

REVISIONS table with columns for date, description, and initials.

INTRACOASTAL ENGINEERING, PLLC logo and contact information: 5725 Oleander Dr., Unit E-7, Wilmington, NC 28403.

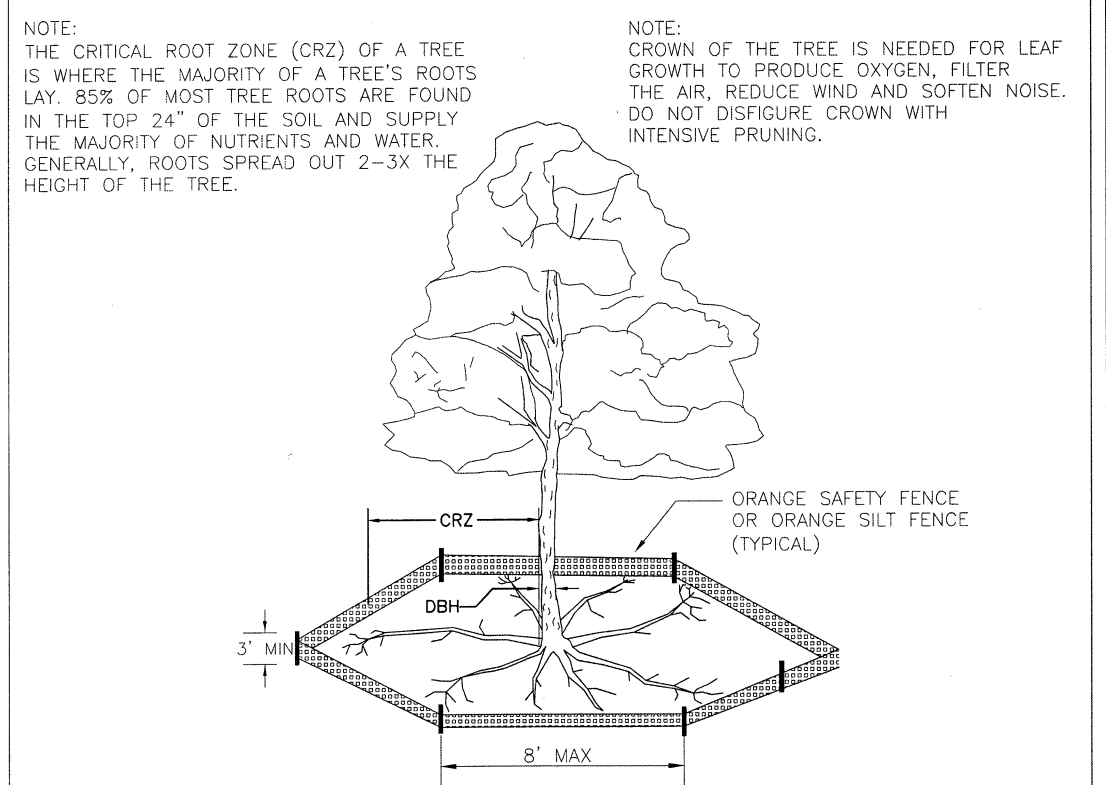
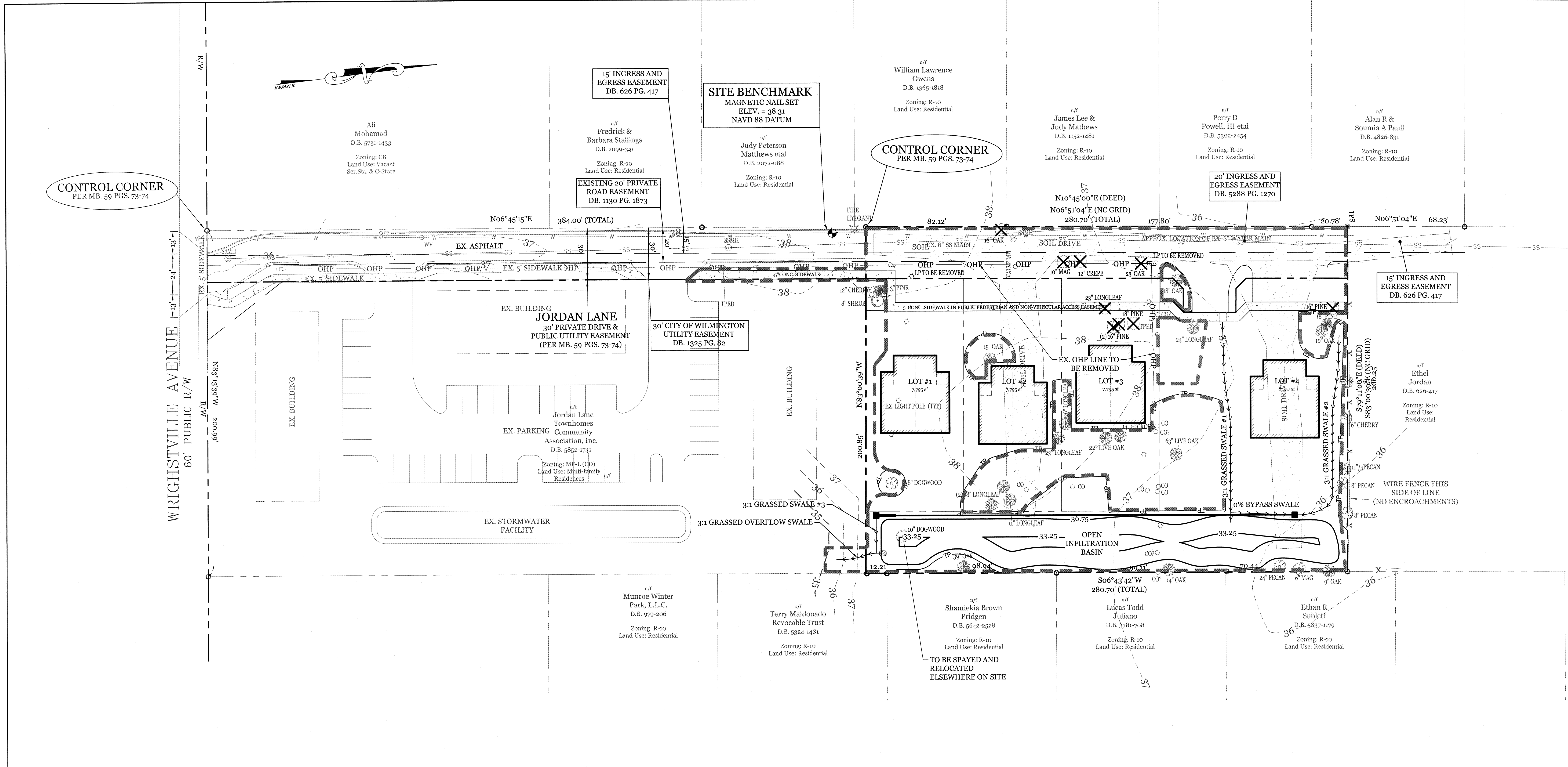
EXISTING CONDITIONS/TREE REMOVAL & PROTECTION PLAN FOR JORDAN LANE DUPLEXES CITY OF WILMINGTON NEW HANOVER COUNTY, NC.

Professional Engineer seal for CHARLES D. CZAYER, No. 032555, State of North Carolina.

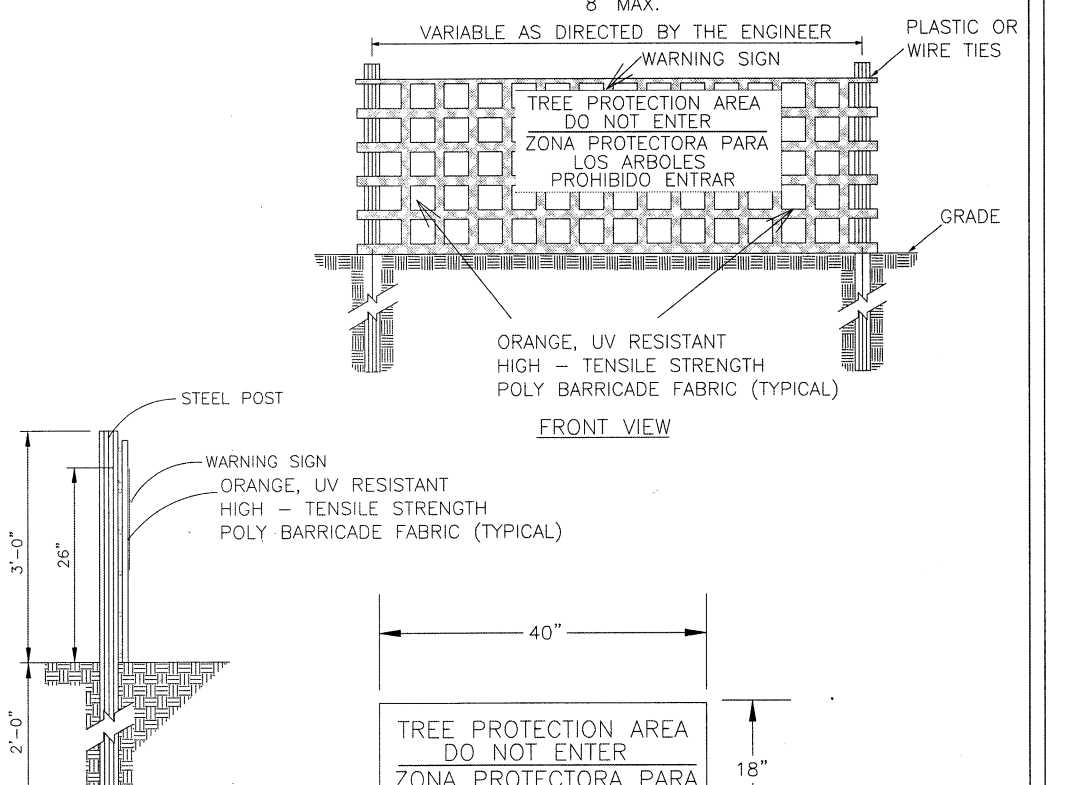
CLIENT INFORMATION: Reiser Partners, LLC, Mark Reiser, 2029 Eastwood Rd. Unit 143, Wilmington, NC 28403. Email: mcreiber@aol.com

DRAWN: JAE SHEET SIZE: 24x36 CHECKED: CDC DATE: 7/13/2018 APPROVED: CDC SCALE: 1" = 30' PROJECT NUMBER: 2018-014

DRAWING NUMBER: C-0 1 OF 6



NOTE: THE CRITICAL ROOT ZONE (CRZ) OF A TREE IS WHERE THE MAJORITY OF A TREE'S ROOTS LAY... STANDARD DETAIL TREE PROTECTION DURING CONSTRUCTION SHEET 1 of 2

