Administrative Approval Action

Case File / Name: SUB-0068-2019
McGrady Farm Subdivision

City of Raleigh
Development Services Department
One Exchange Plaza
Raleigh, NC 27602
(919) 996-2492
currentplanning@raleighnc.gov
www.raleighnc.gov

LOCATION: This 46.6 acre subdivision zoned R-10 and R-6 is located on the east side of Garner Road at the southeast corner of the intersection of Garner Road and Grove Creek Lane at 3115 and 3215 Garner Road. This site is outside the city limits.

REQUEST: This is a phased subdivision totaling 332 lots, with multiple amenity areas, a recreational area, and associated infrastructure. All the proposed townhome lots are within the R-10 zoned portion of the site. (316 townhome lots, 14 HOA lots to be owned by the HOA, and 2 lots for future development)

DESIGN ADJUSTMENT(S)/ ALTERNATES, ETC: N/A

FINDINGS: **City Administration finds that this request, with the below conditions of approval being met, conforms to the Unified Development Ordinance. This approval is based on a preliminary plan dated March 23, 2021 by WithersRavenel.**

CONDITIONS OF APPROVAL and NEXT STEPS:

This document must be applied to the second sheet of all future submittals except for final plats. This is a preliminary plan and as such no permits have been issued with this approval. To obtain permits and/or completion of the project, the following steps are required:

☑ **SITE PERMITTING REVIEW** - For land disturbance of 12,000 square feet or greater, public or private infrastructure, shared stormwater devices, etc. Site Permitting Review may be submitted upon receipt of this signed approval document.

The following items are required prior to approval of Site Permitting Review plans:

General

1. 1. Confirm widths of lots 1-10 (sheet C2.1) as the minimum lot width per lot = 16' (2.2.3 B2) and revise as need be.

2. See sheet C7.0 - Chart listing the number of lots (resident and HOA lots) should be revised and corrected.

Engineering

3. Required NCDOT encroachment and/or driveway permits must be approved and copies provided to Development Services – Development Engineering prior to concurrent review approval.

Public Utilities

4. A Downstream Sewer Capacity Study in compliance with the City of Raleigh Public Utilities Department Handbook shall be submitted by the Project Engineer for review and approval.

Stormwater

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5. The State of North Carolina shall approve any proposed disturbance within the riparian buffer prior to the issuance of any grading or site permit (UDO 9.2.3.E).

6. A nitrogen offset payment must be made to a qualifying mitigation bank (UDO 9.2.2.B).

7. A stormwater control plan with a stormwater operations and maintenance manual and budget shall be approved (UDO 9.2).

8. A surety equal to of the cost of clearing, grubbing and reseeding a site, shall be paid to the City (UDO 9.4.4).

Urban Forestry

9. Tree protection fence must be inspected by Urban Forestry staff prior to the issuance of a grading permit.

10. Submit a final tree conservation plan that includes metes and bounds descriptions of all tree conservation areas and tree protection fencing as required (UDO 9.1.5).

☑ **LEGAL DOCUMENTS** - Email to legaldocumentreview@raleighnc.gov. Legal documents must be approved, executed, and recorded prior to or in conjunction with the recorded plat on which the associated easements are shown. Copies of recorded documents must be returned to the City within one business day of recording to avoid withholding of further permit issuance.

☑	Stormwater Maintenance Covenant Required
☑	Transit Easement Required
☑	Slope Easement Required

☑	Utility Placement Easement Required
☑	City Code Covenant Required
☑	Greenway Easement Required

☑ **RECORDED MAP(S)** - Submit plat to record new property lines, easements, tree conservation areas, etc.). Plats may be submitted for review when the Site Permitting Review plans, if required, have been deemed ready for mylar signature.

The following items must be approved prior to recording the plat:

General

1. Street names for this development shall be approved by the Raleigh GIS Division and by Wake County.

2. The City Code Covenant shall be approved by the City and recorded with the county register of deeds office where the property is located and a copy of the recorded document shall be provided to the City by the end of the next business day following the recordation of the final plat. Further recordings and building permits will be withheld if the recorded document is not provided to the Cit

3. A demolition permit shall be issued and this building permit number shown on all maps for recording.

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4. The greenway easement as shown on the preliminary plan shall be dedicated prior to, or in conjunction with the recording of a map in any phase affected by the greenway.

Engineering

5. A public infrastructure surety for 257 street trees is provided to the City of Raleigh Development Services – Development Engineering program (UDO 8.1.3).

6. A 5' utility placement easement and associated deed of easement shall be approved by the City and the location of the easement shall be shown on the map approved for recordation. The deed of easement shall be recorded at Wake County Register of Deeds within one day of recordation of the recorded plat. A recorded copy of these documents must be provided to the Development Services Department within one day from authorization of lot recordation. If recorded copies of the documents are not provided, further recordings and building permit issuance will be withheld.

7. A public infrastructure surety is provided to the City of Raleigh Development Services – Development Engineering program (UDO 8.1.3).

8. A sight distance easement shall be approved by the Transportation Department for recording in the Wake County Registry and shown on a plat approved for recordation.

9. The required right of way for proposed and/or existing streets shall be dedicated to the City of Raleigh and shown on the map approved for recordation.

10. A deed of easement shall be approved by City staff and the location of the slope easements shall be shown on a plat approved for recordation. This is for 15x15 Slope easement at all stub stub streets to the adjacent parcels that are not connected. The deed of easement shall be recorded at Wake County Register of Deeds within one day of recordation of the recorded plat. A recorded copy of these documents must be provided to the Development Services Department within one day from authorization of lot recording. If a recorded copy of the document is not provided, further recordings and building permit issuance will be withheld.

Public Utilities

11. Infrastructure Construction Plans (concurrent submittal) must be approved by the City of Raleigh Public Utilities Department for all public water, public sewer and/or private sewer extensions.

12. A Petition for Annexation into the City limits shall be submitted in accordance with City Council policy for extension of utility service to properties currently outside of the City limits. This voluntary annexation in no way obligates the City to extend utility services to the property.

Stormwater

13. The City form document entitled Declaration of Maintenance Covenant and Grant of Protection Easement for Stormwater Control Facilities shall be approved by the City and recorded with the county register of deeds office (UDO 9.2.2.G).

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14. The riparian buffers, in accordance with the preliminary plan and the State of North Carolina regulations, shall be shown on plats for recording along with required buffer statement (Recorded Map Checklist).

15. A payment equal to twenty-four percent (24%) of the estimated cost of constructing all stormwater control facilities shown on the development plans shall be paid by the developer to the City stormwater facility replacement fund (UDO 9.2.2.G.3).

16. A surety equal to 125% of the cost of the construction of a stormwater device shall be paid to the Engineering Services Department (UDO 9.2.2.D.1.d).

17. The maximum allocated impervious area for all applicable lots in the subdivision should be identified on all maps for recording.

Transportation

18. A transit deed of easement shall be approved by City staff and the location of the easement shall be shown on a plat approved for recordation. The deed of easement shall be recorded at Wake County Register of Deeds within one day of recordation of the recorded plat. A recorded copy of this document must be provided to the Development Services Department within one day from authorization of lot recording. If a recorded copy of the document is not provided, further recordings and building permit issuance will be withheld.

Urban Forestry

19. A tree conservation plat shall be recorded with metes and bounds showing the designated tree conservation areas (UDO 9.1). This development proposes 3.96 acres of tree conservation area.

☑ **BUILDING PERMITS** - For buildings and structures shown on the approved plans. Commercial building permit plans must include the signed, approved Site Permitting Review plans attached, if applicable. Permit sets may be reviewed prior to the recordation of required plats, but cannot be approved.

The following items must be approved prior to the issuance of building permits:

Public Utilities

1. A plat must be recorded at the Wake County Register of Deeds office for all utility easement dedications.

Urban Forestry

2. A tree impact permit must be obtained for the approved streetscape tree installation in the right of way. This development proposes 9 street trees along Grove Creek Lane, 48 street trees along Street A, 8 street trees along Street B, 20 street trees along Street C, 20 street trees along Street D, 8 street trees along Street E, 8 street trees along Street F, 8 street trees along Street G, 8 street trees along Street H, 40 street trees along Frinks Street and 80 street trees along Ricochet Drive.

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The following are required prior to issuance of building occupancy permit:

General

1. Final inspection of all tree conservation areas and right of way street trees by Urban Forestry Staff

EXPIRATION DATES: If significant construction has not taken place on a project after preliminary subdivision approval, that approval may "sunset" and be declared void, requiring re-approval before permits may be issued. To avoid allowing this preliminary approval to "sunset", the following must take place by the following dates:

3-Year Sunset Date: April 27, 2024
Record entire subdivision.

Signed: Alyssia Bailey Taylor Date: 04/27/2021
Development Services Dir/Designee
Staff Coordinator: Michael Walters

CASE NUMBER: SUB-0068-2019

Preliminary Subdivision Plans

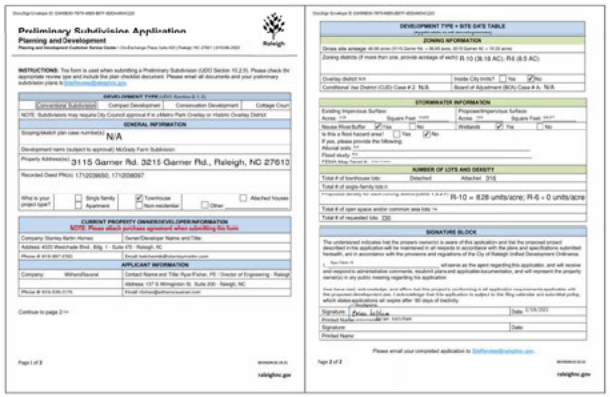
MCGRADY FARM SUBDIVISION

3115 & 3215 GARNER RD, Raleigh, NC

1ST SUBMITTAL: DECEMBER 18, 2019
2ND SUBMITTAL: FEBRUARY 15, 2020
3RD SUBMITTAL: JULY 2, 2020
4TH SUBMITTAL: DECEMBER 16, 2020
5TH SUBMITTAL: MARCH 23, 2021

PRELIMINARY SUBDIVISION REVIEW
FOR: MCGRADY FARM SUBDIVISION
W&R PROJECT NO.218072.9

APPLICATION


Preliminary Subdivision Application
Planning and Development

INSTRUCTIONS: This form is used when submitting a Preliminary Subdivision (UDO Section 10.2.5). Please check the appropriate review type and include the plan checklist document. Please email all documents and your preliminary subdivision plans to StaffReview@raleighnc.gov.

DEVELOPMENT TYPE (UDO Bulletin 8.1.4)
Conventional Subdivision | Compact Development | Conservation Development | Cottage Court
NOTE: Subdivisions may require City Council approval if in a Metro Park Overlay or Historic Overlay District

GENERAL INFORMATION
Scoping/sketch plan case number(s): N/A
Development name (subject to approval): McGrady Farm Subdivision
Property Address(es): 3115 Garner Rd. 3215 Garner Rd., Raleigh, NC 27610
Recorded Deed PIN(s): 1712036650, 1712038097
What is your project type? ☐ Single family ☐ Apartment ☑ Townhouse ☐ Non-residential ☐ Attached houses ☐ Other

CURRENT PROPERTY OWNER/DEVELOPER INFORMATION
NOTE: Please attach purchase agreement when submitting this form
Company: Stanley Martin Homes | Owner/Developer Name and Title:
Address: 4020 Westchase Blvd., Bldg. 1 - Suite 470 - Raleigh, NC
Phone #: 919-847-3760 | Email: ketchembk@stanleymartin.com

APPLICANT INFORMATION
Company: WithersRavenel | Contact Name and Title: Ryan Fisher, PE - Director of Engineering - Raleigh
Address: 137 S. Wilmington St. Suite 200 - Raleigh, NC
Phone #: 919.469.3340 | Email: rfisher@withersravenel.com

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DEVELOPMENT TYPE + SITE DATE TABLE
ZONING INFORMATION
Gross site acreage: 48.08 acres (37.70 Garner Rd. + 38.48 acres, 10.10 Garner Rd. + 10.10 acres)
Zoning districts (if more than one, provide acreage of each): IL 10 (38.18 AC); R6 (8.5 AC)
Overlay district: N/A | Inside City limits? ☐ Yes ☑ No
Conditional Use District (CUD) Case # 2: N/A | Board of Adjustment (BOA) Case # A: N/A

STORMWATER INFORMATION
Existing Impervious Surface: Acres: N/A, Square Feet: N/A | Proposed Impervious Surface: Acres: N/A, Square Feet: N/A
Neuse River Buffer: ☑ Yes ☐ No | Wetlands: ☑ Yes ☐ No
Is this a flood hazard area? ☐ Yes ☑ No
If yes, please provide the following:
Alluvial soils: N/A
Flood study: N/A
FEMA Map Panel #: N/A

NUMBER OF LOTS AND DENSITY
Total # of townhouse lots: Detached: | Attached: 316
Total # of single-family lots: N/A
*Proposed density for open space zoning districts (article 1.5.4.F): R-10 = 8.28 units/acre; R-6 = 0 units/acre
Total # of open space and/or common area lots: N/A
Total # of requested lots: 330

SIGNATURE BLOCK
The undersigned indicates that the property owner(s) is aware of this application and that the proposed project described in this application will be maintained in all respects in accordance with the plans and specifications submitted therewith, and in accordance with the provisions and regulations of the City of Raleigh Unified Development Ordinance.
I, _____, _____, whereby as the agent regarding this application, and will receive and respond to administrative comments, resubmit plans and applicable documentation, and will represent the property owner(s) in any public meeting regarding this application.
I have read, acknowledge, and affirm that this project is conforming to all application requirements applicable with the proposed development use. I acknowledge that this application is subject to the filing calendar and submittal policy, which states applications will expire after 180 days of inactivity.
Signature: Brian Ketchum | Date: 9/18/2020
Printed Name: BRIAN KETCHUM
Signature: | Date:
Printed Name:

Please email your completed application to StaffReview@raleighnc.gov.

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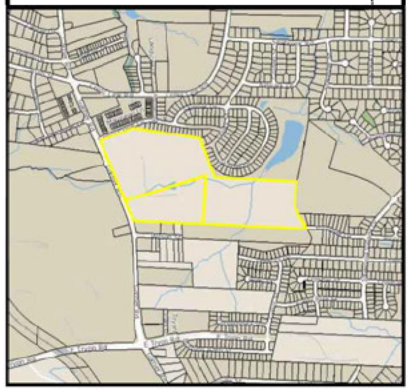
VICINITY MAP

1"=750'



DEVELOPER	OWNER
STANLEY MARTIN HOMES 4020 WESTCHASE BLVD., BLDG 1, STE. 470 RALEIGH, NC 27607 CONTACT: BRIAN KETCHUM PHONE: 919.977.8760 EMAIL: KETCHEMBK@STANLEYMARTIN.COM	STANLEY MARTIN COMPANIES LLC 11710 PLAZA AMERICA DRIVE, SUITE 100 RESTON, VA 20190-4771

PREPARED BY

WithersRavenel
Engineers | Planners
137 S. Wilmington Street | Suite 200 | Raleigh, NC 27601 | t: 919.469.3340 | license #: C-0832
www.withersravenel.com

LANDSCAPE ARCHITECT:	CIVIL ENGINEER:	SURVEYOR:
DANIEL WHATLEY, PLA DWHATLEY@WITHERSRAVENEL.COM	RYAN FISHER, PE RFISHER@WITHERSRAVENEL.COM	MATTHEW GREZEBIEN, PLS MGREZEBIEN@WITHERSRAVENEL.COM

GENERAL NOTES

1. ALL CONSTRUCTION AND MATERIALS SHALL BE IN ACCORDANCE WITH CITY OF RALEIGH AND NCDOT STANDARDS AND SPECIFICATIONS IF APPLICABLE.
2. THE CONTRACTOR SHALL OBTAIN A RIGHT-OF-WAY PERMIT FOR ANY WORK WHICH REQUIRES THE CLOSURE OF A TRAVEL LANE(S), PARKING SPACE, OR SIDEWALK FROM RIGHT-OF-WAY SERVICES AT LEAST 48 HOURS IN ADVANCE.
3. IF CONSTRUCTION PLANS FOR PUBLIC AND PRIVATE STREETS OR UTILITIES SHOWN ON THIS PLAN ARE REQUIRED, THEY MUST BE APPROVED BY THE PUBLIC WORKS DEPARTMENT AND PUBLIC UTILITIES DEPARTMENT PRIOR TO ISSUANCE OF PERMITS OR RECORDING OF ANY PLAT FOR THIS DEVELOPMENT.
4. FIELD ADJUSTMENTS TO THIS PLAN MAY BE REQUIRED BY CITY OF RALEIGH INSPECTOR AS NEEDED DURING CONSTRUCTION.
5. ALL SURVEY INFORMATION PROVIDED TO WITHERSRAVENEL, RALEIGH, NORTH CAROLINA OFFICE BY CARY, NORTH CAROLINA OFFICE IN DIGITAL FORMAT AND SUPPLEMENTAL INFORMATION WAS OBTAINED FROM WAKE COUNTY GIS.
6. ALL PROPOSED CURB AND GUTTER WITHIN PUBLIC RIGHT OF WAY SHOWN ON PLANS TO BE 30" CITY OF RALEIGH STANDARD CONCRETE CURB AND GUTTER, 30" CITY OF RALEIGH STANDARD VALLEY CURB, AND ALL OTHER PROPOSED CURB AND GUTTER TO BE 24" CONCRETE CURB AND GUTTER UNLESS OTHERWISE STATED ON PLANS.
7. ALL DIMENSIONS SHOWN ARE TO FACE OF CURB, UNLESS OTHERWISE STATED ON PLANS.
8. WITHIN THE SIGHT TRIANGLES SHOWN ON THIS PLAN, NO OBSTRUCTION BETWEEN 2 FEET AND 8 FEET IN HEIGHT ABOVE THE CURB LINE ELEVATION SHALL BE LOCATED. IN MEDIAN OR PARK, OBSTRUCTIONS INCLUDE BUT ARE NOT LIMITED TO ANY BERM, FOLIAGE, FENCE, WALL, SIGN, OR PARKED VEHICLE.
9. ACCESS ROUTE FOR EMERGENCY VEHICLES SHALL PROVIDE AN INSIDE TURNING RADIUS OF 28' MINIMUM.
10. TRASH AND CARDBOARD DUMPSTER(S) ENCLOSURE SHALL COMPATIBLE WITH MATERIAL AND/OR COLOR OF THE PRINCIPAL BUILDING.
11. ALL HVAC UNITS SHALL BE SCREENED FROM VIEW OF THE PUBLIC RIGHT OF WAY.
12. CONTRACTOR TO POTHOLE AND VERIFY ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION AND REPORT ANY DISCREPANCIES TO LANDSCAPE ARCHITECT PRIOR TO ANY CONSTRUCTION ACTIVITIES. CONTACT NC ONE 48 HRS. FOR FIELD LOCATION OF UNDERGROUND UTILITIES.
13. HANDICAP PARKING SPACE(S) AND HC ACCESS AISLE(S) SHALL BE NO GREATER THAN TWO PERCENT (2%) PITCH IN ANY DIRECTION(S) AS PER ADA STANDARDS.
14. PROVIDE TO GRADE AND STRIPING OF HANDICAP SPACES AS PER ADA STANDARDS.
15. ALL RETAINING WALLS GREATER THAN 30" IN HEIGHT TO INCLUDE SAFETY RAIL OR FENCE.
16. NO RETAINING WALLS ARE PERMITTED IN THE RIGHT-OF-WAY UNLESS APPROVED BY ENCROACHMENT.
17. THE MINIMUM CORNER CLEARANCE FROM THE CURB LINE OF INTERSECTING STREETS SHALL BE AT LEAST 50 FEET FROM THE POINT OF TANGENCY OF THE CURB FOR MIXED-USE/COMMERCIAL DRIVEWAY. NO DRIVEWAYS SHALL ENCROACH ON THIS MINIMUM CORNER CLEARANCE.
18. WHEELCHAIR ACCESS RAMPS WILL BE PROVIDED IN ACCORDANCE WITH CITY OF RALEIGH PUBLIC WORKS DEPARTMENT STANDARDS, PROWAG STANDARDS AND ADAAG SPECIFICATIONS.
19. ALL RAMPS AND HANDRAILS SHALL BE CONFORM TO ANSI STANDARDS.
20. ALL ABOVE GROUND UTILITY DEVICES (TO INCLUDE BUT NOT LIMITED TO TELEPHONE AND CABLE PEDESTALS, ELECTRICAL TRANSFORMERS, BACKFLOW PREVENTERS, ETC) SHALL BE SCREENED FROM OFF-SITE VIEW BY EVERGREEN SHRUBS, FENCE, OR WALL.
21. ALL SIDEWALKS MUST BE ACCESSIBLE TO PERSONS WHO ARE BLIND, HAVE LOW VISION AND PEOPLE WITH MOBILITY DISABILITIES. PEDESTRIAN DETOUR ROUTES AND ALTERNATE PEDESTRIAN ROUTES DURING CONSTRUCTION WILL BE REQUIRED TO BE COMPLIANT WITH THE PUBLIC RIGHTS OF WAY ACCESSIBILITY GUIDELINES (PROWAG), 2010 ADA STANDARDS FOR ACCESSIBLE DESIGN AND THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).
22. IF UNFORESEEN CONDITIONS DEVELOP DURING CONSTRUCTION, REFER TO "CITY OF RALEIGH STREET DESIGN MANUAL" AND CONTACT DEVELOPMENT SERVICES DEPARTMENT FOR FURTHER GUIDANCE.
23. PRIOR TO START OF CONSTRUCTION, THE CONTRACTOR SHALL SCHEDULE A PRE-CONSTRUCTION MEETING WITH THE CITY OF DEVELOPMENT SERVICES DEPARTMENT / LAND DEVELOPMENT DIVISION STAFF TO REVIEW THE SPECIFIC COMPONENTS OF THE PLAN AND OPERATION OF THESE FACILITIES DURING CONSTRUCTION. CONTACT ENGINEERING INSPECTIONS AT 919.996.2409 TO SET UP THE MEETING.
24. THE CONTRACTOR SHALL CONDUCT THE WORK IN A SAFE MANNER AND WITH A MINIMUM AMOUNT OF INCONVENIENCE TO TRAFFIC.
25. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TRAFFIC CONTROL AND SHALL ADHERE TO THE PROVISIONS OF THE MUTCD (MOST CURRENT EDITION).
26. ANY TEMPORARY STREET CLOSURE MUST BE SUBMITTED A MINIMUM OF 2 WEEKS PRIOR TO THE START OF WORK. SEE "RIGHT-OF-WAY CLOSURES" ON WWW.RALEIGHNC.GOV. COMPLETE AND SEND THE RIGHT-OF-WAY OBSTRUCTION PERMIT TO RIGHTOFWAYINSPECTION@RALEIGHNC.GOV.
27. PRIOR TO CONSTRUCTION BEGINNING, ALL SIGNAGE AND TRAFFIC CONTROL SHALL BE IN PLACE.

