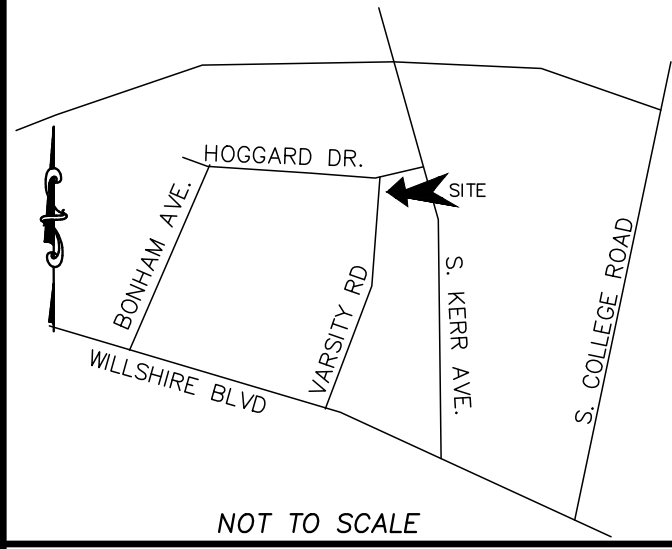


LOCATION MAP



CONSTRUCTION DRAWINGS for
SIERRA HEIGHTS
598 VARSITY DRIVE
 LOCATED IN CITY OF WILMINGTON
 NEW HANOVER COUNTY, NORTH CAROLINA

For each open utility cut of City streets, a \$325 permit shall be required from the City prior to occupancy and/or project acceptance.

Approved Construction Plan

Name _____ Date _____

Planning _____

Traffic _____

Fire _____

CITY OF WILMINGTON
 NORTH CAROLINA
 Public Services Engineering Division
 APPROVED PLAN - NO PERMIT REQUIRED
 Signed: _____



LICENSE # C-2710
 ENGINEERING
 LAND PLANNING
 COMMERCIAL / RESIDENTIAL

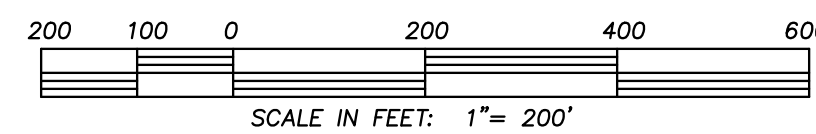
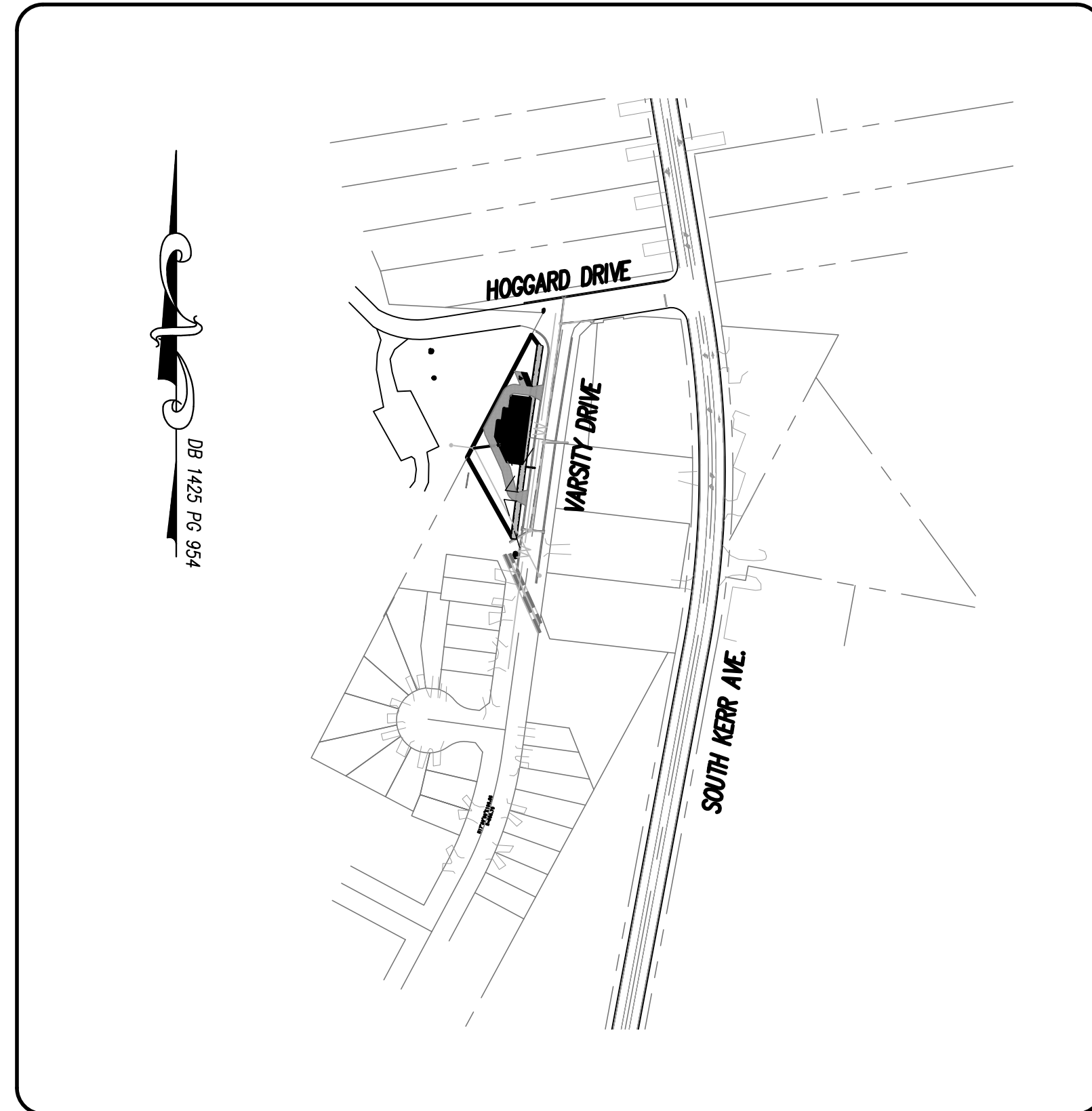
P.O. BOX 4041
 WILMINGTON, NC 28406
 (910) 791-4441

GENERAL NOTES:

- NEW HANOVER COUNTY PARCEL NUMBERS: PID = R0551-001-004-003
- TOTAL PROJECT AREA: 14,377 SF (0.33 AC)
- EXISTING ZONING DISTRICT: MF-M
- LAND CLASSIFICATION: URBAN & CONSERVATION AREA
- THIS SITE IS LOCATED WITHIN ZONE "AE" ELEV 30.1 AND ZONE "X" ACCORDING TO FEMA FIRM COMMUNITY PANEL NUMBER 3720313700J, EFFECTIVE DATE 4/3/06
- SITE ADDRESS: 598 VARSITY DRIVE
- EXISTING IMPERVIOUS ONSITE = 0 SF
- ASBUILT, BOUNDARY AND TOPOGRAPHIC SURVEY PERFORMED AND PROVIDED TO CSD ENGINEERING BY DANFORD ASSOCIATES; VERTICAL DATUM = 88
- STORMWATER DRAINS TO BURNT MILL CREEK, C:SW 18-74-63-2
- LAND OWNER - JEJ INVESTMENTS LLC 1705 CHESTNUT STREET WILMINGTON, NC 28405

WATER & SEWER USAGE NOTES:

CURRENT WATER USAGE 0 GPD PROPOSED WATER USAGE 1,320 GPD
 CURRENT SEWER USAGE 0 GPD PROPOSED SEWER USAGE 1,320 GPD
 WATER - 11 BEDROOM X 120 GPD = 1,320 GPD
 SEWER - 11 BEDROOMS X 120 GPD = 1,320 GPD



WATER			
SIZE	2"		
TYPE	SDR-21		
LF	27		

SEWER			
SIZE	8"		
TYPE	C-900		
LF	37		

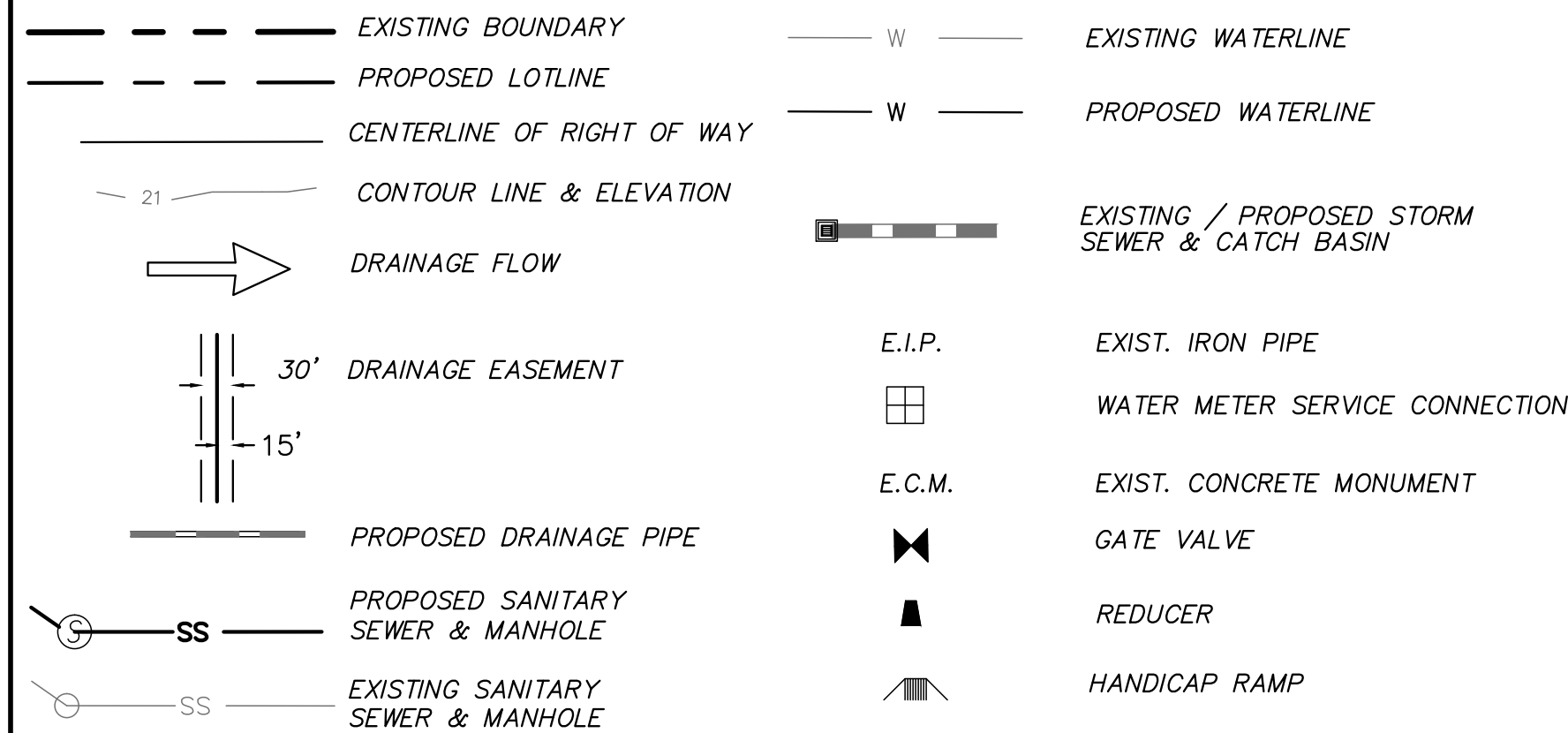
INDEX TO DRAWINGS

SHEET No.	DESCRIPTION	DRAWING No.
1 OF 9	COVER SHEET	CD_COVER
2 OF 9	EXISTING BOUNDARY AND TOPOGRAPHY, ADJACENT TRAFFIC	CD_EX-COND
3 OF 9	SITE PLAN	SITE_PLAN
4 OF 9	CITY OF WILMINGTON CONSTRUCTION DETAILS	SP_DET-1
5 OF 9	CITY OF WILMINGTON CONSTRUCTION DETAILS	SP_DET-2
6 OF 9	UTILITY AND DRAINAGE PLAN	UP
7 OF 9	CFPUA STANDARD WATER DETAILS	WSD-1
8 OF 9	CFPUA STANDARD WATER DETAILS	WSD-2
9 OF 9	CFPUA STANDARD SEWER DETAILS	SSD-2