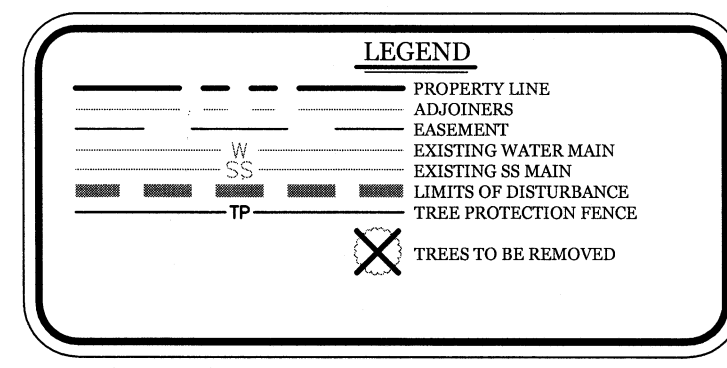


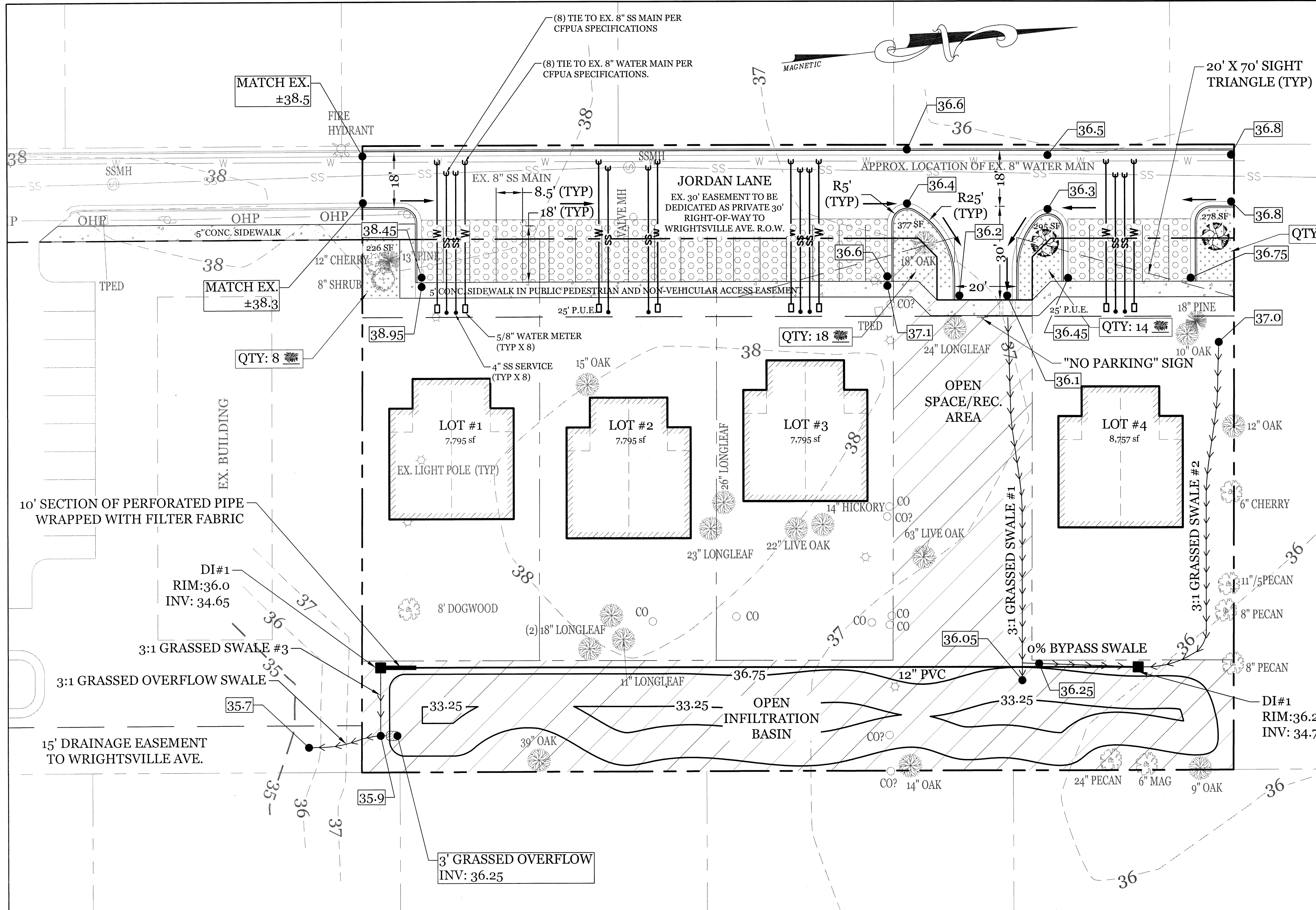
NOTE: THE TREE PROTECTION FENCING SHALL NOT BE VIOLATED FOR THE ENTIRE DURATION OF THE PROJECT WITHOUT APPROVAL FROM URBAN FORESTRY STAFF... STANDARD DETAIL TREE PROTECTION DURING CONSTRUCTION SHEET 2 of 2

Approved Construction Plan table with columns for Name and Date. Rows include Planning, Public Utilities, Traffic, and Fire.

CITY OF WILMINGTON logo and Public Services - Engineering Division APPROVED STORMWATER MANAGEMENT PLAN

SITE DATA: PARCEL ID: R05520-008-039-000 CURRENT ZONING: R-5 (CD) CAMA LAND USE CLASSIFICATION: URBAN PROJECT ADDRESS: 210 JORDAN LN, WILMINGTON, NC 28403





SITE DATA

PARCEL ID:	R05520-008-039-000
CURRENT ZONING:	R-5 (CD)
CAMA LAND USE CLASSIFICATION:	URBAN
PROJECT ADDRESS:	210 JORDAN LN. WILMINGTON, NC 28403
CURRENT OWNER:	REISER PARTNERS, LLC 2029 EASTWOOD RD. #143 WILMINGTON, NC 28403
TOTAL ACREAGE IN PROJECT BOUNDARY:	56,295 S.F. (1.29 AC.)
BUILDING SETBACKS:	FRONT: REQUIRED= 20' SIDE: REQUIRED= 7' REAR: REQUIRED= 15'
MAXIMUM BUILDING LOT COVERAGE:	50%
BUILDING HEIGHT:	35' MAX
ON-SITE IMPERVIOUS AREAS:	BUILDINGS: 8,640 S.F. ASPHALT ROAD: 6,972 S.F. CONCRETE SIDEWALK: 1,522 S.F. TOTAL: 17,134 S.F. + 56,295 S.F. = 30.4%
ON-SITE PERVIOUS AREAS:	GRASSED PAVERS (100% PERVIOUS): 3,790 S.F.
OFF-SITE IMPERVIOUS AREAS:	CONCRETE SIDEWALK: 505 S.F. *DRAINS TO PREVIOUSLY PERMITTED S.W. FACILITY ON ADJACENT SITE*
OFF STREET PARKING REQUIRED:	(2.25 Spaces/du Min & 2.5 Spaces/du Max) REQUIRED: 18 SPACES (2.5 Spaces/du = 20 SPACES Max) PROPOSED: 23 SPACES
OPEN SPACE REQUIREMENT:	(0.03 AC. per dwelling unit) 03 X 8 du: 0.24 AC (MIN 50% ACTIVE) PROVIDED: 0.35 AC (0.14 ACTIVE)
EXISTING SEWER & WATER DEMAND:	SEWER = 0 GPD WATER = 0 GPD
PROPOSED SEWER & WATER DEMAND:	SEWER = 2,880 GPD WATER = 3,200 GPD

- 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.
 - SITE IS NOT WITHIN A FLOOD HAZARD PER NC FLOOD MAPS 2003/14700J.
 - RUNOFF FROM ALL IMPERVIOUS SURFACES, INCLUDING ROOF DRAINS, TO BE DIRECTED TO INFILTRATION BASIN.
- SURVEY NOTES:**
- EXISTING SURVEYING PERFORMED BY DEREK DANFORD - PROFESSIONAL LAND SURVEYOR (L-4528)
- FIRE & SAFETY NOTES:**
- PARKING AND LANDSCAPING CANNOT BLOCK FIRE HYDRANTS.
 - ALL WEATHER ACCESS ROAD MUST BE MAINTAINED AROUND CONSTRUCTION SITE AT ALL TIMES.
 - HYDRANTS SHALL BE OF SUFFICIENT NUMBERS TO ACCOMMODATE BASE FIRE FLOW REQUIREMENTS OF STRUCTURE.
 - IN ADDITION TO THE STANDARD COMMENTS, ADDITIONAL FIRE PROTECTION AND ACCESSIBILITY REQUIREMENTS MAY BE REQUIRED DUE TO ANY SPECIAL CIRCUMSTANCES CONCERNING THE PROJECT.
- 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 15-13 & SD 11-3 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 15-13 & SD 11-3 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 341-5888 FOR MORE DETAILS. IN CERTAIN CASES AN ENTIRE RESURFACING OF THE AREA BEING OPEN CUT MAY BE REQUIRED.
 - 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 PLAN. (SD 15-14 COFW TECH STDS)
 - CONTACT TRAFFIC ENGINEERING AT 341-7888 FORTY-EIGHT HOURS PRIOR TO ANY EXCAVATION IN THE RIGHT OF WAY.
 - ALL PROPOSED VEGETATION WITHIN SIGHT TRIANGLES SHALL NOT INTERFERE WITH CLEAR VISUAL SIGHT LINES FROM 30' TO 10'.
 - IF THESE UNITS ARE SOLD AT ANY POINT, THE BUYER MUST RECEIVE A SUBDIVISION STREET DISCLOSURE STATEMENT. (SEC.18-378 (E) COFW LDC)
- 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 332-6558 FOR INFORMATION.
 - ANY BACKFLOW PREVENTION DEVICES REQUIRED BY THE CFPWA WILL NEED TO BE ON THE LIST OF APPROVED DEVICES BY USCFCOCHR OR ASSE.
 - 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 PVC 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.
 - SEWER GUARDS REQUIRED AT ALL MANHOLES. STAINLESS STEEL SEWER GUARDS REQUIRED AT MANHOLES LOCATED IN TRAFFIC AREAS. SERVICES SHALL BE PERPENDICULAR TO MAIN AND TERMINATE AT RIGHT-OF-WAY LINE. SERVICES IN CUL-DE-SACS ARE REQUIRED TO BE PERPENDICULAR OR MUST ORIGINATE IN MANHOLE AND TERMINATE AT RIGHT-OF-WAY LINE.
 - ALL SERVICES TYING INTO DUCTILE IRON MAINS SHALL BE CONSTRUCTED OF CLASS 50 D.I.P. WITH PROTECTO 401 CERAMIC EPOXY LINING.
 - MINIMUM 10' UTILITIES EASEMENT PROVIDED ALONG THE FRONTAGE OF ALL LOTS AND AS SHOWN FOR NEW DEVELOPMENTS.
 - NO FLEXIBLE COUPLINGS SHALL BE USED.
 - ALL STAINLESS STEEL FASTENERS SHALL BE 316.
 - THE CONTRACTOR IS RESPONSIBLE FOR THE LOCATION AND PROTECTION OF EXISTING UTILITIES DURING CONSTRUCTION. CALL U-LOCO 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.
 - SHOULD ADDITIONAL SERVICES BE LOCATED DURING CONSTRUCTION, THEY MUST EITHER BE UTILIZED OR ABANDONED.
 - EACH OF THE (8) DWELLING UNITS TO BE SERVED VIA 5/8" WATER METER AND 4" SS SERVICE.