SOLID WASTE INSPECTION STATEMENT

1. SOLID WASTE SERVICES ARE TO BE PROVIDED BY CITY OF RALEIGH FOR ALL UNITS.
2. THE DEVELOPER WILL COMPLY WITH ALL REQUIREMENTS SET FORTH IN THE SOLID WASTE MANUAL.
3. CARTS THAT ARE NOT STORED WITHIN THE GARAGE BEFORE AND AFTER SCHEDULED COLLECTION MAY BE ISSUED A NOTICE OF VIOLATION FOR THE FIRST OFFENSE AND A $100 ADMINISTRATION FEE FOR SUBSEQUENT VIOLATIONS WITHIN A THIRTY (30) MONTH PERIOD.
4. ROLL OUT CARTS TO BE LOCATED ON DRIVEWAY APRON WHEN POSITIONED FOR THE COLLECTION.

FIRE DEPARTMENT NOTES

1. THE APPARATUS ROAD SURFACE IS REQUIRED TO BE WITHIN 150 FEET (NFPA 1141) NO SPRINKLING SYSTEM PROPOSED.
2. FIRE HYDRANT SHALL BE LOCATED WITHIN 300' AS MEASURED ALONG THE PATH OF APPARATUS ACCESS ROAD (NCFC §507.5.1).
3. FIRE FLOW ANALYSIS MUST BE PROVIDED AT TIME OF BUILDING PERMITS PER THE 2012 NCFC, SECTION §507.3.
4. ALL PROPOSED PUBLIC FIRE HYDRANTS WILL BE IN ACCORDANCE TO CITY OF RALEIGH STANDARD DETAIL W-5. DETAIL WILL BE PROVIDED IN CONCURRENT REVIEW PLANS.

LEGEND

DESCRIPTION	EXISTING	PROPOSED
MINOR CONTOUR		
MAJOR CONTOUR		
PROPERTY LINE		
ROADWAY CENTERLINE		
RIGHT OF WAY LIMITS		
EASEMENT LINE		
CURB & GUTTER		
EDGE OF PAVEMENT		
SANITARY SEWER FACILITIES		
STORM SEWER FACILITIES		
WATERLINE		
FIRE HYDRANT ASSEMBLY		
FORCE MAIN		
ELECTRIC		N/A
OVERHEAD ELECTRIC		N/A
GAS MAIN		N/A
TELEPHONE		N/A
BUILDING/RESTRICTIVE LINES		
FENCING STRUCTURE		
WATERWAYS		N/A
WOODS LINE		N/A
BUFFER		

DESCRIPTION	EXISTING	PROPOSED
WATER MANHOLE		N/A
GUY ANCHOR		N/A
POWER POLE		N/A
LIGHT POLE		N/A
PROPERTY IRON		N/A
CURB INLET		N/A
STORM DRAIN JUNCTION BOX		N/A
YARD INLET		N/A
WATER METER		N/A
CONCRETE MONUMENT		N/A
TELEPHONE PEDESTAL		N/A
MAIL BOX		N/A
WATER VALVE		N/A
GAS VALVE		N/A
UTILITY MANHOLE		N/A
ELECTRICAL PEDESTAL		N/A
SIGN		N/A
FIBER OPTIC MANHOLE		N/A
TELEVISION PEDESTAL		N/A
TELEPHONE MANHOLE		N/A
FLARED END SECTION		N/A
SANITARY SEWER MANHOLE		N/A

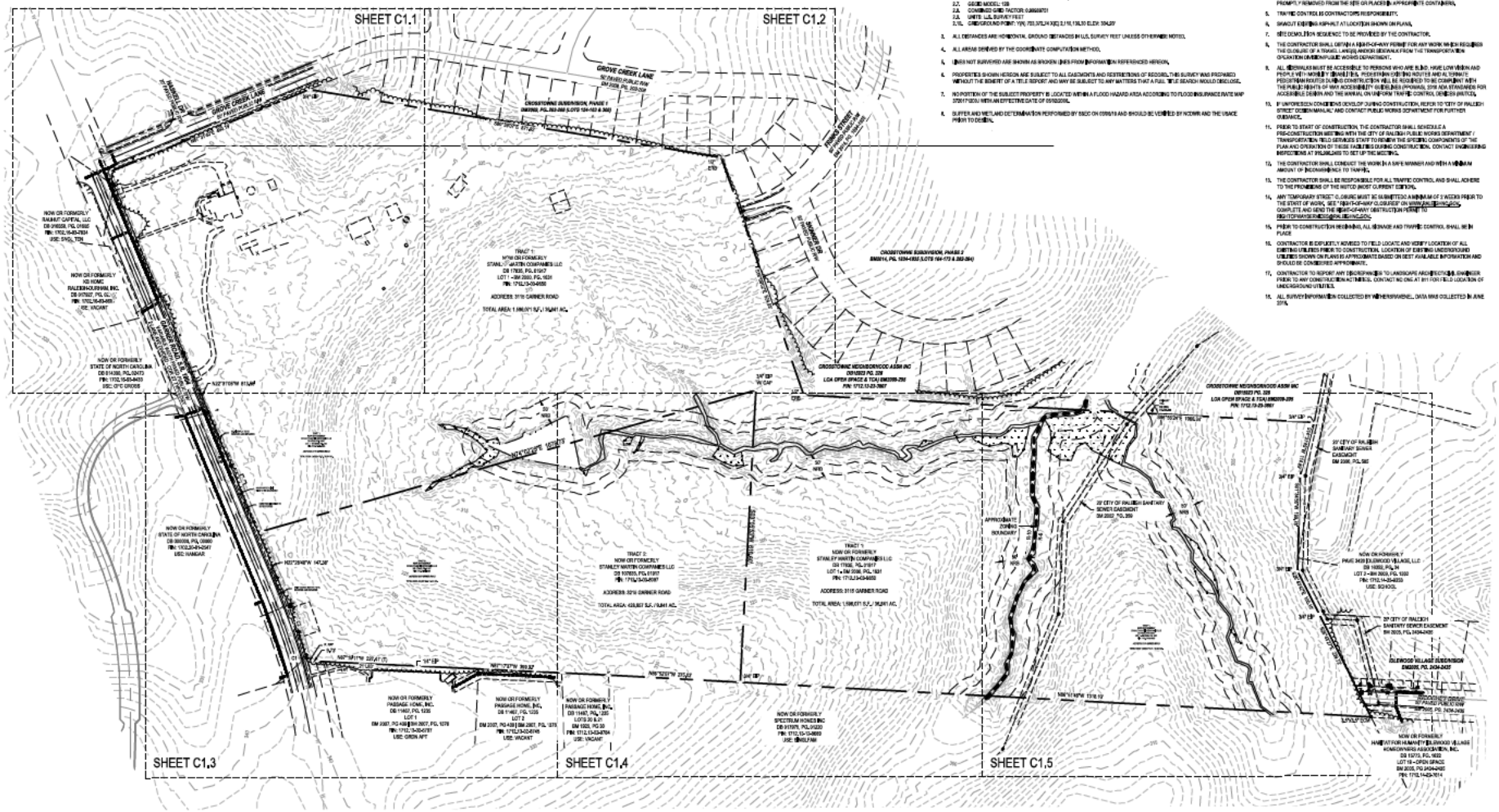
SEAL/SIGNATURE

PRELIMINARY
NOT APPROVED FOR CONSTRUCTION

Sheet List Table

Sheet Number	Sheet Title
C0.0	COVER
C1.0	OVERALL EXISTING CONDITIONS
C1.1	EXISTING CONDITIONS & DEMOLITION PLAN
C1.2	EXISTING CONDITIONS & DEMOLITION PLAN
C1.3	EXISTING CONDITIONS & DEMOLITION PLAN
C1.4	EXISTING CONDITIONS & DEMOLITION PLAN
C1.5	EXISTING CONDITIONS & DEMOLITION PLAN
C2.0	OVERALL SUBDIVISION PLAN
C2.1	SUBDIVISION PLAN
C2.2	SUBDIVISION PLAN
C2.3	SUBDIVISION PLAN
C2.4	SUBDIVISION PLAN
C2.5	SUBDIVISION PLAN
C2.6	TOWNHOME BUILD TO DETAIL
C3.0	PHASING PLAN
C4.0	OVERALL UTILITY PLAN
C4.1	UTILITY PLAN
C4.2	UTILITY PLAN
C4.3	UTILITY PLAN
C4.4	UTILITY PLAN
C4.5	UTILITY PLAN
C5.0	OVERALL GRADING & DRAINAGE PLAN
C5.1	GRADING & DRAINAGE PLAN
C5.2	GRADING & DRAINAGE PLAN
C5.3	GRADING & DRAINAGE PLAN
C5.4	GRADING & DRAINAGE PLAN
C5.5	GRADING & DRAINAGE PLAN
C5.6	BUILDING GRADES
C5.7	BUILDING GRADES
C5.8	BUILDING GRADES
C5.9	BUILDING GRADES
C6.0	SCM 1 - PLAN AND DETAILS
C6.1	SCM 2 - PLAN AND DETAILS
C6.2	SCM DETAILS
C7.0	PRELIMINARY PLAT PLAN
L1.0	TREE CONSERVATION PLAN
L1.1	AERIAL IMAGE
L2.0	OVERALL LANDSCAPE PLAN
L2.1	LANDSCAPE PLAN
L2.2	LANDSCAPE PLAN
L2.3	LANDSCAPE PLAN
L2.4	LANDSCAPE PLAN
L2.5	LANDSCAPE PLAN
L2.6	SCM LANDSCAPE PLAN
L3.0	LANDSCAPE DETAILS
SL1.0	OVERALL LIGHTING PLAN
SL2.0	SITE LIGHTING PLAN
SL2.1	SITE LIGHTING PLAN

K:\LR\18-0700\18072B-Garner Road TA\CAD\Preliminary Drawings\C00 Cover.dwg - Tuesday, March 23, 2021 10:50:07 AM - - FHILER, CORY



GENERAL NOTES

1. NO HORIZONTAL NGS MONUMENT WAS FOUND WITHIN 2,000 FEET OF THIS SITE.
2. THE FOLLOWING INFORMATION WAS USED TO OBTAIN NC GRID NAD-83 (2011), NAVD-88 (GEOID 12B) STATE PLANE COORDINATES (SPC) FOR THIS PROJECT:
   - 2.1. CLASS OF SURVEY: URBAN LAND SURVEYS (CLASS A)
   - 2.2. POSITIONAL ACCURACY: 0.07 (X), 0.07 (Y)
   - 2.3. GPS FIELD PROCEDURE: VRS
   - 2.4. DATE OF SURVEY: 09/12/19, 09/14/19, AND 09/26/19
   - 2.5. DATUM/EPOCH: NAD 83 (2011), EPOCH 2010.00
   - 2.6. PUBLISHED DATS/FBGD CONTROL USED: VRS, NCRD
   - 2.7. GEOID MODEL: 12B
   - 2.8. COMBINED GRID FACTOR: 0.9996701
   - 2.9. UNITS: U.S. SURVEY FEET
   - 2.10. GRID/GROUND POINT: YIN: 723,371.34 X(E): 2,119,136.30 ELEV: 334.29
3. ALL DISTANCES ARE HORIZONTAL GROUND DISTANCES IN U.S. SURVEY FEET UNLESS OTHERWISE NOTED.
4. ALL AREAS DERIVED BY THE COORDINATE COMPUTATION METHOD.
5. LINES NOT SURVEYED ARE SHOWN AS BROKEN LINES FROM INFORMATION REFERENCED HEREON.
6. PROPERTIES SHOWN HEREON ARE SUBJECT TO ALL EASEMENTS AND RESTRICTIONS OF RECORD. THIS SURVEY WAS PREPARED WITHOUT THE BENEFIT OF A TITLE REPORT AND MAY BE SUBJECT TO ANY MATTERS THAT A FULL TITLE SEARCH WOULD DISCLOSE.
7. NO PORTION OF THE SUBJECT PROPERTY IS LOCATED WITHIN A FLOOD HAZARD AREA ACCORDING TO FLOOD INSURANCE RATE MAP 3720171200J WITH AN EFFECTIVE DATE OF 05/02/2006.
8. SUITER AND WETLAND DETERMINATION PERFORMED BY SSCO ON 09/09/19 AND SHOULD BE VERIFIED BY NCDWR AND THE USACE PRIOR TO DESIGN.

EXISTING CONDITIONS AND DEMOLITION NOTES:

1. ALL WORK SHALL BE IN ACCORDANCE WITH CITY OF RALEIGH STANDARDS AND SPECIFICATIONS.
2. THE CONTRACTOR SHALL COORDINATE ALL REMOVAL EFFORTS WITH THE OWNER PRIOR TO COMMENCING WORK.
3. SPECIAL CARE SHALL BE TAKEN TO PROTECT AND MAINTAIN ALL EXISTING FEATURES, INCLUDING BELOW GROUND, NOT MARKED FOR REMOVAL. IN THE EVENT OF ANY IMPACT TO SUCH FEATURES, THE CONTRACTOR SHALL PERFORM REPAIR AND/OR RESTORE TO ORIGINAL CONDITION AS OF START OF WORK.
4. NO DEMOLITION MATERIAL IS TO BE STORED ON SITE. ALL DEMOLITION MATERIAL TO BE PROMPTLY REMOVED FROM THE SITE OR PLACED IN APPROPRIATE CONTAINERS.
5. TRAFFIC CONTROL IS CONTRACTOR'S RESPONSIBILITY.
6. SAWCUT EXISTING ASPHALT AT LOCATION SHOWN ON PLANS.
7. SITE DEMOLITION SEQUENCE TO BE PROVIDED BY THE CONTRACTOR.
8. THE CONTRACTOR SHALL OBTAIN A RIGHT-OF-WAY PERMIT FOR ANY WORK WHICH REQUIRES THE CLOSURE OF A TRAVEL LANE(S) AND/OR DEVIATION FROM THE TRANSPORTATION OPERATION DIVISION/PUBLIC WORKS DEPARTMENT.
9. ALL SIDEWALKS MUST BE ACCESSIBLE TO PERSONS WHO ARE BLIND, HAVE LOW VISION AND PEOPLE WITH MOBILITY DISABILITIES. PEDESTRIAN CROSSING ROUTES AND ALTERNATE PEDESTRIAN ROUTES DURING CONSTRUCTION WILL BE REQUIRED TO BE COMPLIANT WITH THE PUBLIC RIGHTS-OF-WAY ACCESSIBILITY GUIDELINES (PROWAG), 2016 ADA STANDARDS FOR ACCESSIBLE DESIGN AND THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).
10. IF UNFORESEEN CONDITIONS DEVELOP DURING CONSTRUCTION, REFER TO "CITY OF RALEIGH STREET DESIGN MANUAL" AND CONTACT PUBLIC WORKS DEPARTMENT FOR FURTHER GUIDANCE.
11. PRIOR TO START OF CONSTRUCTION, THE CONTRACTOR SHALL SCHEDULE A PRE-CONSTRUCTION MEETING WITH THE CITY OF RALEIGH PUBLIC WORKS DEPARTMENT / TRANSPORTATION FIELD SERVICES STAFF TO REVIEW THE SPECIFIC COMPONENTS OF THE PLAN AND OPERATION OF THESE FACILITIES DURING CONSTRUCTION. CONTACT ENGINEERING INSPECTIONS AT 919.996.2495 TO SET UP THE MEETING.
12. THE CONTRACTOR SHALL CONDUCT THE WORK IN A SAFE MANNER AND WITH A MINIMUM AMOUNT OF INCONVENIENCE TO TRAFFIC.
13. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TRAFFIC CONTROL AND SHALL ADHERE TO THE PROVISIONS OF THE MUTCD (MOST CURRENT EDITION).
14. ANY TEMPORARY STREET CLOSURE MUST BE SUBMITTED A MINIMUM OF 3 WEEKS PRIOR TO THE START OF WORK. SEE "RIGHT-OF-WAY CLOSURES" ON WWW.RALEIGHNC.GOV TO COMPLETE AND SEND THE RIGHT-OF-WAY OBSTRUCTION PERMIT TO RIGHTOFWAYSERVICES@RALEIGHNC.GOV.
15. PRIOR TO CONSTRUCTION BEGINNING, ALL SIGNAGE AND TRAFFIC CONTROL SHALL BE IN PLACE.
16. CONTRACTOR IS EXPLICITLY ADVISED TO FIELD LOCATE AND VERIFY LOCATION OF ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION. LOCATION OF EXISTING UNDERGROUND UTILITIES SHOWN ON PLANS IS APPROXIMATE BASED ON BEST AVAILABLE INFORMATION AND SHOULD BE CONSIDERED APPROXIMATE.
17. CONTRACTOR TO REPORT ANY DISCREPANCIES TO LANDSCAPE ARCHITECT OR ENGINEER PRIOR TO ANY CONSTRUCTION ACTIVITIES. CONTACT NC ONE 811 FOR FIELD LOCATION OF UNDERGROUND UTILITIES.
18. ALL SURVEY INFORMATION COLLECTED BY WITHERSRAVENEL. DATA WAS COLLECTED IN JUNE 2019.

