TOWN OF WEDDINGTON

MEMORANDUM

TO: Mayor and Town Council

FROM: Dorine Sharp, Planning Board Chairman

DATE: October 10, 2016

SUBJECT: Weddington Pond R-CD Conservation Subdivision Conditional Preliminary

Plat

Weddington Pond R-CD Conservation Subdivision Conditional Preliminary Plat

Bonterra Builders submits a subdivision preliminary plat application for an 18 lot Residential Conservation Subdivision on 20.51 acres located off Weddington Road (Highway 84). The Planning Board approved the Sketch Plan on December 22nd, 2015.

Application Information:

Date of Application: May 1st, 2016

Applicant/Developer Name: Bonterra Builders Parcel ID#: 06156005; 06126004; 06126004A

Property Location: Weddington Road

Existing Zoning: R-CD

Proposed Zoning: R-CD (Conservation Subdivision through the Conditional Zoning process)

Existing Land Use: Residential Conservation

Proposed Land Use: Residential Conservation (CZ)

Parcel Size: 20.51 acres.

Project Information:

Weddington Pond is a proposed 18 lot subdivision on 20.51 acres. The subdivision is located on Weddington Road and is being developed by Bonterra Builders, as an R-CD conservation subdivision.

A conservation subdivision must base the number of proposed lots on a yield plan per *Section 46-42* of the *Weddington Subdivision Ordinance*. This yield plan must show the number of lots that would be allowed if the tract was developed as a conventional subdivision with 40,000 square foot lots. Conservation subdivisions shall be density neutral (same number of lots as would be permitted in a conventional subdivision). The site density is 0.92 dwelling units per acre.

Conservation Land Summary:

Section 58-58 (4) of the Weddington Zoning Ordinance stipulates that a minimum of 50% of the gross acreage must be retained as conservation land. Conservation lands must remain conservation lands in perpetuity. This is often done by requiring conservation easements and/or review and approval of neighborhood CCR's. Conservation lands are broken down into three tiers and given different priorities. Weddington Pond has provided 9.482 acres of conservation lands. Easements and right-of-ways are not included within the conservation lands.

Utilities

• Weddington Pond is to be served by Union County Public Water and Sewer.

Access and Traffic Analysis

- The subdivision will be accessed by one entrance on Weddington Road, and the plan also includes a road stub for future connectivity.
- The Town Planner, in coordination with Justin Carroll, determined that the subdivision did not meet the threshold for a formal Traffic Impact Analysis.
- The property is near to the Rea Road extension, but will not be directly impacted by the road improvements

PIMS

- PIMs were held on November 2nd, and November 3rd, both at Town Hall and on-site.
- Questions were general in nature and did not indicate any significant concerns about development of the property.

Additional Information:

- Lot 15 is the largest lot at 20,668 square feet or .48 acres.
- Lot 7 is the smallest lot at 14,583 square feet or .34 acres.

Construction Documents

• USI has provided approval of the stormwater concept plan, and provided one round of review comments on the full set of construction documents.

Recommended Conditions of Approval

- 1. Final Construction Document approval from US Infrastructure prior to any construction
- 2. Construction document approval from UCPW prior to any construction
- 3. Common Open Space for the entrance monument and and any other common open space must be labeled on the map to distinguish that property from the conservation land.
- 4. Change Monroe Weddington Road to Weddington Road Highway 84.

Planning Board Action for the Conditional Rezoning:

Recommended approval with conditions (August 22, 2016)

Town Council Action:

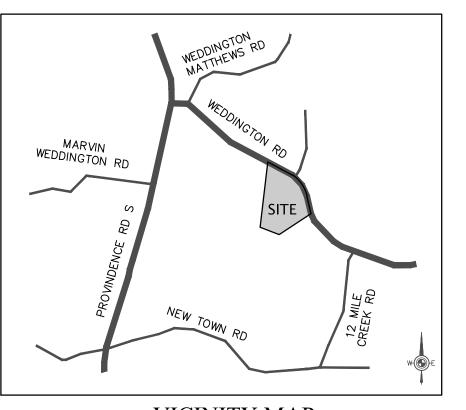
Approve/Approve with Conditions/Deny

WEDDINGTON POND



TOWN OF WEDDINGTON SANDY RIDGE TOWNSHIP, UNION COUNTY

BONTERRA BUILDERS 5615 POTTER ROAD, MATTHEWS NC 28104 P: 704.821.8020



VICINITY MAP NOT TO SCALE

SHEET SCHEDULE

SHEET NAME

SITE PLAN

COVER SHEET

GRADING PLAN

EROSION CONTROL PHASE I

EROSION CONTROL PHASE II

EROSION CONTROL PHASE III

STORMWATER MANAGEMENT PLAN

MONROE-WEDDINGTON ROAD IMPROVEMENT PLAN

MONROE-WEDDINGTON ROAD CROSS-SECTIONS

MONROE-WEDDINGTON ROAD CROSS-SECTIONS

MONROE-WEDDINGTON ROAD CROSS-SECTIONS

MONROE-WEDDINGTON ROAD CROSS-SECTIONS

MONROE-WEDDINGTON ROAD ISD PLAN

ROAD A PLAN AND PROFILE

ROAD B PLAN AND PROFILE

ROAD C PLAN AND PROFILE

CIVIL DETAILS

CIVIL DETAILS

CIVIL DETAILS

CIVIL DETAILS

CIVIL DETAILS

MONROE-WEDDINGTON ROAD TRAFFIC CONTROL PLAN

MONROE-WEDDINGTON ROAD TRAFFIC CONTROL PLAN

EROSION CONTROL NOTES

STORM DRAINAGE PLAN

DRAINAGE AREA PLAN

DETENTION DETAIL

SHEET NUMBER

C1.00

C2.00

C3.00

C3.01

C3.02

C3.03

C4.00

C4.10

C4.11

C4.12

C4.13

C7.00

C7.01

C7.02

C7.03

C7.05

C7.06

C7.07

C7.10

C7.11

C7.12

C9.00

C9.01

C9.02

C9.03

C9.04

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DESIGN

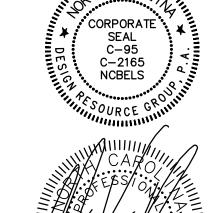
RESOURCE

GROUP

LANDSCAPE ARCHITECTURE

TRANSPORTATION PLANNING

CIVIL ENGINEERING





CONSTRUCTION DOCUMENTS



COVER SHEET

SCALE: NTS

PROJECT #: DRAWN BY: CHECKED BY:

SEPTEMBER 23, 2016

REVISIONS:

PRELIMINARY PLAT

- 1. SURVEY INFORMATION OBTAINED BY THE ISAACS GROUP.
- 2. ARCHITECTURAL DIMENSIONS TO BE VERIFIED BY SURVEYOR. REFER TO ARCHITECTURAL PLANS FOR EXACT
- 3. SURVEYOR SHALL REPORT ANY ENCROACHMENTS OR DISCREPANCIES GENERATED BY THE SITE PLAN AGAINST ANY SITE DEVELOPMENT REQUIREMENTS SPECIFIED BY THE SITE PLAN TO THE OWNER, LANDSCAPE ARCHITECT OR CIVIL ENGINEER PRIOR TO ANY ACTUAL CONSTRUCTION.
- 4. COORDINATE ALL CURB AND STREET GRADES IN INTERSECTION WITH INSPECTOR. 5. ALL ROAD IMPROVEMENTS AT WEDDINGTON ROAD ARE TO BE COORDINATED WITH NCDOT ENGINEERING
- DEPARTMENT PRIOR TO CONSTRUCTION. 6. DEVELOPER WILL PROVIDE STREET SIGNS PER NCDOT STANDARDS
- 7. SIGHT TRIANGLES SHOWN ARE THE MINIMUM REQUIRED.
- 8. DIRECT VEHICULAR ACCESS TO WEDDINGTON ROAD FROM LOTS 1, 2, 3, 15, 16, 17 AMD 18 IS PROHIBITED.
- 9. IN ROLLING AND HILLY TERRAINS, SWEEPING OF THE STONE BASE AND/OR APPLICATION OF A TACK COAT MAY BE REQUIRED NEAR INTERSECTIONS. THESE REQUIREMENTS WILL BE ESTABLISHED BY THE INSPECTOR
- 10. 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 PROPERTY
- 11. SUBSURFACE DRAINAGE FACILITIES MAY BE REQUIRED IN THE STREET RIGHT-OF-WAY IF DEEMED
- NECESSARY BY THE INSPECTOR. 12. THE PURPOSE OF THE STORM DRAINAGE EASEMENT (SDE) IS TO PROVIDE STORM WATER CONVEYANCE AND
- ANY STRUCTURES AND/OR OBSTRUCTION TO STORM WATER FLOW IS PROHIBITED. 13. 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. 14. "AS-BUILT" DRAWINGS AND PLANS OF THE STORM DRAINAGE SYSTEM, INCLUDING DESIGNED DITCHES, MUST BE SUBMITTED PRIOR TO SUBDIVISION FINAL INSPECTION TO THE TOWN/COUNTY ENGINEERING DEPARTMENT
- IN ACCORDANCE WITH THE TOWN/COUNTY SUBDIVISION ORDINANCE. 15. NONSTANDARD ITEMS (IE: PAVERS, IRRIGATION SYSTEMS, ETC.) IN THE RIGHT-OF-WAY REQUIRE A
- RIGHT-OF-WAY ENCROACHMENT AGREEMENT WITH THE NORTH CAROLINA DEPARTMENT OF TRANSPORTATION 16. PRIOR TO PLAT RECORDATION, OFFSITE R/W AND/OR CONSTRUCTION EASEMENTS ARE REQUIRED TO BE
- OBTAINED ACCORDING TO THE GUIDELINES OF THE "OFFSITE R/W ACQUISITION PROCESS". THESE NEEDED R/W AND CONSTRUCTION LIMITS ARE CLEARLY SHOWN ON THE ROADWAY IMPROVEMENT PLAN.