LANDSCAPE PLANT LIST

SYMBOL	QTY	BOTANICAL NAME	COMMON NAME	TYPE	SIZE
	2	QUERCUS NIGRA	WATER OAK	LARGE SHADE TREE	2.5" CAL.
	52	ERAGROSTIS CURVULA	LOVE GRASS	GROUND COVER	1 GAL.

LANDSCAPE REQUIREMENTS:

REQUIRED PROVIDED

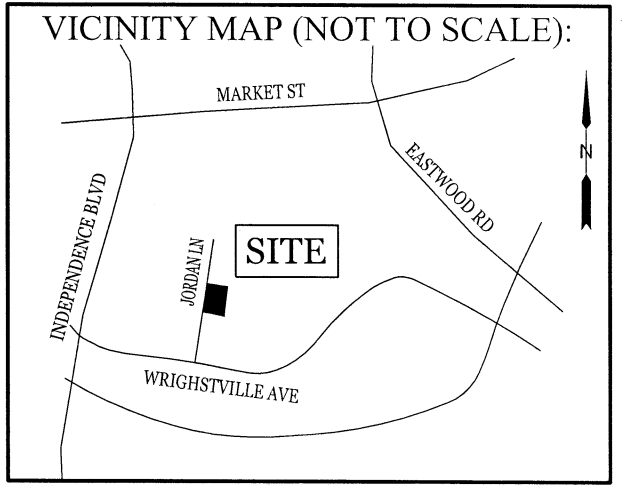
PARKING LOT INTERIOR SHADING:
20% CANOPY COVERAGE (5,496 SF) 1,099 SF 2,235 SF*

*821 SF OF PARKING LOT SHADING IS PROVIDED BY EXISTING TREES.

NOTE:
1. ALL LANDSCAPED ISLANDS AND BEDS TO BE STABILIZED WITH MIN. 3" LAYER OF CHOCOLATE MULCH.
2. SEE PLAN SHEET C-3 FOR PLANTING DETAILS.

- APPROVED SRB CONDITIONS(SRB-6-1017):**
- The use and development of the subject property shall comply with all regulations and requirements imposed by the Land Development Code, the City of Wilmington Technical Standards and Specifications Manual and any other applicable federal, state or local law, ordinance or regulation, as well as any condition stated below. In the event of a conflict, the more stringent requirement or higher standard shall apply.
 - Approval of this preliminary plan does not constitute technical approval of a site plan. Final approval by the Technical Review Committee and the issuance of all required permits must occur prior to release of the project for construction.
 - If, for any reason, any condition for approval is found to be illegal or invalid or if the applicant should fail to accept any condition following approval, the approval of the preliminary plan shall be null and void.
 - The use and development of the subject property shall be in accordance with the plan and elevation as submitted and approved.
 - The proposed use shall be limited to four residential duplex lots with a total of eight units.
 - Jordan Lane must be improved along the entire property frontage in compliance with the approved preliminary plan.
 - Jordan Lane must be dedicated as a 30-foot wide private street between Wrightsville Avenue and the northern boundary of the site.
 - A sidewalk must be provided on the eastern side of Jordan Lane, along the entire frontage of the site.
 - All existing protected trees not located within the building foot print or impacted by essential site improvements shall be preserved or mitigated.
 - All City, State and Federal regulations shall be met.

- APPROVED ORDINANCE CONDITIONS(C-7-917):**
- The use and development of the subject property shall comply with all regulations and requirements imposed by the land development code, the city of wilmington technical standards and specifications manual and any other applicable federal, state or local law, ordinance or regulation, as well as any condition stated below. In the event of a conflict, the more stringent requirement or higher standard shall apply.
 - Approval of this conditional district rezoning does not constitute technical approval of the site plan. final approval by the technical review committee and the issuance of all required permits must occur prior to release of the project for construction.
 - If, for any reason, any condition for approval is found to be illegal or invalid or if the applicant should fail to accept any condition following approval, the approval of the site plan for the district shall be null and void and of no effect and proceedings shall be instituted to rezone the property to its previous zoning classification.
 - The use and development of the subject property shall be in accordance with the plan and elevation as submitted and approved.
 - The proposed use shall be limited to four residential duplex lots with a total of eight units.
 - Jordan lane must be improved along the entire property frontage in compliance with the approved preliminary plan.
 - Jordan lane must be dedicated as a 30' wide private street between wrightsville ave. and the northern boundary of the site.
 - A sidewalk must be provided on the eastern side of jordan lane, along the entire frontage of the site.
 - All existing protected trees not located within the building foot print or impacted by essential site improvements shall be preserved or mitigated.
 - All city, state and federal regulations shall be met.



REVISIONS

INTRACOASTAL ENGINEERING, PLLC
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Wilmington, North Carolina 28403
Phone: 910.859.8983
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License Number: P-0662

SITE, GRADING, DRAINAGE, STORMWATER, AND UTILITIES PLAN FOR JORDAN LANE DUPLEXES
CITY OF WILMINGTON
NEW HANOVER COUNTY, NC

CHARLES D. REISER
Professional Engineer
No. 032555
7-13-18

CLIENT INFORMATION:
Reiser Partners, LLC
Mark Reiser
2029 Eastwood Rd. Unit 143
Wilmington, NC 28403
Ph. (910)352-6110
Email: mreiser@aol.com

DRAWN: JAE	SHEET SIZE: 24x36
CHECKED: CDC	DATE: 7/13/2018
APPROVED: CDC	SCALE: 1" = 20'
PROJECT NUMBER: 2018-014	

DRAWING NUMBER: **C-1**
2 OF 6

CITY OF WILMINGTON
Public Services • Engineering Division
APPROVED STORMWATER MANAGEMENT PLAN

Date: _____ Permit # _____
Signed: _____

Approved Construction Plan
Name: _____ Date: _____

Planning _____
Public Utilities _____
Traffic _____
Fire _____

LEGEND

- PROPERTY LINE
- PROPOSED LOTLINE
- ADJOINING
- PROPOSED EASEMENT
- CENTER LINE
- PROPOSED WATERLINE
- PROPOSED SANITARY SEWER LINE
- GRASSED PAVERS
- 3:1 GRASSED SWALE

Scale: 1"=20'

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)

BUILDING WASTE HANDLING:

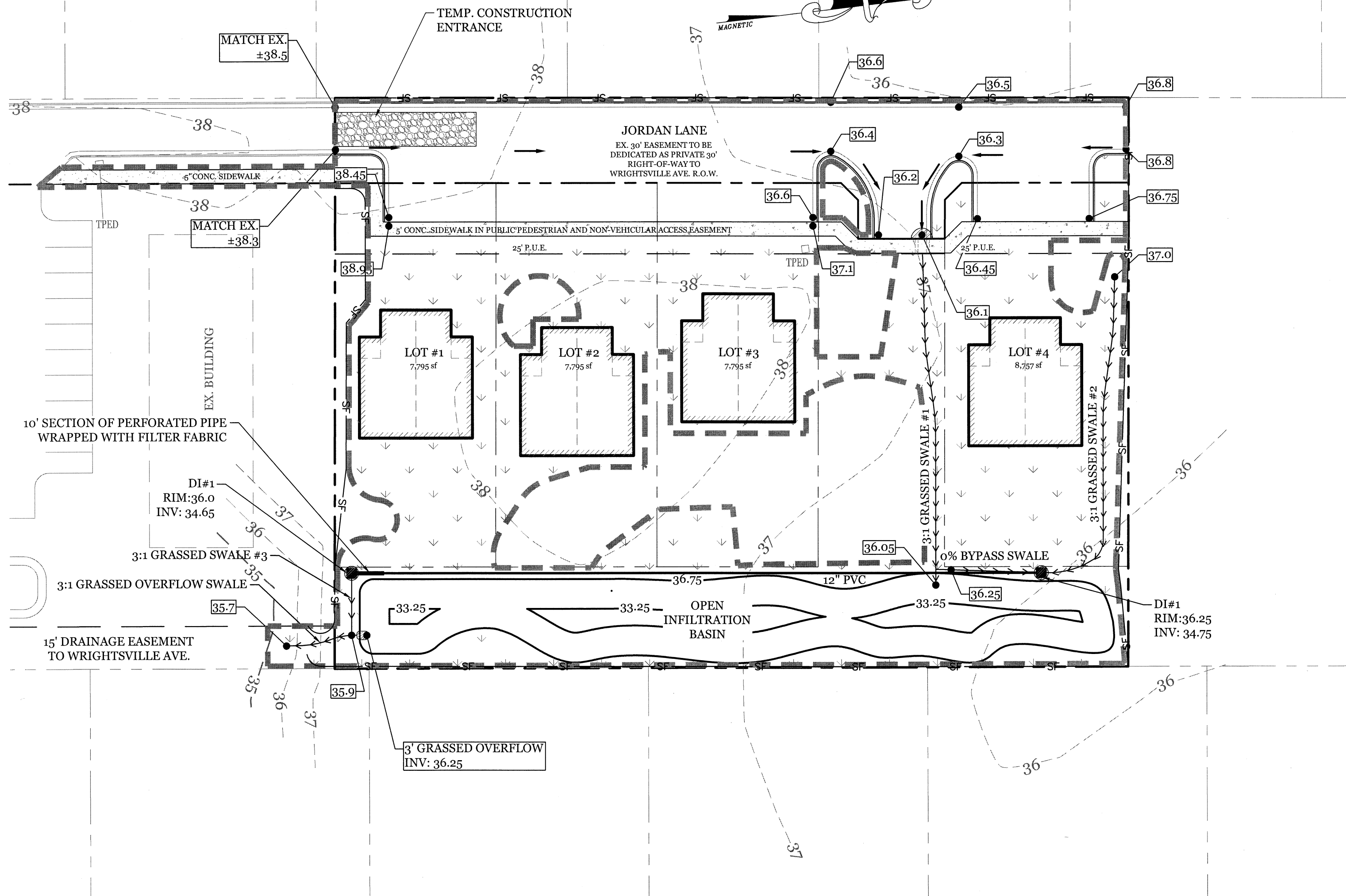
- NO PAINT OR LIQUID WASTES IN STREAM OR STORM DRAINS
- DEDICATED AREAS FOR DEMOLITION, CONSTRUCTION AND OTHER WASTES MUST BE LOCATED 50' FROM STORM DRAINS AND STREAMS UNLESS NO REASONABLE ALTERNATIVES ARE AVAILABLE.
- EARTHEN MATERIAL STOCKPILES MUST BE LOCATED 20' FROM STORM DRAINS AND STREAMS UNLESS NO REASONABLE ALTERNATIVES ARE AVAILABLE.
- CONCRETE MATERIALS MUST BE CONTROLLED TO AVOID CONTACT WITH SURFACE WATERS, WETLANDS, OR BUFFERS.

INSPECTIONS:

- SAME WEEKLY REQUIREMENTS
- SAME RAIN GAUGE & INSPECTIONS AFTER 0.50" RAIN EVENT.
- INSPECTIONS ARE ONLY REQUIRED DURING "NORMAL BUSINESS HOURS"
- INSPECTION REPORTS MUST BE AVAILABLE ON-SITE DURING BUSINESS HOURS UNLESS A SITE-SPECIFIC EXEMPTION IS APPROVED.
- RECORDS MUST BE KEPT FOR 3 YEARS AND AVAILABLE UPON REQUEST.
- ELECTRONICALLY AVAILABLE RECORDS MAY BE SUBSTITUTED UNDER CERTAIN CONDITIONS.

