in public rights-of-

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way. With this information, an ADA Transition Plan has been developed to share findings of the self-evaluation and to establish strategies for improving ADA accessibility within our community.

Commissioner Hines made a motion to adopt ADA Transition Plan. Commissioner Munger seconded motion. Motion carried unanimously.

ADA Transition Plan attached hereto as Exhibit No. 15.

CLOSING COMMENTS

None

There being no further business, the meeting was adjourned.

Approved this the ___ day of _____, October 2021.

DRAFT

Town of Huntersville
Town Board
October 18, 2021

To: Town Board

From: Lora Mastrofrancesco, Transportation Engineer/Project Manager

Date: October 18, 2021

Subject: CRTPO Application - NC115 (Old Statesville Rd) from McCord Rd to NC73.

EXPLAIN REQUEST:
CRTPO Application - NC115 (Old Statesville Rd) from McCord Rd to NC73.

ACTION RECOMMENDED:
Adopt CRTPO Application - NC115 (Old Statesville Rd) from McCord Rd to NC73.

FINANCIAL IMPLICATIONS:
Fund Balance

ATTACHMENTS:
1. R-2021-68 NC115 - McCord to NC73 CRTPO - Resolution and Letter

RESOLUTION OF THE TOWN OF HUNTERSVILLE TO AMEND THE CAPITAL IMPROVEMENT PROGRAM (CIP) AND APPLY FOR CHARLOTTE REGIONAL TRANSPORTATION PLANNING ORGANIZATION (CRTPO) FUNDING FOR THE NC115 (OLD STATESVILLE RD) MCCORD RD TO NC73 PROJECT

WHEREAS, the Town of Huntersville has identified and selected the NC115 (Old Statesville Rd) – McCord to NC73, as a project for the CRPTO's 2021 Fall Call for Projects; and

WHEREAS, the Town of Huntersville hired STV Engineers, Inc, through a Scope of Services for NC115 (Old Statesville Rd) Widening from McCord Rd to Sam Furr Rd (NC73) Project Funding Application Contract, to prepare the feasibility study, including cost estimate, suggested roadway alignment and environmental features for the CRTPO's application requirements; and

WHEREAS, the CRTPO's total funding is $50,200,000.00 and no one project can request more than $12,550,000.00 which equates to 25% of the total funding; and

WHEREAS, the total estimated cost of the NC115 – McCord to NC73 Project is $8,542,000.00 from which the Town of Huntersville is requesting $5,979,400.00 from CRTPO and will commit $2,562,600.00 of local dollars which equates to a 30% local match; and

WHEREAS, the Town of Huntersville has amended the FY2022's CIP for the NC115 – McCord to NC73 Project attached as Exhibit A; and

WHEREAS, the Town of Huntersville has prepared the commitment letter for the CRTPO application, formally documenting the local match, attached as Exhibit B.

NOW THEREFORE, BE IT RESOLVED AS FOLLOWS:

1. The Board of Commissioners approves the NC115 – McCord to NC73 Project to be submitted for CRTPO funding.The Amendment of the FY2022 CIP, as show in Exhibit A, is approved.
2. The Amendment of the FY2022 CIP, as show in Exhibit A, is approved.
3. The amount and percentage for local dollars matching, per Exhibit B, is approved.
4. The Board hereby authorizes the Town Manager, acting on advice of counsel, to take any actions necessary to effect the provisions of this Resolution; and

Adopted this 18th day of October, 2021.

ATTEST:

_____ _____

Janet Pierson, Town Clerk John Aneralla, Mayor

APPROVED AS TO FORM:

_____
Emily Sloop, Town Attorney

Exbibit A

PROJECT NAME: NC115 - McCord to NC73 **DEPT:** Engineering/Public Works

PROJECT DESCRIPTION:

Widen NC115 (Old Statesville Road) from just south of McCord Road to NC73 to a multilane divided facility with bike and pedestrian accomodations. Improve vehicle capacity, reduce congestion, and improve safety.

PROJECT COSTS:

Costs below assume a 30 percent match for funds with a total project cost of $8,542,000.

