

CITY OF WILMINGTON NOTES:

1. Prior to any clearing, grading or construction activity, tree protection fencing shall be installed around protected trees or groves of trees. No construction workers, tools, materials, or vehicles are permitted within the tree protection fencing.
2. Any trees and/or areas designated to be protected must be properly barricaded with fencing and protected throughout construction to insure that no clearing, grading or staging of materials will occur in those areas.
3. No equipment is allowed on site until all tree protection fencing and sill fencing is installed and approved. Protective fencing is to be maintained throughout the duration of the project, and contractors shall receive adequate instruction on tree protection methods.
4. All pavement markings in public rights-of-way and for driveways are to be thermoplastic and meet City and/or NCDOT standards.
5. Once streets are open to traffic, contact Traffic Engineering regarding the installation of traffic and street name signs. Proposed street names must be approved prior to installation of street name signs.
6. Traffic control devices (including signs and pavement markings) in areas open to public traffic are to meet MUTCD (Manual on Uniform Traffic Control Devices) standards.
7. Contact Traffic Engineering at 910-341-7888 to ensure that all traffic signal facilities and equipment are shown on the plan.
8. Call Traffic Engineering at 910-341-7888 forty-eight (48) hours prior to any excavation in the right-of-way.
9. Traffic Engineering must approve of pavement marking prior to actual striping.
10. All parking stall markings and lane arrows within the parking areas shall be white.
11. All traffic control signs and markings off the right-of-way are to be maintained by the property owner in accordance with MUTCD standards.
12. Stop signs and street signs to remain in place during construction.
13. Tactile warning mats will be installed on all wheelchair ramps.
14. A utility cut permit is required for each open cut of a city street. Note this on the plan and contact (910) 341-5888 for more details. In certain cases an entire resurfacing of the area being open cut may be required.
15. Any broken or missing sidewalk panels, driveway panels and curbing will be replaced.
16. Contact Traffic Engineering at (910) 341-7888 to discuss street lighting options.
17. Water and sewer service shall meet Cape Fear Public Utility Authority (CFPUA) details and specifications.
18. Project shall comply with CFPUA Cross Connection Control requirements. Water meter(s) cannot be released until all requirements are met and the State has given their final approval. Call 910-332-6558 for information.
19. If the contractor desires CFPUA 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.
20. Any irrigation system supplied by CFPUA water shall comply with the CFPUA Cross Connection Control regulations. Call 910-332-6558 for information.
21. Any irrigation system shall be equipped with a rain and freezer sensor.
22. Any backflow prevention devices required by the CFPUA will need to be on the list of approved devices by USFCOCCR or ASSE.
23. Contractor to field verify existing water and sewer service locations, sizes and materials prior to construction. Engineer to be notified of any conflicts.
24. Contractor shall maintain all-weather access for emergency vehicles at all times during construction.
25. Underground fire line(s) must be permitted and inspected by the Wilmington Fire Department from the public right-of-way to the building. Contact the Wilmington Fire Department Division of Fire and Life Safety at 910-341-0696.
26. No obstructions are permitted in the space between thirty (30) inches and ten (10) feet above the ground within the triangular sight distance.
27. Contact the North Carolina One Call Center at 1-800-632-4949 prior to doing any digging, clearing, or grading.

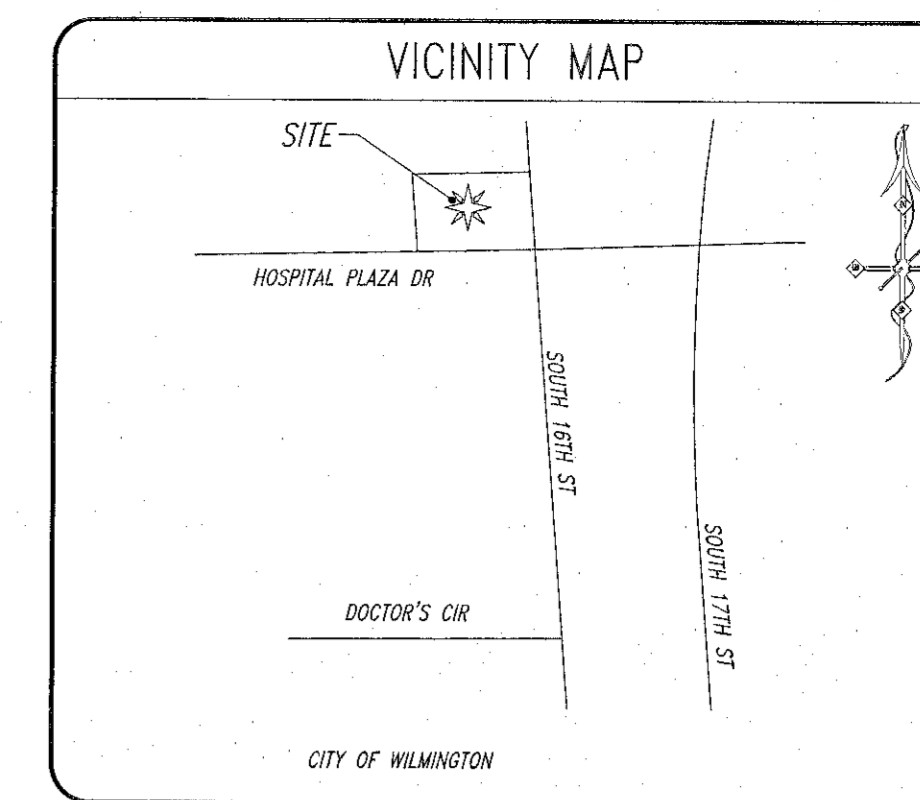
CONSTRUCTION DOCUMENTS

Proposed

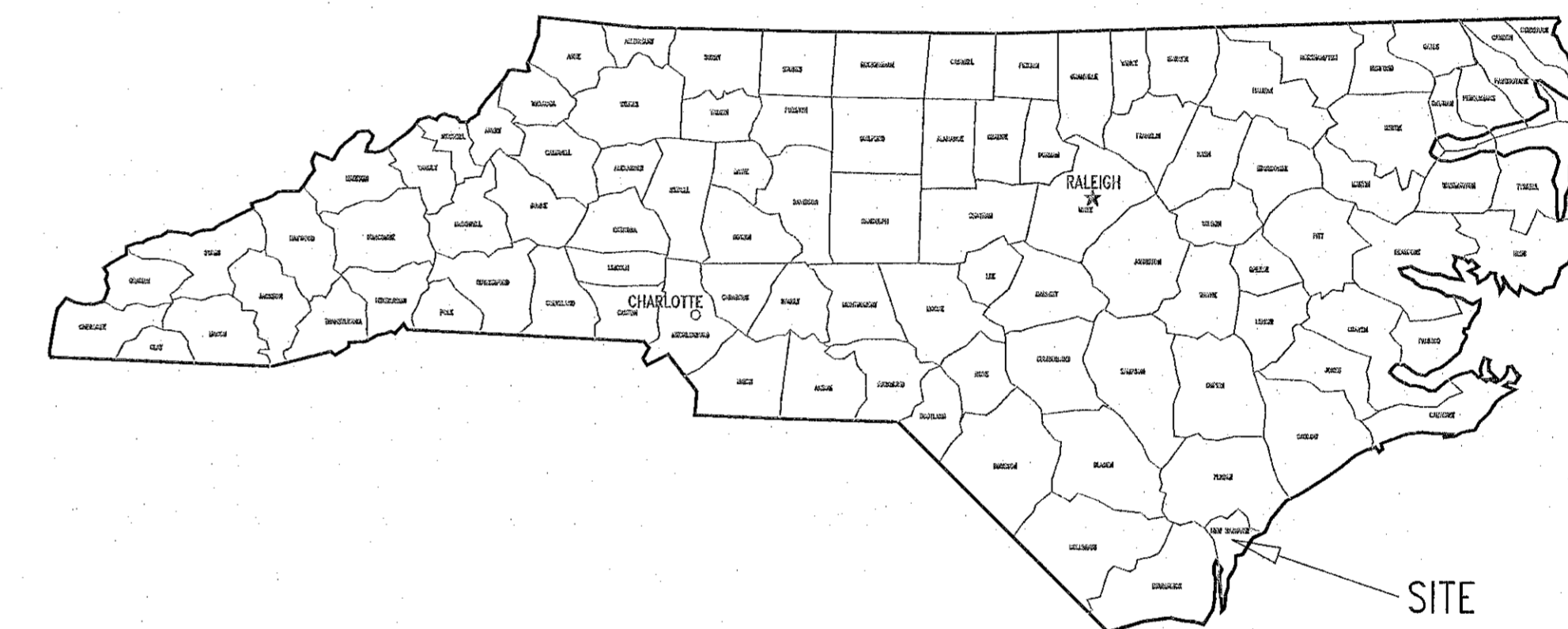


Starbucks-Hospital Plaza

2018 South 16th Street
Wilmington, North Carolina
New Hanover County



Know what's below
Call before you dig.



DEVELOPMENT DATA

DEVELOPMENT NAME: STARBUCKS
STREET ADDRESS: 2018 SOUTH 16TH STREET, WILMINGTON, NORTH CAROLINA, NEW HANOVER COUNTY

PROPERTY IDENTIFICATION # (PIN): R06007-002-010-003

ZONING DISTRICT(S): O-1-1 (OFFICE AND INSTITUTIONAL DISTRICT 1)
OVERLAY DISTRICT: NONE
CAMA LAND USE CLASSIFICATION: DEVELOPED

TOTAL SITE AREA: 0.769 AC (33,498 SF)

INSIDE TOWN LIMITS: YES
EXISTING USE: BANK/LAW FIRM
PROPOSED BUILDING USE: RESTAURANT WITH DRIVE-THRU
BUILDING CONSTRUCTION TYPE: VB

PROPOSED TOTAL BUILDING AREA: 2,510 SF
MAX. BUILDING HEIGHT: 45 FT (PROPOSED BUILDING HEIGHT = 21.5 FT)
MAXIMUM LOT COVERAGE (BUILDING): 40%
MIN LOT AREA: 15,000 SF
MIN LOT WIDTH: 80 FT
FRONT SETBACK: 20 FT (FRONT SETBACK PROVIDED = 52 FT)
REAR SETBACK: 20 FT (REAR SETBACK PROVIDED = 110 FT)
SIDE SETBACK: 20 FT (HOSPITAL PLAZA BOULEVARD) (SIDE SETBACK PROVIDED = 28 FT)
SIDE SETBACK: 10 FT (INTERIOR) (SIDE SETBACK PROVIDED = 70 FT)

STREET YARD BUFFER: 18 FT AVERAGE (9 FT MIN, 27 FT MAX) (SOUTH 16TH STREET)
PERIMETER PARKING BUFFER: 10 FT
FOUNDATION PLANTINGS: 12% OF BUILDING FACE AREA

OFF-STREET PARKING:
PROPOSED BUILDING AREA: 2,510 SF (75 SEATS)
TOTAL REQUIRED:
MAXIMUM: 1 PER 2.5 SEATS OR 1 PER 65 SF GFA EXCLUSIVE OF KITCHEN AND RESTROOM
75 SEATS/2.5 = 30 SPACES
MINIMUM: 1 PER 4 SEATS OR 1 PER 80 SF GFA EXCLUSIVE OF KITCHEN AND RESTROOM
75 SEATS/4 = 19 SPACES

TOTAL PROVIDED: 24
ACCESSIBLE SPACES PROVIDED: 2
PARKING SPACE DIMENSIONS: 9'x18'
BICYCLE PARKING: 5 SPACES REQUIRED
LOADING AREA: N/A

DEVELOPER/PROPERTY OWNER
Wilmington NC 2018, LLC
Hartzog Holdings, LLC
Attn. Collins Hartzog
109 Still Wild Lane
Elgin, SC 29045
803-361-6718
collins@hartzogholdings.com

CIVIL ENGINEER
Triangle Site Design, PLLC
4004 Barrett Drive
Suite 101
Raleigh, NC 27609
(919)553-6570
mlowder@trianglesitedesign.com
NC License#P-0619



INDEX OF DRAWINGS

- C0.0 COVER SHEET
- D1.0 EXISTING CONDITIONS PLAN
- C1.0 SITE PLAN
- C1.1 GRADING & DRAINAGE PLAN
- C1.2 UTILITY PLAN
- C1.3 UTILITY DETAILS
- C1.4A CONSTRUCTION DETAILS
- C1.4B CONSTRUCTION DETAILS
- C1.5 STORMWATER MANAGEMENT DETAILS
- C1.6 EROSION CONTROL PLAN
- C1.7 EROSION CONTROL DETAILS
- C1.8 LANDSCAPE PLAN
- C1.9 SITE INVENTORY MAP

IMPERVIOUS AREA SUMMARY

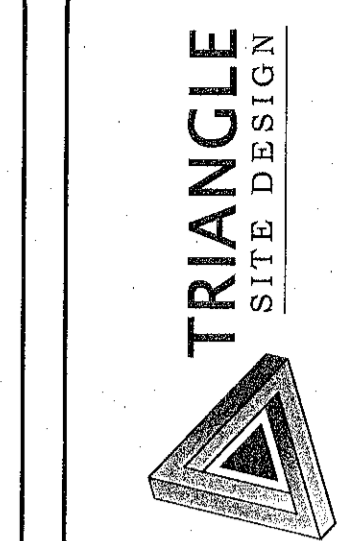
SITE AREA = 33,498 SF (0.769 AC)			
BUILDINGS	2,510 SF	0.06 ACRE(S)	7.49 %
PAVEMENT	14,515 SF	0.33 ACRE(S)	43.33 %
SIDEWALK	1,675 SF	0.04 ACRE(S)	5.00 %
TOTAL IMPERVIOUS AREA	18,700 SF	0.43 ACRE(S)	55.82 %
POROUS CONCRETE	2,080 SF	0.05 ACRE(S)	6.21 % (TYPE A SOILS, 100% PERVIOUS)
GREEN/OPEN SPACE	12,718 SF	0.29 ACRE(S)	37.97 %
EXISTING IMPERVIOUS AREA TO BE DEMOLISHED:	19,135 SF	(ON-SITE)	
DECREASE IN IMPERVIOUS AREA:	455 SF		
EXEMPT FROM 25-YEAR PRE/POST ATTENUATION REQUIREMENT			

WILMINGTON
NORTH CAROLINA
Public Services • Engineering Division
APPROVED STORMWATER MANAGEMENT PLAN

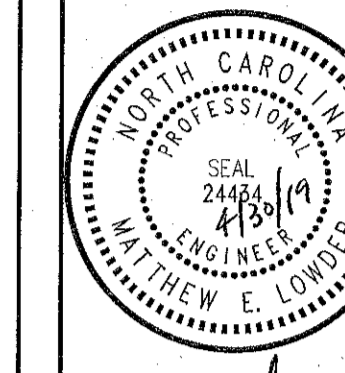
Date: _____ Permit # _____
Signed: _____

APPROVED CONSTRUCTION PLAN

PLANNING	NAME	DATE
TRAFFIC	_____	_____
FIRE	_____	_____

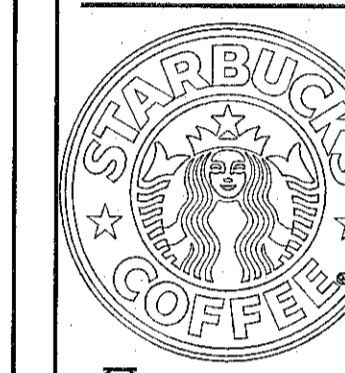


Consultant
Triangle Site Design, PLLC
4004 Barrett Dr. Ste 101
Raleigh, NC 27609
(919) 553-6570
mlowder@trianglesitedesign.com
NC License #P-0619



Michael R. Lowder

Owner/Developer
Wilmington NC 2018, LLC
Hartzog Holdings, LLC
Attn. Collins Hartzog
109 Still Wild Lane
Elgin, SC 29045
803-361-6718
collins@hartzogholdings.com



Starbucks-Hospital Plaza
2018 South 16th Street
Wilmington, North Carolina
New Hanover County

This document, together with the concepts and designs presented herein, as an instrument of services, is intended only for the specific purpose and client for which it was prepared. Reuse of and improper reliance on this document without written authorization and adoption by Triangle Site Design, PLLC shall be without liability to Triangle Site Design, PLLC.

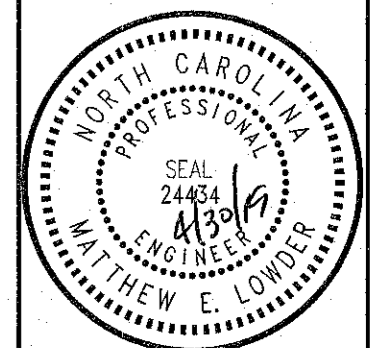
REV. NO.	DATE	DESCRIPTION
1	4/30/19	REVISION PER CITY REVIEW

Drawn: _____
Checked: _____
Approved: _____

Project No. 009014
Date: April 30, 2019

Sheet No. **COVER SHEET**

C0.0



Owner/Developer
 Wilmington NC 2018, LLC
 Hartzog Holdings, LLC
 Atn. Collins Hartzog
 109 Shil Wild Lane
 Elgin, SC 29045
 803-361-6718
 collins@hartzogholdings.com



Starbucks - Hospital Plaza
 2018 South 16th Street
 Wilmington, North Carolina
 New Hanover County

This document, together with the concepts and designs presented herein, as an instrument of services, is intended only for the specific purpose and client for which it was prepared. Reuse of and improper reliance on this document without written authorization and adaptation by Triangle Site Design, PLLC shall be without liability to Triangle Site Design, PLLC.

REV.	DATE	DESC.
1	4/20/19	REVISED PER CITY REVIEW

Drawn: [Signature]
 Checked: [Signature]
 Approved: [Signature]

Project No. 090914
 Date: April 30, 2019
 Title: EXISTING CONDITIONS PLAN

Sheet No. D1.0

EROSION CONTROL NOTES:
 PRIOR TO ANY CLEARING, GRADING, OR CONSTRUCTION ACTIVITY, TREE PROTECTION FENCING WILL BE REQUIRED TO BE INSTALLED AROUND PROTECTED TREES OR GROVES OF TREES AS SHOWN. NO CONSTRUCTION WORKERS, TOOLS, MATERIALS OR VEHICLES ARE PERMITTED WITHIN THE TREE PROTECTION FENCING AREA.

SURVEY NOTE:
 ALL EXISTING BOUNDARY AND TOPOGRAPHIC INFORMATION TAKEN FROM A LAND SURVEY PREPARED BY: ROBERT H. GOSLEE & ASSOCIATES, PA.

STREAM/WETLAND NOTE:
 THERE ARE NO JURISDICTIONAL STREAM AND/OR WETLAND FEATURES ON THE PROPOSED DEVELOPMENT PARCEL.

FLOOD ZONE NOTE:
 SUBJECT PROPERTY IS NOT LOCATED WITHIN A SPECIAL FLOOD HAZARD ZONE (ZONE X) PER FEMA FLOOD INSURANCE RATE MAP (FIRM) #3720312600K, EFFECTIVE DATE AUGUST 28, 2018. FEMA FIRM MAPS SUBJECT TO CHANGE.

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

Date: _____ Permit # _____
 Signed: _____

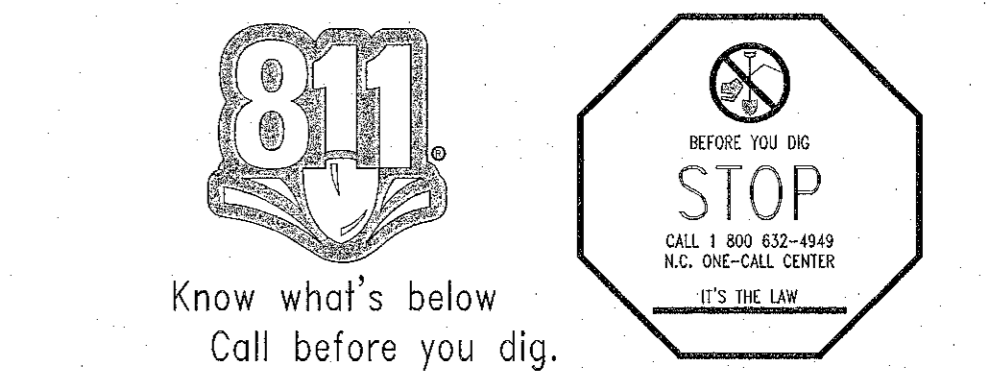
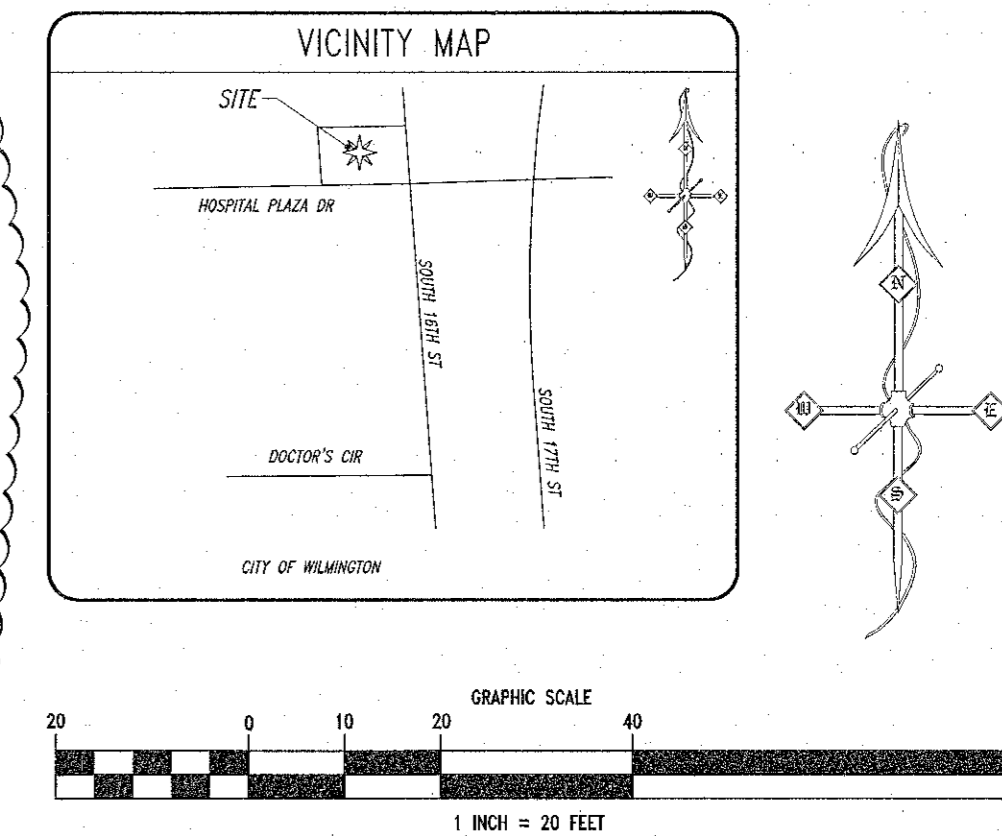
APPROVED CONSTRUCTION PLAN

PLANNING	NAME	DATE
TRAFFIC		
FIRE		

NOTE TO CONTRACTOR:
 PRIOR TO ANY CLEARING, GRADING, OR CONSTRUCTION ACTIVITY, TREE PROTECTION FENCING WILL BE REQUIRED TO BE INSTALLED AROUND PROTECTED TREES OR GROVES OF TREES AS SHOWN. NO CONSTRUCTION WORKERS, TOOLS, MATERIALS OR VEHICLES ARE PERMITTED WITHIN THE TREE PROTECTION FENCING AREA.

UTILITY STATEMENT
 THE UNDERGROUND UTILITIES SHOWN HAVE BEEN LOCATED FROM FIELD SURVEY INFORMATION AND EXISTING DRAWINGS. THE SURVEYOR MAKES NO GUARANTEES THAT THE UNDERGROUND UTILITIES COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN-SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED ALTHOUGH THE SURVEYOR DOES CERTIFY THAT THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM INFORMATION AVAILABLE. THE SURVEYOR HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES.

CAUTIONARY NOTE
 THE LOCATIONS OF ALL EXISTING UNDERGROUND UTILITIES SHOWN ON THIS DRAWING ARE BASED ON ABOVE GROUND EVIDENCE OR INFORMATION GATHERED DURING THE FIELD SURVEY PORTION OF THIS PROJECT. AS SUCH, THIS INFORMATION IS SPECULATIVE IN NATURE ONLY AND SHOULD NOT BE CONSTRUED AS FACT. THERE MAY ALSO BE OTHER EXISTING UNDERGROUND UTILITIES FOR WHICH NO ABOVE GROUND EVIDENCE WAS OBSERVED. THE EXACT LOCATIONS OF THE UNDERGROUND UTILITIES SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO THE START OF ANY AND ALL CONSTRUCTION.



- DEMOLITION KEYNOTES**
- 1 Remove trees and roof system
 - 2 Remove existing building and foundation
 - 3 Remove fence, post, and foundation
 - 4 Remove all existing shrubs, and debris
 - 5 Remove existing sidewalks
 - 6 Remove existing concrete curb
 - 7 Remove existing driveway approaches
 - 8 Remove existing pavement
 - 9 Remove existing utilities - coordinate with appropriate service provider to remove existing service lines

- DEMOLITION NOTES**
1. ALL WORK TO BE ACCOMPLISHED IN STRICT ACCORDANCE WITH ALL LOCAL ORDINANCES, CITY OR STATE.
 2. WITHIN THE SUBJECT PROPERTY, THE INTENT IS TO HAVE A CLEAN, CLEAR SITE, FREE OF ALL EXISTING ITEMS NOTED TO BE REMOVED IN ORDER TO PERMIT THE CONSTRUCTION OF THE NEW PROJECT.
 3. ALL ITEMS NOTED TO BE REMOVED BY THE SELLER SHALL BE ACCOMPLISHED PRIOR TO THE CLOSING OF THE REAL ESTATE TRANSACTION. ALL OTHER ITEMS NOTED TO BE REMOVED SHALL BE DONE SO AS PART OF THE CONTRACT FOR GENERAL CONSTRUCTION.
 4. REMOVE AND DISPOSE OF ANY SIDEWALKS, FENCES, STAIRS, WALLS, DEBRIS AND RUBBISH REQUIRING REMOVAL FROM THE WORK AREA IN AN APPROVED OFF SITE LANDFILL.
 5. THE CONTRACTOR SHALL SECURE ALL PERMITS FOR HIS DEMOLITION AND DISPOSAL OF HIS DEMOLITION MATERIALS TO BE REMOVED FROM THE SITE. THE CONTRACTOR SHALL POST BONDS AND PAY PERMIT FEES AS REQUIRED. BUILDING DEMOLITION CONTRACTOR SHALL BE RESPONSIBLE FOR PERMITS AND DISPOSAL OF BUILDING DEMOLITION DEBRIS.
 6. THE DETAILED PLANS MAY NOT REFLECT ALL UTILITIES ON THE SITE OR SURROUNDING STREETS AND PROPERTIES. THE CONTRACTOR SHALL VERIFY LOCATIONS AND EXISTENCE OF UTILITY SERVICES PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL CALL UTILITY LOCATE, 72 HOURS PRIOR TO CONSTRUCTION.
 7. THE CONTRACTOR TO REMOVE ALL UTILITIES TO EXISTING STRUCTURES WHETHER SHOWN OR NOT OR ARRANGE FOR THE APPROPRIATE UTILITY COMPANY TO CUT AND CAP SERVICE PIPING AT THE PROPERTY LINE OR MAIN (AS REQUIRED). ALL SERVICES MAY NOT BE SHOWN ON THIS PLAN.
 8. FOR ALL ITEMS NOTED TO BE REMOVED - REMOVE NOT ONLY THE ABOVE GROUND ELEMENTS, BUT ALL UNDERGROUND ELEMENTS AS WELL INCLUDING BUT NOT NECESSARILY LIMITED TO: FOUNDATIONS, GRAVEL FILLS, TREE ROOTS, OLD PIPES, ETC.
 9. BACK FILL ALL EXCAVATIONS RESULTING FROM THE DEMOLITION WORK TO MEET THE REQUIREMENTS FOR FILL OUTLINED IN THE GEOTECHNICAL REPORT.
 10. THE CONTRACTOR SHALL PROTECT ALL IRON PINS, MONUMENTS AND PROPERTY CORNERS DURING CONSTRUCTION. ANY CONTRACTOR DISTURBED PINS, MONUMENTS, ETC. SHALL BE RESET BY A LICENSED LAND SURVEYOR AT THE EXPENSE OF THE CONTRACTOR.
 11. THE CONTRACTOR SHALL RESTORE ANY UTILITY STRUCTURE, PIPES, PAVEMENT, CURBS, SIDEWALKS OR LANDSCAPED AREAS DISTURBED DURING DEMOLITION TO THEIR ORIGINAL CONDITION TO THE SATISFACTION.
 12. ALL BUILDINGS, FOUNDATION WALLS AND FOOTINGS INDICATED ON THIS PLAN TO BE REMOVED FROM SITE. CONTRACTOR SHALL SECURE ANY PERMITS AND PAY ALL FEES AND PERFORM CLEARING AND GRUBBING AND DEBRIS REMOVAL PRIOR TO COMMENCEMENT OF GRADING OPERATIONS.
 13. ASBESTOS AND ANY OTHER HAZARDOUS MATERIAL SHALL BE REMOVED BY THE GENERAL CONTRACTOR USING A LICENSED HAZARDOUS MATERIAL CONTRACTOR.

- DEMOLITION LEGEND**
- [Hatched Box] BUILDINGS TO BE REMOVED
 - [Grid Box] PAVEMENT TO BE REMOVED
 - [Dashed Box] UTILITIES TO BE REMOVED
 - [X Box] TREES TO BE REMOVED

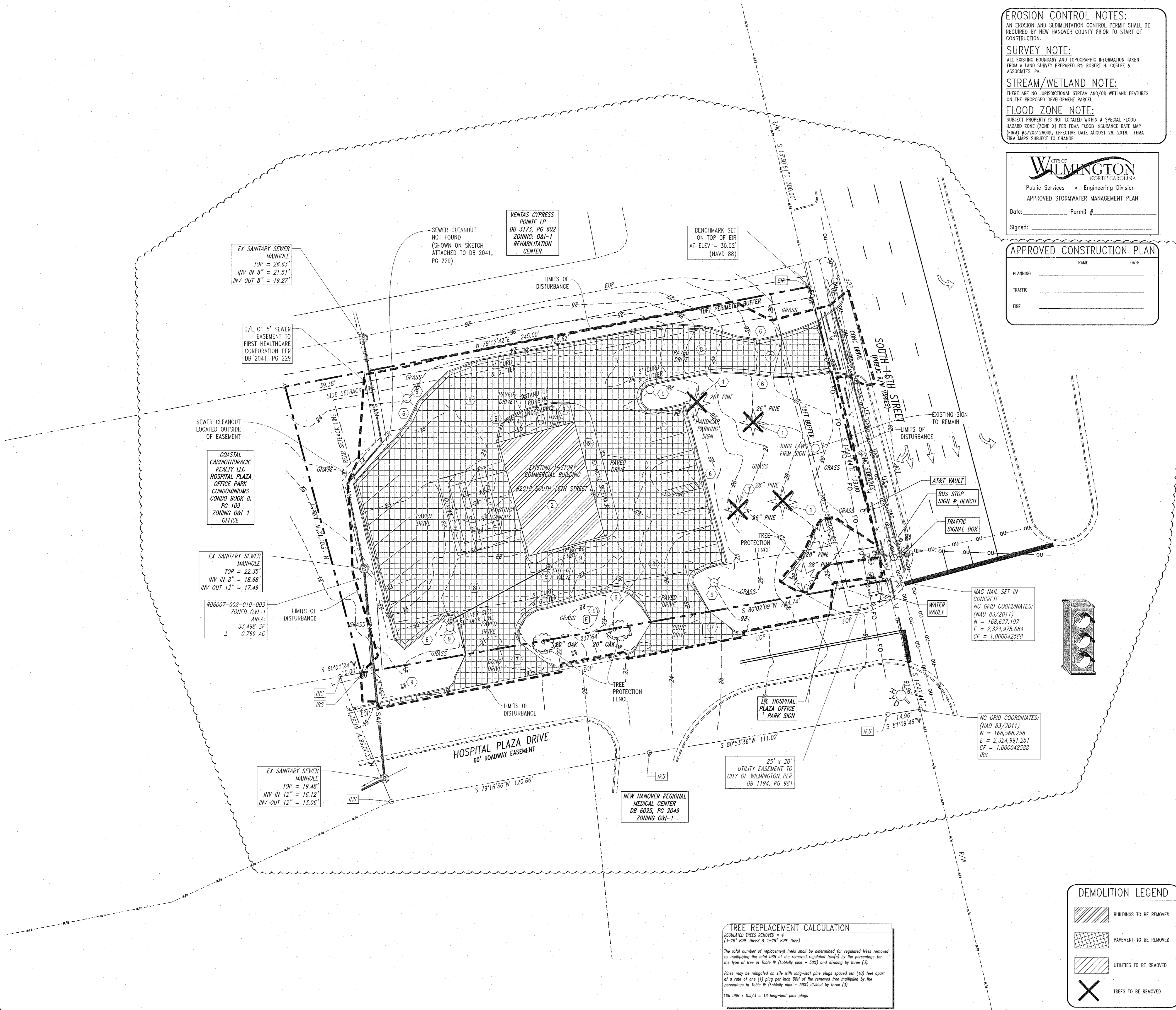
TREE REPLACEMENT CALCULATION

REGULATED TREES REMOVED = 4
 (3-26" PINE TREES & 1-28" PINE TREE)

The total number of replacement trees shall be determined for regulated trees removed by multiplying the total DBH of the removed regulated trees(s) by the percentage for the type of tree in Table IV (Loblolly pine = 50%) and dividing by three (3).

Planes may be milligapped on site with long-leaf pine plugs spaced ten (10) feet apart at a rate of one (1) plug per inch DBH of the removed tree multiplied by the percentage in Table IV (Loblolly pine = 50%) divided by three (3).

106 DBH x 0.5/3 = 18 long-leaf pine plugs



EX SANITARY SEWER MANHOLE
 TOP = 26.63'
 INV IN 8" = 21.51'
 INV OUT 8" = 19.27'

SEWER CLEANOUT NOT FOUND
 (SHOWN ON SKETCH ATTACHED TO DB 2041, PG 229)

VENTAS CYPRESS POINTE LP
 DB 3173, PG 602
 ZONING: O&I-1
 REHABILITATION CENTER

BENCHMARK SET ON TOP OF EIR AT ELEV = 30.02' (NAVD 88)

EX SANITARY SEWER MANHOLE
 TOP = 22.35'
 INV IN 8" = 18.68'
 INV OUT 12" = 17.49'

COASTAL CARDIOTHORACIC REALTY LLC
 HOSPITAL PLAZA OFFICE PARK CONDOMINIUMS CONDO BOOK 8, PG 109
 ZONING O&I-1 OFFICE

EX SANITARY SEWER MANHOLE
 TOP = 19.48'
 INV IN 12" = 16.12'
 INV OUT 12" = 13.06'

ROB007-002-010-003
 ZONED O&I-1 AREA:
 33,498 SF
 ± 0.769 AC

EX HOSPITAL PLAZA OFFICE PARK SIGN

NEW HANOVER REGIONAL MEDICAL CENTER
 DB 8025, PG 2049
 ZONING O&I-1

UTILITY EASEMENT TO CITY OF WILMINGTON PER DB 1194, PG 981



Matthew E. Lowder



This document, together with the concepts and designs presented herein, as an instrument of services, is intended only for the specific purpose and client for which it was prepared. Reuse of and improper reliance on this document without written authorization and adaptation by Triangle Site Design, PLLC shall be without liability to Triangle Site Design, PLLC.