SEDIMENT BASINS:

- OUTLET STRUCTURES MUST BE WITHDRAWN FROM BASIN SURFACES UNLESS DRAINAGE AREA IS LESS THAN 1 ACRE.
- USE ONLY DWQ APPROVED FLOCCULANTS.



MAINTENANCE PLAN:

- 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.
- 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 OBJECTIONABLE MATERIAL SPILLED, WASHED OR TRACKED ONTO THE CONSTRUCTION ENTRANCE OR ROADWAYS.
- 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. SEDIMENT WILL BE REMOVED FROM AROUND BEAVER DAMS, DANDY SACKS AND SOCKS ONCE A WEEK AND AFTER EVERY RAIN EVENT.
- 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.
- 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, WITHOUT WIRE BACKING. STAKE SPACING WILL BE 8 FEET MAX WHEN STANDARD STRENGTH FABRIC AND WIRE BACKING ARE USED. IF ROCK FILTERS ARE DESIGNED AT LOW POINTS IN THE 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. 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.
- GENERAL CLEARING AND GRADING OF THIS SITE WILL NOT BE DONE UNTIL THE TEMPORARY SILT FENCE & CONSTRUCTION ENTRANCE HAS BEEN INSTALLED.
- 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).
- NO SEDIMENT WILL BE ALLOWED TO EXIT THE SITE. ALL EROSION SHALL BE CONTROLLED INCLUDING SIDE SLOPES DURING AND AFTER CONSTRUCTION.
- INSTALL PRIMARY EROSION CONTROL MEASURES BEFORE BEGINNING CONSTRUCTION INCLUDING BUT NOT LIMITED TO GRAVELED 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.
- ALL EROSION CONTROL MEASURES TO BE INSPECTED AFTER EACH RAIN. SILT FENCE AND INLET PROTECTION TO BE CLEANED WHEN HALF FULL.
- A 4" LAYER OF TOPSOIL SHALL BE APPLIED TO ALL NEW AREAS TO BE GRASSED.
- MAINTAIN ALL EROSION CONTROL MEASURES UNTIL PROJECT IS COMPLETE.
- MORE STRINGENT MEASURES MAY BE REQUIRED TO HALT EROSION IF THOSE ON THIS PLAN PROVE TO BE LESS EFFECTIVE.
- REMOVE ALL TEMPORARY EROSION CONTROL MEASURES UPON COMPLETION OF CONSTRUCTION. ALL PERMANENT MEASURES SHALL BE WELL ESTABLISHED PRIOR TO PROJECT COMPLETION.

SITE DATA

PARCEL ID:	R05520-008-039-000
CURRENT ZONING:	R-5 (CD)
CAMA LAND USE CLASSIFICATION:	URBAN
PROJECT ADDRESS:	210 JORDAN LN. WILMINGTON, NC 28403
CURRENT OWNER:	REISER PARTNERS, LLC 2029 EASTWOOD RD. #143 WILMINGTON, NC 28403
TOTAL ACREAGE IN PROJECT BOUNDARY:	56,295 S.F. (1.29 AC.)
TOTAL DISTURBED AREA:	1.08 AC.
ON-SITE IMPERVIOUS AREAS:	
BUILDINGS	8,640 S.F.
ASPHALT ROAD	6,972 S.F.
CONCRETE SIDEWALK	1,522 S.F.
TOTAL	17,134 S.F. ÷ 56,295 S.F. = 30.4%
ON-SITE PERVIOUS AREAS:	
GRASSED PAVERS (100% PERVIOUS)	3,790 S.F.
OFF-SITE IMPERVIOUS AREAS:	
CONCRETE SIDEWALK	505 S.F.
DRAINS TO PREVIOUSLY PERMITTED S.W. FACILITY ON ADJACENT SITE	

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)	50 (lb/acre)
<i>Omit annual Lespedeza when duration of temporary cover is not to extend beyond June</i>	
SUMMER:	
German Millet	40 (lb/acre)
In the Piedmont and Mountains, a small-stemmed sundangrass may be substituted at a rate of 50 (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)	200 (lb/acre)
Rye (grain)	25 (lb/acre)
SPRING & SUMMER:	
Pensacola Bahiagrass	50 (lb/acre)
Sericea Lespedeza	30 (lb/acre)
Common Bermudagrass	10 (lb/acre)
German Millet	10 (lb/acre)
Tall Fescue	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:

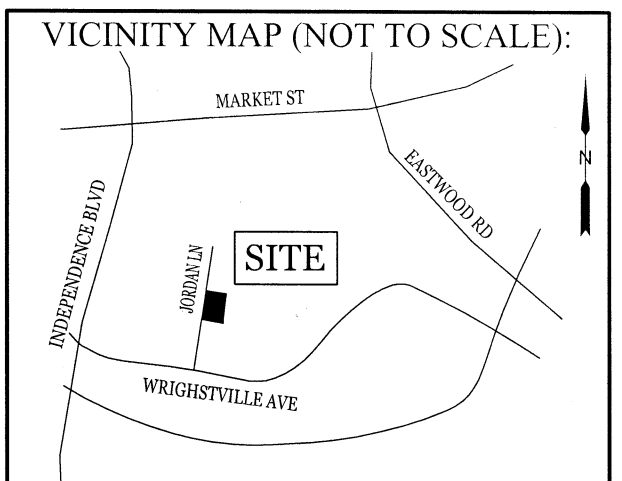
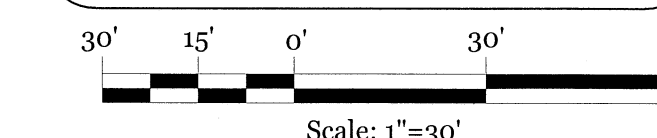
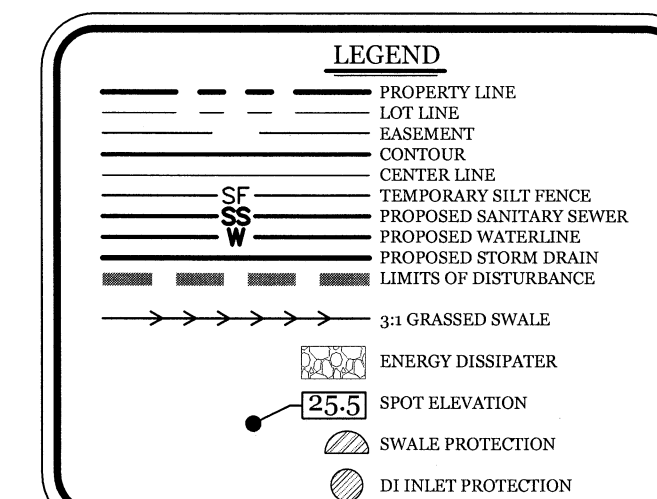
Apply lime and fertilizer according to soil tests, or apply 3,000 lb/acre ground agriculture limestone and 500 lb/acre 10-10-10 fertilizer.

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.



REVISIONS

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

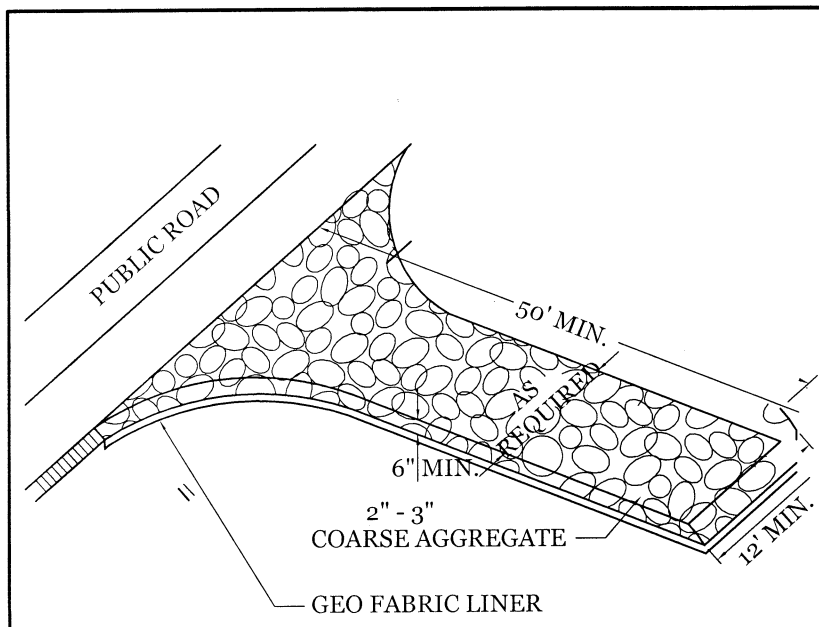
SEDIMENTATION & EROSION CONTROL PLAN
 FOR
JORDAN LANE DUPLEXES
 CITY OF WILMINGTON
 NEW HANOVER COUNTY, NC

CHARLES D. CAZIER
 NORTH CAROLINA PROFESSIONAL SEAL
 032555
 ENGINEER
 7.13.15

CLIENT INFORMATION:
 Reiser Partners, LLC
 Mark Reiser
 2029 Eastwood Rd. Unit 143
 Wilmington, NC 28403
 Ph. (910)352-6110
 Email:mcreiser@aol.com

DRAWN: JAE	SHEET SIZE: 24x36
CHECKED: CDC	DATE: 7/13/2018
APPROVED: CDC	SCALE: 1" = 30'
PROJECT NUMBER: 2018-014	

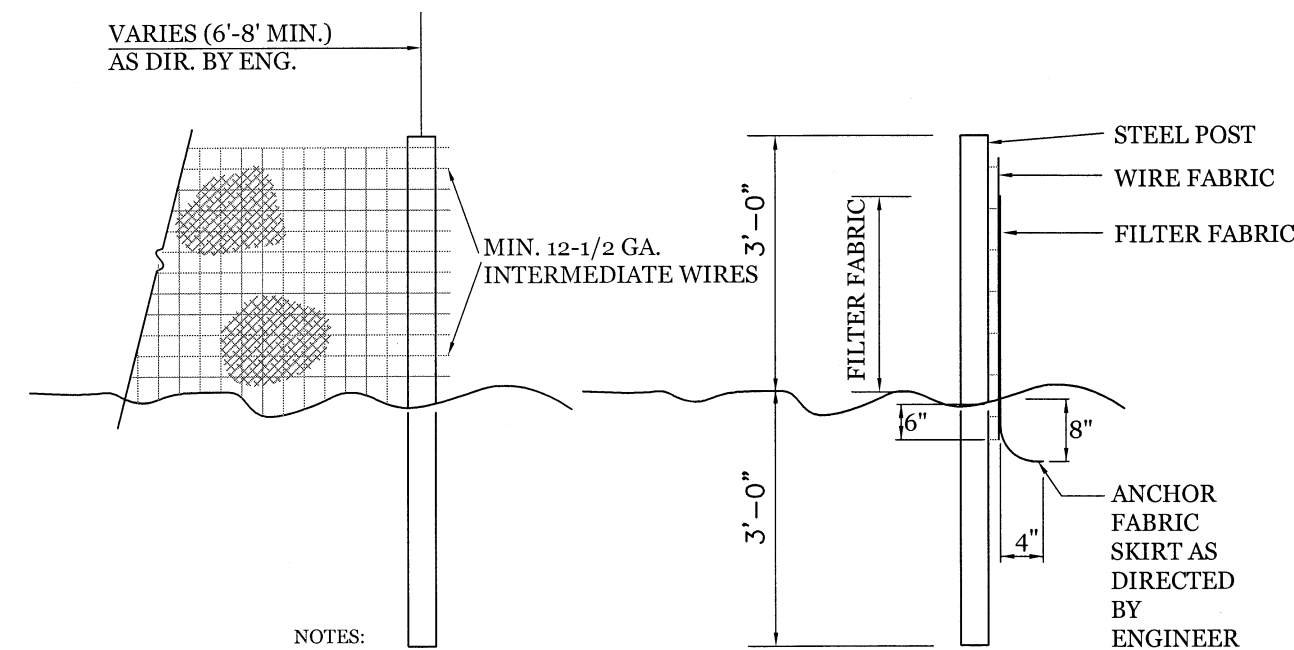
DRAWING NUMBER: **C-2**
 3 OF 6



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 36" IN WIDTH AND SHALL HAVE A MIX. OF SIX LINE WIRES WITH 12" SPACING.
 2. FABRIC SHALL BE FOR EROSION CONTROL AND MIN. OF 36" IN WIDTH. FABRIC SHALL BE FASTENED ABSELENTLY TO THE WIRE FABRIC AS DIRECTED BY THE ENGINEER.
 3. STEEL POST SHALL BE 5'-0" IN HEIGHT AND BE OF THE SELF-FASTENER STEEL ANGLE TYPE.