17. PIPE SYSTEMS AND/OR CHANNELS LOCATED WITHIN PUBLIC DRAINAGE EASEMENTS ARE THE MAINTENANCE

- RESPONSIBILITY OF THE INDIVIDUAL PROPERTY OWNER. 18. ALL CONSTRUCTION TO CONFORM TO UNION COUNTY, NCDENR AND NCDOT DEVELOPMENT STANDARDS.
- 19. FIRE HYDRANT LOCATION SHALL BE REVIEWED AND APPROVED BY THE COUNTY FIRE MARSHALL DURING

THE BUILDING PERMIT PROCESS.

- **ENGINEER'S NOTES:**
- 1. CONTRACTOR SHALL NOTIFY THE ENGINEER OF WORK 48 HOURS PRIOR TO COMMENCEMENT OF CONSTRUCTION
- 2. CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING INTERPRETATIONS FOR ANY QUESTIONS REGARDING THESE DRAWINGS PRIOR TO COMMENCEMENT OF WORK OR ORDERING OF MATERIALS AND SHALL BEAR THE COST OF ALL REWORK IF NOT PROPERLY COORDINATED
- 3. CONTRACTOR SHALL PROVIDE ENGINEER RECORD DRAWING INFORMATION FROM A REGISTERED LAND SURVEYOR UPON
- 4. CONTRACTOR SHALL OBTAIN A PERMIT FOR ANY EXCAVATION PERFORMED WITHIN THE PUBLIC RIGHT-OF-WAY
- 5. THE ENGINEER OF WORK SHALL NOT BE RESPONSIBLE FOR THE ENFORCEMENT OF SAFETY MEASURES OR REGULATIONS. THE CONTRACTOR SHALL DESIGN, CONSTRUCT, AND MAINTAIN ALL SAFETY DEVICES AND SHALL BE SOLELY RESPONSIBLE FOR CONFORMING TO ALL LOCAL, STATE, AND FEDERAL SAFETY STANDARDS, LAWS AND
- CONTRACTOR SHALL ADJUST ALL PROPOSED AND EXISTING FACILITIES TO FINAL GRADE.
- 7. CONTRACTOR SHALL NOTIFY THE ENGINEER OF ANY DISCREPANCIES BETWEEN THE FIELD DATA AND THE INFORMATION SHOWN HEREON. ENGINEER SHALL NOT BE RESPONSIBLE FOR ANY WORK DONE WITHOUT PROPER NOTIFICATION AND COORDINATION.
- 8. THE ENGINEER PREPARING THESE PLANS SHALL NOT BE RESPONSIBLE FOR, OR LIABLE FOR, UNAUTHORIZED CHANGES TO OR USES OF THESE PLANS. ALL CHANGES MUST BE IN WRITING AND MUST BE APPROVED BY THE DESIGN ENGINEER PRIOR TO IMPLEMENTATION.
- 9. PRIVATE WATER AND SANITARY SEWER SYSTEMS SHALL BE TESTED IN ACCORDANCE WITH N.C.D.E.N.R. REGULATIONS IN THE PRESENCE OF THE ENGINEER PRIOR TO ACTIVATION OF FACILITIES.
- 10. EXISTING SANITARY SEWER AND WATER SYSTEM SHOWN PER PROVIDED SURVEY AND CMUD REFERENCE DRAWINGS. EXISTING PUBLIC UTILITY INFORMATION IS SHOWN FOR REFERENCE ONLY AND EXISTING SIZES, INVERTS AND LOCATIONS SHALL BE FIELD VERIFIED.
- 11. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO LOCATE ALL SUBSTRUCTURES, WHETHER SHOWN HEREON OR NOT, AND PROTECT FROM DAMAGE DURING INSTALLATION. THE EXPENSE OF REPAIR OR REPLACEMENT OF SAID
- STRUCTURES SHALL BE BORNE BY THE CONTRACTOR. 12. A LICENSED UTILITY CONTRACTOR WILL INSTALL THE TAPS AND METERS. THE CONTRACTOR IS RESPONSIBLE FOR INSTALLING THE TAPS AND METERS TO CMUD STANDARDS AND REGULATIONS.
- 13. SANITARY YARD HYDRANTS SHALL NOT BE 'STOP AND DRAIN', 'STOP AND WASTE', OR 'WEEP HOLE' TYPE
- 14. IF CONTRACTOR OPTS TO INSTALL PRECAST STRUCTURES, CONTRACTOR SHALL BE REQUIRED TO VERIFY RIM ELEVATIONS AND LAYOUT OF ALL PIPES, INCLUDING SIZE AND INVERTS OF EXISTING FACILITIES, PRIOR TO THE
- 15. IT SHALL BE THE RESPONSIBILITY OF THE INSTALLER TO ADJUST ALL PRECAST STRUCTURES TO FINISHED GRADE IN ACCORDANCE WITH AGENCY SPECIFICATIONS AND MANUFACTURER RECOMMENDATIONS. NO ADDITIONAL PAYMENT WILL BE MADE FOR ADJUSTING FACILITIES TO FINISHED GRADE.
- 16. FIRE HYDRANTS ARE TO BE 10' CLEAR OF ANY OBSTRUCTIONS.
- 17. FDC LOCATIONS SHALL BE IN ACCORDANCE W/ CFD REQUIREMENTS.
- 18. FIRE SPRINKLER SIZING AND FDC CONNECTIONS TO BE SIZED AND LOCATED PER THE RECOMMENDATIONS OF THE FIRE SPRINKLER CONSULTANT. ALL REFERENCES SHOWN HEREON ARE FOR SCHEMATIC PURPOSES ONLY.
- 20. CONTRACTOR SHALL FLUSH ALL ONSITE STORM DRAINAGE AND HAUL OFF ALL ACCUMULATED MATERIAL AT COMPLETION OF CONSTRUCTION. CONTRACTOR SHALL PROTECT DOWN STREAM PROPERTIES AND BMP INSTALLATIONS FROM EXCESSIVE SEDIMENT ACCUMULATION. UPON COMPLETION OF CLEANING, CONTRACTOR SHALL PROVIDE WRITTEN CONFIRMATION TO OWNER AND REQUEST INSPECTION OF PROJECT BY ENGINEER FOR FINAL INSPECTION.

PROPOSED USE:

TAX MAP NO: TOWN OF WEDDINGTON (UNION COUNTY, NC) MUNICIPALITY:

SITE AREA: +/- 20.50 ACRES (893,149 SF) AREA EXCLUDING ROW DEDICATION: +/- 18.95 ACRES (825,251 SF) **EXISTING ZONING:** R-CD - CONSERVATION SUBDIVISION PROPOSED ZONING:

TOTAL LOTS ALLOWED: 18 LOTS (PER MAX YIELD PLAN)

TOTAL LOTS PROVIDED: 0.95 D.U.A.

OPEN SPACE REQUIRED: 50% CONSERVATION = +/- 9.48 ACRES (412,625 SF)

SINGLE FAMILY RESIDENTIAL

OPEN SPACE PROPOSED: 50.1% = 9.482 ACRES (413,047 SF)(LOTS AND ROW EXCLUDED FROM CONSERVATION AREA).