REVISIONS	No.	Date	Desc.
	1	4/20/19	REVISED PER CITY REVIEW

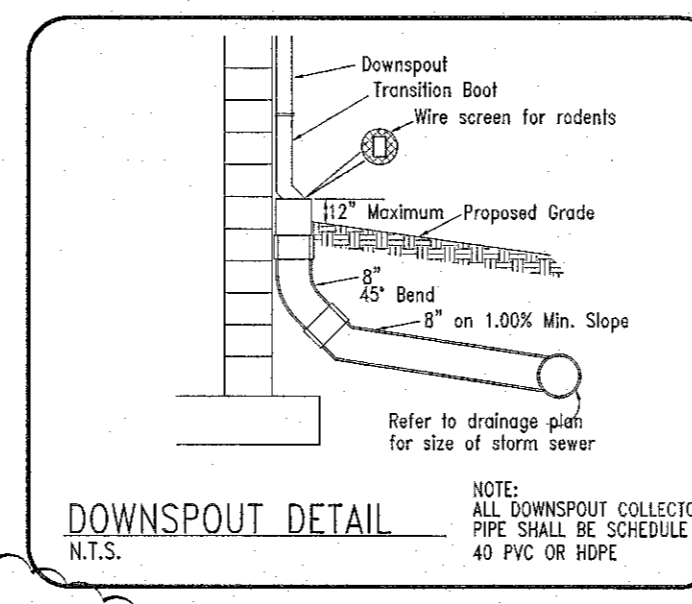
GRADING NOTES

1. REFER TO THE 'SITE PLAN' FOR RELATED NOTES.
2. ALL CONTOURS AND SPOT ELEVATIONS REFLECT FINISHED GRADES.
3. ALL ELEVATIONS ARE IN REFERENCE TO THE BENCHMARK, AND THIS MUST BE VERIFIED BY THE GENERAL CONTRACTOR PRIOR TO GRADING.
4. THE CONTRACTOR SHALL IMMEDIATELY REPORT TO OWNER ANY DISCREPANCIES FOUND BETWEEN ACTUAL FIELD CONDITIONS AND CONSTRUCTION DOCUMENTS AND SHALL WAIT FOR INSTRUCTION PRIOR TO PROCEEDING.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING AND PROTECTING EXISTING UTILITIES, AND SHALL REPAIR ALL DAMAGE TO EXISTING UTILITIES THAT OCCUR DURING CONSTRUCTION.
6. THE CONTRACTOR SHALL BLEND NEW EARTHWORK SMOOTHLY TO TRANSITION BACK TO EXISTING GRADE.
7. LIMITS OF CLEARING SHOWN ON GRADING PLAN ARE BASED UPON THE APPROXIMATE CUT AND FILL SLOPE LIMITS, OR OTHER GRADING REQUIREMENTS.
8. THE PROPOSED CONTOURS SHOWN IN DRIVES AND PARKING LOTS AND SIDEWALKS ARE FINISHED ELEVATIONS INCLUDING ASPHALT. REFER TO PAVEMENT CROSS SECTION DATA TO ESTABLISH CORRECT SUBBASE OR AGGREGATE BASE COURSE ELEVATIONS TO BE COMPLETED UNDER THIS CONTRACT.
9. THE CONTRACTOR SHALL ENSURE POSITIVE DRAINAGE SO THAT RUNOFF WILL DRAIN BY GRAVITY FLOW ACROSS NEW PAVEMENT AREAS TO NEW OR EXISTING DRAINAGE INLETS OR SHEET OVERLAND.
10. ANY GRADING, BEYOND THE LIMITS OF CONSTRUCTION AS SHOWN ON THE GRADING PLAN, IS SUBJECT TO A FINE.
11. GRADING WITHOUT AN APPROVED EROSION CONTROL PLAN IS SUBJECT TO A FINE.
12. STABILIZATION IS THE BEST FORM OF EROSION CONTROL. TEMPORARY SEEDING IS NECESSARY TO ACHIEVE EROSION CONTROL ON DENuded AREAS AND ESPECIALLY WHEN THE CONSTRUCTION SEQUENCE REQUIRES IT.
13. ALL GRADED SLOPES ARE TO BE SEEDED OR LANDSCAPED WITHIN 15 DAYS OF COMPLETION OF GRADING. ALL REMAINING AREAS ARE TO BE SEEDED WITHIN 30 DAYS.
14. EXISTING GRADES, CONTOURS, UTILITIES AND OTHER EXISTING FEATURES FROM FIELD SURVEY.
15. THE CONTRACTOR SHALL INCLUDE IN THE CONTRACT PRICE ANY DEWATERING NECESSARY TO CONSTRUCT THE PROJECT AS SHOWN ON THE PLANS.
16. THE CONTRACTOR IS RESPONSIBLE FOR THE DESIGN AND IMPLEMENTATION OF ALL SHEETING, SHORING, BRACING AND SPECIAL EXCAVATION MEASURES REQUIRED TO MEET OSHA, FEDERAL, STATE, AND LOCAL REGULATIONS PURSUANT TO THE INSTALLATION OF THE WORK INDICATED ON THESE DRAWINGS. THE DESIGN ENGINEER ACCEPTS NO RESPONSIBILITY FOR THE DESIGN(S) TO INSTALL SAID ITEMS.
17. THE CONTRACTOR SHALL REFER TO THE ARCHITECTURAL PLANS FOR EXACT LOCATION, ELEVATION, AND DIMENSIONS OF EXIT DOORS, RAMPS, BUILDING DIMENSIONS, AND EXACT BUILDING UTILITY ENTRANCE LOCATIONS.
18. ALL FILL MATERIALS, EXISTING BUILDING FOUNDATIONS, PAVEMENT AND UTILITY STRUCTURES, SHORING, BRACING AND SPECIAL EXCAVATION MATERIALS SHALL BE COMPLETELY REMOVED FROM WITHIN THE BEARING ZONE BELOW THE STRUCTURE.
19. ALL FOUNDATION EXCAVATION SHALL BE INSPECTED BY A QUALIFIED GEOTECHNICAL REPRESENTATIVE TO DETERMINE WHETHER UNSUITABLE MATERIAL MUST BE REMOVED. ALL UNSUITABLE MATERIAL SHALL BE REMOVED, BACKFILLED AND COMPACTED AS REQUIRED BY THE GEOTECHNICAL REPRESENTATIVE.
20. ALL CUT OR FILL SLOPES SHALL BE 3:1 OR FLATTER UNLESS OTHERWISE NOTED OR DEPICTED.
21. THE CONTRACTOR SHALL ADHERE TO ALL TERMS & CONDITIONS AS OUTLINED IN THE GENERAL N.P.D.E.S PERMIT FOR STORMWATER DISCHARGE ASSOCIATED WITH CONSTRUCTION ACTIVITIES.
22. CONTRACTOR SHALL ADJUST AND/OR CUT EXISTING PAVEMENT AS NECESSARY TO ASSURE A SMOOTH FIT AND CONTINUOUS GRADE.
23. CONTRACTOR SHALL ENSURE POSITIVE DRAINAGE AWAY FROM BUILDINGS FOR ALL NATURAL AND PAVED AREAS.
24. ALL UNSURFACED AREAS DISTURBED BY GRADING OPERATION SHALL RECEIVE 4 INCHES OF TOPSOIL. CONTRACTOR SHALL APPLY STABILIZATION FABRIC TO ALL SLOPES 3:1V OR STEEPER.
25. CONSTRUCTION SHALL COMPLY WITH ALL APPLICABLE GOVERNING CODES AND BE CONSTRUCTED TO SAME.

DRAINAGE NOTES

1. A MINIMUM GRADE OF 0.50 % SHALL BE MAINTAINED ON ALL PIPES, UNLESS OTHERWISE NOTED.
2. PIPE LENGTHS AND SLOPES INDICATED ON THE PLANS ARE APPROXIMATE ONLY.
3. UNDERGROUND UTILITY LINES SHALL BE INSTALLED IN ACCORDANCE WITH THE FOLLOWING STANDARDS IN ADDITION TO OTHER APPLICABLE CRITERIA:
 - A. NO MORE THAN 500 LF OF TRENCH MAY BE OPENED AT ONE TIME.
 - B. EXCAVATED MATERIAL SHALL BE PLACED ON THE UPHILL SIDE OF TRENCHES.
 - C. EFFLUENT FROM DEWATERING OPERATIONS SHALL BE FILTERED OR PASSED THROUGH AN APPROVED SEDIMENT TRAPPING DEVICE, OR 60% AND DISCHARGED IN A MANNER THAT DOES NOT ADVERSELY AFFECT FLOWING STREAMS OR OFF-SITE PROPERTY.
 - D. MATERIAL USED FOR BACK-FILLING TRENCHES SHALL BE PROPERLY COMPACTED IN ORDER TO MINIMIZE EROSION AND PROMOTE STABILIZATION.
 - E. RESTABILIZATION SHALL BE ACCOMPLISHED IN ACCORDANCE WITH THE EROSION AND SEDIMENT CONTROL REGULATIONS.
 - F. APPLICABLE SAFETY REGULATIONS SHALL BE COMPLIED WITH.
4. CATON BAGS, MANHOLES, FRAMES, GRATES, ETC. SHALL MEET THE REQUIREMENTS OF THE LATEST EDITION OF THE NORTH CAROLINA DEPARTMENT OF TRANSPORTATION STANDARD DRAWINGS. REFERENCE THE FOLLOWING STANDARD DETAILS:

840.02 - CONCRETE CATCH BASIN	840.03 - FRAME, GRATES, AND HOOD FOR CATCH BASINS
840.14 - CONCRETE DROP INLET	840.04 - CONCRETE OPEN THROAT CATCH BASIN
840.14 - CONCRETE DROP INLET	840.15 - DROP INLET FRAME AND GRATES
840.31 - CONCRETE JUNCTION BOX	840.36 - TRAFFIC BEARING GRADED DROP INLET
840.52 - PRECAST MANHOLE	840.45 - PRECAST DRAINAGE STRUCTURE
838.80 - PRECAST CONCRETE ENDWALL	
5. ALL PIPES SHALL BE LAID ON STRAIGHT ALIGNMENTS AND EVEN GRADES USING A PIPE LASER OR OTHER ACCURATE METHOD.
6. STORM PIPE SHALL BE AS FOLLOWS UNLESS OTHERWISE NOTED:
 - TYPE 1: RCP, CLASS III PER ASTM C-76, WITH FLEXIBLE PLASTIC BITUMEN GASKETS AT JOINTS.
 - TYPE 2: HIGH DENSITY POLYETHYLENE PIPE (HDPE) - ASHSTO DESIGNATION M252 TYPE S, M294 TYPE S AND MPT-91 TYPE S, SMOOTH INTERIOR/ANNULAR EXTERIOR. ONLY PERMITTED WHEN SPECIFICALLY INDICATED ON THE CONSTRUCTION DRAWINGS. PIPE SHALL BE INSTALLED IN ACCORDANCE WITH PIPE MANUFACTURER'S INSTALLATION GUIDELINES. PIPE JOINTS AND FITTINGS SHALL BE WATER TIGHT.
7. ALL STORM DRAINAGE WITHIN THE PUBLIC ROADS SHALL BE CLASS III REINFORCED CONCRETE PIPE UNLESS OTHERWISE NOTED.
8. EXISTING DRAINAGE STRUCTURES TO BE INSPECTED AND REPAIRED AS NEEDED, AND EXISTING PIPES TO BE CLEANED OUT TO REMOVE SILT AND DEBRIS.
9. IF ANY EXISTING STRUCTURES TO REMAIN ARE DAMAGED DURING CONSTRUCTION IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO REPAIR AND/OR REPLACE THE EXISTING STRUCTURE AS NECESSARY TO RETURN IT TO EXISTING CONDITIONS OR BETTER.
10. ALL STORM PIPE ENTERING STRUCTURES SHALL BE GROUTED TO ASSURE CONNECTION AT STRUCTURE IS WATER TIGHT.
11. PRECAST STRUCTURES MAYBE USED AT CONTRACTOR'S OPTION.
12. ALL STORM SEWER MANHOLES IN PAVED AREAS SHALL BE FLUSH WITH PAVEMENT, AND SHALL HAVE TRAFFIC BEARING RING & COVERS. MANHOLES IN UNPAVED AREAS SHALL BE 6" ABOVE FINISH GRADE. LIDS SHALL BE LABELED "STORM SEWER".
13. STRUCTURE TOP ELEVATIONS SHOWN HERE ARE APPROXIMATE. CONTRACTOR SHALL ADJUST AS NECESSARY.
14. RM ELEVATIONS AS NOTED ARE TO THE GUTTER FLOW LINE.



EROSION CONTROL NOTES:

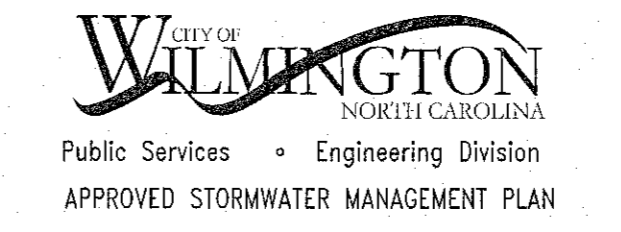
AN EROSION AND SEDIMENTATION CONTROL PERMIT SHALL BE REQUIRED BY NEW HANOVER COUNTY PRIOR TO START OF CONSTRUCTION.
SURVEY NOTE:
ALL EXISTING BOUNDARY AND TOPOGRAPHIC INFORMATION TAKEN FROM A LAND SURVEY PREPARED BY: ROBERT H. GOSLEE & ASSOCIATES, PA.
STREAM/WETLAND NOTE:
THERE ARE NO JURISDICTIONAL STREAM AND/OR WETLAND FEATURES ON THE PROPOSED DEVELOPMENT PARCEL.
FLOOD ZONE NOTE:
SUBJECT PROPERTY IS NOT LOCATED WITHIN A SPECIAL FLOOD HAZARD ZONE (ZONE X) PER FEMA FLOOD INSURANCE RATE MAP (FRM) #3720312600K, EFFECTIVE DATE AUGUST 28, 2018. FEMA FRM MAPS SUBJECT TO CHANGE.

LEGEND

- IS.....TOP OF SIDEWALK
- TC.....TOP OF CURB
- GT.....GUTTER FLOW LINE
- TP.....TOP OF PAVEMENT
- TW.....TOP OF WALL
- BW.....BOTTOM OF WALL
- CB.....CATCH BASIN
- GI.....GRATE INLET
- FES.....FLARED END SECTION
- YL.....YARD INLET
- GR.....GROUND
- FA.....FLOW DIRECTION ARROW

NOTE TO CONTRACTOR:

PRIOR TO ANY CLEARING, GRADING, OR CONSTRUCTION ACTIVITY, TREE PROTECTION FENCING WILL BE REQUIRED TO BE INSTALLED AROUND PROTECTED TREES OR GROVES OF TREES AS SHOWN. NO CONSTRUCTION WORKERS, TOOLS, MATERIALS OR VEHICLES ARE PERMITTED WITHIN THE TREE PROTECTION FENCING AREA.



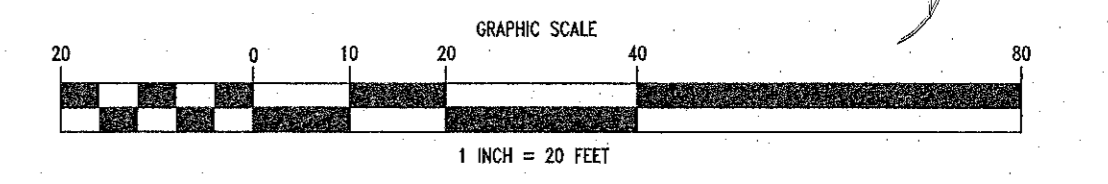
Date: _____ Permit # _____
Signed: _____

APPROVED CONSTRUCTION PLAN

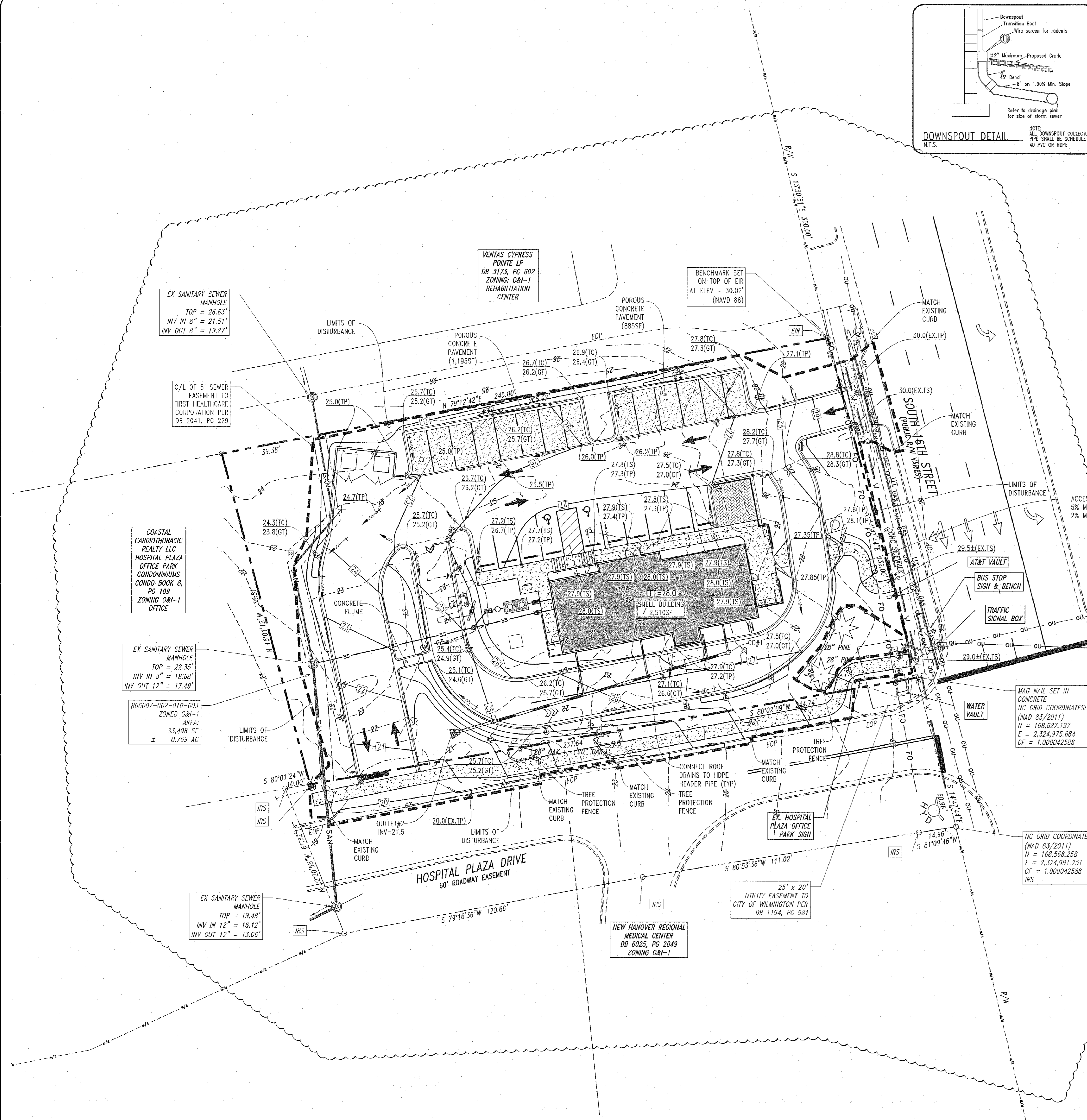
PLANNING	NAME	DATE
TRAFFIC	_____	_____
FIRE	_____	_____



Know what's below
Call before you dig.



STRUCTURE		PIPE		SIZE		STRUCTURE		NOTES	
FROM	TO	LENGTH (ft)	SLOPE (%)	TO & MATERIAL	FROM (ft)	TO (ft)	GRIND/RM ELEV	(ft)	
CO#1	OUTLET#2	110	1.36	12" HDPE	23.0	21.5	27.1		CONNECT ROOF DRAINS TO PIPE SYSTEM



NOTE TO CONTRACTOR:
 PRIOR TO ANY CLEARING, GRADING, OR CONSTRUCTION ACTIVITY, TREE PROTECTION FENCING WILL BE REQUIRED TO BE INSTALLED AROUND PROTECTED TREES OR GROVES OF TREES AS SHOWN. NO CONSTRUCTION WORKERS, TOOLS, MATERIALS OR VEHICLES ARE PERMITTED WITHIN THE TREE PROTECTION FENCING AREA.

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

Date: _____ Permit # _____
 Signed: _____

APPROVED CONSTRUCTION PLAN

NAME	DATE
PLANNING	_____
TRAFFIC	_____
FIRE	_____

CAPE FEAR PUBLIC UTILITY AUTHORITY NOTES:

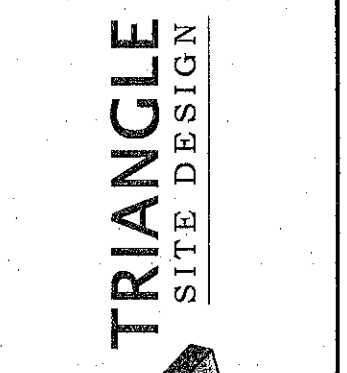
1. CPFA CUSTOMER SERVICE IS CURRENTLY BILLING A 2" DOMESTIC METER AND SEWER SERVICE.
2. 48-HOUR NOTICE TO CPFA UTILITY INSPECTOR PRIOR TO ANY WORK ON CPFA OWNED INFRASTRUCTURE.
3. DAVID SELKE-CPFA UTILITY CONSTRUCTION INSPECTOR:
 OFFICE 910-332-6623
 MOBILE 910-367-8163
4. ANY CHANGES TO EXISTING SERVICE MUST BE ARRANGED THROUGH CPFA CUSTOMER SERVICE DEPARTMENT.

FIRE PROTECTION NOTE:
 THE PROPOSED BUILDING WILL NOT HAVE A FIRE SPRINKLER SYSTEM

NOTES:
 CONTRACTOR TO COORDINATE WITH THE CAPE FEAR PUBLIC UTILITIES AUTHORITY FOR WATER METER & BACKFLOW PREVENTION REQUIREMENTS

UTILITY NOTES

1. UTILITY INFORMATION SHOWN HEREON WAS OBTAINED FROM THE BEST AVAILABLE SOURCE AND MAY OR MAY NOT BE EITHER ACCURATE OR COMPLETE. THE GENERAL CONTRACTOR IS RESPONSIBLE FOR VERIFYING EXACT LOCATIONS OF EXISTING UTILITIES AND IS RESPONSIBLE FOR ANY DAMAGE TO ANY UTILITIES, EITHER PUBLIC OR PRIVATE, SHOWN HEREON OR NOT SHOWN HEREON. ANY REPAIRS SHALL BE DONE TO THE SATISFACTION OF THE APPROPRIATE UTILITY COMPANY.
2. THE GENERAL CONTRACTOR SHALL CONFIRM ALL NEW UTILITY TAP LOCATIONS WITH THE UTILITY OWNERS. ALL FEES SHALL BE THE RESPONSIBILITY OF THE DEVELOPER.
3. IT IS THE RESPONSIBILITY OF THE GENERAL CONTRACTOR TO VERIFY THE ACTUAL LOCATION AND AVAILABILITY OF ALL EXISTING AND PROPOSED UTILITIES.
4. NEW LOT LIGHT FOUNDATION BASES, CONDUIT AND WIRING ARE BY THE GENERAL CONTRACTOR. POLES, FIXTURES, ANCHOR BOLTS & HARDWARE SHALL BE COORDINATED WITH THE OWNER AND INSTALLED BY THE ELECTRICAL CONTRACTOR.
5. ALL NEW LOT LIGHTS AND THE MAIN IDENTIFICATION SIGN SHALL HAVE A MINIMUM 10 FEET CLEARANCE FROM ALL OVERHEAD UTILITIES.
6. GENERAL CONTRACTOR IS RESPONSIBLE FOR PERMITS AND/OR APPROVALS NECESSARY FOR ANY WORK IN ROADWAY OR RIGHT-OF-WAY.
7. ALL TRENCH EXCAVATION AND BACKFILL SHALL BE IN ACCORDANCE WITH TRENCH BACKFILL DETAIL SHOWN ON THESE PLANS.
8. MINIMUM COVER FOR CONDUITS SHALL BE 36" UNLESS OTHERWISE SHOWN OR NOTED ON THESE PLANS.
9. ALL MANHOLES, VALVES, AND MONUMENT FRAMES SHALL BE SET TO FINISH GRADE AFTER PAVING.
10. THE CONTRACTOR SHALL COMPLY WITH THE RULES AND REGULATIONS OF THE STATE CONSTRUCTION SAFETY ORDERS. TRENCHES SHALL BE SHORED IN ACCORDANCE WITH OSHA.
11. THE MINIMUM COVER FOR SANITARY SEWER LINES SHALL BE AS FOLLOWS: 1) 17" FT FOR 4" LINES AND 2) 17" FT FOR 6" LINES. CLEANOUTS SHALL BE PLACED AT 75' INTERVALS.
12. ALL WATER LINES SHALL HAVE A FINAL COVER DEPTH 3'-0" IN NON-TRAFFIC AREAS AND 4'-0" MINIMUM IN TRAFFIC AREAS UNLESS SPECIFICALLY NOTED OTHERWISE.
13. ALL SEWER LINES SHALL HAVE A FINAL COVER DEPTH 4'-0" ON NON-TRAFFIC AREAS AND 5'-0" MINIMUM IN TRAFFIC AREAS UNLESS SPECIFICALLY NOTED OTHERWISE ON THE PLANS.
14. SANITARY SEWER SERVICES SHALL BE PVC SDR 35 TO R/W, THEN PVC SCH. 40 TO BUILDING. WATER SERVICE SHALL BE TYPE "K" COPPER.
15. CABLE TV SERVICE ROUTING IS NOT PART OF THIS PLAN, CONTRACTOR TO COORDINATE WITH CABLE COMPANY.
16. EXISTING MANHOLES SHOULD BE VERIFIED FOR RIMS AND INVERTS.
17. ALL WORK SHALL BE COVERED BY THE LATEST EDITIONS OF THE STATE MECHANICAL, PLUMBING, ELECTRICAL, FIRE PROTECTION, BUILDING CODE, ENERGY CONSERVATION, HANDICAP ACCESSIBILITY, NATIONAL ELECTRICAL CODES AND NATIONAL FIRE PROTECTION ASSOCIATION CODES AND AS ADOPTED BY THE AUTHORITIES HAVING JURISDICTION.
18. THE CONTRACTOR SHALL OBTAIN AND PAY FOR ALL INSPECTIONS, CERTIFICATIONS, EQUIPMENT, ETC., THAT MAY BE REQUIRED.
19. CONTRACTOR SHALL GUARANTEE, FOR A PERIOD OF ONE YEAR FROM THE DATE OF FINAL ACCEPTANCE OF SYSTEMS BY OWNER, EACH AND EVERY PIECE OF APPARATUS WHICH HAS BEEN INSTALLED UNDER THIS CONTRACT.
20. THE ENGINEER AND/OR OWNER DISCLAIM ANY ROLE IN THE CONSTRUCTION MEANS/METHODS ASSOCIATED WITH THE PROJECT AS SET FORTH IN THESE PLANS.
21. OCCUPATIONAL HEALTH AND SAFETY ADMINISTRATION (OSHA) STANDARDS FOR EXCAVATIONS: FINAL RULE 29CFR PART 1926, SUBPART "P" APPLIES TO ALL EXCAVATIONS EXCEEDING 5 FEET IN DEPTH.
22. EXCAVATION EXCEEDING TWENTY (20) FEET IN DEPTH REQUIRES THE DESIGN OF A TRENCH SAFETY SYSTEM BY A REGISTERED PROFESSIONAL ENGINEER.
23. EQUIPMENT AND PRODUCTS OTHER THAN THOSE SPECIFIED MAY BE USED PROVIDED PRIOR APPROVAL HAS BEEN OBTAINED FROM THE OWNER IN WRITING PRIOR TO ORDERING OR INSTALLATION. THE CONTRACTOR SHALL WAIVE ANY CLAIM FOR ADDITIONAL COST RELATED TO THE SUBSTITUTION OF ALTERNATE EQUIPMENT.
24. CONTRACTOR SHALL MAINTAIN AN "AS-BUILT" SET OF DRAWINGS TO RECORD THE EXACT LOCATION OF ALL PIPING PRIOR TO COMPLETION. DRAWINGS SHALL BE GIVEN TO THE OWNER UPON COMPLETION OF THE PROJECT WITH A COPY OF THE TRANSMITTAL LETTER TO THE ENGINEER.
25. ONLY SEWAGE NOT CONTAINING GREASE IS ALLOWED TO BYPASS THE GREASE TRAP.
26. ALL SANITARY SEWER SERVICES AND STORM DRAIN PIPING 8" IN DIAMETER OR SMALLER SHALL BE SCH. 40 PVC WITH ADHESIVE "WELDED JOINTS", UNLESS SPECIFIED OTHERWISE OR REQUIRED BY LOCAL GOVERNING MUNICIPALITY. MINIMUM SLOPES ON SANITARY SEWER SERVICES: 4"-1/4" FT, 6"-1/8" FT.
27. BELOW GRADE WATER SERVICE PIPING SHALL BE TYPE "K" HARD DRAWN COPPER TUBING WITH SILVER SOLDER JOINTS. SOLDER JOINTS CONTAINING LEAD SHALL NOT BE USED FOR ANY PURPOSE ON THIS PROJECT, WHERE PIPING IS REQUIRED TO RUN BELOW THE BUILDING SLAB, IT SHALL BE INSTALLED WITHOUT JOINTS BELOW SLAB.
28. WATER PIPING SHALL BE CONNECTED TO BUILDING STUBS, VERIFY LOCATIONS PRIOR TO BEGINNING WATER PIPE INSTALLATION.
29. WASTE PIPING BE CONNECTED TO BUILDING STUBS, VERIFY LOCATIONS AND INVERTS PRIOR TO BEGINNING ANY WASTE PIPE INSTALLATION.
30. CONTRACTOR SHALL NOTIFY NORTH CAROLINA "ONE CALL" AT 800-832-4949 AT LEAST 48 HOURS PRIOR TO BEGINNING CONSTRUCTION OR EXCAVATION TO HAVE UTILITIES LOCATED. CONTRACTOR SHALL CONTACT ANY LOCAL UTILITIES THAT PROVIDE THEIR OWN LOCATOR SERVICES IMMEDIATELY.
31. ALL UTILITY CONSTRUCTION SHALL BE IN ACCORDANCE WITH CAPE FEAR PUBLIC UTILITIES AUTHORITY CROSS CONNECTION CONTROL REGULATIONS AND STANDARDS.
32. SITE UTILITY CONTRACTOR TO PROVIDE WATER, SANITARY SEWER, AND ROOF DRAIN LEADERS TO WITHIN 5 FEET OF THE BUILDING. CONTRACTOR SHALL COORDINATE SITE PLAN CONNECTIONS WITH THE ARCHITECTURAL BUILDING PLANS.
33. SANITARY CLEANOUTS SHALL BE PLACED NO MORE THAN 75 FEET APART. CLEAN OUTS LOCATED IN PAVEMENT AREAS SHALL HAVE HEAVY DUTY TRAFFIC RATED CONSTRUCTION.
34. CONNECTION OF SANITARY SEWER SERVICE TO AN EXISTING MANHOLE SHALL COMPLY WITH CAPE FEAR PUBLIC UTILITIES AUTHORITY, INCLUDING CORE DRILL FOR OPENING INTO MANHOLE AND INSTALL WITH FLEXIBLE BOOT. IF PAVEMENT CUT IS REQUIRED, CONTRACTOR SHALL PATCH PAVEMENT WITH A SECTION TO MATCH EXISTING PAVEMENT: 3/4", 8" ABC OR BETTER.
35. RELATION OF WATER MAINS TO SEWERS:
 - A. LATERAL SEPARATION OF SEWER AND WATER MAINS: WATER MAINS SHALL BE LAID AT LEAST 18" FEET LATERALLY FROM EXISTING OR PROPOSED SEWERS UNLESS LOCAL CONDITIONS OR BARRIERS PREVENT A 10 FOOT LATERAL SEPARATION, IN WHICH CASE:
 1. THE WATER MAIN IS LAID IN A SEPARATE TRENCH, WITH THE ELEVATION OF THE BOTTOM OF THE WATER MAIN AT LEAST 18" ABOVE THE TOP OF THE SEWER, OR
 2. THE WATER MAIN IS LAID IN THE SAME TRENCH AS THE SEWER LINE WITH THE WATER MAIN LOCATED AT ONE SIDE OF THE BENCH OR UNDISTURBED EARTH, AND ABOVE THE TOP OF THE SEWER.
 - B. CROSSING OF WATER MAIN OVER A SEWER MAIN: WHENEVER IT IS NECESSARY FOR A WATER MAIN TO CROSS OVER A SEWER MAIN BOTH SHALL BE LAID AT SUCH AN ELEVATION THAT THE BOTTOM OF THE WATER MAIN IS AT LEAST 18" INCHES ABOVE THE TOP OF THE SEWER MAIN, UNLESS LOCAL CONDITIONS OR BARRIERS PREVENT AN 18" INCH VERTICAL SEPARATION IN WHICH CASE BOTH THE WATER MAIN AND SEWER MAIN SHALL BE CONSTRUCTED OF FERROUS MATERIALS AND WITH CONJUGATE JOINTS EQUIVALENT TO WATER MAIN STANDARDS FOR A DISTANCE OF 10 FEET ON EACH SIDE OF THE POINT OF CROSSING.
 - C. CROSSING OF WATER UNDER A SEWER MAIN: WHENEVER IT IS NECESSARY FOR THE WATER MAIN TO CROSS UNDER A SEWER MAIN BOTH THE WATER MAIN AND SEWER MAIN SHALL BE LAID AT SUCH AN ELEVATION THAT THE OUTSIDE OF THE SEWER LINE NEAREST TO THE OUTSIDE OF THE STORM DRAIN PIPE SHALL MAINTAIN A 12" INCH CLEAR SEPARATION DISTANCES, OR ENCASED IN EITHER CONCRETE OR DUCTILE IRON PIPE FOR AT LEAST 5 FEET ON EITHER SIDE OF THE CROSSING.
 - D. CROSSING OF SEWER LINE OVER OR UNDER A STORM DRAIN: WHENEVER IT IS NECESSARY FOR A SEWER LINE TO CROSS A STORM DRAIN PIPE, THE SEWER LINES SHALL BE LAID AT SUCH AN ELEVATION THAT THE OUTSIDE OF THE SEWER LINE NEAREST TO THE OUTSIDE OF THE STORM DRAIN PIPE SHALL MAINTAIN A 12" INCH CLEAR SEPARATION DISTANCES, OR ENCASED IN EITHER CONCRETE OR DUCTILE IRON PIPE FOR AT LEAST 5 FEET ON EITHER SIDE OF THE CROSSING.
36. UNDERGROUND CONDUITS TO SIGNS, LOT LIGHTS, ETC., SHALL BE PLACED IN GRASS OR LANDSCAPE AREAS WHENEVER POSSIBLE. THE LOCATION OF THE CONDUIT AS SHOWN ON THESE PLANS SHALL BE CONSIDERED TO BE SYMBOMATIC WITH ACTUAL LOCATION TO BE VERIFIED BY THE GENERAL CONTRACTOR. PVC SCH. 40 SLEEVES SHALL BE INSTALLED FOR ALL CONDUIT CROSSING UNDER PAVED AREAS.
37. SEE ELECTRICAL SHEETS FOR SIZE OF CONDUIT AND WIRE ON ALL ELECTRICAL SERVICE.
38. TRANSFORMER BY ELECTRICAL COMPANY. GENERAL CONTRACTOR TO PROVIDE PAD. REFER TO ELECTRIC COMPANY SPECIFICATIONS FOR PAD CONSTRUCTION.



Consultant
 Triangle Site Design, PLLC
 4004 Barrett Dr, Ste 101
 Raleigh, NC 27609
 (919) 553-6570
 mrowder@trianglesitedesign.com
 NC License #P-0519



Owner/Developer
 Wilmington NC 2018, LLC
 Hartzog Holdings, LLC
 Attn: Collins Hartzog
 109 Still Wild Lane
 Elgin, SC 29045
 803-361-6718
 collins@hartzogholdings.com



Starbucks - Hospital Plaza
 2018 South 16th Street
 Wilmington, North Carolina
 New Hanover County

This document, together with the concepts and designs presented herein, as an instrument of services, is intended only for the specific purpose and client for which it was prepared. Reuse of and improper reliance on this document without written authorization and adaptation by Triangle Site Design, PLLC shall be without liability to Triangle Site Design, PLLC.