TEMPORARY SILT FENCE

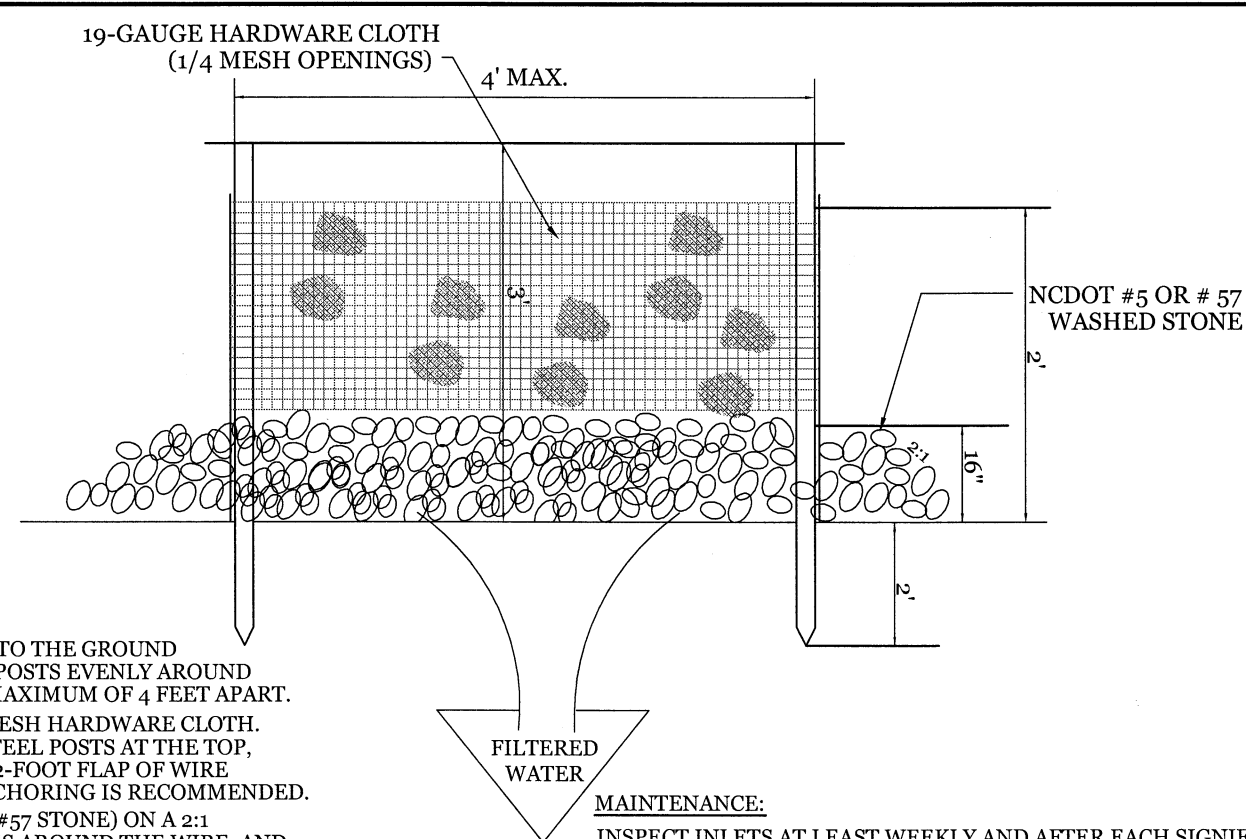
NTS

CONSTRUCTION SPECIFICATIONS:

- DRIVE 5-FOOT STEEL POSTS 2 FEET INTO THE GROUND SURROUNDING THE INLET. SPACE POSTS EVENLY AROUND THE PERIMETER OF THE INLET. A MAXIMUM OF 4 FEET APART.
- SURROUND THE POSTS WITH WIRE MESH HARDWARE CLOTH. SECURE THE WIRE MESH TO THE STEEL POSTS AT THE TOP, MIDDLE, AND BOTTOM. PLACING A 2-FOOT FLAP OF WIRE MESH UNDER THE GRAVEL FOR ANCHORING IS RECOMMENDED.
- PLACE CLEAN GRAVEL (NCDOT #5 OR #57 STONE) ON A 2:1 SLOPE WITH A HEIGHT OF 18 INCHES AROUND THE WIRE, AND SMOOTH TO AN EVEN GRADE.
- ONCE THE CONTRIBUTING DRAINAGE AREA HAS BEEN STABILIZED, REMOVE ACCUMULATED SEDIMENT, AND ESTABLISH FINAL GRADING ELEVATIONS.

HARDWARE CLOTH AND GRAVEL SWALE PROTECTION

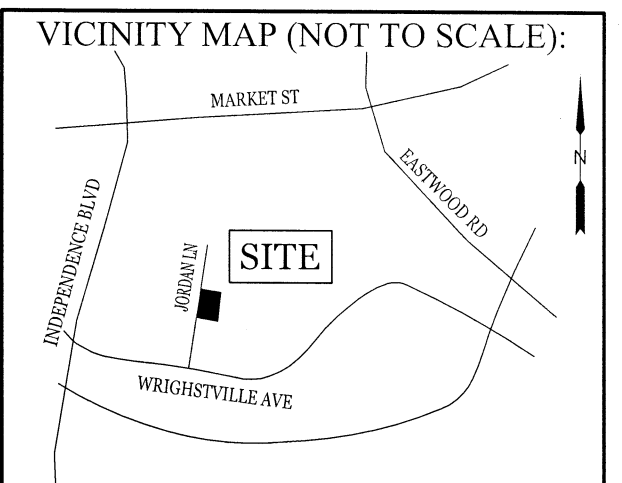
NTS



MAINTENANCE:
 INSPECT INLETS AT LEAST WEEKLY AND AFTER EACH SIGNIFICANT (1/2 INCH OR GREATER) RAINFALL EVENT. CLEAR THE MESH WIRE OF ANY DEBRIS OR OTHER OBJECTS TO PROVIDE ADEQUATE FLOW FOR SUBSEQUENT RAINS. TAKE CARE NOT TO DAMAGE OR UNDERCUT THE WIRE MESH DURING SEDIMENT REMOVAL. REPLACE STONE AS NEEDED.

SITE WORK NOTES:

- THE CONTRACTOR SHALL VISIT THE SITE AND BECOME FAMILIAR WITH EXISTING CONDITIONS BOTH ON AND ADJACENT TO THE SITE.
- CLEARING: CONTRACTOR SHALL REMOVE ALL TREES AND VEGETATION WITHIN LIMITS OF CONSTRUCTION UNLESS OTHERWISE DESIGNATED TO REMAIN.
- 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.
- MUCKING: CONTRACTOR SHALL COORDINATE WITH OWNER AND THEIR GEOTECHNICAL REPRESENTATIVE TO COORDINATE REMOVAL OF ANY SOFT AREAS.
- DISPOSAL: CLEARED, GRUBBED, STRIPPED OR OTHER WASTE MATERIAL SHALL BE REMOVED FROM SITE AND DISPOSED OF IN A PROPERLY PERMITTED FACILITY.
- FILL AND COMPACTION SHOULD COMPLY WITH GEOTECHNICAL RECOMMENDATIONS.
- 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. THE CONTRACTOR SHALL FURNISH SUITABLE BORROW MATERIAL FROM AN OFF-SITE PROPERLY PERMITTED FACILITY AS REQUIRED.
- 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.
- NO CONSTRUCTION IS TO BEGIN BEFORE LOCATION OF EXISTING UTILITIES HAS BEEN DETERMINED. CALL "NC ONE-CALL" AT LEAST 48 HOURS BEFORE COMMENCING CONSTRUCTION.
- 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.
- THE CONTRACTOR SHALL BE RESPONSIBLE TO COORDINATE DISCONNECTION/ RECONNECTION AND/OR THE RELOCATION OF ALL EXISTING UTILITIES WITH APPROPRIATE PERSONNEL.
- 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.
- EXISTING SURVEYING PERFORMED BY PATRICK C. BRISTOW - PROFESSIONAL LAND SURVEYOR (L-4148)
- 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.
- THE CONTRACTOR SHALL PROVIDE ANY AND ALL LAYOUT REQUIRED TO CONSTRUCT HIS WORK UNLESS OTHERWISE DIRECTED BY OWNER.
- ALL SERVICE CONNECTIONS SHALL BE INSTALLED TO MEET ALL LOCAL, STATE, AND CPDUA CODES. METERS, TAPS, MATERIALS, WORKMANSHIP AND ALL FEES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL COMPLY WITH ALL REQUIREMENTS.
- 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.
- 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.
- CONCRETE FOR WALKS, CURBS AND DRIVES SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 3000 PSI @ 28 DAYS - AIR ENTRAINED.
- 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.
- ALL SIDEWALKS SHALL BE FREE OF CRACKS, BREAKS, OR ANY OTHER DEFECT PRIOR TO RECEIVING A CERTIFICATE OF OCCUPANCY.