NOTES:

- ASBUILT, BOUNDARY AND TOPOGRAPHIC SURVEY PERFORMED AND PROVIDED TO CSD ENGINEERING BY DANFORD ASSOCIATES, 4002 1/2 OLEANDER DRIVE WILMINGTON, NC 28403, 910-799,4916 FIRM #C-2797
- THIS MAP IS NOT FOR CONVEYANCE, RECORDATION, OR SALES.
- THIS PROPERTY IS LOCATED WITHIN ZONE "X" AND "AE" (ELEV 30.1) ACCORDING TO THE FEMA FLOOD INSURANCE RATE MAP, 3720313700J, EFFECTIVE DATE 4/3/06
- THIS PROPERTY IS ZONED MF-M
- CFPUA WATER
- CFPUA SEWER
- ALL CONSTRUCTION TO CONFORM TO NEW HANOVER COUNTY STANDARDS AND APPLICABLE STATE & LOCAL CODES.
- CONTRACTOR TO COORDINATE ANY REQUIRED TRAFFIC CONTROL WITH CITY OF WILMINGTON AND OR NCDOT.
- CARE SHALL BE TAKEN DURING FINAL GRADING TO ENSURE POSITIVE DRAINAGE AWAY FROM BUILDINGS AND TO RECEIVING STRUCTURES. ROOF DRAIN DOWNSPOUTS TO BE CONNECTED TO STORM DRAINAGE STUBOUTS OR DIRECTED TO STREET/PARKING AREAS.
- CONTRACTOR IS RESPONSIBLE FOR COORDINATION OF ANY RELOCATIONS, RE-ALIGNMENTS, DISCONNECTIONS OR CONNECTIONS OF EXISTING UTILITIES WITH APPLICABLE AUTHORITIES.
- CLEARING AND GRUBBING OF SITE TO INCLUDE REMOVAL OF EXISTING CURB, ASPHALT, INLETS, AND ANY OTHER STRUCTURES INCLUDING TREES, STUMPS AND DEBRIS EXISTING ON SITE. TREES NOT REQUIRED TO BE CLEARED FOR CONSTRUCTION SHALL REMAIN UNLESS OTHERWISE DIRECTED.
- 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.
- 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.
- THE CONTRACTOR IS RESPONSIBLE FOR CONTROLLING DUST AND EROSION DURING CONSTRUCTION AT HIS EXPENSE. PARKING AREAS SHALL BE WATERED TO CONTROL DUST WHEN ORDERED BY THE ENGINEER.
- NO GEOTECHNICAL TESTING HAS BEEN PERFORMED ON SITE. NO WARRANTY IS MADE FOR SUITABILITY OF SUBGRADE, AND UNDERCUT AND ANY REQUIRED REPLACEMENT WITH SUITABLE MATERIAL SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
- CONTRACTOR TO ENSURE THAT PAVEMENT IS PLACED SO AS TO DRAIN POSITIVELY TO THE STREET INLETS AND CATCH BASINS. ALL FUTURE ROOF DRAIN DOWNSPOUTS TO BE DIRECTED TO THE STORM DRAINAGE STUBOUTS.
- CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL REQUIRED PERMITS.
- THIS PLAN IS FOR SITE GRADING, UTILITIES, SITING, AND DRAINAGE ONLY. SEE BUILDING PLANS FOR DETAILED HOOKUPS TO BUILDINGS, ETC.
- CONTRACTOR AND BUILDER ARE RESPONSIBLE FOR COORDINATING FINISHED FLOOR ELEVATION OF ALL BUILDINGS WITH THE OWNER. ELEVATIONS GIVEN ARE MINIMUM GROUND ELEVATIONS AT THE BUILDING SITE AND DO NOT PURPORT TO BE FINISHED FLOOR. MINIMUM RECOMMENDED FF ELEVATIONS SHOWN ON PLANS.
- AFFECTED NON-MUNICIPAL UTILITIES SHALL BE CONTACTED AND PROVIDED WITH PLANS AND OTHER PERTINENT INFORMATION, WHEN FEASIBLE, TO COORDINATE APPROPRIATE SCHEDULING AND PLACEMENT.
- EXTREME CARE SHALL BE TAKEN TO ENSURE MINIMUM SEPARATIONS AT ALL UTILITY CROSSINGS.
- MINIMUM SEPARATION SHALL BE MAINTAINED AS FOLLOWS:
 - HORIZONTAL SEPARATION OF 10 FEET BETWEEN SANITARY SEWER AND WATER MAINS AND STORM SEWER.
 - WHERE VERTICAL CLEARANCE IS LESS THAN 24" BETWEEN SANITARY SEWER AND WATER OR WHERE SEWER LINE CROSSES ABOVE WATER MAIN, BOTH PIPES SHALL BE DUCTILE IRON PIPE FOR A MINIMUM OF 10' EITHER SIDE OF CROSSING.
 - WHERE VERTICAL CLEARANCE IS LESS THAN 24" BETWEEN SANITARY SEWER AND STORM DRAIN, SANITARY SEWER SHALL BE DUCTILE IRON PIPE FOR A MINIMUM OF 10 FEET EITHER SIDE OF CROSSING.
 - WHERE VERTICAL CLEARANCE IS LESS THAN 12" BETWEEN SANITARY SEWER AND STORM DRAIN, SANITARY SEWER SHALL BE DUCTILE IRON PIPE FOR A MINIMUM OF 10' EITHER SIDE OF CROSSING, AND BRIDGING SHALL BE INSTALLED PER APPLICABLE UTILITY AUTHORITY'S DETAILS.
 - IN NO CASE SHALL THERE BE LESS THAN 18" OF SEPARATION BETWEEN OUTSIDE OF WATER MAIN AND OUTSIDE OF SEWER OR STORM DRAINAGE.
 - MINIMUM COVER OF 36" SHALL BE PROVIDED FOR ALL BURIED WATER MAINS AND SANITARY SEWER MAINS.
- SEE DETAIL SHEETS FOR TYPICAL UTILITIES HOOKUPS.
- ALL SANITARY SEWER MAINS TO BE 8" UNLESS OTHERWISE INDICATED.
- ALL WATER MAINS TO BE 8" UNLESS OTHERWISE INDICATED.
- TWO VALVES ARE REQUIRED AT "T" INTERSECTIONS AND ONE VALVE ON THE WATER LINE TO FIRE HYDRANTS.
- A BLOW-OFF VALVE IS REQUIRED AT THE TERMINUS OF ALL "DEAD END" WATER LINES.

LEGEND



OWNER: JEJ INVESTMENTS LLC
 1705 CHESTNUT STREET
 WILMINGTON, NC 28405

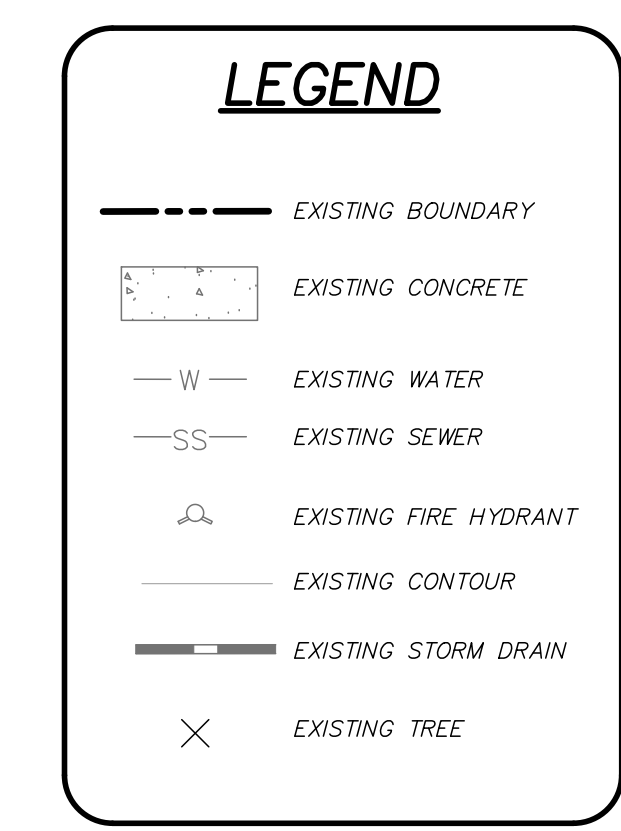
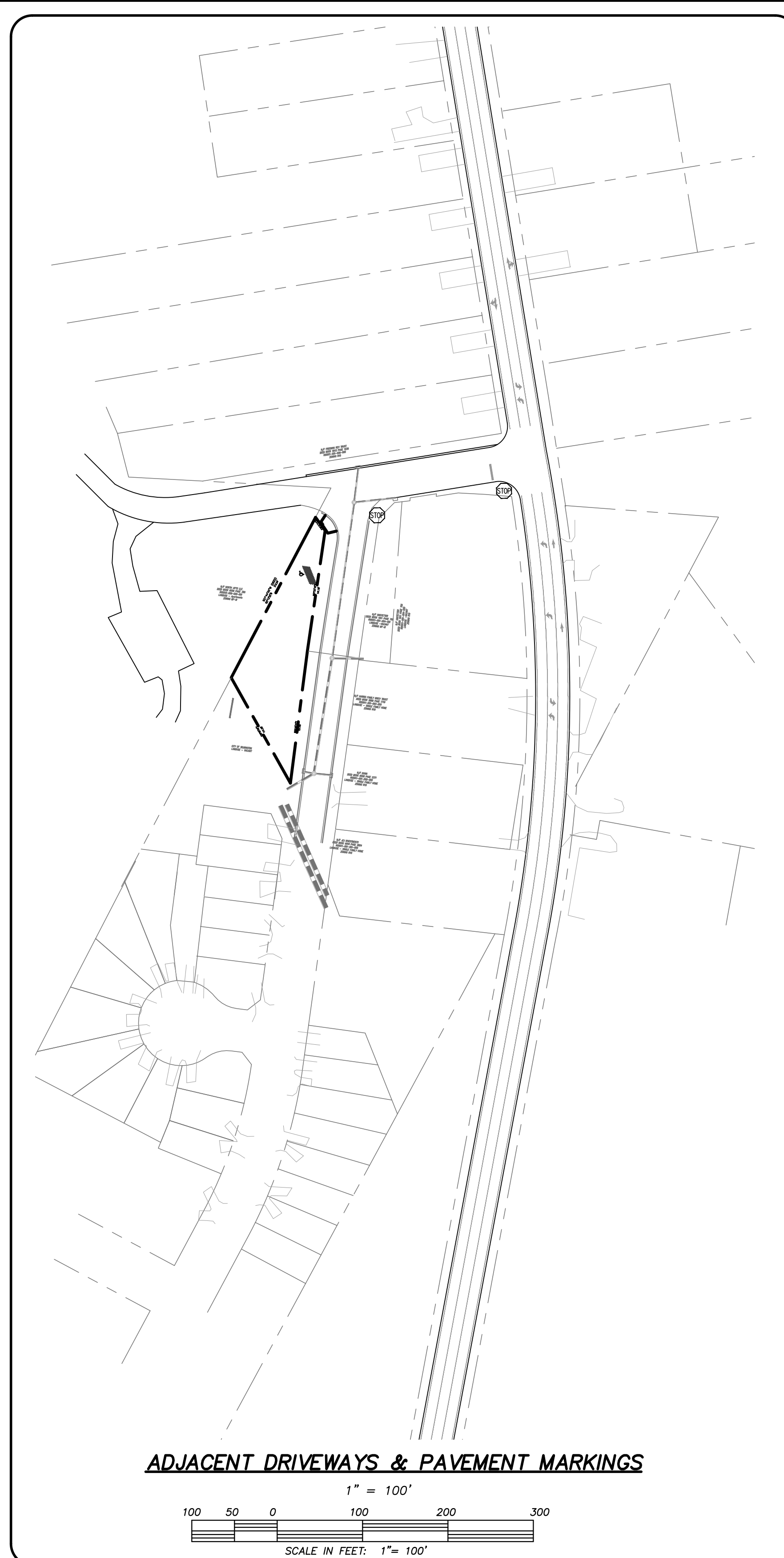
EXISTING CONDITIONS FOR
SIERRA HEIGHTS
598 VARSITY DRIVE