REVISIONS

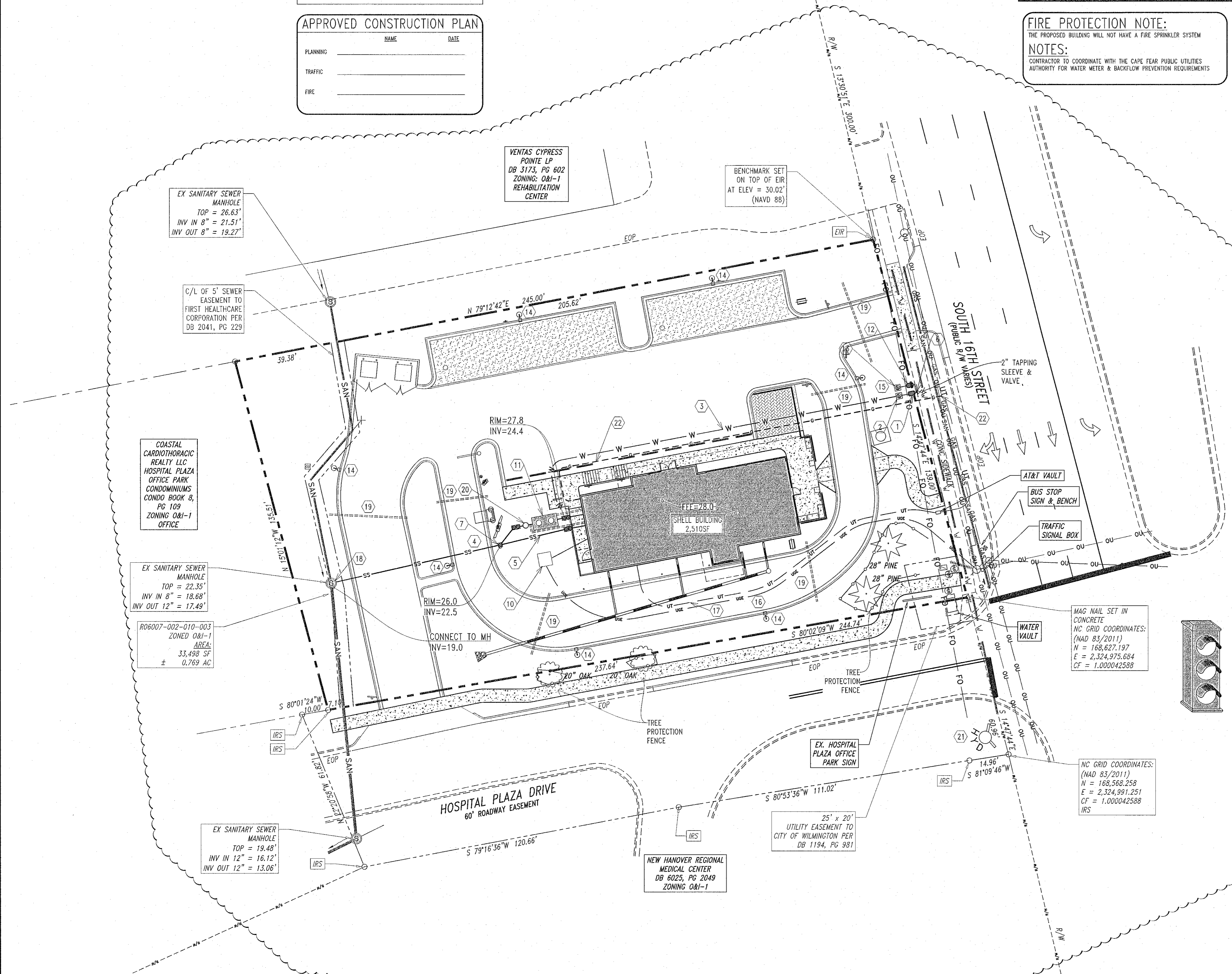
No.	Date	Description
1	4/30/19	REVISED PER CITY REVIEW

Drawn _____
 Checked _____
 Approved _____

Project No. 090914
 Date: April 30, 2019
 Title

UTILITY PLAN

Sheet No. C1.2



UTILITY SERVICE NOTES

WATER SERVICE
 GENERAL CONTRACTOR TO PROVIDE AND INSTALL A WATER SERVICE LINE FROM EXISTING WATER MAIN TO BUILDING PER MUNICIPAL REQUIREMENTS.
 CONTACT: CAPE FEAR PUBLIC UTILITIES AUTHORITY
 TELEPHONE: 910-332-6550

ELECTRIC SERVICE
 POWER CO. TO PROVIDE UNDERGROUND 120/208/3 PHASE SERVICE. GENERAL CONTRACTOR TO PROVIDE AND INSTALL TWO 4" DIA. CONDUIT W/ PULL WIRE TO UTILITY COMPANY POINT OF CONNECTION.
 CONTACT: PROGRESS ENERGY
 TELEPHONE: 866-582-6345

TELEPHONE SERVICE
 TELEPHONE CO. TO PROVIDE NEW UNDERGROUND SERVICE. GENERAL CONTRACTOR TO PROVIDE AND INSTALL A 4" DIA. PVC CONDUIT W/ PULL WIRE FROM PHONE PANEL BOARD TO UTILITY COMPANY POINT OF CONNECTION.
 CONTACT: TELEPHONE
 TELEPHONE: 866-582-6345

SANITARY SEWER
 GENERAL CONTRACTOR TO PROVIDE AND INSTALL A 4" PVC FROM EXISTING SEWER TO LAST CLEAN OUT OUTSIDE OF BUILDING. (MIN. 1" SLOPE). PROVIDE CLEAN OUTS EVERY 75' (TYPICAL).
 CONTACT: CAPE FEAR PUBLIC UTILITIES AUTHORITY
 TELEPHONE: 910-332-6550

NATURAL GAS
 GENERAL CONTRACTOR TO COORDINATE WITH NATURAL GAS UTILITY FOR SERVICE LINE TO PROPOSED BUILDING.
 CONTACT: PIEDMONT NATURAL GAS
 TELEPHONE: 800-752-7504

KEYNOTES

- 1 2" DOMESTIC WATER METER PER UTILITY DEPARTMENT REQUIREMENTS
- 2 1.5" DOMESTIC REDUCED PRESSURE BACKFLOW PREVENTER. CONTRACTOR SHALL COORDINATE WITH UTILITY DEPARTMENT
- 3 1.5" DOMESTIC WATER SERVICE, CONTRACTOR SHALL COORDINATE WITH UTILITY DEPARTMENT
- 4 6" PVC SANITARY SEWER LINE AT 1" PER LF SLOPE (MINIMUM), CONTRACTOR SHALL COORDINATE WITH UTILITY DEPARTMENT
- 5 4" PVC SANITARY SEWER LINE AT 1" PER LF SLOPE (MINIMUM), CONTRACTOR SHALL COORDINATE WITH UTILITY DEPARTMENT
- 6 1" IRRIGATION TAP - CONTRACTOR SHALL COORDINATE WITH UTILITY DEPARTMENT
- 7 SANITARY SEWER CLEANOUT, SEE DETAIL SHEET.
- 8 TRAFFIC RATED SANITARY SEWER CLEANOUT, SEE DETAIL SHEET.
- 9 RELOCATE EXISTING UTILITY POLE, CONTRACTOR SHALL COORDINATE WITH OWNER AND UTILITY COMPANY
- 10 TRANSFORMER PAD, CONTRACTOR SHALL COORDINATE LOCATION AND SIZE WITH ELECTRICAL UTILITY.
- 11 1,500 GALLON GREASE TRAP, COORDINATE WITH OWNER AND MANUFACTURER.
- 12 1" IRRIGATION WATER METER, CONTRACTOR SHALL COORDINATE WITH IRRIGATION CONTRACTOR AND UTILITY DEPARTMENT
- 13 1" IRRIGATION BACKFLOW PREVENTER (WATTS 909M1QT OR APPROVED EQUIVALENT) IN ABOVE-GROUND HEATED ENCLOSURE, CONTRACTOR SHALL COORDINATE WITH UTILITY DEPARTMENT
- 14 POLE MOUNTED AREA LIGHT, SEE LIGHTING PLAN.
- 15 COORDINATE IRRIGATION CONNECTION WITH IRRIGATION CONTRACTOR.
- 16 UNDERGROUND ELECTRIC SERVICE, CONTRACTOR SHALL COORDINATE WITH ELECTRICAL UTILITY.
- 17 UNDERGROUND TELEPHONE SERVICE, CONTRACTOR SHALL COORDINATE WITH TELEPHONE COMPANY.
- 18 PROFESSIONALLY CORE DRILL AND RUBBER BOOT EXISTING SANITARY SEWER MANHOLE TO MAKE 6" SANITARY SEWER SERVICE CONNECTION. CONTRACTOR SHALL FIELD VERIFY SIZE, LOCATION AND ELEVATION OF EXISTING SANITARY SEWER PRIOR TO ANY CONSTRUCTION TO ENSURE REQUIRED PIPE SLOPE, COVER AND CLEARANCES CAN BE ACHIEVED AND COORDINATE ALL WORK WITH COUNTY.
- 19 4" PVC IRRIGATION CONDUIT
- 20 15" SAMPLING PORT
- 21 EXISTING FIRE HYDRANT
- 22 NATURAL GAS SERVICE

UTILITY LEGEND

- NEW POWER POLE
- ⊙ NEW WATER METER
- ⊙ NEW GAS METER
- ⊙ NEW ELECTRIC METER
- W — NEW WATER SERVICE (REFER TO CIVIL DRAWINGS)
- G — NEW GAS SERVICE
- S — NEW SANITARY SEWER (REFER TO CIVIL DRAWINGS)
- S — NEW SANITARY SEWER CLEANOUT (AT EVERY 60 FEET).
- U — NEW UNDERGROUND POWER (120/208/3-) SERVICE.
- T — NEW UNDERGROUND TELEPHONE SERVICE.

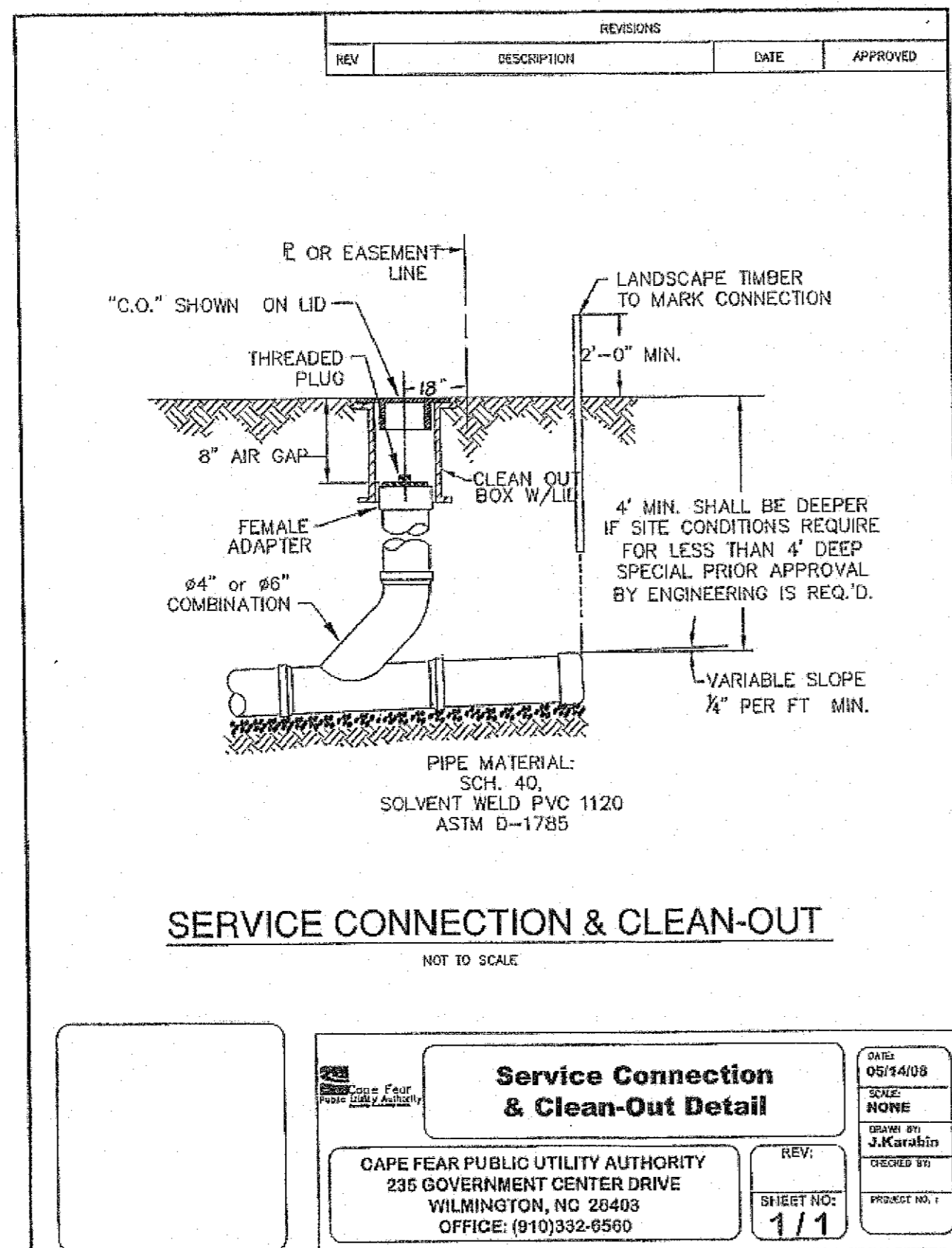
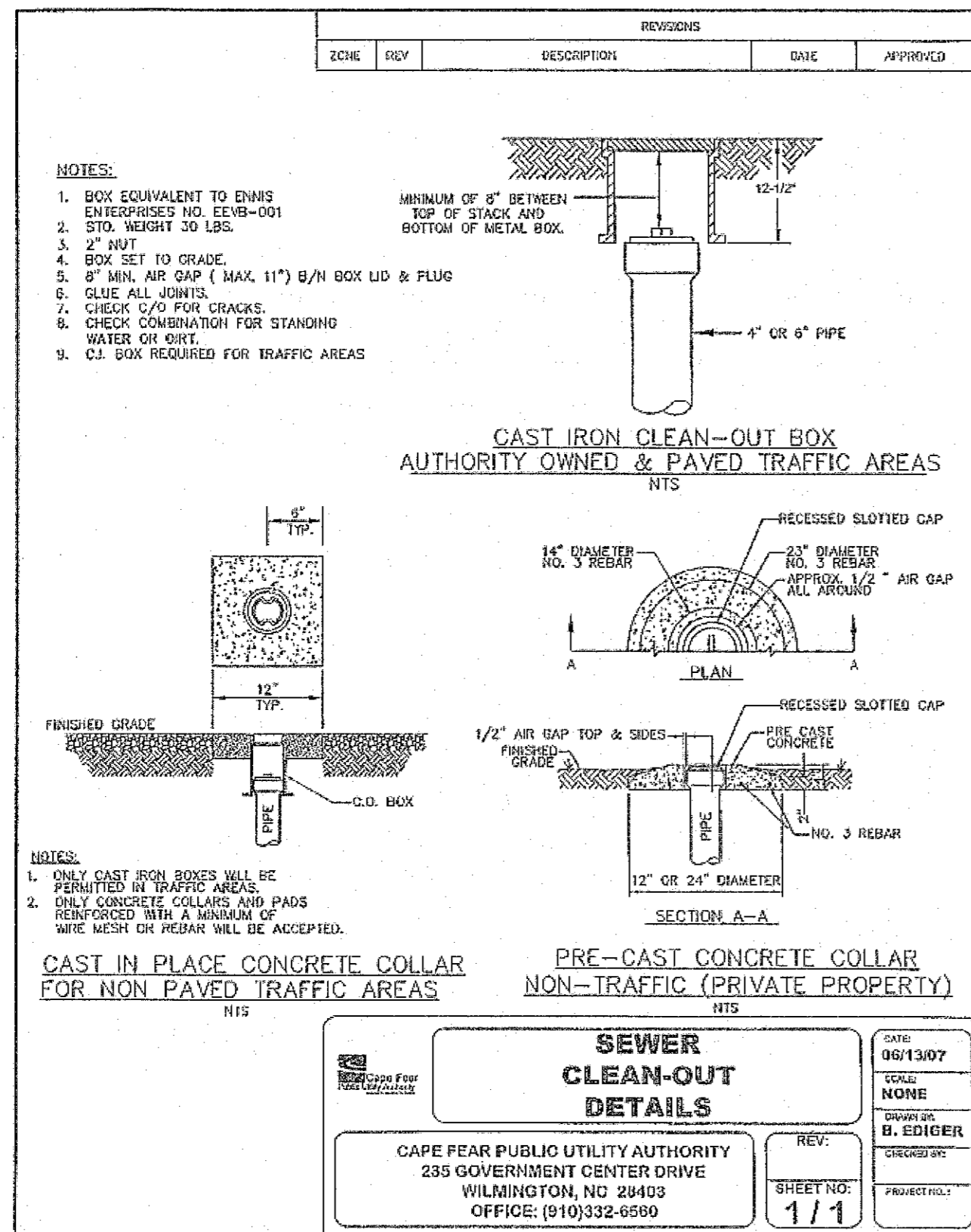
NOTE:

1. CONTRACTOR TO BE RESPONSIBLE FOR VERIFYING & APPLYING FOR UTILITY SERVICE WITH EACH UTILITY COMPANY PRIOR TO STARTING CONSTRUCTION.
2. CONTRACTOR TO BE RESPONSIBLE FOR STREET BORE, IF REQUIRED BY CAPE FEAR PUBLIC UTILITIES AUTHORITY

811 Know what's below Call before you dig.

BEFORE YOU DIG STOP CALL 1 800 633-8349 N.C. ONE-CALL CENTER IT'S THE LAW

GRAPHIC SCALE
 1" = 20 FEET



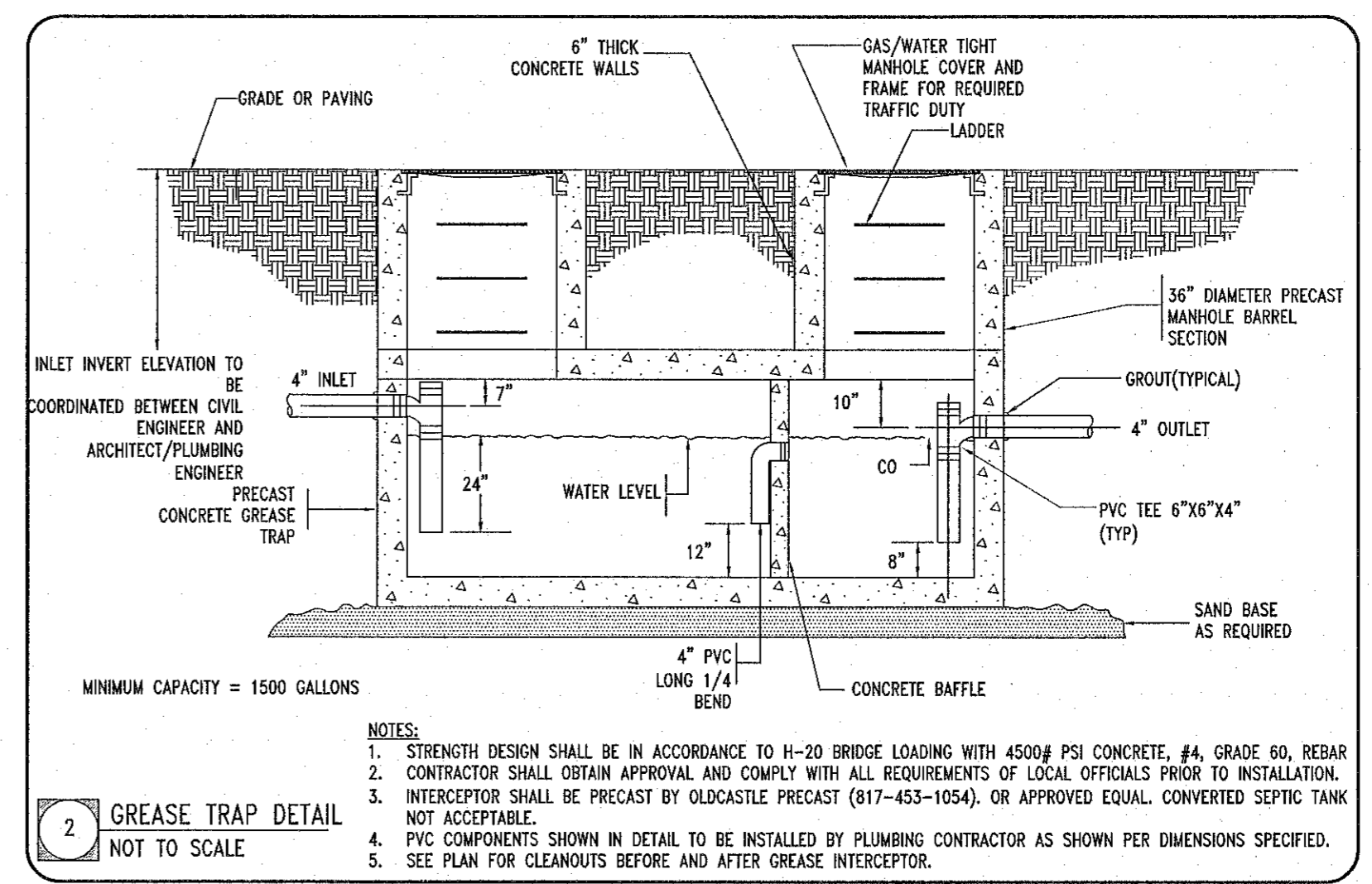
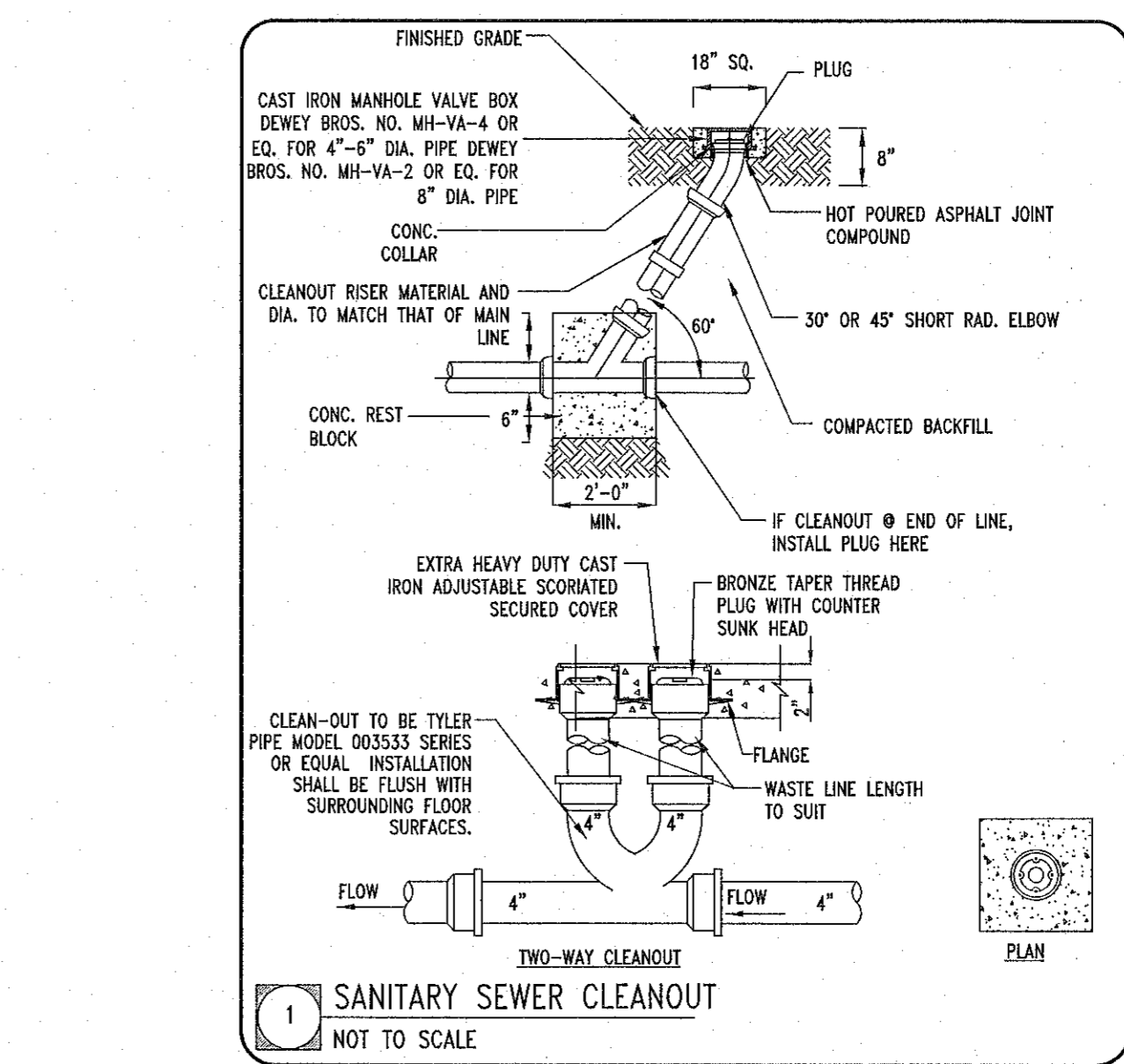
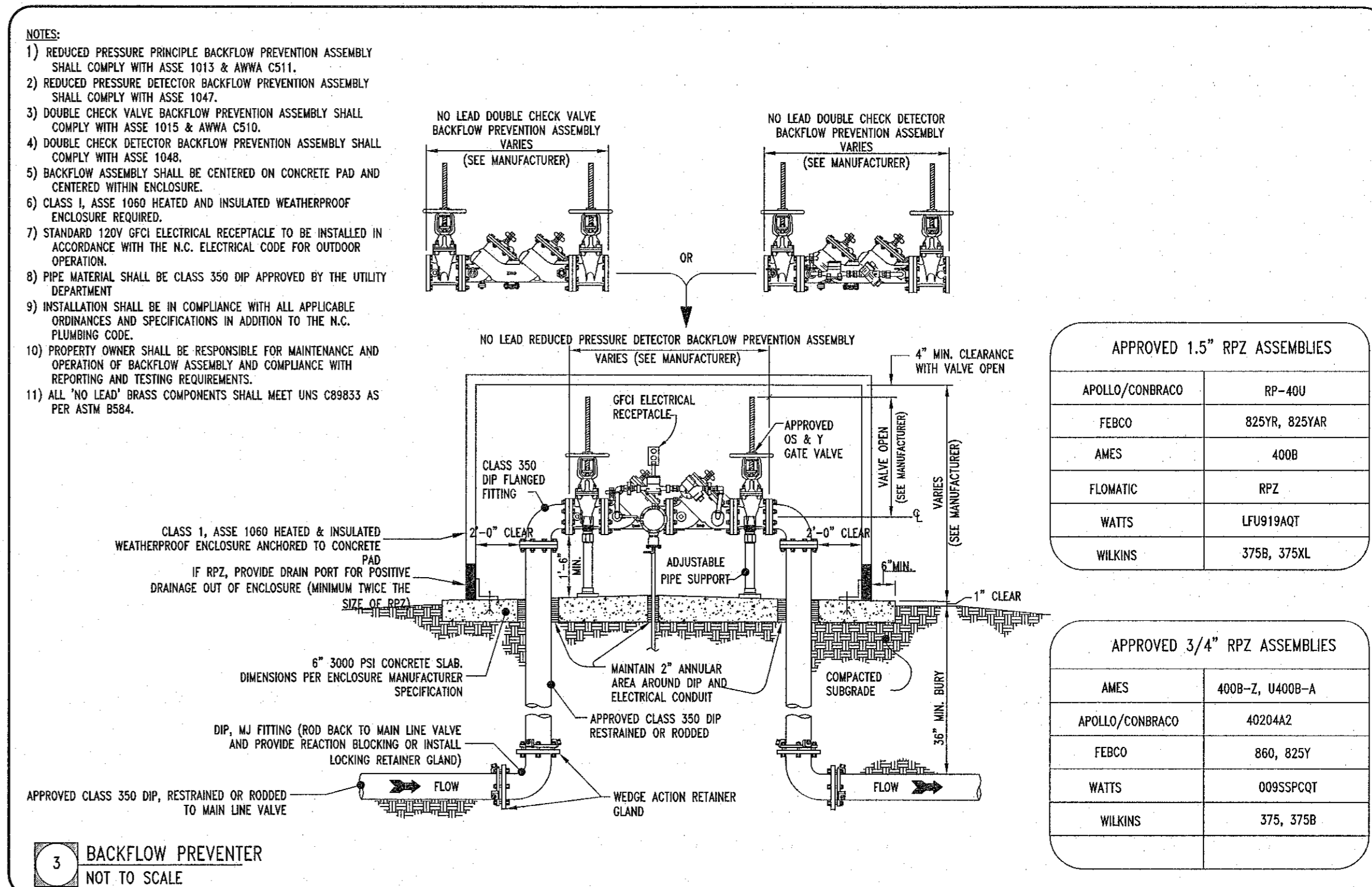
WILMINGTON
NORTH CAROLINA
Public Services • Engineering Division
APPROVED STORMWATER MANAGEMENT PLAN

