# LOCATION MAP NOT TO SCALE

US HIGHWAY 17 OLEANDER DRIVE

HYDRANT.

2 HOURS.

AT ALL TIMES DURING CONSTRUCTION.

OR INSPECTIONS BEING PERFORMED.

UTILITY NOTES:

910-343-0696 FOR ADDITIONAL INFORMATION.

CONSTRUCTION MATERIALS BEING BROUGHT ONSITE

REQUIREMENTS ARE MET. CALL 343-3910 FOR INFORMATION.

DEVICE ON THE DEVELOPER'S SIDE OF THE WATER METER BOX.

AND WATER METER BOXES TO AID IN FUTURE LOCATION OF FACILITIES.

TRAFFIC ENGINEERING NOTES:

6. ANY SEPARATE CONNECTION FOR IRRIGATION SHALL COMPLY WITH CITY AND CFPUA

BE USED ALONG WITH PROVIDING 24" MINIMUM OF VERTICAL SEPARATION.

CROSS-CONNECTION REQUIREMENTS WITH APPROVED BACKFLOW PREVENTION DEVICES.

USCFCCCHR OR ASSE. CALL 799-6064 FOR INFORMATION.

5. 36"MINIMUM COVER OVER ALL WATER MAINS.

TRAFFIC ARE TO MEET MUTCD STANDARDS.

BEING OPEN CUT MAY BE REQUIRED.

AND MEET CITY AND/OR NCDOT STANDARDS.

D. OPEN CUT TO BE SAW CUT.

APPROVAL" ISSUED.

3. OPEN CUT NOTES:

OPEN CUT.

RIGHT OF WAY.

**WATER & SEWER USAGE NOTES:** 

CURRENT WATER USAGE UNKNOWN GPD PROPOSED WATER USAGE 74,800 GPD

CURRENT SEWER USAGE UNKNOWN GPD PROPOSED SEWER USAGE 74,800 GPD 180 -- 1 BEDROOM X 120 GPD = 21,600 GPD

1. LANDSCAPING OR PARKING CANNOT BLOCK OR IMPEDE FIRE HYDRANTS OR FDC'S. A

3FT CLEAR SPACE SHALL BE MAINTAINED AROUND THE CIRCUMFERENCE OF THE

2. CONTRACTOR SHALL MAINTAIN AN ALL WEATHER ACCESS FOR EMERGENCY VEHICLES

WILMINGTON FIRE DEPARTMENT FROM THE PUBLIC RIGHT OF WAY TO THE BUILDING.

CONTACT THE WILMINGTON FIRE DEPARTMENT DIVISION OF FIRE AND LIFE SAFETY AT

4. FIRE INSPECTOR MUST WITNESS THE HYDROSTATIC TESTING. MINIMUM TESTING TIME IS

5. A 24 HOUR MINIMUM NOTIFICATION IS NEEDED PRIOR TO ANY OF THE ABOVE TEST(s)

6. FDC CONNECTIONS CAN BE NO FURTHER THAN 40 FT FROM FIRE VEHICLE ACCESS.

8. NEWLY INSTALLED FIRE HYDRANTS MUST BE OPERATIONAL PRIOR TO COMBUSTIBLE

9. ALL ISOLATION VALVES WITHIN A "HOTBOX" SHALL BE ELECTRICALLY SUPERVISED.

1. PROJECT SHALL COMPLY WITH THE CITY OF WILMINGTON AND CFPUA CROSS CONNECTION CONTROL

REQUIREMENTS. WATER METER(S) CANNOT BE SET AND ACTIVATED ON NEW MAINS UNTIL ALL

2. IF THE CONTRACTOR DESIRES WATER FOR CONSTRUCTION HE/SHE SHALL APPLY IN ADVANCE FOR

THIS SERVICE AND MUST PROVIDE A REDUCED PRESSURE ZONE (RPZ) BACKFLOW PREVENTION

SHALL HAVE A BACKFLOW PREVENTION DEVICE ACCEPTABLE TO THE CFPU'A AND APPROVED BY

4. 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

SECURED TO ALL VALVES AND FITTINGS. THE WIRE IS TO BE ACCESSIBLE AT ALL FIRE HYDRANTS

3. ALL COMMERCIAL WATER SERVICES AND ANY IRRIGATION SYSTEMS SUPPLIED BY CFPUA WATER

THE PIPES WITH DUCT TAPE. THE INSULATED WIRE IS TO BE STRIPPED TO BARE WIRE AND

7. AT LOCATIONS WHERE WATER MAIN CROSSES UNDER SANITARY SEWER, DUCTILE IRON PIPE SHALL

8. WATER SERVICES CAN NOT BE ACTIVATED ON NEW WATER MAINS UNTIL ENGINEER'S CERTIFICATION AND APPLICANT'S APPLICANT'S CERTIFICATION HAVE BEEN PROVIDED TO NCDENR AND \*FINAL

1. 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 SD

2. TRAFFIC CONTROL DEVICES (INCLUDING SIGNS AND PAVEMENT MARKINGS) IN AREAS OPEN TO PUBLIC

910-341-5888 FOR MORE DETAILS. IN CERTAIN CASES AN ENTIRE RESURFACING OF THE AREA

CONSTRUCTION AND TRAFFIC CONTROL DURING INSTALLATION OF UTILITIES IN CITY ROADS. C. SUITABLE COMPACTION AND APPROVED STONE & BASE COURSES TO BE INSTALLED IN PLACE OF

. ALL PAVEMENT MARKINGS IN PUBLIC RIGHTS OF WAY AND FOR DRIVEWAYS ARE TO BE THERMOPLASTIC

5. It shall be the résponsibility 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 AND STREET NAME SIGNS. PROPOSED STREET

A. A UTILITY CUT PERMIT IS REQUIRED FOR EACH OPEN CUT OF A CITY STREET. CONTACT

B. CONTRACTOR TO COORDINATE WITH CITY OF WILMINGTON FOR ACCEPTABLE HOURS OF

NAMES MUST BE APPROVED PRIOR TO INSTALLATION OF STREET NAME SIGNS.

7. FDC CONNECTIONS CAN BE NO FURTHER THAN 150 FT FROM A FIRE HYDRANT.

3. UNDERGROUND FIRE LINE MUST BE PERMITTED AND INSPECTED BY THE CITY OF

180 - 2 BEDROOM X 240 GPD = 43,200 GPD

18,000 SF COMMERCIAL = ASSUMED 10,000 GPD

FIRE & LIFE SAFETY NOTES:

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

WILMINGTON NORTH CAROLINA
Public Services • Engineering Division
APPROVED STORMWATER MANAGEMENT PLA
 Date: Permit #
Signed:

Approved Construction Plan							
Name	Date						
Planning							
Traffic							
	:						

SITE & BUILDING DATA:

 $TOTAL\ LOT\ AREA = 834,475\ SF\ (19.15\ AC)$ PROPERTY ADDRESS: IS 108 STATION ROAD

EXISTING DATA (DOESN'T INCLUDE DRIVEWAYS): EXISTING BUILDINGS ON SITE = 50,482

EXISTING PARKING & ROADS = 76,666 SF TOTAL ONSITE IMPERVIOUS AREA: 127,148 SF

127,148 SF / 834,475 SF EXISTING 15% IMPERVIOUS PROPOSED ONSITE DATA:

PROPOSED BUILDING AREA: 135,890 SF PROPOSED SIDEWALK AREA: 83,442 SF PROPOSED ROAD/PARKING: 312,773 SF TOTAL ONSITE IMPERVIOUS AREA: 532,105 SF 532.105 SF / 834.475 SF = 0.638 OR 64% IMPERVIOUS PROPOSED 64% IMPERVIOUS

**BUILDING DATA:** 

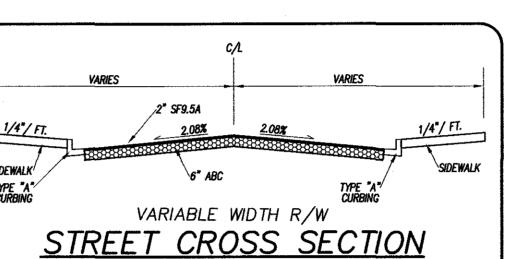
PROPOSED CONSTRUCTION TYPE = II B NUMBER OF BUILDINGS = 21 (19 NEW, 2 EXISTING) BUILDING MAX HEIGHT = 45 FT

PROPOSED BUILDING AREA: 135,890 SF. LOT COVERAGE: 135,890 SF / 834,475 SF = 16.3 PROPOSED 16% BUILDING LOT COVERAGE BUILDING SETBACKS:

REQUIRED SETBACKS | PROPOSED SETBACKS FRONT SETBACK: 20 FT | FRONT SETBACK: 20 FT | SIDE SETBACK: 7.5 FT | REAR SETBACK: 0 FT | REAR SETBACK: 0 FT

## PARKING DATA:

PARKING REQUIRED = 180 -- 1 BEDROOM APT = 1.0 X 180 = 180 180 - 2 BEDROOM APT = 1.0 X 180 = 18010,000 SF OFFICE PROFESSIONAL = 10,000 / 300 = 33 3.000 SF RETAIL = 3.000 / 400 = 85,000 SF RESTAURANTS = 5,000 / 80 = 63 PARKING REQUIRED = 464 SPACES PARKING PROVIDED = 698 SPACES BICYCLE PARKING  $698 / 100 = 7 \times 5 = 35 \text{ SPACES REQUIRED}$ 



## **DEVELOPMENT NOTES:**

2. 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 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.