STORM TABLE

STRUCTURE UPPER	STRUCTURE LOWER	LENGTH TOP/RIM	LENGTH INVERT	RADIUS TOP/RIM	RADIUS INVERT	PIPE
CB1	CB2	334.04	329.30	329.39	329.39	18" RCP
CB2	CB3	333.92	329.78	329.92	329.92	18" RCP
CB3	STRM-14	333.72	328.22	329.51	329.51	18" RCP
STRM-14		332.98	326.00			24" CSP
CB5	CB1	334.52	330.84	330.89	330.89	18" RCP
CB6	CB1	332.84	330.70	330.99	330.99	18" RCP
CB7	CB2	333.47	330.05	330.34	330.34	18" RCP
CB8	STRM-14	332.62	329.12	329.09	329.09	18" RCP
CB9	CB10	332.82	330.00	329.99	329.99	18" RCP
CB10	STRM-14	332.82	329.44	329.67	329.67	18" RCP
CB11	CB10	333.58	330.62	329.97	329.97	18" RCP
CB12	CB13	337.70	333.82	333.97	333.97	18" RCP
CB13	CB14	336.41	332.62	332.87	332.87	18" RCP
CB14	CB15	335.44	331.62	331.87	331.87	18" RCP
CB15	FCO-M2	334.76	330.62	330.30	330.30	24" RCP
CB17	CB11	333.28	330.37	329.98	329.98	18" RCP
CB18	CB20	336.18	334.28	334.31	334.31	18" RCP
CB19	CB20	335.82	332.38	331.81	331.81	18" RCP
CB20	CB21	334.88	331.08	330.82	330.82	18" RCP

CURVE TABLE

CURVE	LENGTH	RADIUS	BEARING	CHORD
C1	17.92	2996.73	N17°54'00"W	17.92
C2	122.20	2996.73	N15°37'41"W	122.18

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Preliminary Subdivision Plans for McGRADY FARM SUBDIVISION
RALEIGH, NORTH CAROLINA

OVERALL EXISTING CONDITIONS

Job No.	03190729	Drawn By	WR
Date	12/18/2019	Designer	WR

PRELIMINARY
NOT APPROVED FOR CONSTRUCTION

Revisions		
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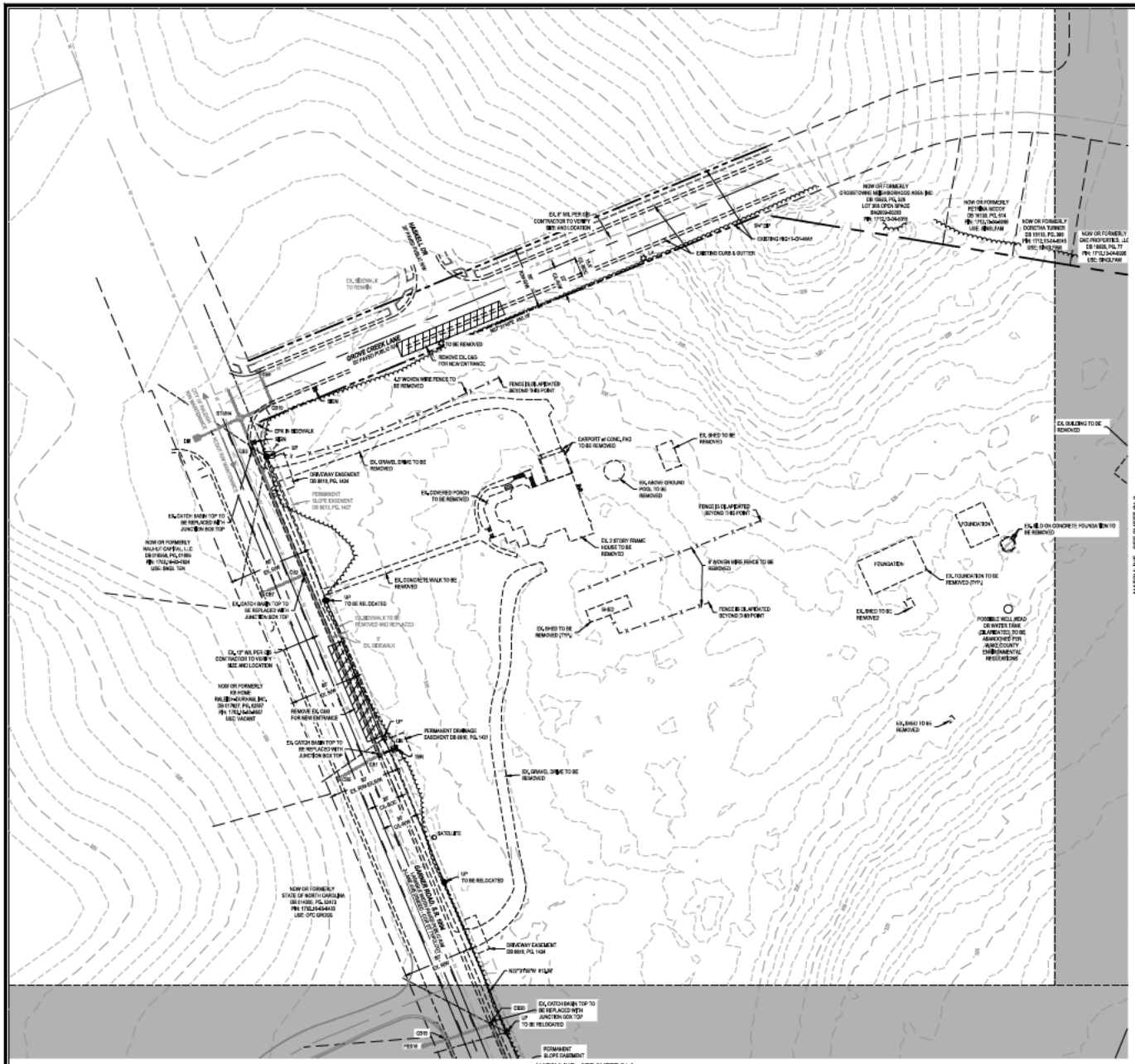
2	C.O.R. COMMENTS	7/2/20
3	C.O.R. COMMENTS	7/29/20
4	C.O.R. COMMENTS	1/15/21

Sheet No.
C1.0

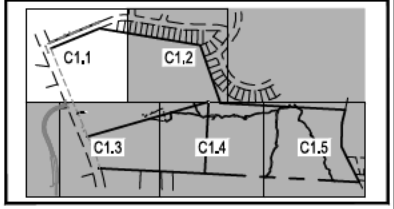


LEGEND

CB	CABLE HANDHOLE
CB	CATCH BASIN
CP	COMPUTED POINT
DI	DROP INLET
EB	ELECTRIC HANDHOLE
EM	ELECTRIC METER
EEM	EXISTING CONCRETE MONUMENT
EIP	EXISTING IRON PIPE
EPK	EXISTING PK NAIL
ERB	EXISTING REBAR
FO	FIBER OPTIC BOX
FOM	FIBER OPTIC MARKER
FH	FIRE HYDRANT
GY	GUY WIRE
LP	LIGHT POLE
MB	MAILBOX
	OVERHEAD UTILITIES
PK	PINE
POP	POPLAR
	PROPERTY LINE
	PROPERTY LINE, RAW (NOT SURVEYED)
RCP	REINFORCED CONCRETE STORM PIPE
CO	SANITARY SEWER CLEANOUT
SSMH	SANITARY SEWER MANHOLE
SIGN	SIGN
STMH	STORM MANHOLE
TB	TELEPHONE HANDHOLE
TLP	TELEPHONE PEDESTAL
	TREE LINE
	UNDERGROUND SANITARY SEWER LINE
	UNDERGROUND STORM PIPE
UB	UNDERGROUND UTILITY ACCESS
UP	UTILITY POLE
WMH	WATER MANHOLE
WM	WATER METER
WV	WATER VALVE
WT	WETLAND FLAG

SHEET KEY MAP

1 inch = 500 ft.



GRAPHIC SCALE

1 inch = 40 ft.

811

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Preliminary Subdivision Plans for McGRADY FARM SUBDIVISION

RALEIGH, NORTH CAROLINA

EXISTING CONDITIONS & DEMOLITION PLAN

Job No.	03190729	Drawn By	WR
Date	02/18/2019	Designer	WR

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Sheet No.
C1.1

LEGEND

- CB CATCH BASIN
- CP COMPUTED POINT
- DI DROP INLET
- EM ELECTRIC METER
- ECM EXISTING CONCRETE MONUMENT
- EPK EXISTING PK NAIL
- ERS EXISTING REBAR
- FCO FIBER OPTIC BOX
- FOM FIBER OPTIC MARKER
- FH FIRE HYDRANT
- GUY WIRE
- LP LIGHT POLE
- MB MAILBOX
- OVERHEAD UTILITIES
- PIN PINE
- POP POPLAR
- PROPERTY LINE
- PROPERTY LINE, RAW (NOT SURVEYED)
- RCP REINFORCED CONCRETE STORM PIPE
- CO SANITARY SEWER CLEANOUT
- SSMH SANITARY SEWER MANHOLE
- SIGN
- STMH STORM MANHOLE
- TELEPHONE HANDHOLE
- TLP TELEPHONE PEDESTAL
- TREE LINE
- UNDERGROUND SANITARY SEWER LINE
- UNDERGROUND STORM PIPE
- UB UNDERGROUND UTILITY ACCESS
- UP UTILITY POLE
- WMH WATER MANHOLE
- WM WATER METER
- WV WATER VALVE
- WT WETLAND FLAG

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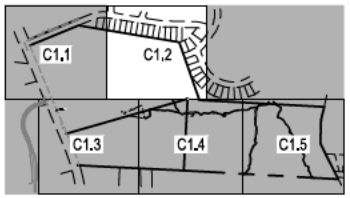

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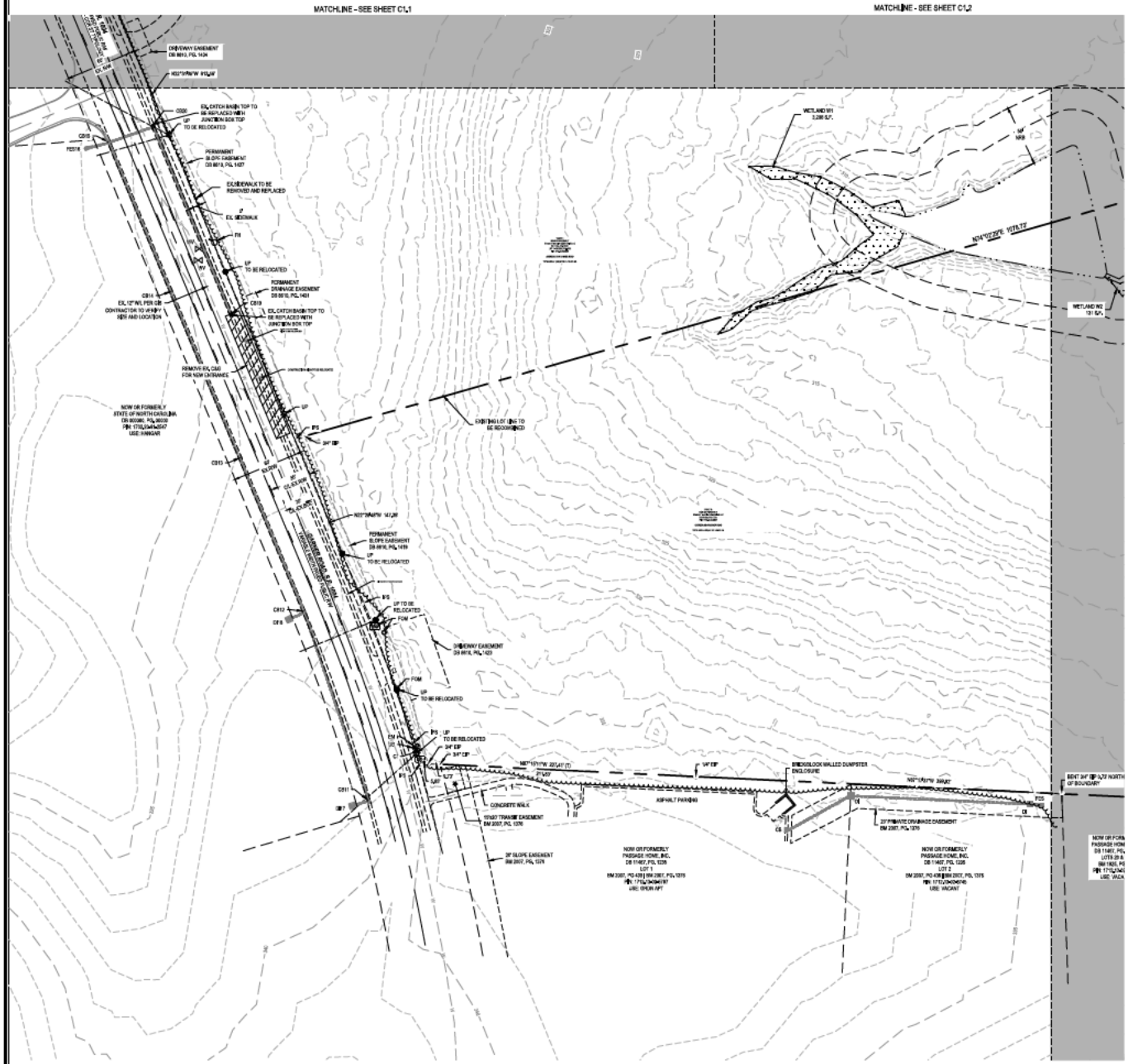
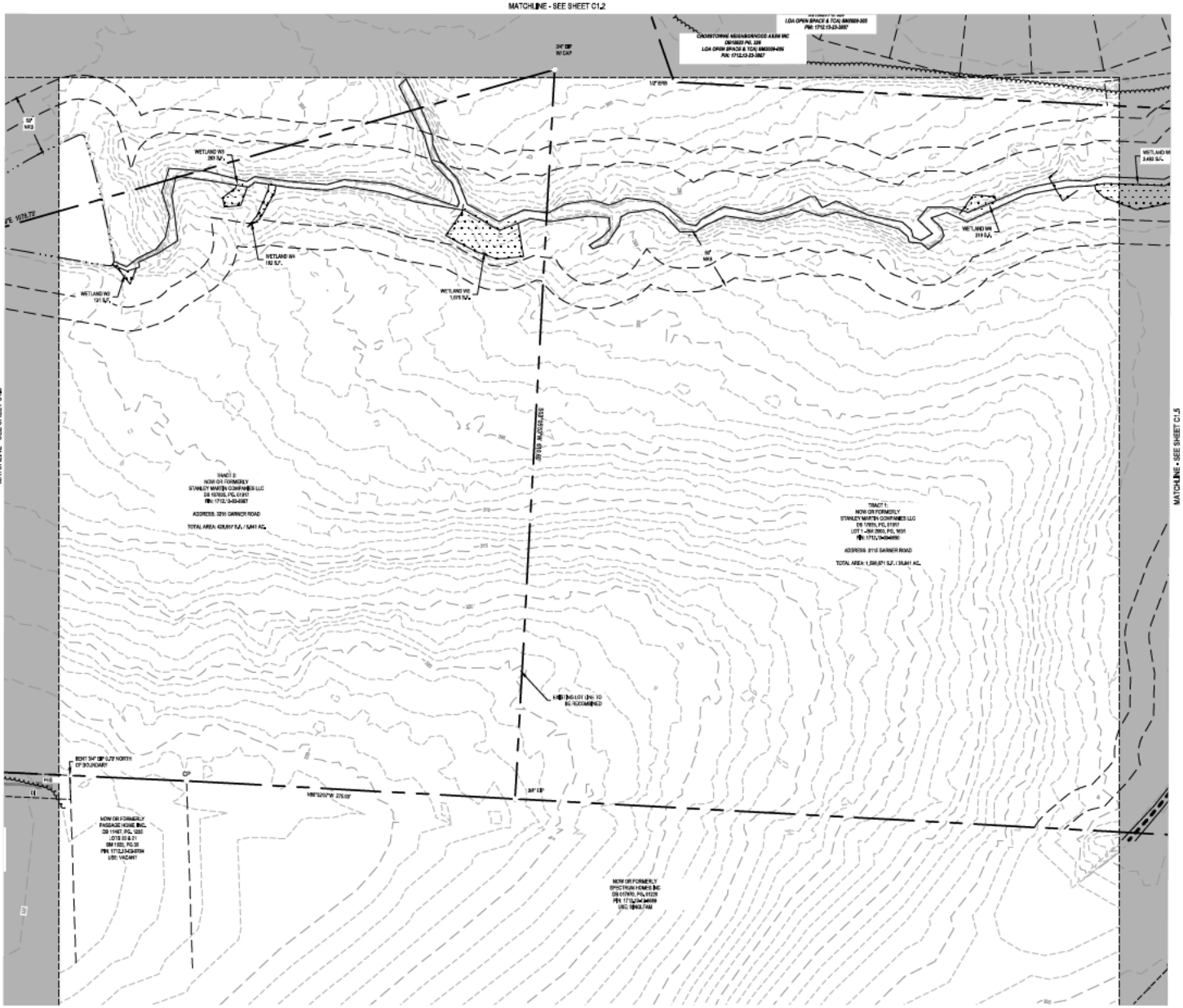
Sheet No.
C1.2


MATCHLINE - SEE SHEET C1.1
MATCHLINE - SEE SHEET C1.2
MATCHLINE - SEE SHEET C1.4
DRIVEWAY EASEMENT
DB 8810, PG. 1434
EXISTING LOT LINE TO BE REDESIGNED
WETLAND 101
3,286 S.F.
WETLAND 102
131 S.F.
N74°02'20"E 1078.77'
NOW OR FORMERLY
STATE OF NORTH CAROLINA
USE: HANGAR
HANGER ROAD PLANE
PERMANENT
SLOPE EASEMENT
DB 8810, PG. 1439
DRIVEWAY EASEMENT
DB 8810, PG. 1433
CONCRETE WALK
15'X60' TRANSIT EASEMENT
BM 2007, PG. 1376
20' SLOPE EASEMENT
BM 2007, PG. 1376
ASPHALT PARKING
SHED/BLOCK WALLED DUMPSTER
ENCLOSURE
20' PRIVATE DRAINAGE EASEMENT
BM 2007, PG. 1376
NOW OR FORMERLY
PASSAGE HOME, INC.
DB 11487, PG. 1225
LOT 1
BM 2007, PG 439 | BM 2007, PG. 1376
PIN: 1721.04344197
USE: VACANT
NOW OR FORMERLY
PASSAGE HOME, INC.
DB 11487, PG. 1225
LOT 2
BM 2007, PG 439 | BM 2007, PG. 1376
PIN: 1721.04343949
USE: VACANT
NOW OR FORMERLY
PASSAGE HOME, INC.
DB 11487, PG.
LOTS 29 &
BM 1963, PG
PIN: 1721.04343
USE: VACA
REBAR 3/4" EIP 1.72' NORTH
OF BOUNDARY
EOS
CB
EL, CATCH BASIN TOP TO
BE REPLACED WITH
JUNCTION BOX TOP
TO BE RELOCATED
PERMANENT
SLOPE EASEMENT
DB 8810, PG. 1437
EXISTING SIDEWALK TO BE
REMOVED AND REPLACED
EL SIDEWALK
FH
LP
TO BE RELOCATED
PERMANENT
DRAINAGE EASEMENT
DB 8810, PG. 1431
EL, CATCH BASIN TOP TO
BE REPLACED WITH
JUNCTION BOX TOP
EL, 12" WL PER GB
CONTRACTOR TO VERIFY
SIZE AND LOCATION
REMOVE EL CBU
FOR NEW DRIVEWAY
PERMANENT
SLOPE EASEMENT
DB 8810, PG. 1439
LP
TO BE RELOCATED
LP TO BE
RELOCATED
FOM
LP
TO BE RELOCATED
LP TO BE RELOCATED
3/4" EIP
3/4" EIP
N87°15'17"W 207.41' (T)
PT LAP
LAP
N87°15'17"W 399.92'
3/4" EIP
CB
CB
CB



LEGEND

CB	CABLE HANDHOLE
CB	CATCH BASIN
CP	COMPUTED POINT
DI	DROP INLET
EB	ELECTRIC HANDHOLE
EM	ELECTRIC METER
ECM	EXISTING CONCRETE MONUMENT
HP	EXISTING IRON PIPE
EPK	EXISTING PK NAIL
ERS	EXISTING REBAR
FO	FIBER OPTIC BOX
FOM	FIBER OPTIC MARKER
FH	FIRE HYDRANT
GUY	GUY WIRE
LP	LIGHT POLE
MB	MAILBOX
OHP	OVERHEAD UTILITIES
PIN	PINE
POP	POPLAR
PL	PROPERTY LINE
PL	PROPERTY LINE, RAW (NOT SURVEYED)
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SMH	SANITARY SEWER MANHOLE
SIGN	SIGN
STMH	STORM MANHOLE
TB	TELEPHONE HANDHOLE
TLP	TELEPHONE PEDESTAL
TL	TREE LINE
UGS	UNDERGROUND SANITARY SEWER LINE
UGS	UNDERGROUND STORM PIPE
UE	UNDERGROUND UTILITY ACCESS
UP	UTILITY POLE
WMH	WATER MANHOLE
WM	WATER METER
WV	WATER VALVE
WF	WETLAND FLAG

SHEET KEY MAP

1 inch = 500 ft.

GRAPHIC SCALE

1 inch = 40 ft.