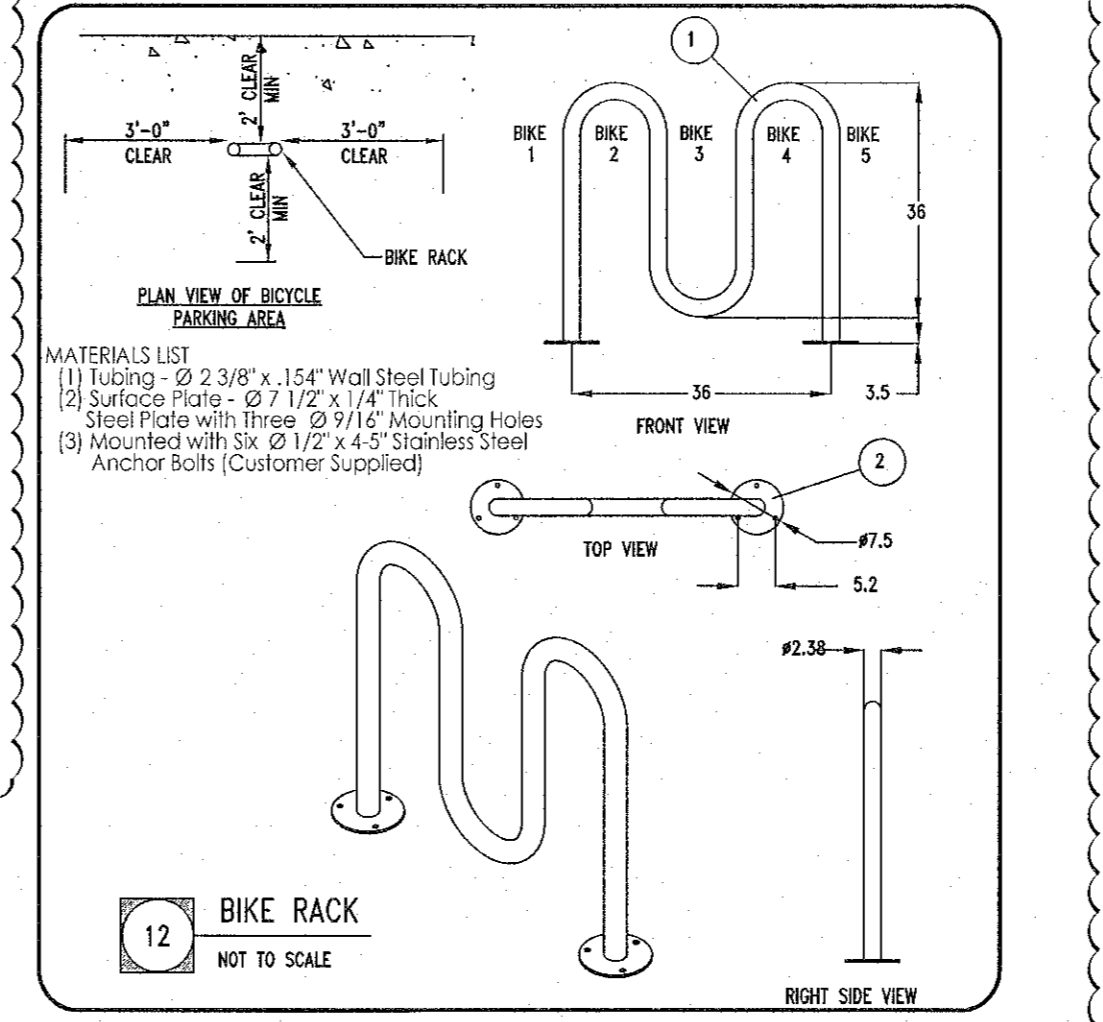
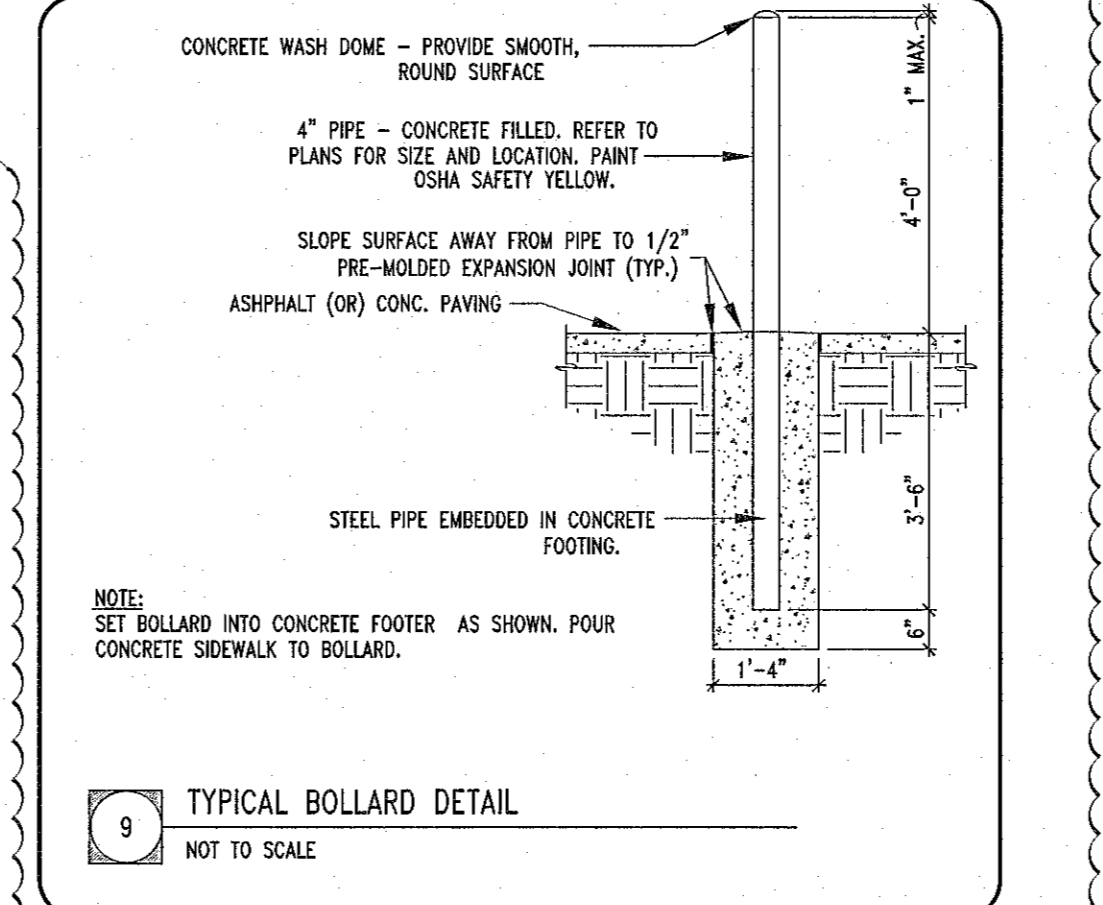
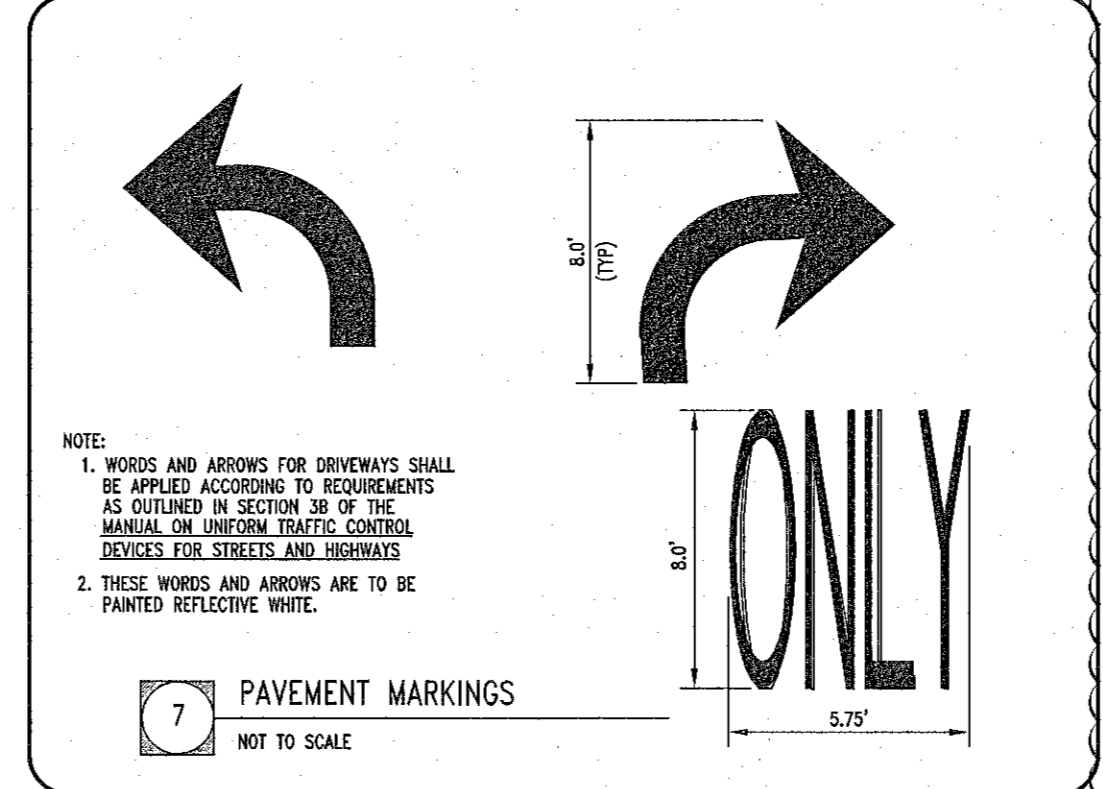
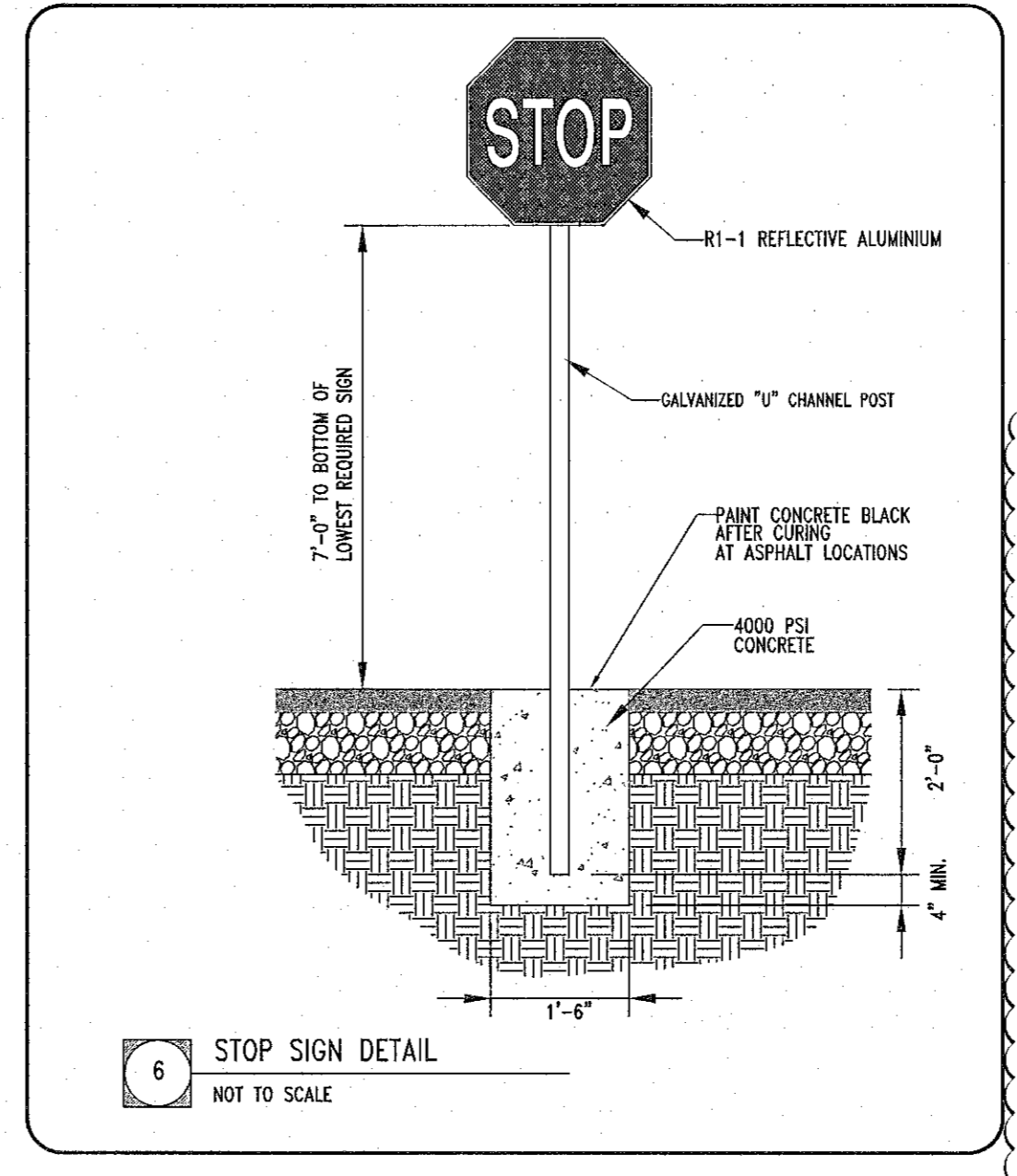
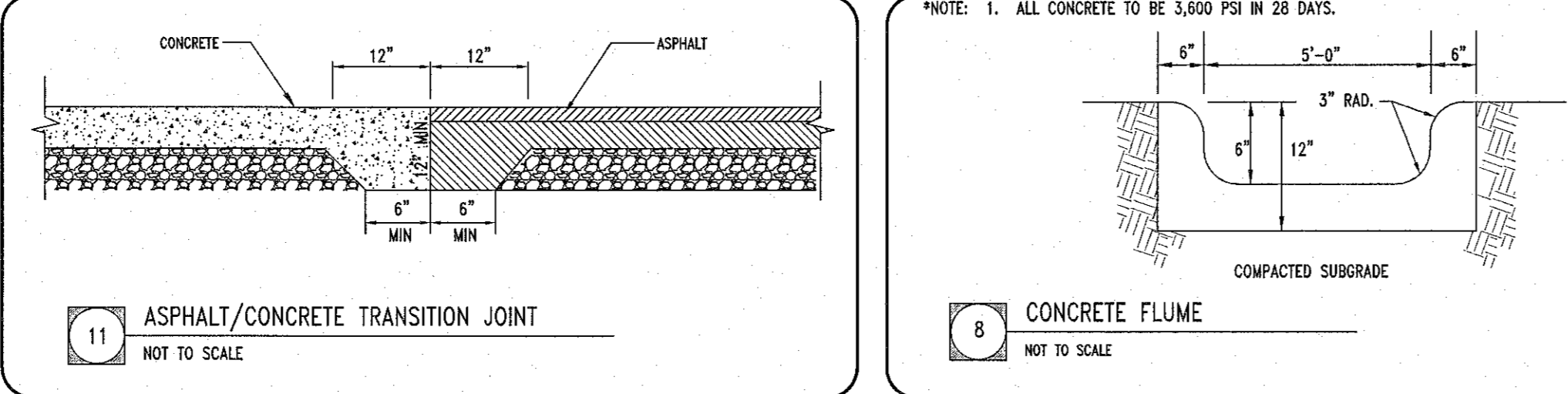
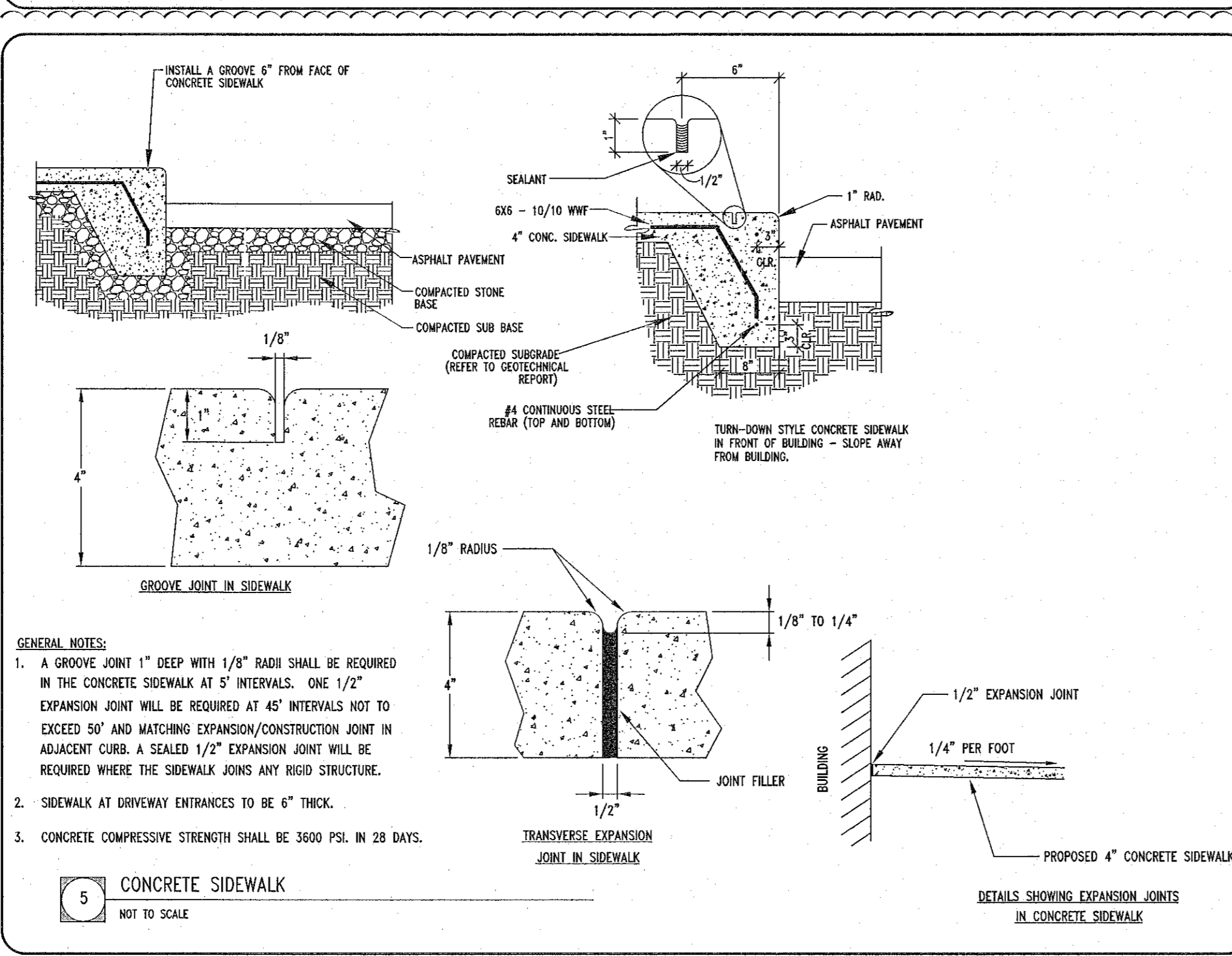
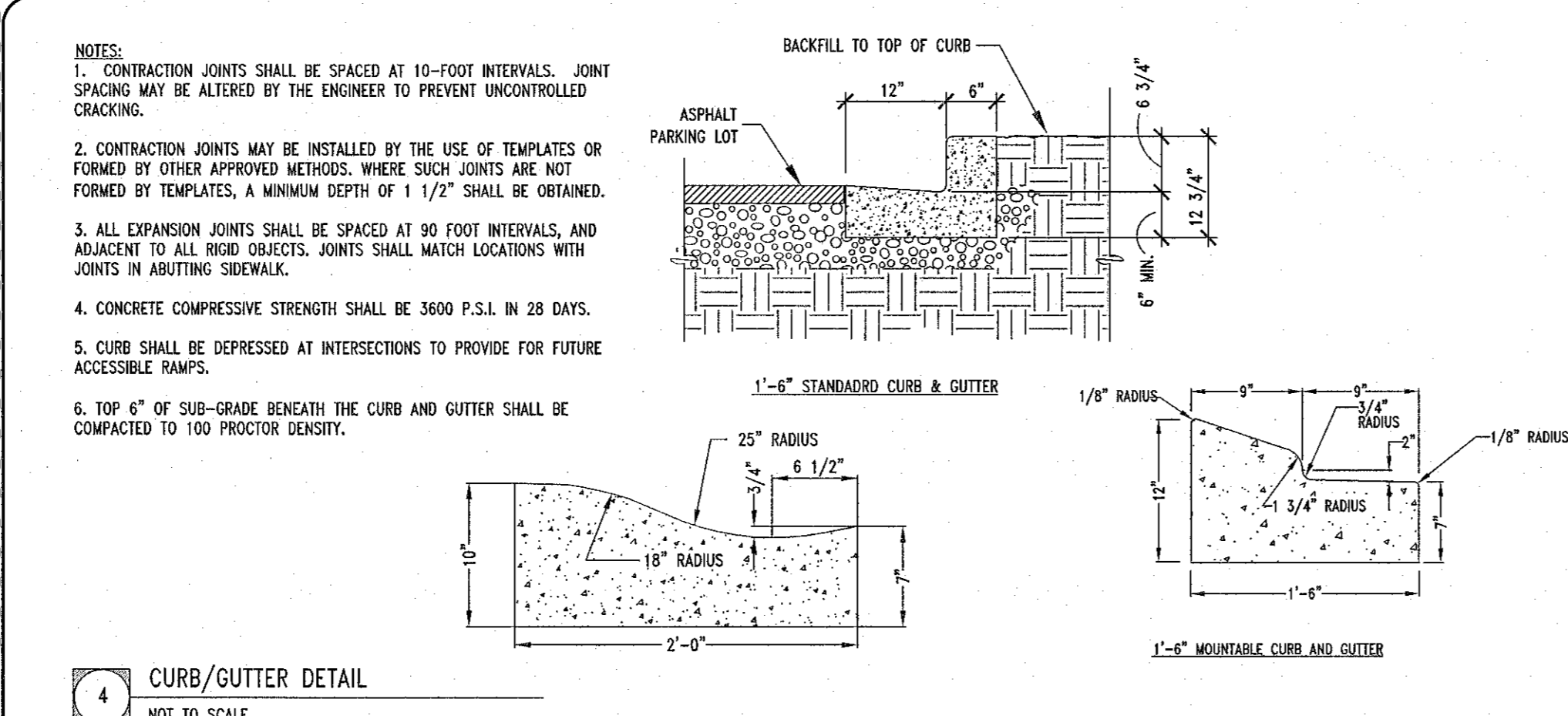
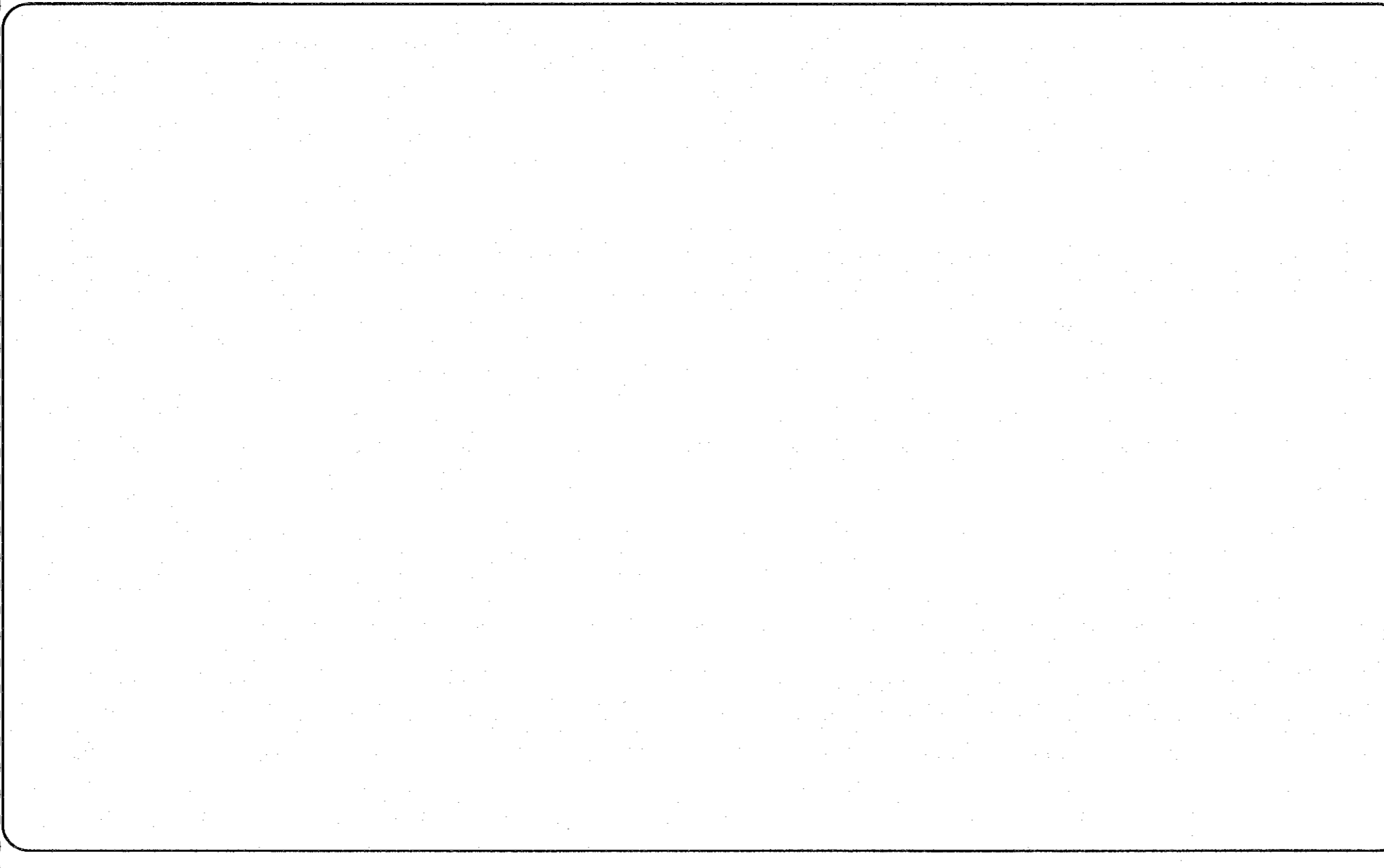
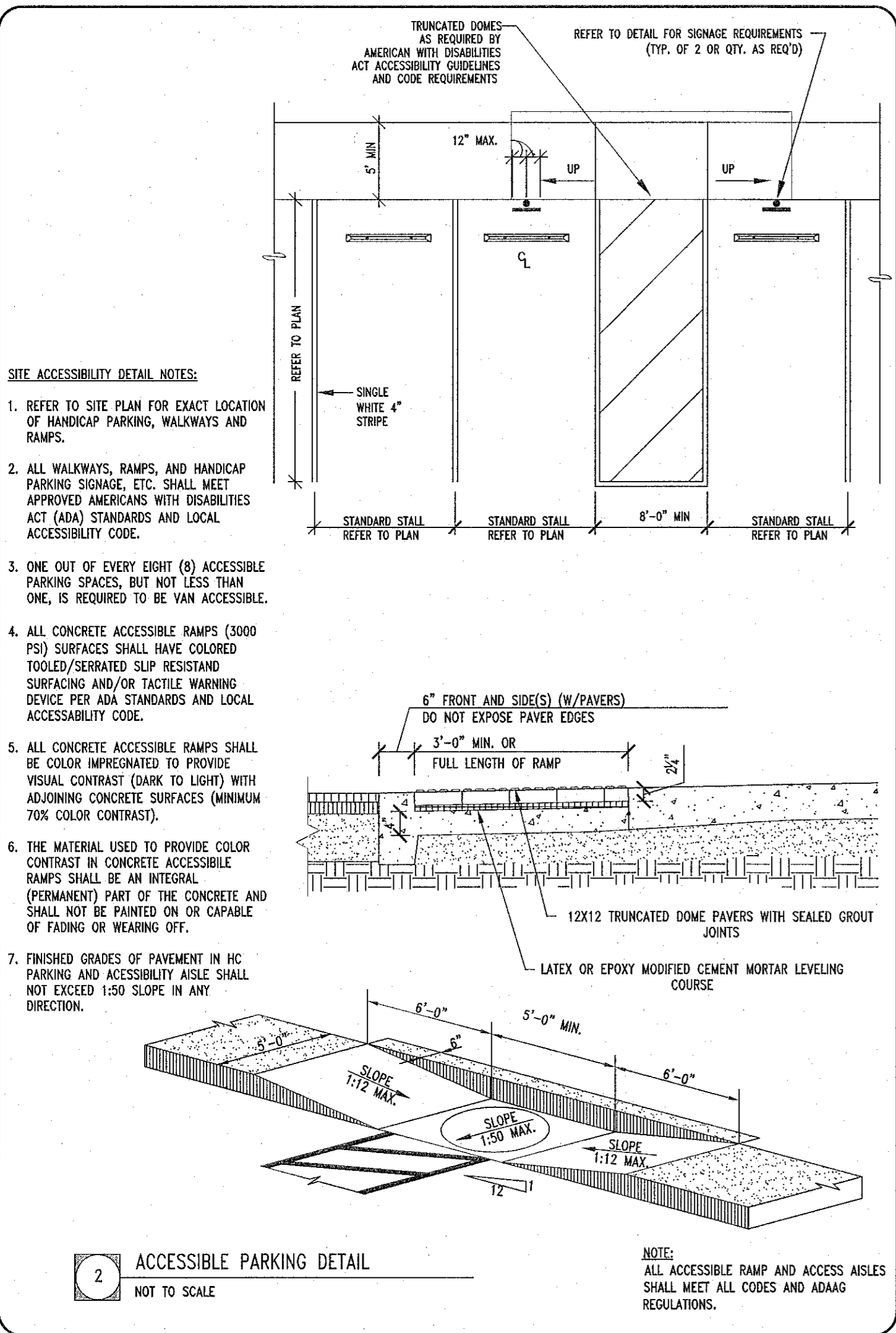
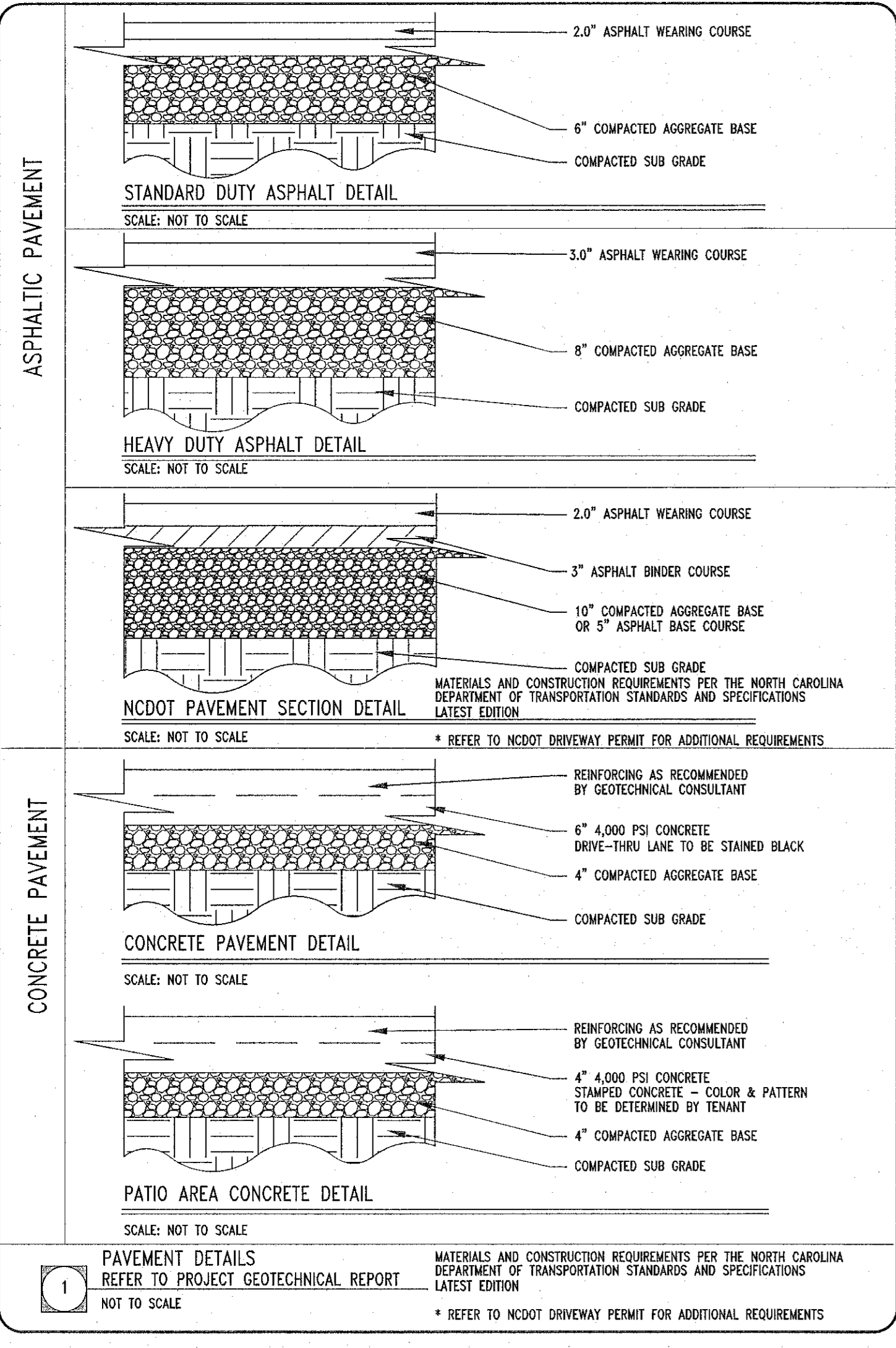
Date: _____ Permit # _____

Signed: _____

NAME	DATE
PLANNING	
TRAFFIC	
FIRE	

APPROVED CONSTRUCTION PLAN





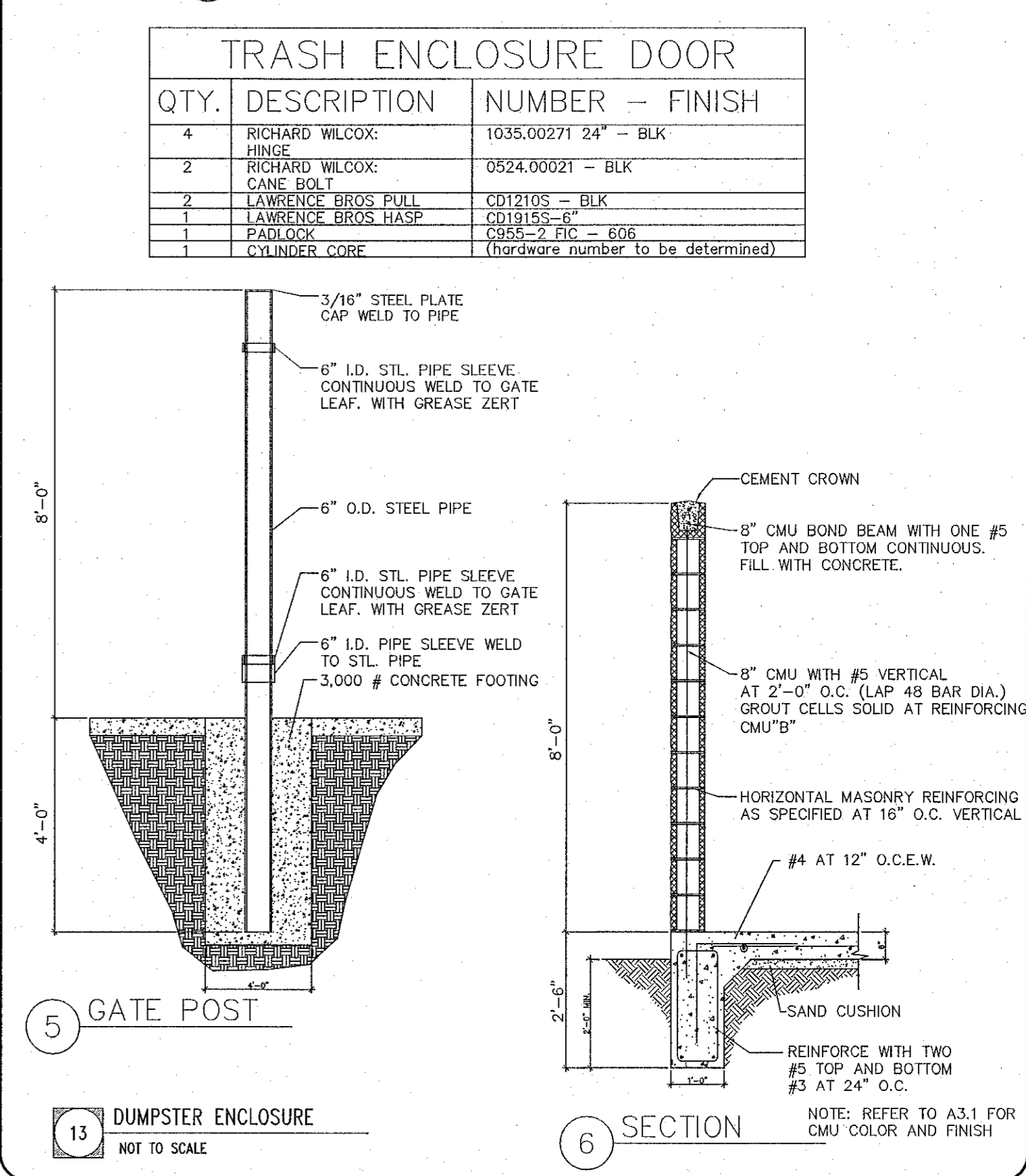
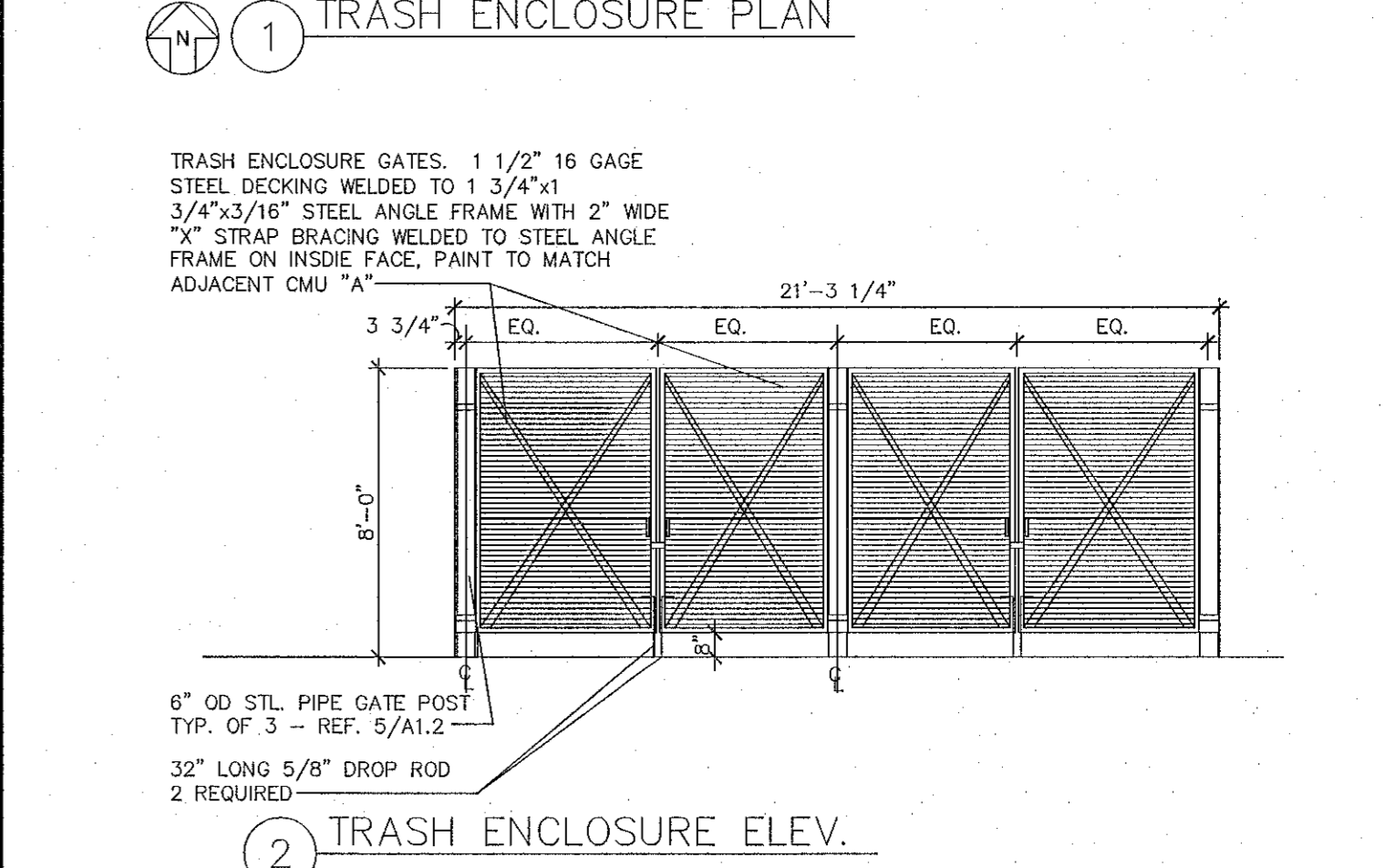
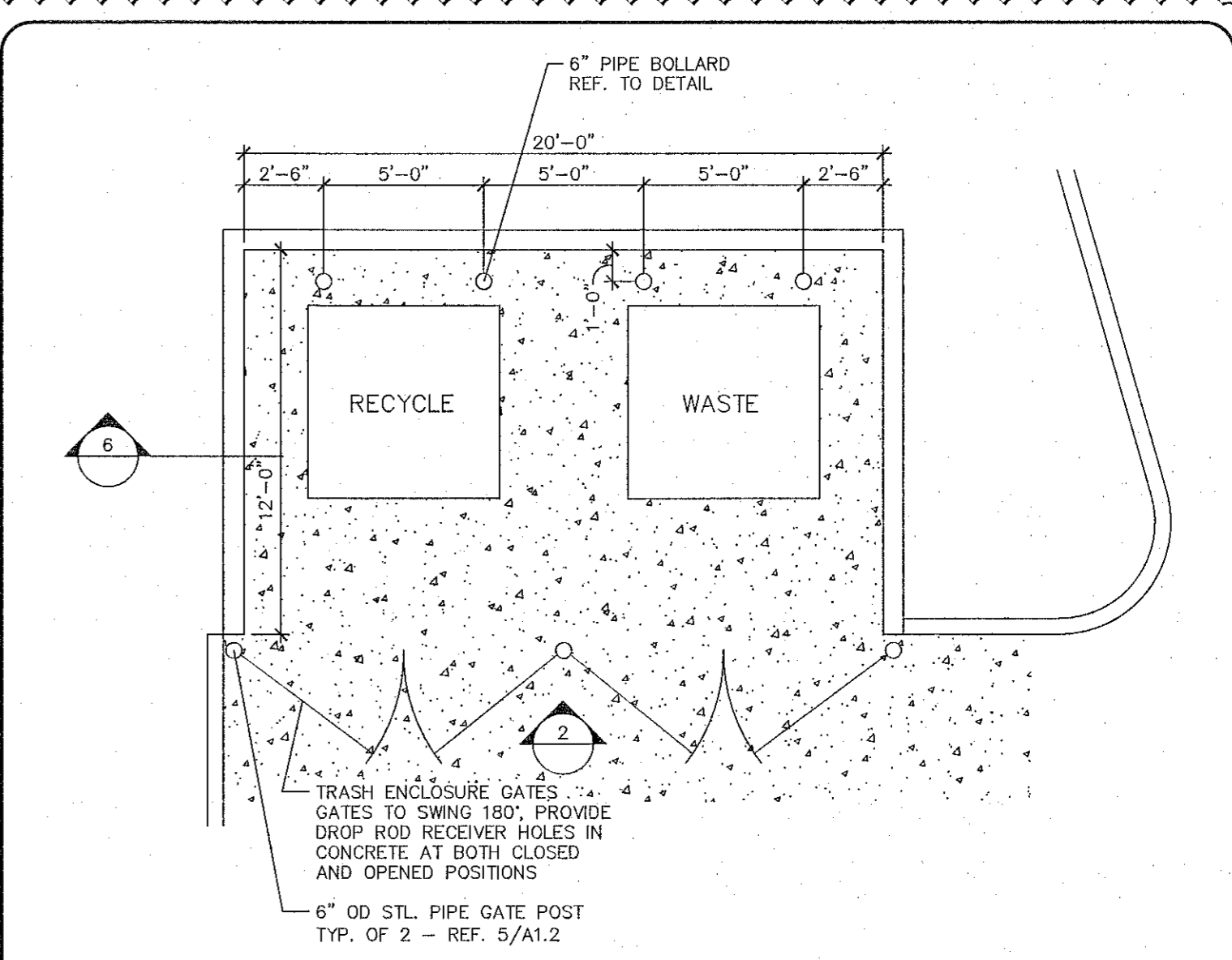
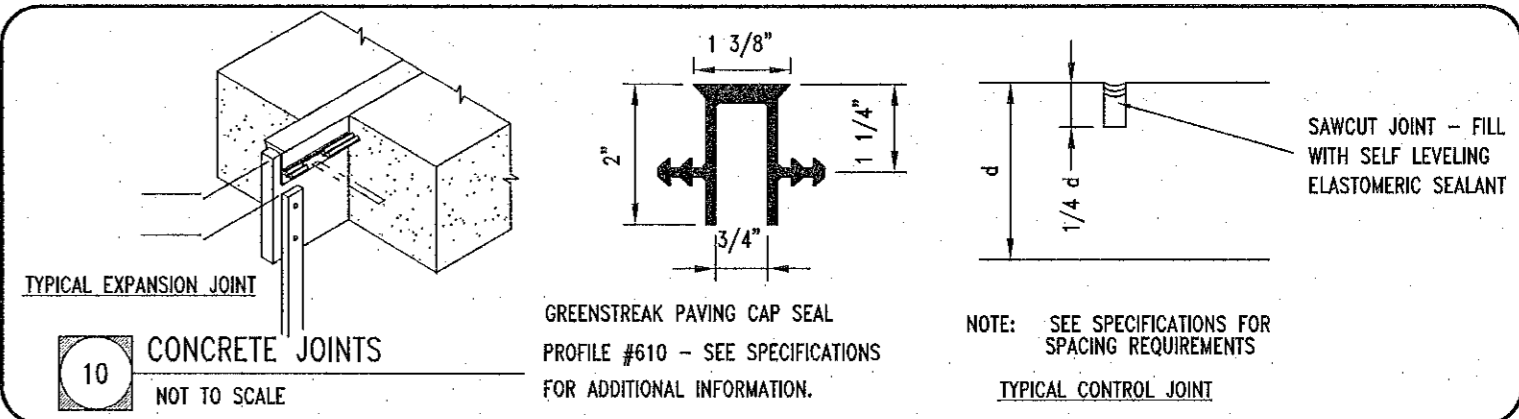
APPROVED CONSTRUCTION PLAN

PLANNING NAME DATE

TRAFFIC

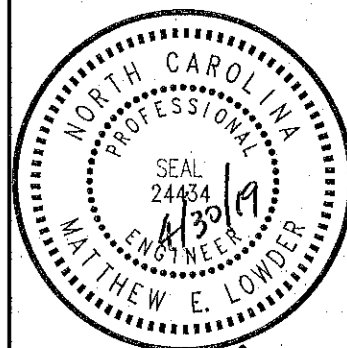
FILE

Signature: _____

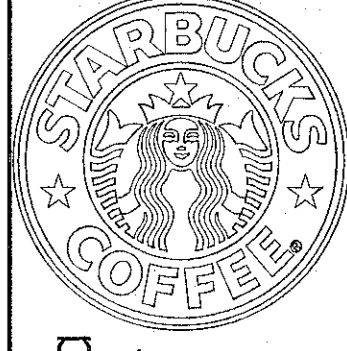


TRIANGLE SITE DESIGN

Consultant
Triangle Site Design, PLLC
4004 Barrett Dr, Ste 101
Raleigh, NC 27609
(919) 553-6570
mloewer@trianglesitedesign.com
NC License #P-0619



Owner/Developer
Wilmington NC 2018, LLC
Hartzog Holdings, LLC
Attn. Collins Hartzog
109 Still Wild Lane
Elgin, SC 29045
803-361-6718
collins@hartzogholdings.com



Starbucks-Hospital Plaza
2018 South 16th Street
Wilmington, North Carolina
New Hanover County

This document, together with the concepts and designs presented herein, as an instrument of services, is intended only for the specific purpose and client for which it was prepared. Reuse of and improper reliance on this document without written authorization and adaptation by Triangle Site Design, PLLC shall be without liability to Triangle Site Design, PLLC.

