

SITE DATA:

PARCEL ID: R06120-010-007-000
 CURRENT ZONING: R-15 (RD)
 PROJECT ADDRESS: 355 BEASLEY ROAD WILMINGTON, NC 28401
 CURRENT OWNER: ROBERT & LISA SANDERS 1003 LISMORE WAY LELAND, NC 28451
 TOTAL ACREAGE IN PROJECT BOUNDARY: ±1.41 AC.
 EXISTING IMPERVIOUS AREA: 1500 S.F.
 EXISTING IMPERVIOUS AREA (TO BE REMOVED/DEMOLISHED): 1500 S.F.
 NEW IMPERVIOUS AREA:
 ON-SITE: ASPHALT 3,305 S.F.
 OFF-SITE: CONCRETE 378 S.F.
 TOTAL IMPERVIOUS 3,683 S.F.
 WATER AND SEWER DEMAND: (360 GPD PER HOUSE, 3 BEDROOM, TYP.)
 SEWER @ 360 GPD X 3= 1,080 GPD
 WATER @ 360 GPD X 3= 1,080 GPD

REVISIONS

NO.	DATE	DESCRIPTION

INTRACOASTAL ENGINEERING, PLLC
 5725 Oleander Dr. Unit E-7
 Wilmington, North Carolina 28403
 Phone: 910.859.8983
 Email: Charlie@intracoastalengineering.com
 License Number: P-0662

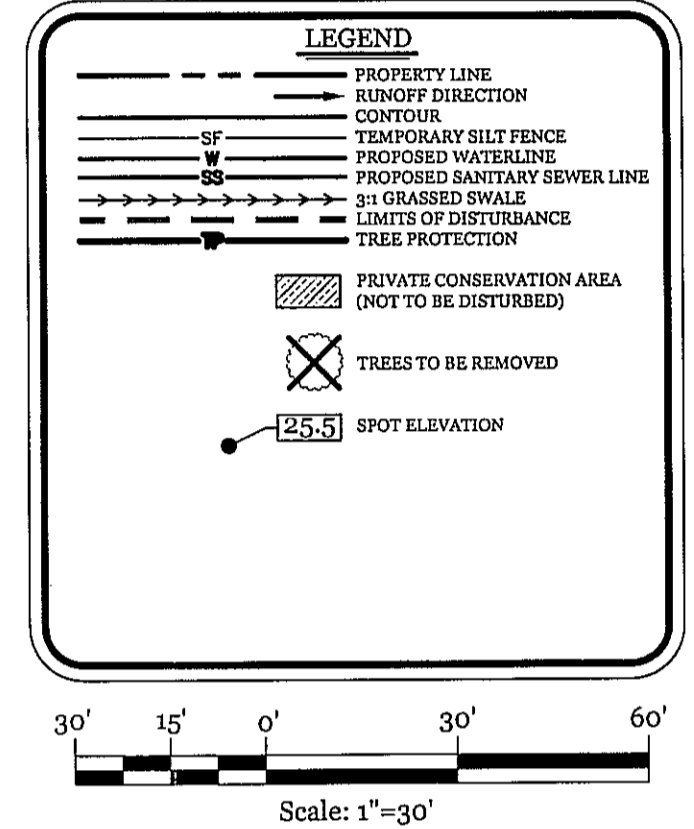
SITE, GRADING, DRAINAGE, UTILITY, & STORMWATER PLAN
 FOR
RIPLEY OAKS
 WILMINGTON, NC

CLIENT INFORMATION:
 ROBERT & LISA SANDERS
 1003 LISMORE WAY
 LELAND, NC 28451

RECEIVED
 DEC 19 2016
 PLANNING DIVISION

DRAWN: BPD	SHEET SIZE: 24x36
CHECKED: CDC	DATE: 12/15/2016
APPROVED: CDC	SCALE: 1" = 30'
PROJECT NUMBER: 2016-029	

DRAWING NUMBER: **C-1**



UTILITY NOTES:

- EXISTING WATER AND SANITARY SEWER SERVICES ARE CURRENTLY AVAILABLE TO THE SITE FROM CAPE FEAR PUBLIC UTILITY AUTHORITY PUBLIC MAINS.
- ALL PROPOSED UTILITY SERVICES, SUCH AS ELECTRIC POWER, CATV, GAS & TELEPHONE SHALL BE INSTALLED UNDERGROUND.
- ALL WATER & SEWER UTILITIES TO BE INSTALLED PER CFPWA TECHNICAL SPECIFICATIONS & STANDARDS.
- PROJECT SHALL COMPLY WITH CFPWA CROSS CONNECTION CONTROL REQUIREMENTS. WATER METER(S) CANNOT BE RELEASED UNTIL ALL REQUIREMENTS ARE MET AND N.C.D.E.N.R. HAS ISSUED THEIR "FINAL APPROVAL". CALL 343-3910 FOR INFORMATION.
- ANY BACKFLOW PREVENTION DEVICES REQUIRED BY THE CFPWA WILL NEED TO BE ON THE LIST OF APPROVED DEVICES BY USE OF THE CFPWA.
- WATER & SEWER SERVICES CANNOT BE ACTIVATED ON NEW MAINS UNTIL THE ENGINEER'S CERTIFICATION AND AS-BUILTS ARE RECEIVED AND "FINAL APPROVAL" ISSUED BY THE PUBLIC WATER SUPPLY SECTION OF NCDENR, AND "FINAL ENGINEERING CERTIFICATION" ISSUED BY DIVISION OF WATER QUALITY SECTION OF NCDENR.
- IF CONTRACTOR DESIRES CFPWA WATER FOR CONSTRUCTION, HE SHALL APPLY IN ADVANCE FOR THIS SERVICE AND MUST PROVIDE A REDUCED PRESSURE ZONE (RPZ) BACKFLOW PREVENTION DEVICE ON THE DEVELOPER'S SIDE OF THE WATER METER BOX.
- WHEN PFC WATER MAINS AND SERVICES ARE PROPOSED, THE PIPES ARE TO BE MARKED WITH NO. 10 INSULATED SINGLE-STRAND COPPER WIRE INSTALLED & STRAPPED TO THE PIPES WITH DUCT TAPE. THIS IS TO BE ACCESSIBLE IN ALL VALVES AND METER BOXES TO AID IN FUTURE LOCATION OF FACILITIES.
- THE CONTRACTOR IS RESPONSIBLE FOR THE LOCATION AND PROTECTION OF EXISTING UTILITIES DURING CONSTRUCTION. CALL U-LOCC AT 1-800-632-4949. CONTRACTOR IS RESPONSIBLE FOR THE REPAIR AND REPLACEMENT OF ANY UTILITIES, CURB & GUTTER, PAVEMENT, ETC. THAT MAY BE DAMAGED DURING CONSTRUCTION. DAMAGED ITEMS SHALL BE REPAIRED TO AT LEAST THE QUALITY OR WORKMANSHIP FOUND IN THE ORIGINAL ITEM.
- THE BELLSOUTH CONTACT IS STEVE DAYVAULT, BUILDING INDUSTRY CONSULTANT, AT 910-392-8712. CONTACT HIM PRIOR TO STARTING THE PROJECT IN ORDER TO FACILITATE GOOD COMMUNICATION AND MAXIMUM FLEXIBILITY.
- THE PROCESS FOR TELEPHONE CABLE PLACEMENT: * FINAL GRADE WILL NEED TO BE ESTABLISHED. * POWER WILL PLACE THEIR CABLE FIRST - APPROXIMATELY 3' DEEP. * BELLSOUTH & CABLE TV WILL THEN PLACE THEIR CABLE AT APPROXIMATELY 2' DEEP.
- SOLID WASTE DISPOSAL IS COW CURBSIDE PICKUP.
- EXISTING WATER AND SEWER SERVICES TO BE ABANDONED PER CFPWA SPECIFICATIONS.