3. SOLID WASTE DISPOSAL WILL BE DUMPSTER SERVICE.

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. 3. HVAC EQUIPMENT SHALL BE PLACED IN THE INTERIOR YARDS

. NO IRRIGATION CURRENTLY SPECIFIED, IF SO DESIRED THE IRRIGATION CONTROL MODULE MUST BE OUTFITTED W/ A RAIN

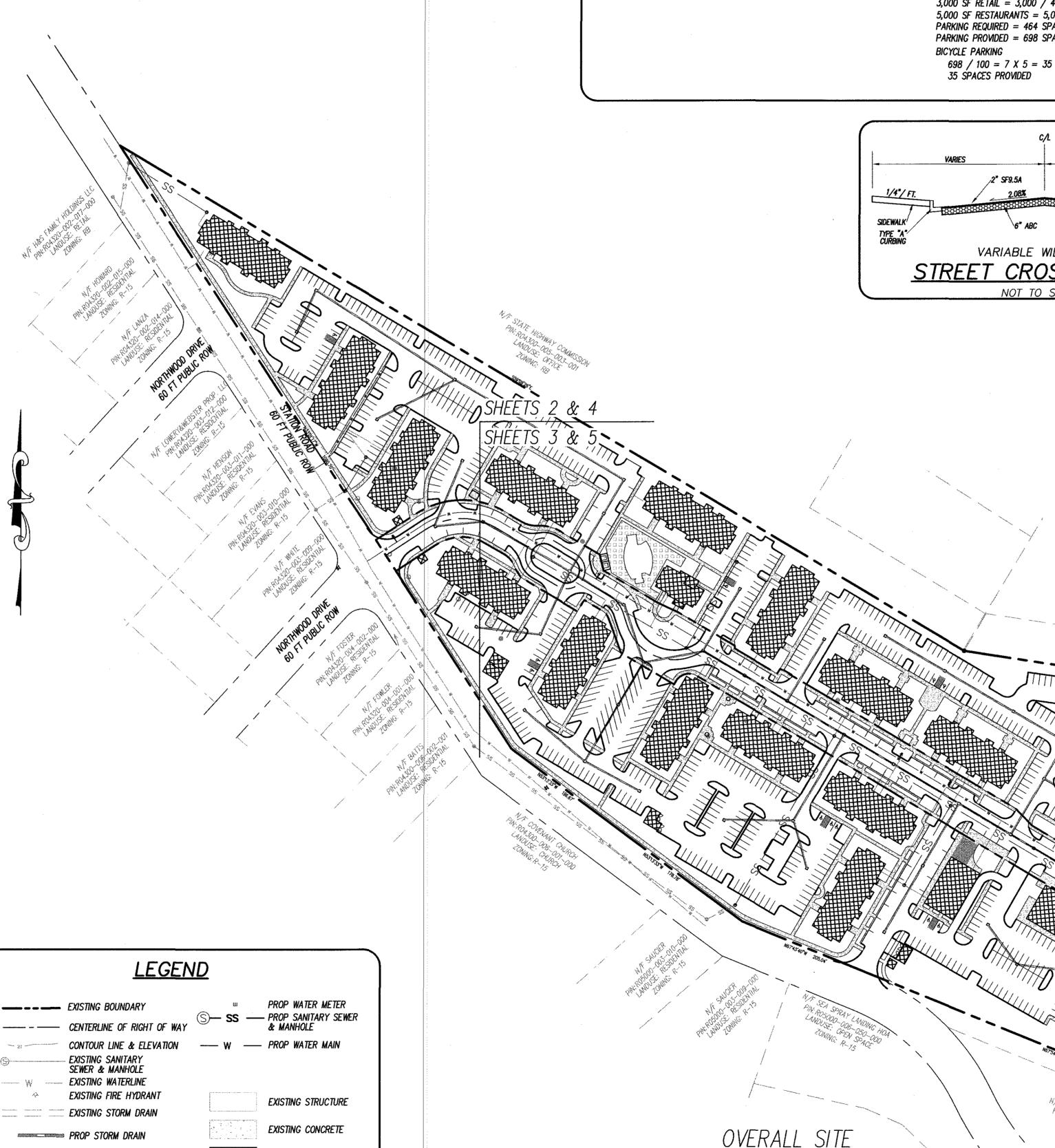
10. IF THESE UNITS ARE SOLD AT ANY POINT, THE BUYER MUST

NOT TO SCALE

TRAFFIC ARE TO MEET MUTCD STANDARDS.

4. ALL DEVELOPMENT SHALL BE IN ACCORDANCE WITH THE CITY OF WILMINGTON ZONING ORDINANCE & SUBDIVISION REGULATIONS.

RECEIVE A SUBDIVISION STREET DISCLOSURE STATEMENT.



PROP BUILDING FOOTPRINT

100 50 0

SCALE IN FEET: 1"= 100'

PROP CONCRETE

PROP FIRE HYDRANT

PROP GATE VALVE

**GENERAL NOTES:** 1. NEW HANOVER COUNTY PARCEL NUMBERS.: R04300-005-004-000,R04320-005-001-000,R04320-005-002-000 R04320-005-003-000,R04320-005-004-000,R04417-001-001-000 R04417-001-002-000,R04417-001-003-000,R04417-001-004-000 R04417-001-005-000.R04417-001-006-000.R05105-002-001-000

R05105-002-002-000,R05105-002-003-000,R05105-002-004-000 R04417-002-001-000,R04417-002-002-000,R04320-006-001-000 R04320-006-002-000,R04320-006-003-000,R04417-001-007-000

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

**ENGINEERING** 

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

# VARIANCE REQUEST

WILMINGTON NC 28405

1150 HARBORWAY PLACE

2. TOTAL PROJECT AREA: 834,475 s.f. (19.15 ac.±)

4. LAND CLASSIFICATION: WATERSHED RESOURCE PROTECTION

5. THIS SITE IS LOCATED IN ZONE X ACCORDING TO THE FEDERAL

COMMUNITY-PANEL NUMBER 3720315800 J. DATED: 4/3/06.

8. ASBUILT, BOUNDARY AND TOPOGRAPHIC SURVEY PERFORMED AND

PROVIDED TO CSD ENGINEERING BY BATEMAN CIVIL SURVEY

9. STORMWATER DRAINS TO CAPE FEAR RIVER, SC 18-71

EMERGENCY MANAGEMENT AGENCY'S FLOOD INSURANCE RATE MAP.

3. EXISTING ZONING DISTRICT: MHP WITH SHOD

6. SITE ADDRESS: 108 STATION ROAD

COMPANY VERTICAL DATUM = 88

10. OWNER - ARBORETUM WEST, LLC

EXISTING IMPERVIOUS ONSITE = 6,739 SF

1. A VARIANCE IS REQUESTED TO THE 800 FT ACCESS TO A THROUGH STREET.

2. A VARIANCE IS REQUESTED TO REDUCE CURB RADII TO 15 FT. 3. A VARIANCE IS REQUESTED FROM THE 100 FT SPACING BETWEEN HORIZONTAL CURVES IN CENTERLINE.

4. A VARIANCE IS REQUESTED FOR CENTERLINE RADII BEING LESS THAN 50 FT

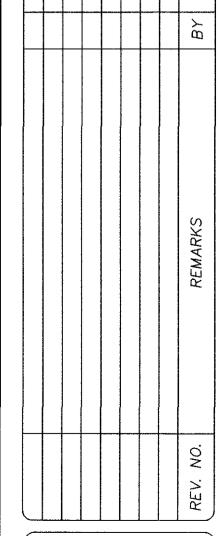
# **PARKING NOTES:**

HANDICAPPED SPACES REQUIRED = 2% OF TOTAL SPACES 698 X .02 = 14.0 REQUIRED

ALL SIGNS AND PAVEMENT MARKINGS IN AREAS OPEN TO PUBLIC

AND SCREENED FROM THE RIGHT-OF-WAY. THE UNITS WILL BE SCREENED FROM PUBLIC VIEW FROM ALL SIDES OF THE BUILDING.