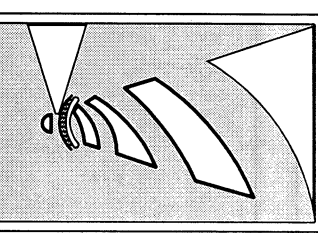


REVISIONS

NO.	DATE	DESCRIPTION

INTRACOASTAL ENGINEERING, PLLC

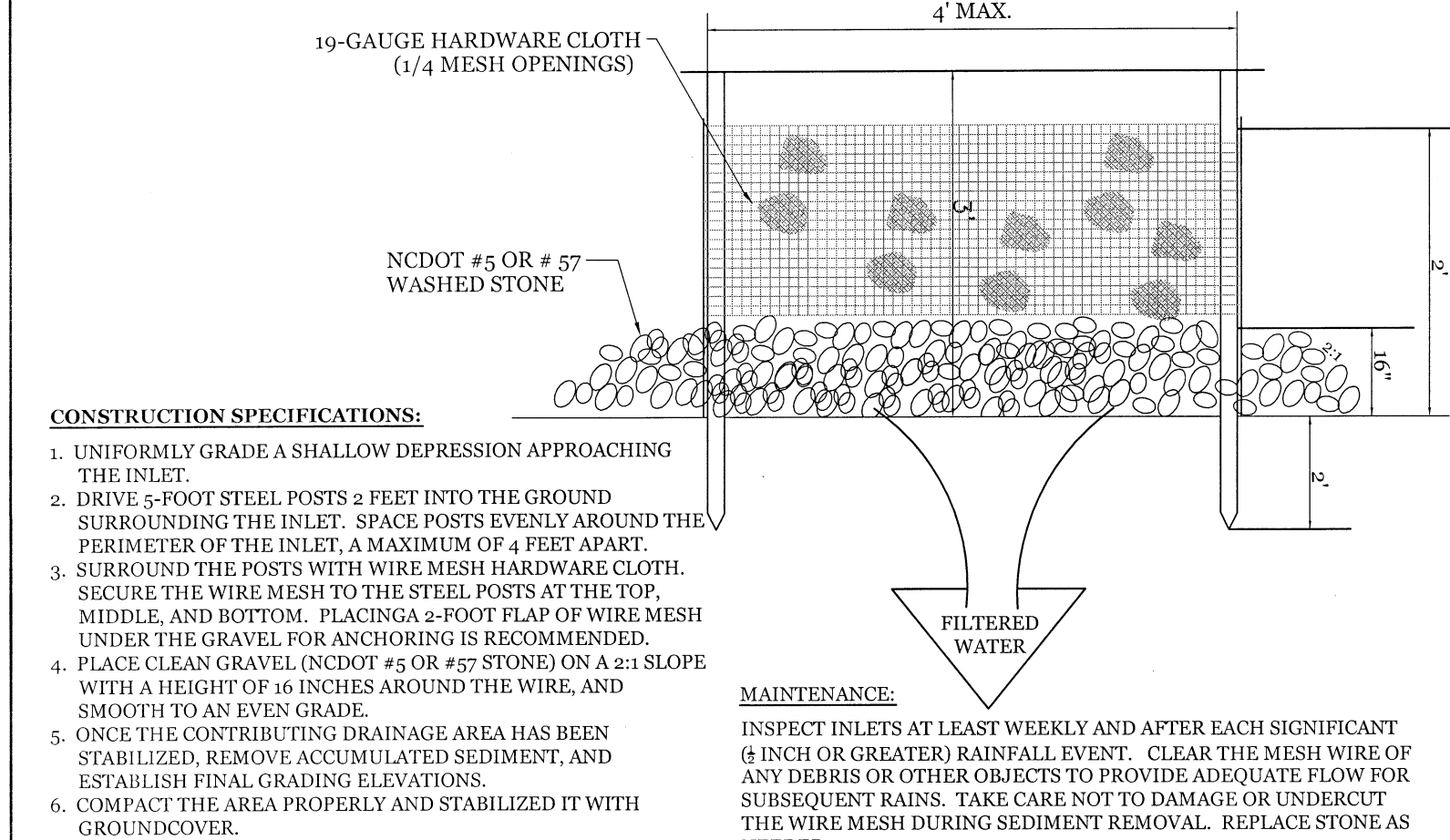
5725 Oleander Dr. Unit E-7
 Wilmington, North Carolina 28403
 Phone: 910.859.8983
 Email: Charlie@intracoastalengineering.com
 License Number: P-0662



JORDAN LANE DUPLEXES

DETAILS

CITY OF WILMINGTON
 NEW HANOVER COUNTY, NC



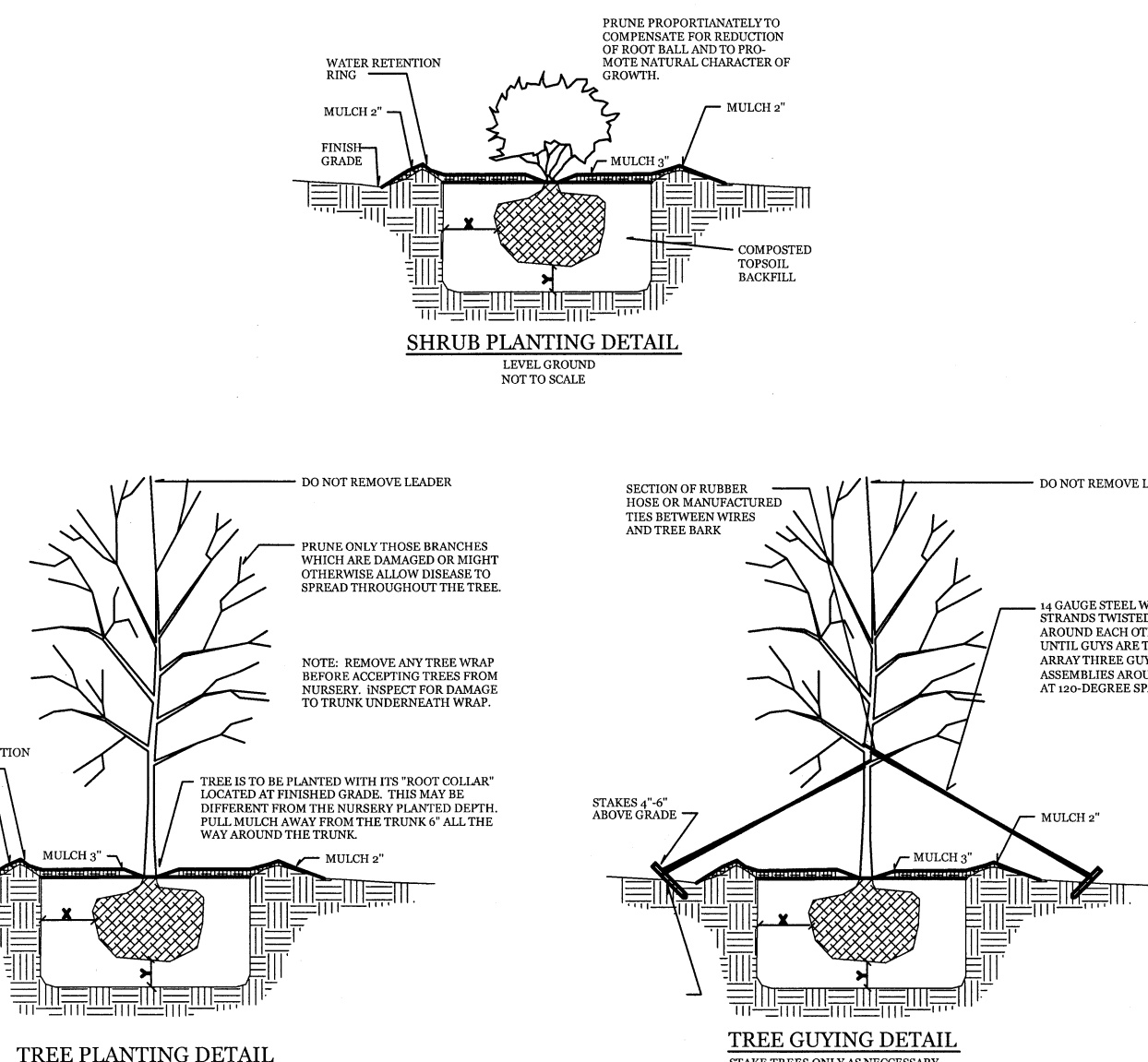
CONSTRUCTION SPECIFICATIONS:

- UNIFORMLY GRADE A SHALLOW DEPRESSION APPROACHING THE INLET.
- DRIVE 5-FOOT STEEL POSTS 2 FEET INTO THE GROUND SURROUNDING THE INLET. SPACE POSTS EVENLY AROUND THE PERIMETER OF THE INLET. A MAXIMUM OF 4 FEET APART.
- SURROUND THE POSTS WITH WIRE MESH HARDWARE CLOTH. SECURE THE WIRE MESH TO THE STEEL POSTS AT THE TOP, MIDDLE, AND BOTTOM. PLACING A 2-FOOT FLAP OF WIRE MESH UNDER THE GRAVEL FOR ANCHORING IS RECOMMENDED.
- PLACE CLEAN GRAVEL (NCDOT #5 OR #57 STONE) ON A 2:1 SLOPE WITH A HEIGHT OF 16 INCHES AROUND THE WIRE, AND SMOOTH TO AN EVEN GRADE.
- ONCE THE CONTRIBUTING DRAINAGE AREA HAS BEEN STABILIZED, REMOVE ACCUMULATED SEDIMENT, AND ESTABLISH FINAL GRADING ELEVATIONS.
- COMPACT THE AREA PROPERLY AND STABILIZED IT WITH GROUND COVER.

MAINTENANCE:
 INSPECT INLETS AT LEAST WEEKLY AND AFTER EACH SIGNIFICANT (1/2 INCH OR GREATER) RAINFALL EVENT. CLEAR THE MESH WIRE OF ANY DEBRIS OR OTHER OBJECTS TO PROVIDE ADEQUATE FLOW FOR SUBSEQUENT RAINS. TAKE CARE NOT TO DAMAGE OR UNDERCUT THE WIRE MESH DURING SEDIMENT REMOVAL. REPLACE STONE AS NEEDED.

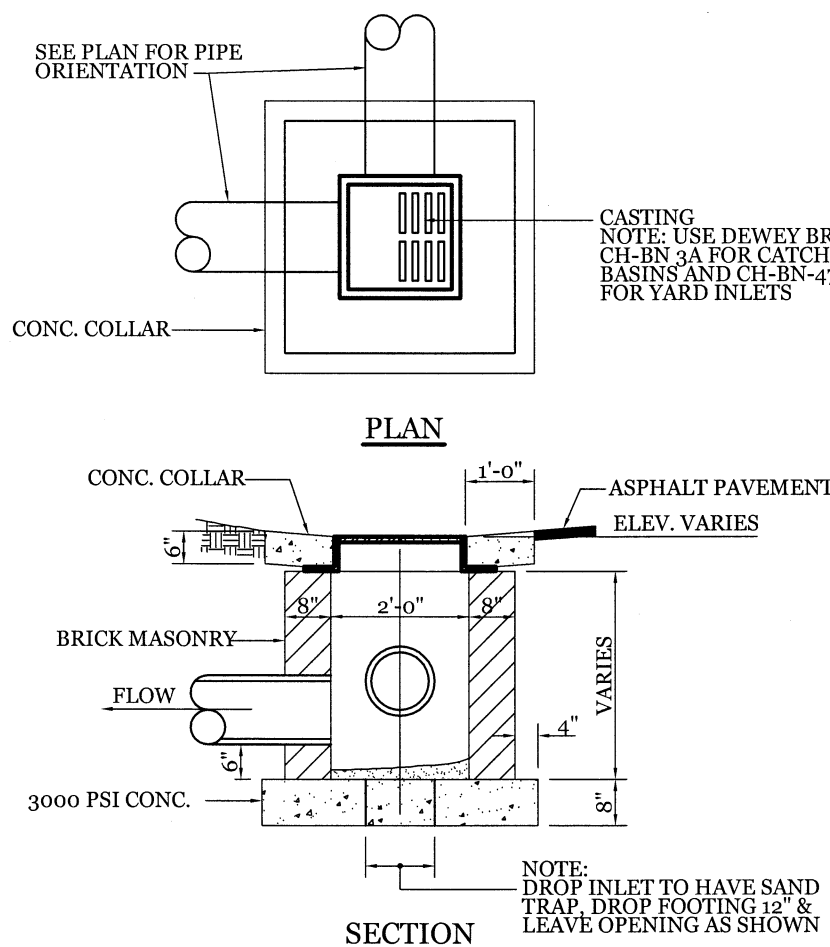
HARDWARE CLOTH AND GRAVEL INLET PROTECTION