DEVELOPMENT NOTES:

- ALL DEVELOPMENT SHALL BE IN ACCORDANCE WITH THE CITY OF WILMINGTON LAND DEVELOPMENT CODE.
- PROJECT SHALL COMPLY WITH ALL FEDERAL, STATE & NEW HANOVER COUNTY REGULATIONS.
- PROPOSED USE AT THIS TIME IS RESIDENTIAL SINGLE-FAMILY.
- NO WETLANDS EXIST ON SITE.
- CONTRACTOR, DEVELOPER, OR LOT OWNER ARE NOT ALLOWED TO DISTURB AREA LABELED "PRIVATE CONSERVATION AREA".
- ALL PROPOSED VEGETATION WITHIN SIGHT TRIANGLES SHALL NOT INTERFERE WITH CLEAR VISUAL SIGHT LINES FROM 30' TO 10'.

GENERAL TRAFFIC NOTES:

- ALL PAVEMENT MARKINGS IN PUBLIC RIGHTS-OF-WAY AND FOR DRIVEWAYS ARE TO BE THERMOPLASTIC AND MEET CITY AND/OR NCDOT STANDARDS. (DETAIL SD-13 COFW TECH STDS)
- ALL SIGNS AND PAVEMENT MARKINGS IN AREAS OPEN TO PUBLIC TRAFFIC ARE TO MEET MUTCD (MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES) STANDARDS. (DETAIL SD 15-18 COFW TECH STDS)
- ALL TRAFFIC CONTROL SIGNS AND MARKINGS OFF THE RIGHT-OF-WAY ARE TO BE MAINTAINED BY THE PROPERTY OWNER IN ACCORDANCE WITH MUTCD STANDARDS.
- A UTILITY CUT PERMIT IS REQUIRED FOR EACH OPEN CUT OF A CITY STREET. NOTE THIS ON THE PLAN AND CONTACT 341-9888 FOR MORE DETAILS. IN CERTAIN CASES AN ENTIRE RESURFACING OF THE AREA BEING OPEN CUT MAY BE REQUIRED.
- IT SHALL BE THE RESPONSIBILITY OF THE SUBDIVIDER TO ERECT OFFICIAL STREET NAME SIGNS AT ALL INTERSECTIONS ASSOCIATED WITH THE SUBDIVISION IN ACCORDANCE WITH THE TECHNICAL STANDARDS AND SPECIFICATIONS MANUAL. THE SUBDIVIDER MAY ACQUIRE AND ERECT OFFICIAL STREET NAME SIGNS OR MAY CHOOSE TO CONTRACT WITH THE CITY TO INSTALL THE STREET SIGNS AND THE SUBDIVIDER SHALL PAY THE COST OF SUCH INSTALLATION. CONTACT TRAFFIC ENGINEERING AT 341-7888 TO DISCUSS INSTALLATION OF TRAFFIC AND STREET NAME SIGNS. PROPOSED STREET NAMES MUST BE APPROVED PRIOR TO INSTALLATION OF STREET NAME SIGNS.
- ANY BROKEN OR MISSING SIDEWALK PANELS, DRIVEWAY PANELS AND CURBING WILL BE REPLACED.
- A LANDSCAPING PLAN INDICATING THE LOCATION OF REQUIRED STREET TREES SHALL BE SUBMITTED TO THE CITY OF WILMINGTON TRAFFIC ENGINEERING DIVISION AND PARKS AND RECREATION DEPARTMENT FOR REVIEW AND APPROVAL PRIOR TO THE RECORDING OF THE FINAL PLAT. (SD 15-14 COFW TECH STDS)
- CONTACT TRAFFIC ENGINEERING AT 341-7888 FORTY-EIGHT HOURS PRIOR TO ANY EXCAVATION IN THE RIGHT OF WAY.

Approved Construction Plan

Name: _____ Date: 12/24/16

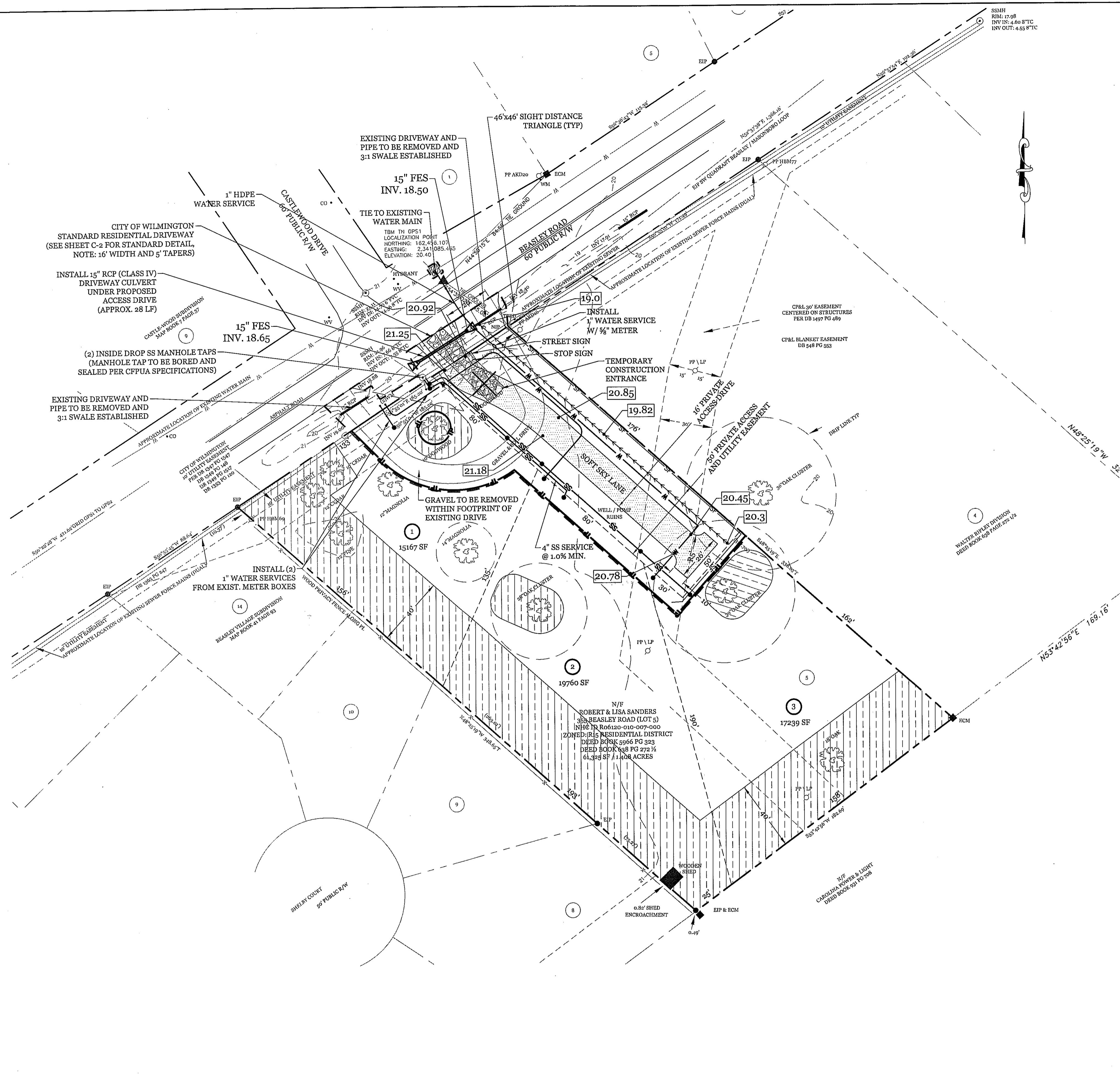
Planning: _____

Public Utilities: _____

Traffic: _____ 12-19-16

Fire: _____ 12-22-16

CITY OF WILMINGTON
 NORTH CAROLINA
 Public Services • Engineering Division
 APPROVED DRAINAGE PLAN
 Date: 12/22/16 Permit #: 2016046
 Signed: _____