PART A: TOTAL PROJECT BUDGET **$ 8,542,000**

DESCRIPTION/DETAIL	FY22	FY23	FY24	FY25	FY26	Future	Total
Planning / Permitting / Design	$ -	$ 751,000	$ -	$ -		$ -	$ 751,000
Right-of-way / Utility Relocation				$ 2,853,000			$ 2,853,000
Construction						4,938,000	$ 4,938,000
TOTAL	$ -	$ 751,000	$ -	$ 2,853,000		$ 4,938,000	$ 8,542,000

PART B: FUNDING SOURCES

DESCRIPTION/DETAIL	FY22	FY23	FY24	FY25	FY26	Future	Total
General Fund Appropriation	$ -	$ 225,300	$ -	$ 855,900		$ 1,481,400	$ 2,562,600
Special Revenue Funds - CRTPO		$ 525,700		$ 1,997,100		$ 3,456,600	$ 5,979,400
TOTAL	$ -	$ 751,000	$ -	$ 2,853,000		$ 4,938,000	$ 8,542,000

PART C: OPERATING IMPACTS

DESCRIPTION/DETAIL	FY22	FY23	FY24	FY25	FY26	Future	Total
Debt Service	$ -	$ -	$ -	$ -		$ -	$ -
Facility Operating Cost							
Personnel							
Other Operation Cost; Grounds Maintenance							
TOTAL	$ -	$ -	$ -	$ -		$ -	$ -

Exhibit B

Town of Huntersville
NORTH CAROLINA

Date: October 11, 2021

To: Ms. Jennifer Stafford
Project Development Planner
Charlotte Regional TPO

From: Anthony Roberts
Town Manager – Town of Huntersville

SUBJECT: Local Match Commitment
2045 MTP ID 3029 Widen NC 115 (Old Statesville Rd) from two lanes to four lanes from McCord Rd (SR2427) to NC73 (SR2145)

In submitting this application package for the widening of NC 115 (Old Statesville Rd) project, the Town of Huntersville would like to formally document its commitment of $2,562,600.00 toward delivery of the proposed project which equates to 30% of the $8,542,000.00 total cost. It is our understanding this commitment, of 30%, would result in the award of 10 points within the evaluation criteria.

The Huntersville Town Board action is anticipated to be take place on October 18, 2021 committing the $2,562,600.00 of local funds with both a specific action item as well as the formal adoption of the Town's CIP identifying this matching amount. It is anticipated that the source of local matching funds will be from the General Fund Balance.

As evident by our financial investment in securing the services of STV, Inc. to prepare the supporting documentation included in this submittal package, the Town of Huntersville considers the widening of NC 115 (Old Statesville Rd) between McCord Rd to NC73 to be a much-needed improvement in meeting both the motorized and non-motorized transportation demand.

Thank you for the opportunity to submit this package for consideration and, should additional information be needed, please let us know.

Anthony Roberts
Town Manager

Pattie McGinnis
Finance Director

Engineering&PublicWorks
Post Office Box 664 • 105 Gilead Road, Suite 300 • Huntersville, NC 28070
phone 704.766.2220 • fax 704.992.5528 • www.huntersville.org

Town of Huntersville
Town Board
October 18, 2021

To: Town Board

From: Stephen Trott

Date: October 18, 2021

Subject: Resolution - Fee Schedule for HB489

EXPLAIN REQUEST:
Resolution to Approve Changes to the Town's fee schedule as required by HB489

ACTION RECOMMENDED:
Approval

FINANCIAL IMPLICATIONS:
None

ATTACHMENTS:
1. Draft Huntersville Fee Schedule 10192021
2. R-2021-66 Resolution to Approve Changes to the Town's Fee Schedule as Required by HB 489

Town of Huntersville
NORTH CAROLINA

FEE SCHEDULE

Mecklenburg County Fees

POSSE Payment Link: Emailed to you
Meck County Only:
Contact Meck County about payment options
Do NOT send any checks to Meck County for Town of Huntersville fees.

Town of Huntersville Fees

TOH Website:
www.huntersville.org/planning
(Select the round button on bottom of page for "Pay Fees")
In Person:
Mailing Address:
PO BOX 664 Huntersville NC 28070
Physical Address:
105 Gilead Road, Third Floor
Huntersville NC 28078
Payable to: Town of Huntersville
Hours: Mon - Fri, 8 a.m. - 5 p.m.
Contact: 704-875-7000