EXISTING CONDITIONS FOR
SIERRA HEIGHTS
598 VARSITY DRIVE
 LOCATED IN CITY OF WILMINGTON
 NEW HANOVER COUNTY, NORTH CAROLINA
 OWNER: JEJ INVESTMENTS LLC
 1705 CHESTNUT STREET
 WILMINGTON, NC 28405

PRELIMINARY

REV.	DATE	BY	REMARKS
1	5-8-17	RWB	
2	4-20-17	RWB	REVISED PER TRC COMMENTS
1			REV. NO.

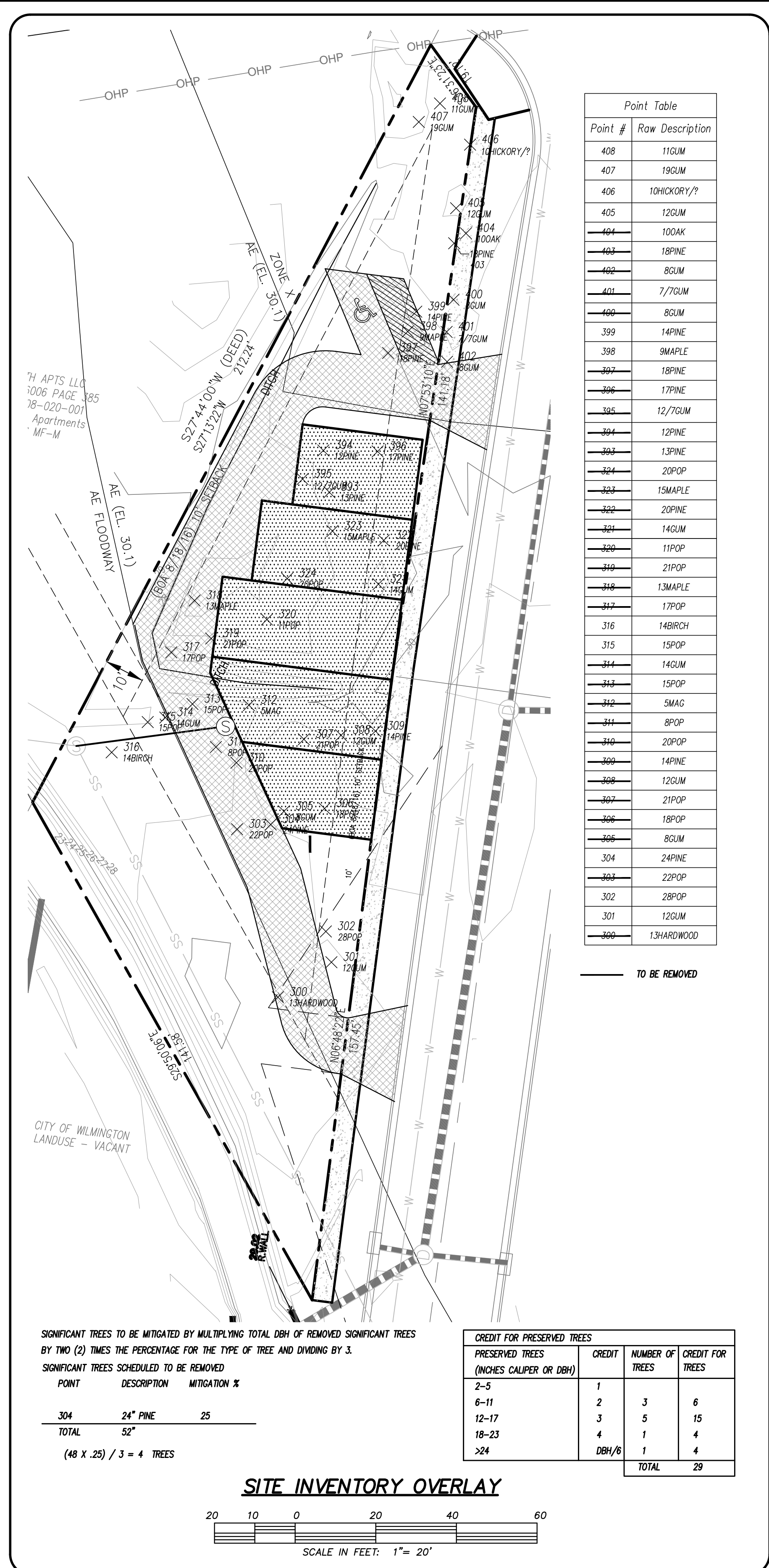
DATE: 2-26-17
 HORIZ. SCALE: 1" = 200'
 VERT. SCALE: N/A
 DRAWN BY: MRB
 CHECKED BY: HSR
 PROJECT NO.: 16-0380



For each open utility cut of City streets, a \$325 permit shall be required from the City prior to occupancy and/or project acceptance.

CITY OF WILMINGTON
NORTH CAROLINA
Public Services Engineering Division
APPROVED PLAN - NO PERMIT REQUIRED
Signed: _____

- NOTES:**
- ASBUILT, BOUNDARY AND TOPOGRAPHIC SURVEY PERFORMED AND PROVIDED TO CSD ENGINEERING BY DANFORD AND ASSOCIATES 910-799-4916, FIRM #C-2797
 - THIS MAP IS NOT FOR CONVEYANCE, RECORDATION, OR SALES.
 - THIS PROPERTY IS LOCATED WITHIN ZONE "X" AND AE (ELEV 30.1) ACCORDING TO THE FEDERAL EMERGENCY MANAGEMENT AGENCY'S FLOOD INSURANCE RATE MAP, COMMUNITY-PANEL #3720313700A, EFFECTIVE DATE 4/3/06
 - THIS PROPERTY IS ZONED MF-M