811

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Preliminary Subdivision Plans for McGRADY FARM SUBDIVISION
RALEIGH, NORTH CAROLINA

EXISTING CONDITIONS & DEMOLITION PLAN

Job No.	03190729	Drawn By	WR
Date	02/18/2019	Designer	WR

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Sheet No.
C1.4

LEGEND

CB	CABLE HANDHOLE
CB	CATCH BASIN
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DI	DROP INLET
EB	ELECTRIC HANDHOLE
EM	ELECTRIC METER
EC.M	EXISTING CONCRETE MONUMENT
HP	EXISTING IRON PIPE
EPK	EXISTING PK NAIL
ERS	EXISTING REBAR
FO	FIBER OPTIC BOX
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FH	FIRE HYDRANT
GW	GUY WIRE
LP	LIGHT POLE
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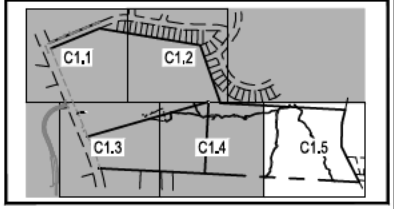

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Sheet No.
C1.5

WHEEL CHAIR RAMP NOTES:

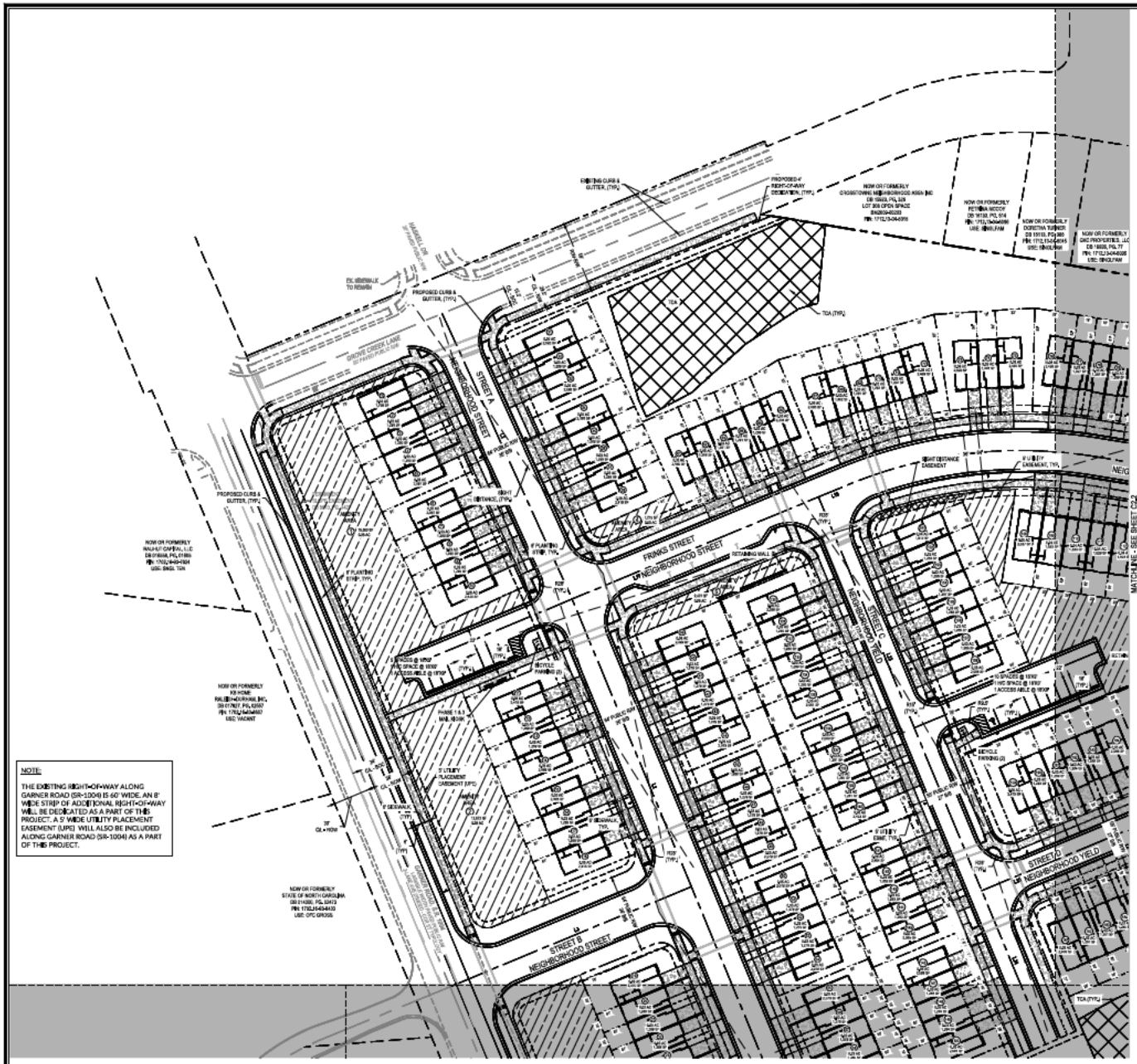
1. ALL WHEEL CHAIR RAMPS TO BE FIELD ADJUSTED WITH INPUT FROM THE CITY OF RALEIGH FIELD INSPECTOR PRIOR TO INSTALLATION.
2. POWER POLES WHICH MAY CONFLICT WITH FIELD LOCATED WHEEL CHAIR RAMPS ARE TO BE RELOCATED BY APPROPRIATE UTILITY COMPANY.
3. WHEEL CHAIR ACCESS RAMPS WILL BE PROVIDED IN ACCORDANCE WITH RALEIGH PUBLIC WORKS TRANSPORTATION STANDARD DETAILS T-40.01, T-40.02, T-40.04 & T-40.07.

SOLID WASTE NOTES:

- 96-GAL CONTAINERS TO BE STORED IN EACH UNIT'S GARAGE AND ARE TO BE ROLLED OUT TO THE NEAREST PUBLIC CURB & GUTTER ON COLLECTION DAY.

SITE DATA

PROPERTY OWNER	[illegible]
DEVELOPER	[illegible]
CONTACT PERSON	[illegible]
PH. / FAX	[illegible]
EMAIL ADDRESS	[illegible]
ADDRESS	[illegible]
SITE ADDRESS	[illegible]
PROJECT NAME	[illegible]
PROJECT LOCATION	[illegible]
EXISTING ZONING	[illegible]
PROPOSED ZONING	[illegible]
TOTAL SITE AREA	[illegible]
PROPOSED USE	[illegible]
PROPOSED BUILDING TYPE	[illegible]
PROPOSED BUILDING HEIGHT	[illegible]
PARKING RATIO (1 SPACE PER [illegible] UNITS)	[illegible]
PARKING REQUIRED	[illegible]
PARKING PROVIDED	[illegible]
AMENITY AREA	[illegible]
	[illegible]
	[illegible]



SHEET KEY MAP
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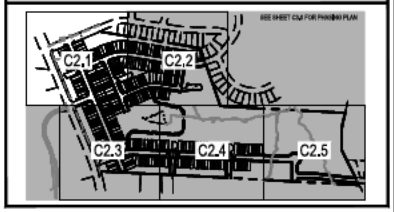

GRAPHIC SCALE
1 inch = 40 ft.

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Preliminary Subdivision Plans for McGRADY FARM SUBDIVISION
RALEIGH, NORTH CAROLINA

SUBDIVISION PLAN

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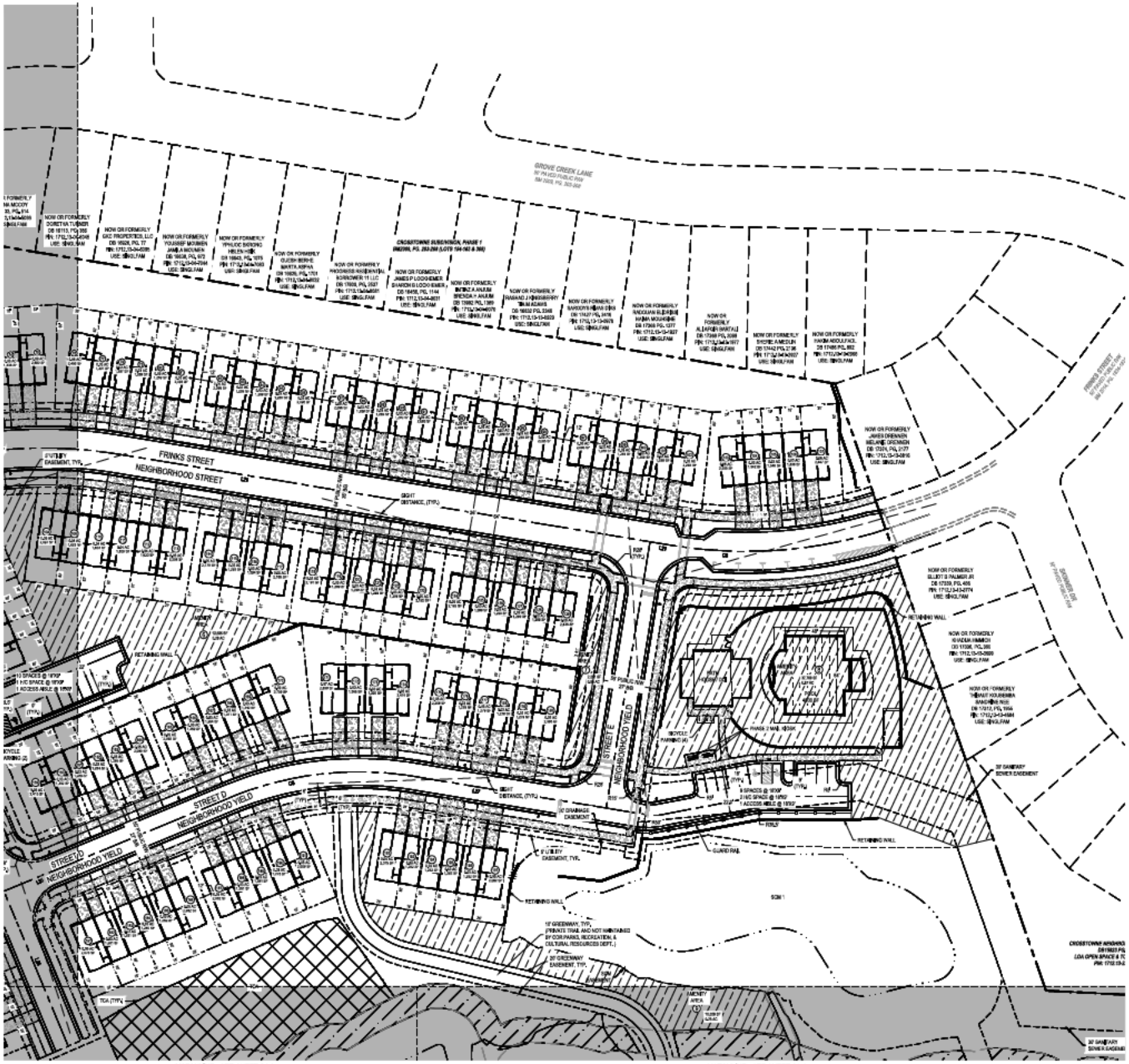
Sheet No.
C2.1



SHEET KEY MAP

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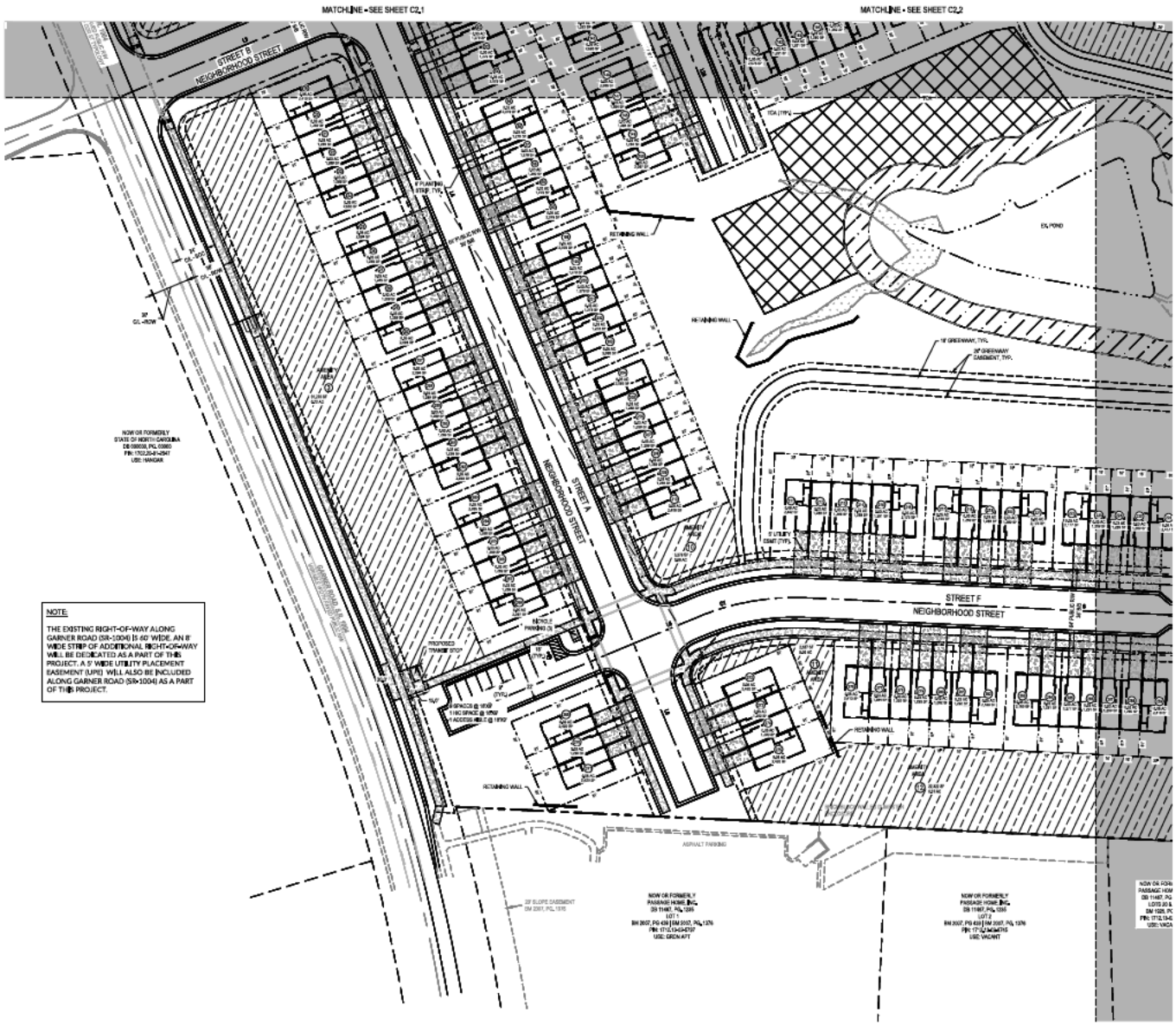
C2.2



NOTE:

THE EXISTING RIGHT-OF-WAY ALONG GARNER ROAD (SR-1004) IS 40' WIDE. AN 8' WIDE STRIP OF ADDITIONAL RIGHT-OF-WAY WILL BE DEDICATED AS A PART OF THIS PROJECT. A 5' WIDE UTILITY PLACEMENT EASEMENT (UPE) WILL ALSO BE INCLUDED ALONG GARNER ROAD (SR-1004) AS A PART OF THIS PROJECT.

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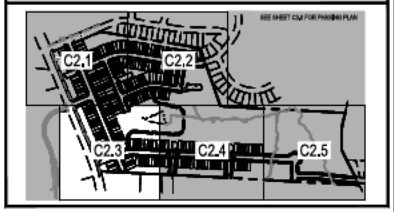

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Preliminary Subdivision Plans for McGRADY FARM SUBDIVISION

RALEIGH, NORTH CAROLINA

SUBDIVISION PLAN

Job No.	03180729	Drawn By	WR
Date	02/18/2019	Designer	WR

PRELIMINARY
NOT APPROVED FOR CONSTRUCTION

Revisions		
1	C.O.R. COMMENTS	3/17/20
2	C.O.R. COMMENTS	7/2/20
3	C.O.R. COMMENTS	7/29/20
4	C.O.R. COMMENTS	1/15/21

Sheet No.

C2.3

MATCHLINE - SEE SHEET C2.2

MATCHLINE - SEE SHEET C2.3

MATCHLINE - SEE SHEET C2.5

STREET F
NEIGHBORHOOD STREET

STREET H
NEIGHBORHOOD YIELD

STREET
NEIGHBORHOOD YIELD

RETAINING WALL

OPEN SPACE

EX. POND

TCA

TCA (TYP.)

BOX 2

50' PUBLIC R/W

50' DRAINAGE EASEMENT

50' SANITARY SEWER EASEMENT

REGULATORY FLOOD ELEVATION (TYP.)

DCM EASEMENT

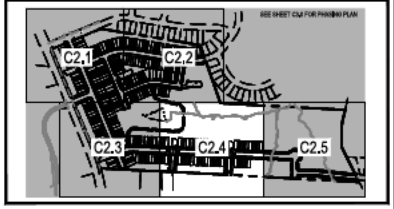
BICYCLE PARKING (4)

PUBLITY EDIT (TYP.)

NOW OR FORMERLY
PASSAGE HOME, INC.
DB 11402, PG. 1128
LOTS 38 & 39
BM 1925, PG 30
PIN: 1712.15-02-0194
USE: VACANT

NOW OR FORMERLY
SPECTRUM HOMES INC
DB 07870, PG. 01220
PIN: 1712.15-04-9981
USE: SINGLE FAM

SHEET KEY MAP
1 inch = 500 ft.



GRAPHIC SCALE
1 inch = 40 ft.

811

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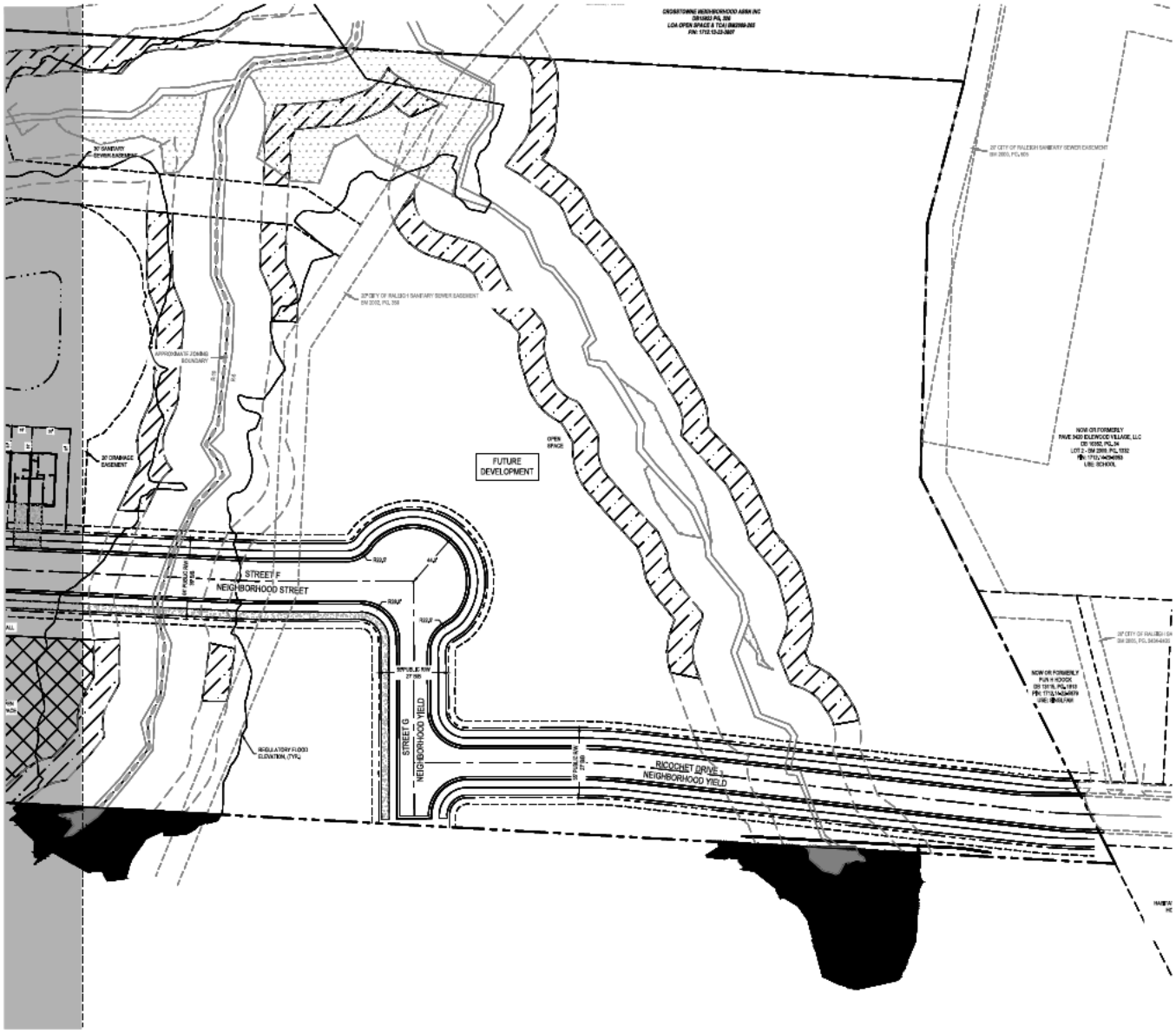

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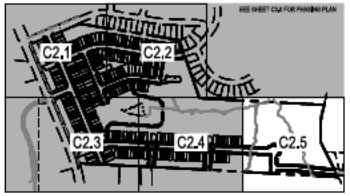

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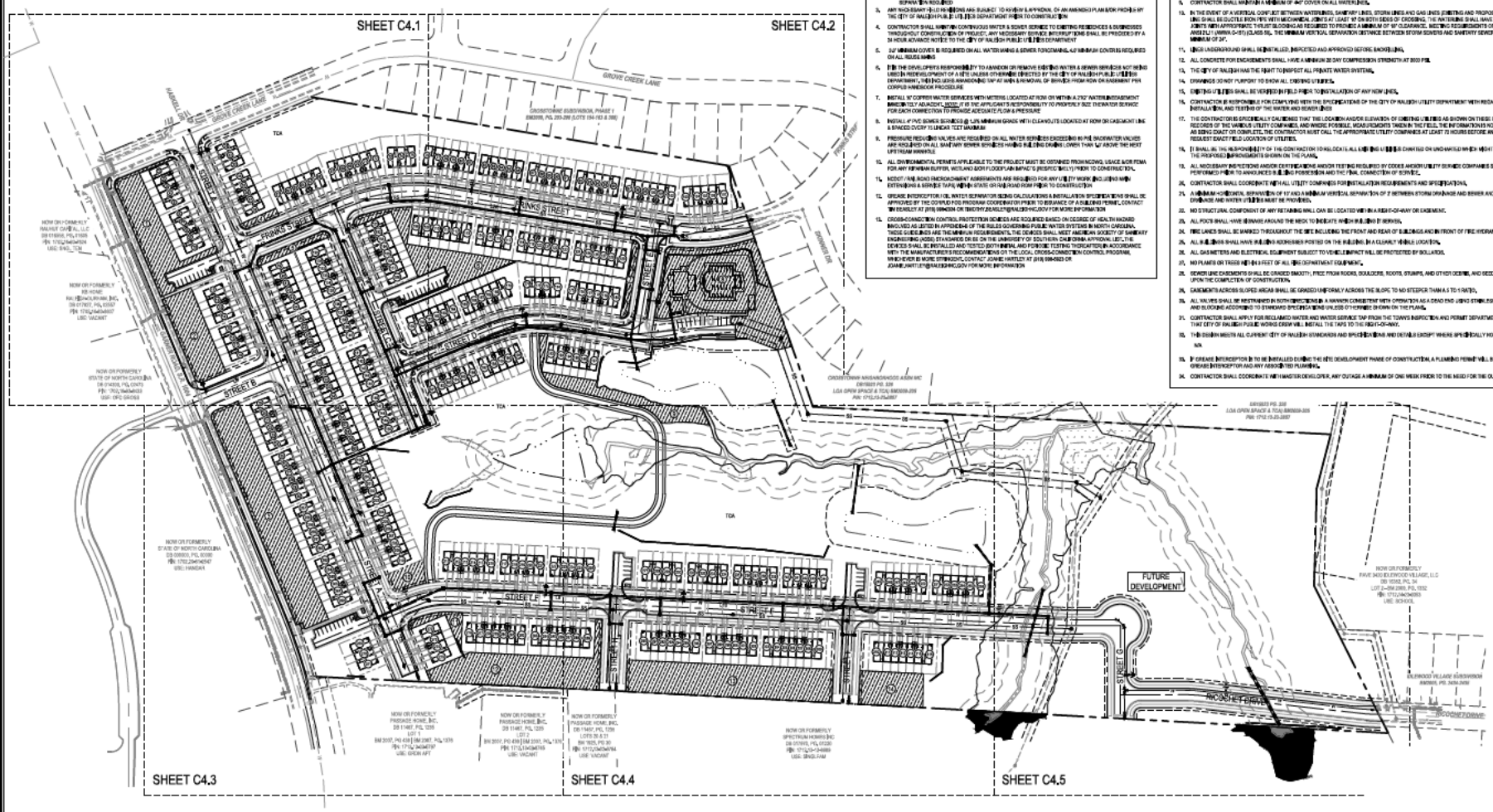