CITY OF WILMINGTON
 STANDARD RESIDENTIAL DRIVEWAY
 (SEE SHEET C-2 FOR STANDARD DETAIL,
 NOTE: 16' WIDTH AND 5' TAPERS)

INSTALL 15" RCP (CLASS IV)
 DRIVEWAY CULVERT
 UNDER PROPOSED
 ACCESS DRIVE
 (APPROX. 28 LF)

(2) INSIDE DROP SS MANHOLE TAPS
 (MANHOLE TAP TO BE BORED AND
 SEALED PER CFPWA SPECIFICATIONS)

EXISTING DRIVEWAY AND
 PIPE TO BE REMOVED AND
 3:1 SWALE ESTABLISHED

EXISTING DRIVEWAY AND
 PIPE TO BE REMOVED AND
 3:1 SWALE ESTABLISHED

15" FES
 INV. 18.50

TIE TO EXISTING
 WATER MAIN

15" FES
 INV. 18.65

INSTALL
 1" WATER SERVICE
 W/ 3/4" METER

TEMPORARY
 CONSTRUCTION
 ENTRANCE

15' PRIVATE
 ACCESS DRIVE

4" SS SERVICE
 @ 1.0% MIN.

WELL / PUMP
 RUINS

15' PRIVATE
 ACCESS
 AND UTILITY EASEMENT

WATER BY THE DIVISION
 (SEE BOOK 66 PAGE 204)

WELL / PUMP
 RUINS

WELL / PUMP
 RUINS

WELL / PUMP
 RUINS

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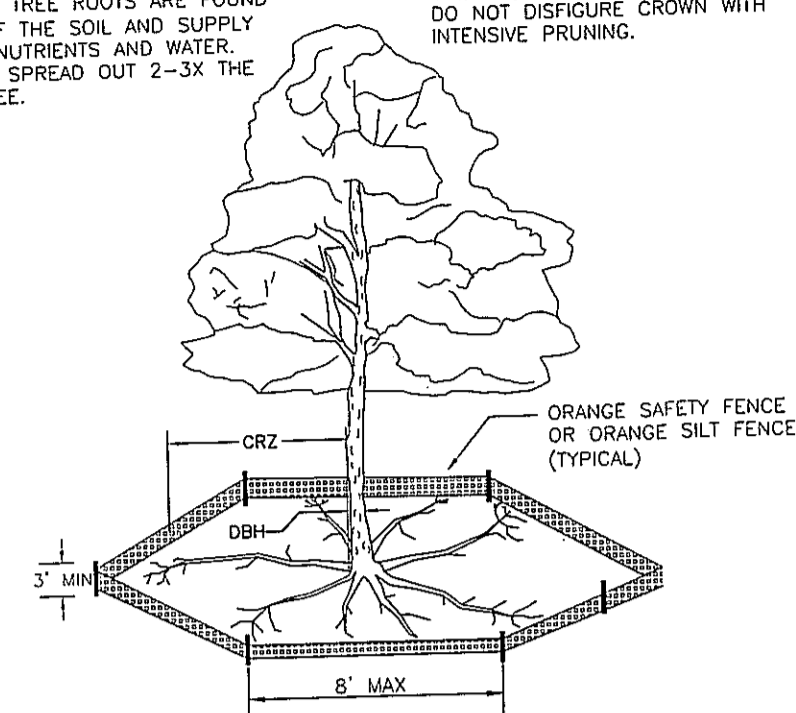
WELL / PUMP
 RUINS

WELL / PUMP
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WELL / PUMP
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WELL / PUMP
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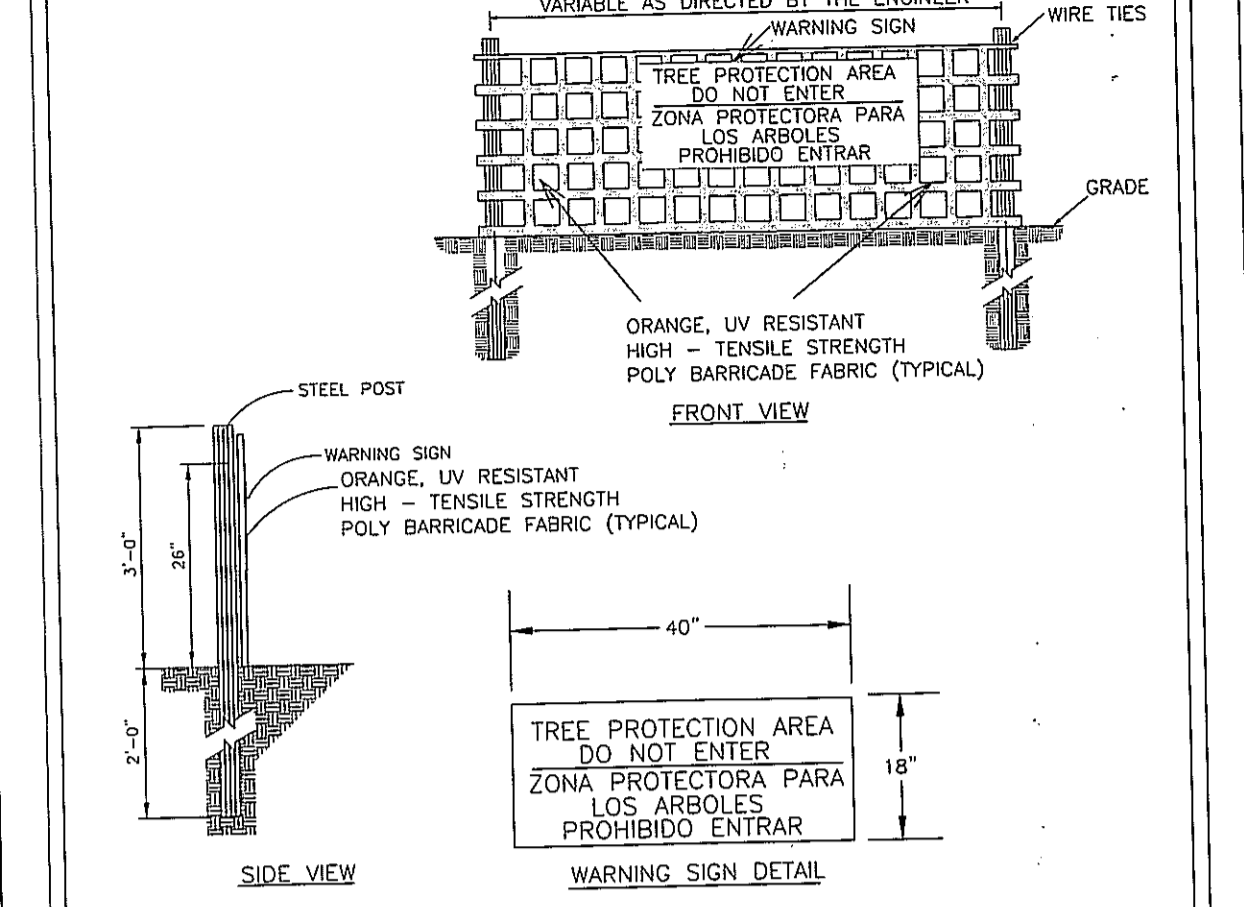
NOTE: THE CRITICAL ROOT ZONE (CRZ) OF A TREE IS WHERE THE MAJORITY OF A TREE'S ROOTS LAY. 85% OF MOST TREE ROOTS ARE FOUND IN THE TOP 24" OF THE SOIL AND SUPPLY THE MAJORITY OF NUTRIENTS AND WATER. GENERALLY, ROOTS SPREAD OUT 2-3X THE HEIGHT OF THE TREE.