Permits	Fee	Payment Method
Building Permit	$40	Meck County Only
(new single-family, modular home, manufactured home, garage, deck, shed, pier, residential addition)		
Sign Permit	$140	Meck County Only
Demolition Permit	No Fee	-
Encroachment Permit	No Fee	-
Home Occupation Permit	$140	TOH Website
Commercial Up-Fit Zoning Review	$40	TOH Website
Zoning Use Permit	$40	TOH Website
(mobile food sales, temporary markets, temporary accessory structures, structures less than 144 sq. feet and 12' in any dimension, bona fide farm)		
Concept, Sketch, Preliminary & Revision Plans		
Sketch and Concept Plan - Subdivision	$1,500	Payment Link
+ Sketch and Concept Plan - Subdivision (per lot)	$5	Payment Link
Small Subdivision Preliminary Plan (<10 acres denuded)	$10,450	Payment Link
+ Small Subdivision Preliminary Plan per acre	$650	Payment Link
+ Small Subdivision Preliminary Plan per lot	$5	Payment Link
Large Subdivision Preliminary Plan (>10 acres dendued)	$9,450	Payment Link
+ Large Subdivision Preliminary Plan per acre	$500	Payment Link
+ Large Subdivision Preliminary Plan per lot	$5	Payment Link
Concept Plan - Commercial	$1,000	Payment Link
Small Commercial Plan (<1 acre)	$1,500	Payment Link
Large Commercial Plan (>1 acre denuded or PCO applies)	$8,600	Payment Link
+ Large Commercial per acre	$250	Payment Link
Erosion Control Only per acre	$500	Payment Link
(excluding single-family lots in a residential development or common plan of development)		
Erosion Control Only per lot	$100	Payment Link
(single family lots less than 1 acre in residential development)		
Traffic Impact Study ($/peak hour trip)	$5	Payment Link
Site Plans & As Builts		
Commercial Site Plans (Over $1-3,000)	$220	Payment Link
Commercial Site Plans (Over $3-50,000)	$240	Payment Link
Commercial Site Plans (Over $50-100,000)	$555	Payment Link
Commercial Site Plans (Over $100,000-1M)	$925	Payment Link
Commercial Site Plans (Over $1M - $10M)	$1,125	Payment Link
Commercial Site Plans (Over $10M)	$1,385	Payment Link
As Built—Storm Drainage or BMP	$500	Payment Link

Plan Revisions		
Site Plan Revisions (zoning revisions only, no land development revisions)	$200	Payment Link
Minor Revision to Approved Plans	$600	Payment Link
(less than 1 acre, two lengths of storm drainage pipe, one floodway cross-section, or two single-family lots)		
Major Revision to Approved Plans	$1,200	Payment Link
Plats (Final, Minor, or Exempt Subdivision)	**Fee**	**Payment Method**
Review	$1,200	Payment Link
Revision	$350	Payment Link
Special Use Permits		
Residential District (R, TR)	$200	Payment Link
Mixed-Use District (NC, TC, TND-O)	$400	Payment Link
Commercial District (HC, CB, SP)	$600	Payment Link
Driveway Permits		
Driveway Permit (excluding Single Family Dwelling)	$200	Payment Link

Rezoning Petitions	- GENERAL - Payable by TOH Website	- CONDITIONAL - Payment Method- Payment Link
Rezoning to a Residential District (R, TR, GR, NR, MH-O)	$520	$705
Rezoning to a Mixed-Use District (NC, TC, TND-U, TND-R, CI) 2 acres or less	$400	$550
Rezoning to a Mixed-Use District (NC, TC, TND-U, TND-R, CI) 2+ acres or less than 10 acres	$700	$850
Rezoning to a Mixed-Use District (NC, TC, TND-U, TND-R, CI) 10+ acres	$1,270	$1,700
Rezoning to a Commercial District (HC, CB, SP, VS) 2 acres or less	$350	$550
Rezoning to a Commercial District (HC, CB, SP, VS) 2+ acres or less than 10 acres	$500	$800
Rezoning to a Commercial District (HC, CB, SP, VS) 10+ acres	$1,270	$1,700

Rezoning Amendments	Fee	Payment Method
Administrative Amendments	$200	TOH Website
Variances, Appeals, and Density Averaging Certificates		
Subdivison Variance (waiver)	$150	TOH Website
Residential (individual property)	$150	TOH Website
Commercial (individual property)	$300	TOH Website
Bonds		
Posting/Renewing/Reducing/Replacing/Releasing Bonds	$500	TOH Website
Text Amendments		
Text Changes to Zoning/Subdivision Ordinance	$400	TOH Website
General Planning		
Zoning Verification Letter	$25	TOH Website
Zoning/Subdivision Ordinance	$30	TOH Website
Master Signage Program	$200	TOH Website
Master Signage Program - Revision	$50	TOH Website
Code Enforcement Administrative Fee (Nuisance)	$150	TOH Website
Pavement Degradation Fee (10'x10' minimum patch area) per square foot	$5	In Person
Street Name Change Application Fee	$150	TOH Website
Street Name Double-Blade Sign	$100	TOH Website
Maps (black and white)	$5	In Person
Maps (color), Small (24"x30")	$15	In Person
Maps (color), Large (36"x40")	$20	In Person
Plan copies	Actual	In Person
Copies (per page)	$0.10	In Person
Public Projects		
Public Projects	$2,500	Payment Link
Public Projects per acre	$550	Payment Link

RESOLUTION OF THE BOARD OF COMMISSIONERS FOR THE TOWN OF HUNTERSVILLE AUTHORIZING CHANGES TO THE TOWN'S FEE SCHEDULE

WHEREAS, N.C.G.S. § 113A-60(a) was amended by S.L. 2021-121 to limit the fee charged by local governments for review of erosion and sedimentation control plans and related activities for single-family lots in residential developments or common plans of development that are less than one acre to no more than one hundred dollars ($100.00) per lot developed; and

WHEREAS, the Board of Commissioners for the Town of Huntersville (the "Town Board") wishes to amend its Fee Schedule attached hereto and incorporated herein as Exhibit A to reflect the legislative change set forth above by:

Changing the current fee for Erosion Control Only (per acre) -$500 to Erosion Control Only, per acre (excluding single-family lots in a residential development or common plan of development) $500

Adding a fee line item for Erosion Control Only, per lot (single-family lots in a residential development or common plan of development, less than one acre) - $100.