UTILITY LEGEND:

- FIRE HYDRANT
- WATER VALVE
- CATCH BASIN
- SANITARY MANHOLE
- BLOW OFF VALVE
- 3/4" TYPE "K" COPPER WATER SERVICE WITH 3/4" WATER METER
- 4" PVC SANITARY SEWER SERVICE METER

CITY OF RALEIGH - APPENDIX D: STANDARD UTILITY NOTES:

1. ALL STANDARD MATERIALS & CONSTRUCTION METHODS SHALL BE IN ACCORDANCE WITH CITY OF RALEIGH DESIGN STANDARDS, DETAILS, & SPECIFICATIONS (REFERENCE CORPUD HANDBOOK, CURRENT EDITION).
2. UTILITY SEPARATION REQUIREMENTS:
   2.A. A DISTANCE OF 10' SHALL BE MAINTAINED BETWEEN SANITARY SEWER & ANY PRIVATE OR PUBLIC WATER SUPPLY SOURCE (SUCH AS AN IMPOUNDED RESERVOIR (IRS) AS A SOURCE OF DRINKING WATER). IF ADEQUATE LATERAL SEPARATION CANNOT BE ACHIEVED, FERROUS SANITARY SEWER PIPE SHALL BE SPECIFIED & INSTALLED TO WATERLINE SPECIFICATIONS; HOWEVER, THE MINIMUM SEPARATION SHALL NOT BE LESS THAN 25' FROM A PRIVATE WELL OR 50' FROM A PUBLIC WELL.
   2.B. WHEN INSTALLING WATER &/OR SEWER MAINS, THE HORIZONTAL SEPARATION BETWEEN UTILITIES SHALL BE 10'. IF THIS SEPARATION CANNOT BE MAINTAINED DUE TO EXISTING CONDITIONS, THE VARIATION ALLOWED IS THE WATER MAIN IN A SEPARATE TRENCH WITH THE ELEVATION OF THE WATER MAIN AT LEAST 18" ABOVE THE TOP OF THE SEWER & MUST BE APPROVED BY THE PUBLIC UTILITIES DIRECTOR. ALL DISTANCES ARE MEASURED FROM OUTSIDE DIAMETER TO OUTSIDE DIAMETER.
   2.C. WHERE IT IS IMPOSSIBLE TO OBTAIN PROPER SEPARATION, OR ANY TIME A SANITARY SEWER PASSES OVER A WATERMAIN, THE MATERIALS OR STEEL ENCASEMENT EXTENDED 10' ON EACH SIDE OF CROSSING MUST BE SPECIFIED & INSTALLED TO WATERLINE SPECIFICATIONS.
   2.D. 5.0' MINIMUM HORIZONTAL SEPARATION IS REQUIRED BETWEEN ALL SANITARY SEWER & STORM SEWER FACILITIES, UNLESS OTHERWISE SPECIFIED FOR SANITARY SEWER.
   2.E. MAINTAIN 18" MIN. VERTICAL SEPARATION AT ALL WATERMAIN & NOT STORM DRAIN CROSSINGS; MAINTAIN 24" MIN. VERTICAL SEPARATION AT ALL SANITARY SEWER & NOT STORM DRAIN CROSSINGS; WHERE ADEQUATE SEPARATIONS CANNOT BE ACHIEVED, STEEL OR WATERMAIN & A CONCRETE CRADLE HAVING 6" MIN. CLEARANCE (PER CORPUD DETAILS W-41 & S-48).
   2.F. ALL OTHER UNDERGROUND UTILITIES SHALL CROSS WATER & SEWER FACILITIES WITH 18" MIN. VERTICAL SEPARATION REQUIRED.
3. ANY NECESSARY FIELD REVISIONS ARE SUBJECT TO REVIEW & APPROVAL OF AN AMENDED PLAN AND PROVISION BY THE CITY OF RALEIGH PUBLIC UTILITIES DEPARTMENT PRIOR TO CONSTRUCTION.
4. CONTRACTOR SHALL MAINTAIN CONTINUOUS WATER & SEWER SERVICE TO EXISTING RESIDENCES & BUSINESSES THROUGHOUT CONSTRUCTION OF PROJECT. ANY NECESSARY SERVICE INTERRUPTIONS SHALL BE PROCEDED BY A 24 HOUR ADVANCE NOTICE TO THE CITY OF RALEIGH PUBLIC UTILITIES DEPARTMENT.
5. 3.0' MINIMUM COVER IS REQUIRED ON ALL WATER MAINS & SEWER FORCEMAINS. 4.0' MINIMUM COVER IS REQUIRED ON ALL REUSE MAINS.
6. IT IS THE DEVELOPER'S RESPONSIBILITY TO ABANDON OR REMOVE EXISTING WATER & SEWER SERVICES NOT BEING USED IN REDEVELOPMENT OF A SITE UNLESS OTHERWISE DIRECTED BY THE CITY OF RALEIGH PUBLIC UTILITIES DEPARTMENT. THIS INCLUDES ABANDONING TAP AT MAIN & REMOVAL OF SERVICE FROM ROW OR EASEMENT PER CORPUD HANDBOOK PROCEDURE.
7. INSTALL 1" COPPER WATER SERVICES WITH METERS LOCATED AT ROW OR WITHIN A 2.5'X7' WATER/UE EASEMENT IMMEDIATELY ADJACENT. NOTE: IT IS THE APPLICANT'S RESPONSIBILITY TO PROPERLY SIZE THE WATER SERVICE FOR EACH CONNECTION TO PROVIDE ADEQUATE FLOW & PRESSURE.
8. INSTALL 4" PVC SEWER SERVICES @ 1.0% MINIMUM GRADE WITH CLEANOUTS LOCATED AT ROW OR EASEMENT LINE & SPACED EVERY 75 LINEAR FEET MAXIMUM.
9. PRESSURE REDUCING VALVES ARE REQUIRED ON ALL WATER SERVICES EXCEEDING 80 PSI. BACKWATER VALVES ARE REQUIRED ON ALL SANITARY SEWER SERVICES HAVING BUILDING DRAINS LOWER THAN 12" ABOVE THE NEXT UPSTREAM MANHOLE.
10. ALL ENVIRONMENTAL PERMITS APPLICABLE TO THE PROJECT MUST BE OBTAINED PRIOR INCLUDING USACE &/OR FEMA FOR ANY RIPARIAN BUFFER, WETLAND &/OR FLOODPLAIN IMPACTS (SPECIFIC SITE) PRIOR TO CONSTRUCTION.
11. NCDOT / RAILROAD ENCROACHMENT AGREEMENTS ARE REQUIRED FOR ANY UTILITY WORK INCLUDING MAIN EXTENSIONS & SERVICE TAPS WITHIN STATE OR RAILROAD ROW PRIOR TO CONSTRUCTION.
12. GREASE INTERCEPTOR / OIL WATER SEPARATOR SIZING CALCULATIONS & INSTALLATION SPECIFICATIONS SHALL BE APPROVED BY THE CORPUD FOG PROGRAM COORDINATOR PRIOR TO ISSUANCE OF A BUILDING PERMIT. CONTACT TIM BENSLEY AT (919) 996-3304 OR TIMOTHY.BENSLEY@RALEIGHNC.GOV FOR MORE INFORMATION.
13. CROSS-CONNECTION CONTROL PROTECTION DEVICES ARE REQUIRED BASED ON DEGREE OF HEALTH HAZARD INVOLVED AS LISTED IN APPENDIX-F OF THE RULES GOVERNING PUBLIC WATER SYSTEMS IN NORTH CAROLINA. THESE GUIDELINES ARE THE MINIMUM REQUIREMENTS. THE DEVICES SHALL MEET AMERICAN SOCIETY OF SANITARY ENGINEERING (ASSE) STANDARDS OR BE ON THE UNIVERSITY OF SOUTHERN CALIFORNIA APPROVAL LIST. THE DEVICES SHALL BE INSTALLED AND TESTED (BOTH INITIAL AND PERIODIC TESTING THEREAFTER) IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS OR THE LOCAL CROSS-CONNECTION CONTROL PROGRAM, WHICHEVER IS MORE STRINGENT. CONTACT JOANIE HARTLEY AT (919) 996-3423 OR JOANIE.HARTLEY@RALEIGHNC.GOV FOR MORE INFORMATION.

UTILITY NOTES:

1. ALL FILL MATERIAL IS TO BE IN PLACE AND COMPACTED BEFORE INSTALLATION OF PROPOSED UTILITIES.
2. CONTRACTOR SHALL NOTIFY THE CITY OF RALEIGH UTILITY INSPECTORS 24 HOURS BEFORE CONNECTING TO ANY EXISTING LINE.
3. SANITARY SEWER PIPE SHALL BE AS FOLLOWS:
   8" PVC SDR35 PER ASTM D 3034, FOR PIPES LESS THAN 12 DEEP FOR SEWER MAINS
   8" PVC SDR26 PER ASTM D 3034, FOR PIPES MORE THAN 12'DEEP FOR SEWER MAINS
   6" PVC SCHEDULE 40 FOR SEWER SERVICES ONLY
   DUCTILE IRON PIPE PER AWWA C150 AND AWWA C151 FOR MAINS, LAYING CONDITION TYPE 2
4. WATER LINES SHALL BE AS FOLLOWS:
   4" AND LARGER = DUCTILE IRON PIPE PER AWWA C150 AND AWWA C151
   SMALLER THAN 4" = COPPER TUBE
5. MINIMUM TRENCH WIDTH AT THE TOP OF PIPE SHALL BE AT LEAST 18" INCHES GREATER THAN THE OUTSIDE DIAMETER OF THE PIPE.
6. PVC SANITARY SEWER SERVICES WHICH ARE 4" TO 14' DEEP SHALL REQUIRE SERVICES IN ACCORDANCE WITH DETAIL 7000.10 AND 7000.20 FOR PVC PIPES. PVC SERVICES WHICH ARE GREATER THAN 14' AND LESS THAN 20' SHALL REQUIRE CLASS A SERVICES IN ACCORDANCE WITH DETAIL 7000.21. ANY SERVICES OVER 20' AND LESS THAN 2' DEEP REQUIRE OIP.
7. ALL WATER DISTRIBUTION MAINS IN THE CITY OF RALEIGH WATER SYSTEM SHALL BE RESTRAINED IN ACCORDANCE WITH THE CURRENT CITY OF RALEIGH STANDARD SPECIFICATIONS.
8. ALL UTILITIES SHOULD BE KEPT 10' APART (PARALLEL) OR WHEN CROSSING 18" VERTICAL CLEARANCE (OUTSIDE EDGE OF PIPE TO OUTSIDE EDGE OF PIPE).
9. CONTRACTOR SHALL MAINTAIN A MINIMUM OF 48" COVER ON ALL WATERLINES.
10. IN THE EVENT OF A VERTICAL CONFLICT BETWEEN WATERLINES, SANITARY LINES, STORM LINES AND GAS LINES (EXISTING AND PROPOSED), THE SANITARY LINE SHALL BE DUCTILE IRON PIPE WITH MECHANICAL JOINTS AT LEAST 10' ON BOTH SIDES OF CROSSING. THE WATERLINE SHALL HAVE MECHANICAL JOINTS WITH APPROPRIATE THRUST BLOCKING AS REQUIRED TO PROVIDE A MINIMUM OF 18" CLEARANCE. MEETING REQUIREMENTS OF ANSI/AS/NZS 4130 OR ANSI/ASTM F1810 (AWWA C-151) (CLASS 50). THE MINIMUM VERTICAL SEPARATION DISTANCE BETWEEN STORM SEWERS AND SANITARY SEWERS SHALL BE A MINIMUM OF 24".
11. LINES UNDERGROUND SHALL BE INSTALLED, INSPECTED AND APPROVED BEFORE BACKFILLING.
12. ALL CONCRETE FOR ENCASEMENTS SHALL HAVE A MINIMUM 28 DAY COMPRESSION STRENGTH AT 3000 PSI.
13. THE CITY OF RALEIGH HAS THE RIGHT TO INSPECT ALL PRIVATE WATER SYSTEMS.
14. DRAWINGS DO NOT PURPORT TO SHOW ALL EXISTING UTILITIES.
15. EXISTING UTILITIES SHALL BE VERIFIED IN FIELD PRIOR TO INSTALLATION OF ANY NEW LINES.
16. CONTRACTOR IS RESPONSIBLE FOR COMPLYING WITH THE SPECIFICATIONS OF THE CITY OF RALEIGH UTILITY DEPARTMENT WITH REGARDS TO MATERIALS, INSTALLATION, AND TESTING OF THE WATER AND SEWER LINES.
17. THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES, AND WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE APPROPRIATE UTILITY COMPANIES AT LEAST 72 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION OF UTILITIES.
18. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL LINES AND SERVICES DAMAGED OR UNDAMAGED WHICH MIGHT CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS.
19. ALL NECESSARY INSPECTIONS AND/OR CERTIFICATIONS AND/OR TESTING REQUIRED BY CODES AND/OR UTILITY SERVICE COMPANIES SHALL BE PERFORMED PRIOR TO ANNOUNCED BUILDING POSSESSION AND THE FINAL CONNECTION OF SERVICE.
20. CONTRACTOR SHALL COORDINATE WITH ALL UTILITY COMPANIES FOR INSTALLATION REQUIREMENTS AND SPECIFICATIONS.
21. A MINIMUM HORIZONTAL SEPARATION OF 10' AND A MINIMUM VERTICAL SEPARATION OF 2' BETWEEN STORM DRAINAGE AND SEWER, AND 18" BETWEEN STORM DRAINAGE AND WATER UTILITIES MUST BE PROVIDED.
22. NO STRUCTURAL COMPONENT OF ANY RETAINING WALL CAN BE LOCATED WITHIN A RIGHT-OF-WAY OR EASEMENT.
23. ALL POLES SHALL HAVE SIGNAGE AROUND THE NECK TO INDICATE WHICH BUILDING IT SERVES.
24. FIRE LANES SHALL BE MARKED THROUGHOUT THE SITE INCLUDING THE FRONT AND REAR OF BUILDINGS AND IN FRONT OF FIRE HYDRANTS AND POLES.
25. ALL BUILDINGS SHALL HAVE BUILDING ADDRESSES POSTED ON THE BUILDING IN A CLEARLY VISIBLE LOCATION.
26. ALL GAS METERS AND ELECTRICAL EQUIPMENT SUBJECT TO VEHICLE IMPACT WILL BE PROTECTED BY BOLLARDS.
27. NO PLANTS OR TREES WITHIN 3 FEET OF ALL FIRE DEPARTMENT EQUIPMENT.
28. SEWER LINE EASEMENTS SHALL BE GRADED SMOOTH, FREE FROM ROCKS, BOULDERS, ROOTS, STUMPS, AND OTHER DEBRIS, AND SEEDED AND MULCHED UPON THE COMPLETION OF CONSTRUCTION.
29. EASEMENTS ACROSS SLOPED AREAS SHALL BE GRADED UNIFORMLY ACROSS THE SLOPE TO NO STEEPER THAN A 3 TO 1 RATIO.
30. ALL VALVES SHALL BE RESTRAINED IN BOTH DIRECTIONS (E.G. A WANNER CONSISTENT WITH OPERATION AS A DEAD END USING STAINLESS STEEL ROD ENDS AND BUCKLES ACCORDING TO STANDARD SPECIFICATIONS UNLESS OTHERWISE SHOWN ON THE PLANS.
31. CONTRACTOR SHALL APPLY FOR RECLAIMED WATER AND WATER SERVICE TAP FROM THE TOWN'S INSPECTION AND PERMIT DEPARTMENT AND TO INDICATE THAT CITY OF RALEIGH PUBLIC WORKS CREW WILL INSTALL THE TAPS TO THE RIGHT-OF-WAY.
32. THE DESIGN MEETS ALL CURRENT CITY OF RALEIGH STANDARDS AND SPECIFICATIONS AND DETAILS EXCEPT WHERE SPECIFICALLY NOTED BELOW:
    N/A
33. IF GREASE INTERCEPTOR IS TO BE INSTALLED DURING THE SITE DEVELOPMENT PHASE OF CONSTRUCTION, A PLUMBING PERMIT WILL BE REQUIRED FOR GREASE INTERCEPTOR AND ANY ASSOCIATED PLUMBING.
34. CONTRACTOR SHALL COORDINATE WITH MASTER DEVELOPER, ANY OUTAGE A MINIMUM OF ONE WEEK PRIOR TO THE NEED FOR THE OUTAGE.

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137 S. Wilmington Street | Suite 200 | Raleigh, NC 27601 | 919-469-3340 | License #: C-0832 | www.withersravenel.com

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RALEIGH, NORTH CAROLINA

OVERALL UTILITY PLAN

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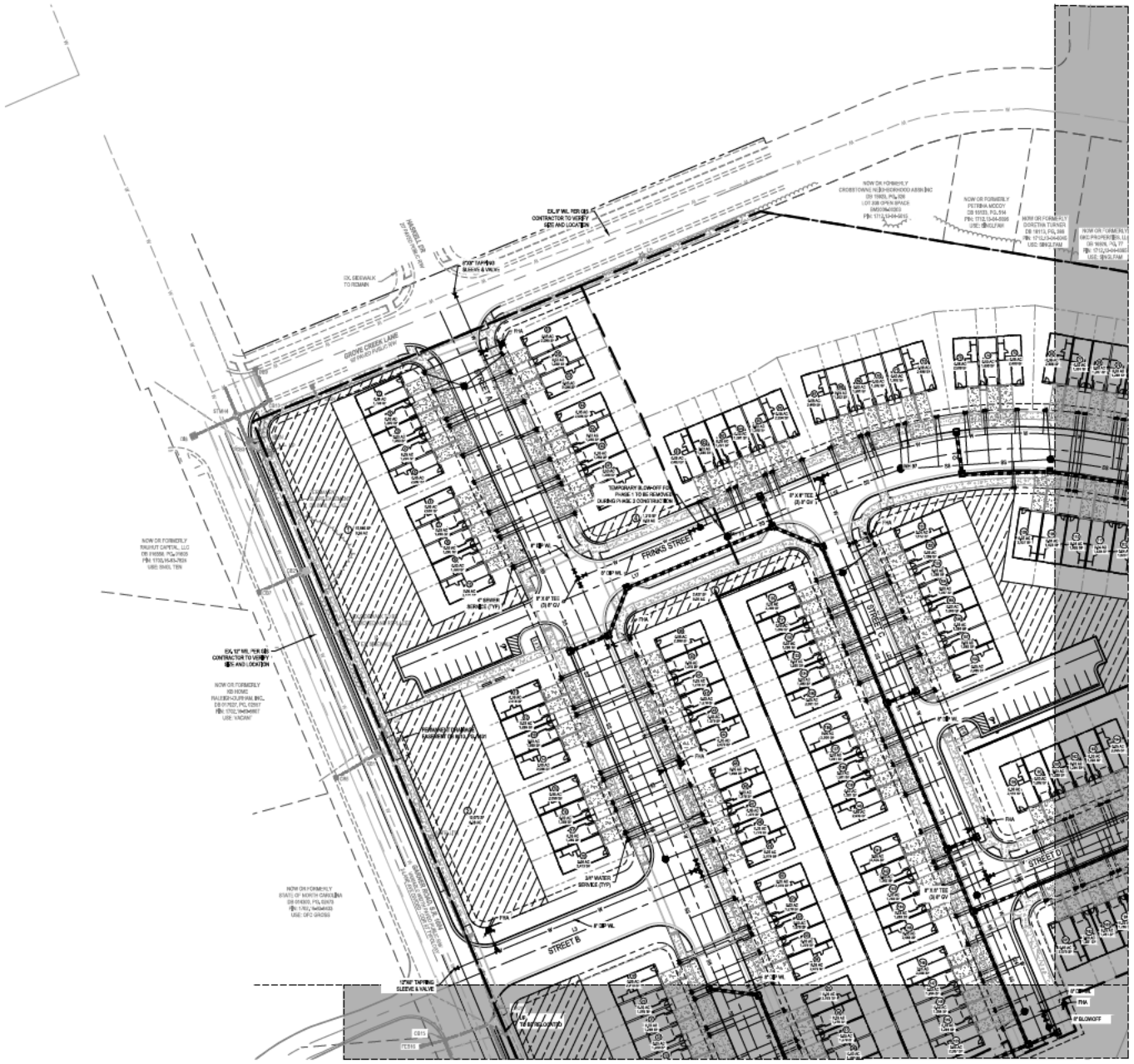
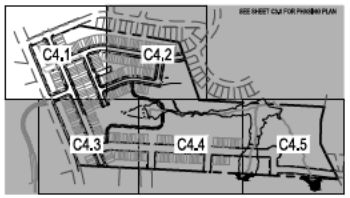


UTILITY LEGEND:

- FIRE HYDRANT
- WATER VALVE
- CATCH BASIN
- SANITARY MANHOLE
- BLOW OFF VALVE
- 2" TYPE "K" COPPER WATER SERVICE WITH 2" WATER METER
- 4" PVC SANITARY SEWER SERVICE METER

SHEET KEY MAP

1 inch = 500 ft.