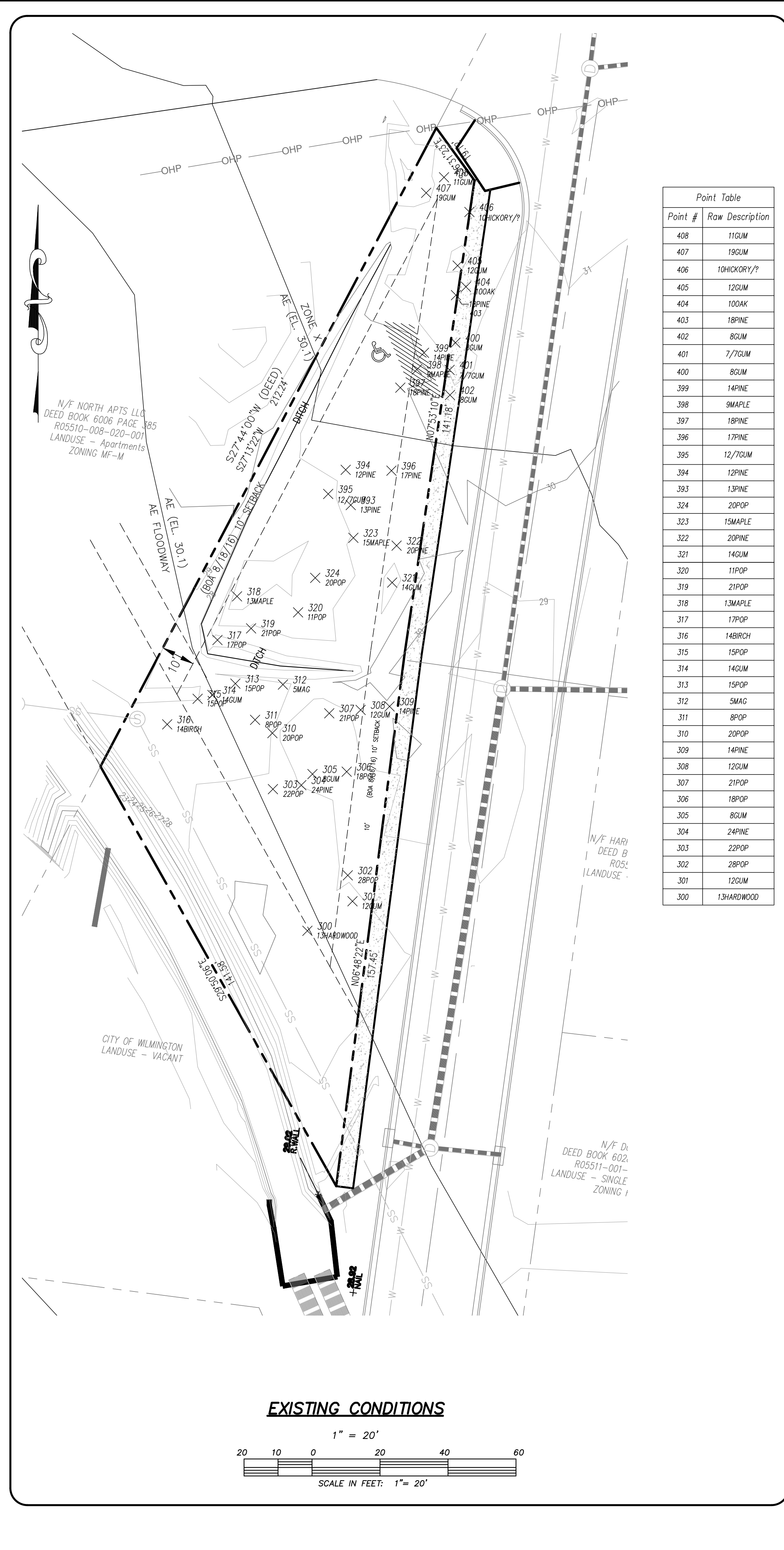
Approved Construction Plan

Name _____ Date _____

Planning _____

Traffic _____

Fire _____



CSD ENGINEERING
LICENSE # C-2710
ENGINEERING
LAND PLANNING
COMMERCIAL / RESIDENTIAL

P.O. BOX 4041
WILMINGTON, NC 28406
(910) 791-4441

EXISTING CONDITIONS
SIERRA HEIGHTS
598 VARSITY DRIVE

OWNER: JEJ INVESTMENTS LLC
1705 CHESTNUT STREET
WILMINGTON, NC 28405

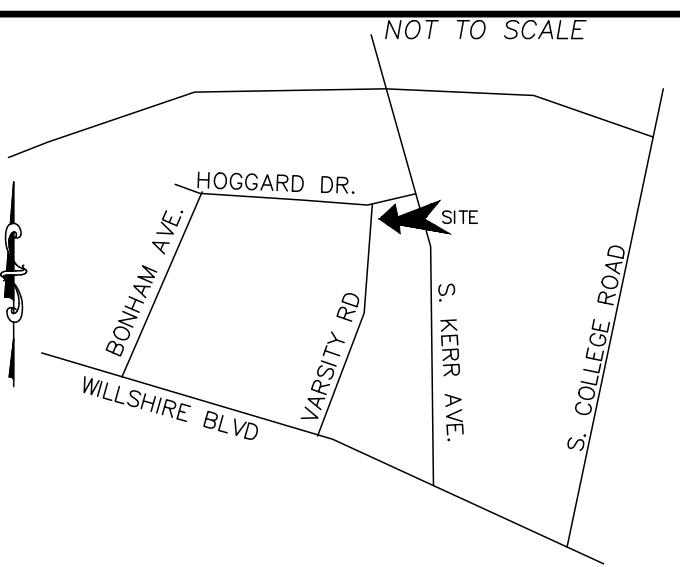
PRELIMINARY

REV. NO.	DATE	REMARKS
2	5-4-17	REVISED PER TRC COMMENTS
1	4-20-17	REVISED PER TRC COMMENTS

DATE: 2-26-17
HORZ. SCALE: 1" = 20'
VERT. SCALE: N/A
DRAWN BY: MRB
CHECKED BY: HSR
PROJECT NO.: 16-380

Sheet No. **2** of **9**

LOCATION MAP



SITE & BUILDING DATA:

TOTAL LOT AREA = 14,377 SF (0.33 AC)
 PROPERTY ADDRESS IS 598 VARSITY DRIVE
 PID = R05511-001-004-003
 EXISTING ONSITE DATA:
 EXISTING BUILDINGS ON SITE = 0 SF
 EXISTING ASPHALT = 0 SF
 TOTAL: = 0 SF

EXISTING OR IMPERVIOUS
 PROPOSED IMPERVIOUS = 3,638 SF
 PROPOSED ASPHALT & CURBING = 3,678 SF
 TOTAL: = 7,314 SF

* AREA LOCATED OUTSIDE OF BUILDING FOOTPRINT
 PROPOSED IMPERVIOUS OFFSITE DRIVEWAY CONNECTIONS = 550 SF
 SIDEWALK = 1,486 SF

SOIL GROUPS ONSITE
 LY - LYNN HAVEN FINE SAND
 SCS SOIL GROUP "A/D" PER USDA SOIL SURVEY WEB SITE

BUILDING DATA:
 NUMBER OF BUILDINGS = 1
 4 - 2 BEDROOM UNITS
 1 - 3 BEDROOM UNIT
 BUILDING HEIGHT = +/- 35 FT
 NUMBER OF STORIES = 3

BUILDING TYPE = IA
 BUILDING USE = TOWNHOMES
 BUILDING AREA: 3,638 SF
 LOT COVERAGE: 3,638 SF / 14,377 SF = 0.25
 PROPOSED 25% BUILDING LOT COVERAGE
 BUILDING SETBACKS:

REQUIRED SETBACKS	PROPOSED SETBACKS
*FRONT SETBACK: 10 FT	**FRONT SETBACK: 0 FT
SIDE SETBACK: 20 FT	SIDE SETBACK: >30 FT
*REAR SETBACK: 10 FT	REAR SETBACK: >15 FT

*8-18-16 BOA MEETING APPROVAL BVDY 1-816 OF REDUCED SETBACKS.
 **BUILDING TO MEET REQUIREMENTS IN SECTION 18-184 (12)

OPEN SPACE REQUIREMENTS
 33% OF TRACT AREA = 14,377 X 0.33 = 5,032 SF REQUIRED
 5,241 SF PROVIDED

SITE HAS BEEN EVALUATED BY LAND MANAGEMENT AND USACE AND NO WETLANDS ARE ON SITE.

Approved Construction Plan

Name _____ Date _____
 Planning _____
 Traffic _____
 Fire _____



Public Services Engineering Division
 APPROVED PLAN - NO PERMIT REQUIRED

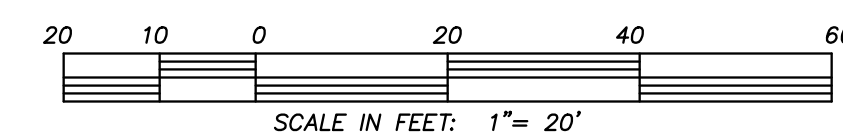
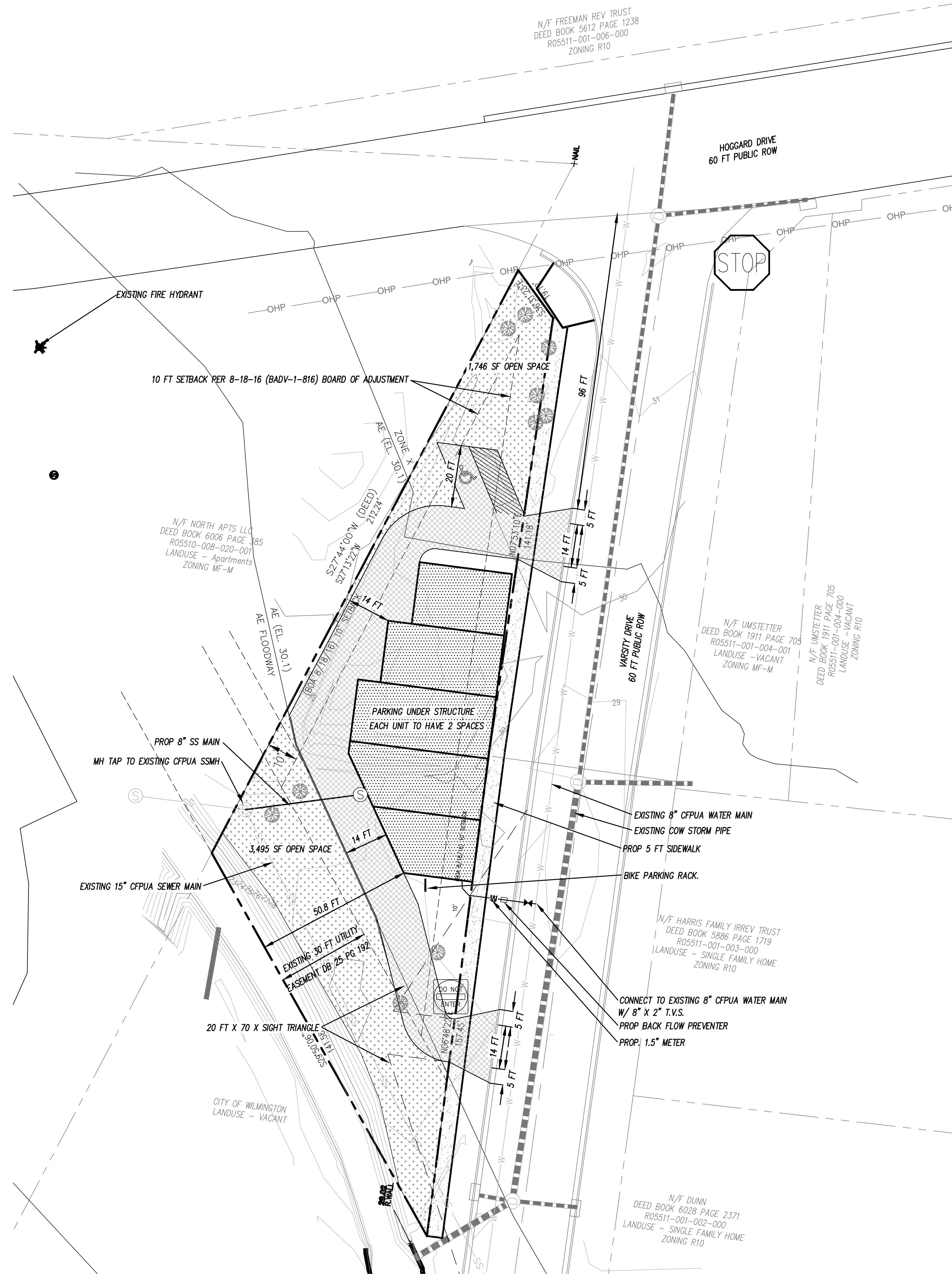
Signed: _____

LEGEND

- EXISTING BOUNDARY
- - - CENTERLINE OF RIGHT OF WAY
- - - CONTOUR LINE & ELEVATION
- ⊙ EXISTING SANITARY SEWER & MANHOLE
- ⊙ EXISTING WATERLINE
- ⊙ EXISTING FIRE HYDRANT
- EXISTING STORM DRAIN
- ⊙ EXISTING TREE
- PROP STORM DRAIN
- ⊙ PROP FIRE HYDRANT
- ⊙ PROP GATE VALVE
- ⊙ PROP WATER METER
- ⊙ PROP SANITARY SEWER & MANHOLE
- W --- PROP WATER MAIN

- OPEN SPACE
- ▨ PROP BUILDING FOOTPRINT
- ▨ PROP ASPHALT

For each open utility cut of City streets, a \$325 permit shall be required from the City prior to occupancy and/or project acceptance.