FRONT YARD SETBACK: REAR YARD SETBACK:

SIDE YARD SETBACK: 15' (30' HOME SEPARATION) 15' SIDE CORNER LOTS

MINIMUM LOT WIDTH: 80' (AT BUILDING LINE) (30' STREET FRONTAGE) MINIMUM LOT SIZE: 12,000 SF (PROPOSED SMALLEST LOT SIZE=14,583 SF) MAX BUILDING HEIGHT

CONSULTANTS:

SURVEYOR:

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BONTERRA BUILDERS, LLC 5615 POTTER ROAD

MATTHEWS, NC 28104 CONTAC:

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CIVIL ENGINEER & PLANNER DESIGN RESOURCE GROUP, PA 2459 WILKINSON BOULEVARD

SUITE 200 CHARLOTTE, NC 28208 704.343.0608

THE ISAACS GROUP

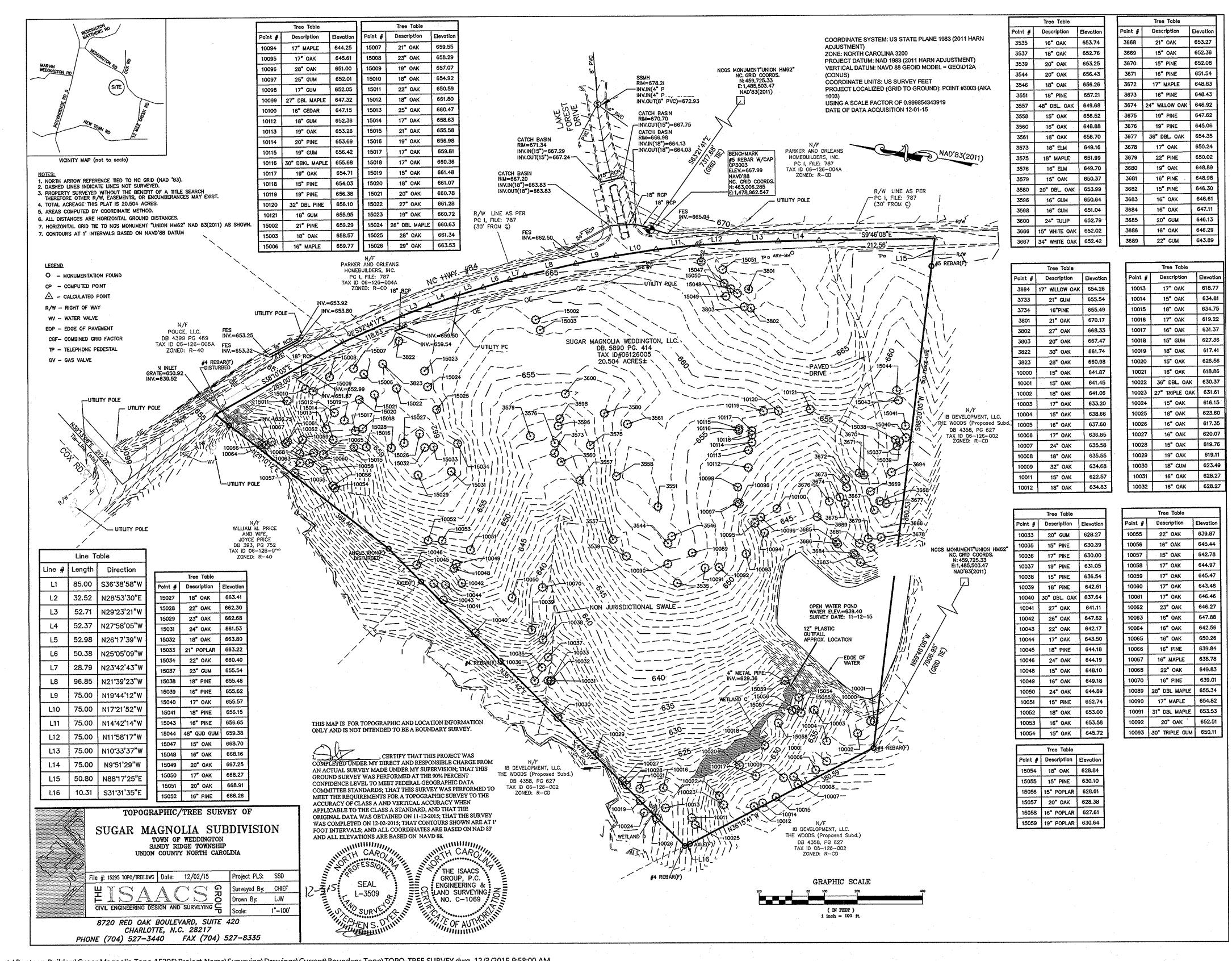
8720 RED OAK BLVD. SUITE 420 CHARLOTTE, NC 28217

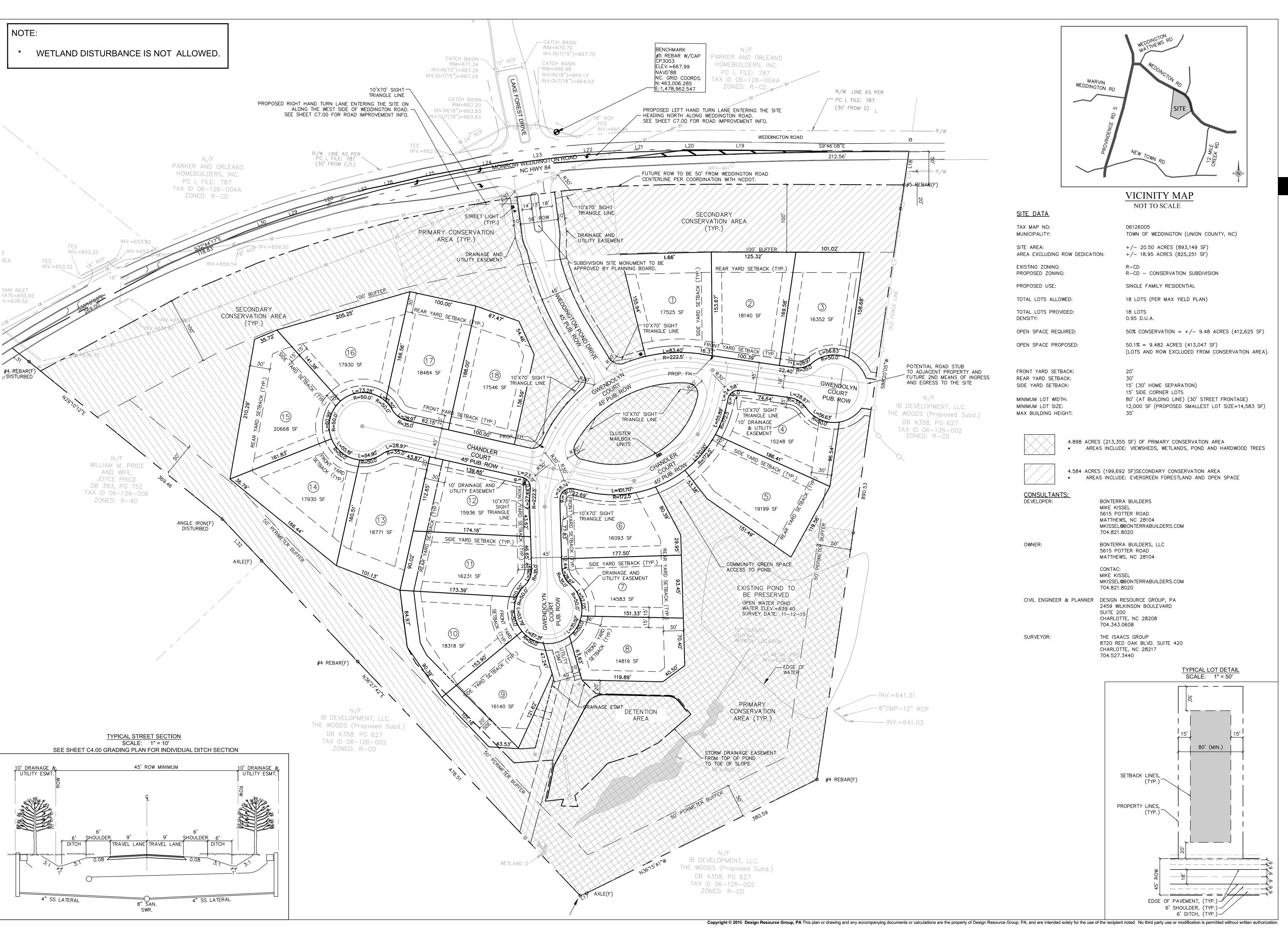
704.527.3440

SUGAR	MAGNOLIA	GENERAL	NOTES:

- 1. STREET CONSTRUCTION MATERIALS AND CONSTRUCTION STANDARDS SHALL MEET NC DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES AND ROADWAY STANDARD DRAWINGS AS REVISED JANUARY 2012 (AND AS SUBSEQUENTLY AMENDED).
- 2. ALL EROSION CONTROL DEVICES SHALL NE CONSTRUCTED AND MAINTAINED IN ACCORDANCE WITH THE MOST CURRENT NCDENR AND UNION COUNTY STANDARDS. EROSION CONTROL MEASURES SHALL BE REMOVED AT PROJECT COMPLETION WHEN DEEMED NO LONGER NECESSARY BY THE ENGINEER. ALL GRADED AREAS NOT UNDER PAVEMENT AND WITHIN THE RIGHT-OF-WAY OR EASEMENTS SHALL BE PREPARED, FERTILIZED AND LIMES, SEEDED AND MULCHED IMMEDIATELY UPON COMPLETION OF CONSTRICTION.
- 3. ALL DRAINAGE STRUCTURES AND PIPE SHALL CONFORM TO NCDOT STANDARDS AND SPECIFICATIONS. 4. IF REQUIRED BY UNION COUNTY, COMPACTION TESTS SHALL BE MADE BY AN INDEPENDENT TESTING LAB AT
- 5. S EXPENSE.
- 6. THE FINAL LIFT OF ASPHALT PAVEMENT SHALL NOT BE PLACED UNTIL 80% OF HOME SITES ARE DEVELOPED. THE FINAL LIFT OF PAVEMENT SHALL NOT BE PLACED FOR STREETS THAT WILL BE USED TO ACCESS FUTURE PHASES UNTIL THOSE PHASES REACH 80% BUILD-OUT.

409-017

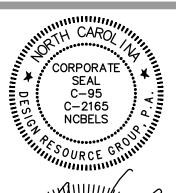


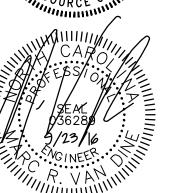


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LANDSCAPE ARCHITECTURE CIVIL ENGINEERING TRANSPORTATION PLANNING

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CONSTRUCTION DOCUMENTS



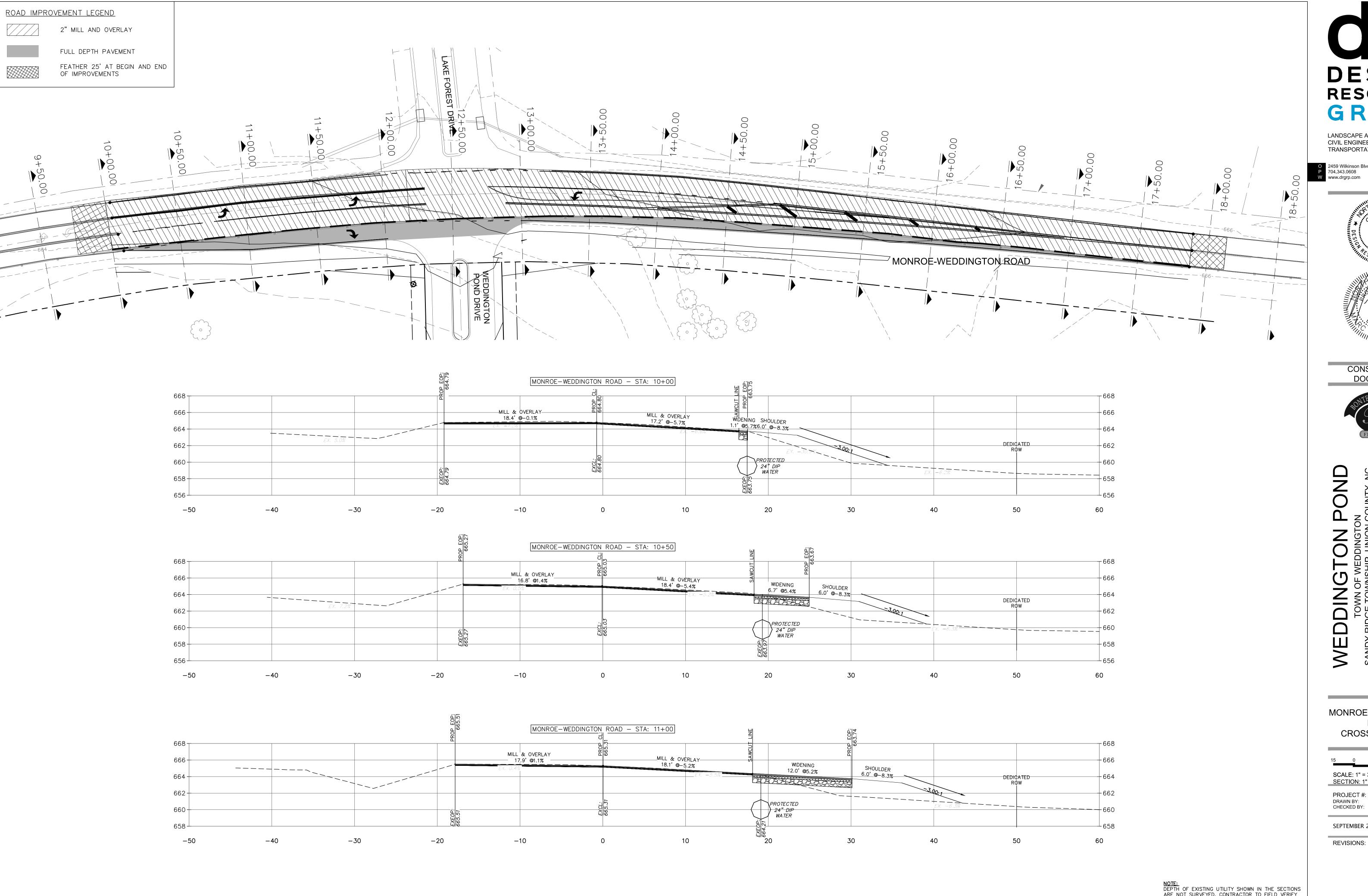
OVERALL SITE PLAN

PROJECT #: DRAWN BY: CHECKED BY:

SEPTEMBER 23, 2016

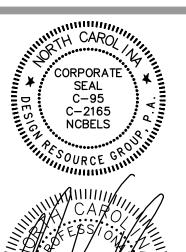
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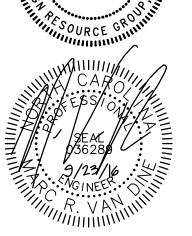
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LANDSCAPE ARCHITECTURE CIVIL ENGINEERING TRANSPORTATION PLANNING





CONSTRUCTION DOCUMENTS



MONROE-WEDDINGTON ROAD

CROSS-SECTIONS

SCALE: 1" = 30' SECTION: 1" = 5'