NOTE: CROWN OF THE TREE IS NEEDED FOR LEAF GROWTH TO PRODUCE OXYGEN, FILTER THE AIR, REDUCE WIND AND SOFTEN NOISE. DO NOT DISBURSE CROWN WITH INTENSIVE PRUNING.

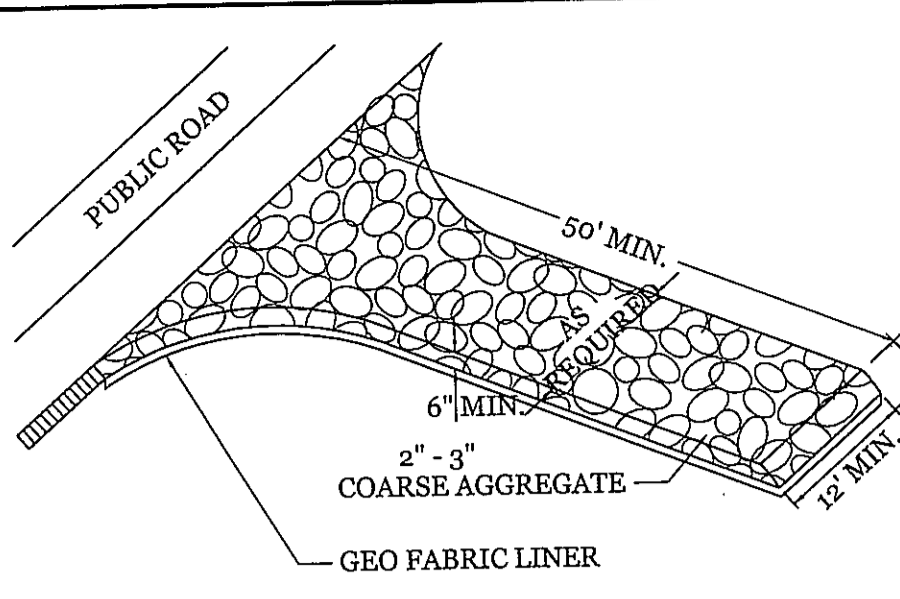
- NOTES:
1. PROTECT CRITICAL ROOT ZONE (CRZ) OF TREES PRIOR TO CONSTRUCTION. CLEARLY MARK THE TREES AND ERECT A PROTECTIVE BARRIER AT THE CRZ. BARRIER SHALL BE MAINTAINED UNTIL CONSTRUCTION IS COMPLETE.
 2. CRZ RADIUS IS 1 FT PER INCH OF TREE DIAMETER AT BREAST HEIGHT (DBH).
 3. IF CONSTRUCTION OCCURS WITHIN THE CRZ, AT LEAST 12" OF MULCH AND/OR LOGGING MATS SHALL BE PLACED WHERE MACHINERY MANEUVERS TO REDUCE SOIL COMPACTION IN THIS ZONE.
 4. WHERE SIDEWALKS AND PATHWAYS PASS WITHIN CRZ, EXTRA CARE SHALL BE TAKEN TO AVOID DAMAGE TO THE ROOTS. ALTERNATE CONSTRUCTION METHODS, SUCH AS A REINFORCED SIDEWALK, SHALL BE IMPLEMENTED AS NECESSARY.
 5. FOR ALL TREES, CUTTING OF LARGE STRUCTURAL ROOTS LOCATED NEAR THE BASE OF THE TRUNK IS PROHIBITED. DO NOT COMPACT SOIL BENEATH TREES. NO VEHICLE SHALL BE ALLOWED TO PARK UNDER TREES. NO MATERIALS OR EQUIPMENT SHALL BE STORED BENEATH TREES. DAMAGING THE BARK WITH LAWNMOWERS, CONSTRUCTION EQUIPMENT, OR ANYTHING ELSE IS PROHIBITED.
 6. CONTRACTOR SHALL REPAIR DAMAGE TO TREES.
 7. FAILING TO INSTALL OR MAINTAIN PROTECTION MEASURES SHALL RESULT IN A STOP WORK ORDER AND FINE OF \$500/DAY. DISTURBANCE OTHER THAN THAT ALLOWED ON THE APPROVED PLAN WILL REQUIRE OWNER TO POST A LETTER OF CREDIT FOR 3 YRS FOR TREE MITIGATION.

DATE: JAN, 2015	<p>CITY OF WILMINGTON NORTH CAROLINA CITY OF WILMINGTON ENGINEERING PO BOX 1810 WILMINGTON, NC 28402 (910) 341-7807</p>	SD 15-09	
DRAWN BY: JSR		TREE PROTECTION DURING CONSTRUCTION	SHEET 1 of 2
CHECKED BY: RDG, P.E.			
SCALE: NOT TO SCALE			



- NOTES:
1. THE TREE PROTECTION FENCING SHALL NOT BE VIOLATED FOR THE ENTIRE DURATION OF THE PROJECT WITHOUT APPROVAL FROM URBAN FORESTRY STAFF.
 2. WARNING SIGNS TO BE MADE OF DURABLE, WEATHERPROOF MATERIAL. LETTERS TO BE 3" HIGH, MINIMUM. CLEARLY LEGIBLE AND SPACED AS DETAILED.
 3. SIGNS SHALL BE PLACED AT 50' MAXIMUM INTERVALS. PLACE A SIGN AT EACH END OF LINEAR TREE PROTECTION AND 50' ON CENTER THEREAFTER. FOR TREE PROTECTION AREAS LESS THAN 100' IN PERIMETER, PROVIDE NO LESS THAN TWO SIGNS PER PROTECTION AREA.
 4. ATTACH SIGNS SECURELY TO FENCE POSTS AND FABRIC. MAINTAIN TREE PROTECTION FENCE AND SIGNS THROUGHOUT DURATION OF PROJECT.
 5. TREE PROTECTION FENCING AND SIGNAGE SHALL BE REMOVED AFTER CONSTRUCTION.
 6. ADDITIONAL SIGNS MAY BE REQUIRED BY CITY OF WILMINGTON, BASED ON ACTUAL FIELD CONDITIONS.