TRAFFIC ENGINEERING NOTES:

- 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 RECORDING OF THE FINAL PLAT. PLAN SHALL ADHERE TO SD 15-17.
- TRAFFIC CONTROL DEVICES (INCLUDING SIGNS AND PAVEMENT PARKINGS) IN AREAS OPEN TO PUBLIC TRAFFIC ARE TO MEET MUTCD STANDARDS.
- OPEN CUT NOTES:
 - A UTILITY CUT PERMIT IS REQUIRED FOR EACH OPEN CUT OF A CITY STREET. CONTACT 910-341-5888 FOR MORE DETAILS. IN CERTAIN CASES AN ENTIRE RESURFACING OF THE AREA BEING OPEN CUT MAY BE REQUIRED.
 - CONTRACTOR TO COORDINATE WITH CITY OF WILMINGTON FOR ACCEPTABLE HOURS OF CONSTRUCTION AND TRAFFIC CONTROL DURING INSTALLATION OF UTILITIES IN CITY ROADS.
 - SUITABLE COMPACTION AND APPROVED STONE & BASE COURSES TO BE INSTALLED IN PLACE OF OPEN CUT.
 - OPEN CUT TO BE SAW CUT.
- ALL PAVEMENT MARKINGS IN PUBLIC RIGHTS OF WAY AND FOR DRIVEWAYS ARE TO BE THERMOPLASTIC AND MEET CITY AND/OR MUTCD STANDARDS.
- 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.
- CALL TRAFFIC ENGINEERING AT 341-7888 FORTY-EIGHT HOURS PRIOR TO ANY EXCAVATION IN THE RIGHT OF WAY.
- TRAFFIC WARNING MATS ARE TO BE INSTALLED ON ALL WHEELCHAIR RAMPS.
- ANY BROKEN OR MISSING SIDEWALK PANELS, DRIVEWAY PANELS AND CURBING WILL BE REPLACED.
- ALL TRAFFIC CONTROL SIGNS AND MARKINGS OFF THE RIGHT OF WAY ARE TO BE MAINTAINED BY THE PROPERTY OWNER IN ACCORDANCE WITH MUTCD STANDARDS.
- ALL PARKING STALL MARKINGS AND LANE ARROWS WITHIN THE PARKING AREA SHALL BE WHITE.
- CONTACT TRAFFIC ENGINEERING AT 341-7888 TO DISCUSS STREET LIGHTING OPTIONS.
- ALL PROPOSED VEGETATION WITHIN SIGHT TRIANGLES SHALL NOT INTERFERE WITH CLEAR VISUAL SIGHT LINES FROM 30 INCHES - 10 FT.
- CONTACT TRAFFIC ENGINEERING AT 341-7888 48 HOURS PRIOR TO ANY EXCAVATION IN THE ROW.

ENVIRONMENTAL NOTES:

- NO LAND DISTURBANCE IS PERMITTED OUTSIDE THE DESIGNATED LIMITS OF DISTURBANCE FOR SITE IMPROVEMENTS OTHER THAN WHAT IS NECESSARY TO FIT INTO EXISTING CONTOURS OR MEET LANDSCAPING REQUIREMENTS.

DEVELOPMENT NOTES:

- ALL SIGNS AND PAVEMENT MARKINGS IN AREAS OPEN TO PUBLIC TRAFFIC ARE TO MEET MUTCD STANDARDS.
- THE CONTRACTOR IS RESPONSIBLE FOR THE LOCATION AND PROTECTION OF EXISTING UTILITIES DURING CONSTRUCTION. CALL U-LOD AT 1-800-632-4949. CONTRACTOR IS RESPONSIBLE FOR THE REPAIR AND REPLACEMENT OF ANY UTILITIES, CURB AND GUTTER, SIDEWALK PANELS, 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.
- EACH UNIT WILL UTILIZE COW HAND TOTES FOR SOLID WASTE DISPOSAL. TOTES WILL BE STORED IN GARAGE OF EACH UNIT.
- ALL DEVELOPMENT SHALL BE IN ACCORDANCE WITH THE CITY OF WILMINGTON ZONING ORDINANCE & SUBDIVISION REGULATIONS.
- APPROVAL OF SITE PLAN DOES NOT CONSTITUTE APPROVAL OF PROPOSED SIGNAGE FOR THIS SITE. A SEPARATE SIGN PERMIT MUST BE OBTAINED.
- APPLICABLE STREET FRONTAGES SHALL HAVE NATURAL VEGETATIVE SCREENING MEETING CITY REQUIREMENTS.
- THE DEVELOPMENT SHALL COMPLY WITH ALL CITY TECHNICAL STANDARDS AND DEVELOPMENT REGULATIONS.
- PRIMARY BUILDING ENTRANCES SHALL BE CLEARLY DEFINED AND SHALL BE RECESSED AT LEAST FIVE FEET OF FRAMED BY AN ARCHITECTURAL ELEMENT. PRIMARY ENTRANCES SHOULD BE CLEARLY DISTINCTIVE FROM OTHER ENTRANCES. SECONDARY OUTSIDE BUILDING ENTRANCES TO UPPER FLOORS ON THE PRIMARY FACADE SHALL ALIGN WITH THE OUTER MOST WINDOW ON THE FRONT FACADE.

WATER & SEWER USAGE NOTES:

CURRENT WATER USAGE 0 GPD PROPOSED WATER USAGE 1,320 GPD
 CURRENT SEWER USAGE 0 GPD PROPOSED SEWER USAGE 1,320 GPD
 WATER - 11 BEDROOM X 120 GPD = 1,320 GPD
 SEWER - 11 BEDROOMS X 120 GPD = 1,320 GPD

FIRE & LIFE SAFETY NOTES:

- LANDSCAPING OR PARKING CANNOT BLOCK OR IMPEDE FIRE HYDRANTS OR FDC'S. A 3FT CLEAR SPACE SHALL BE MAINTAINED AROUND THE CIRCUMFERENCE OF THE HYDRANT.
- CONTRACTOR SHALL MAINTAIN AN ALL WEATHER ACCESS FOR EMERGENCY VEHICLES AT ALL TIMES DURING CONSTRUCTION.
- PRIVATE UNDERGROUND FIRE LINES REQUIRE A SEPARATE FIRE LINE PERMIT FROM COW FIRE AND LIFE SAFETY DIVISION, 910-343-0696.
- IN ADDITION TO THE STANDARD COMMENTS, ADDITIONAL FIRE PROTECTION AND ACCESSIBILITY REQUIREMENTS MAY BE REQUIRED DUE TO ANY SPECIAL CIRCUMSTANCES CONCERNING THE PROJECT.

UTILITY NOTES:

- PROJECT SHALL COMPLY WITH THE CITY OF WILMINGTON AND CPWA CROSS CONNECTION CONTROL REQUIREMENTS. WATER METER(S) CANNOT BE SET AND ACTIVATED ON NEW MAINS UNTIL ALL REQUIREMENTS ARE MET. CALL 343-3910 FOR INFORMATION.
- IF THE CONTRACTOR DESIRES WATER FOR CONSTRUCTION HE/SHE SHALL APPLY IN ADVANCE FOR THIS SERVICE AND MUST PROVIDE A REINFORCED PRESSURE ZONE (RPZ) BACKFLOW PREVENTION DEVICE ON THE DEVELOPER'S SIDE OF THE WATER METER BOX.
- ALL COMMERCIAL WATER SERVICES AND ANY IRRIGATION SYSTEMS SUPPLIED BY CPWA WATER SHALL HAVE A BACKFLOW PREVENTION DEVICE ACCEPTABLE TO THE CPWA AND APPROVED BY USFCCOOR OR ASSE. CALL 789-6844 FOR INFORMATION.
- WHEN PVC WATER MAINS AND/OR POLYETHYLENE SERVICES ARE PROPOSED, THE PIPES ARE TO BE MARKED WITH NO. 10 INSULATED COPPER WIRE INSTALLED THE ENTIRE LENGTH AND STRAPPED TO THE PIPES WITH DUCT TAPE - THE INSULATED WIRE IS TO BE STRIPPED TO BARE WIRE AND SECURED TO ALL VALVES AND FITTINGS. THE WIRE IS TO BE ACCESSIBLE AT ALL FIRE HYDRANTS AND WATER METER BOXES TO AID IN FUTURE LOCATION OF FACILITIES.
- 30" MINIMUM COVER OVER ALL WATER MAINS.
- ANY SEPARATE CONNECTION FOR IRRIGATION SHALL COMPLY WITH CITY AND CPWA CROSS-CONNECTION REQUIREMENTS WITH APPROVED BACKFLOW PREVENTION DEVICES.
- AT LOCATIONS WHERE WATER MAIN CROSSES UNDER SANITARY SEWER, DUCTILE IRON PIPE SHALL BE USED ALONG WITH PROVIDING 24" MINIMUM OF VERTICAL SEPARATION.
- WATER SERVICES CAN NOT BE ACTIVATED ON NEW WATER MAINS UNTIL ENGINEER'S CERTIFICATION AND APPLICANT'S CERTIFICATION HAVE BEEN PROVIDED TO NCDENR AND "FINAL APPROVAL" ISSUED.
- UNDERGROUND UTILITIES- ALL NEW UTILITIES SHALL BE INSTALLED UNDERGROUND, EXCEPT WHERE SUCH PLACEMENT IS PROHIBITED OR DEEMED IMPRACTICAL BY THE UTILITY PROVIDER. UNDERGROUND FACILITIES FOR STREET LIGHTING ALONG ALL PUBLIC STREETS ADJUTING THE SUBJECT SITE SHALL BE INSTALLED BY THE DEVELOPER.

LANDSCAPE NOTES:

- REFERENCE LANDSCAPE PLAN
- 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 DEPT. FOR REVIEW AND APPROVAL PRIOR TO RECORDING OF THE FINAL PLAT.