REV.	DATE	DESCRIPTION
1	1/20/19	REVISION PER CITY REVIEW

Project No. 069014
Date: April 30, 2019
Title

CONSTRUCTION DETAILS

Sheet No. **C1.4A**

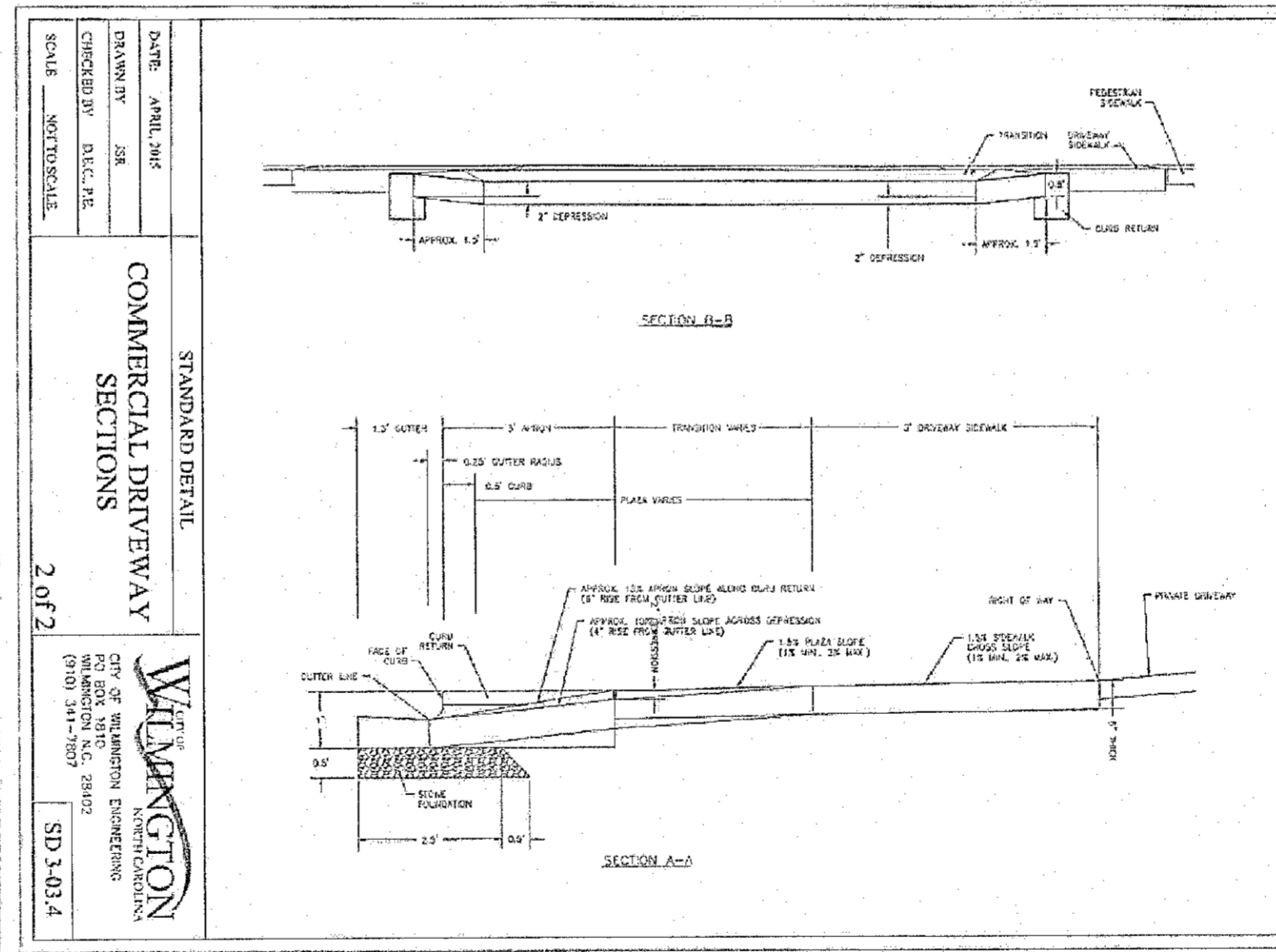
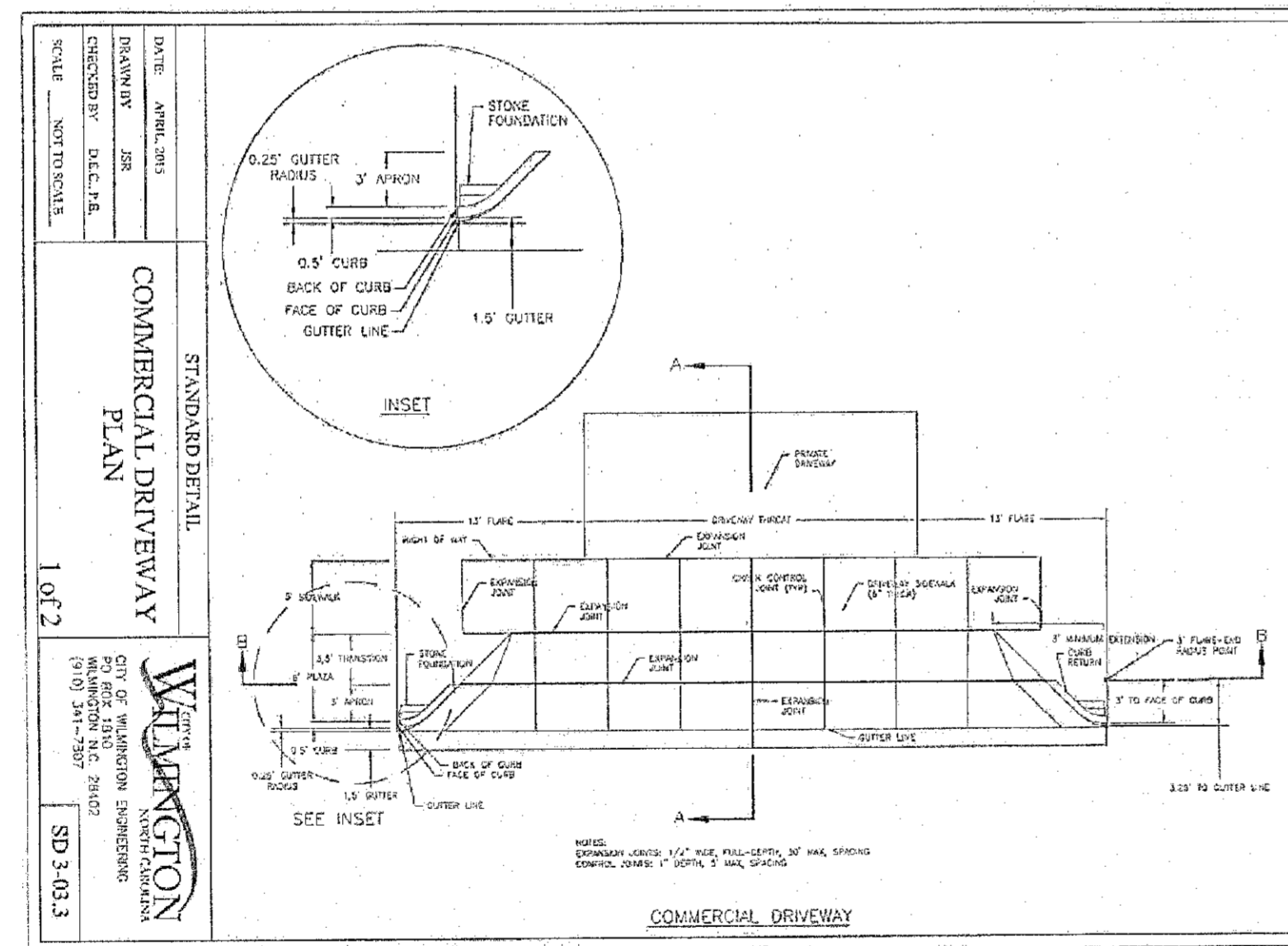
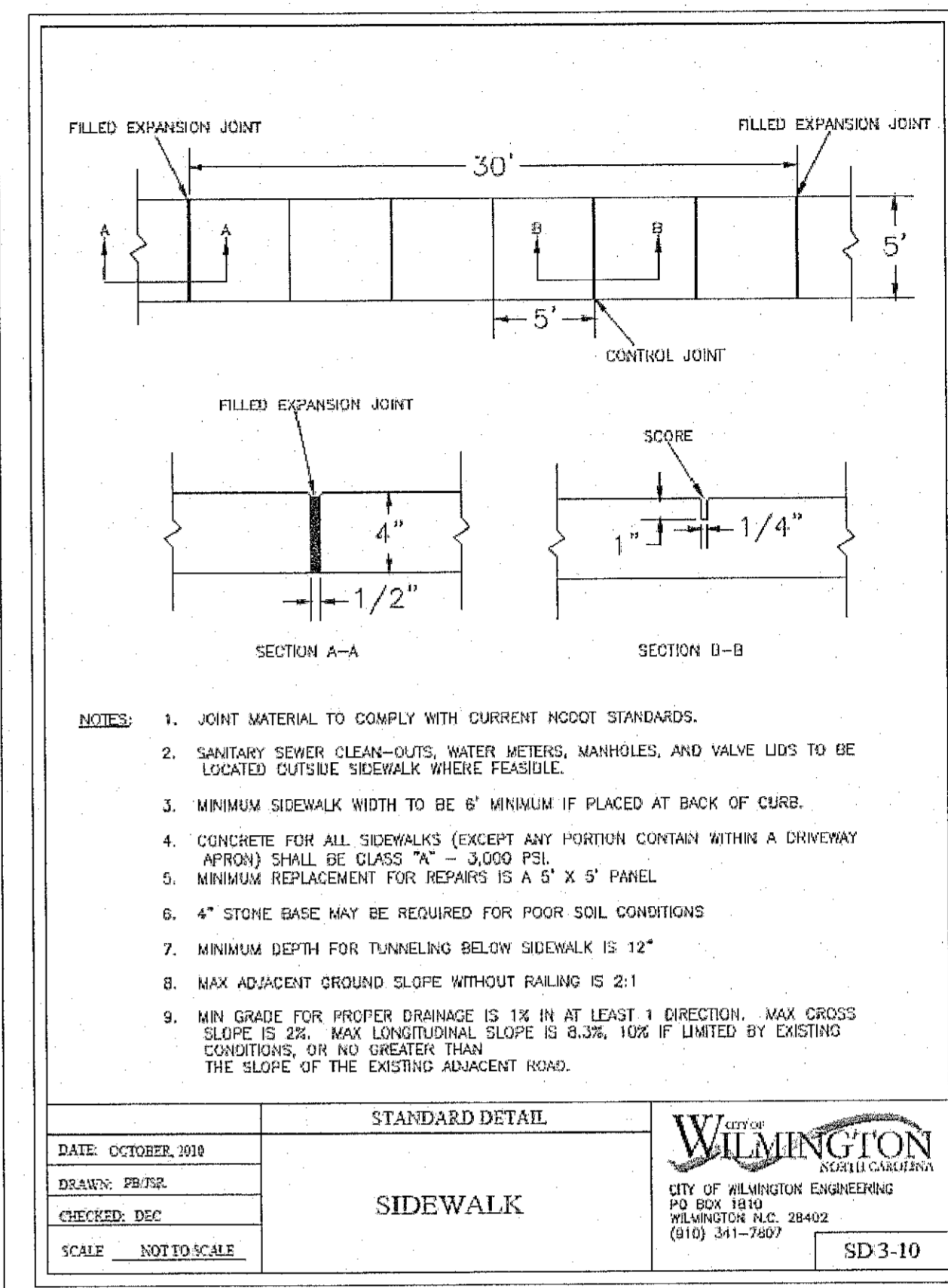
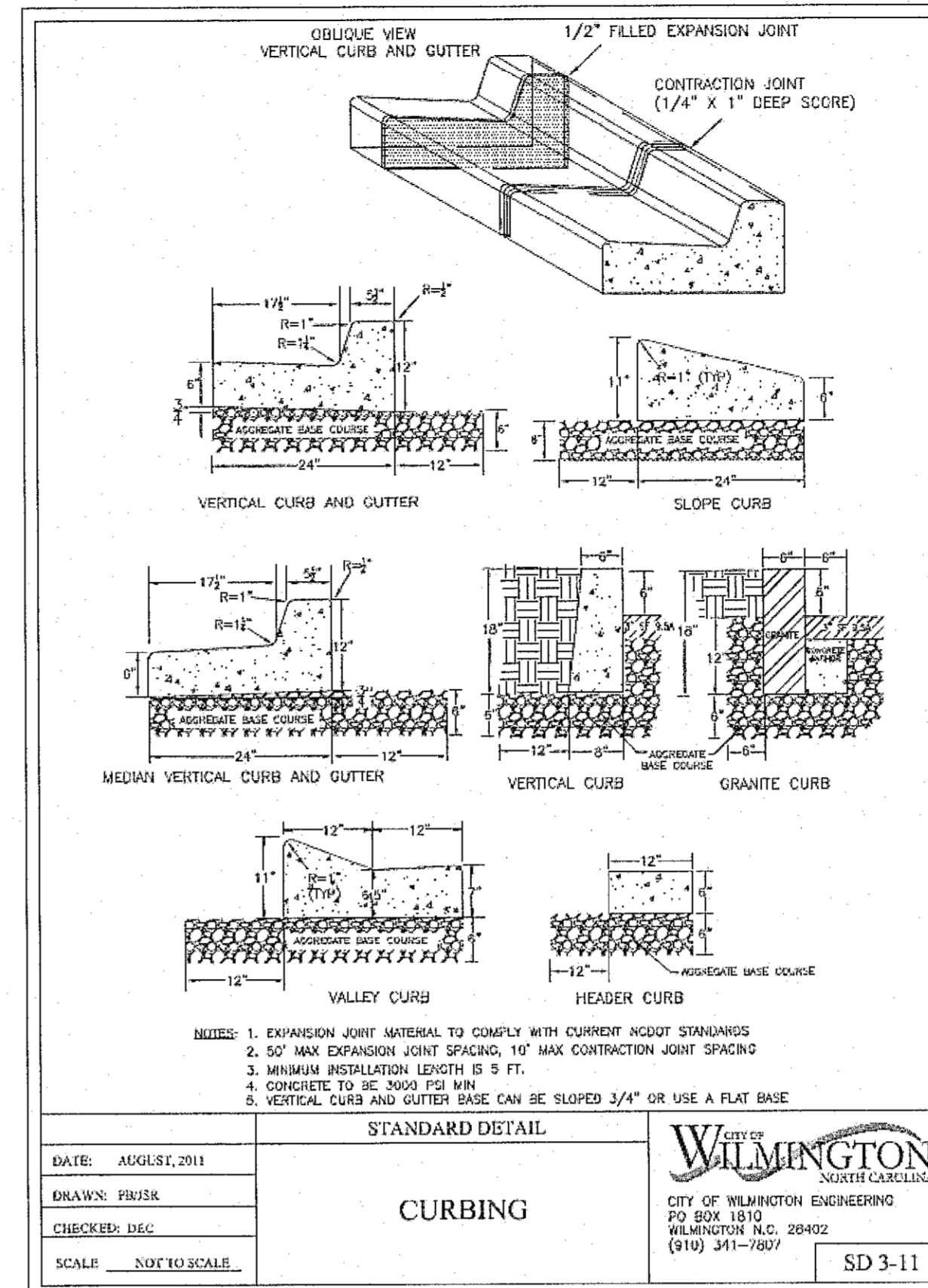
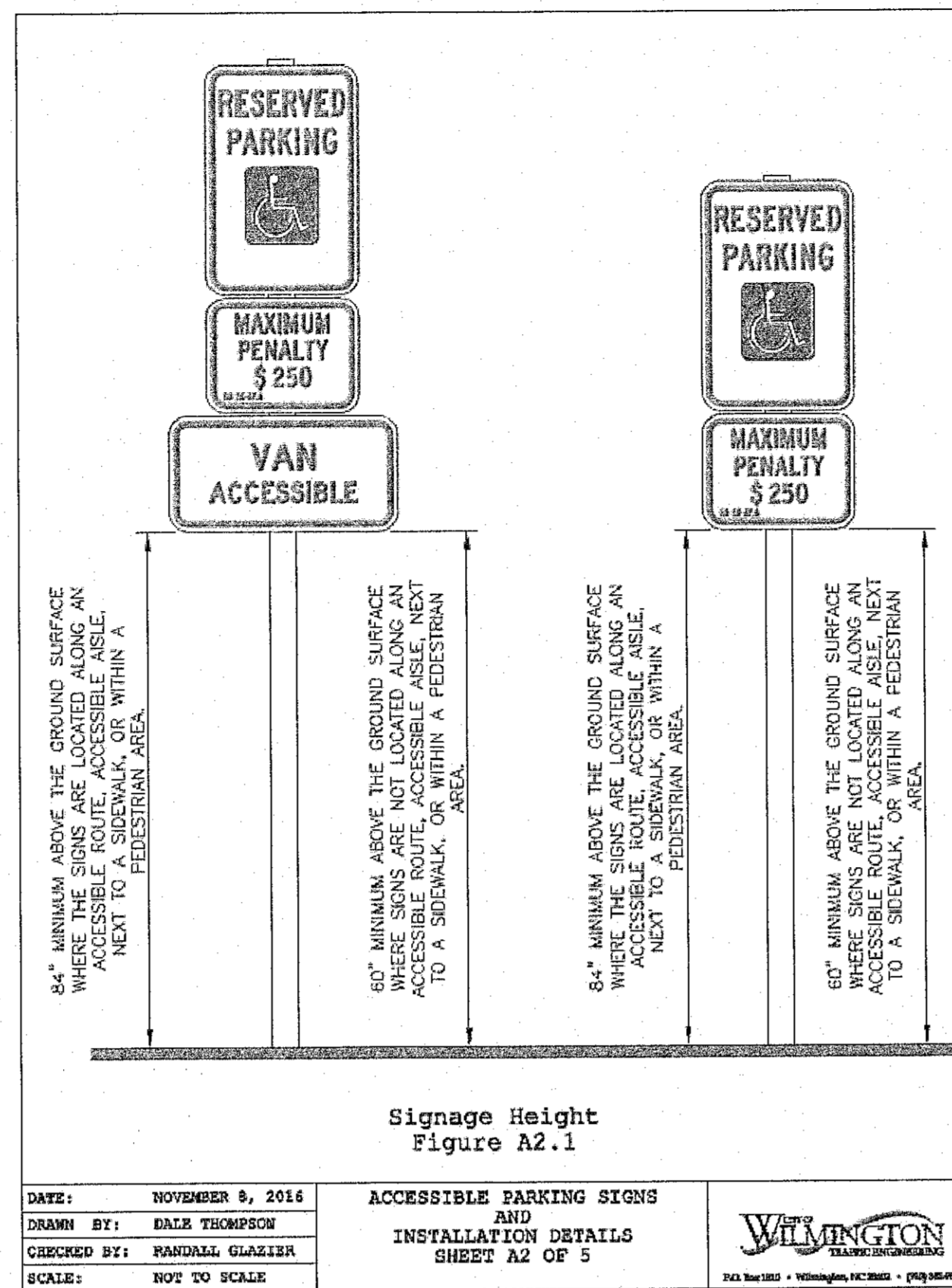
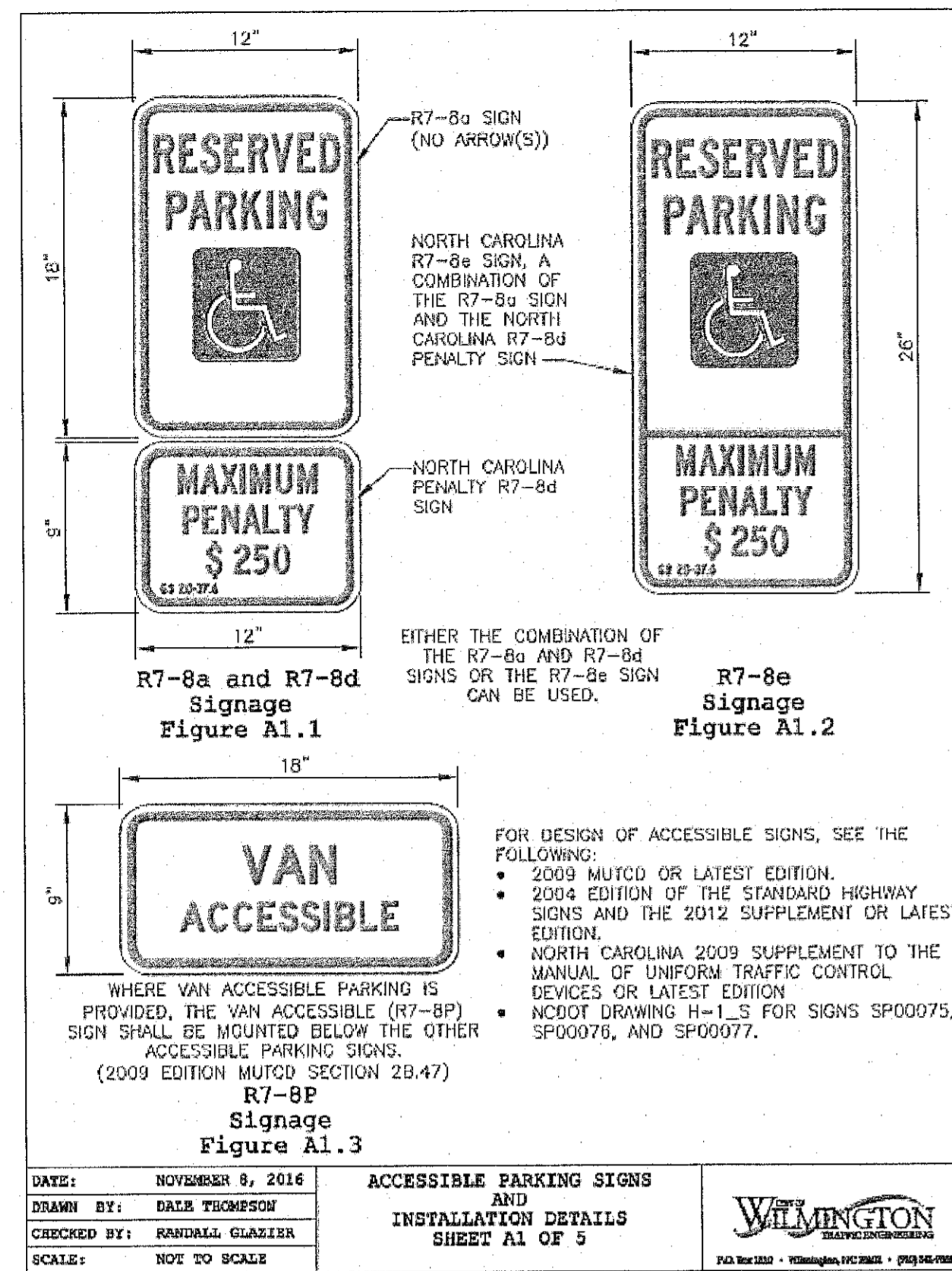


Figure 3B-22. International Symbol of Accessibility Parking Space Marking

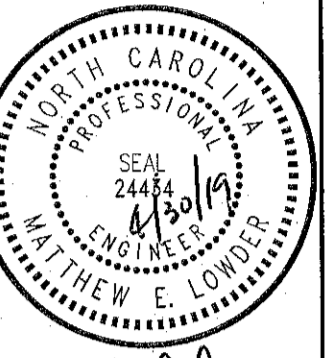


Height of symbol:
 Minimum = 28 inches
 Special = 41 inches

Width of symbol:
 Minimum = 24 inches
 Special = 36 inches

* Stroke width:
 Minimum = 3 inches
 Special = 4 inches

Note: Blue background and white border are optional



Owner/Developer
 Wilmington NC 2018, LLC
 Hartzog Holdings, LLC
 Attn: Collins Hartzog
 109 Still Wild Lane
 Eflin, SC 29045
 803-361-6718
 collins@hartzogholdings.com



Starbucks-Hospital Plaza
 2018 South 16th Street
 Wilmington, North Carolina
 New Hanover County

This document, together with the concepts and designs presented herein, as an instrument of services, is intended only for the specific purpose and client for which it was prepared. Reuse of and improper reliance on this document without written authorization and adaptation by Triangle Site Design, PLLC shall be without liability to Triangle Site Design, PLLC.

REVISIONS	No.	Date	Desc.
	1	4/30/19	REVISED PER CITY REVIEW

Drawn
 Checked
 Approved

Project No. 009014
 Date: April 30, 2019
 Title

CONSTRUCTION DETAILS

Sheet No.
C1.4B

APPROVED CONSTRUCTION PLAN

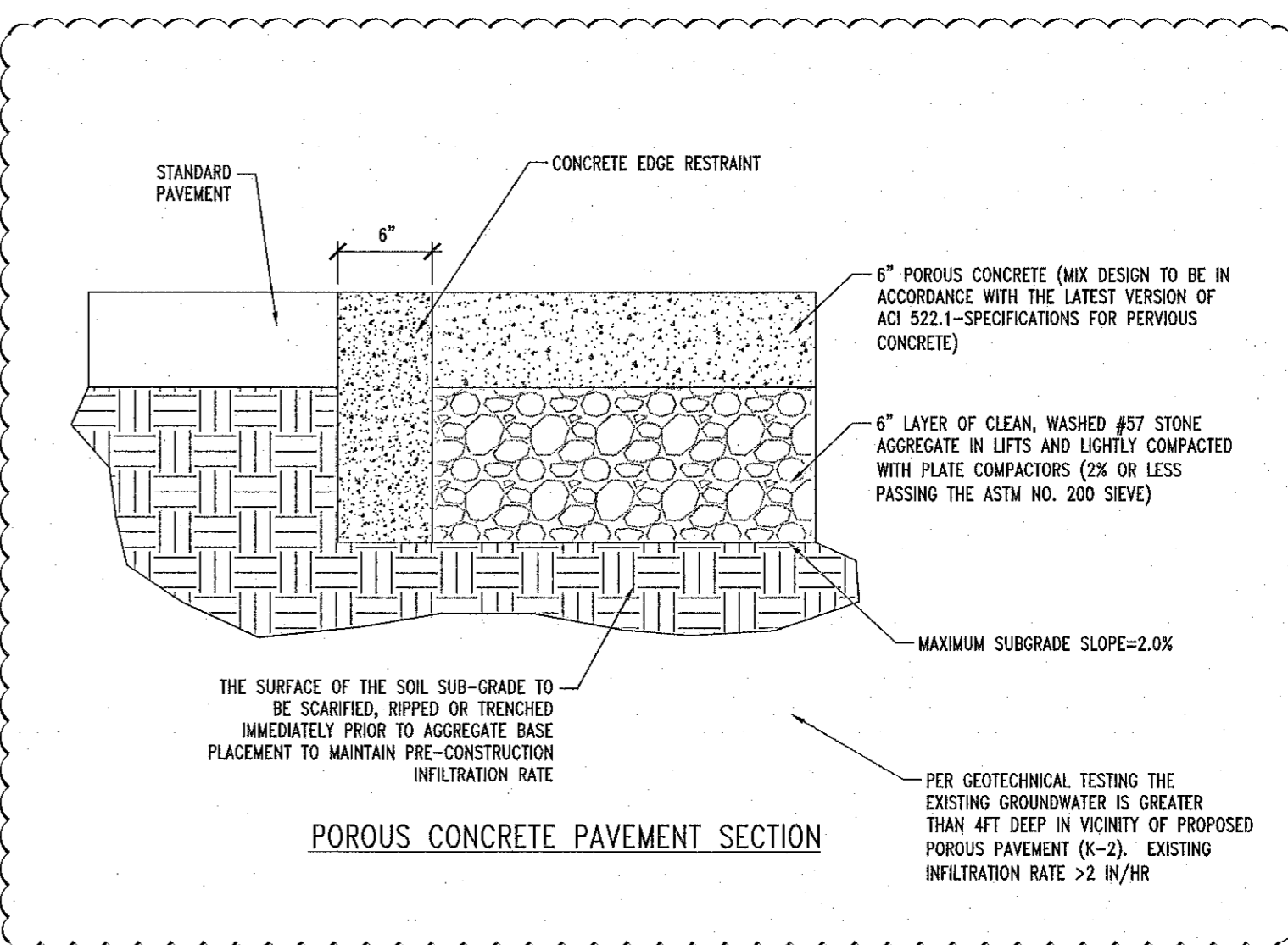
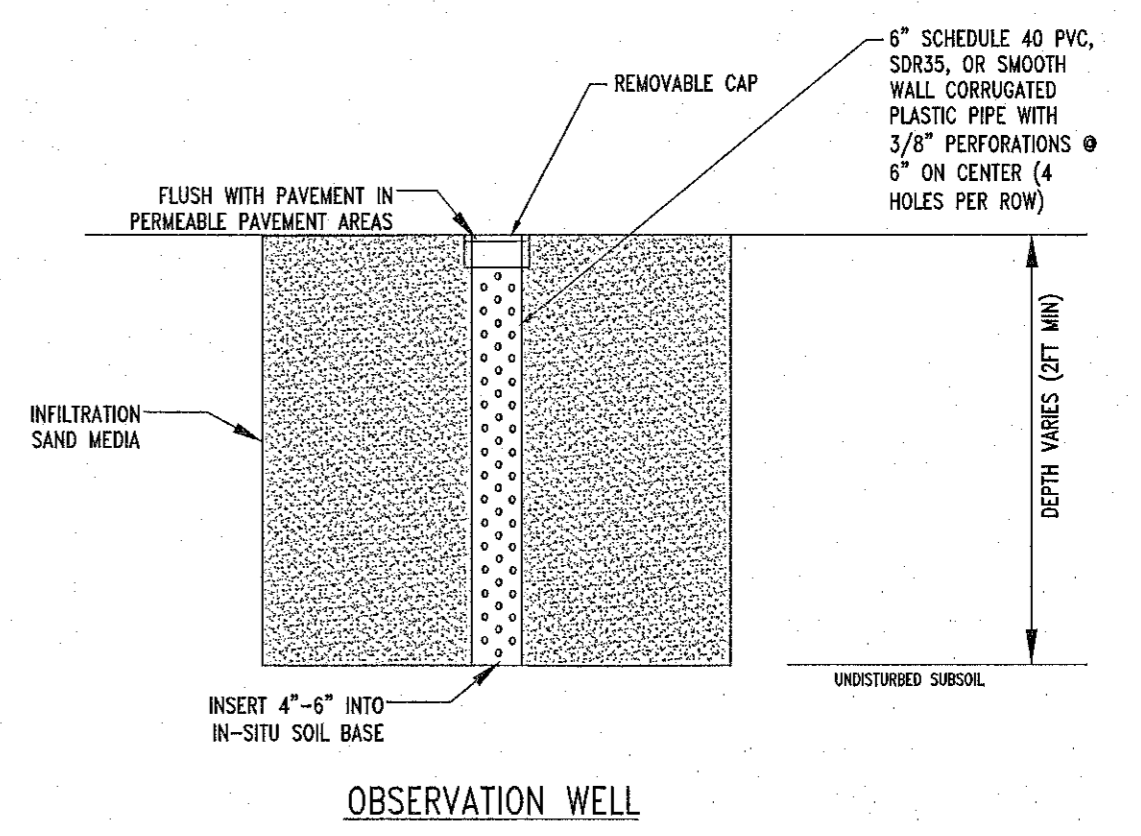
PLANNING NAME DATE
 TRAFFIC
 FIRE

City of Wilmington
 Public Services - Engineering Division
 APPROVED STORMWATER MANAGEMENT PLAN
 Date: _____ Permit # _____
 Signed: _____

IMPERVIOUS AREA SUMMARY			
SITE AREA = 33,498 SF (0.769 AD)			
BUILDINGS	2,510 SF	0.06 ACRE(S)	7.49 %
PAVEMENT	14,515 SF	0.33 ACRE(S)	43.33 %
SIDEWALK	1,675 SF	0.04 ACRE(S)	5.00 %
TOTAL IMPERVIOUS AREA	18,700 SF	0.43 ACRE(S)	55.82 %
POROUS CONCRETE	2,080 SF	0.05 ACRE(S)	6.21 % (TYPE A SOILS, 100% PERVIOUS)
GREEN/OPEN SPACE	12,718 SF	0.29 ACRE(S)	37.97 %
EXISTING IMPERVIOUS AREA TO BE DEMOLISHED: 19,135 SF (ON-SITE)			
DECREASE IN IMPERVIOUS AREA: 435 SF			
EXEMPT FROM 25-YEAR PRE/POST ATTENUATION REQUIREMENT			

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

APPROVED CONSTRUCTION PLAN	
NAME	DATE
PLANNING	_____
TRAFFIC	_____
FIRE	_____

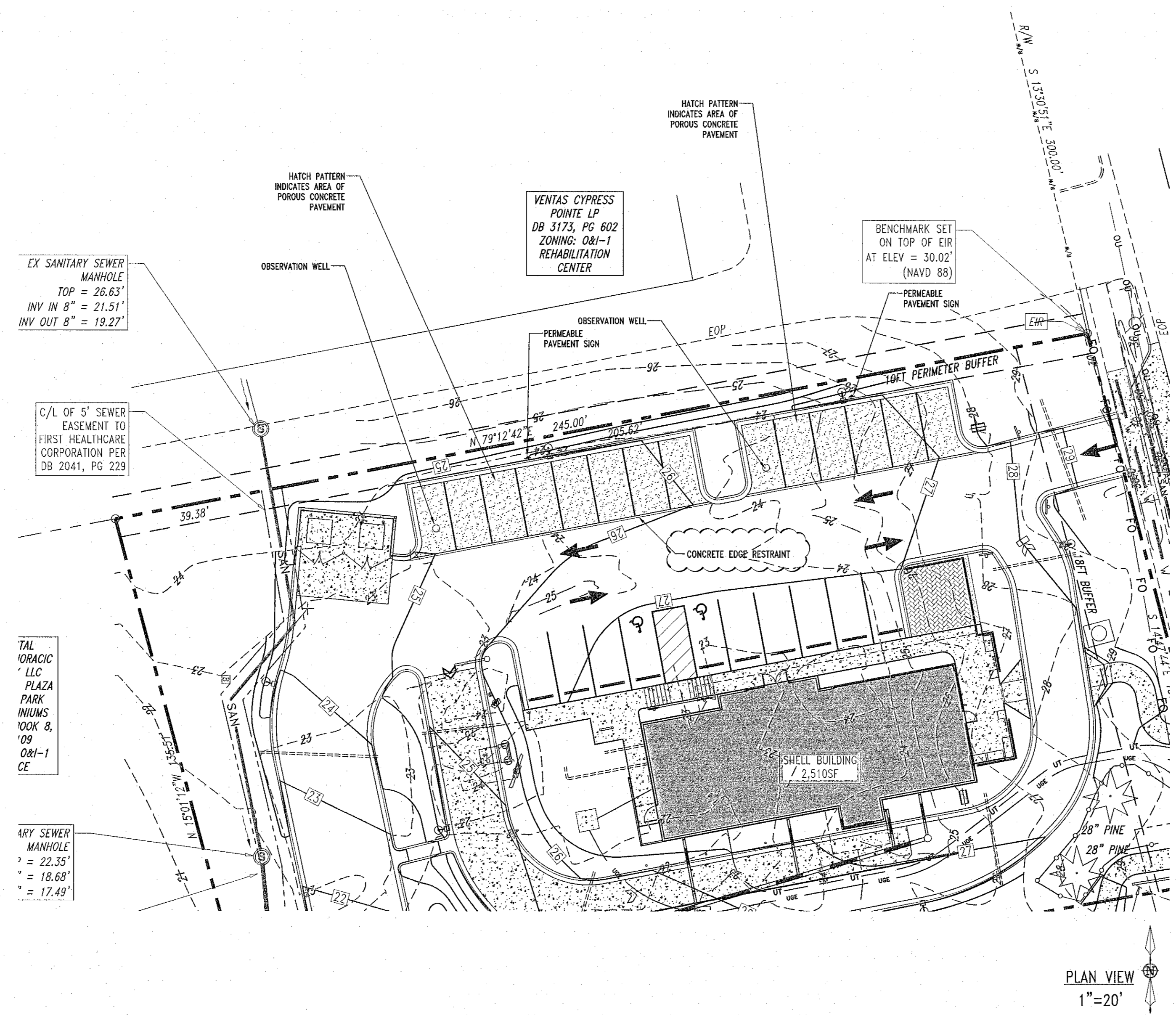


PERMEABLE PAVEMENT

ACTIVITIES PROHIBITED:
 SANDING
 RE-SEALING
 RE-SURFACING
 POWER WASHING
 STORAGE OF MULCH OR SOIL
 STORAGE OF SNOW PILES
 STORAGE OF HEAVY LOADS
 APPLICATION OF SALT OR DE-ICERS