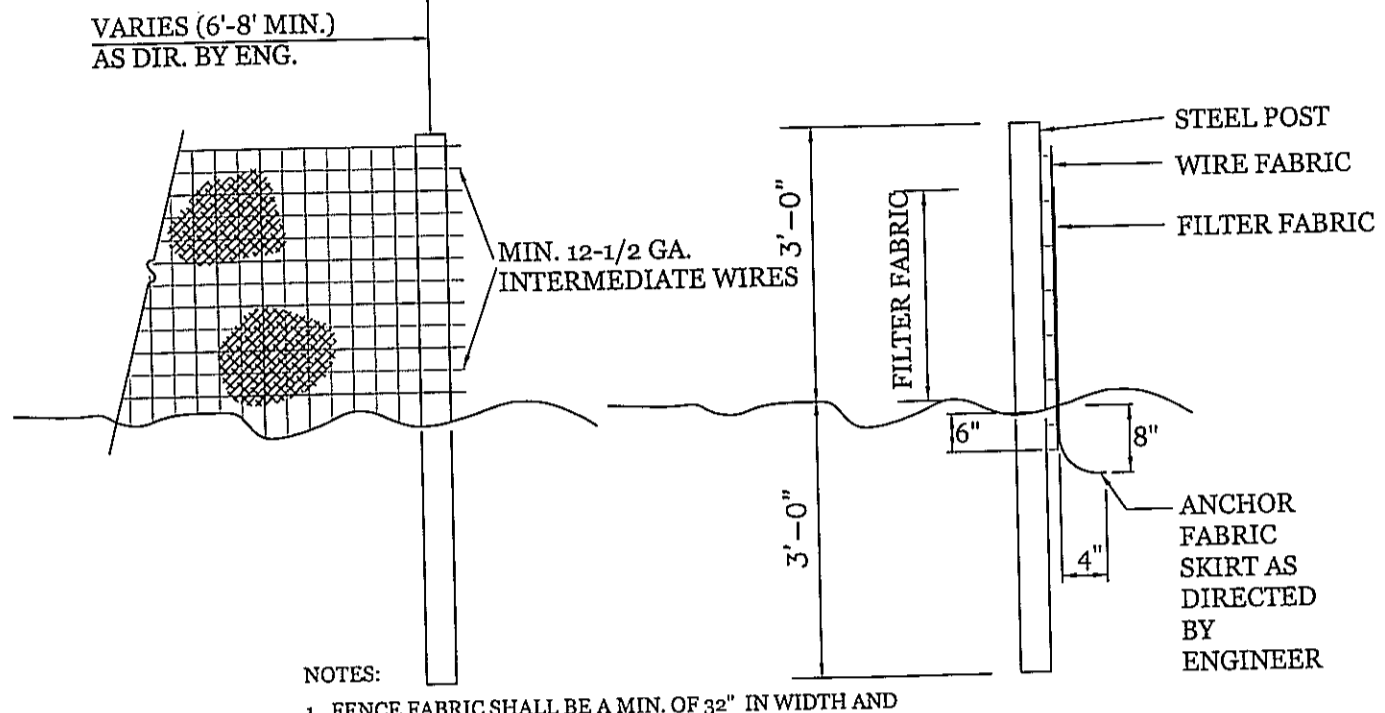
DATE: JAN, 2015	<p>CITY OF WILMINGTON ENGINEERING PO BOX 1810 WILMINGTON, NC 28402 (910) 341-7807</p>	SD 15-09	
DRAWN BY: JSR		TREE PROTECTION DURING CONSTRUCTION	SHEET 2 of 2
CHECKED BY: RDG, P.E.			
SCALE: NOT TO SCALE			



NOTE: CONSTRUCTION ENTRANCE TO BE 12" OR ENTIRE WIDTH OF ENTRANCE, WHICHEVER IS GREATER.

TEMPORARY GRAVEL CONSTRUCTION ENTRANCE

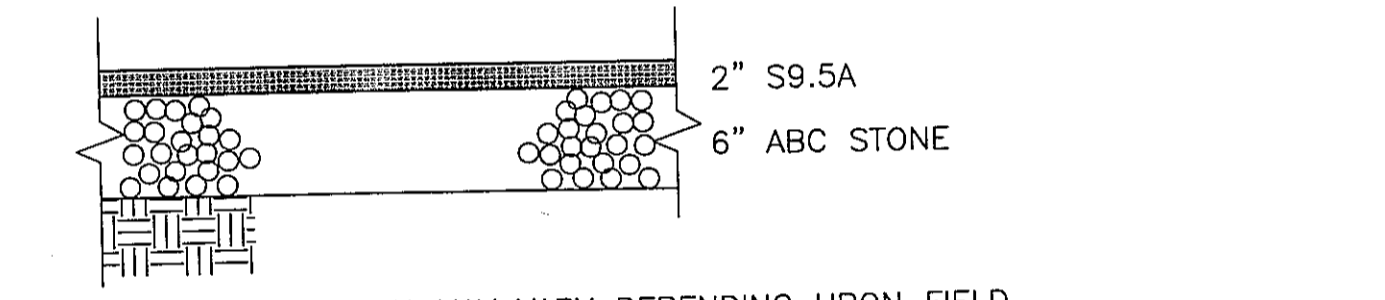
NTS



- NOTES:
1. FENCE FABRIC SHALL BE A MIN. OF 32" IN WIDTH AND SHALL HAVE A MIN. OF SIX LINE WIRES WITH 12" STAY SPACING.
 2. FABRIC SHALL BE FOR EROSION CONTROL AND MIN. OF 36" IN WIDTH. FABRIC SHALL BE FASTENED ADEQUATELY TO THE WIRE FABRIC AS DIRECTED BY THE ENGINEER.
 3. STEEL POST SHALL BE 3" IN HEIGHT AND BE OF THE SELF-FASTENER STEEL ANGLE TYPE.

TEMPORARY SILT FENCE

NTS



NOTE: PAVEMENT SECTION MAY VARY DEPENDING UPON FIELD CONDITIONS. CONTRACTOR SHALL COORDINATE W/ OWNER & GEOTECHNICAL ENGINEER TO DETERMINE ACTUAL PAVEMENT SECTION.

STANDARD PAVEMENT SECTION

NTS

SITE WORK NOTES:

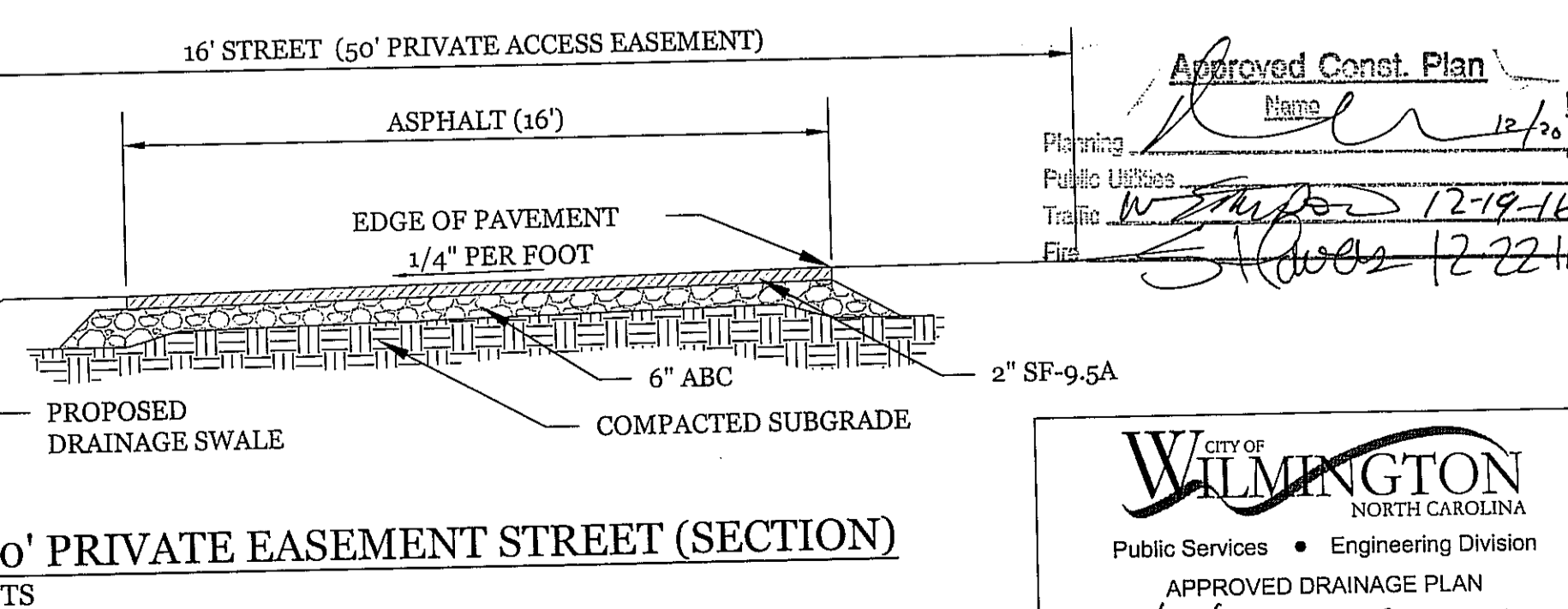
1. THE CONTRACTOR SHALL VISIT THE SITE AND BECOME FAMILIAR WITH EXISTING CONDITIONS BOTH ON AND ADJACENT TO THE SITE.
2. CLEARING: CONTRACTOR SHALL REMOVE ALL TREES AND VEGETATION WITHIN LIMITS OF CONSTRUCTION UNLESS OTHERWISE DESIGNATED TO REMAIN.
3. GRUBBING AND STRIPPING: CONTRACTOR SHALL RAKE AND REMOVE ROOTS, STUMPS, VEGETATION, DEBRIS, EXISTING STRUCTURES ABOVE AND BELOW GRADE, ORGANIC MATERIAL OR ANY OTHER UNSUITABLE MATERIAL WITHIN LIMITS OF CONSTRUCTION.
4. MUCKING: CONTRACTOR SHALL COORDINATE WITH OWNER AND THEIR GEOTECHNICAL REPRESENTATIVE TO COORDINATE REMOVAL OF ANY SOFT AREAS.
5. DISPOSAL: CLEARED, GRUBBED, STRIPPED OR OTHER WASTE MATERIAL SHALL BE REMOVED FROM SITE AND DISPOSED OF IN A PROPERLY PERMITTED FACILITY.
6. FILL AND COMPACTION SHOULD COMPLY WITH GEOTECHNICAL RECOMMENDATIONS.
7. THE CONTRACTOR SHALL NOTE THAT THE GRADING PLAN MAY NOT REPRESENT A BALANCED EARTHWORK CONDITION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CUT AND FILL QUANTITIES AND COMPLETE INSTALLATION TO SPECIFIED GRADES.
8. THE CONTRACTOR SHALL FURNISH SUITABLE BORROW MATERIAL FROM AN OFF-SITE PROPERLY PERMITTED FACILITY AS REQUIRED.
9. INFORMATION CONCERNING UNDERGROUND UTILITIES WAS OBTAINED FROM AVAILABLE RECORDS. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO DETERMINE THE EXACT ELEVATIONS AND LOCATIONS OF ALL EXISTING UTILITIES AT ALL CROSSINGS PRIOR TO COMMENCING TRENCH EXCAVATION. IF ACTUAL CLEARANCES ARE LESS THAN INDICATED ON PLAN, THE CONTRACTOR SHALL CONTACT THE DESIGN ENGINEER BEFORE PROCEEDING WITH CONSTRUCTION. ANY CONDITION DISCOVERED OR EXISTING THAT WOULD NECESSITATE A MODIFICATION OF THESE PLANS SHALL BE BROUGHT TO THE ATTENTION OF THE DESIGN ENGINEER BEFORE PROCEEDING WITH CONSTRUCTION.
10. NO CONSTRUCTION IS TO BEGIN BEFORE LOCATION OF EXISTING UTILITIES HAS BEEN DETERMINED. CALL "NO ONE-CALL" AT LEAST 48 HOURS BEFORE COMMENCING CONSTRUCTION.
11. THE CONTRACTOR IS RESPONSIBLE FOR THE LOCATION AND PROTECTION OF ALL EXISTING UTILITIES DURING CONSTRUCTION. BEFORE COMMENCING ANY EXCAVATIONS IN OR ALONG ROADWAYS OR RIGHT-OF-WAYS, PUBLIC AREAS OR IN PRIVATE EASEMENTS, THE CONTRACTOR SHALL NOTIFY ALL APPROPRIATE PERSONNEL OF THEIR INTENT TO EXCAVATE, IN WRITING, NOT LESS THAN 10 DAYS PRIOR TO EXCAVATING.
12. THE CONTRACTOR SHALL BE RESPONSIBLE TO COORDINATE DISCONNECTION/ RECONNECTION AND/OR THE RELOCATION OF ALL EXISTING UTILITIES WITH APPROPRIATE PERSONNEL.
13. CONTRACTOR SHALL ADJUST ALL MANHOLES, VALVE & CURB BOXES TO FINAL GRADE UPON COMPLETION OF ALL CONSTRUCTION. ANY BOXES DAMAGED OR OTHERWISE DISTURBED BY THE CONTRACTOR SHALL BE REPAIRED AT THE EXPENSE OF THE CONTRACTOR.
14. EXISTING SURVEYING PERFORMED BY ESP ASSOCIATES, P.A.
15. THE CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS AT THE SITE. FURTHERMORE THE CONTRACTOR SHALL REPORT ALL DISCREPANCIES OR QUESTIONS TO THE ENGINEER PRIOR TO INSTALLATION.
16. THE CONTRACTOR SHALL PROVIDE ANY AND ALL LAYOUT REQUIRED TO CONSTRUCT HIS WORK UNLESS OTHERWISE DIRECTED BY OWNER.
17. ALL SERVICE CONNECTIONS SHALL BE INSTALLED TO MEET ALL LOCAL, STATE, AND CFPWA CODES, METERS, TAPS, MATERIALS, WORKMANSHIP AND ALL FEES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL COMPLY WITH ALL REQUIREMENTS.
18. ALL BACKFILL FROM UTILITY INSTALLATION MUST BE COMPACTED OR AMENDED TO PROVIDE TRAFFIC BEARING CAPACITY. GEOTECHNICAL ENGINEER TO BE CONSULTED AT CONTRACTOR'S COST AS NECESSARY.
19. ALL AREAS SHALL BE GRADED FOR POSITIVE DRAINAGE. CONTRACTOR SHALL REPORT ANY DISCREPANCIES TO THE ENGINEER PRIOR TO INSTALLATION. ALL AREAS SHALL BE SLOPED TO DRAIN AWAY FROM BUILDINGS AT ALL TIMES.
20. CONCRETE FOR WALKS, CURBS AND DRIVES SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 3000 PSI @ 28 DAYS - AIR ENTRAINED.
21. FIELD TESTING SHALL BE DONE BY AN INDEPENDENT TESTING LABORATORY PAID FOR BY THE OWNER. FURTHER TESTING REQUIRED DUE TO A FAILED TEST WILL BE PAID FOR BY THE CONTRACTOR.
22. ALL SIDEWALKS SHALL BE FREE OF CRACKS, BREAKS, OR ANY OTHER DEFECT PRIOR TO RECEIVING A CERTIFICATE OF OCCUPANCY.

MAINTENANCE PLAN:

1. ALL EROSION AND SEDIMENT CONTROL PRACTICES WILL BE CHECKED FOR STABILITY AND OPERATION FOLLOWING EVERY RUNOFF-PRODUCING RAINFALL, BUT IN NO CASE, LESS THAN ONCE EVERY WEEK AND WITHIN 24 HOURS OF EVERY HALF INCH RAINFALL.
2. ALL POINTS OF EGRESS WILL HAVE CONSTRUCTION ENTRANCES THAT WILL BE PERIODICALLY TOP-DRESSED WITH AN ADDITIONAL 2 INCHES OF 2-3 INCH STONE TO MAINTAIN PROPER DEPTH. THEY WILL BE MAINTAINED IN A CONDITION TO PREVENT MUD OR SEDIMENT FROM LEAVING THE SITE. IMMEDIATELY REMOVE OBJECTABLE MATERIAL SPILLED, WASHED OR TRACKED ONTO THE CONSTRUCTION ENTRANCE OR ROADWAYS.
3. SEDIMENT WILL BE REMOVED FROM HARDWARE CLOTH AND GRAVEL INLET PROTECTION, ROCK DOUGHNUT INLET PROTECTION, SEDIMENT TRAP BAFFLES, AND ROCK PIPE INLET PROTECTION WHEN THE DESIGNED STORAGE CAPACITY HAS BEEN HALF FILLED WITH SEDIMENT. ROCK WILL BE CLEANED OR REPLACED WHEN THE SEDIMENT POOL NO LONGER DRAINS AS DESIGNED. DEBRIS WILL BE REMOVED FROM THE ROCK AND HARDWARE CLOTH TO ALLOW PROPER DRAINAGE. SILT SACKS WILL BE EMPTIED ONCE A WEEK AND AFTER EVERY RAIN EVENT. REMOVE SEDIMENT FROM TRAP & BAFFLES CHECK SEDIMENT BASIN AND BAFFLES WEEKLY & AFTER EACH RAINFALL EVENT. REPAIR / REPLACE AND RESTORE TO ORIGINAL VOLUME WHEN SEDIMENT ACCUMULATES TO ABOUT 1/2 THE DESIGN VOLUME. REPAIR / REPLACE BAFFLES IF TORN, COLLAPSED, OR INEFFECTIVE.
4. DIVERSION DITCHES WILL BE CLEANED OUT IMMEDIATELY TO REMOVE SEDIMENT OR OBSTRUCTIONS FROM THE FLOW AREA. THE DIVERSION RIDGES WILL ALSO BE REPAIRED. SWALES MUST BE TEMPORARILY STABILIZED WITHIN 21 CALENDAR DAYS OF CEASE OF ANY PHASE OF ACTIVITY ASSOCIATED WITH A SWALE.
5. SEDIMENT WILL BE REMOVED FROM BEHIND THE SEDIMENT FENCE WHEN IT BECOMES HALF FILLED. THE SEDIMENT FENCE WILL BE REPAIRED AS NECESSARY TO MAINTAIN A BARRIER. STAKES MUST BE STEEL. STAKE SPACING WILL BE 6 FEET MAX. WITH THE USE OF EXTRA STRENGTH FABRIC AND WIRE BACKING ARE USED. IF ROCK FILTERS ARE DESIGNED AT LOW POINTS IN THE SEDIMENT FENCE THE ROCK WILL BE REPAIRED OR REPLACED IF IT BECOMES HALF FULL OF SEDIMENT, NO LONGER DRAINS AS DESIGNED OR IS DAMAGED.

CONSTRUCTION SEQUENCE:

- CONSTRUCTION OF SITE TO START WITH INSTALLATION OF CONSTRUCTION ENTRANCE AND SILT FENCE ALONG ALL LOCATIONS PER PLANS. UPON INSTALLATION OF SILT FENCE, TREES SHOULD BE REMOVED IN LOCATIONS AS NECESSARY. DITCH PLUG TO BE INSTALLED PRIOR TO CLEARING, GRADING & DITCH FILLING. ALL SLOPED AREAS SHOULD BE SEEDING IN ACCORDANCE TO SPECIFICATIONS. SLOPE STABILIZATION IS WITHIN 21 CALENDAR DAYS OF ANY PHASE OF CONSTRUCTION. ALL OTHER AREAS MUST BE STABILIZED WITHIN 15 WORKING DAYS. CONTRACTOR TO FOLLOW NPDES STABILIZATION REQUIREMENTS PER TABLE ON THIS SHEET AS WELL. MOST STRINGENT REQUIREMENT TO BE MET.
1. GENERAL CLEARING AND GRADING OF THIS SITE WILL NOT BE DONE UNTIL THE TEMPORARY SILT FENCE & CONSTRUCTION ENTRANCE HAS BEEN INSTALLED.
 2. NO CUT SLOPE OR FILL SLOPE SHALL EXCEED A RISE OR FALL OF ONE FOOT FOR EVERY RUN OF 3 FEET (1 VERTICAL TO 3 HORIZONTAL).
 3. NO SEDIMENT WILL BE ALLOWED TO EXIT THE SITE. ALL EROSION SHALL BE CONTROLLED INCLUDING SIDE SLOPES DURING AND AFTER CONSTRUCTION.
 4. INSTALL PRIMARY EROSION CONTROL MEASURES BEFORE BEGINNING CONSTRUCTION INCLUDING BUT NOT LIMITED TO GRAVELLED CONSTRUCTION ENTRANCE, SILT FENCE, TREE PROTECTION FENCE & SEDIMENT BASINS. CONTRACTOR TO BE FAMILIAR WITH USACE GENERAL PERMIT CONDITIONS FOR 4 ROAD CROSSINGS. SPECIFIC CONSTRUCTION METHODS MAY BE REQUIRED ABOVE AND BEYOND WHAT IS SPECIFIED IN THIS PLAN. INSTALL ALL SECONDARY EROSION CONTROL MEASURES, SUCH AS INLET PROTECTION AS SOON AS POSSIBLE AFTER BEGINNING CONSTRUCTION.
 5. ALL EROSION CONTROL MEASURES TO BE INSPECTED AFTER EACH RAIN. SILT FENCE AND INLET PROTECTION TO BE CLEANED WHEN HALF FULL.
 6. A 4" LAYER OF TOPSOIL SHALL BE APPLIED TO ALL NEW AREAS TO BE GRASSED.
 7. MAINTAIN ALL EROSION CONTROL MEASURES UNTIL PROJECT IS COMPLETE.
 8. MORE STRINGENT MEASURES MAY BE REQUIRED TO HALT EROSION IF THOSE ON THIS PLAN PROVE TO BE LESS EFFECTIVE.
 9. REMOVE ALL TEMPORARY EROSION CONTROL MEASURES UPON COMPLETION OF CONSTRUCTION. ALL PERMANENT MEASURES SHALL BE WELL ESTABLISHED PRIOR TO PROJECT COMPLETION.



50' PRIVATE EASEMENT STREET (SECTION)

NTS

Approved Const. Plan
 Planning: [Signature] 12/16/16
 Public Utilities: [Signature] 12/19/16
 Traffic: [Signature] 12/22/16
 Fire: [Signature] 12/22/16

City of Wilmington
 Public Services • Engineering Division
 APPROVED DRAINAGE PLAN
 Date: 12/22/16 Permit # 2016096
 Signed: [Signature]

SYMBOL	GROUND STABILIZATION CRITERIA		
	SITE AREA DESCRIPTION	STABILIZATION TIMEFRAME	STABILIZATION TIMEFRAME EXCEPTIONS
	* Perimeter dikes, swales, ditches and slopes	7 Days	None
	* High Quality Water (HQW) Zones	7 Days	None
	* Slopes Steeper than 3:1	7 Days	If slopes are 10' or less in length and are not steeper than 2:1, 14 days are allowed
	* Slopes 3:1 or flatter	14 Days	7-days for slopes greater than 50 ft. in length
	* All other areas with slopes flatter than 4:1	14 Days	None (except for perimeters & HQW Zones)



GRASSED SWALE DETAIL

NTS

NORTH CAROLINA TEMPORARY GRASSING DETAIL

SEEDING MIXTURE SPECIES	APPLICATION RATE
LATE WINTER & EARLY SPRING: Rye (grain)	100 (lb/acre)
Annual Lespedeza (Kobe in Piedmont and Coastal Plain, Korean in Mountains) Omit annual Lespedeza when duration of temporary cover is not to extend beyond June	50 (lb/acre)
SUMMER: German Millet In the Piedmont and Mountains, a small-stemmed sundgrass may be substituted at a rate of 50 (lb/acre)	40 (lb/acre)
FALL: Rye (grain)	120 (lb/acre)

SEEDING DATES

LATE WINTER & EARLY SPRING:
Mountains - Above 2500 ft: Feb. 15-May 15
Piedmont - Jan. 1-May 1
Coastal Plain - Dec. 1-Apr. 15

SUMMER:
Mountains - May 15-Aug. 15
Piedmont - May 1-Aug. 15
Coastal Plain - Apr. 15-Aug. 15

FALL:
Mountains - Aug. 15-Dec. 15
Coastal Plain and Piedmont - Aug. 15-Dec. 30

SOIL AMENDMENTS:
Follow recommendations of soil tests or apply 2,000 lb/acre ground agricultural limestone and 750 lb/acre 10-10-10 fertilizer.