PARKING NOTES:

- 4 - 2 BEDROOM UNITS = 2 SPACES PER UNIT
 1 - 3 BEDROOM UNITS = 2.25 SPACES
 10 SPACES MINIMUM REQUIRED - 11 SPACES SHOWN
- EACH UNIT TO HAVE 2 SPACES UNDERNEATH

GENERAL NOTES:

- NEW HANOVER COUNTY PARCEL NUMBERS:
 PID = R05511-001-004-003
- TOTAL PROJECT AREA: 14,377 SF (0.33 AC)
- EXISTING ZONING DISTRICT: MF-M
- LAND CLASSIFICATION: URBAN & CONSERVATION AREA
- THIS SITE IS LOCATED WITHIN ZONE "AE" ELEV 30.1 AND ZONE "X" ACCORDING TO FEMA FIRM COMMUNITY PANEL NUMBER 3720313700L EFFECTIVE DATE 4/3/06
- SITE ADDRESS: 598 VARSITY DRIVE
- EXISTING IMPERVIOUS ONSITE = 0 SF
- ASBLT, BOUNDARY AND TOPOGRAPHIC SURVEY PERFORMED AND PROVIDED TO CSD ENGINEERING BY DANFORD ASSOCIATES; VERTICAL DATUM = 88
- STORMWATER DRAINS TO BURNT MILL CREEK, C.S.W 74-63-2
- LAND OWNER - JEJ INVESTMENTS LLC
 1705 CHESTNUT STREET
 WILMINGTON, NC 28405



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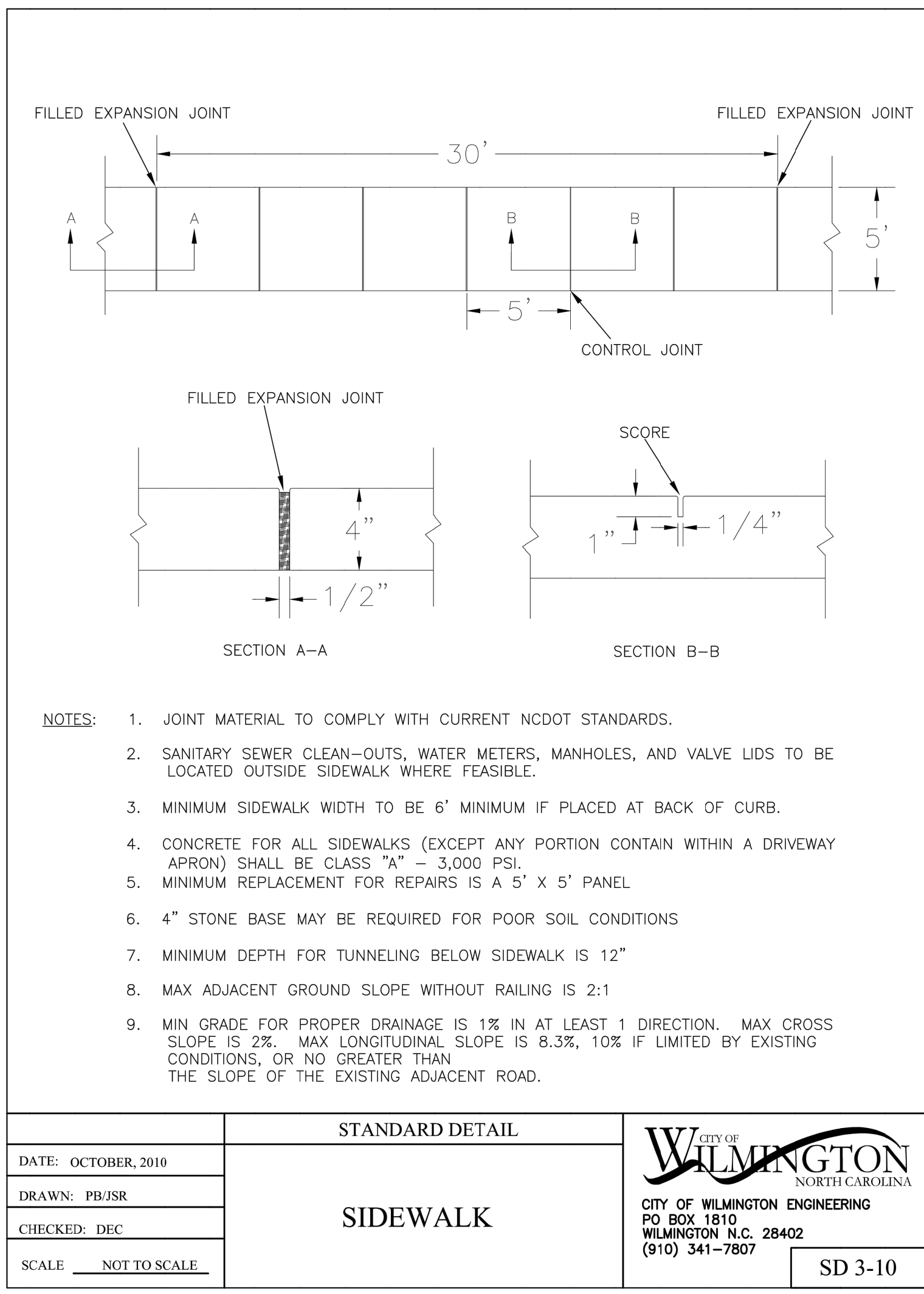
SITE PLAN FOR
 SIERRA HEIGHTS
 598 VARSITY DRIVE

OWNER: JEJ INVESTMENTS LLC
 1705 CHESTNUT STREET
 WILMINGTON, NC 28405

PRELIMINARY

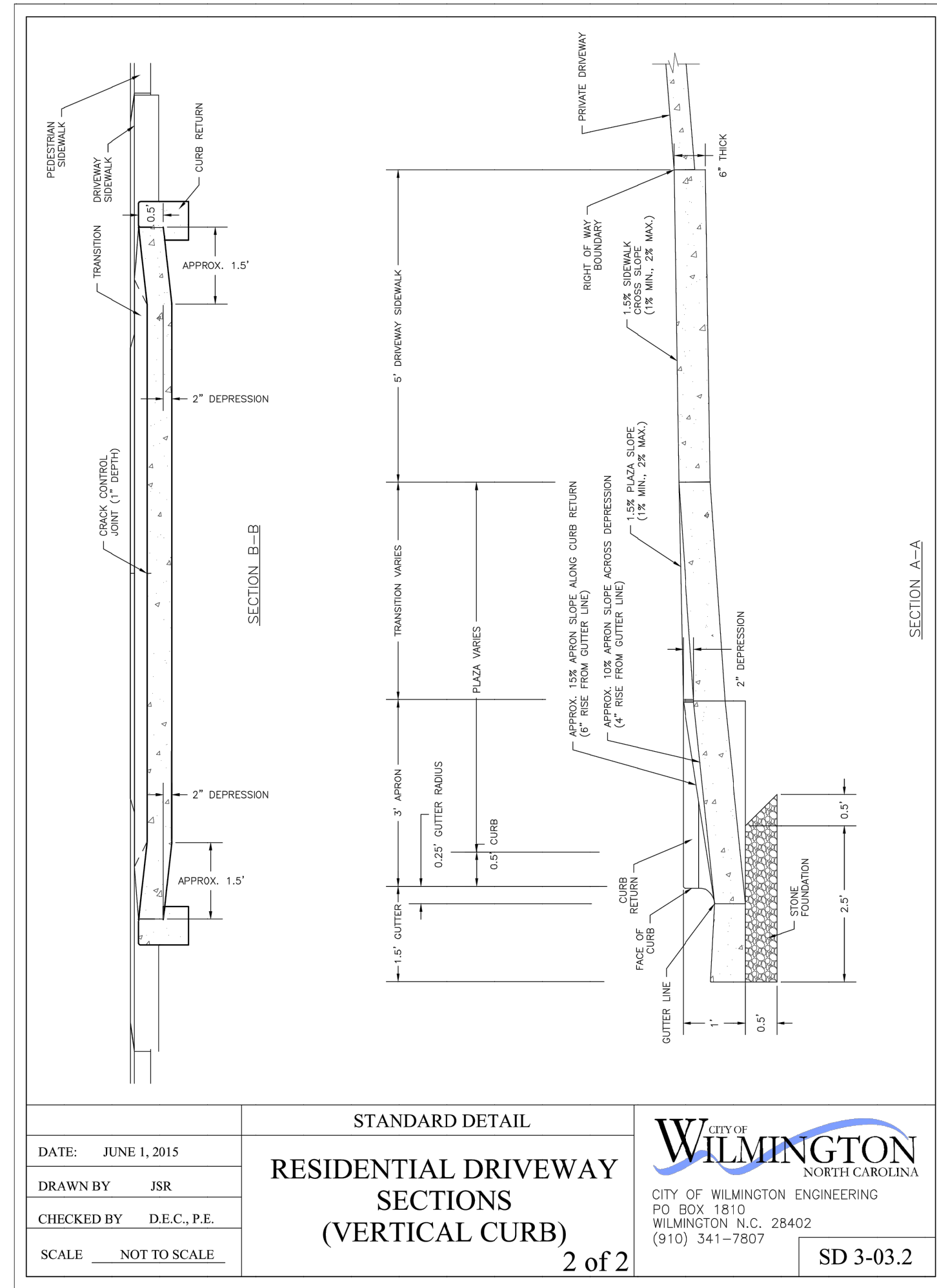
REV. NO.	DATE	BY	REMARKS
1	5-6-17	RLW	
2	4-20-17	RLW	