A O A



DATE: 11/30/17 HORZ. SCALE: 1" = 1000' VERT. SCALE: N/A DRAWN BY: RLW CHECKED BY: HSR PROJECT NO.: 17-0417

. CONTACT 341–7888 TO DISCUSS STREET LIGHTING OPTIONS. 8. TACTILE WARNING MATS ARE TO BE INSTALLED ON ALL WHEELCHAIR RAMPS. 9. ANY BROKEN OR MISSING SIDEWALK PANELS, DRIVEWAY PANELS AND CURBING WILL BE REPLACED. 10. ALL TRAFFIC CONTROL SIGNS AND MARKINGS OFF THE RIGHT OF WAY ARE TO BE MAINTAINED BY THE PROPERTY OWNER IN ACCORDANCE WITH MUTCD STANDARDS.

11. ALL PARKING STALL MARKINGS AND LANE ARROWS WITHIN THE PARKING AREA SHALL BE WHITE. 12. INSTALL REFLECTORS PER CITY AND NCDOT STANDARDS. TRAFFIC ENGINEERING MUST APPROVE OF PAVEMENT MARKINGS LAYOUT PRIOR TO ACTUAL STRIPING.

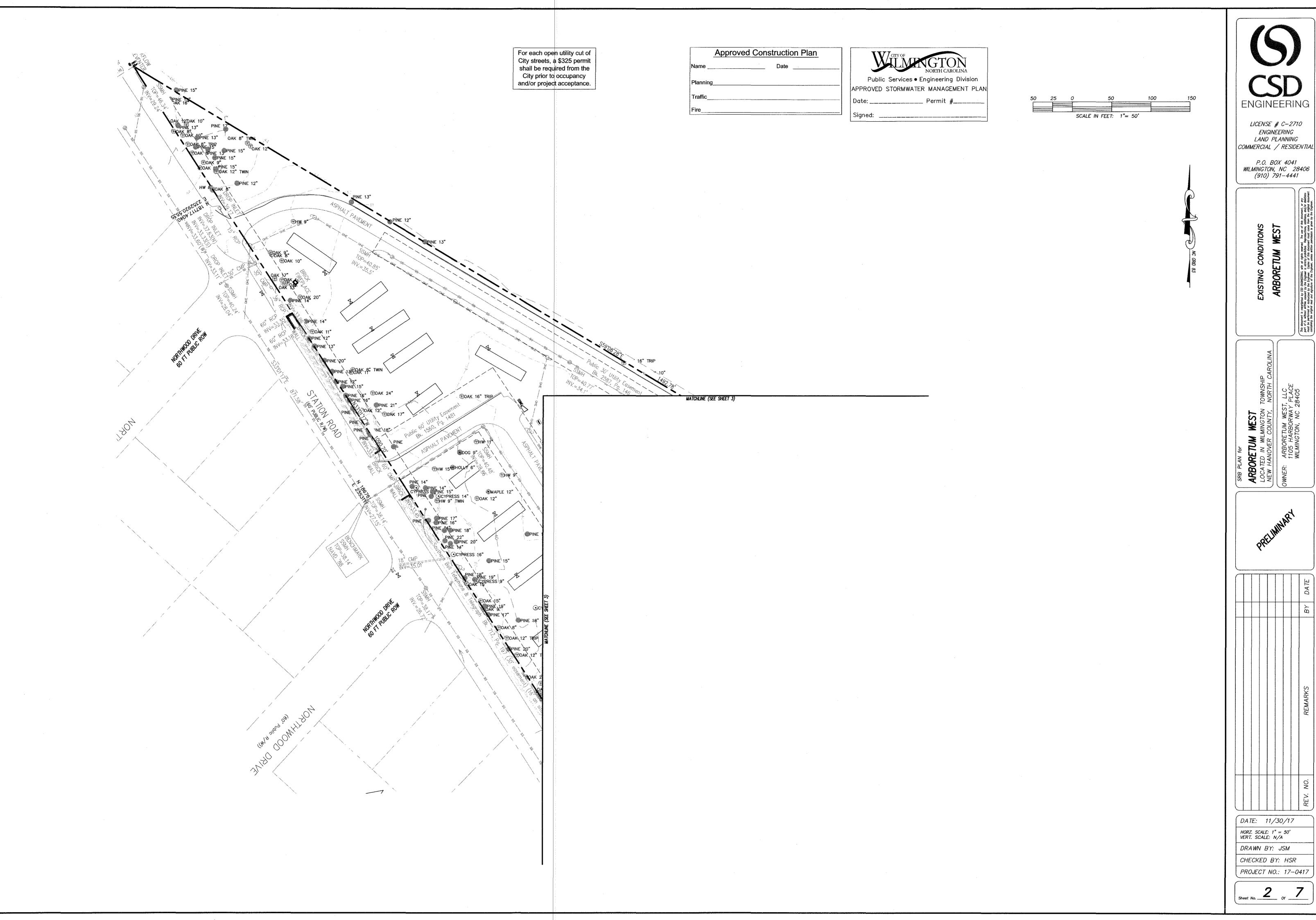
6. CALL TRAFFIC ENGINEERING AT 341-7888 FORTY-EIGHT HOURS PRIOR TO ANY EXCAVATION IN THE

13. CONTACT TRAFFIC ENGINEERING AT 341-7888 TO ENSURE THAT ALL TRAFFIC SIGNAL FACILITIES AND EQUIPMENT ARE SHOWN ON PLAN.

14. CONTACT 342-2786 TO DISCUSS PROPOSED REMOVAL / RECONFIGURATION/ CONSTRUCTION SEQUENCING RELATED TO ON STREET PARKING SPACES. 15. ALL PROPOSED VEGETATION WITHIN SIGHT TRIANGLES SHALL NOT INTERFERE WITH CLEAR VISUAL SIGHT

## LINES FROM 30" - 10'. **ENVIRONMENTAL NOTES:**

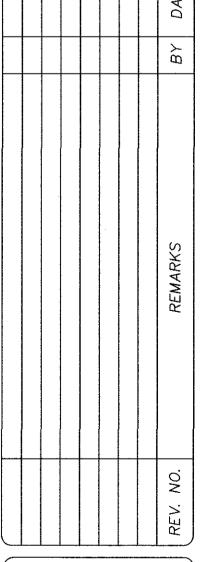
NO LAND DISTURBANCE IS PERMITTED OUTSIDE THE DESIGNATED LIMITS OF DISTURBANCE FOR SITE IMPROVEMENTS OTHER THAN WHAT IS NECESSARY TO TIE INTO EXISTING CONTOURS OR MEET LANDSCAPING REQUIREMENTS.