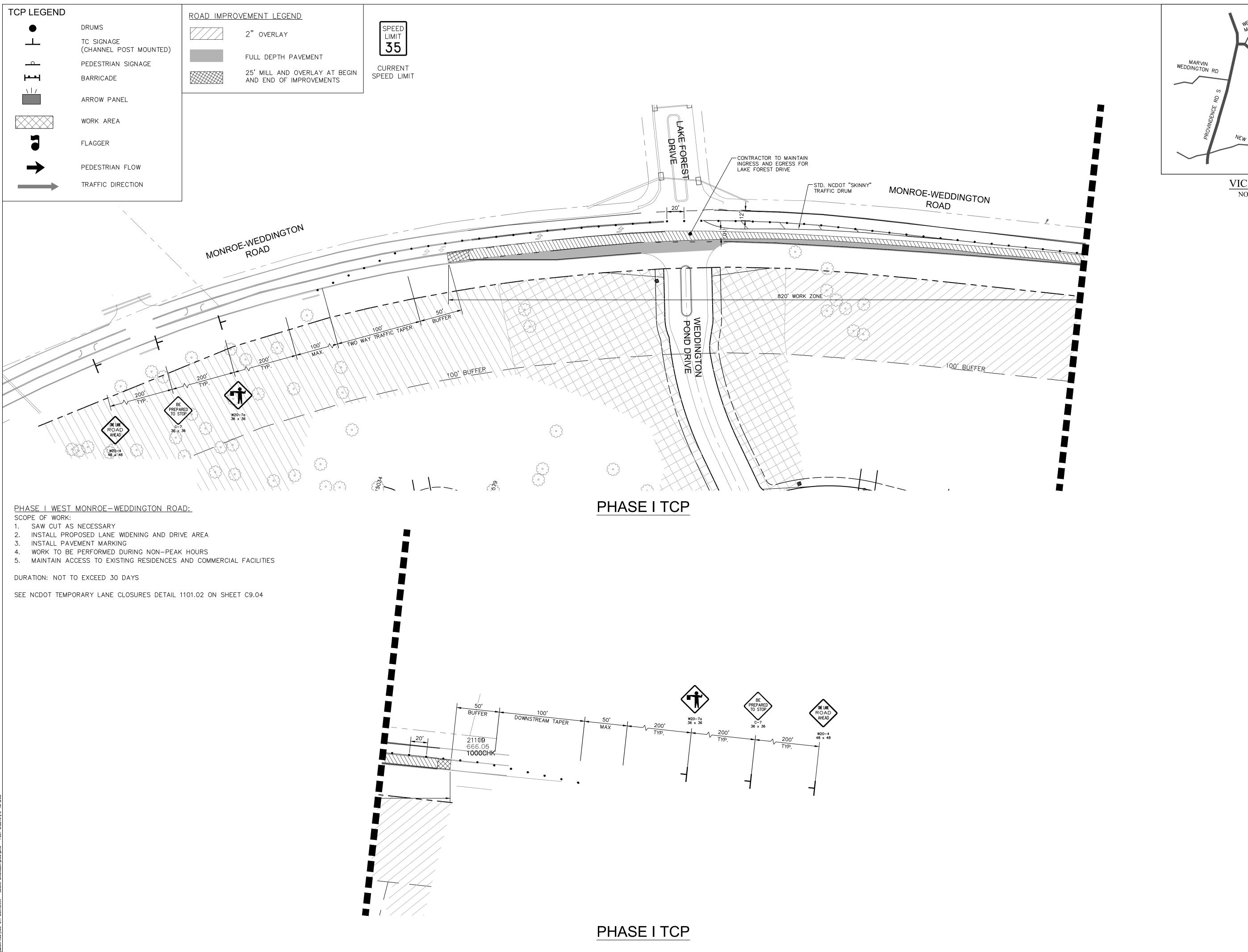
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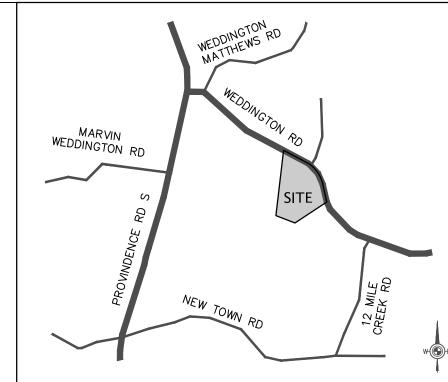
409-017 CHECKED BY:

SEPTEMBER 23, 2016

NOTE:
DEPTH OF EXISTING UTILITY SHOWN IN THE SECTIONS
ARE NOT SURVEYED, CONTRACTOR TO FIELD VERIFY THE LOCATION OF EXISTING UTILITY PRIOR TO COMMENCING CONSTRUCTION ACTIVITIES.

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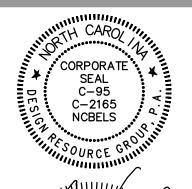
VICINITY MAP NOT TO SCALE

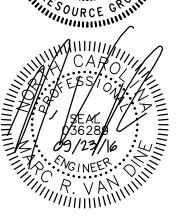
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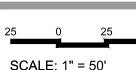




CONSTRUCTION DOCUMENTS



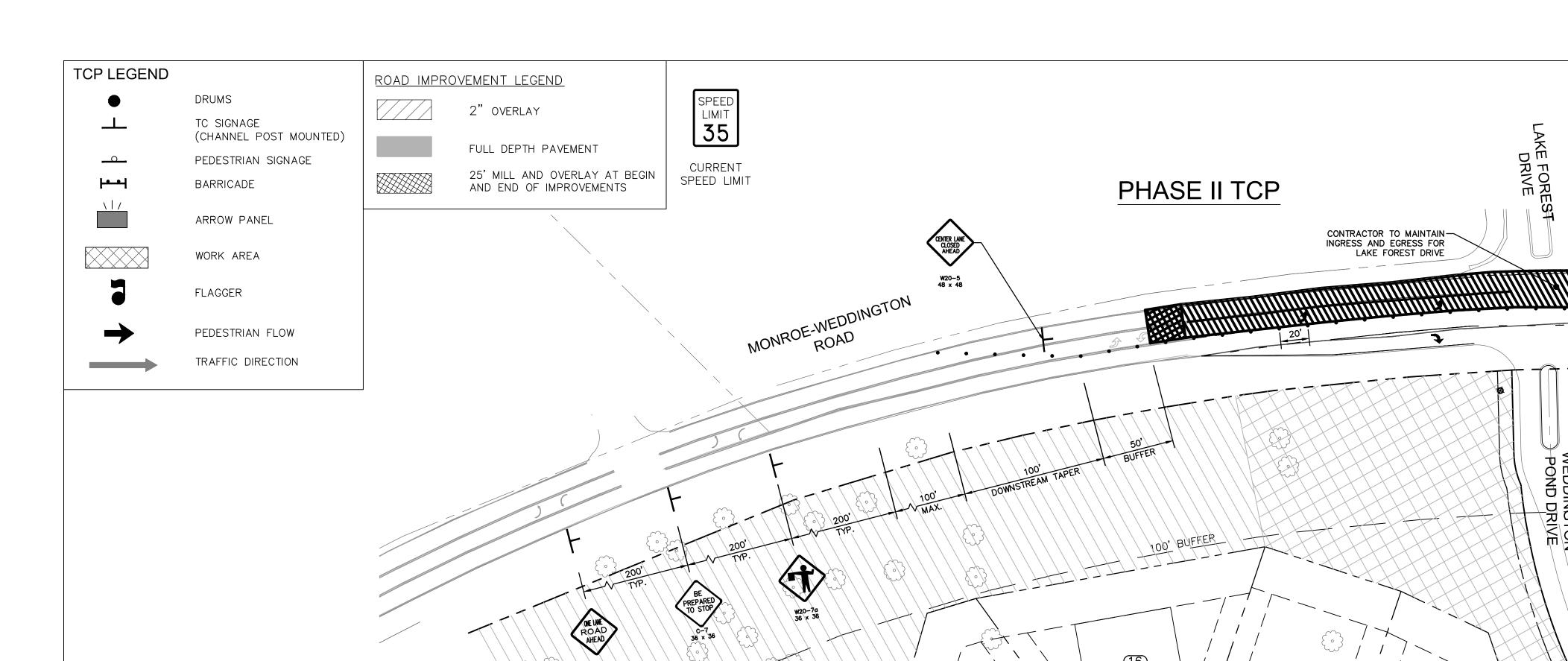
MONROE-WEDDINGTON TRAFFIC CONTROL PLAN

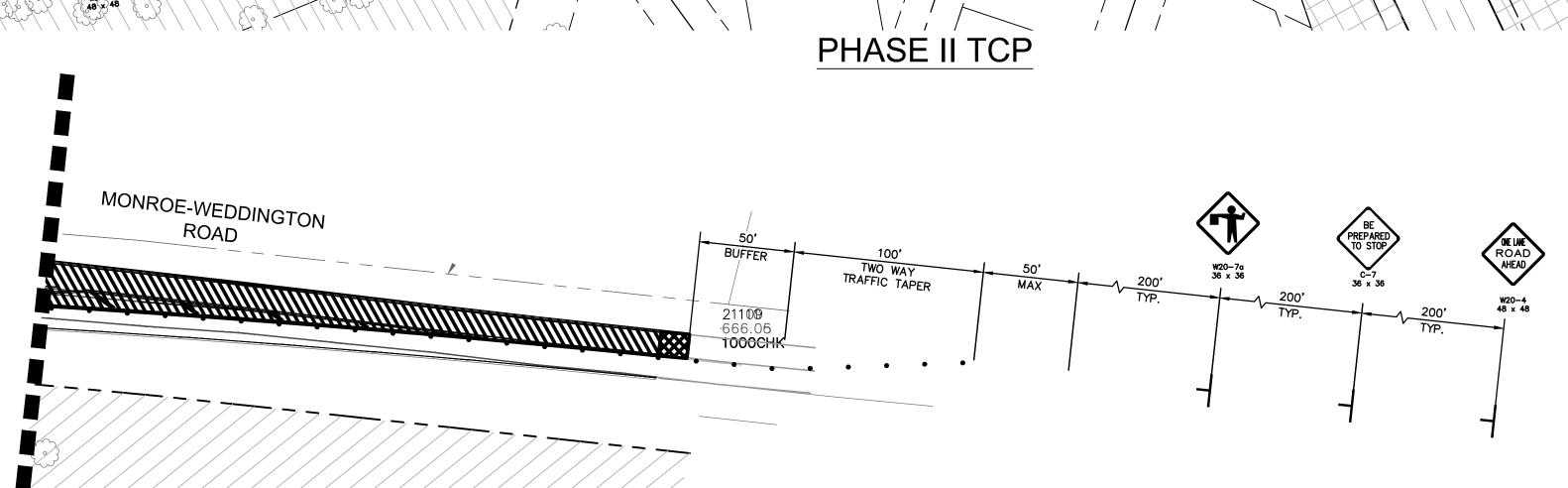


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SEPTEMBER 23, 2016

REVISIONS:





TRAFFIC CONTROL NOTES:

CHANGES MAY BE REQUIRED WHEN PHYSICAL DIMENSIONS IN THE DETAIL DRAWINGS, STANDARD DETAILS, AND ROADWAY DETAILS ARE NOT ATTAINABLE TO MEET FIELD CONDITIONS OR RESULT IN DUPLICATE OR UNDESIRED OVERLAPPING OF DEVICES. MODIFICATION MAY INCLUDE: MOVING, SUPPLEMENTING, COVERING, OR REMOVAL OF DEVICES AS DIRECTED BY THE

THE FOLLOWING GENERAL NOTES APPLY AT ALL TIMES FOR THE DURATION OF THE CONSTRUCTION PROJECT EXCEPT WHEN OTHERWISE NOTED IN THE PLAN OR DIRECTED BY THE ENGINEER.

LANE AND SHOULDER CLOSURE REQUIREMENTS

- A) ALL WORK TO BE PERFORMED DURING NO PEAK HOURS ON THE DAYS OF MONDAY THROUGH FRIDAY.
- B) REMOVE LANE CLOSURE DEVICES FROM THE LANE WHEN WORK IS NOT BEING PERFORMED BEHIND THE LANE CLOSURE OR WHEN A LANE CLOSURE IS NO LONGER NEEDED OR AS DIRECTED BY THE ENGINEER.
- C) WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING WITHIN 5 FT OF AN OPEN TRAVEL LANE, CLOSE THE NEAREST OPEN SHOULDER USING ROADWAY STANDARD DRAWING NO. 1101.04 UNLESS THE WORK AREA IS PROTECTED BY BARRIER OR GUARDRAIL OR A LANE CLOSURE IS INSTALLED.
- D) WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING ON THE SHOULDER ADJACENT TO AN UNDIVIDED FACILITY AND WITHIN 5 FT OF AN OPEN TRAVEL LANE, CLOSE THE NEAREST OPEN TRAVEL LANE USING ROADWAY STANDARD DRAWING NO. 1101.02 UNLESS THE WORK AREA IS PROTECTED BY BARRIER OR GUARDRAIL.
- E) WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING WITHIN A LANE OF TRAVEL OF AN UNDIVIDED OR DIVIDED FACILITY, CLOSE THE LANE ACCORDING TO THE TRAFFIC CONTROL PLANS, ROADWAY STANDARD DRAWINGS, OR AS DIRECTED BY THE ENGINEER. CONDUCT THE WORK SO THAT ALL PERSONNEL AND/OR EQUIPMENT REMAIN WITHIN THE CLOSED TRAVEL LANE.
- F) DO NOT WORK SIMULTANEOUSLY ON BOTH SIDES OF AN OPEN TRAVELWAY, RAMP, OR LOOP WITHIN THE SAME LOCATION UNLESS PROTECTED WITH GUARDRAIL OR BARRIER.
- G) DO NOT INSTALL MORE THAN 2 SIMULTANEOUS LANE CLOSURES IN ANY ONE DIRECTION ON Providence Road or Queens Road. FOR SPECIAL CASES A SINGLE LANE CLOSURE MAY BE ALLOWED WITH APPROVAL FROM CDOT/NCDOT DURING THE HOURS OF 9AM-4PM.
- H) PROVIDE TRAFFIC CONTROL FOR APPROPRIATE LANE CLOSURES FOR SURVEYING DONE BY THE DEPARTMENT.

PAVEMENT EDGE DROP OFF REQUIREMENTS

- BACKFILL AT A 6:1 SLOPE UP TO THE EDGE AND ELEVATION OF EXISTING PAVEMENT IN AREAS ADJACENT TO AN OPENED TRAVEL LANE THAT HAS AN EDGE OF PAVEMENT DROP-OFF AS FOLLOWS:
- BACKFILL DROP-OFFS THAT EXCEED 2 INCHES ON ROADWAYS WITH POSTED SPEED LIMITS OF 45 MPH OR GREATER.
- BACKFILL DROP-OFFS THAT EXCEED 3 INCHES ON ROADWAYS WITH POSTED SPEED LIMITS LESS THAN 45 MPH.

ENGINEER, AT NO EXPENSE TO THE DEPARTMENT.

- BACKFILL WITH SUITABLE COMPACTED MATERIAL, AS APPROVED BY THE
- J) DO NOT EXCEED A DIFFERENCE OF 2 INCHES IN ELEVATION BETWEEN OPEN LANES OF TRAFFIC FOR NOMINAL LIFTS OF 1.5 INCHES. INSTALL ADVANCE WARNING "UNEVEN LANES" SIGNS (W8-11) 200ft IN ADVANCE AND A MINIMUM

OF EVERY HALF MILE THROUGHOUT THE UNEVEN AREA. TRAFFIC PATTERN ALTERATIONS

- K) NOTIFY THE NCDOT ENGINEER/INSPECTOR TWENTY ONE (21) CALENDAR DAYS PRIOR TO ANY TRAFFIC PATTERN ALTERATION.
- L) INSTALL ADVANCE WORK ZONE WARNING SIGNS WHEN WORK IS WITHIN 40 FT FROM THE EDGE OF TRAVEL LANE AND NO MORE THAN THREE (3) DAYS PRIOR TO THE BEGINNING OF CONSTRUCTION.
- M) PROVIDE SIGNING AND DEVICES REQUIRED TO CLOSE THE ROAD ACCORDING TO THE ROADWAY STANDARD DRAWINGS AND TRAFFIC CONTROL PLANS.
- N) COVER OR REMOVE ALL SIGNS AND DEVICES REQUIRED TO CLOSE THE ROAD WHEN ROAD CLOSURE IS NOT IN OPERATION. COVER OR REMOVE ALL SIGNS REQUIRED FOR THE OFF-SITE DETOUR WHEN THE DETOUR IS NOT IN OPERATION.
- ENSURE ALL NECESSARY SIGNING IS IN PLACE PRIOR TO ALTERING ANY
- P) INSTALL BLACK ON ORANGE "DIP" SIGNS (W8-2) AND/OR "BUMP" SIGNS (W8-1) IN ADVANCE OF THE UNEVEN AREA, OR AS DIRECTED BY THE ENGINEER WITH THE APPROVAL OF CDOT/NCDOT.

TRAFFIC CONTROL DEVICES

- Q) SPACE CHANNELIZING DEVICES IN WORK AREAS NO GREATER IN FEET THAN TWICE THE POSTED SPEED LIMIT (MPH), EXCEPT 10 FT ON-CENTER IN RADII, AND 3 FT OFF THE EDGE OF AN OPEN TRAVELWAY WHEN LANE CLOSURES ARE NOT IN EFFECT. WHEN SKINNY DRUMS ARE ALLOWED REFER TO SECTION 1180 OF STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES OR AS SHOWN IN THE PLANS.
- R) PLACE ADDITIONAL SETS OF THREE CHANNELIZING DEVICES DRUMS PERPENDICULAR TO THE EDGE OF TRAVELWAY ON 500 FT CENTERS WHEN UNOPENED LANES ARE CLOSED TO TRAFFIC.