DATE: 2-26-17
 HORZ. SCALE: 1" = 20'
 VERT. SCALE: N/A
 DRAWN BY: RLW
 CHECKED BY: HSR
 PROJECT NO.: 16-380

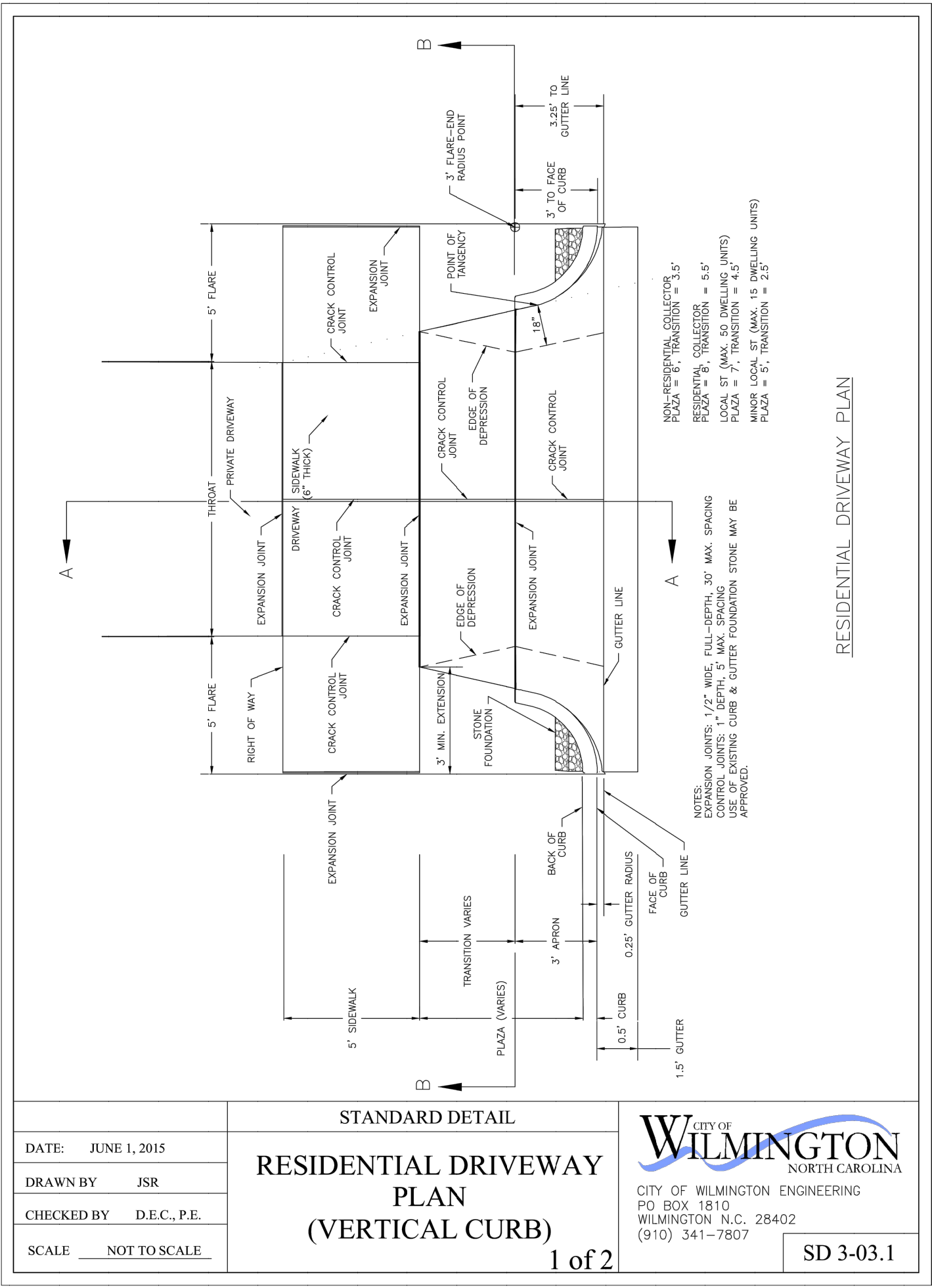


- NOTES:**
1. JOINT MATERIAL TO COMPLY WITH CURRENT NCDOT STANDARDS.
 2. SANITARY SEWER CLEAN-OUTS, WATER METERS, MANHOLES, AND VALVE LIDS TO BE LOCATED OUTSIDE SIDEWALK WHERE FEASIBLE.
 3. MINIMUM SIDEWALK WIDTH TO BE 6' MINIMUM IF PLACED AT BACK OF CURB.
 4. CONCRETE FOR ALL SIDEWALKS (EXCEPT ANY PORTION CONTAIN WITHIN A DRIVEWAY APRON) SHALL BE CLASS "A" - 5,000 PSI.
 5. MINIMUM REPLACEMENT FOR REPAIRS IS A 5' X 5' PANEL.
 6. 4" STONE BASE MAY BE REQUIRED FOR POOR SOIL CONDITIONS
 7. MINIMUM DEPTH FOR TUNNELING BELOW SIDEWALK IS 12"
 8. MAX ADJACENT GROUND SLOPE WITHOUT RAILING IS 2:1
 9. MIN GRADE FOR PROPER DRAINAGE IS 1% IN AT LEAST 1 DIRECTION. MAX CROSS SLOPE IS 2%. MAX LONGITUDINAL SLOPE IS 8.3%, 10% IF LIMITED BY EXISTING CONDITIONS, OR NO GREATER THAN THE SLOPE OF THE EXISTING ADJACENT ROAD.

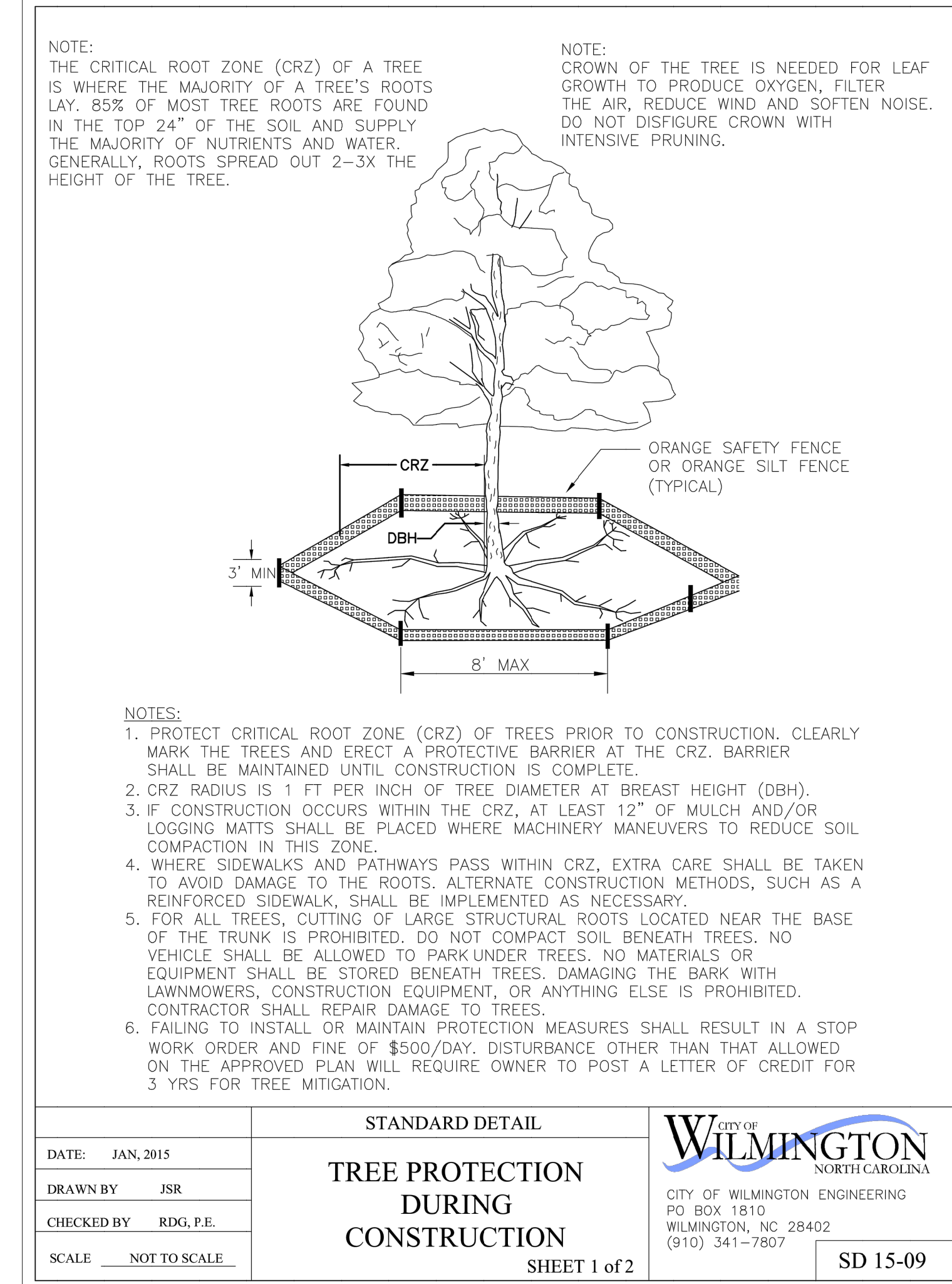
DATE: OCTOBER, 2010		<p>CITY OF WILMINGTON ENGINEERING PO BOX 1810 WILMINGTON, N.C. 28402 (910) 341-7807</p>	SD 3-10
DRAWN BY: PB/JSR			
CHECKED BY: DEC			
SCALE: NOT TO SCALE			



DATE: JUNE 1, 2015		<p>CITY OF WILMINGTON ENGINEERING PO BOX 1810 WILMINGTON, N.C. 28402 (910) 341-7807</p>	SD 3-03.2
DRAWN BY: JSR			
CHECKED BY: D.E.C., P.E.			
SCALE: NOT TO SCALE			



DATE: JUNE 1, 2015		<p>CITY OF WILMINGTON ENGINEERING PO BOX 1810 WILMINGTON, N.C. 28402 (910) 341-7807</p>	SD 3-03.1
DRAWN BY: JSR			
CHECKED BY: D.E.C., P.E.			
SCALE: NOT TO SCALE			

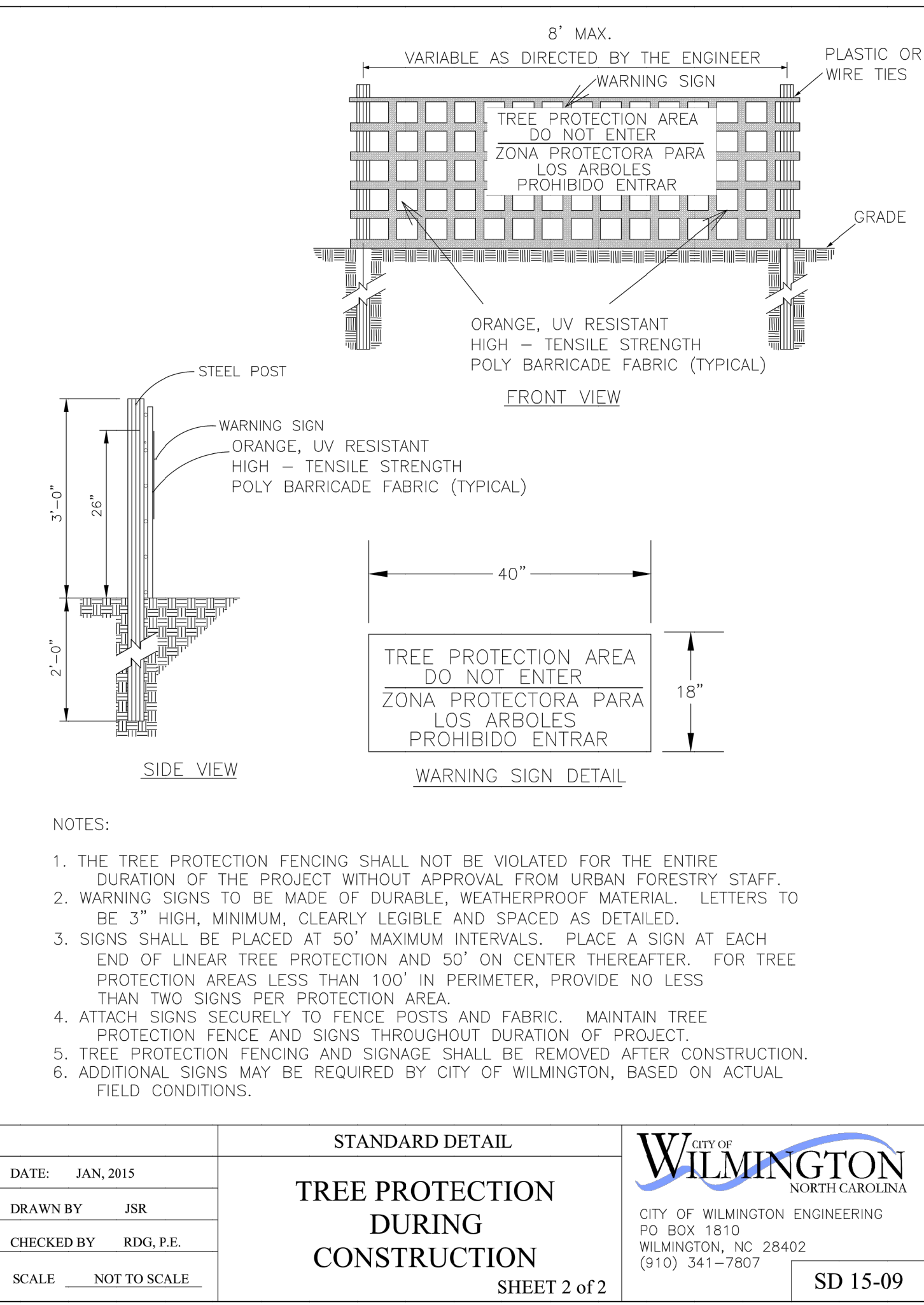


NOTE: THE CRITICAL ROOT ZONE (CRZ) OF A TREE IS WHERE THE MAJORITY OF A TREE'S ROOTS LAY. 85% OF MOST TREE ROOTS ARE FOUND IN THE TOP 24" OF THE SOIL AND SUPPLY THE MAJORITY OF NUTRIENTS AND WATER. GENERALLY, ROOTS SPREAD OUT 2-3X THE HEIGHT OF THE TREE.