CSD ENGINEERING

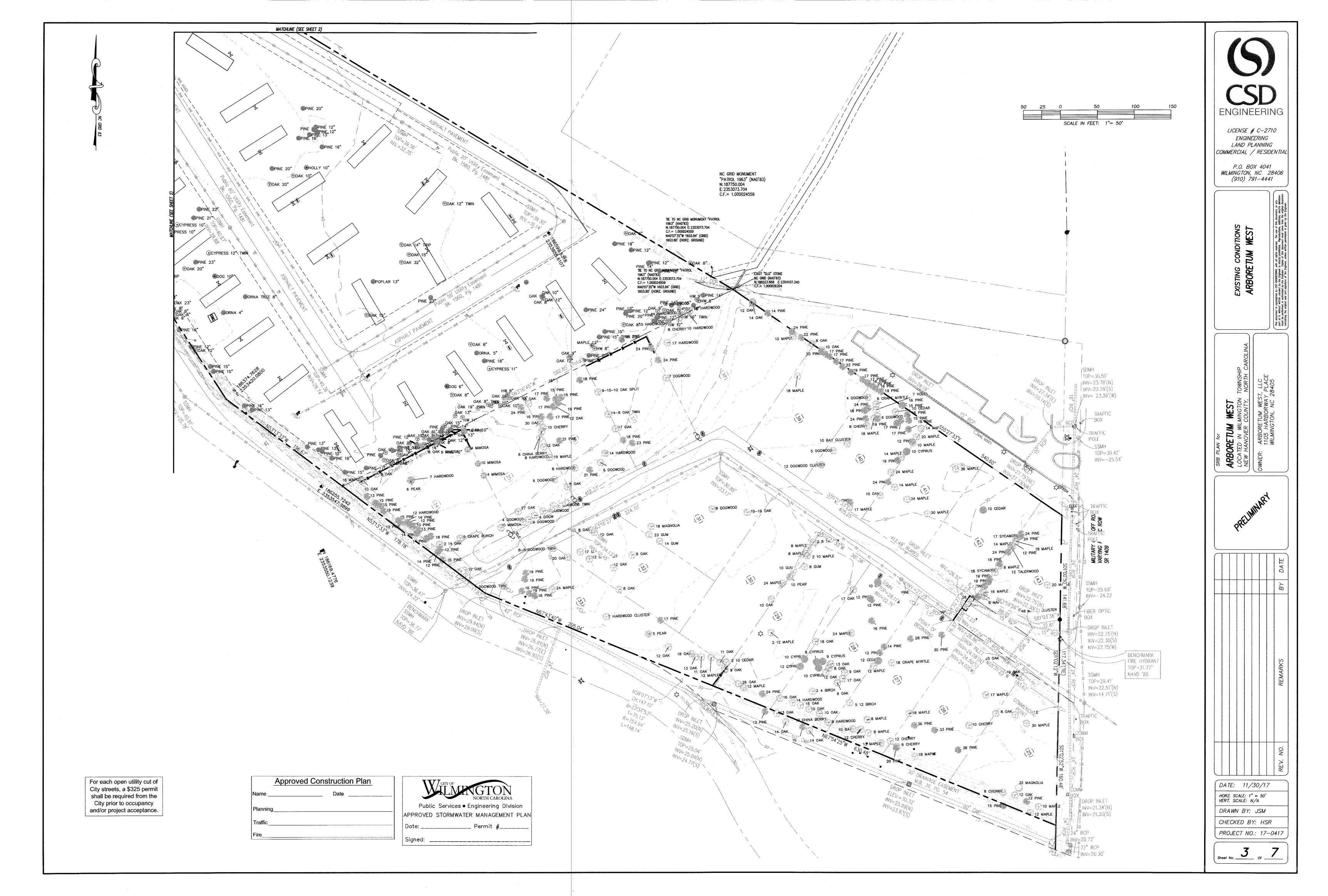
LICENSE # C-2710 ENGINEERING LAND PLANNING COMMERCIAL / RESIDENTIAL

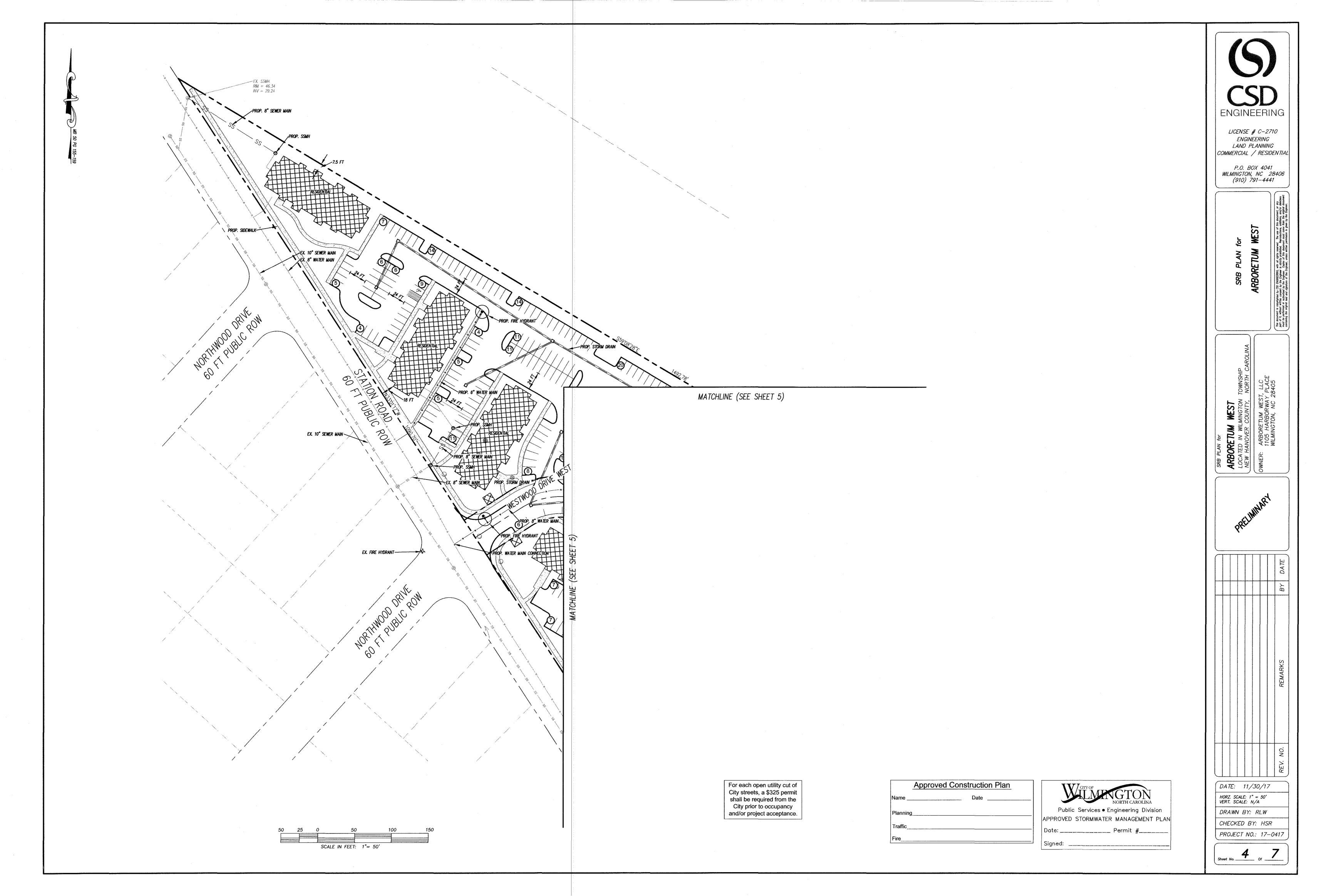