PAVEMENT MARKINGS AND MARKERS

S) INSTALL TEMPORARY PAVEMENT MARKINGS AND TEMPORARY PAVEMENT MARKERS ON INTERIM LAYERS OF PAVEMENT AS FOLLOWS:

MARKER

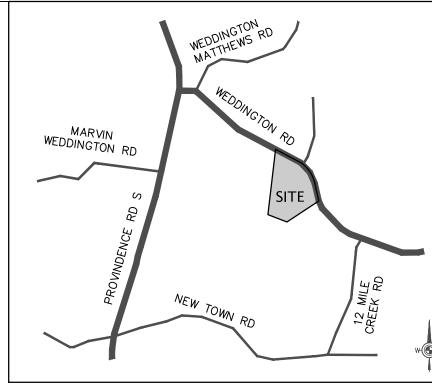
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- ROAD NAME MARKING ALL ROADS - ALL MARKINGS
- T) DEVELOPER WILL INSTALL PAVEMENT MARKINGS AND PAVEMENT MARKERS ON THE FINAL SURFACE.
- U) PLACE ONE APPLICATION OF PAINT FOR TEMPORARY TRAFFIC PATTERNS. PLACE A SECOND APPLICATION OF PAINT SIX (6) MONTHS AFTER THE INITIAL APPLICATION AND EVERY SIX MONTHS AS DIRECTED BY THE ENGINEER. BASED ON WEATHER CONDITIONS, A SECOND APPLICATION OF THERMOPLASTIC AND RAISED PAVEMENT MARKERS WILL BE REQUIRED WHEN THE WEATHER PERMITS.
- V) TIE PROPOSED PAVEMENT MARKING LINES TO EXISTING PAVEMENT MARKING
- W) REMOVE/REPLACE ANY CONFLICTING/DAMAGED PAVEMENT MARKINGS AND MARKERS BY THE END OF EACH DAY'S OPERATION.

AND/ORINTERSECTIONS AS DIRECTED BY CDOT/NCDOT.

X) LAW ENFORCEMENT SHALL BE USED TO MAINTAIN TRAFFIC THROUGH THE WORK AREA

- Y) IN THE EVENT A TIE-IN CANNOT BE MADE IN ONE DAY'S TIME, BRING THE TIE-IN AREA TO AN APPROPRIATE ROADWAY ELEVATION AS DETERMINED BY THE ENGINEER. PLACE BLACK ON ORANGE "LOOSE GRAVEL" SIGNS (W8-7) AND BLACK ON ORANGE "PAVEMENT ENDS" SIGNS (W8-3) 100FT AND 200FT RESPECTIVELY IN ADVANCE OF THE UNEVEN AREAS. USE DRUMS TO DELINEATE THE EDGE OF ROADWAY ALONG UNPAVED AREAS.
- Z) ALL WHEELCHAIR RAMP LOCATIONS SHALL BE DERIVED FROM STATIONING SHOWN ON PAVEMENT MARKING PLANS OR AS DIRECTED BY THE ENGINEER IN COORDINATION WITH THE SIGNING AND DELINEATION UNIT.
- AA) CONTRACTOR SHALL MAINTAIN SIDEWALK ACCESS AT ALL TIMES AS STATED IN THE PHASING. CONTRACTOR SHALL BE RESPONSIBLE TO PROVIDE TEMPORARY SIDEWALKS (CONCRETE, ASPHALT, OR OTHER SUITABLE MATERIAL AS APPROVED BY THE ENGINEER) AT ALL LOCATIONS WHERE THE OPEN PEDESTRIAN TRAVELWAY HAS BEEN REMOVED FOR CONSTRUCTION OPERATIONS (UTILITIES, DRAINAGE, ETC.).
- BB) CONTRACTOR SHALL CONTACT CDOT FOR TRAFFIC SIGNAL ADJUSTMENTS AS LANES SHIFT AND TRAFFIC PATTERNS ARE ALTERED.



VICINITY MAP NOT TO SCALE

PHASE II WEST MONROE-WEDDINGTON ROAD: SCOPE OF WORK:

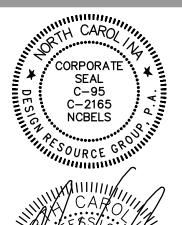
- 1. OVERLAY MATCH EXISTING SLOPE HALF OF THE ROAD 2. INSTALL PAVEMENT MARKING
- 3. WORK TO BE PERFORMED DURING NON-PEAK HOURS DURATION: NOT TO EXCEED 30 DAYS

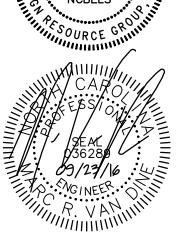
SEE NCDOT TEMPORARY SHOULDER CLOSURES DETAIL 1101.02 ON SHEET C9.04



CIVIL ENGINEERING TRANSPORTATION PLANNING

2459 Wilkinson Blvd, Ste 200 Charlotte, NC 28208 704.343.0608 www.drgrp.com

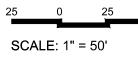




CONSTRUCTION DOCUMENTS



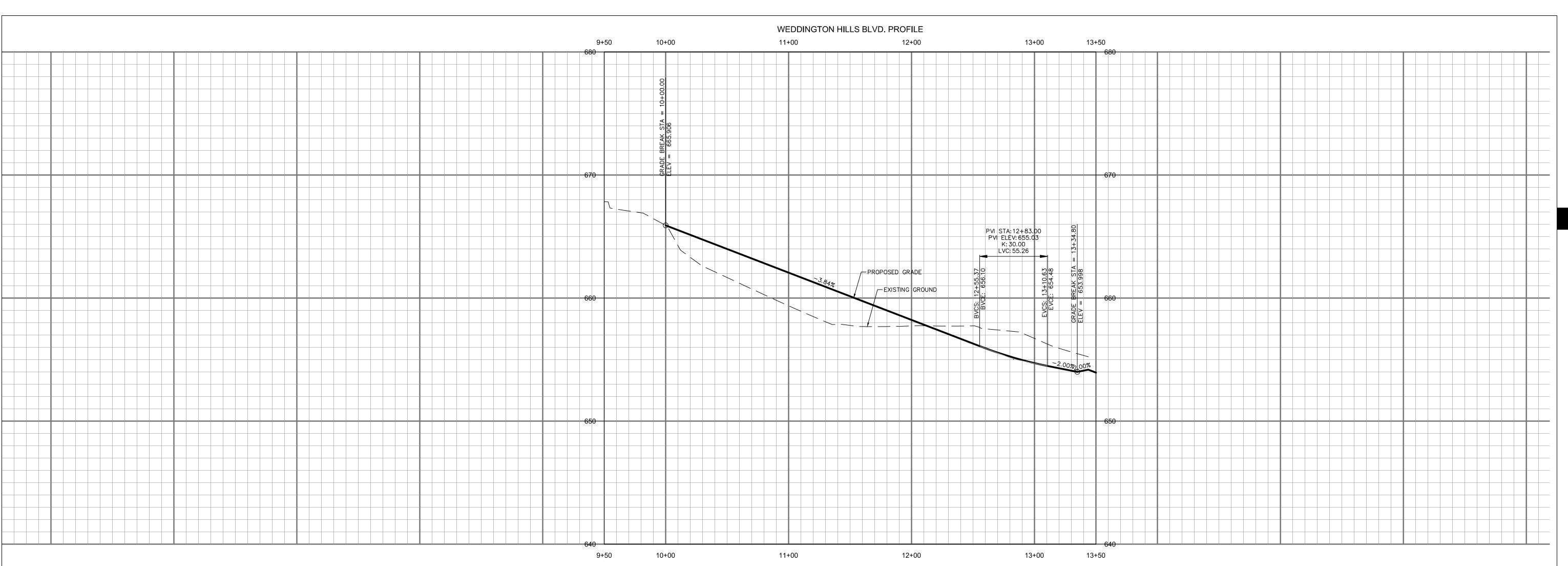
MONROE-WEDDINGTON TRAFFIC CONTROL



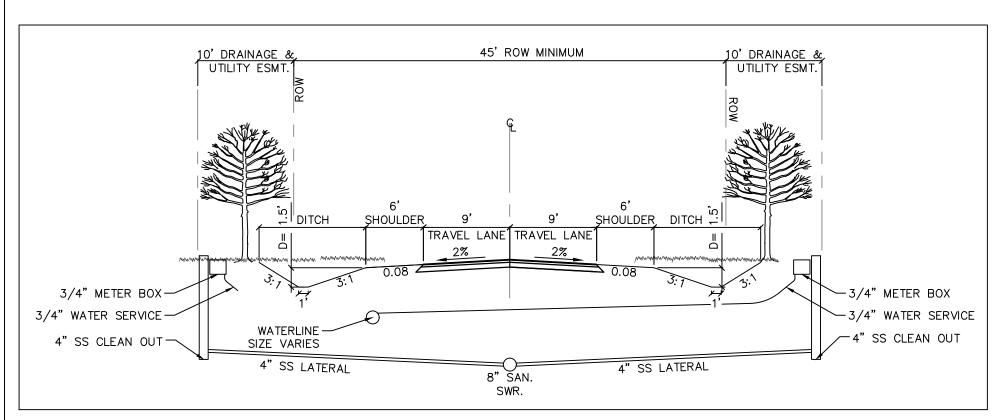
409-017 PROJECT #: DRAWN BY CHECKED BY:

SEPTEMBER 23, 2016

REVISIONS:

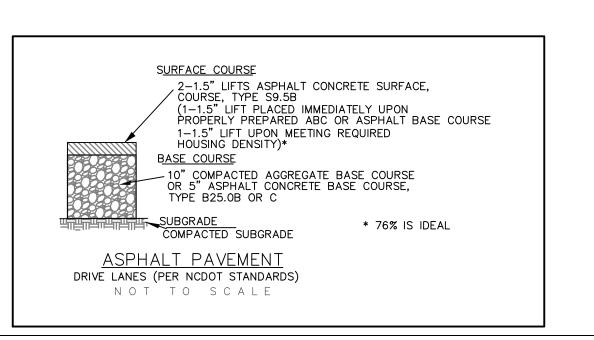


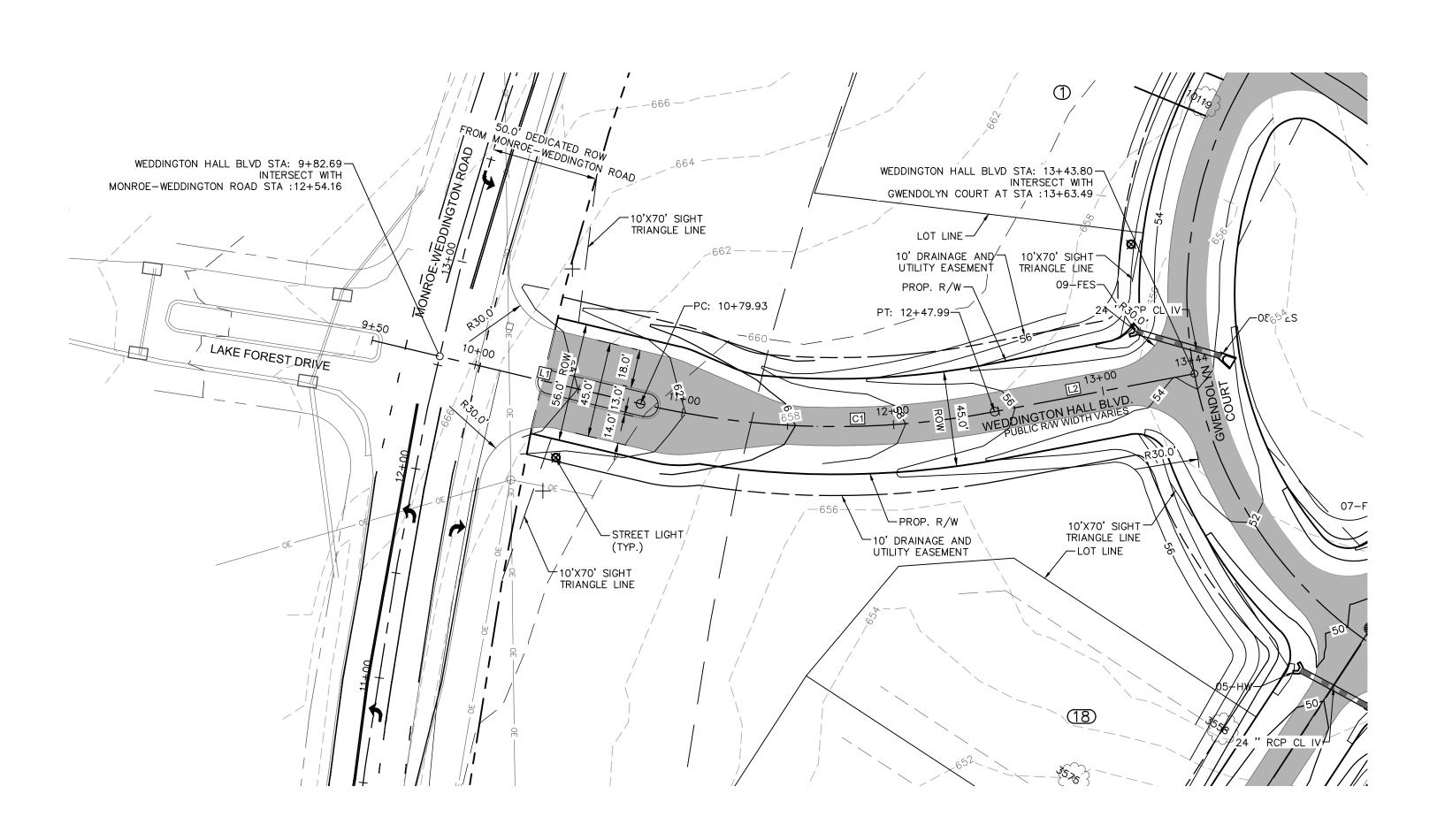
WEDDINGTON HILLS BLVD. C/L LINE AND CURVE TABLE				
NUMBER	RADIUS	LENGTH	LINE/CHORD DIRECTION	
C1	400.00	168.06	S60° 35' 58.63"W	
L1		129.93	S72° 38' 08.47"W	
L2		95.81	S48° 33' 48.78"W	



TYPICAL STREET SECTION

SEE SHEET C4.00 FOR ROADSIDE DITCH SECTION



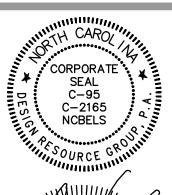


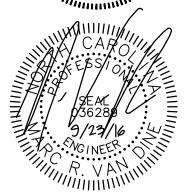
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LANDSCAPE ARCHITECTURE CIVIL ENGINEERING TRANSPORTATION PLANNING

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CONSTRUCTION DOCUMENTS



PON V COUNTY, NC

BONTERRA BUILDERS
5615 POTTER ROAD
MATTHEWS, NC 28104

WEDDINGTON
HALL BLVD PLAN
& PROFILE

20 0 20 SCALE: 1" = 40'

PROJECT #: DRAWN BY: CHECKED BY:

SEPTEMBER 23, 2016

REVISIONS:

From: Bonnie Fisher

To: <u>Marc R. Van Dine; Kate Liu</u>
Cc: <u>Robert Cooke; Peggy Piontek</u>

Subject: [PossibleSpam] FW: Weddington Pond Review Comments

Date: Wednesday, October 05, 2016 9:05:52 AM

Marc/Kate:

Below are the items yet to be addressed on the subdivision project. A formal approval letter may be sent once these items have been addressed.

- 1. NCDOT approval letter.
- 2. Table III in the Water Control Maintenance Plan of the Operation and Maintenance agreement needs to be completed. Agreement needs to be signed by the owner and the Town
- 3. Approval letter from Dam Safety.
- 4. The ditch calculations require revising and resubmitting. The engineer may submit just the ditch calculations and sheet C4.0 (assuming this is the only sheet that requires revisions).
 - a. The ditch n values appear to have been calculated using the hydraulic radius of the ditch and not the product of the velocity and the hydraulic radius (NCDENR EC Manual Figure 8.05c). To meet stability requirements, use retardance for newly mowed grass (Group D). For channel capacity, use at least one retardance class higher (Class C).
 - b. For the temporary condition, since no grass has been established, an n value of 0.02 should be used to determine the velocity and if a temporary lining is necessary.
 - c. The temporary linings required should be shown on the ditch typical sections on Sheet C4.0.
 - d. The engineer specifies woven paper net as the temporary ditch lining; however, the permissible shear value of 1.45 lb/sq.ft. used in the calculations is for straw with net.
 - e. Calculations are necessary for the ditch flowing to 03-DI (along the south side of Lot 9). Slope of this ditch is approximately 8%.
 - f. Constructability wise it does not seem practical to use ditches of varying widths along the streets. The ditch widths vary from 1 feet to 4 feet and should be consistent or at the minimum the same width on each side of the street.

If you have any questions on the comments above let us know.

Bonnie A. Fisher, P.E.

US Infrastructure of Carolina, Inc. 1043 East Morehead Street, Suite 203 Charlotte, NC 28204 704-342-3007