NOTE: CROWN OF THE TREE IS NEEDED FOR LEAF GROWTH TO PRODUCE OXYGEN, FILTER THE AIR, REDUCE WIND AND SOFTEN NOISE. DO NOT DISFIGURE 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. CONTRACTOR SHALL REPAIR DAMAGE TO TREES.
 6. 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 ENGINEERING PO BOX 1810 WILMINGTON, NC 28402 (910) 341-7807</p>	SD 15-09
DRAWN BY: JSR			
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			
CHECKED BY: RDG, P.E.			
SCALE: NOT TO SCALE			

Approved Construction Plan

Name _____ Date _____

Planning _____

Traffic _____

Fire _____

WILMINGTON NORTH CAROLINA

Public Services Engineering Division

APPROVED PLAN - NO PERMIT REQUIRED

Signed: _____

For each open utility cut of City streets, a \$325 permit shall be required from the City prior to occupancy and/or project acceptance.

CSD ENGINEERING

LICENSE # C-2710

ENGINEERING

LAND PLANNING

COMMERCIAL / RESIDENTIAL

P.O. BOX 4041
WILMINGTON, NC 28406
(910) 791-4441

SITE PLAN DETAILS

SIERRA HEIGHTS

598 VARSITY DRIVE

OWNER: JEJ INVESTMENTS LLC

1705 CHESTNUT STREET

WILMINGTON, NC 28405

PRELIMINARY

REV.	DATE	BY	REMARKS
1	4-20-17	RLW	REVISED PER TRC COMMENTS

DATE: 2-26-17

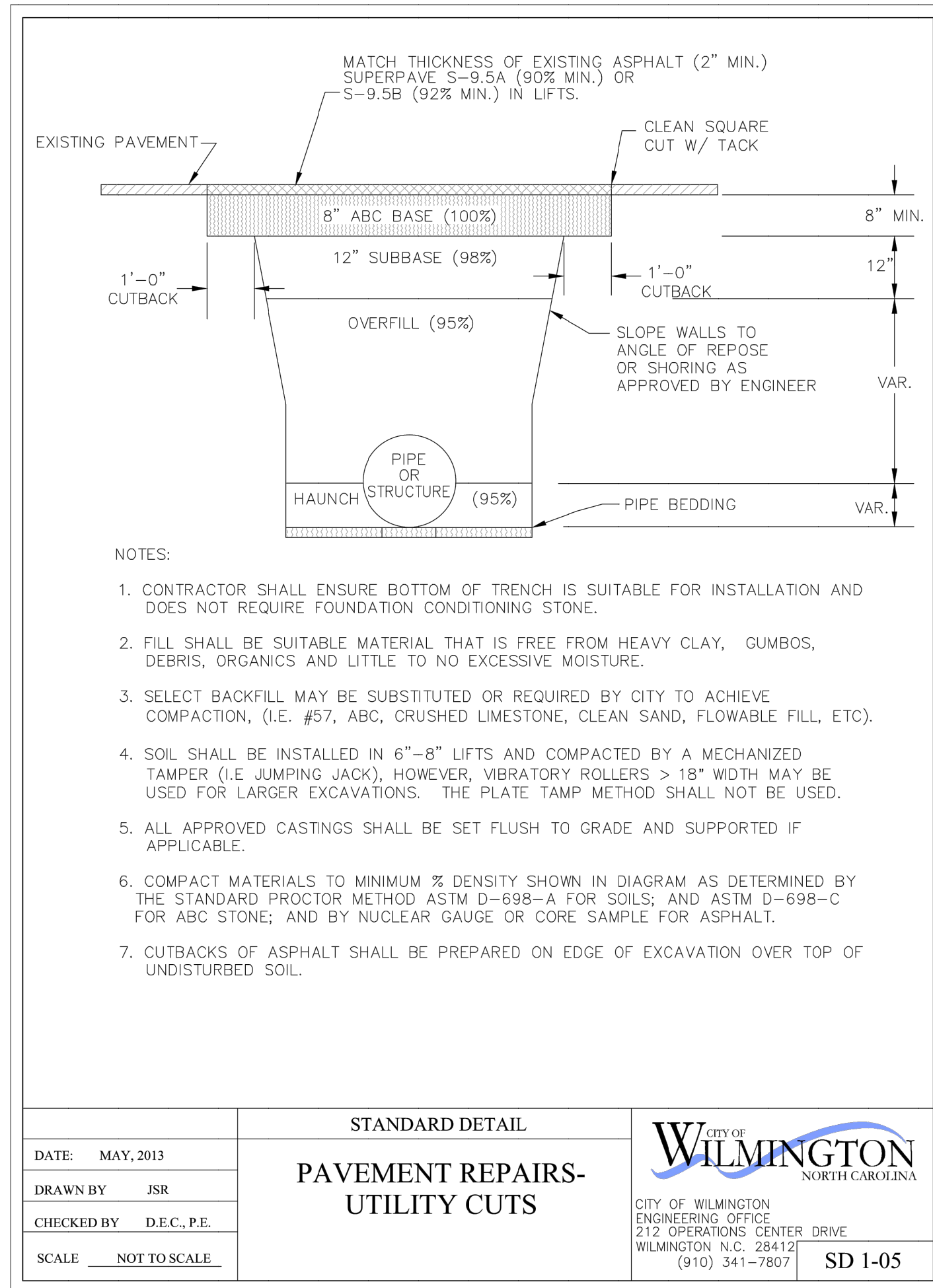
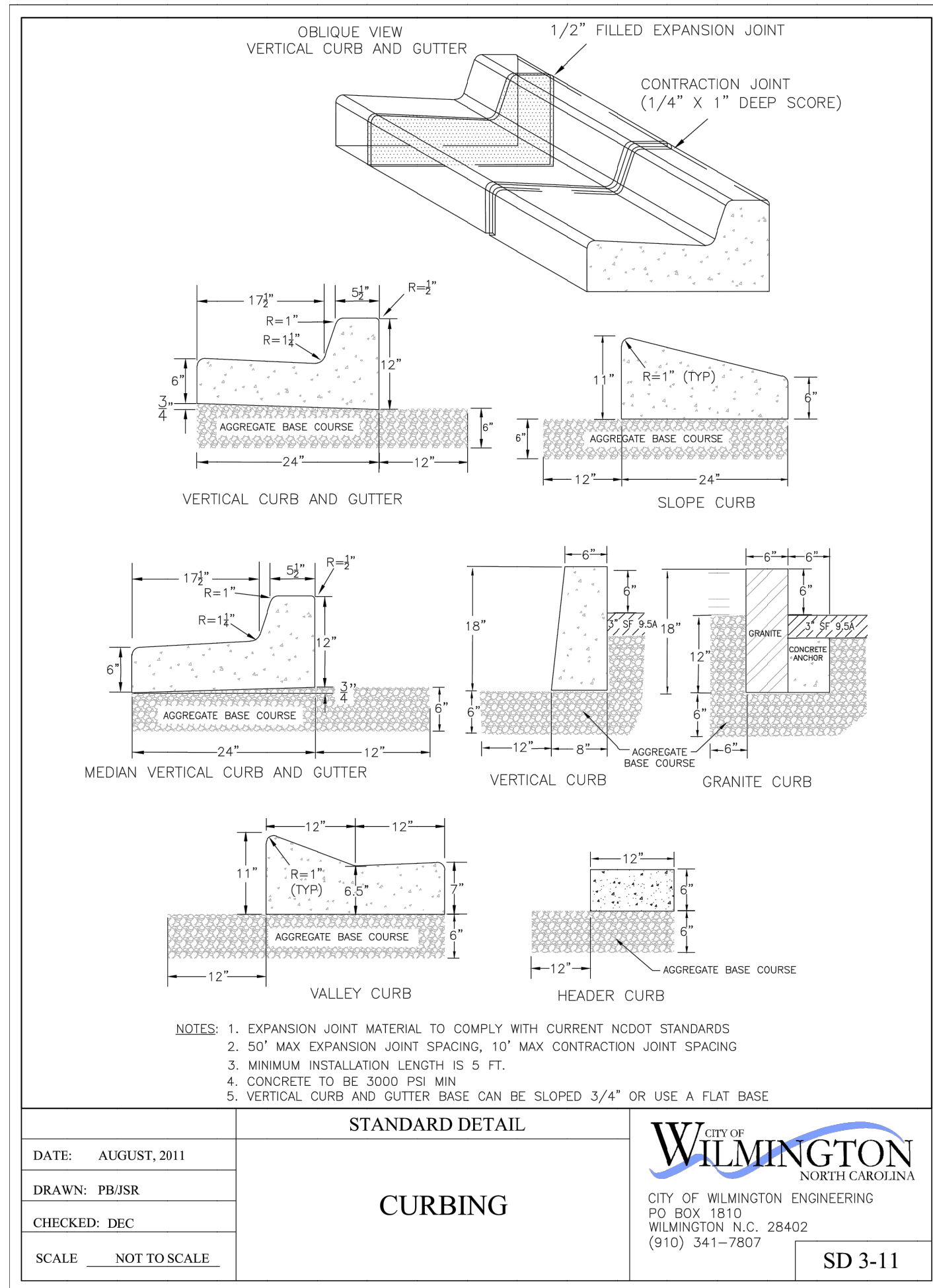
HORIZ. SCALE: AS NOTED

VERT. SCALE: N/A

DRAWN BY: RLW

CHECKED BY: HSR

PROJECT NO.: 16-0380



Approved Construction Plan

Name _____ Date _____

Planning _____

Traffic _____

Fire _____

CITY OF WILMINGTON
NORTH CAROLINA
Public Services • Engineering Division
APPROVED PLAN - NO PERMIT REQUIRED

Signed: _____

For each open utility cut of City streets, a \$325 permit shall be required from the City prior to occupancy and/or project acceptance.

CSD ENGINEERING

LICENSE # C-2710
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(910) 791-4441

SITE PLAN DETAILS
SIERRA HEIGHTS
598 VARSITY DRIVE

This plan was prepared by CSD Engineering, Inc. on behalf of the City of Wilmington, North Carolina. It is not to be used for any other project without the express written consent of CSD Engineering, Inc. The City of Wilmington, North Carolina, is not responsible for the accuracy of this plan.

SITE PLAN DETAILS
SIERRA HEIGHTS
598 VARSITY DRIVE
LOCATED IN CITY OF WILMINGTON
NEW HANOVER COUNTY, NORTH CAROLINA

OWNER: JEJ INVESTMENTS LLC
1705 CHESTNUT STREET
WILMINGTON, NC 28405

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REV. NO.	REMARKS	BY	DATE

DATE: 2-26-17
HORIZ. SCALE: AS NOTED
VERT. SCALE: N/A
DRAWN BY: RLW
CHECKED BY: HSR
PROJECT NO.: 16-0380