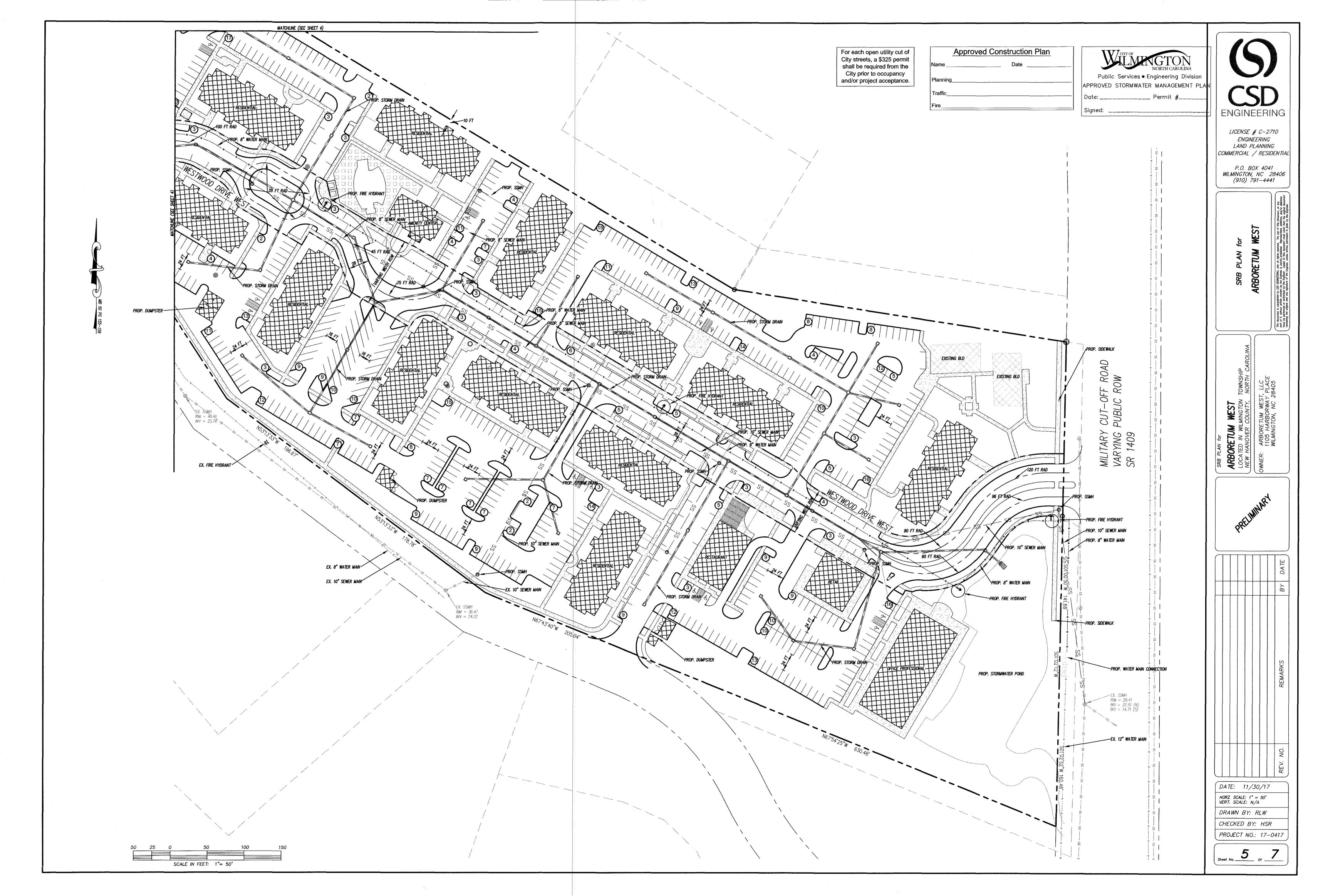


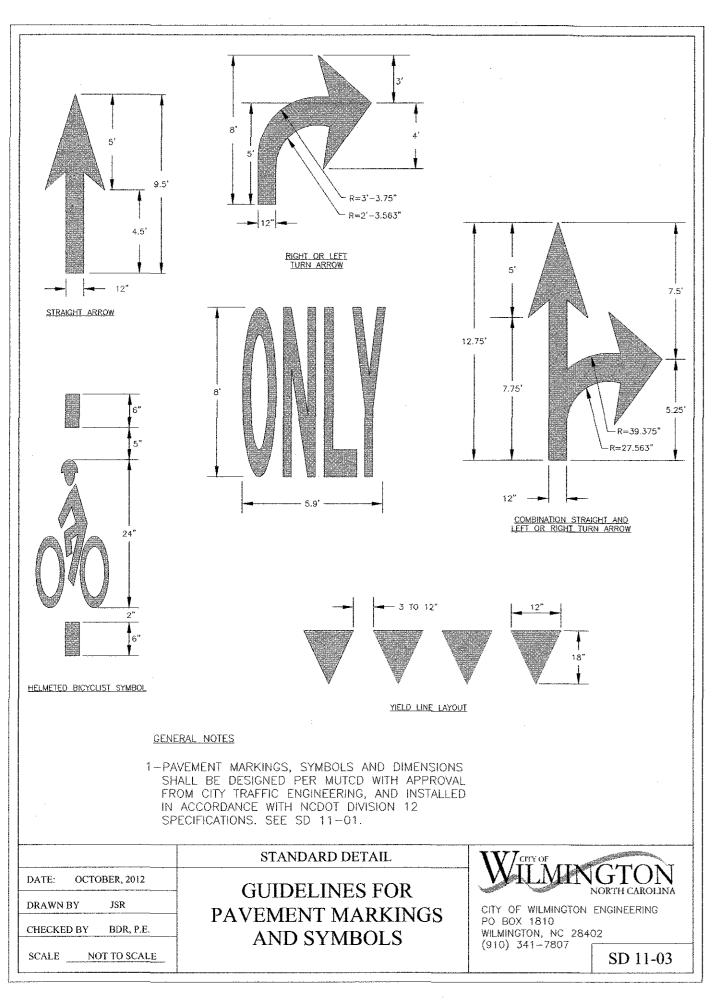
DATE: 11/30/17 HORZ. SCALE: 1" = 50' VERT. SCALE: N/A