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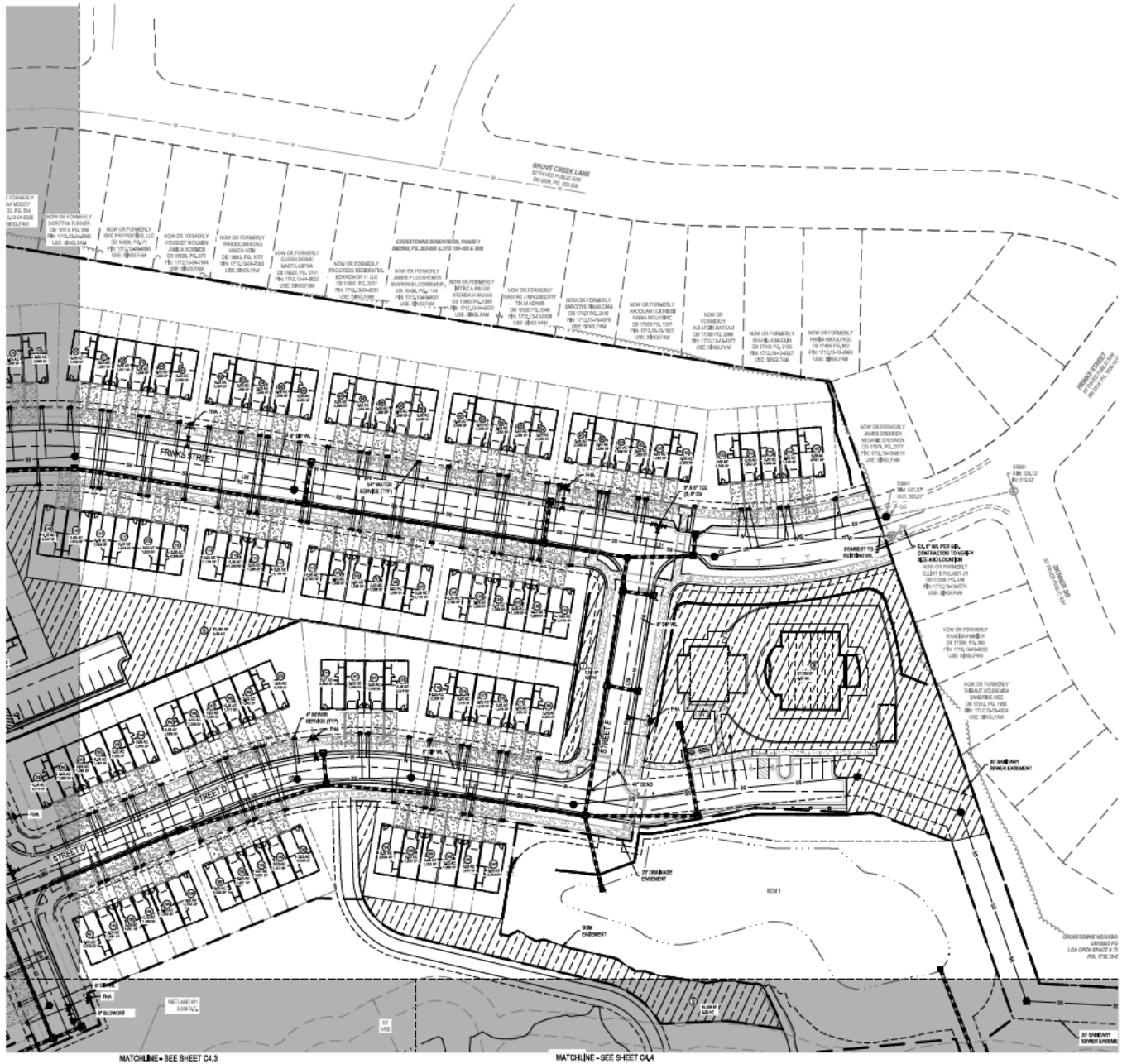

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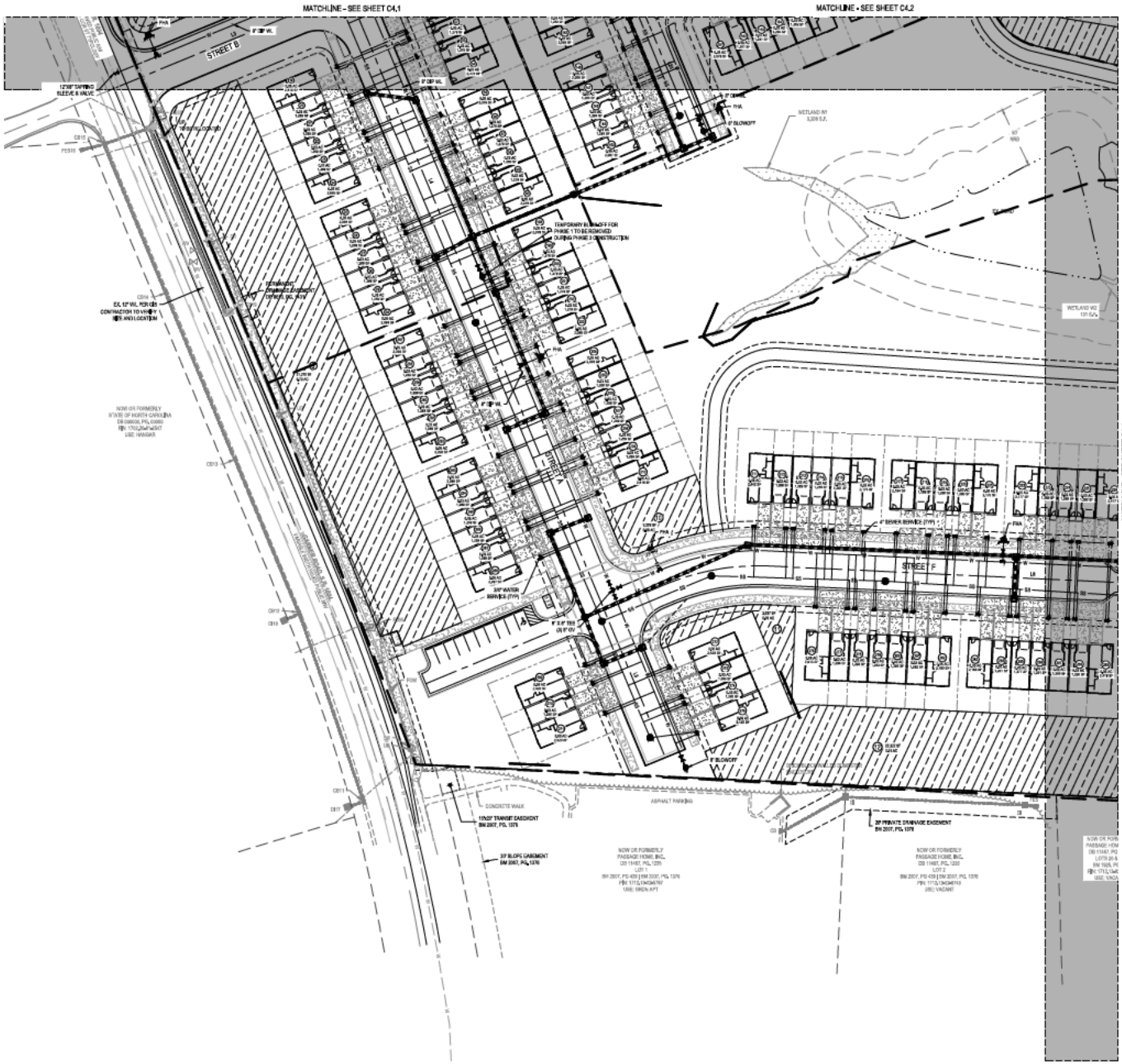

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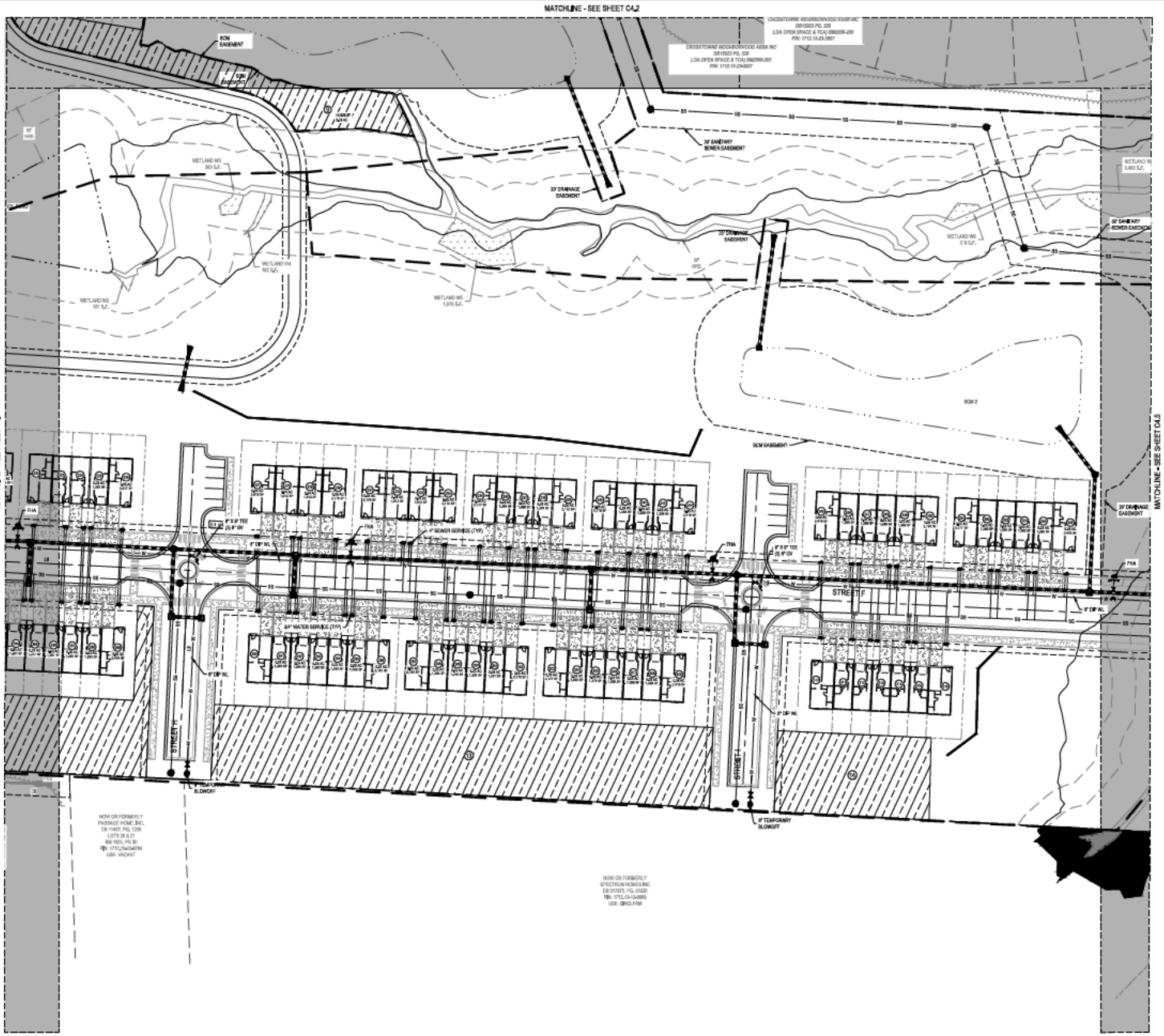

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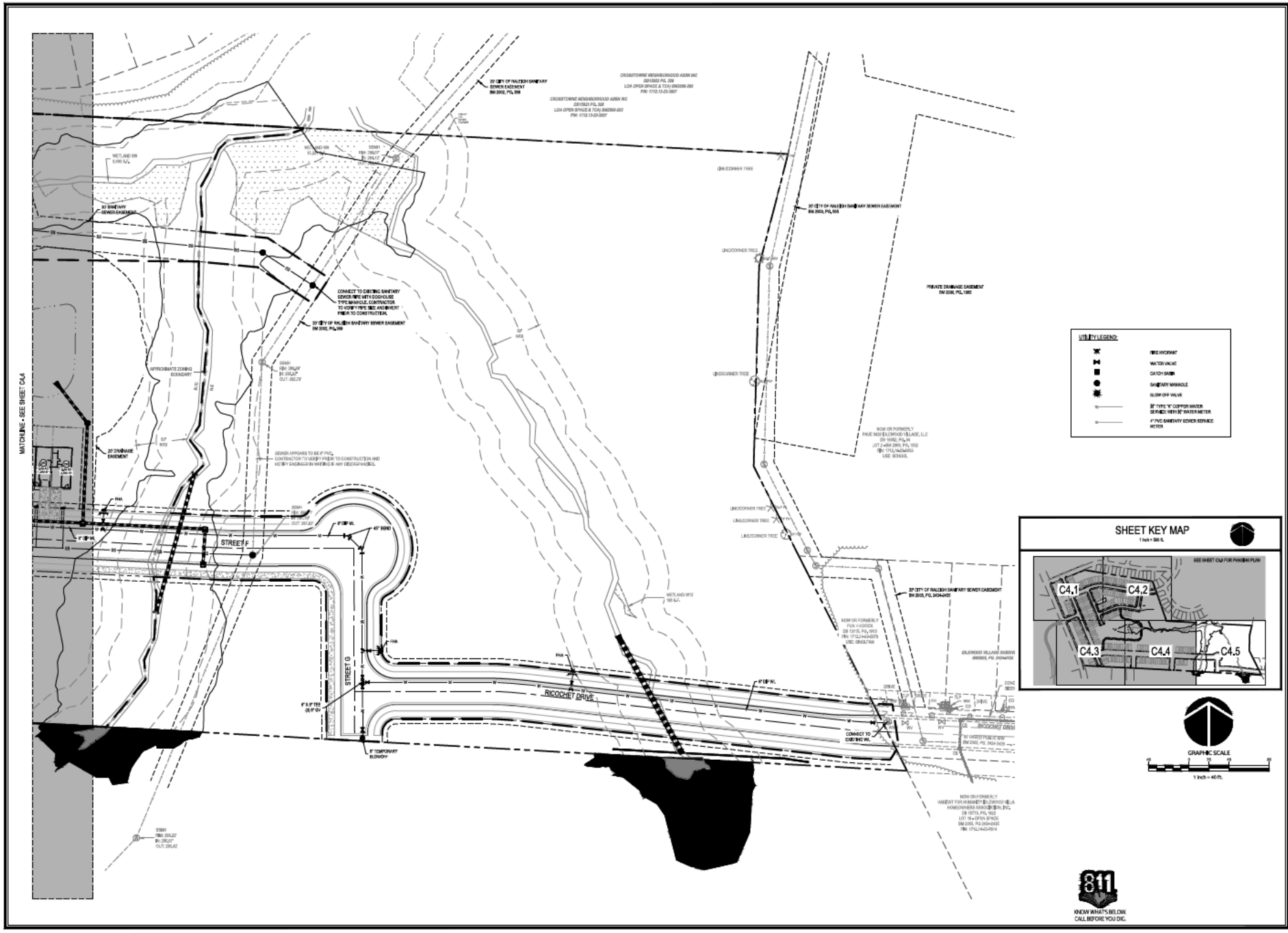

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TCA #2 - SECONDARY TREE CONSERVATION AREA

Plot 1	Type	Basal Area
9	Pine	3.441774
10	Pine	4.9086
28	Pine	1.275936
13	Sweet Gum	3.925728
26	Yellow Poplar	1.396224
24	Pine	1.068984
7	Hard Wood	1.267246
Plot 2	Total	133
Plot 2	Total	157
Basal Area		145 SF/AC

TCA #3 - SECONDARY TRE CONSERVATION AREA

Plot 1	Type	Basal Area
20	Pine	2.1816
4	Ash	0.087264
9	Sweet Gum	0.441774
7	Sweet Gum	0.267246
21	Pine	2.405214
36	Yellow Poplar	7.068584
3	Ash	0.049087
11	Yellow Poplar	0.609934
16	Yellow Poplar	1.396224
14	Yellow Poplar	1.068984
4	Ash	0.087264
Plot 2	Total	133
Plot 2	Total	157
Basal Area		145 SF/AC

Plot 3	Type	Basal Area
11	Sweet Gum	0.609934
7	Hard Wood	0.267246
9	Maple	0.441774
14	Sweet Gum	1.068984
10	Hard Wood	0.5454
3	Ash	0.049087
9	Hard Wood	0.441774
7	Hard Wood	0.267246
7	Sweet Gum	0.267246
22	Yellow Poplar	2.639736
Plot 3	Total	66
Plot 4	Total	59
Basal Area		63 SF/AC

Plot 4	Type	Basal Area
9	HW	0.441774
9	Maple	0.441774
26	Sweet Gum	3.181504
12	Maple	0.305176
14	Sweet Gum	1.068984

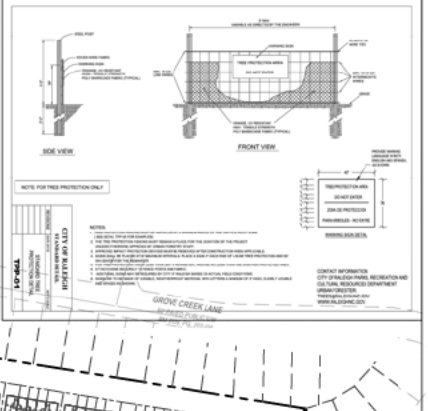
TCA #4 - SECONDARY TREE CONSERVATION AREA

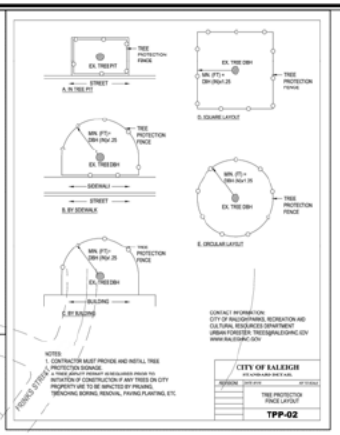
Plot 5	Type	Basal Area
7	Maple	1.267246
18	Hard Wood	1.068984
9	HackBerry	0.441774
5	Dogwood	0.13635
5	Dogwood	0.13635
8	American Holly	0.267246
43	American Holly	0.11304435
18	White Oak	1.068984
15	White Oak	0.609934
8	White Oak	0.349056
7	Hard Wood	0.267246
10	Hard Wood	0.5454
18	Hard Wood	1.068984
Plot 5	Total	62
Basal Area		62 SF/AC

TCA #5 - SECONDARY TREE CONSERVATION AREA

Plot 6	Type	Basal Area
33	Poplar	0.141863
10	Poplar	0.10908
26	Loblolly Pine	0.283603
28	Loblolly Pine	0.305424
34	Loblolly Pine	0.302958
Plot 6	Total	13
Plot 7	Total	16
Basal Area		20 SF/AC

Plot 7	Type	Basal Area
30	Loblolly Pine	0.32724
14	Loblolly Pine	0.152712
4	Oak	0.049087
4	Poplar	0.049087
25	Loblolly Pine	0.218968
17	Sweetgum	0.185436
Plot 7	Total	16