NTS



TREE PLANTING DETAIL

TREE GUYING DETAIL

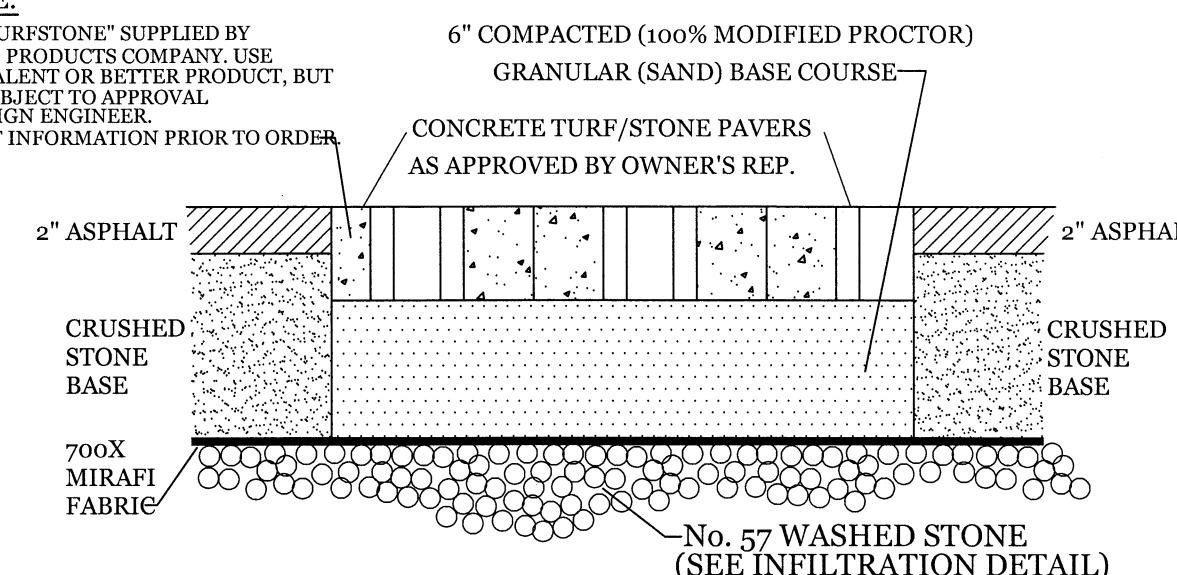


DROP INLET DETAIL

NTS

NOTE:

USE "TURFSTONE" SUPPLIED BY ADAMS PRODUCTS COMPANY. USE EQUIVALENT OR BETTER PRODUCT, BUT ARE SUBJECT TO APPROVAL BY DESIGN ENGINEER. SUBMIT INFORMATION PRIOR TO ORDER.

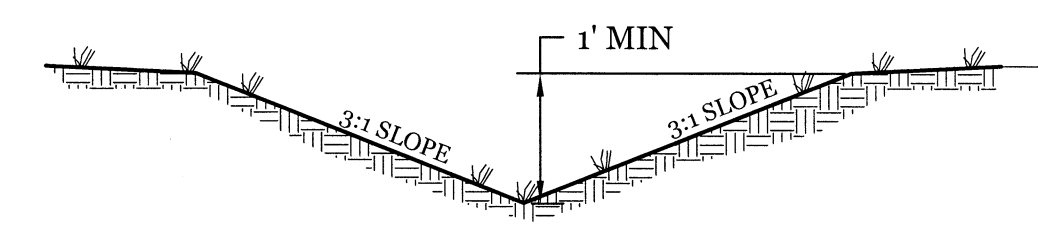


GRASSED PAVER SECTION

NTS

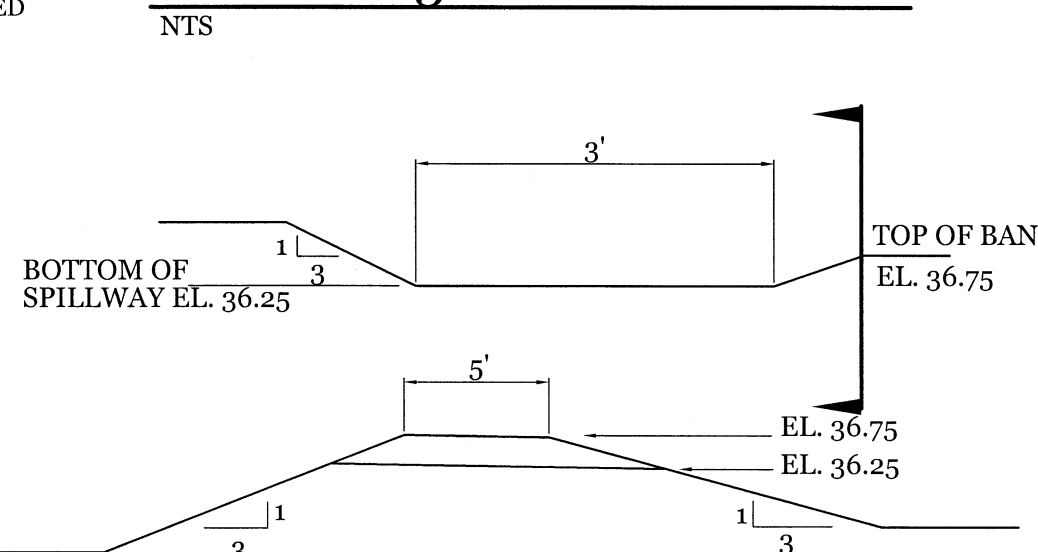
OPEN INFILTRATION BASIN SECTION

NTS



TYPICAL 3:1 GRASS SWALE

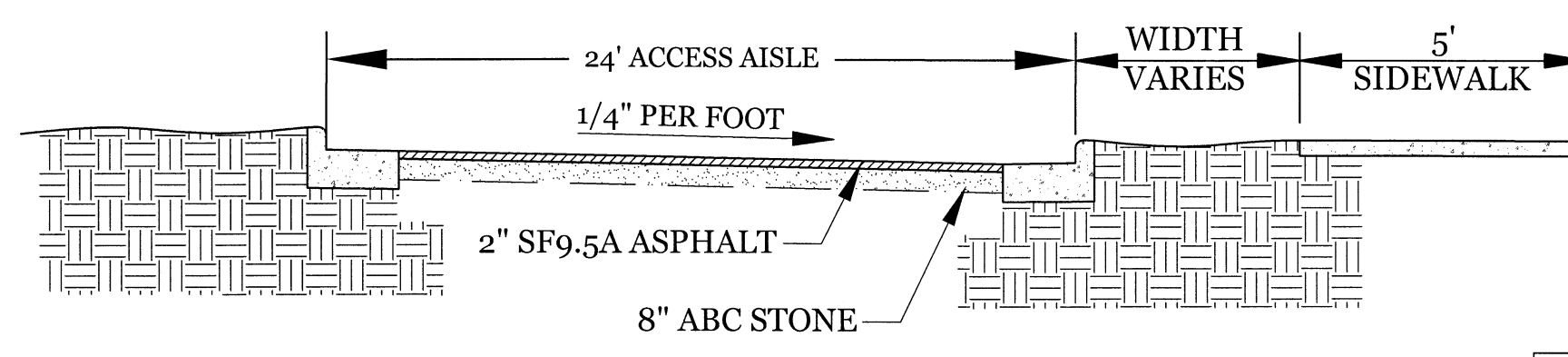
NTS



NOTES:
 SWALES TO BE LINED WITH EXCELSIOR MAT & SEEDED IN ACCORDANCE WITH SPECIFICATIONS IMMEDIATELY.

INFILTRATION BASIN GRASSED SPILLWAY DETAIL

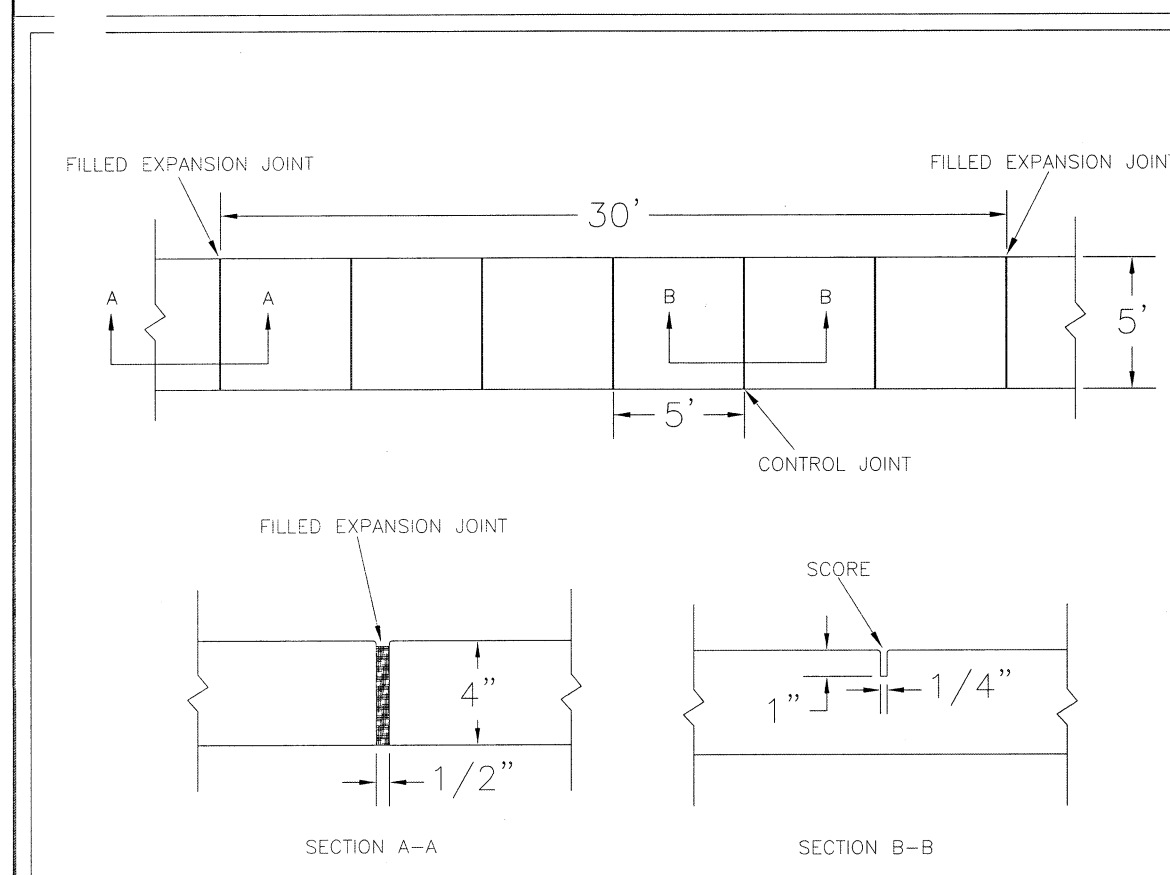
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JORDAN LN. CROSS SECTION