CHECKED BY: HSR









3' APRON

<u>INSET</u>

0.5' CURB

BACK OF CURB-/ FACE OF CURB-

GUTTER LINE -

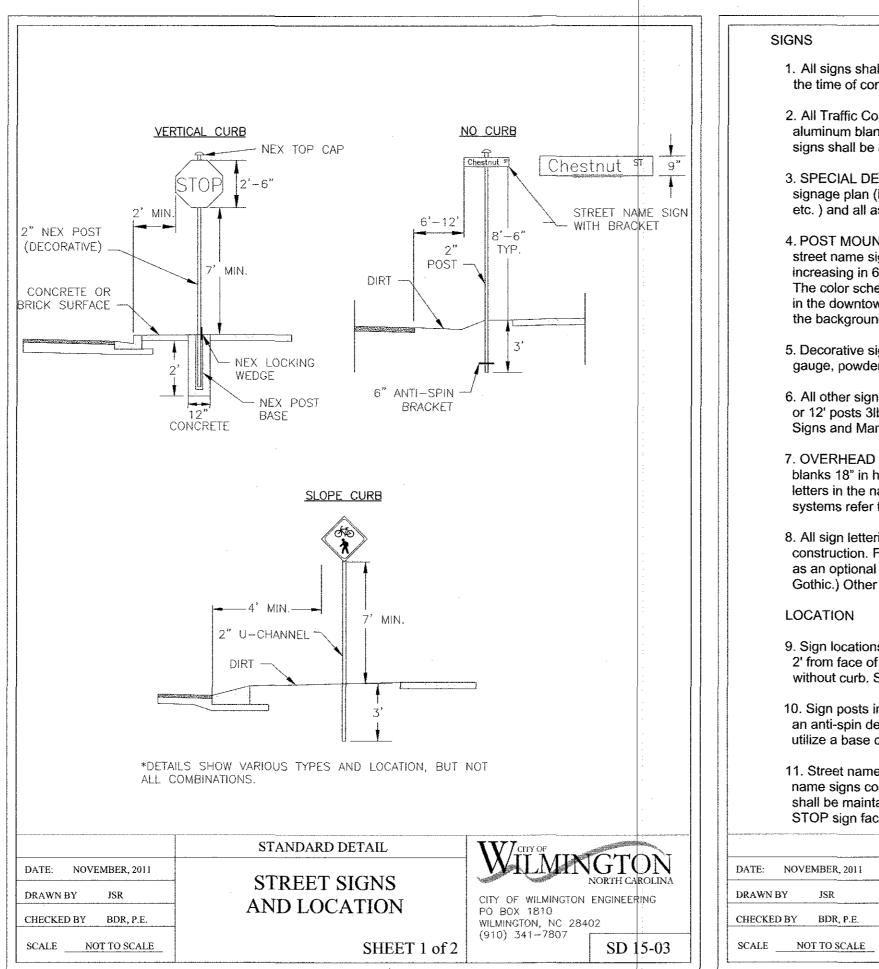
1.5' GUTTER

SEE INSET

COMMERCIAL DRIVEWAY
PLAN

WILLMINGTON NORTH CAROLINA

1 of 2



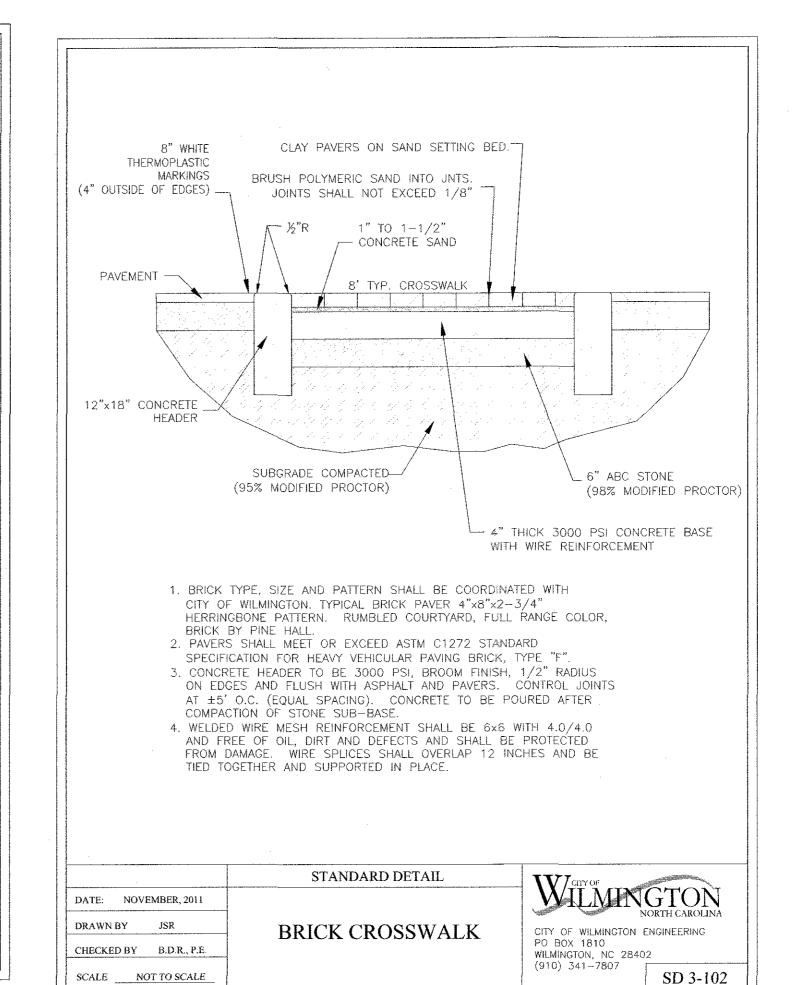
- 1. All signs shall meet the requirements of MUTCD and City Traffic Engineering in effect at the time of construction.
- 2. All Traffic Control Signs including multi-use paths shall be fabricated with 0.080 inch aluminum blanks using high intensity prismatic reflective sheeting Type IV or better. STOP signs shall be a minimum of 30"x30".
- 3. SPECIAL DESIGNATION signs by location and type shall adhere to City of Wilmington signage plan (ie. downtown, historic, cross-city trail, parks, riverfront, scenic by-way, parking, etc. ) and all associated policies.
- 4. POST MOUNTED STREET NAME SIGNS shall be fabricated with 9" extruded aluminum street name sign blanks using a standard cut-out. Minimum sign length is 18" long and increasing in 6" increments to 54" maximum as dictated by the number of letters in the name. The color scheme shall be white letters on a green background without a border. Generally, in the downtown and historic areas or as designated in the City of Wilmington signage plan the background shall be blue and contain a topper.
- 5. Decorative sign posts shall consist of the NEX sign support system, 2" octagonal tube, 14 gauge, powder coated glossy black and include cap, post, base and wedge.
- 6. All other sign posts shall be u-channel posts made of galvanized steel with 8' posts 2lbs/ft or 12' posts 3lbs/ft. Galvanized NEX post may be substituted with approval from the City Signs and Markings Engineer.
- 7. OVERHEAD STREET NAME SIGNS shall be fabricated with 0.080 inch aluminum flat sign blanks 18" in height using a standard cut-out. Sign length will be dictated by the number of letters in the name. For mast-arm type traffic signal supports and other overhead support systems refer to the design plans for maximum sign length.
- 8. All sign lettering, colors and fonts shall adhere to the MUTCD in effect at the time of construction. Florescent Yellow-Green shall be used on signs, in place of Yellow, when listed as an optional color in the MUTCD. Generally, the font will be FHWA series fonts (Highway Gothic.) Other font types require prior City Signs and Markings Engineer approval.

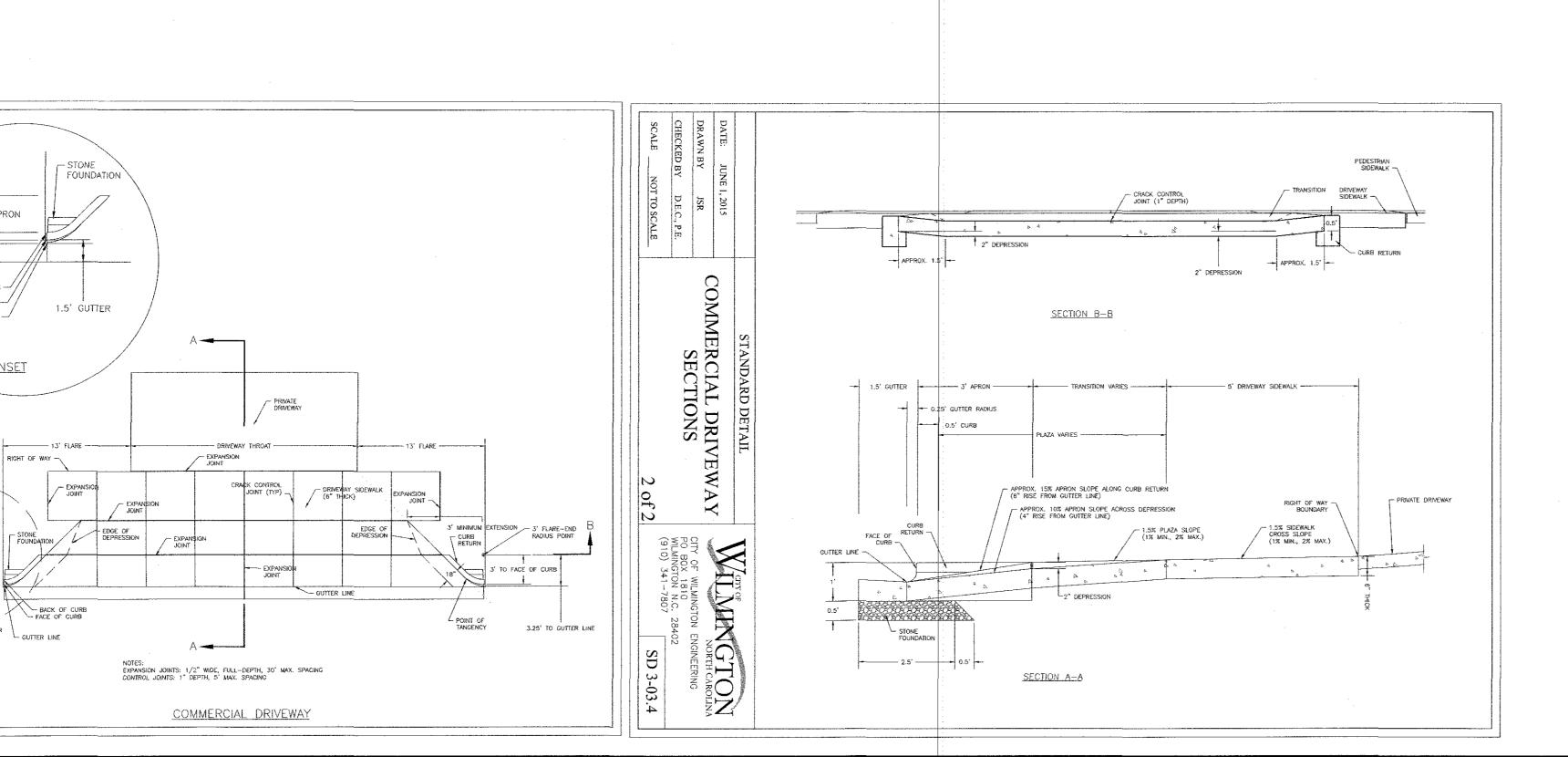
### LOCATION

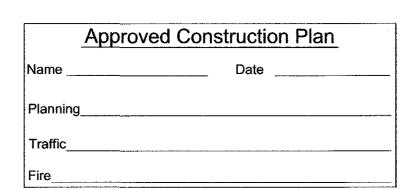
- 9. Sign locations depend on the edge of road condition. Generally, signs shall be a minimum 2' from face of a vertical curb, 4' from front of slope face curb, and 6' from edge of pavement without curb. Signs shall not be located more than 12' from any of these locations.
- 10. Sign posts installed in dirt shall be buried a minimum of 36". Octagonal posts shall utilize an anti-spin device, 6" in length minimum. Sign posts installed in concrete or brick shall utilize a base cast in concrete 24" x 12" diameter.
- 11. Street name signs shall be installed 8'-6" from the ground to the bottom of the sign. Street name signs co-located with STOP signs shall be installed above the STOP sign. A 6" space shall be maintained between the STOP sign and a Street name sign that is parallel to the STOP sign face. All other signs should be mounted per MUTCD guidelines for Urban Areas.