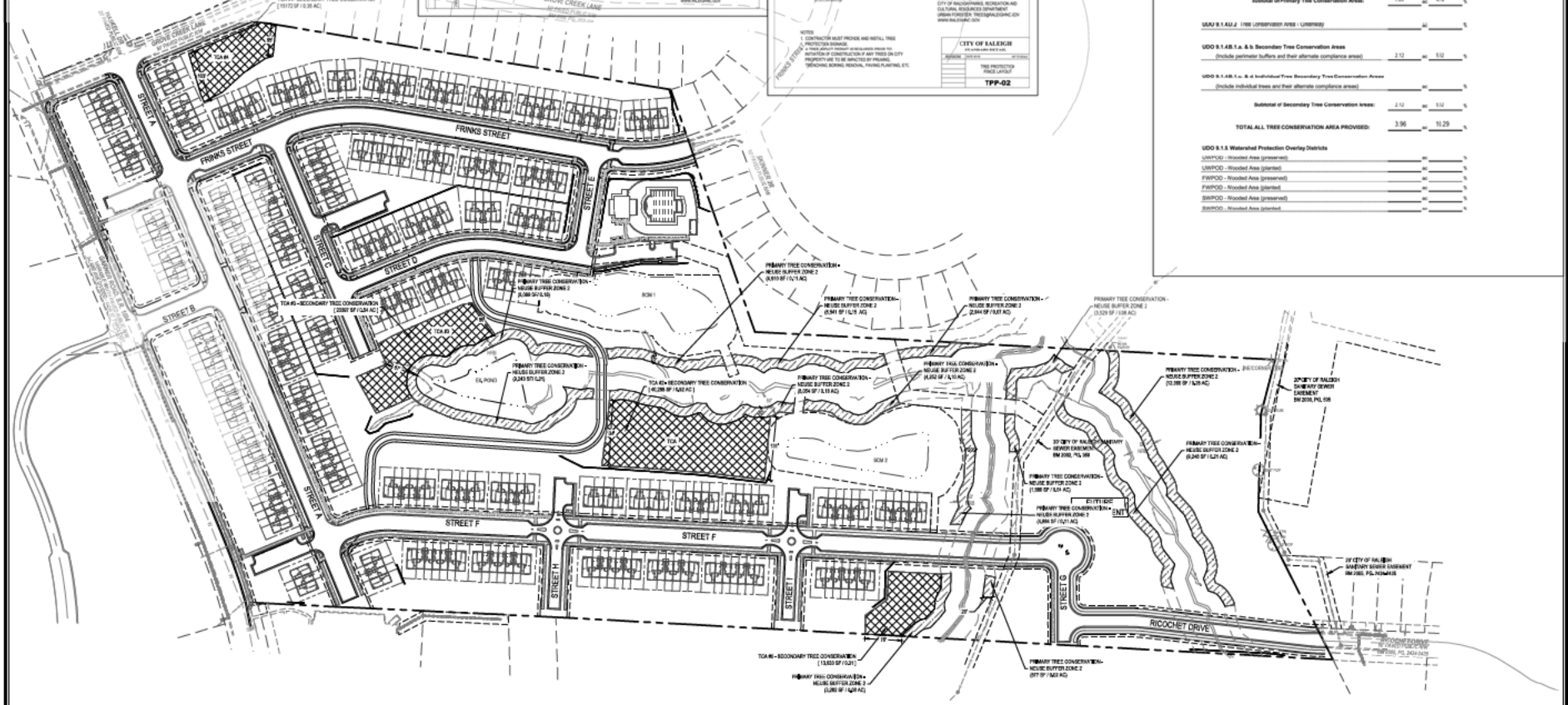


Tree Conservation Plan Data Sheet
UDO Article 9.1 Tree Conservation
(Include applicable information on the plan sheet)

Project Name: GARNER ROAD TOWNHOMES

Gross Site Acres:	40.68	ac
Right-of-way to be dedicated with this project:	3.23	ac
Net Site Acres:	36.45	ac

	Number of Acres		Percent of Tract	
UDO 9.1.4A. Primary Tree Conservation Areas				
1. Primary Tree Conservation Area - SHOD 1		ac		%
1. Primary Tree Conservation Area - SHOD 2		ac		%
2. Primary Tree Conservation Area - Parkway Frontage		ac		%
3. Primary Tree Conservation Area - CM		ac		%
4. Primary Tree Conservation Area - MPOD		ac		%
5. Primary Tree Conservation Area - Champion Tree XX" dbh species		ac		%
6. Primary Tree Conservation Area - Neuse Buffer Zone 2	1.83	ac	4.76	%
7. Primary Tree Conservation Area - 45% Slopes		ac		%
8. Primary Tree Conservation Area -Thoroughfare		ac		%
Subtotal of Primary Tree Conservation Areas:	1.83	ac	4.76	%
UDO 9.1.4B.2 Tree Conservation Areas		ac		%
UDO 9.1.4B.1.a. & b Secondary Tree Conservation Areas (Include perimeter buffers and their alternate compliance areas)	2.12	ac	5.52	%
UDO 9.1.4B.1.c. & d Individual Tree Secondary Tree Conservation Areas (Include individual trees and their alternate compliance areas)		ac		%
Subtotal of Secondary Tree Conservation areas:	2.12	ac	5.52	%
TOTAL ALL TREE CONSERVATION AREA PROVIDED:	3.96	ac	10.29	%
UDO 9.1.5 Watershed Protection Overlay Districts				
UWPOD - Wooded Area (preserved)		ac		%
UWPOD - Wooded Area (planted)		ac		%
FWPOD - Wooded Area (preserved)		ac		%
FWPOD - Wooded Area (planted)		ac		%
SWPOD - Wooded Area (preserved)		ac		%
SWPOD - Wooded Area (planted)		ac		%



LEGEND:

- PRIMARY TREE CONSERVATION AREA - NEUSE BUFFER ZONE 2
- SECONDARY TREE CONSERVATION AREA - OPTIONAL METHOD UDO 9.1.4.E5
- TREE PROTECTION FENCING

NOTES:

1. SECONDARY AREAS SHALL UTILIZE THE OPTIONAL METHOD DESCRIBED IN THE UDO 9.1.4.E5. THESE AREAS SHALL MEET THE MINIMUM AREA OF 8,700 SQUARE FEET. DIMENSIONAL REQUIREMENTS EQUAL TO OR ABOVE 60 FEET IN ANY ONE DIRECTION, AND MEAN DENSITY OF 60 SQUARE FEET PER ACRE OR GREATER.
2. AN INVASIVE SPECIES REMOVAL AND MAINTENANCE PLAN MUST BE COMPLETED FOR ALL APPROVED TCA PLOTS BEFORE FINAL APPROVAL BY THE CITY OF RALEIGH URBAN FORESTER.
3. NO DISTURBANCE SHALL OCCUR IN ANY AREA DESIGNATED AS TCA.
4. WITHIN EACH 150-FOOT LINEAR INCREMENT OF ZONE 2 NEUSE BUFFER RIPARIAN BUFFERS, MPOD NATURAL RESOURCE BUFFER YARDS OR URBAN TREE CONSERVATION AREAS THAT DO NOT CONTAIN TREES, A MINIMUM OF 3 SHADE TREES TO ENHANCE THE RIPARIAN BUFFER MUST BE PLANTED PRIOR TO BUILDING OF A CERTIFICATE OF OCCUPANCY.
5. PLANTED SHADE TREES MUST BE A LEAST 10 GALLON CONTAINER SIZE AND FREE OF GIRDLING ROOTS AT TIME OF PLANTING.
6. REFER TO L.3.0 LANDSCAPE PLANT LIST FOR PLANTED TREE QUANTITIES AND DETAILS, TRIM ALL SHRUB AND HERBACEOUS VEGETATION TO 6" HEIGHT OR LOWER IN ALL NRB ZONE 2 AREAS WITH PROPOSED TREE PLANTING.

GRAPHIC SCALE
1 inch = 100 ft.

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Preliminary Subdivision Plans for
McGRADY FARM SUBDIVISION
RALEIGH, NORTH CAROLINA

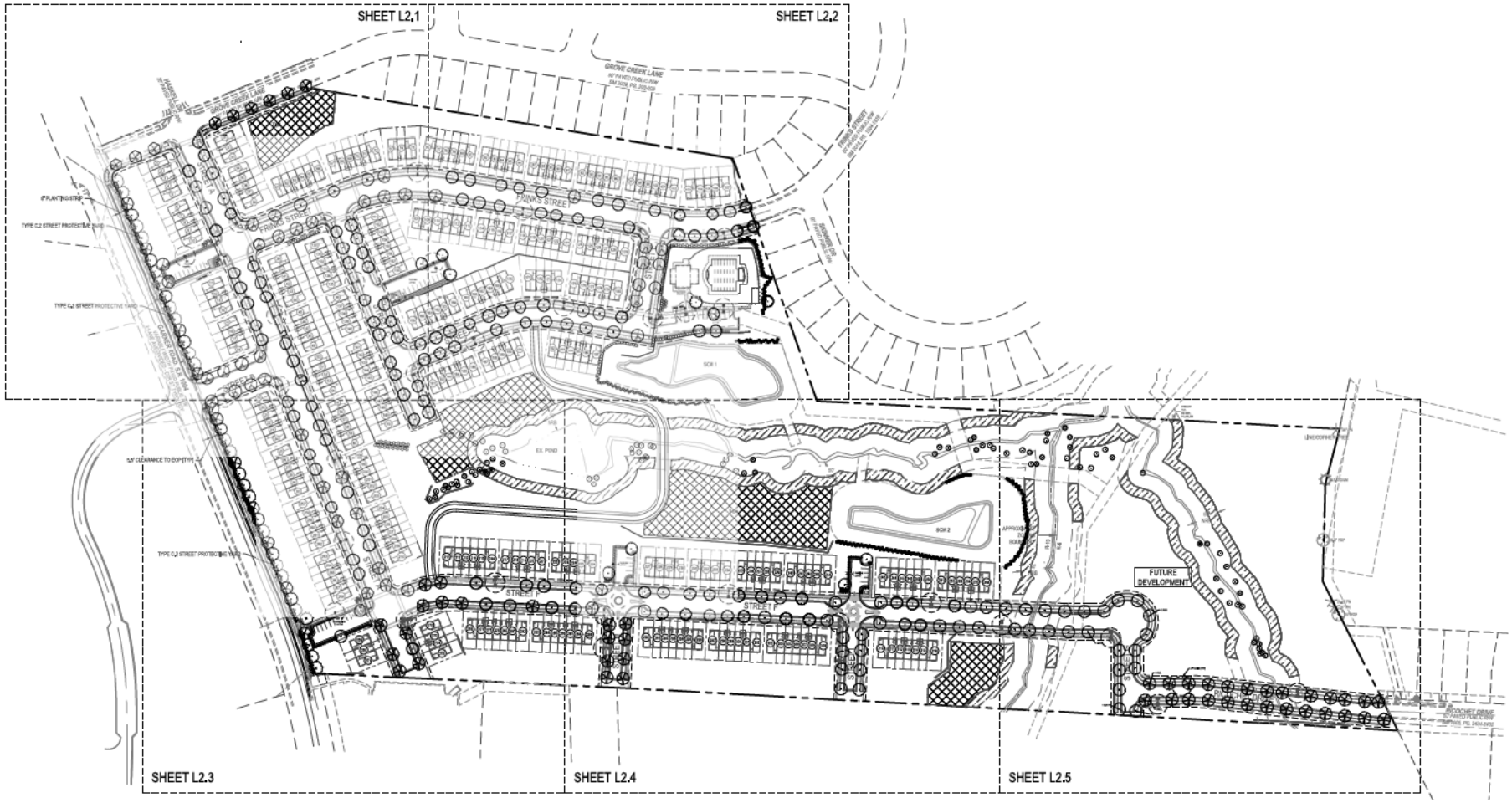
TREE CONSERVATION PLAN

Job No.	03190729	Drawn By	WR
Date	02/18/2019	Designer	WR

[redacted]

Revisions		
1	C.O.R. COMMENTS	3/17/20
2	C.O.R. COMMENTS	7/2/20
3	C.O.R. COMMENTS	7/29/20
4	C.O.R. COMMENTS	1/15/21

Sheet No.
L1.0



LEGEND:

- PRIMARY TREE CONSERVATION AREA - NEUSE BUFFER ZONE 2
- SECONDARY TREE CONSERVATION AREA - OPTIONAL METHOD UDO 9.1.4.A.B
- TREE PROTECTION FENCING

GRAPHIC SCALE

1 inch = 100 ft.

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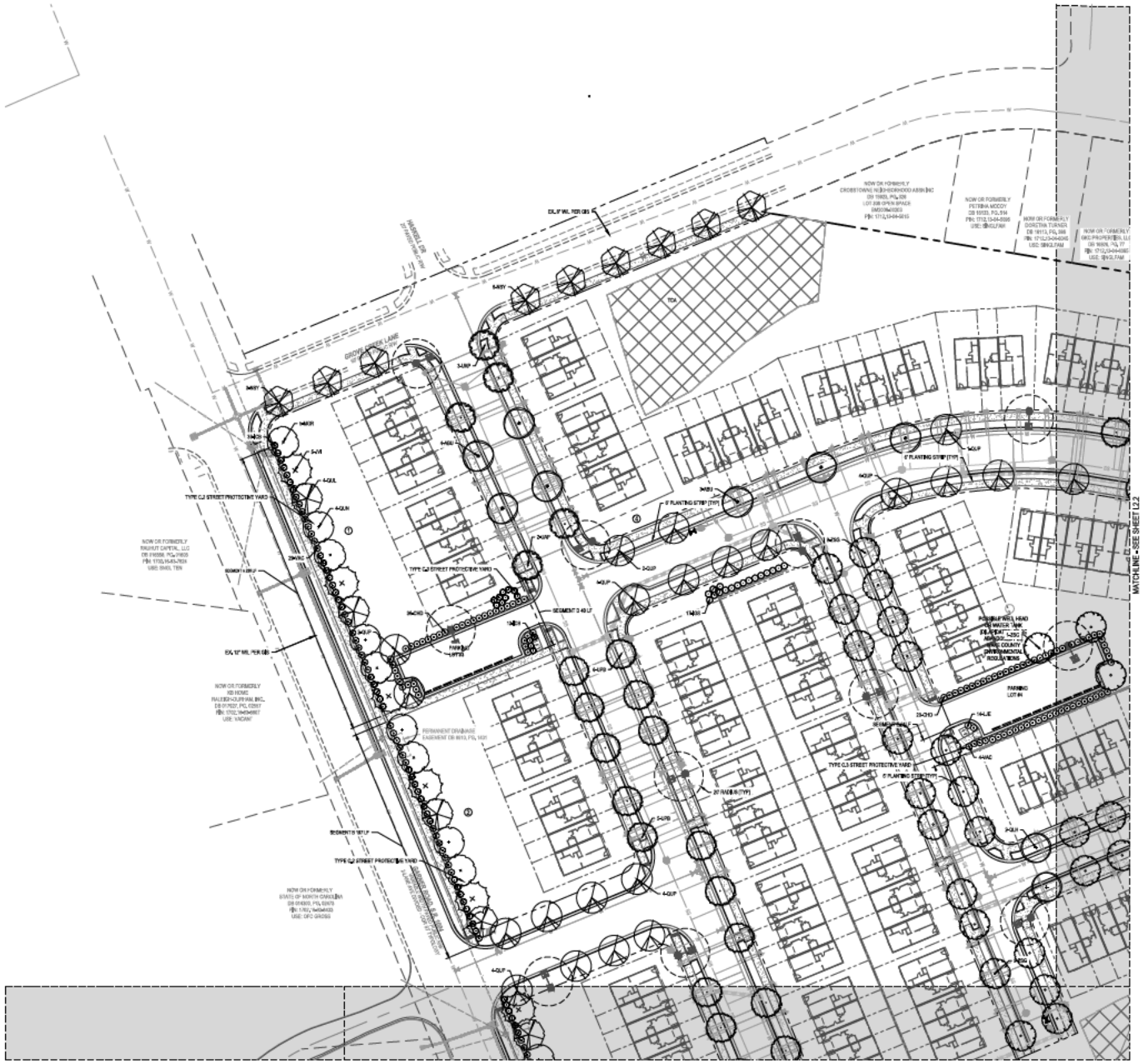
Preliminary Subdivision Plans for
McGRADY FARM SUBDIVISION
RALEIGH, NORTH CAROLINA

OVERALL LANDSCAPE PLAN

Job No.	03180729	Drawn By	WR
Date	02/18/2019	Designer	WR

Revisions		
1	C.O.R. COMMENTS	3/17/20
2	C.O.R. COMMENTS	7/2/20
3	C.O.R. COMMENTS	7/29/20
4	C.O.R. COMMENTS	1/15/21

Sheet No.
L2.0



PLANT KEY

ORNAMENTAL TREES

- QUERCUS LYRATA 'MORTON'
- QUERCUS LAURIFOLIA
- QUERCUS NUTTALLII
- QUERCUS PHELLOS 'WINDSOR'
- ULMUS AMERICANA 'PRINCETON'
- ULMUS PARVIFOLIA 'BOSQUET'
- ZELKOVA SERRATA
- ACER BUERGERIANUM
- MAGNOLIA GRANDIFLORA
- JUNIPERUS VIRGINIANA
- NYSSA SYLVATICA

SHRUBS

- CEPHALOTAXUS HARRINGTONIA 'DUKE GARDENS'
- CITRULLIUS MYRICOIDES 'BLUE CASCADE'
- ILEX CORNUTA 'BURFORDII NANA'
- ILEX CORNUTA 'NELLIE R. STEVENS'
- ILEX QUERCIFOLIA 'MARLOCK'
- LIGUSTRUM JAPONICUM 'EAST BAY'
- VIBURNUM ARBOREUM 'CONOY'

NOTE:

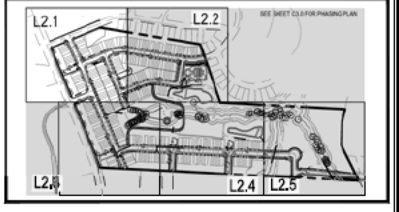
1. ALL STREET TREES TO BE FIELD PLACED TO MAXIMIZE DISTANCE FROM EDGE OF PAVEMENT AND UTILITIES AS MUCH AS POSSIBLE.
2. AT TIME OF INSTALLATION CONTRACTOR SHALL MINIMIZE CONFLICTS THROUGH COORDINATION OF DRIVEWAY, SERVICE LINES, AND TREE POSITIONING.

LEGEND:

- PRIMARY TREE CONSERVATION AREA - NEUSE BUFFER ZONE 2
- SECONDARY TREE CONSERVATION AREA - OPTIONAL METHOD UDO 9.1.4.E3
- TREE PROTECTION FENCING
- STREET LIGHT

SHEET KEY MAP

1 inch = 100 ft



GRAPHIC SCALE

1 inch = 40 ft.

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Preliminary Subdivision Plans for McGRADY FARM SUBDIVISION

RALEIGH, NORTH CAROLINA

LANDSCAPE PLAN

Job No.	03180729	Drawn By	WR
Date	12/18/2019	Designer	WR

Revisions		
1	C.O.R. COMMENTS	3/17/20
2	C.O.R. COMMENTS	7/2/20
3	C.O.R. COMMENTS	7/29/20
4	C.O.R. COMMENTS	1/15/21

Sheet No.