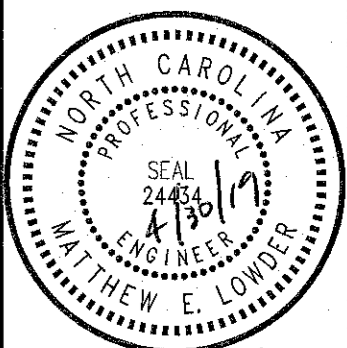
EXAMPLE PERMEABLE PAVEMENT SIGN

OPERATION & MAINTENANCE PROVISIONS (PERMEABLE PAVEMENT)		
BMP element:	Potential problem:	How to remediate the problem:
The perimeter of the permeable pavement	Areas of bare soil and/or erosive gullies	Regrade the soil if necessary to remove the gully, then plant ground cover and water until established
The surface of the permeable pavement	A vegetated area drains toward the pavement	Regrade the area so that it drains away from the pavement, then plant ground cover and water until established
	Trash/debris present	Remove the trash/debris
Observation well	Water present more than five days after a storm event	Clean out clogged underdrain pipes. Consult an appropriate professional for clogged soil subgrade.
	Missing or is damaged	Replace the sign



TRIANGLE SITE DESIGN

Consultant
 Triangle Site Design, PLLC
 4004 Barrett Dr, Ste 101
 Raleigh, NC 27609
 (919) 553-6570
 mlowder@trianglesitedesign.com
 NC License #1-0619



Owner/Developer
 Wilmington NC 2018, LLC
 Hartzog Holdings, LLC
 Attn: Collins Hartzog
 109 Still Wild Lane
 Elgin, SC 29045
 803-361-6718
 collins@hartzogholdings.com



Starbucks - Hospital Plaza
 2018 South 16th Street
 Wilmington, North Carolina
 New Hanover County

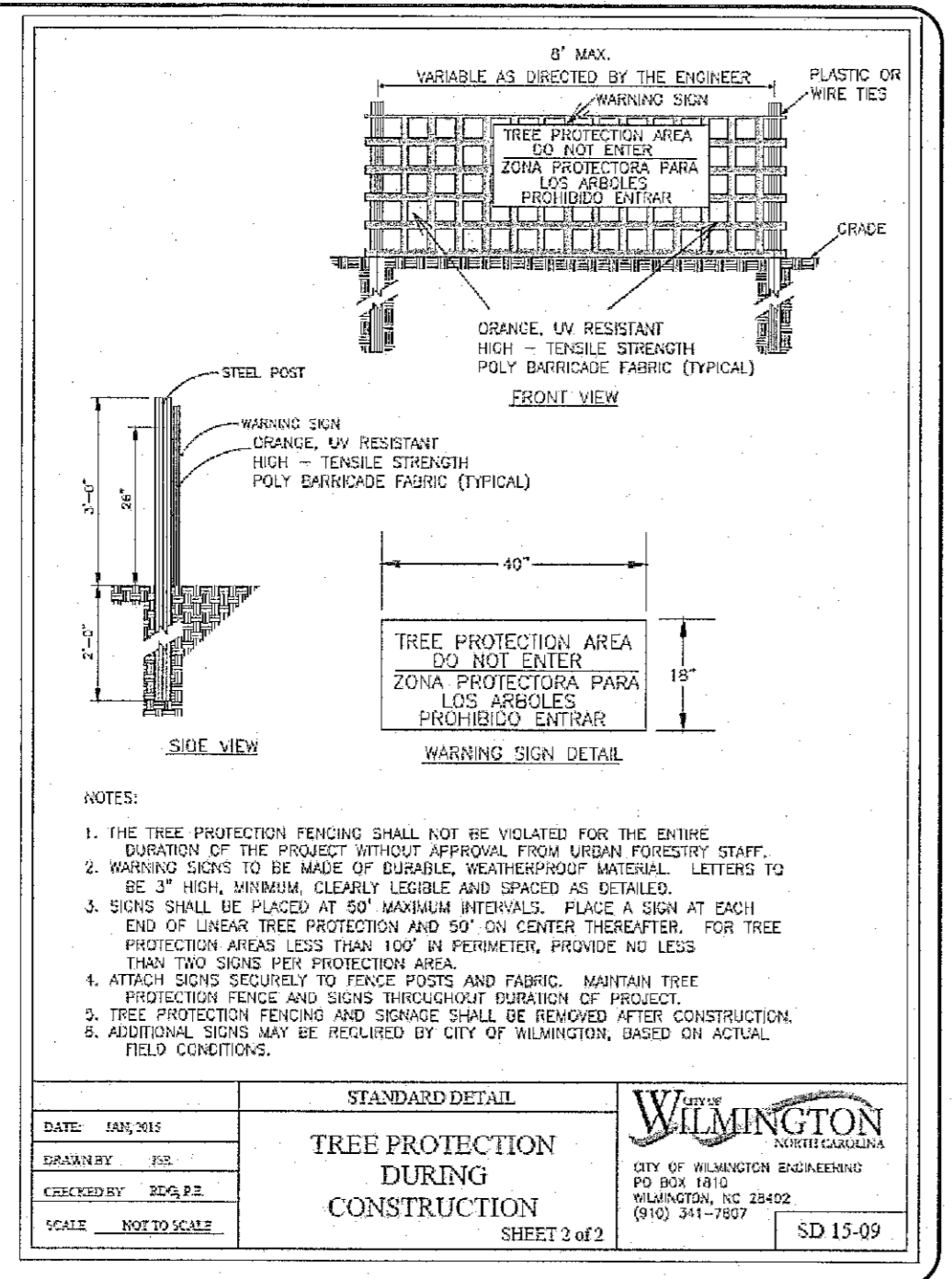
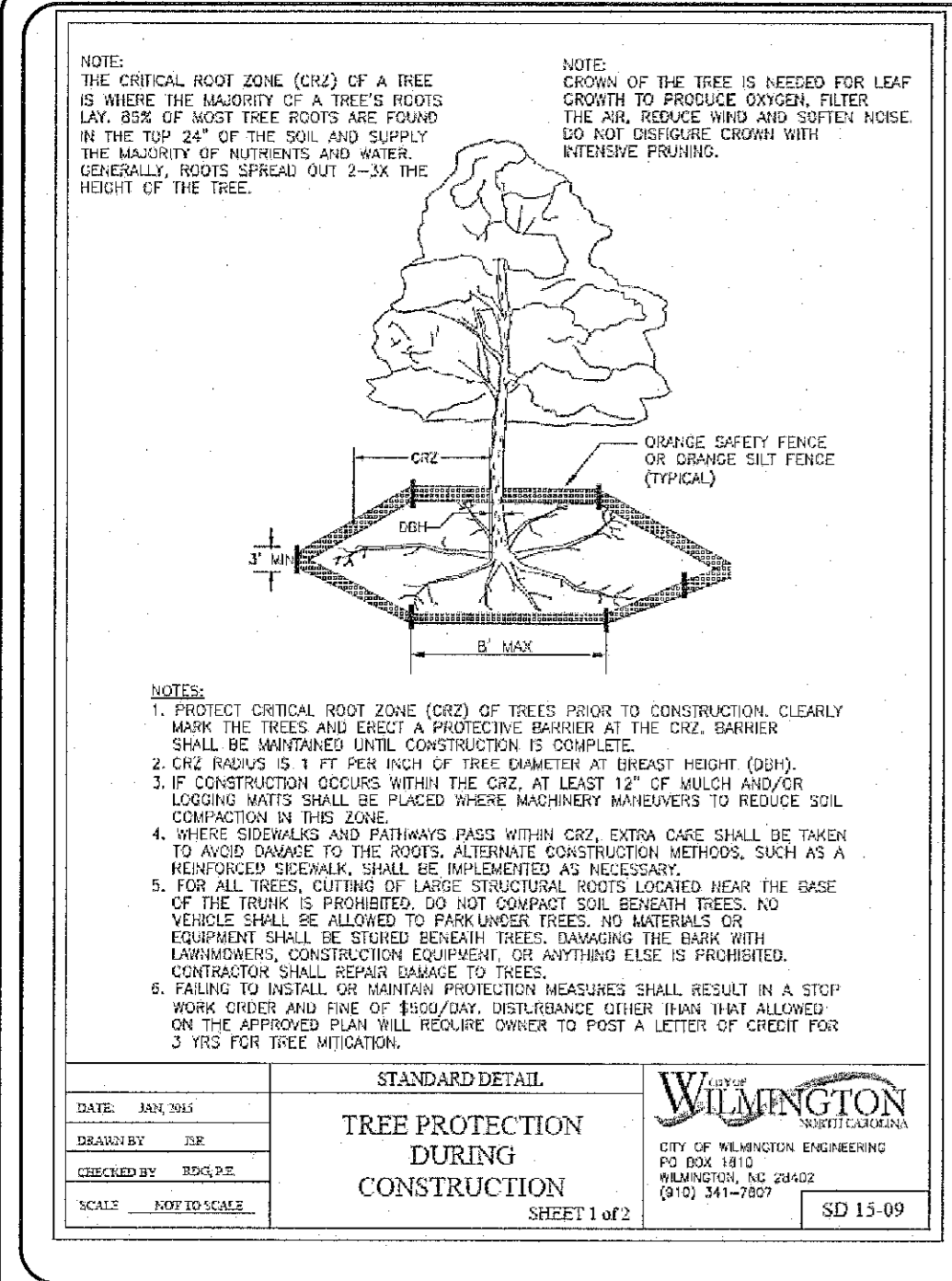
This document, together with the concepts and designs presented herein, is intended only for the specific purpose and client for which it was prepared. Reuse of and improper reliance on this document without written authorization and adaptation by Triangle Site Design, PLLC shall be without liability to Triangle Site Design, PLLC.

REVISIONS	Date	Description
1	4/30/19	REVISED PER CITY REVIEW

Project No. 009014
 Date: April 30, 2019
 Title

STORMWATER MANAGEMENT DETAILS

Sheet No. C1.5



EROSION CONTROL NARRATIVE

STARBUCKS, NEW HANOVER COUNTY, NC

CONTRACTOR SHALL FIRST INSTALL THE CONSTRUCTION ENTRANCE. THE CONTRACTOR SHALL THEN MOBILIZE ON SITE AND INSTALL THE TEMPORARY EROSION CONTROL DEVICES INCLUDING SILT FENCE, INLET PROTECTION, AND OTHER DEVICES IN ACCORDANCE WITH THE PLANS (CLEARING ONLY AS NECESSARY TO INSTALL THESE ITEMS). BEFORE DEMOLITION, CLEARING AND SITE GRADING OPERATIONS, STABILIZATION OF EXISTING STRUCTURES IS REQUIRED IMMEDIATELY AFTER INSTALLATION. THE ON-SITE STORM SEWER SYSTEM CAN NOW BE INSTALLED. IMMEDIATELY AFTER AN INLET IS INSTALLED, INLET PROTECTION SHALL BE PROPERLY INSTALLED ON THE STRUCTURE. THE ON-SITE SANITARY SEWER AND WATER SYSTEMS MAY ALSO BE INSTALLED ONCE THE SITE IS BROUGHT UP TO GRADE. THE SITE PAD WILL BE PREPARED FOR THE PROPOSED BUILDING. THE ROUGH GRADE WILL THEN BE ESTABLISHED FOR THE SITE. INSTALLATION OF CURB AND GUTTER WILL THEN BE PERFORMED. BASE STONE WILL THEN BE PLACED AND THE GRADED. ALL DISTURBED AREAS WILL BE DRESSED AND SEEDED. REMOVE ALL INLET PROTECTION FROM STRUCTURES WHEN PAVING IS TO BEGIN. PAVING AND STRIPING WILL THEN BE COMPLETED. FINISH STORMWATER FLOW STRUCTURE ONCE UPSTREAM AREAS HAVE BEEN STABILIZED (REMOVE ACCUMULATED SEDIMENT). ALL LANDSCAPING WILL BE COMPLETED. THE ON-SITE STORM SEWER SYSTEM SHALL BE CLEANED OF ANY ACCUMULATED SEDIMENT WHICH SHALL BE DISPOSED OF IN A LAWFUL MANNER. ALL ACCUMULATED SEDIMENT BEING SILT FENCE AND OTHER SEDIMENT DEVICES SHALL BE REMOVED AND DISPOSED OF IN A LAWFUL MANNER. ACCORDING TO THE GROUND STABILIZATION REQUIREMENTS ON THIS SHEET, REMOVE ALL REMAINING SEDIMENT CONTROL MEASURES FROM THE SITE. CONTRACTOR SHALL MINIMIZE THE LENGTH OF TIME BETWEEN INITIAL LAND DISTURBANCE AND FINAL VEGETATION STABILIZATION OF THE SITE.

THE PROPOSED EROSION AND SEDIMENT CONTROL MEASURES ARE INTENDED TO TRAP ANY STORMWATER RUNOFF FROM THE CONSTRUCTION SITE AND DETAIN IT LONG ENOUGH FOR SEDIMENT AND POLLUTANTS TO SETTLE OUT OF THE STORMWATER BEFORE DISCHARGE. VARIOUS EROSION CONTROL MEASURES ARE USED TO PREVENT POLLUTANT-LADEN STORMWATER RUNOFF FROM FLOWING ONTO ADJACENT PROPERTIES.

TREE PROTECTION NOTES

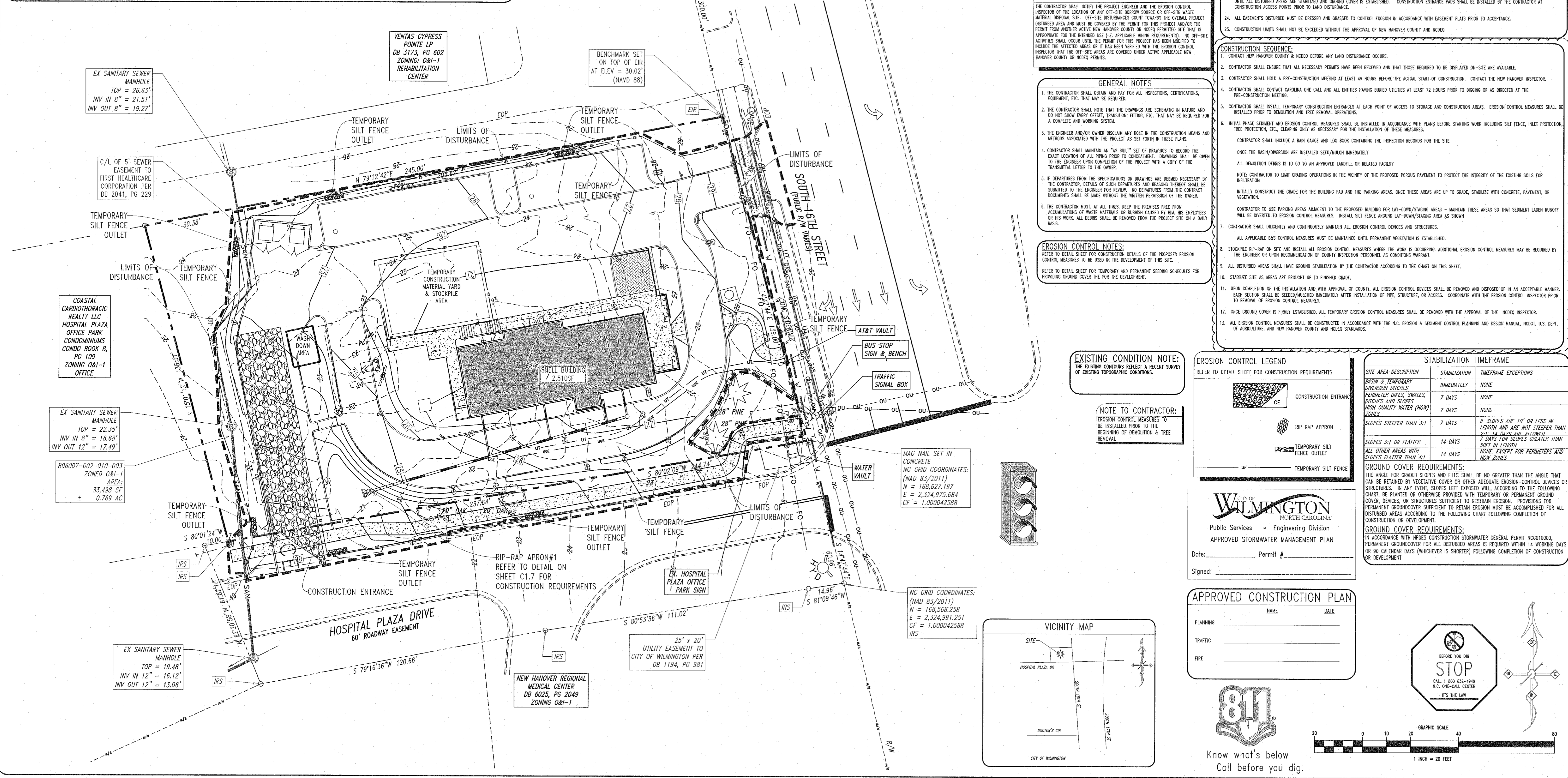
1. THE CONTRACTOR SHALL PROTECT ALL TREES AND SHRUBS OUTSIDE OF CUT/PILE LINES, IN ADDITION TO THOSE THAT RECEIVE TREE/SHRUB PROTECTION BARRIERS. THE CONTRACTOR IS ALSO REQUESTED TO TAKE ALL OTHER EXISTING TREES AND SHRUBS WHERE POSSIBLE.
2. WHEN ROOT PRUNING IS NECESSARY, CUT ROOTS CLEANLY USING A DISC REMOVER AND IMMEDIATELY COVER ALL ROOT CUT SURFACES LARGER THAN TWO INCHES IN DIAMETER WITH TREE WOUND HEALING. USE FLYWOOD FORMING WHEN TREE ROOTS ARE ADJACENT TO PROPOSED CURB & GUTTER OR SIDEWALK.
3. NO SOIL DISTURBANCE OR COMPACTION, CONSTRUCTION MATERIALS, TRAFFIC, BURIAL PITS, TRENCHES OR OTHER LAND DISTURBING ACTIVITY ALLOWED IN THE TREE PROTECTION ZONE. TREE BARRICADES MUST BE INSTALLED BEFORE ANY DEMOLITION, GRADING OR CONSTRUCTION BEGINS, AND NOT REMOVED UNTIL FINAL INSPECTION.
4. NO GRUBBING WITHIN TREE PROTECTION ZONE. LEAVE SOIL AND LEAF LITTER UNDISTURBED. SUPPLEMENT WITH 1-2 INCHES OF MULCH. RE-SEED WITH GRASS ONLY IN DISTURBED/GRADED AREAS.
5. TREE BARRICADES MUST BE INSTALLED BEFORE ANY DEMOLITION, CLEARING, GRADING OR CONSTRUCTION BEGINS AND IS NOT TO BE REMOVED UNTIL AFTER CONSTRUCTION.
6. TREE PROTECTION FENCE IS TO BE LOCATED 1 FOOT PER TREE DIAMETER INCH AWAY FROM THE TREE.

EROSION CONTROL NOTES:

1. TOTAL AREA DISTURBED = 0.78 ACRES
2. UNLESS OTHERWISE INDICATED, ALL VEGETATIVE AND STRUCTURAL EROSION CONTROL MEASURES SHALL BE CONSTRUCTED AND MAINTAINED IN ACCORDANCE WITH THE MINIMUM STANDARDS AND SPECIFICATIONS OF THE N.C. EROSION AND SEDIMENT CONTROL HANDBOOK.
3. THE CONTRACTOR SHALL INSTALL AND MAINTAIN THROUGHOUT THE PROJECT CONSTRUCTION ALL EROSION CONTROL MEASURES SHOWN WITHIN THESE PLANS IN ACCORDANCE WITH APPLICABLE NORTH CAROLINA EROSION AND SEDIMENT CONTROL REGULATIONS.
4. CONSTRUCTION WORK SHALL BE IN COMPLIANCE WITH REGULATIONS OF THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) STORM WATER GENERAL PERMIT.
5. EROSION AND SEDIMENT CONTROL MEASURES ARE TO BE PLACED PRIOR TO CLEARING AND/OR LAND DISTURBANCE.
6. A COPY OF THE APPROVED EROSION AND SEDIMENT CONTROL PLAN AND PERMIT SHALL BE MAINTAINED ON THE SITE AT ALL TIMES.
7. THE CONTRACTOR SHALL DILIGENTLY AND CONTINUOUSLY MAINTAIN ALL EROSION CONTROL DEVICES AND STRUCTURES TO MINIMIZE EROSION. THE CONTRACTOR SHALL MAINTAIN CLOSE CONTACT WITH THE N.C. EROSION CONTROL INSPECTOR SO THAT PERIODIC INSPECTIONS CAN BE PERFORMED AT APPROPRIATE STAGES OF CONSTRUCTION.
8. APPROVAL OF THIS PLAN IS NOT AN AUTHORIZATION TO GRADE ADJACENT PROPERTIES. WHEN FIELD CONDITIONS WARRANT OFF-SITE GRADING, PERMISSION MUST BE OBTAINED FROM THE AFFECTED PROPERTY OWNERS. A REVISED PLAN SHOWING OFF-SITE IMPACTS SHOULD BE SUBMITTED AND APPROVED PRIOR TO ANY OFF-SITE GRADING. CONTACT PROJECT ENGINEER AND PROJECT EROSION CONTROL INSPECTOR TO ENSURE ADDITIONAL EROSION CONTROL MEASURES ARE INSTALLED PRIOR TO OFF-SITE GRADING.
9. PRIOR TO COMMENCING LAND DISTURBING ACTIVITIES IN AREAS OTHER THAN INDICATED ON THESE PLANS (INCLUDING, BUT NOT LIMITED TO OFF-SITE BORROW OR WASTE AREAS, STAGING OR STORAGE AREAS), THE CONTRACTOR SHALL PREPARE AND SUBMIT A SUPPLEMENTARY EROSION CONTROL PLAN TO THE OWNER FOR REVIEW AND TO NCDOT FOR APPROVAL. CONTRACTOR SHALL PAY ALL FEES REQUIRED AND SHALL INSTALL NECESSARY MEASURES AT NO SEPARATE PAYMENT. THE CONTRACTOR SHALL PROVIDE THE OWNER AND THE ENGINEER A COPY OF THE REVISED PERMIT.
10. EROSION AND SEDIMENT CONTROL MEASURES SHALL BE MAINTAINED CONTINUOUSLY, RELOCATED WHEN AND AS NECESSARY, AND SHALL BE CHECKED AFTER EVERY RAINFALL. SEEDING AREAS SHALL BE CHECKED REGULARLY AND SHALL BE WATERED, FERTILIZED, RE-SEEDING AND MOWED AS NECESSARY TO OBTAIN A DENSE STAND OF GRASS.
11. STABILIZATION IS THE BEST FORM OF EROSION CONTROL. ALL DISTURBED AREAS WHICH ARE NOT OTHERWISE STABILIZED SHALL BE TOP SOILED AND SEEDED, TEMPORARILY OR PERMANENTLY IN ACCORDANCE WITH THE N.C. EROSION CONTROL REGULATIONS. PERMANENT SEEDING AND GRASS ESTABLISHMENT IS REQUIRED PRIOR TO PROJECT COMPLETION AND ACCEPTANCE.
12. WHEN A CRUSHED STONE CONSTRUCTION ENTRANCE HAS BEEN COVERED WITH SOIL OR HAS BEEN PULGED INTO THE SOIL BY CONSTRUCTION TRAFFIC, IT SHALL BE REPAIRED WITH A DEPTH OF STONE EQUAL TO THAT OF THE ORIGINAL APPLICATION.
13. TEMPORARY GRAVEL CONSTRUCTION ENTRANCES SHALL BE REQUIRED AT ALL CONSTRUCTION STAGING AREA ENTRANCES AND ALL CONSTRUCTION ACCESS LOCATIONS INTO NON-PAVED AREA. SIX INCHES OF STONE SHALL BE USED FOR THE TEMPORARY GRAVEL CONSTRUCTION ENTRANCE.
14. ALL DRAINAGE INLETS SHALL BE PROTECTED FROM SITUATION. INEFFECTIVE PROTECTION DEVICES SHALL BE IMMEDIATELY REPLACED AND THE INLET CLEANED. FISHING IS NOT AN ACCEPTABLE METHOD OF CLEANING.
15. SEDIMENT BASINS AND TRAPS, REMOVER DEVICES, SEDIMENT BARRIERS AND OTHER MEASURES INTENDED TO TRAP SEDIMENT SHALL BE CONSTRUCTED AS A FIRST STEP IN ANY LAND-DISTURBING ACTIVITY AND SHALL BE MADE FUNCTIONAL BEFORE UP-SLOPE LAND DISTURBANCE BEGINS.
16. ALL DISTURBED AREAS ARE TO BE DRAINED TO APPROVED SEDIMENT CONTROL MEASURES AT ALL TIMES DURING LAND DISTURBING ACTIVITIES AND DURING SITE DEVELOPMENT UNTIL FINAL STABILIZATION IS COMPLETED.
17. DURING DE-WATERING OPERATIONS, WATER SHALL BE PUMPED INTO AN APPROVED FILTERING DEVICE PRIOR TO DISCHARGE TO RECEIVING OUTLET.
18. THE CONTRACTOR SHALL INSPECT ALL EROSION CONTROL DEVICES PERIODICALLY AND AFTER EACH RAINFALL-PRODUCING EVENT. ANY NECESSARY REPAIRS OR CLEANUP TO MAINTAIN THE EFFECTIVENESS OF THE EROSION CONTROL DEVICES SHALL BE MADE IMMEDIATELY.

SEDIMENT & EROSION CONTROL NOTES:

1. THE EROSION AND SEDIMENT CONTROL MEASURES (EMCS) WERE DESIGNED USING THE NEW HANOVER COUNTY REQUIREMENTS AND SHALL BE INSTALLED ACCORDINGLY. CONTRACTOR SHALL PERFORM ALL ACTIVITIES IN STRICT COMPLIANCE WITH THE NORTH CAROLINA NPDES GENERAL PERMIT FOR STORM WATER DISCHARGES FROM LARGE AND SMALL CONSTRUCTION ACTIVITIES (GENERAL PERMIT).
2. REFER TO THE EROSION AND SEDIMENT CONTROL DETAIL SHEETS FOR EROSION CONTROL DETAILS AND DESIGN TABLES FOR SEDIMENT BASINS, DIVERSION DITCHES, AND DIVERTS SLOPE GRADINGS, RIP-RAP APRONS AND OTHER EROSION CONTROL MEASURES.
3. EXISTING BOUNDARIES, TOPOGRAPHY, 100-FT FLOODPLAIN, UTILITY AND ROAD INFORMATION TAKEN FROM AN EXISTING CONDITIONS SURVEY. ALL EXISTING INFORMATION IS TO BE FIELD VERIFIED BY THE CONTRACTOR.
4. SEE THE LANDSCAPE PLAN FOR LOCATIONS OF PROPOSED PLANTINGS AND FINAL STABILIZATION.
5. TEMPORARY DIVERSION DITCHES AND BENS SHALL BE MAINTAINED AS THE SITE IS BROUGHT TO GRADE.
6. DILIGENTLY AND CONTINUOUSLY MAINTAIN ALL EROSION CONTROL DEVICES AND STRUCTURES TO MINIMIZE EROSION. THE CONTRACTOR SHALL MAINTAIN CLOSE CONTACT WITH THE EROSION CONTROL INSPECTOR SO THAT PERIODIC INSPECTIONS CAN BE PERFORMED AT APPROPRIATE STAGES OF CONSTRUCTION.
7. SEE THE GENERAL NOTES SHEET AND THE GRADING AND DRAINAGE PLAN FOR OTHER NOTES REGARDING GRADING ACTIVITIES.
8. SEE SITE PLAN, GRADING AND DRAINAGE PLAN, UTILITY PLAN, PLANTING PLAN AND OTHER PLAN SHEETS FOR DETAILED DESIGN INFORMATION OF PERMANENT SITE APPURTENANCES SHOWN ON THIS SHEET.
9. WHERE THE LIMITS OF DISTURBANCE AND TEMPORARY FENCE (SF, SF-PT, OR PF) LIMITS ARE ADJACENT, THE TEMPORARY FENCE LINE IS THE LIMITS OF DISTURBANCE. THE LIMITS ARE SHOWN SEPARATED FOR ILLUSTRATIVE PURPOSES ONLY.
10. CONTRACTOR SHALL NOT DISTURB ANY EXISTING VEGETATIVE GROUND COVER OR TREES OUTSIDE OF THE LIMITS OF DISTURBANCE OR WITHIN ANY REQUIRED BUFFER LIMITS UNLESS OTHERWISE NOTED OR ILLUSTRATED.
11. PROVIDE CONTROLS OF POLLUTANTS, INCLUDING, BUT NOT LIMITED TO DUST CONTROL, DE-WATERING, SOIL WASTE DISPOSAL, AND HAZARDOUS MATERIALS.
12. CLEAR ONLY AS REQUIRED TO INSTALL EROSION AND SEDIMENTATION CONTROL MEASURES. MASS CLEARING AND GRUBBING CAN BEGIN ONLY AFTER ALL DOWNSTREAM MEASURES HAVE BEEN INSTALLED.
13. USE ROCK OR WASHED STONE TO BRING CONSTRUCTION EXIT TO GRADE. IMPLEMENT MULCH WASHES AS NECESSARY THROUGHOUT ALL PHASES OF CONSTRUCTION.
14. DIVERT STORM WATER RUNOFF OFF THE FACE OF THE SEDIMENT BASIN SLOPES USING DIVERSION DITCHES AND SLOPE GRADINGS. CONTRACTOR SHALL MAINTAIN AND RELOCATE DIVERSION DITCHES AND SLOPE GRADINGS TO ENSURE STORM WATER RUNOFF DOES NOT ERODE THE FACE OF FINAL SLOPES.
15. MAINTAIN POSITIVE FLOW TO THE SEDIMENT BASINS THROUGHOUT ALL PHASES OF CONSTRUCTION. PLACE EXCAVATED SOILS ALONG DOWNSTREAM EDGE OF THE DIVERSION DITCHES TO PROVIDE ADDITIONAL CAPACITY.
16. REFER TO THE GRADING AND DRAINAGE PLAN FOR FINAL SITE AND PAVEMENT GRADINGS AND ELEVATIONS OF THE PROPOSED STORM SEWER SYSTEMS.
17. LAND DISTURBING ACTIVITIES SHALL NOT COMMENCE UNTIL APPROVAL TO DO SO HAS BEEN RECEIVED BY GOVERNING AUTHORITIES. THE GENERAL CONTRACTOR SHALL STRICTLY ADHERE TO THE APPROVED EROSION AND SEDIMENT CONTROL DRAWINGS DURING CONSTRUCTION OPERATIONS.
18. GENERAL CONTRACTOR SHALL COMPLY WITH ALL STATE AND LOCAL ORDINANCES THAT APPLY.
19. ALL WORK SHALL BE CONTINUED TO PERMIT LIMITS SHOWN ON PLANS. UNLESS OTHERWISE NOTED, THE SITE PLAN PROPERTY LIMITS SHALL BE CONSIDERED THE PERMIT LIMITS.
20. SUFFICIENT EROSION CONTROL PRACTICES MUST BE INSTALLED AND MAINTAINED TO RETAIN SEDIMENT WITHIN THE BOUNDARIES OF THE SITE.
21. ADDITIONAL EROSION CONTROL MEASURES OR SILT BARRIERS TO BE PLACED AS SHOWN AND/OR DIRECTED BY THE PROJECT ENGINEER AND/OR LOCAL JURISDICTIONAL INSPECTOR.
22. FOR ALL CONSTRUCTION ALONG AND/OR ACROSS WATERWAYS, BANK PROTECTION AND STABILIZATION SHALL BE REQUIRED AS PER LOCAL JURISDICTIONAL EROSION CONTROL LAWS.
23. ALL TREE PROTECTION AND EROSION CONTROL MEASURES SHALL BE IN PLACE PRIOR TO COMMENCING CONSTRUCTION AND SHALL BE MAINTAINED IN PROPER WORKING ORDER UNTIL ALL DISTURBED AREAS ARE STABILIZED AND GROUND COVER IS ESTABLISHED. CONSTRUCTION ENTRANCE PADS SHALL BE INSTALLED BY THE CONTRACTOR AT CONSTRUCTION ACCESS POINTS PRIOR TO LAND DISTURBANCE.
24. ALL EASEMENTS DISTURBED MUST BE DRESSED AND GRADED TO CONTROL EROSION IN ACCORDANCE WITH EASEMENT PLANS PRIOR TO ACCEPTANCE.
25. CONSTRUCTION LIMITS SHALL NOT BE EXCEEDED WITHOUT THE APPROVAL OF NEW HANOVER COUNTY AND NCDOT.



TRIANGLE SITE DESIGN

Consultant
Triangle Site Design, PLLC
4004 Barrett Dr, Ste 101
Raleigh, NC 27609
(919) 553-6750
mtdw@trianglesitedesign.com
NC License #P-0519

Owner/Developer
Wilmington NC 2018, LLC
Hortzog Holdings, LLC
Attn: Collins Hortzog
109 311 Will Lane
Elgin, SC 29045
803-361-6718
collins@hortzogholdings.com

STARBUCKS COFFEE

Starbucks - Hospital Plaza
2018 South 16th Street
Wilmington, North Carolina
New Hanover County

This document, together with the concepts and designs presented herein, is an instrument of services, is intended only for the specific purpose and client for which it was prepared. Rouse of and improper reliance on this document without written authorization and adaptation by Triangle Site Design, PLLC shall be without liability to Triangle Site Design, PLLC.