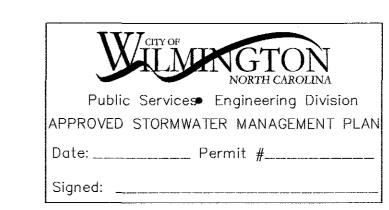
	STANDARD DETAIL	Waryof Caro
EMBER, 2011	STREET SIGNS	WALMINGTON NORTH CAROLIN
JSR	AND LOCATION	CITY OF WILMINGTON ENGINEERING
BDR, P.E.		PO BOX 1810 WILMINGTON, NC 28402
OT TO SCALE	SHEET 2 of 2	(910) 341–7807 SD 15-03

SD 15-03









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

LICENSE # C-2710 ENGINEERING LAND PLANNING COMMERCIAL / RESIDENTIAL

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

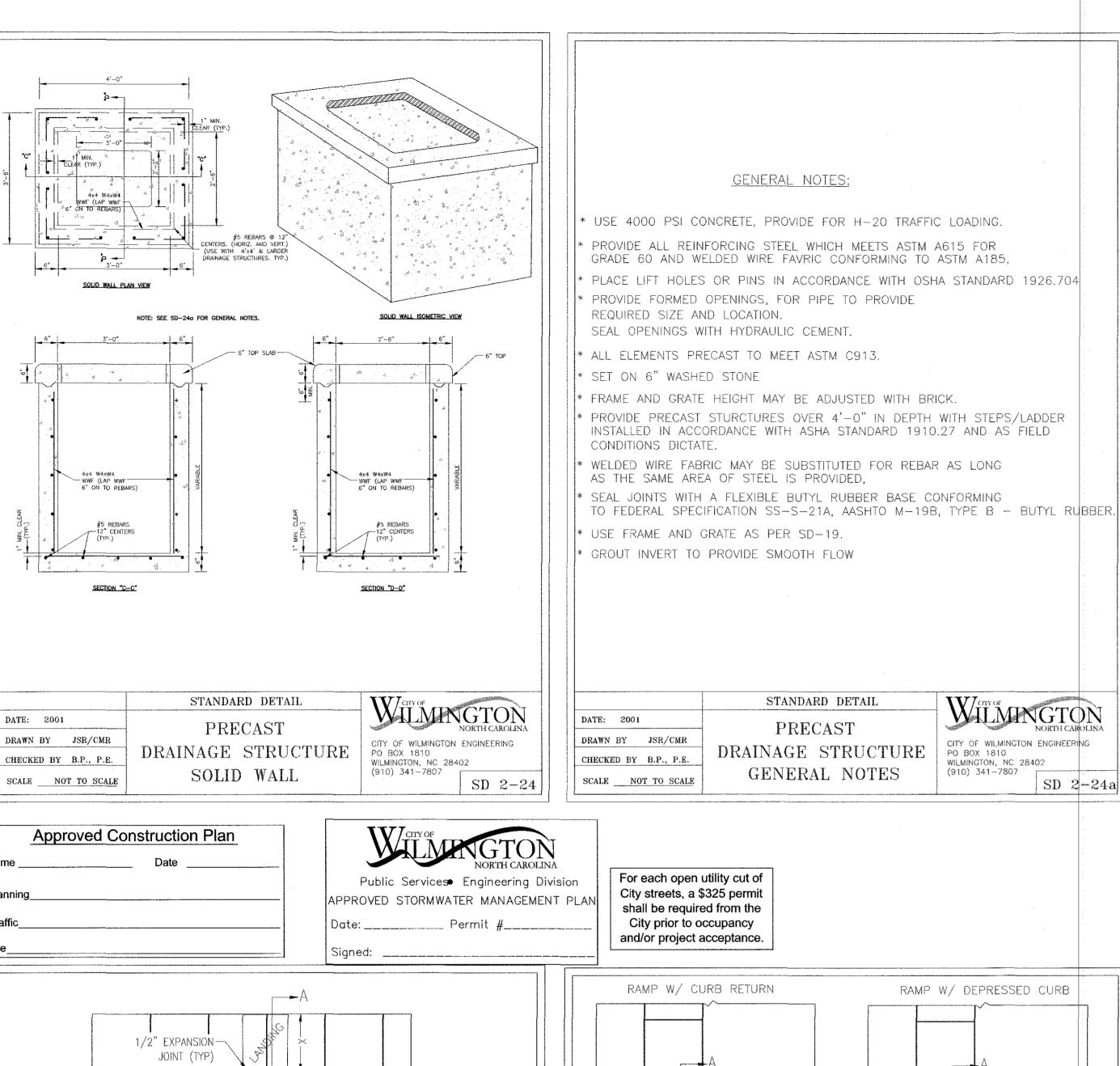
ARBORETUM LOCATED IN WILA NEW HANOVER C

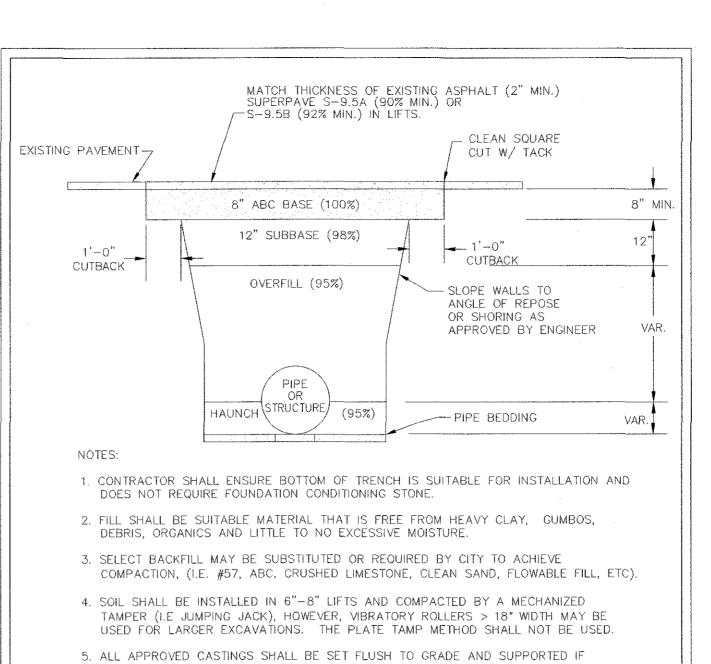


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						/4 =			$\overline{}$
	DATE: 11/15/17								
	HORZ. SCALE: 1" = 60' VERT. SCALE: N/A								
	DRAWN BY: JSM  CHECKED BY: HSR								

PROJECT NO.: 17-0417

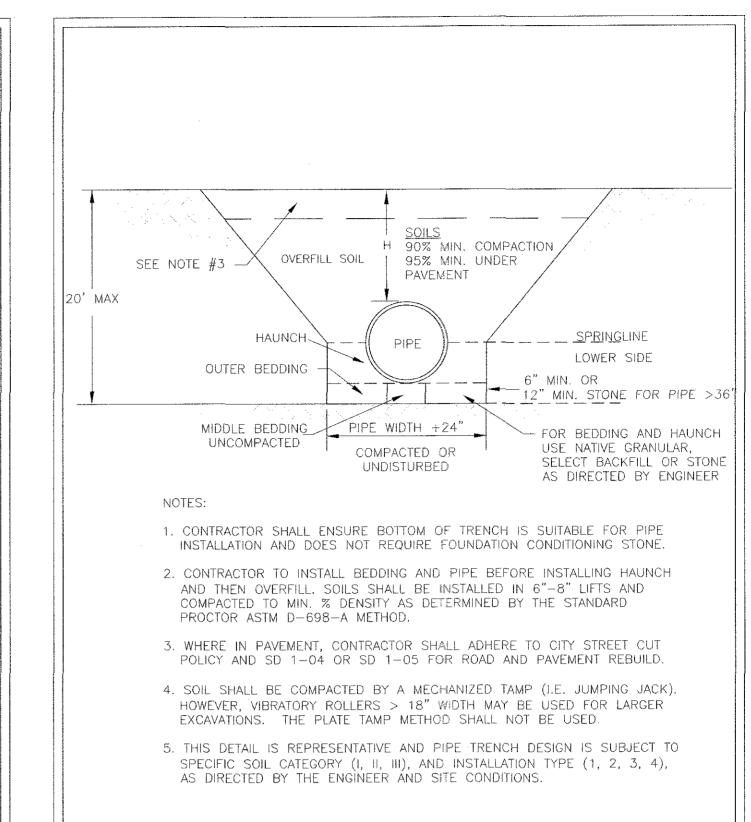
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- APPLICABLE.
- 6. COMPACT MATERIALS TO MINIMUM % DENSITY SHOWN IN DIAGRAM AS DETERMINED BY THE STANDARD PROCTOR METHOD ASTM D-698-A FOR SOILS; AND ASTM D-698-C FOR ABC STONE; AND BY NUCLEAR GAUGE OR CORE SAMPLE FOR ASPHALT.
- 7. CUTBACKS OF ASPHALT SHALL BE PREPARED ON EDGE OF EXCAVATION OVER TOP OF UNDISTURBED SOIL.