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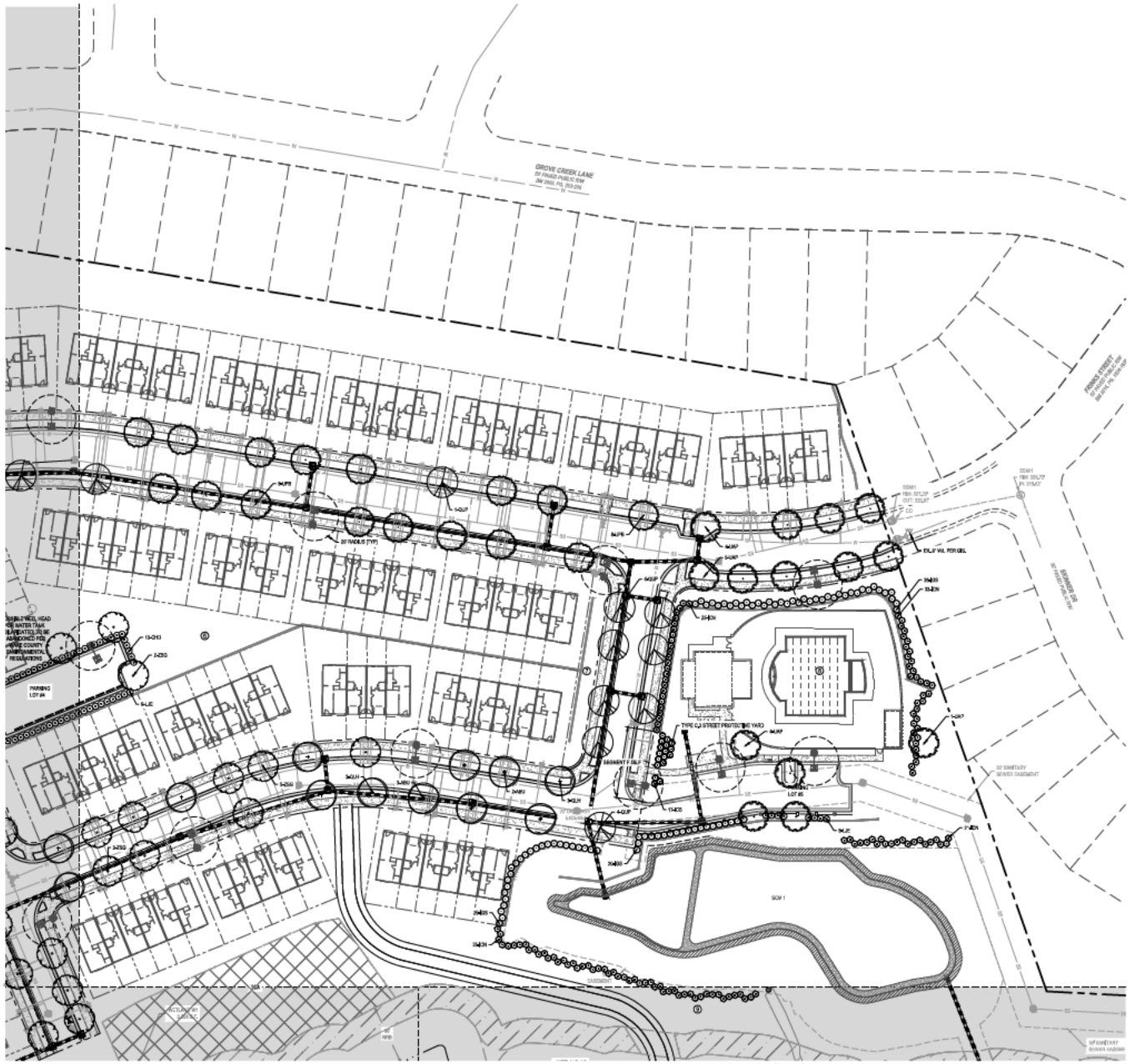


PLANT KEY

UPPER/STORY TREES

- QUERCUS LYRATA 'MIDBEAM'
- QUERCUS LAURIFOLIA
- QUERCUS NUTTALLII
- QUERCUS PHELLOS 'MCCENDORY'
- ULMUS AMERICANA 'PRINCETON'
- ULMUS PARVIFOLIA 'BOSQUET'
- ZELKOVA SERRATA
- ACER BURGERIANUM
- MAGNOLIA GRANDIFLORA
- JUNIPERUS VIRGINIANA
- NYSSA SYLVATICA

SHRUB

- CERNALOTAXUS HARRINTONIA 'DUKE GARDENS'
- DEUTZIA GRACILIS 'NIKKO'
- ILEX CORNUTA 'SUNFORD'
- ILEX CORNUTA 'NEEDLEPOINT'
- ILEX GLABRA 'SHAMROCK'
- LIGUSTRUM JAPONICUM 'TEXAS BAY'
- VIBURNUM AWABUKI 'CHECKOUT'

NOTE:

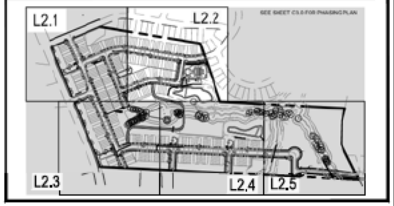
1. ALL STREET TREES TO BE FIELD PLACED TO MAXIMIZE DISTANCE FROM EDGE OF PAVEMENT AND UTILITIES AS MUCH AS POSSIBLE.
2. AT TIME OF INSTALLATION CONTRACTOR SHALL MINIMIZE CONFLICTS THROUGH COORDINATION OF DRIVEWAY, SERVICE LINES, AND TREE POSITIONING.

LEGEND:

- PRIMARY TREE CONSERVATION AREA - NEUSE BUFFER ZONE 2
- SECONDARY TREE CONSERVATION AREA - OPTIONAL METHOD UDO 9.1.2.E.5
- TREE PROTECTION FENCING
- STREET LIGHT

SHEET KEY MAP

1 inch = 200 ft



GRAPHIC SCALE

1 inch = 40 ft.

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Preliminary Subdivision Plans for McGRADY FARM SUBDIVISION

RALEIGH, NORTH CAROLINA

LANDSCAPE PLAN

Job No.	03180729	Drawn By	WR
Date	12/18/2019	Designer	WR

Revisions

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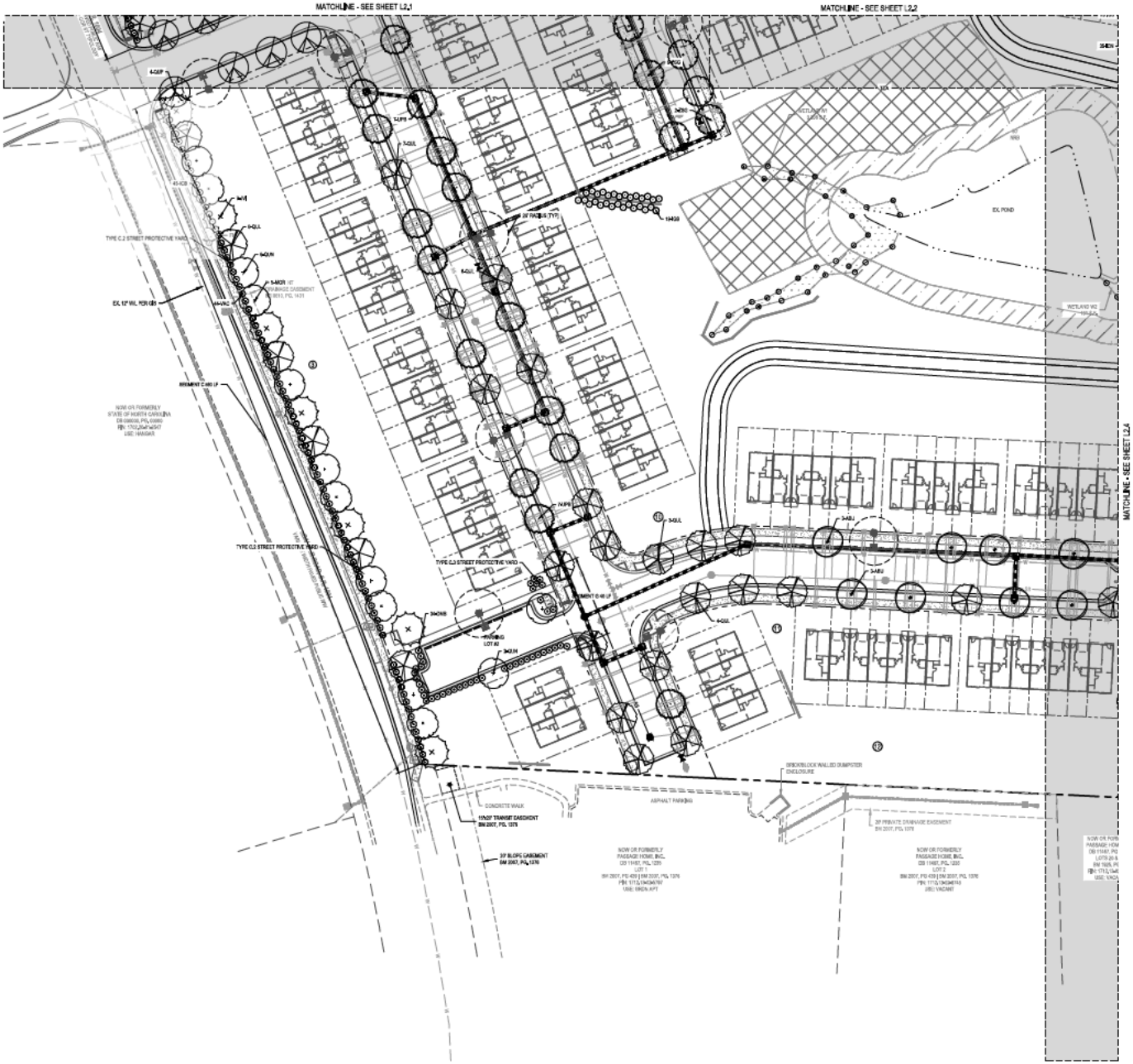
3	C.O.R. COMMENTS	7/29/20
4	C.O.R. COMMENTS	1/15/21

Sheet No.

L2.2



PLANT KEY

UPPER-STORY TREES

- QUERCUS LYRATA 'VERNAM'
- QUERCUS LAURIFOLIA
- QUERCUS NUTTALLII
- QUERCUS PHELLOS 'AUCHMOOR'
- ULMUS AMERICANA 'PRINCETON'
- ULMUS PARVIFOLIA 'BOSQUET'
- ZELKOVA SERRATA
- ACER BUERGERIANUM
- MAGNOLIA GRANDIFLORA
- JUNIPERUS VIRGINIANA
- NYSSA SYLVATICA

SHRUBS

- CEPHALOTAXUS HARRINGTONIA 'FORUNE GARDENS'
- EUONYMUS AMERICANUS 'BLUE CASCADE'
- ILEX CORNUTA 'BURFORDII NANA'
- ILEX CORNUTA 'NEEDLEPOINT'
- ILEX GLABRA 'SHAMROCK'
- LIGUSTRUM JAPONICUM 'EAST BAY'
- VIBURNUM RAFINESQUIANUM

NOTE:

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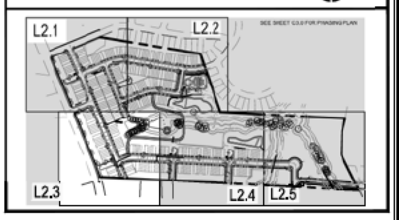
2. AT TIME OF INSTALLATION CONTRACTOR SHALL MINIMIZE CONFLICTS THROUGH COORDINATION OF DRIVEWAY, SERVICE LINES, AND TREE POSITIONING.

LEGEND:

- PRIMARY TREE CONSERVATION AREA - NEUSE BUFFER ZONE 2
- SECONDARY TREE CONSERVATION AREA - OPTIONAL METHOD UDO 9.1.A.2.E3
- TREE PROTECTION FENCING
- STREET LIGHT

SHEET KEY MAP

1 inch = 100 ft



GRAPHIC SCALE

1 inch = 40 ft.

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Preliminary Subdivision Plans for McGRADY FARM SUBDIVISION

RALEIGH, NORTH CAROLINA

LANDSCAPE PLAN

Job No.	03180729	Drawn By	WR
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Sheet No.

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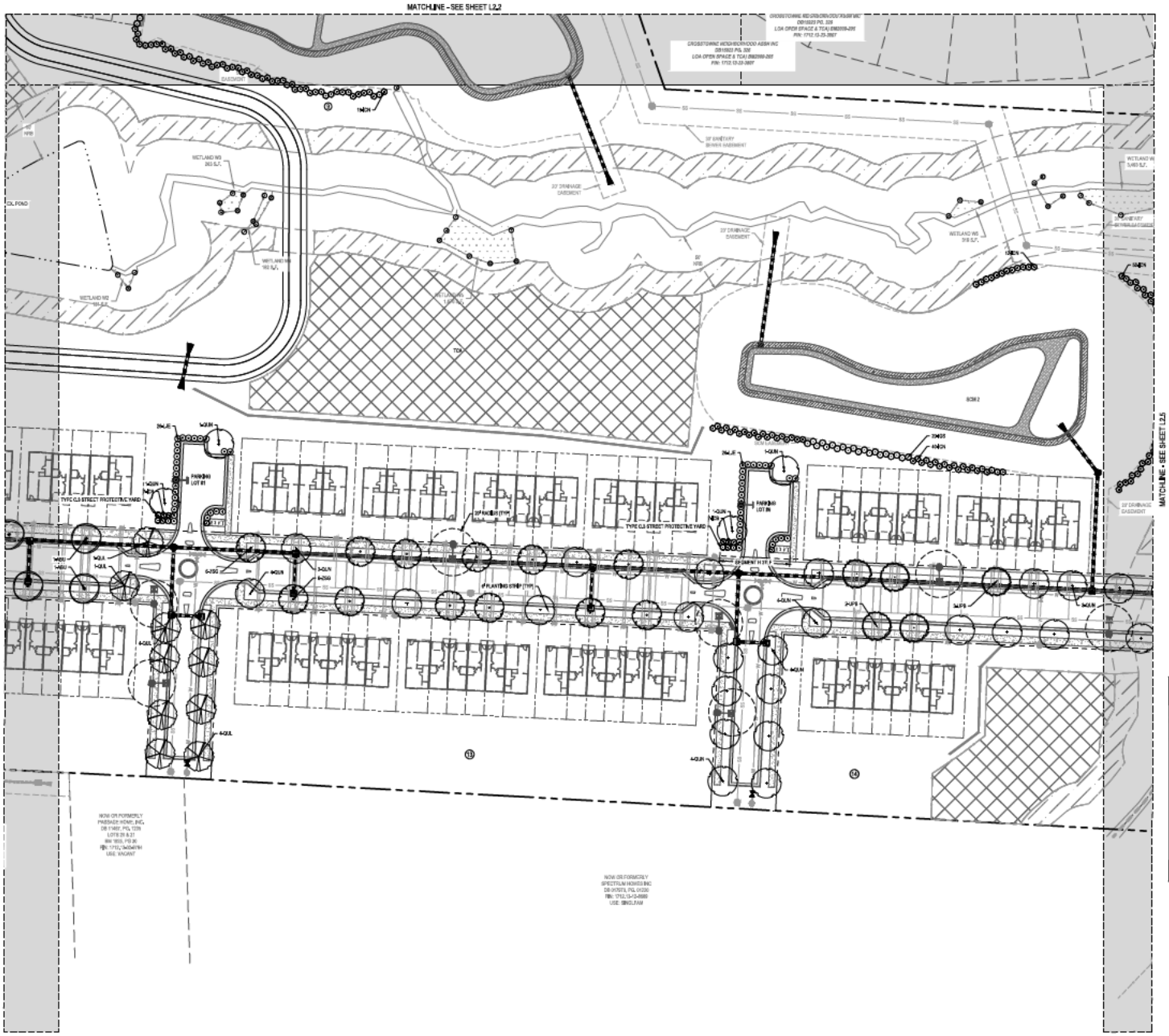

PLANT KEY

UPPER-STORY TREES

- QUERCUS LYRATA 'MEGA BEAM'
- QUERCUS LAURIFOLIA
- QUERCUS NUTTALLII
- QUERCUS PHELLOS 'MACENDOR'
- ULMUS AMERICANA 'PRINCETON'
- ULMUS PARVIFOLIA 'BOSQUE'
- ZELKOVA SERRATA
- ACER BURGERERIANUM
- MAGNOLIA GRANDIFLORA
- JUNIPERUS VIRGINIANA
- NYSSA SYLVATICA

SHRUB

- CEPHALOTAXUS HARRINGTONIA 'DUKE GARDENS'
- DISTYLIUM MYRICOIDES 'BLUE CASCADE'
- ILEX CORNUTA 'SURFER NANA'
- ILEX CORNUTA 'NEEDLEPOINT'
- ILEX GLABRA 'SHAMROCK'
- LIGUSTRUM JAPONICUM 'SUNT BAY'
- VIBURNUM AWABUKI 'CHINDO'

NOTE:

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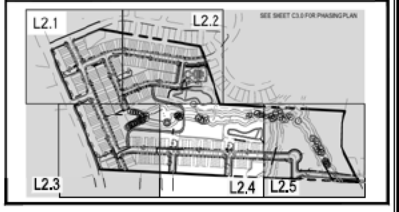
LEGEND:

- PRIMARY TREE CONSERVATION AREA - NEUSE BUFFER ZONE 2
- SECONDARY TREE CONSERVATION AREA - OPTIONAL METHOD UDO 9.1.A.E5
- TREE PROTECTION FENCING
- STREET LIGHT

SHEET KEY MAP

1 Inch = 100 ft



GRAPHIC SCALE

1 inch = 40 ft.

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Preliminary Subdivision Plans for McGRADY FARM SUBDIVISION

RALEIGH, NORTH CAROLINA

LANDSCAPE PLAN

Job No.	03180729	Drawn By	WR
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Sheet No.

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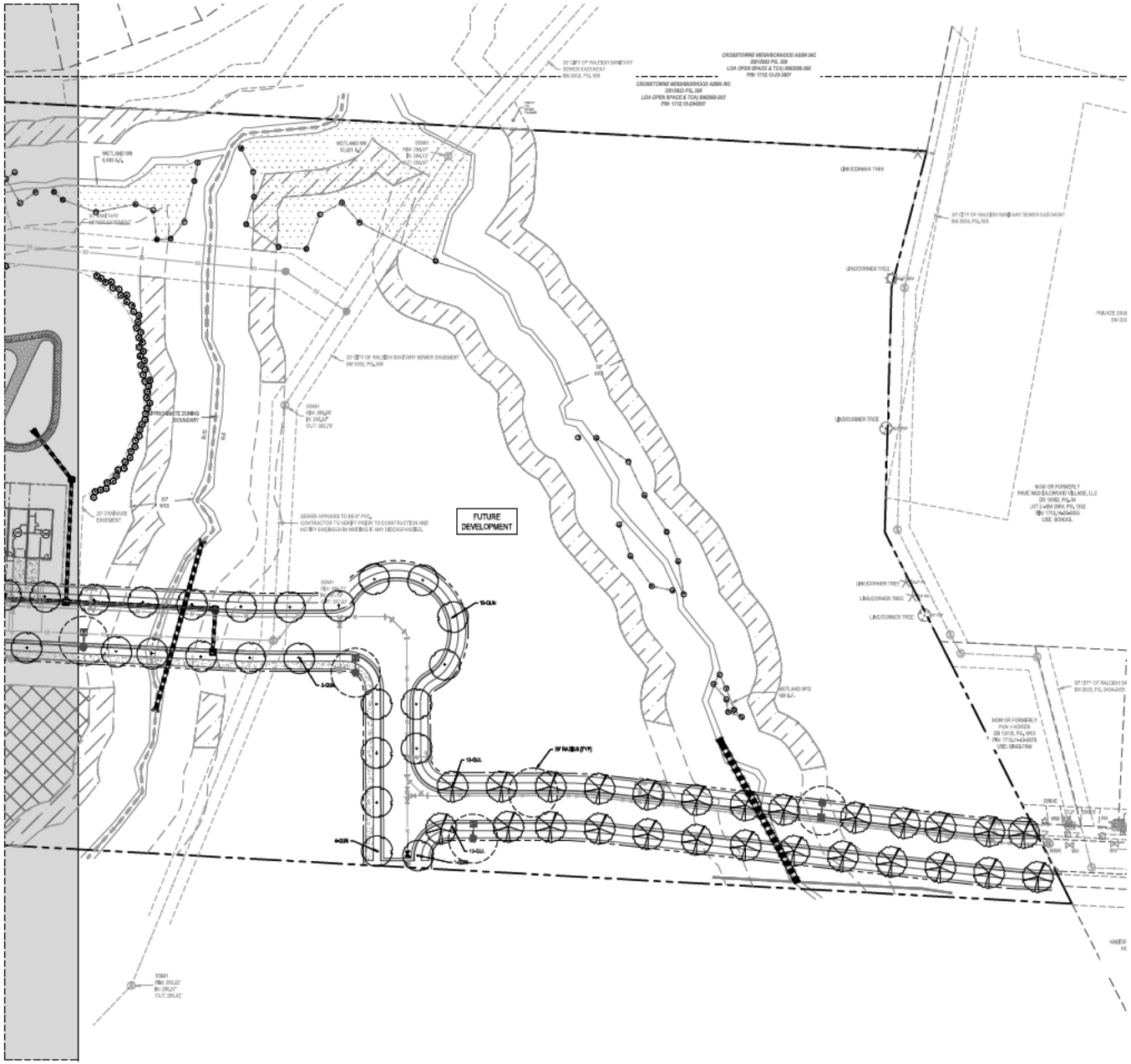

NOTE:

1. ALL STREET TREES TO BE FIELD PLACED TO MAXIMIZE DISTANCE FROM EDGE OF PAVEMENT AND UTILITIES AS MUCH AS POSSIBLE.
2. AT TIME OF INSTALLATION CONTRACTOR SHALL MINIMIZE CONFLICTS THROUGH COORDINATION OF DRIVEWAY, SERVICE LINES, AND TREE POSITIONING.

LEGEND:

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- SECONDARY TREE CONSERVATION AREA - OPTIONAL METHOD UDO 9.1.4.A.E.3
- TREE PROTECTION FENCING
- STREET LIGHT

PLANT KEY

UPPER-STORY TREES

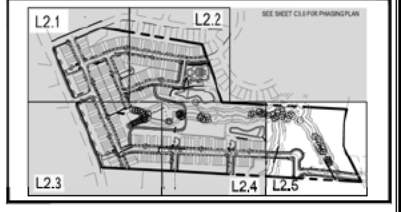
- QUERCUS LYRATA 'WHITE OAK'
- QUERCUS LAURIFOLIA
- QUERCUS NUTTALLII
- QUERCUS PHELLOS 'WILLOW OAK'
- ULMUS AMERICANA 'PRINCETON'
- ULMUS PARVIFOLIA 'BOSQUET'
- ZELKOVA SERRATA
- ACER BUERGERIANUM
- MAGNOLIA GRANDIFLORA
- JUNIPERUS VIRGINIANA
- MYRICA CERIFERA

SHRUBS

- CEPHALOTAXUS HARRINGTONIA 'FORMA DRUPOSA' 'GARDENER'
- CITRUS LIMON 'MEYER' 'BLUE CASCADE'
- ILEX CORNUTA 'SHORT STRAW'
- ILEX CORNUTA 'PECKI LEYONI'
- ILEX GLABRA 'SHAMROCK'
- LIGUSTRUM JAPONICUM 'EAST BAY'
- VIBURNUM KAMIUM 'CHINDO'

SHEET KEY MAP

1 inch = 500 ft.



GRAPHIC SCALE

1 inch = 40 ft.

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Preliminary Subdivision Plans for McGRADY FARM SUBDIVISION

RALEIGH, NORTH CAROLINA

LANDSCAPE PLAN

Job No.	03180729	Drawn By	WR
Date	12/18/2019	Designer	WR

Revisions		
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Sheet No.

L2.5