MULCH:
apply 4,000 lb/acre straw, anchor straw by tacking with asphalt, netting, or a mulch anchoring tool. A disk with blades set nearly straight can be used as a mulch anchoring tool.

MAINTENANCE:
Refertilize if growth is not fully adequate. reseed, refertilize and mulch immediately following erosion or other damage.

NORTH CAROLINA PERMANENT GRASSING DETAIL

SEEDING MIXTURE SPECIES	APPLICATION RATE
FALL & WINTER: Tall Fescue (blend of two or three improved varieties) Rye (grain)	200 (lb/acre) 25 (lb/acre)
SPRING & SUMMER: Panicola Bahiagrass Sericea Lespedeza Common Bermudagrass German Millet Tall Fescue	50 (lb/acre) 30 (lb/acre) 10 (lb/acre) 10 (lb/acre) 50 (lb/acre)

SEEDING DATES

FALL & WINTER:
January - April
August - December

SOIL AMENDMENTS:
Apply lime and fertilizer according to soil tests, or apply 3,000-5,000 lb/acre ground agricultural limestone (use the lower rate on sandy soils) and 1,000 lb/acre 10-10-10 fertilizer.

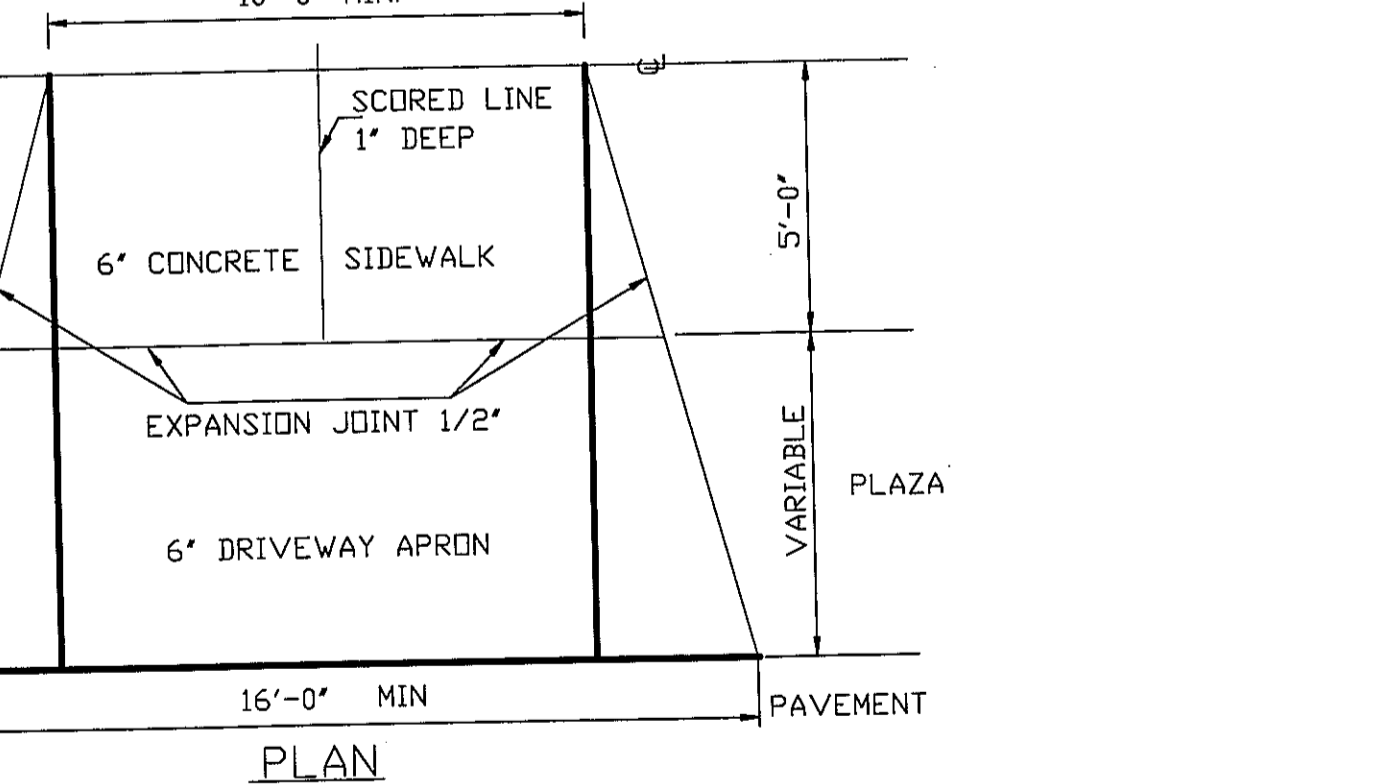
MAINTENANCE:
Fertilize according to soil tests or apply 40 lb/acre nitrogen in January or February, 40 lb in September and 40 lb in November, from a 12-4-8, 16-4-8, or similar turf fertilizer. Avoid fertilizer applications during warm weather, as this increases stand losses to disease. Reseed, fertilize, and mulch damaged areas immediately. mow to a height of 2.5-3.5 inches as needed.

SPRING & SUMMER:
April 1 - July 15

SOIL AMENDMENTS:
Apply lime and fertilizer according to soil tests, or apply 3,000 lb/acre ground agriculture limestone and 500 lb/acre 10-10-10 fertilizer.

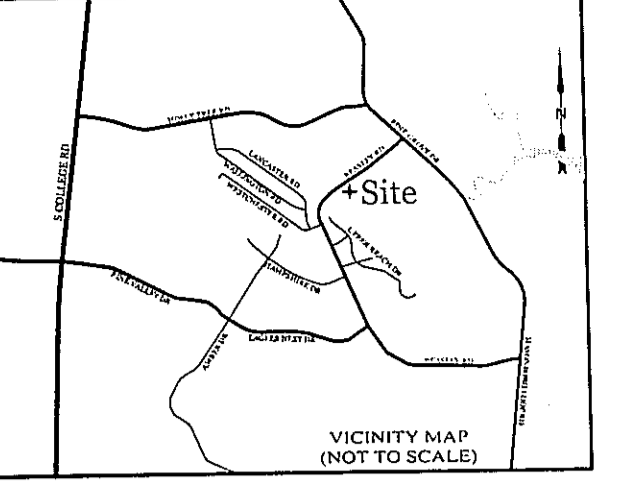
MAINTENANCE:
Refertilize the following april with 50 lb/acre nitrogen. Repeat as growth requires. may be mowed only once a year. Where a neat appearance is desired, omit sericea and mow as often as needed.

MULCH:
apply 4,000 lb/acre straw, anchor straw by tacking with asphalt, netting, or a mulch anchoring tool. A disk with blades set nearly straight can be used as a mulch anchoring tool.



RESIDENTIAL DRIVEWAY STREETS WITH NO CURB

SD 8-05
 NOT TO SCALE



REVISIONS

NO.	DESCRIPTION

INTRACOASTAL ENGINEERING, PLLC
 5725 Oleander Dr. Unit E-7
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 Email: Charlie@intracoastalengineering.com
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DETAILS FOR RIPLEY OAKS
 WILMINGTON, NC

Professional Engineer Seal
 CHARLES D. SALTER
 032555
 12-15-16

CLIENT INFORMATION:

ROBERT & LISA SANDERS
 1003 LISMORE WAY
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DRAWN: BPD	SHEET SIZE: 24x36
CHECKED: CDC	DATE: 12/15/2016
APPROVED: CDC	SCALE: NTS
PROJECT NUMBER: 2016-029	
DRAWING NUMBER: C-2	