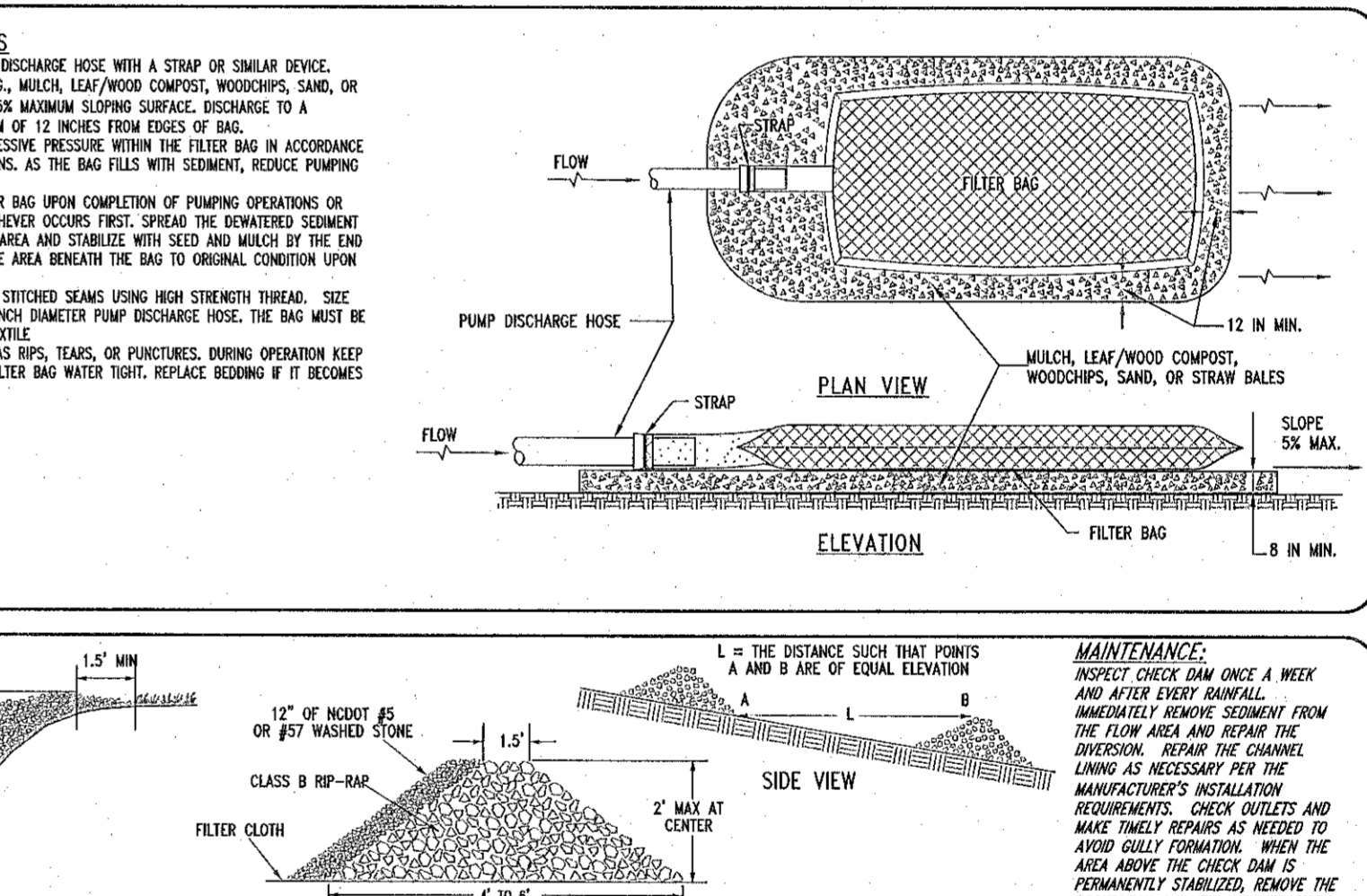
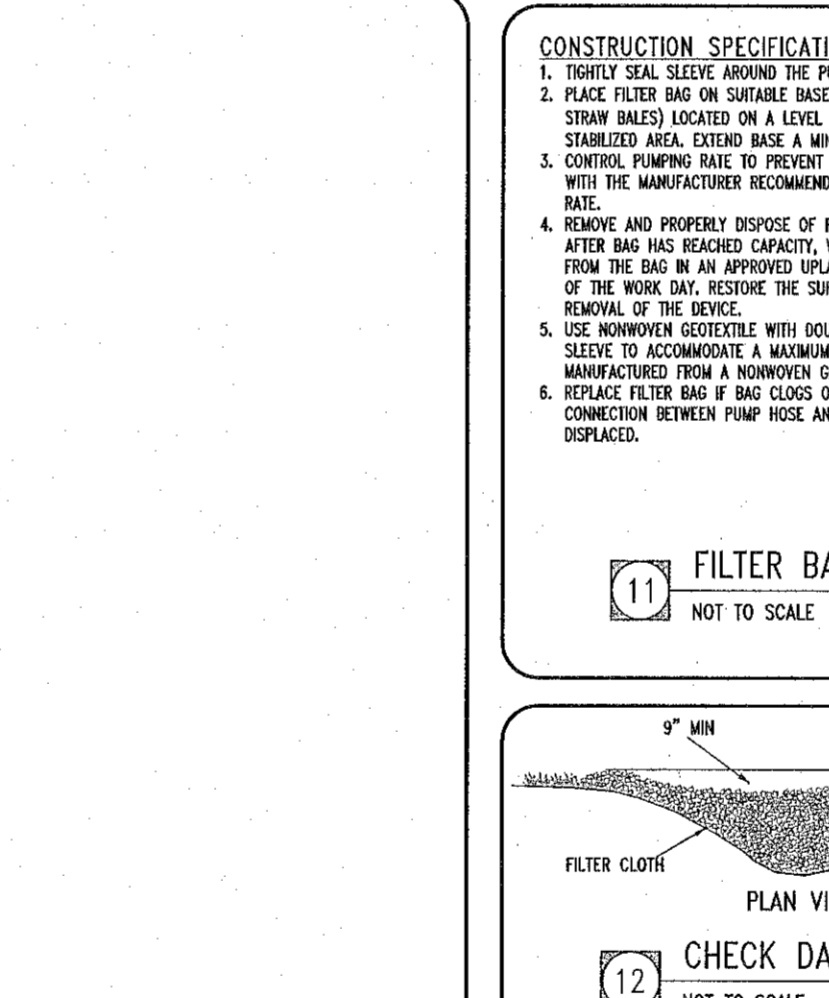
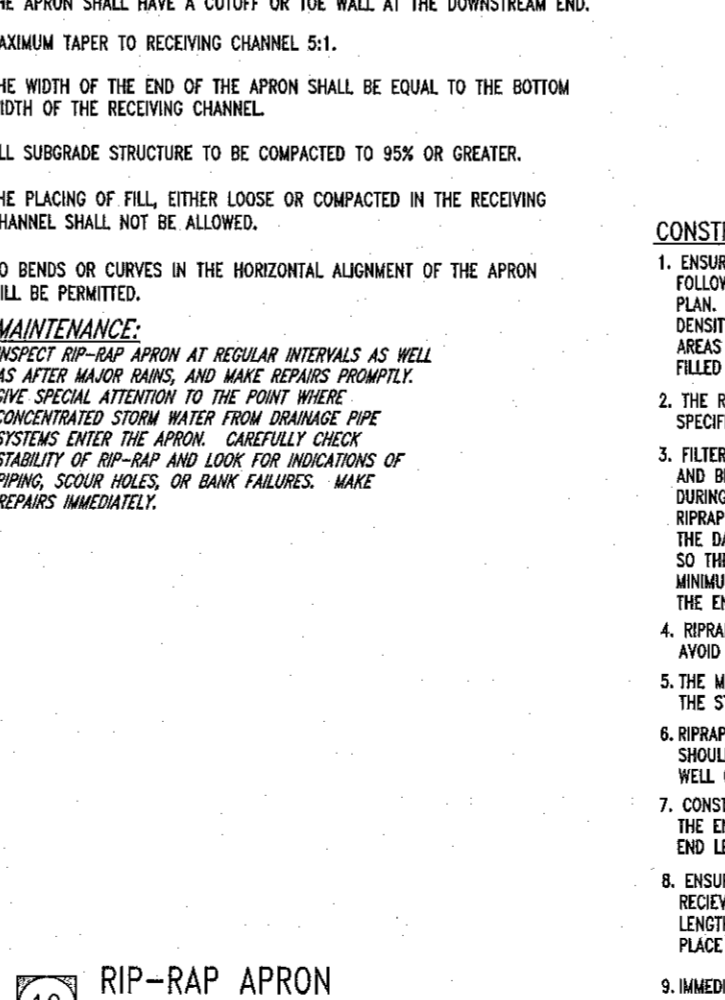
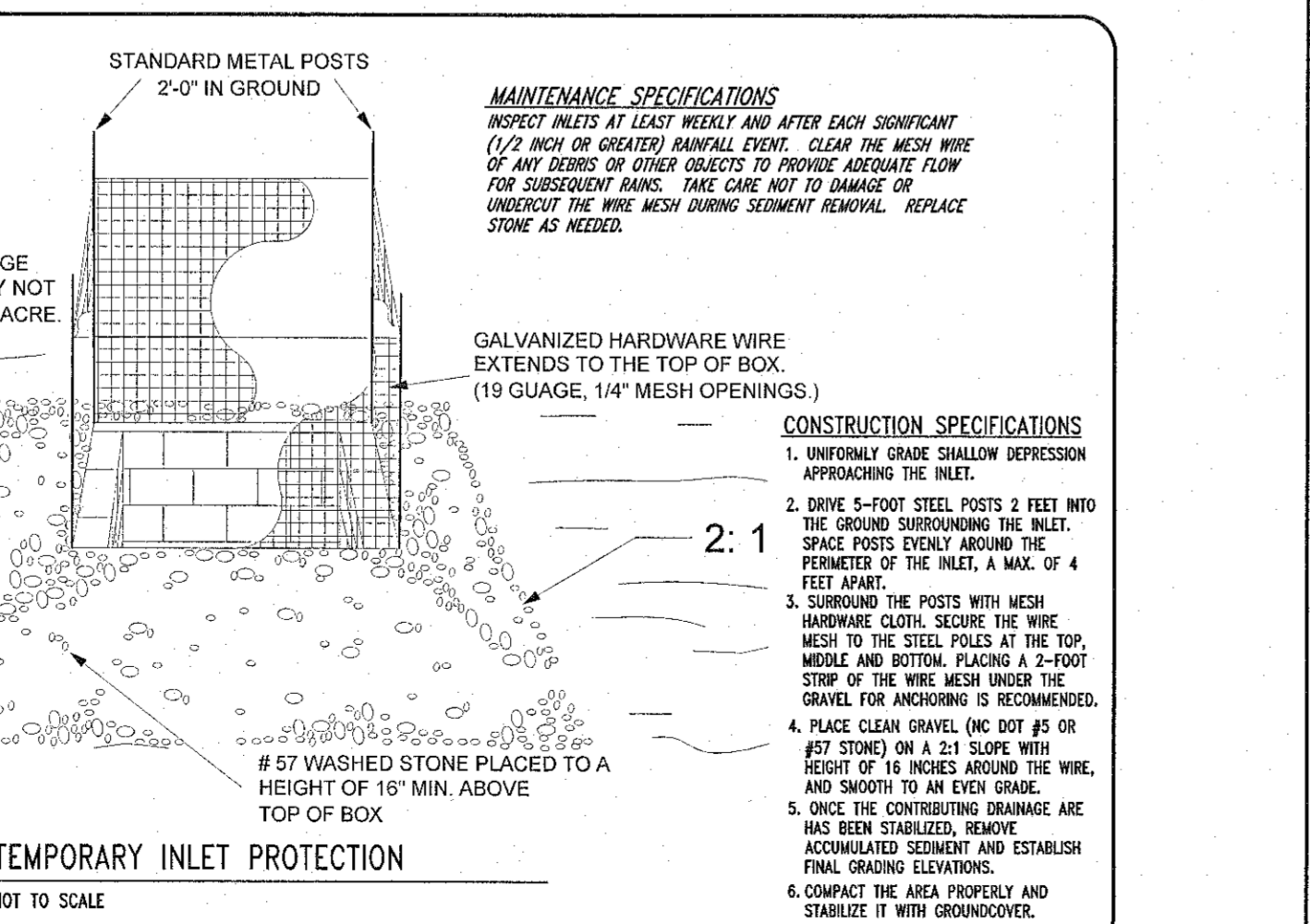
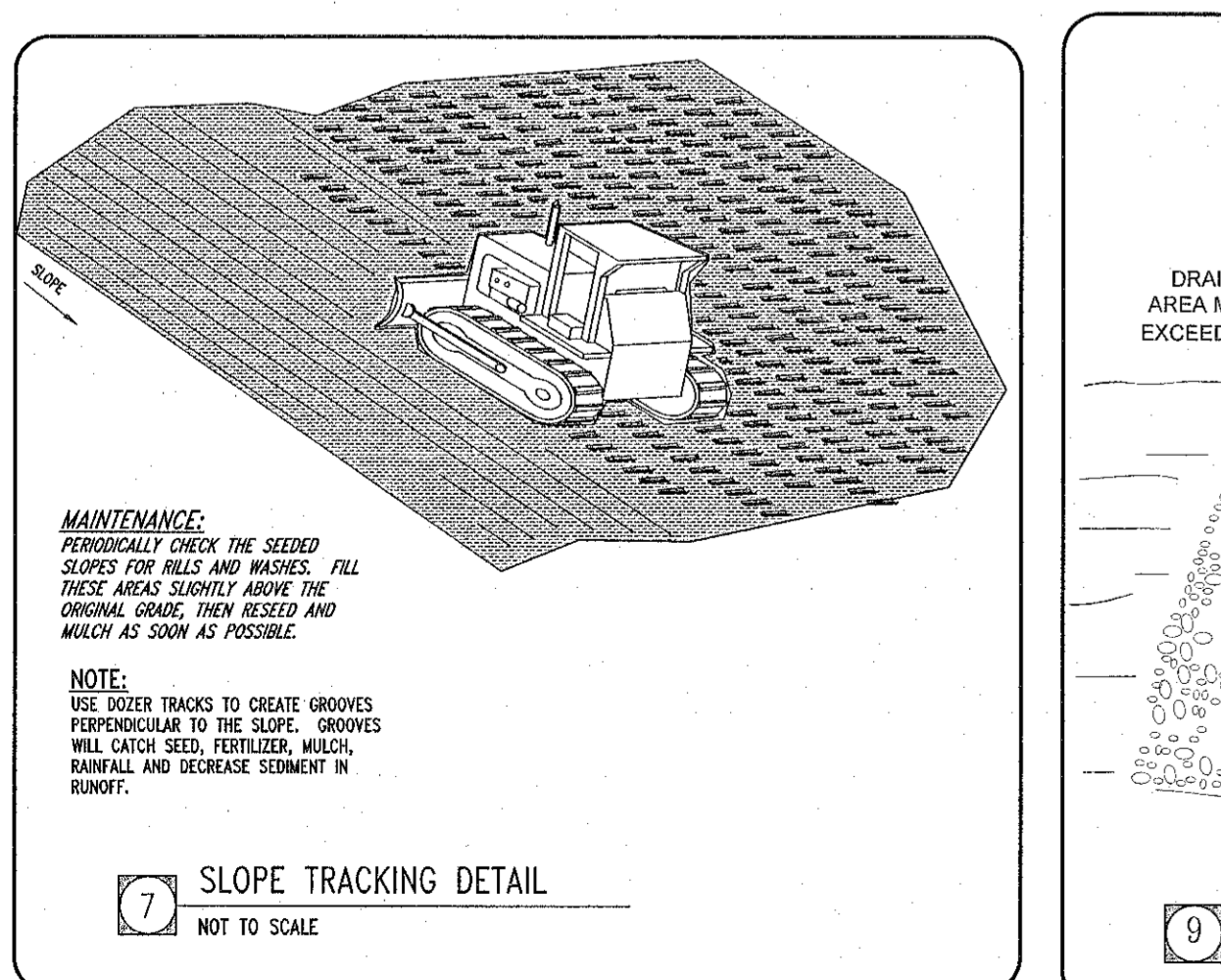
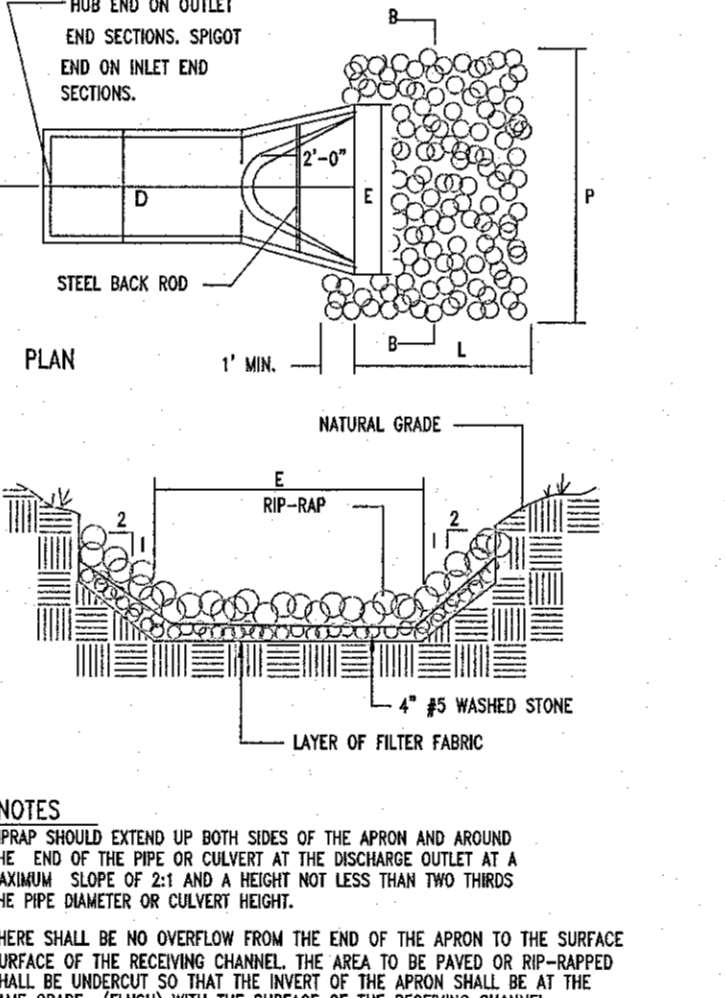
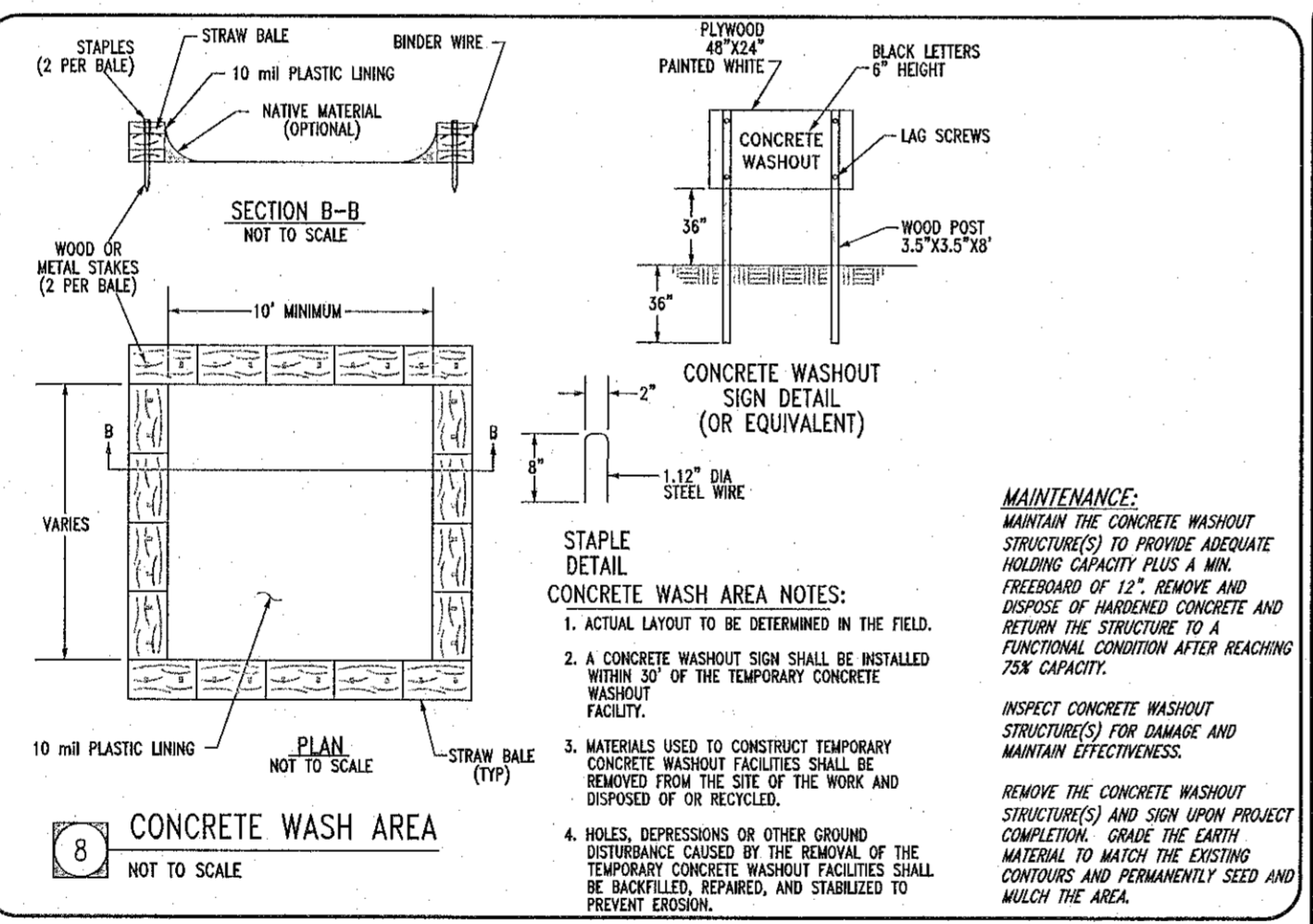
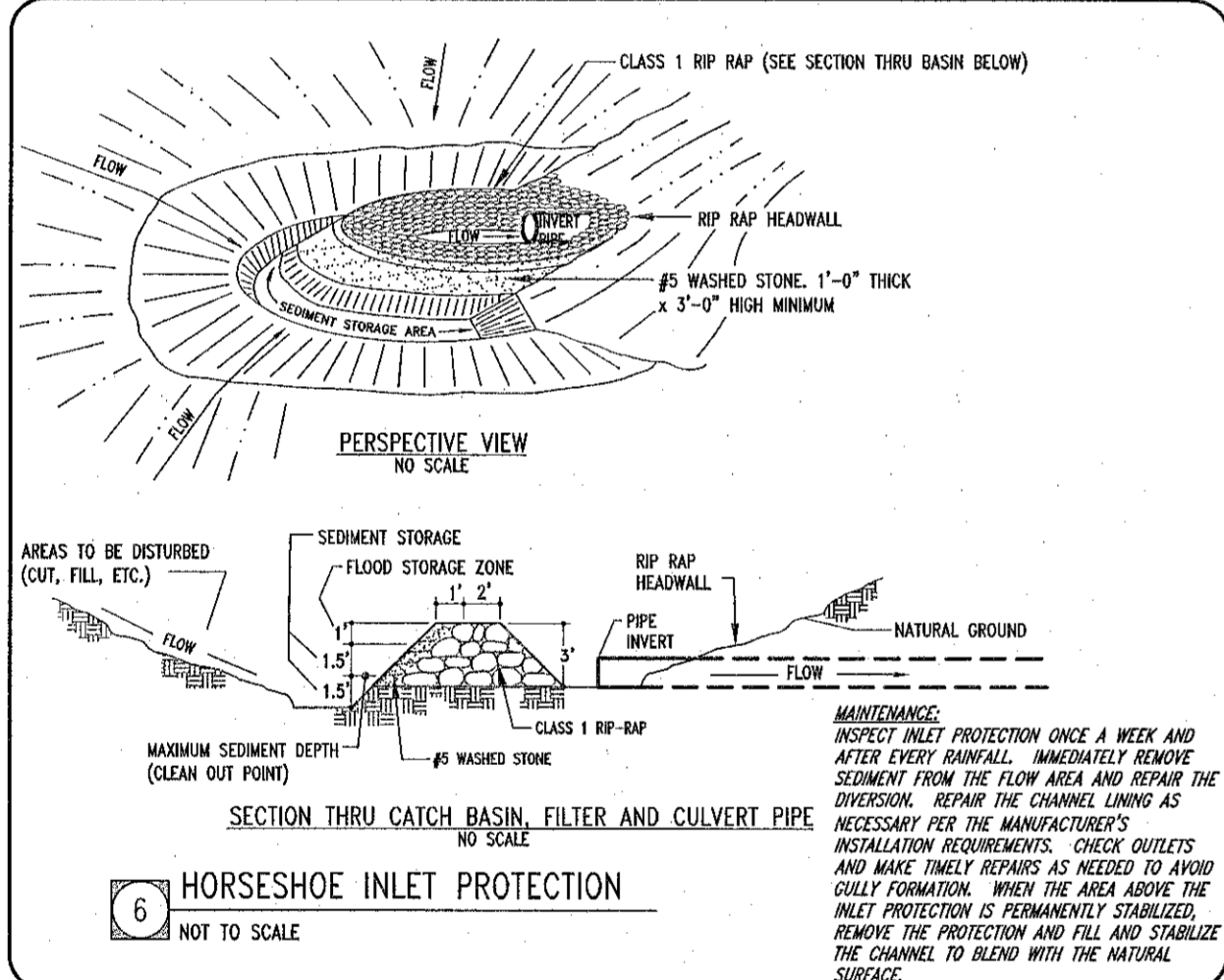
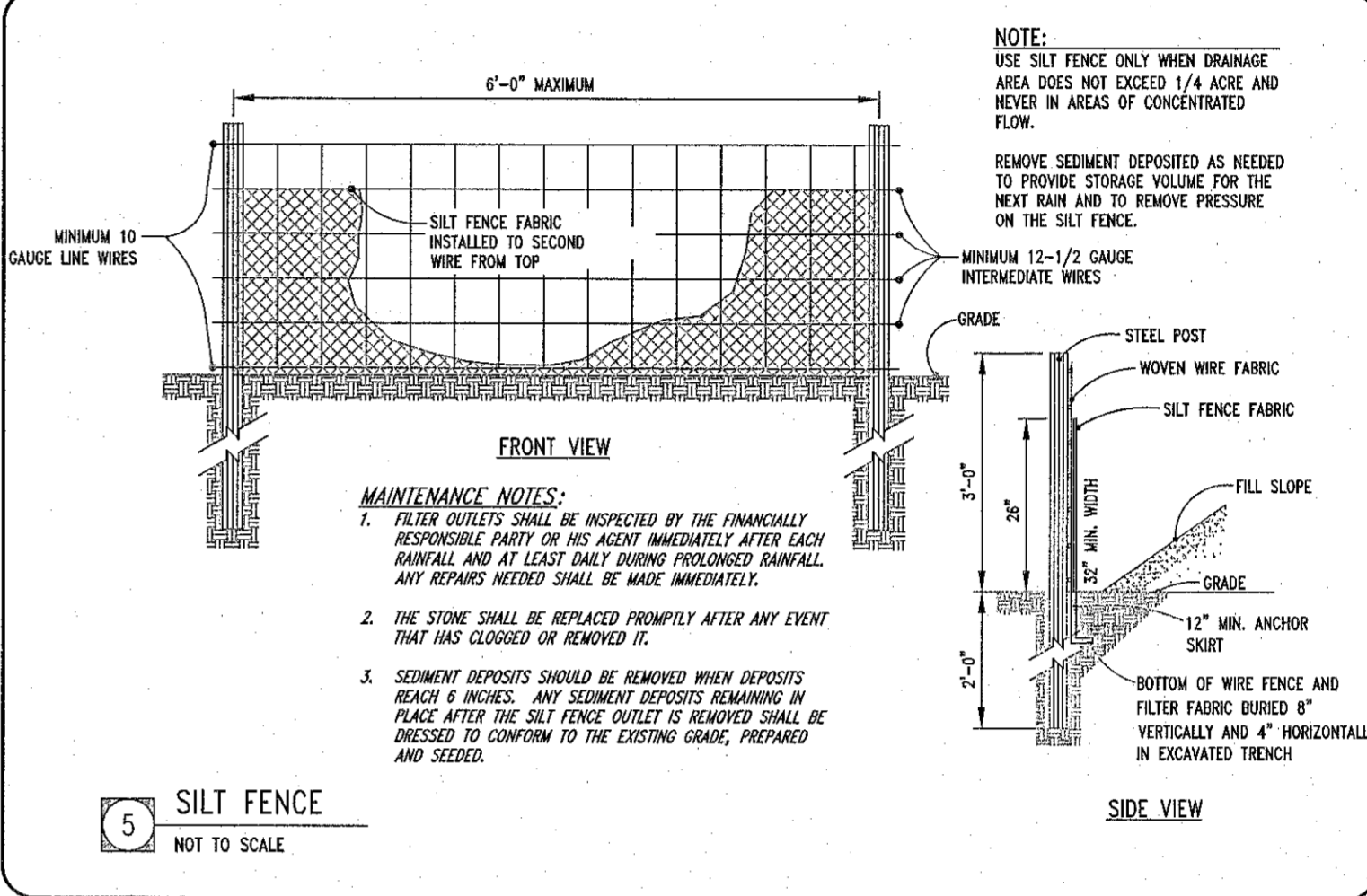
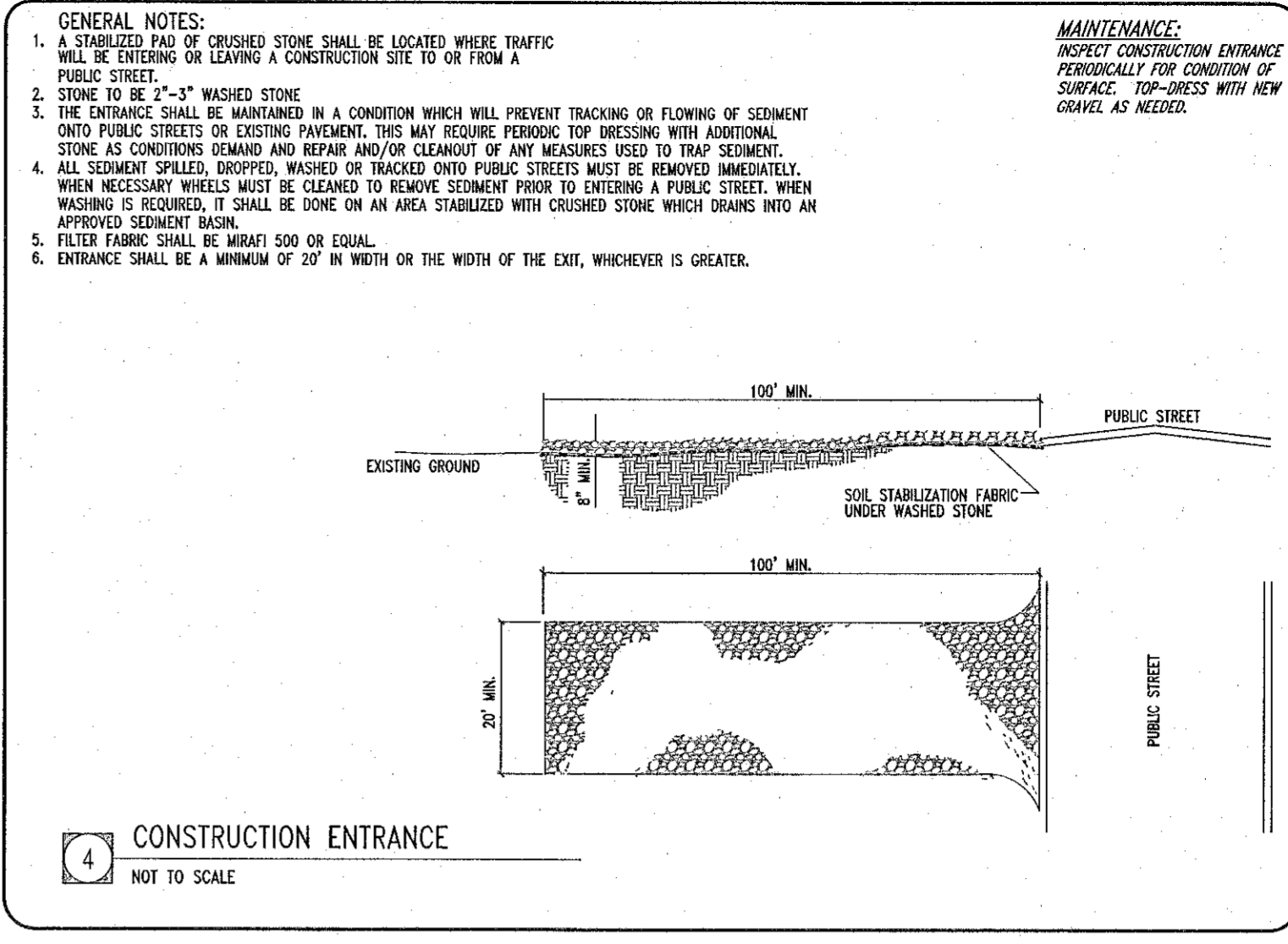
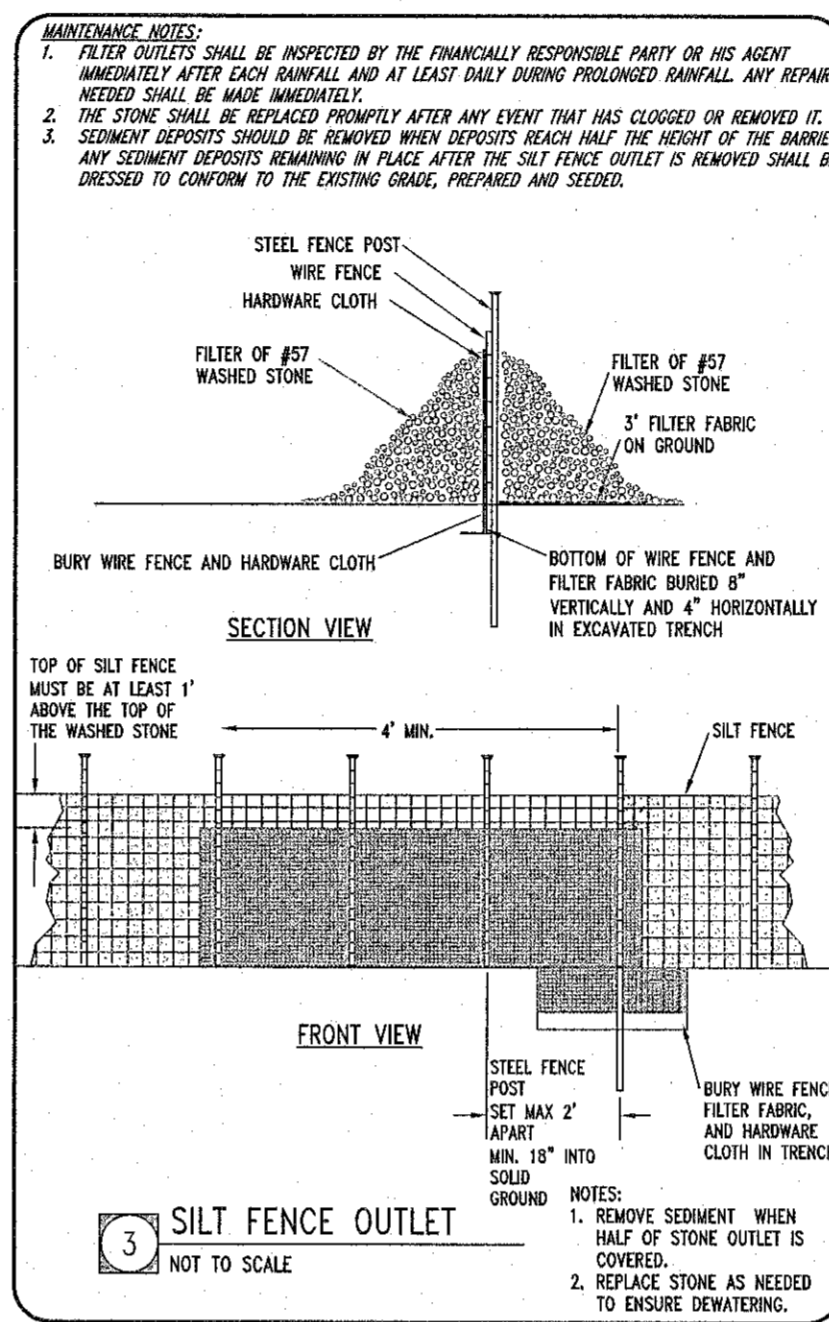
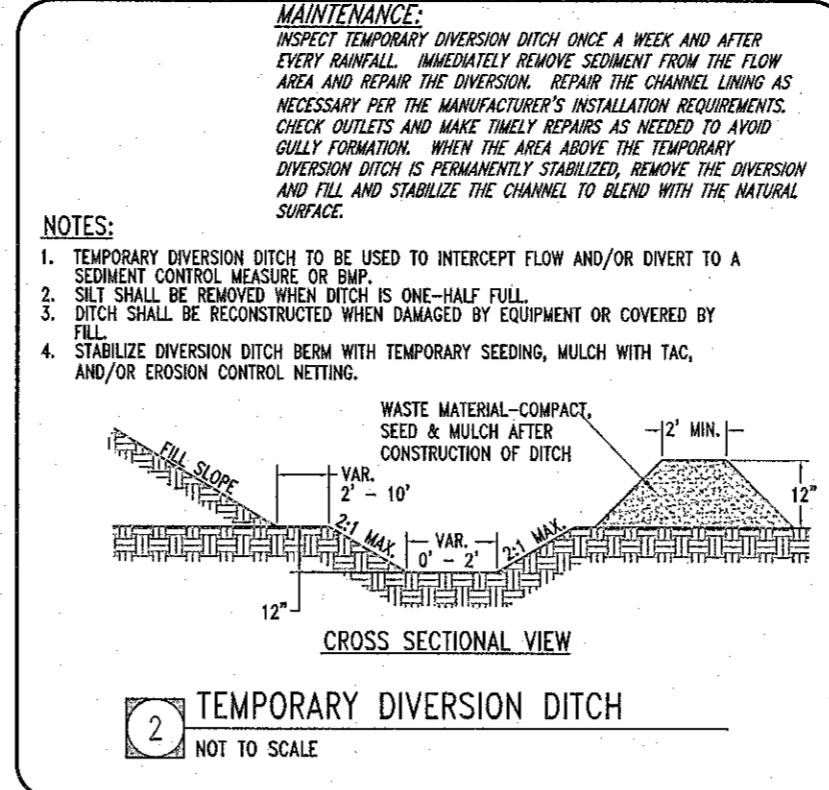
Project No. 009014
Date: April 30, 2019
Title: EROSION CONTROL PLAN
Sheet No. C1.6

WILMINGTON
NORTH CAROLINA
Public Services • Engineering Division
APPROVED STORMWATER MANAGEMENT PLAN

Date: _____ Permit # _____
Signed: _____

APPROVED CONSTRUCTION PLAN

PLANNING _____ NAME _____ DATE _____
TRAFFIC _____
FIRE _____



PERMANENT SEEDING SPECIFICATIONS/SCHEDULE

Date	Plant	Planting Rate
March - Oct.	Brewspung Mill	40 Bay/acre
Nov. - Feb.	Water Bye	120 Bay/acre

FOR SHOULDER, SIDE DITCHES, SLOPES (4:1 - 2:1)

Date	Plant	Planting Rate
Mar 1 - Jun 1	Sereno Leapepede (Southern)	50 Bay/acre (Sereno Leapepede)
Mar 1 - Apr 15	Add Tall Fescue	240 Bay/acre
Mar 1 - Jun 30	Or add White Clover	25 Bay/acre
Mar 1 - Apr 15	Bermuda Grass	240 Bay/acre
Jun 1 - Sep 1	Tall Fescue & Brewspung Mill	240 Bay/acre Tall Fescue
	or Sorghum-Sudan Hybrids	35 Bay/acre Brewspung Mill
		25 Bay/acre
Sep 1 - Mar 1	Sereno Leapepede (Unimulched)	30 Bay/acre Sorghum-Sudan Hybrids
Nov 1 - Mar 1	144 Brewspung Mill	70 Bay/acre Sereno Leapepede
		240 Bay/acre Tall Fescue

CONSULT SACS ENGINEER FOR ADDITIONAL INFORMATION CONCERNING OTHER ALTERNATIVES FOR VEGETATION OF DISTURBED AREAS. THE ABOVE VEGETATION RATES ARE THOSE THAT DO WELL UNDER LOCAL CONDITIONS; OTHER SEEDING RATE COMBINATIONS ARE POSSIBLE.