(SUPERELEVATED)

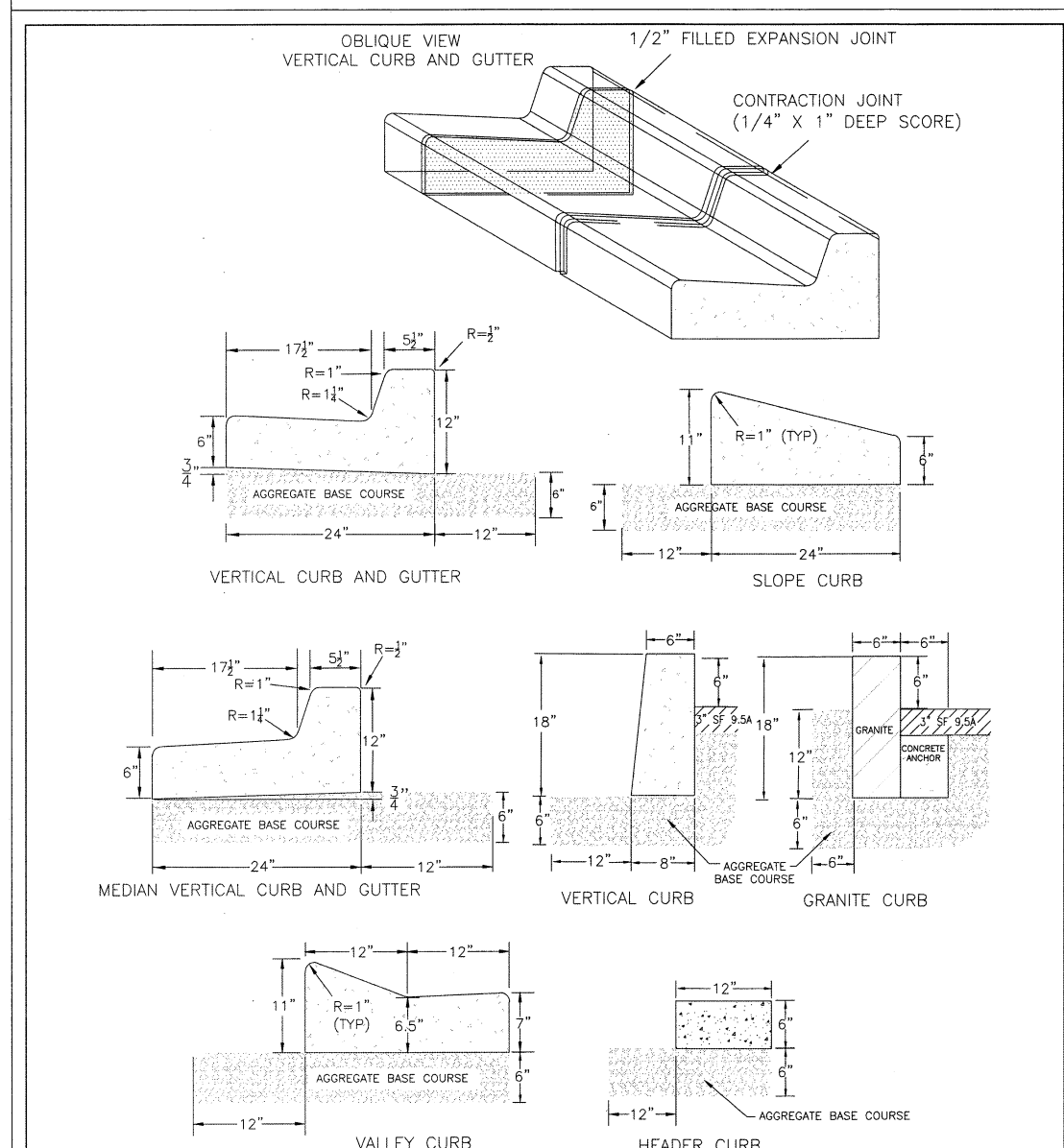
NTS



- NOTES:
- JOINT MATERIAL TO COMPLY WITH CURRENT NCDOT STANDARDS.
 - SANITARY SEWER CLEAN-OUTS, WATER METERS, MANHOLES, AND VALVE LIDS TO BE LOCATED OUTSIDE SIDEWALK WHERE FEASIBLE.
 - MINIMUM SIDEWALK WIDTH TO BE 6' MINIMUM IF PLACED AT BACK OF CURB.
 - CONCRETE FOR ALL SIDEWALKS (EXCEPT ANY PORTION CONTAIN WITHIN A DRIVEWAY APRON) SHALL BE CLASS "A" - 3,000 PSI.
 - MINIMUM REPLACEMENT FOR REPAIRS IS A 5' X 5' PANEL.
 - 4" STONE BASE MAY BE REQUIRED FOR POOR SOIL CONDITIONS.
 - MINIMUM DEPTH FOR TUNNELING BELOW SIDEWALK IS 12"
 - MAX ADJACENT GROUND SLOPE WITHOUT RAILING IS 2:1
 - MIN GRADE FOR PROPER DRAINAGE IS 1/8" IN AT LEAST 1 DIRECTION. MAX CROSS SLOPE IS 2% MAX LONGITUDINAL SLOPE IS 0.3%, 1.0% IF LIMITED BY EXISTING CONDITIONS, OR NO GREATER THAN THE SLOPE OF THE EXISTING ADJACENT ROAD.

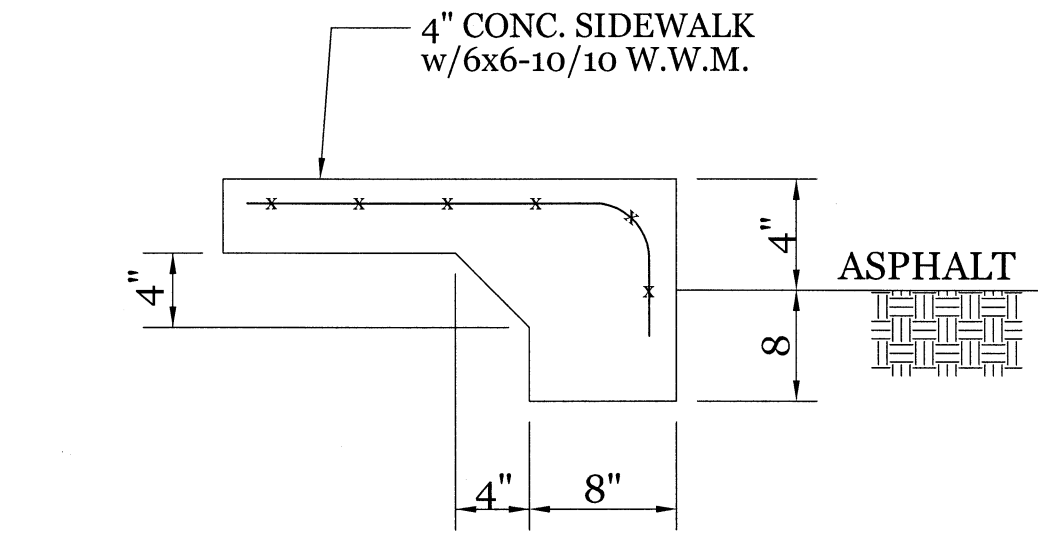
STANDARD DETAIL
SIDEWALK
 DATE: OCTOBER, 2010
 DRAWN: PBI/SR
 CHECKED: DEC
 SCALE: NOT TO SCALE

CITY OF WILMINGTON
 NORTH CAROLINA
 CITY OF WILMINGTON ENGINEERING
 PO BOX 1810
 WILMINGTON, N.C. 28402
 (910) 341-7807
 SD 3-10



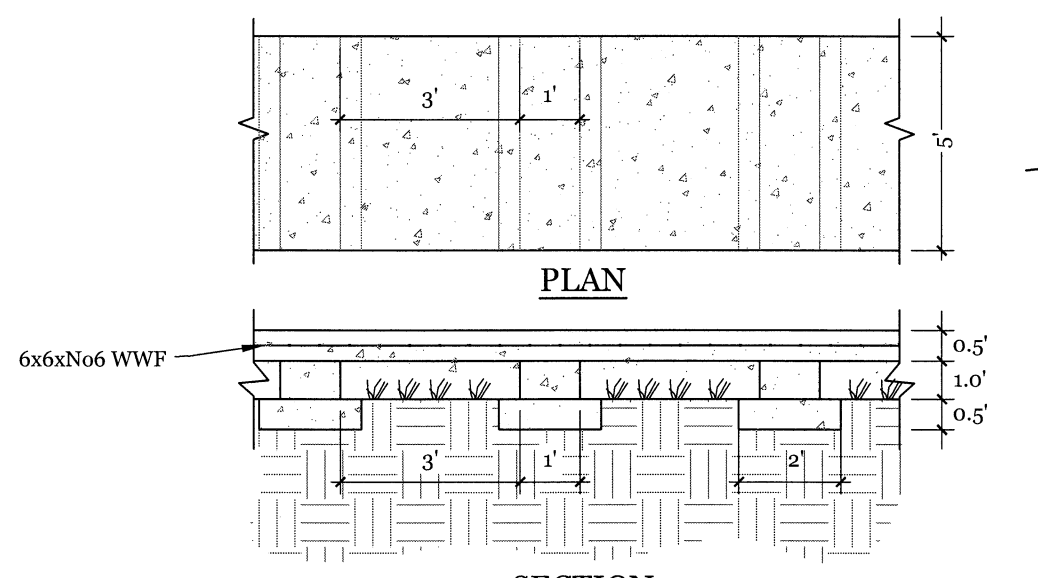
STANDARD DETAIL
CURBING
 DATE: AUGUST, 2011
 DRAWN: PBI/SR
 CHECKED: DEC
 SCALE: NOT TO SCALE

CITY OF WILMINGTON
 NORTH CAROLINA
 CITY OF WILMINGTON ENGINEERING
 PO BOX 1810
 WILMINGTON, N.C. 28402
 (910) 341-7807
 SD 3-11



TURNDOWN SIDEWALK

NTS



FLOW UNDER SIDEWALK DETAIL

NTS

CITY OF WILMINGTON
 NORTH CAROLINA
 Public Services • Engineering Division
 APPROVED STORMWATER MANAGEMENT PLAN
 Date: _____ Permit # _____
 Signed: _____

Approved Construction Plan

Name	Date
Planning	
Public Utilities	
Traffic	
Fire	

CLIENT INFORMATION:
 Reiser Partners, LLC
 Mark Reiser
 2029 Eastwood Rd. Unit 143
 Wilmington, NC 28403
 Ph. (910) 352-6110
 Email: mreiser@aol.com

DRAWN: JAE SHEET SIZE: 24x36
 CHECKED: CDC DATE: 7/13/2018
 APPROVED: CDC SCALE: NTS
 PROJECT NUMBER: 2018-014

DRAWING NUMBER:
C-3
 4 OF 6