STANDARD DETAIL WILMINGTON PAVEMENT REPAIRS-DRAWN BY JSR UTILITY CUTS ENGINEERING OFFICE 212 OPERATIONS CENTER DRIVE CHECKED BY D.E.C., P.E. WILMINGTON N.C. 28412 (910) 341-7807 SD 1-05 SCALE NOT TO SCALE



STANDARD DETAIL

PIPE TRENCH

**TYPICAL** 

DATE: MAY, 2013

CHECKED: BDR, P.E.

SCALE: NOT TO SCALE

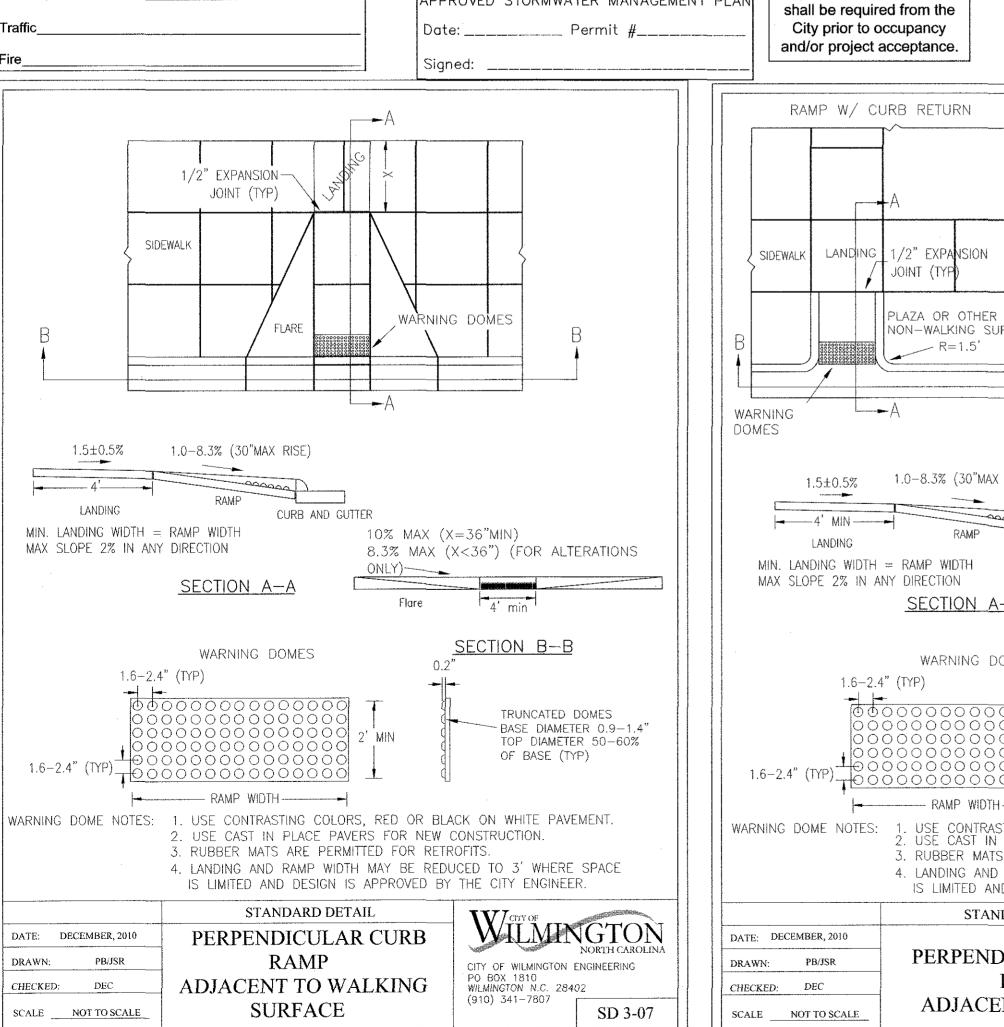
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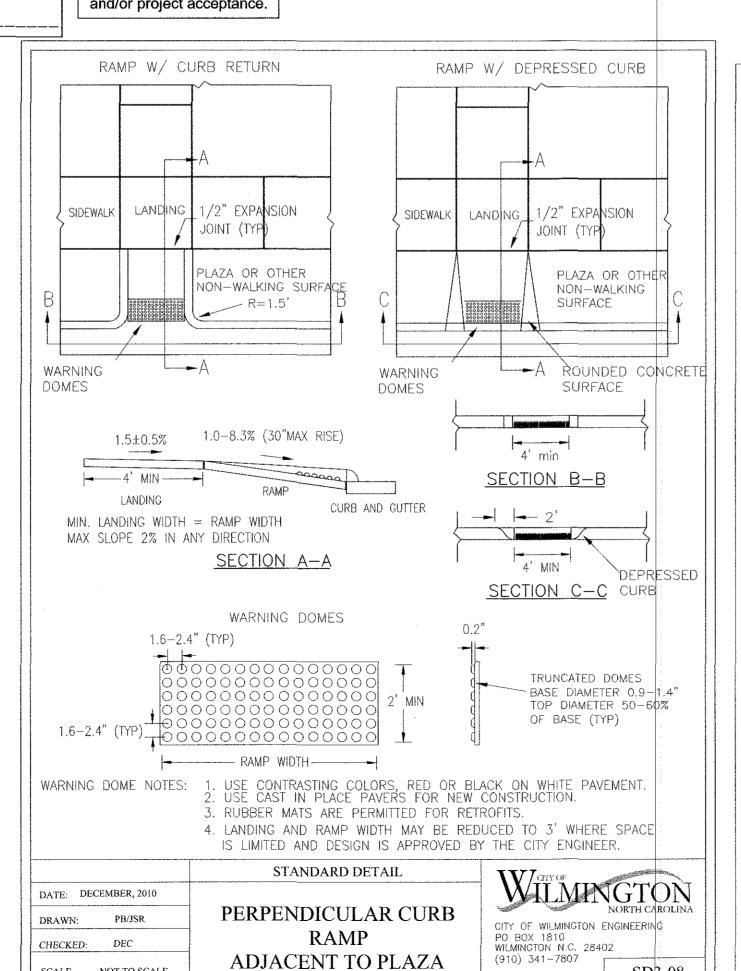
WILMINGTON

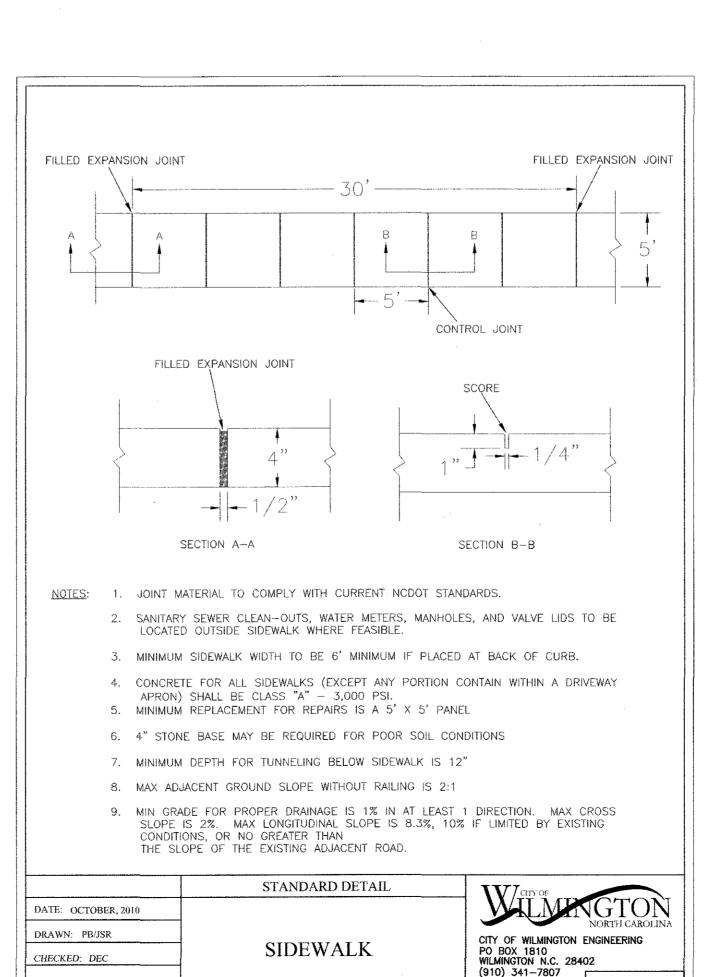
CITY OF WILMINGTON

ENGINEERING OFFICE 212 OPERATIONS CENTER DRIVE

WILMINGTON N.C. 28412 (910) 341-7807 SD 1-07







SD 3-10

SCALE NOT TO SCALE

SD3-08