NOW THEREFORE, BE IT RESOLVED AS FOLLOWS:

1. The Town Board hereby authorizes the above-described changes to the Town's Fee
2. Schedule in order to comply with N.C.G.S. § 113A-60(a) as amended.
3. The Town Board hereby authorizes Town staff to take any necessary actions to effectuate the changes to the Fee Schedule as approved.

Adopted this 11th day of October, 2021.

ATTEST:

_____ _____

Janet Pierson, Town Clerk John Aneralla, Mayor

APPROVED AS TO FORM:

_____

Emily Sloop, Town Attorney

Town of Huntersville
Town Board
October 18, 2021

To: Town Board

From: Pattie McGinnis

Date: October 18, 2021

Subject: Budget Amendment

EXPLAIN REQUEST:
Appropriate Community Project fund account (103995.9999.19003) of $14,235 to the Community Project expense account (105100.0499.19003). These funds were donated to the Town for Community Development Programming.

ACTION RECOMMENDED:
Approve Budget Amendment

FINANCIAL IMPLICATIONS:
No impact to fund balance.

ATTACHMENTS:
None

Town of Huntersville
Town Board
October 18, 2021

To: Town Board

From: Michael Jaycocks

Date: October 18, 2021

Subject: Budget Amendment

EXPLAIN REQUEST:
The Town of Huntersville received a CRTPO grant for The Park at Huntersville Greenway in January 2021 with a 50% match from the Town. Originally, the funds for planning and engineering would not be available from the state until FY 2025; however, the Town has been informed that the funds are now available. Appropriate fund balance (103890.9999) in the amount of $140,000 for the planning and engineering phase of the project (105400.0564.22016) to advance the project into FY 22.

ACTION RECOMMENDED:
Approve Budget Amendment

FINANCIAL IMPLICATIONS:
Decrease in fund balance of $140,000.

ATTACHMENTS:
None

Town of Huntersville
Town Board
October 18, 2021

To: Town Board

From: Pattie McGinnis, Michael Jaycocks

Date: October 18, 2021

Subject: Budget Amendment - Downtown Greenway Project

EXPLAIN REQUEST:
Additional funds of $570,000 are needed for the Downtown Greenway due to changes from the original concept plans. These changes include adding the trailhead/parking area on Hwy 115 and more boardwalk and retaining walls due to the tighter easement. Construction costs have also increased over the last two to three years since the project was designed.

Appropriate fund balance (103890.9999) in the amount of $570,000 to the downtown greenway project (105400.0564.18009).

ACTION RECOMMENDED:
Approve Budget Amendment

FINANCIAL IMPLICATIONS:
Decrease in fund balance of $570,000.

ATTACHMENTS:
None

Town of Huntersville
Town Board
October 18, 2021

To: Town Board

From: Pattie McGinnis, Michael Jaycocks

Date: October 18, 2021

Subject: Town Center Parking Deck Repairs

EXPLAIN REQUEST:
Appropriate fund balance (103890.9999) in the amount of $65,000 for repairs to the Town Center Parking deck (104500.0314.10008).

ACTION RECOMMENDED:
Approve Budget Amendment.

FINANCIAL IMPLICATIONS:
Decrease in fund balance.

ATTACHMENTS:
None

Town of Huntersville
Town Board
October 18, 2021

To: Town Board

From: Jackie Huffman

Date: October 18, 2021

Subject: Approve electric account write-offs for FY 2018.

EXPLAIN REQUEST:
Town staff and ElectriCities have cooperatively worked at collecting final electric accounts to accurately reflect the amount customers owe the Town. As we did in FY 21, Staff recommends that annually the Board approve the write-offs of amounts that have proven uncollectible for more than three years. While this will not stop our collection efforts (these amounts will remain with our collection agency and we will continue to seek collection through debt set-off program for accounts over $50), our financial statements will no longer report the amounts as likely collectible.

ACTION RECOMMENDED:
Approve write-offs for FY 2018 totaling $31,578.75, representing 16% of the total 2018 Electric Revenue and 136 customers.

FINANCIAL IMPLICATIONS:
Loss revenue collected from final accounts.

ATTACHMENTS:
None