*** TEMPORARILY: RESEED ACCORDING TO OPTIMUM SEASON FOR DESIRED PERMANENT VEGETATION. DO NOT ALLOW TEMPORARY COVER TO GROW MORE THAN 12" IN HEIGHT BEFORE WORKING OTHERWISE, EROSION MAY BE SHARPER.

SEEDBED PREPARATION:

- CHISEL COMPACTED AREAS AND SPREAD TOPSOIL THREE INCHES DEEP OVER ADVERSE SOIL CONDITIONS, IF AVAILABLE.
- RIP THE ENTIRE AREA TO SIX INCHES DEEP.
- REMOVE ALL LARGE ROCKS, ROOTS AND OTHER OBSTRUCTIONS, LEAVING SURFACE REASONABLY SMOOTH AND UNIFORM.
- APPLY AGRICULTURAL LIME, FERTILIZER, AND SUPERPHOSPHATE UNIFORMLY AND MIX WITH SOIL (SEE SEEDING MIXTURE).
- CONTINUE TILLAGE UNTIL A WELL-FULNERIZED, FIRM, REASONABLY UNIFORM SEEDBED IS PREPARED FOUR TO SIX INCHES DEEP.
- SEED ON A FRESHLY PREPARED SEEDBED AND COVER SEED LIGHTLY WITH SEEDING EQUIPMENT OR CULTIPACK AFTER SEEDING.
- MULCH IMMEDIATELY AFTER SEEDING AND ANCHOR MULCH.
- INSPECT ALL SEEDING AREAS AND MAKE NECESSARY REPAIRS OR RESEEDINGS WITHIN THE PLANTING SEASON, IF POSSIBLE. IF STAND SHOULD BE MORE THAN 60% DAMAGED, RE-EVALUATE FOLLOWING THE ORIGINAL LINE, FERTILIZER AND SEEDING RATES.
- CONSULT SACS ENVIRONMENTAL ENGINEERS ON MAINTENANCE TREATMENT AND FERTILIZATION AFTER PERMANENT COVER IS ESTABLISHED.

SEEDING MIXTURE:

AGRICULTURE LIMESTONE: 2 TONS/ACRE (3 TONS/ACRE IN CLAY SOILS)
FERTILIZER: 1,000 LBS/ACRE - 10-10-10
SUPERPHOSPHATE: 500 LBS/ACRE - 20% ANALYSIS
MULCH: 2 TONS/ACRE - SMALL GRASS STRAW
ANCHOR: ASPHALT EMULSION AT 400 GALS/ACRE

TRIANGLE
SITE DESIGN

Consultant
Triangle Site Design, PLLC
4004 Barrett Dr. Ste 101
Raleigh, NC 27609
(919) 553-6570
mlover@trianglealldesign.com
NC License #P-0619

Owner/Developer
Wilmington NC 2018, LLC
Hortzog Holdings, LLC
Altra, Collins Hortzog
109 Still Wild Lane
Elgin, SC 29045
803-361-6718
collins@hortzogholdings.com

Starbucks - Hospital Plaza
2018 South 16th Street
Wilmington, North Carolina
New Hanover County

This document, together with the concepts and designs presented herein, as an instrument of services, is intended only for the specific purpose and client for which it was prepared. Reuse of and improper reliance on this document without written authorization and adaptation by Triangle Site Design, PLLC shall be without liability to Triangle Site Design, PLLC.

Project No. 090914
Date: April 30, 2019
Title

EROSION CONTROL DETAILS

Sheet No. C1.7

LANDSCAPE CALCULATION
25% SHADING OF PARKING FACILITY AREA REQUIRED (O&I ZONING DISTRICT):

PARKING FACILITY AREA = 18,470 SF (PARKING AREAS & SIDEWALKS)
25% MULTIFPLIER = 4,618 SF
AREA TO BE SHADED = 4,618 SF

PER TREE SHADDED AREA = 707 SF (LARGE INTERIOR SHADE TREE)
314 SF (SMALL INTERIOR SHADE TREE)
OVERHANG SF FOR PERIMETER TREE

TREES PROVIDED = 5,535 SF (5 LARGE INTERIOR SHADE @ 707 SF/TREE)
628 SF (2 SMALL INTERIOR SHADE @ 314 SF/TREE)
1,825 SF PERIMETER TREES AS NOTED ON PLANS
5,988 SF TOTAL

TREE REPLACEMENT CALCULATION
REGULATED TREES REMOVED = 4
(2-28" PINE TREES & 1-28" PINE TREE)

The total number of replacement trees shall be determined for regulated trees removed by multiplying the total DBH of the removed regulated tree(s) by the percentage for the type of tree in Table IV (Loblolly pine = 50%) and dividing by three (3).

Plugs may be installed on site with long-leaf pine plugs spaced ten (10) feet apart at a rate of one (1) plug per inch DBH of the removed tree multiplied by the percentage in Table IV (Loblolly pine = 50%) divided by three (3).

100 DBH x 0.5/3 = 16 long-leaf pine plugs

LANDSCAPE LEGEND

Large Shade Tree -Type 'A'

Shrub -Type 'C'

-Type 'E'

-Type 'D'

Groundcovers

Sod See specifications

Small Shade Tree -Type 'B'

Quantity Type

Sod See specifications

GENERAL IRRIGATION NOTES

- Contractor to provide design drawings for approval prior to installation.
- Irrigation to extend from property lines to back of city sidewalks and / or curbs.
- Install 1 1/2" dia. PVC pipe sleeves where irrigations lines cross or are under pavement.

PLANT LIST

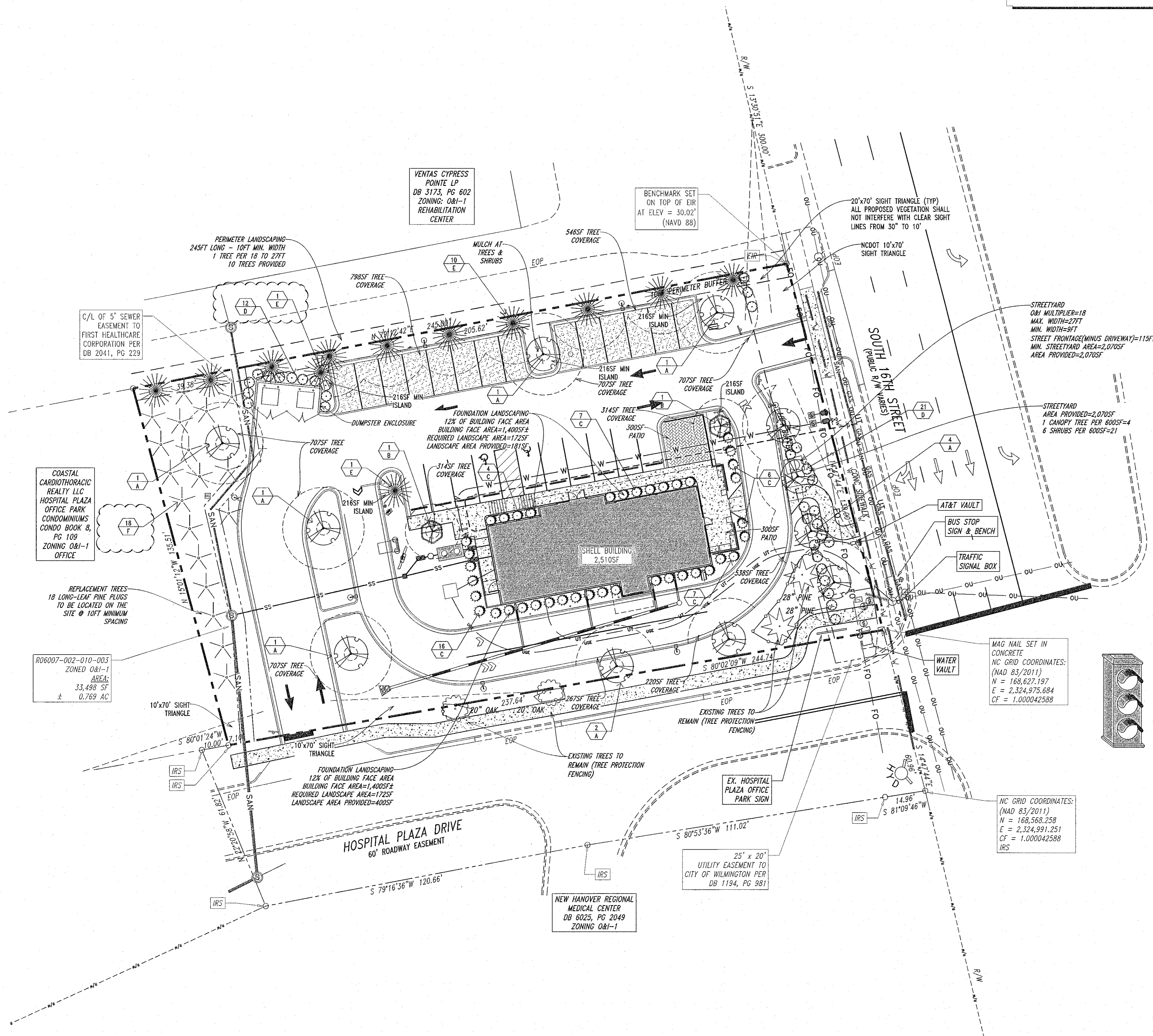
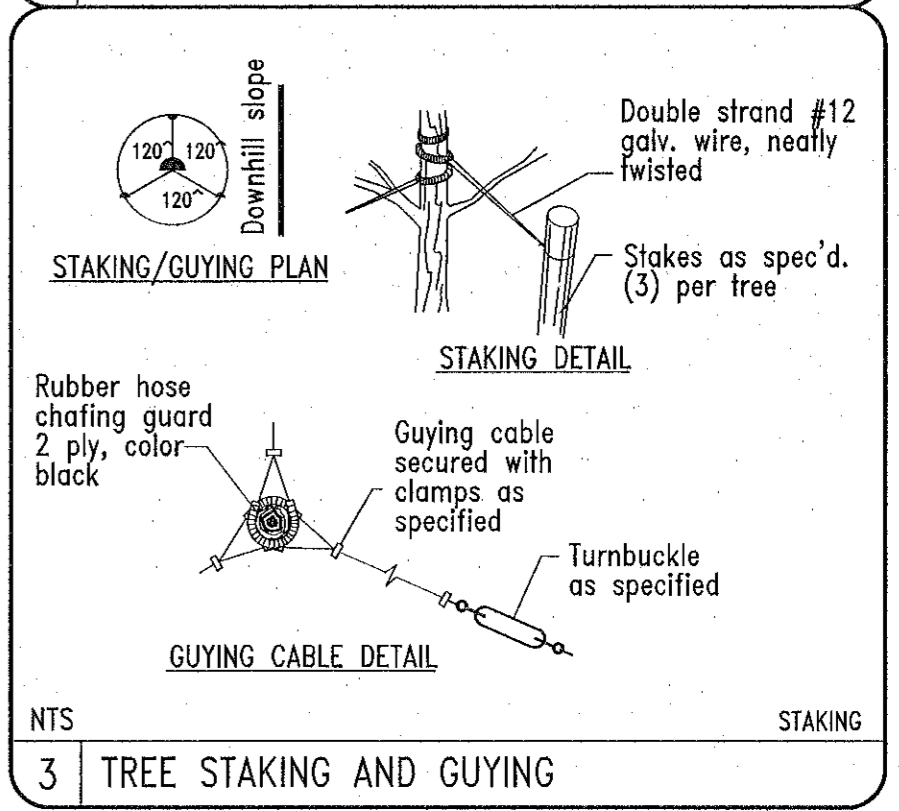
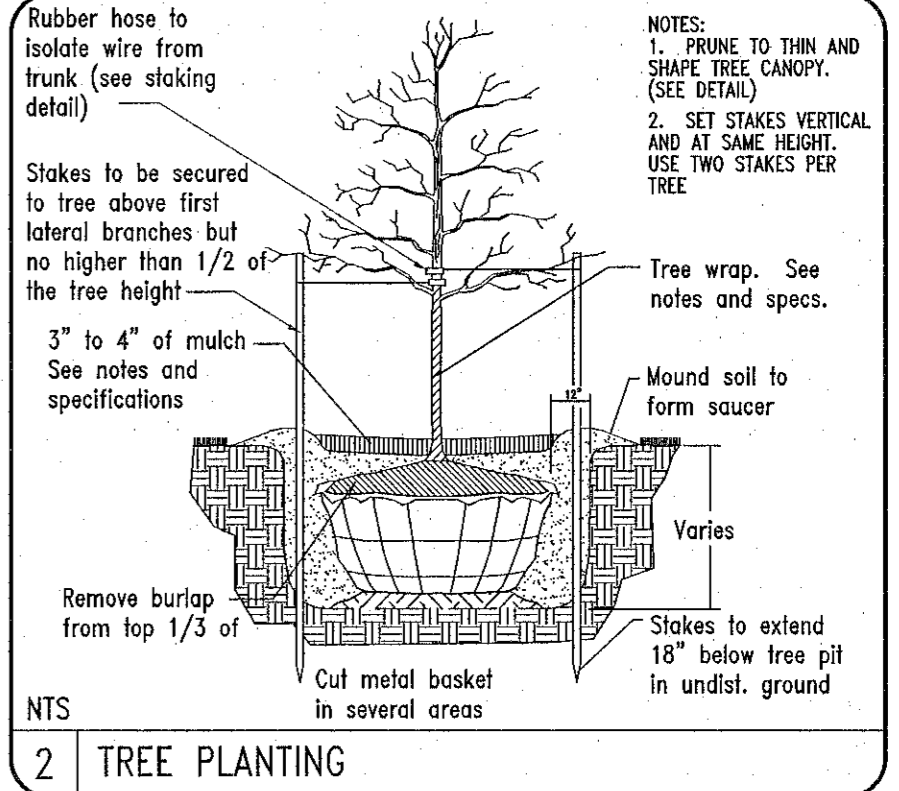
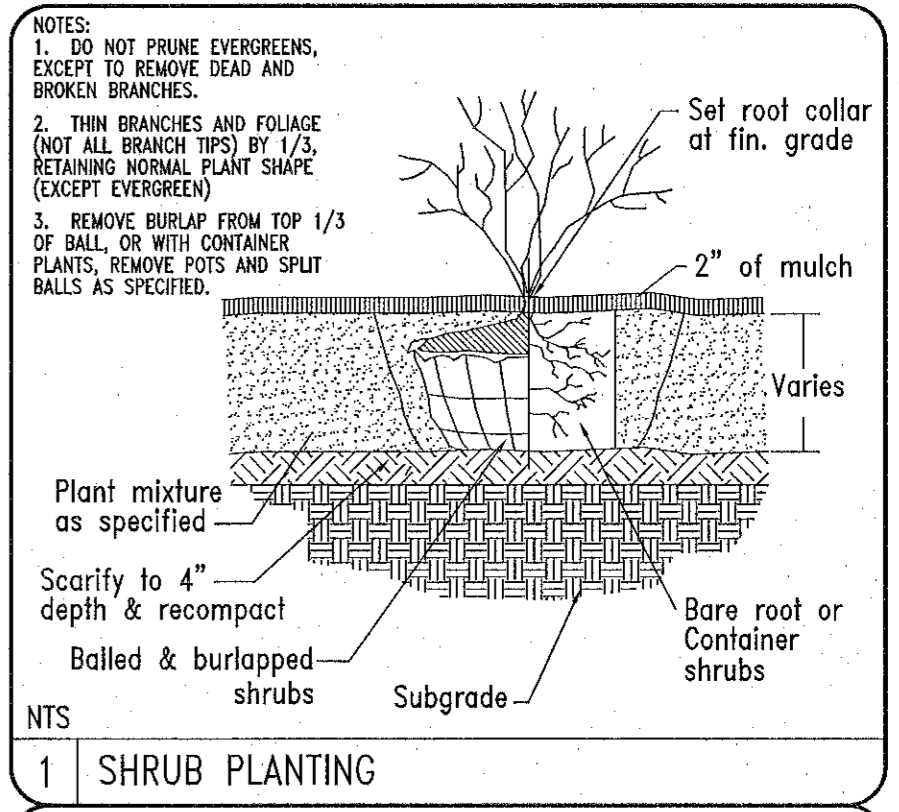
QUANTITY	KEY	BOTANICAL/COMMON NAME	SIZE	ROOT TYPE	REMARKS
11	A	Quercus virginiana 'Idin' Cathedral Oak	2.5" CALIPER	B&B	8' HEIGHT
12	E	Magnolia grandiflora 'Little Gem' Little Gem Magnolia	2.5" CALIPER	B&B	8' HEIGHT
2	B	Pistacia chinensis Chinese Pistache		B&B	8'-10' HEIGHT
40	C	Ilex cornuta 'Burfordii' nana Dwarf Burford Holly	12" HEIGHT	1 GAL. MIN.	
33	D	Abelia grandiflora 'Edward Goucher'	12" HEIGHT	1 GAL. MIN.	
18	F	Long leaf pine 'Pinus palustris'	PLUG		

GENERAL LANDSCAPE NOTES

- ANY DISTURBED AREAS NOT SCHEDULED FOR HARDCAPE, PLANTINGS, OR MULCH SHALL BE SEEDED LAWN.
- NO PLANT SUBSTITUTIONS ARE PERMITTED WITHOUT WRITTEN APPROVAL OF THE OWNERS REPRESENTATIVE.
- ALL PLANT AND BED LINE LOCATIONS SHALL BE STAKED IN THE FIELD AND APPROVED BY THE OWNER'S REPRESENTATIVE PRIOR TO INSTALLATION.
- ALL PLANTINGS SHALL BE INSTALLED WITH THE SPECIFIED LAYER OF MULCH. REFERENCE DETAILS AND SPECIFICATIONS FOR DEPTH AND TYPE OF MULCH. ALL TREES AND SHRUBS SHALL BE PLANTED IN MULCH BEDS AND SHALL BE SEPARATED FROM TURF GRASS AREAS.
- GRASS COVERAGE TO EXTEND FROM PROPERTY LINES TO BACK OF CITY SIDEWALKS AND/OR CURBS.
- MINIMUM TREE SIZE AT PLANTING IS 2" CALIPER (FOR SINGLE STEM TREES). ALL MULTI-STEM TREES MUST BE TREE FORM, MAXIMUM 3 TO 5 TRUNKS, AND MINIMUM 8 FEET TALL.
- ALL STRAPPING AND TOP 2/3 OF WIRE BASKET MUST BE CUT AWAY AND REMOVED FROM ROOT BALL PRIOR TO BACKFILLING PLANTING PIT. REMOVE TOP 1/3 OF THE BURLAP FROM ROOT BALL.
- FOR NEW PLANTING AREAS, REMOVE ALL PAVEMENT, GRAVEL SUB-BASE AND CONSTRUCTION DEBRIS. REMOVE COMPACTED SOIL AND ADD 18" NEW TOPSOIL, OR TILL AND AMEND THE TOP 18" OF EXISTING SOIL TO MEET TOPSOIL/PLANTING MIX STANDARDS FOR TREES.
- LARGE MATURING TREES MAY NOT BE PLANTED WHERE THERE ARE OVERHEAD DISTRIBUTION OR TRANSMISSION LINES. IF TREES CONFLICT WITH POWER LINES OR SIGNS, CALL URSAN FORESTER TO RESOLVE BEFORE PLANTING.
- ADJUST TREE PLANTING LOCATIONS TO AVOID UNDERGROUND UTILITIES. PLANT 15' FROM ALL UNDERGROUND UTILITIES (SEWER AND STORM DRAINAGE, GAS, WATER, PHONE, AND ELECTRICAL LINES).
- ATTENTION LANDSCAPER: NOTIFY OWNER OF ANY SIGN, POWER LINE, OR OTHER CONFLICTS BEFORE PLANTING NEW TREES.

LANDSCAPING NOTES:

- CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLETING ALL REQUIRED LANDSCAPING FOR THE ENTIRE SITE, TO INCLUDE BUT NOT LIMITED TO: SOODED/SEEDED AREAS, SHRUB BEDS, PARKING LOT ISLANDS, ROADSIDE SIGN BASES, AND MONUMENT PLANTINGS.
- CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE CODES AND ORDINANCES REGARDING LANDSCAPING.
- IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ESTABLISH A HEALTHY STAND OF GRASS ON ALL SEEDED AREAS.
- IN THE EVENT THAT PLANTING BEDS AND MULCH ARE REQUIRED, THE CONTRACTOR SHALL INSTALL BLACK FABRIC WEED BLOCK LANDSCAPE MESH UNDER THE MULCH TO PREVENT WEED GROWTH.
- CONTRACTOR SHALL PROVIDE NATURAL TOPSOIL THAT IS FERTILE, FRABLE, WITHOUT MIXTURE OF SUBSOIL MATERIALS, AND OBTAINED FROM A WELL DRAINAGE, AVAILABLE SITE. IT SHALL NOT CONTAIN SUBSTANCES WHICH MAY BE HARMFUL TO PLANT GROWTH. TOPSOIL SHALL BE SCREENED AND FREE FROM CLAY LUMPS, STONES, ROOTS, PLANTS, OR SIMILAR SUBSTANCES 1" OR MORE IN DIAMETER, DEBRIS, OR OTHER OBJECTS WHICH MIGHT BE A HINDERANCE TO PLANTING OPERATIONS. TOPSOIL SHALL CONTAIN AT LEAST 4-6% ORGANIC MATTER BY WEIGHT AND HAVE A PH RANGE OF 5.5 TO 7.0.
- CONTRACTOR SHALL BE RESPONSIBLE FOR THE WATERING AND THE MAINTENANCE OF ALL LANDSCAPED AREAS UNTIL THE LATER OF: (a) THIRTY (30) DAYS FOLLOWING THE PLANTING OF THE GRASS AND SHRUBS, OR (b) THE DATE THAT STARBUCKS OPENS FOR BUSINESS TO THE PUBLIC.
- GENERAL CONTRACTOR IS TO CLEAN ENTIRE SITE OF ALL CONSTRUCTION DEBRIS AND MAKE ALL GRASS AREAS.
- PROVIDE LANDSCAPE PLANS TO STARBUCKS AND AS REQUIRED BY LOCAL JURISDICTION TO THE BLDG. DEPT. FOR REVIEW AND APPROVAL PRIOR TO START OF WORK.
- ALL LANDSCAPING TREES, SHRUBS, ETC. SHALL NOT INTERFERE WITH THE VISIBILITY OF SIGNAGE.
- CONTRACTOR TO VERIFY QUANTITIES PRIOR TO COMMENCING WORK.
- OPEN AREAS WITHIN PLANTING BEDS SHALL BE MULCHED.



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

Date: _____ Permit # _____
Signed: _____

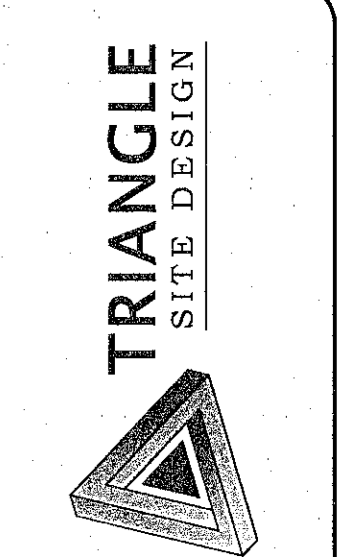
APPROVED CONSTRUCTION PLAN

PLANNING	NAME	DATE
TRAFFIC	_____	_____
FIRE	_____	_____

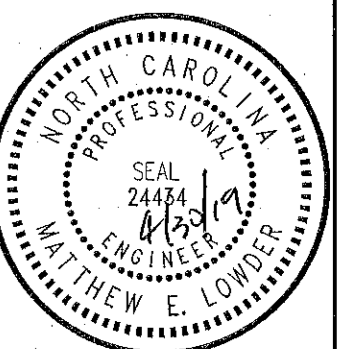
811
Know what's below
Call before you dig.

STOP
BEFORE YOU DIG
CALL 1 800 632-4849
N.C. ONE-CALL CENTER
IT'S THE LAW

GRAPHIC SCALE
1 INCH = 20 FEET



Consultant
Triangle Site Design, PLLC
4004 Barrett Dr, Ste 101
Raleigh, NC 27609
(919) 553-6570
mowder@trianglestdesign.com
NC License #P-0619



Matthew E. Lowrey

Owner/Developer
Wilmington NC 2018, LLC
Hartzog Holdings, LLC
Attn. Collins Hartzog
109 Shih Wild Lane
Elgin, SC 29045
803-361-6718
collins@hartzogholdings.com



Starbucks - Hospital Plaza
2018 South 16th Street
Wilmington, North Carolina
New Hanover County

This document, together with the concepts and designs presented herein, as an instrument of services, is intended only for the specific purpose and client for which it was prepared. Reuse of and improper reliance on this document without written authorization and adaptation by Triangle Site Design, PLLC shall be without liability to Triangle Site Design, PLLC.

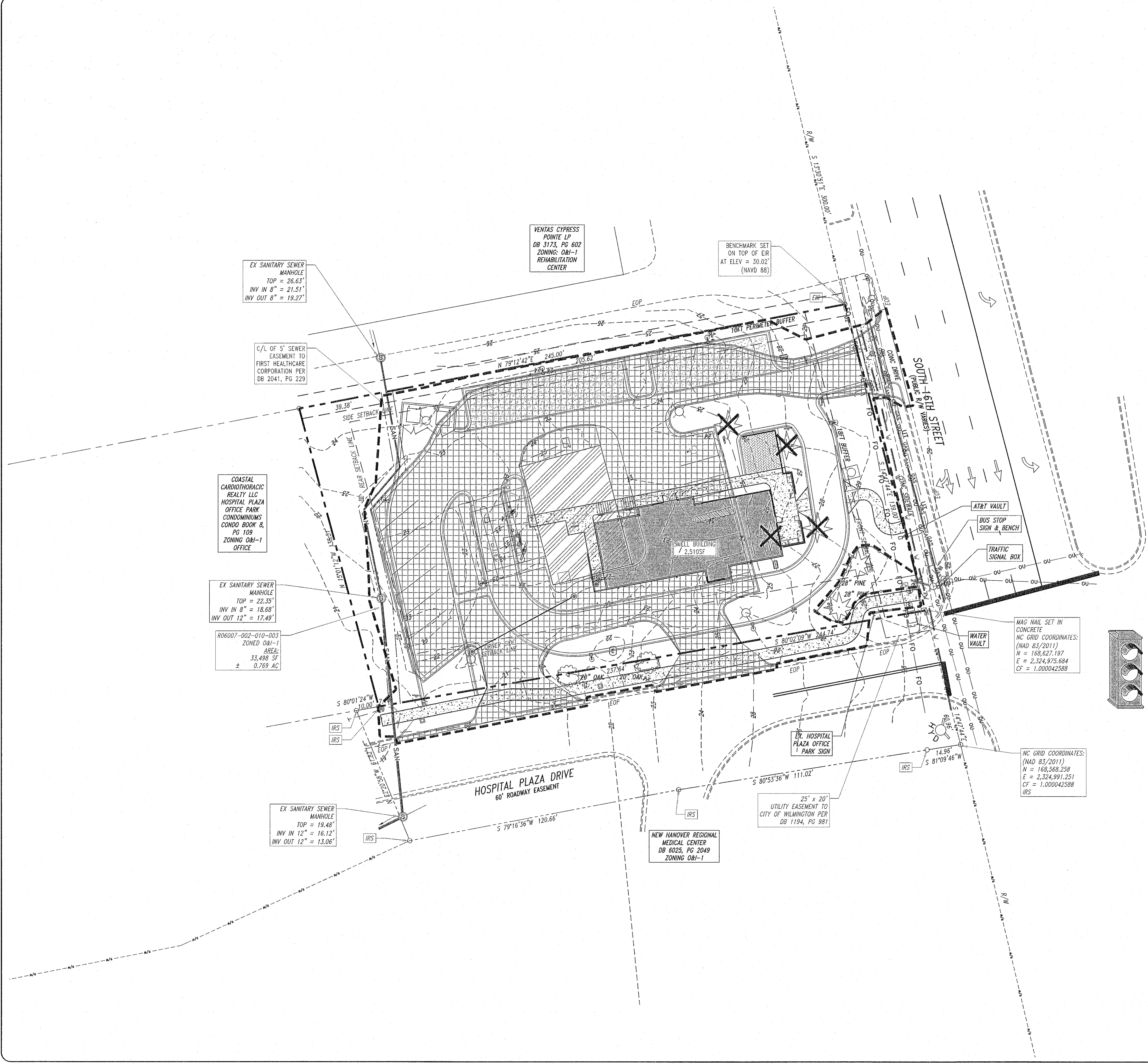
REVISIONS

No.	Date	Desc.
1	4/20/19	REVISED PER CITY REVIEW

Drawn _____
Checked _____
Approved _____

Project No. 090914
Date: April 30, 2019
Title: LANDSCAPE PLAN

Sheet No. C1.8



EX SANITARY SEWER MANHOLE
TOP = 26.63'
INV IN 8" = 21.51'
INV OUT 8" = 19.27'

C/L OF 5' SEWER EASEMENT TO FIRST HEALTHCARE CORPORATION PER DB 2041, PG 229

COASTAL CARDIOTHORACIC REALTY LLC HOSPITAL PLAZA OFFICE PARK CONDOMINIUMS CONDO BOOK 8, PG 109 ZONING O&I-1 OFFICE

EX SANITARY SEWER MANHOLE
TOP = 22.35'
INV IN 8" = 18.68'
INV OUT 12" = 17.49'

RO6007-002-010-003 ZONED O&I-1 AREA: 33,498 SF ± 0.769 AC

EX SANITARY SEWER MANHOLE
TOP = 19.48'
INV IN 12" = 16.12'
INV OUT 12" = 13.06'

VENTAS CYPRESS POINTE LP DB 3173, PG 602 ZONING: O&I-1 REHABILITATION CENTER

BENCHMARK SET ON TOP OF EIR AT ELEV = 30.02' (NAVD 88)

NEW HANOVER REGIONAL MEDICAL CENTER DB 6025, PG 2049 ZONING O&I-1

25' x 20' UTILITY EASEMENT TO CITY OF WILMINGTON PER DB 1194, PG 981

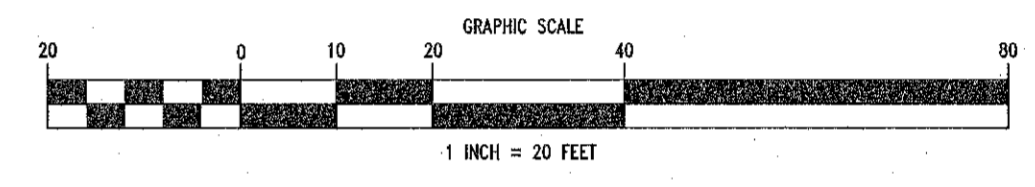
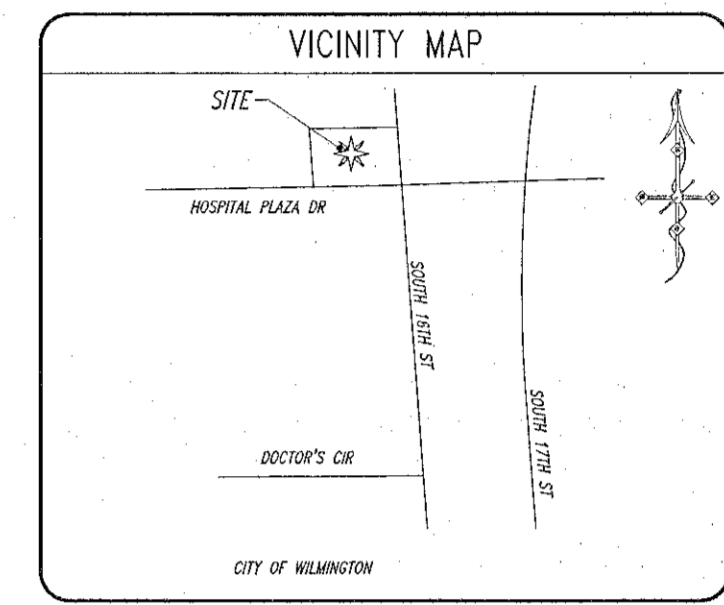
MAG NAIL SET IN CONCRETE NC GRID COORDINATES: (NAD 83/2011)
N = 168,627.197
E = 2,324,975.664
CF = 1.000042588

NC GRID COORDINATES: (NAD 83/2011)
N = 168,568.258
E = 2,324,991.251
CF = 1.000042588

NOTE TO CONTRACTOR:
PRIOR TO ANY CLEARING, GRADING, OR CONSTRUCTION ACTIVITY, TREE PROTECTION FENCING WILL BE REQUIRED TO BE INSTALLED AROUND PROTECTED TREES OR GROVES OF TREES AS SHOWN. NO CONSTRUCTION WORKERS, TOOLS, MATERIALS OR VEHICLES ARE PERMITTED WITHIN THE TREE PROTECTION FENCING AREA.

UTILITY STATEMENT
THE UNDERGROUND UTILITIES SHOWN HAVE BEEN LOCATED FROM FIELD SURVEY INFORMATION AND EXISTING DRAWINGS. THE SURVEYOR MAKES NO GUARANTEES THAT THE UNDERGROUND UTILITIES COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN-SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED ALTHOUGH THE SURVEYOR DOES CERTIFY THAT THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM INFORMATION AVAILABLE. THE SURVEYOR HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES.

CAUTIONARY NOTE
THE LOCATIONS OF ALL EXISTING UNDERGROUND UTILITIES SHOWN ON THIS DRAWING ARE BASED ON ABOVE GROUND EVIDENCE OR INFORMATION GATHERED DURING THE FIELD SURVEY PORTION OF THIS PROJECT. AS SUCH, THIS INFORMATION IS SPECULATIVE IN NATURE ONLY AND SHOULD NOT BE CONSTRUED AS FACT. THERE MAY ALSO BE OTHER EXISTING UNDERGROUND UTILITIES FOR WHICH NO ABOVE GROUND EVIDENCE WAS OBSERVED. THE EXACT LOCATIONS OF THE UNDERGROUND UTILITIES SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO THE START OF ANY AND ALL CONSTRUCTION.



Know what's below
Call before you dig.

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

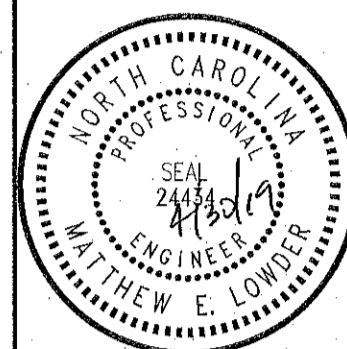
APPROVED CONSTRUCTION PLAN

PLANNING	NAME	DATE
TRAFFIC		
FIRE		

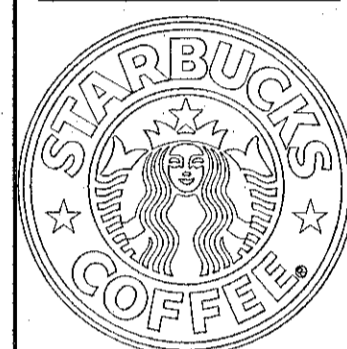
DEMOLITION LEGEND

	BUILDINGS TO BE REMOVED
	PAVEMENT TO BE REMOVED
	UTILITIES TO BE REMOVED
	TREES TO BE REMOVED

TRIANGLE SITE DESIGN
Consultant
Triangle Site Design, PLLC
4004 Barrett Dr, Ste 101
Raleigh, NC 27609
(919) 553-6570
mloeder@trianglesitedesign.com
NC License #P-0819



Owner/Developer
Wilmington NC 2018, LLC
Hartzog Holdings, LLC
Attn: Collins Hartzog
109 SHI Wild Lane
Elgin, SC 29045
803-361-6718
collins@hartzogholdings.com



Starbucks-Hospital Plaza
2018 South 16th Street
Wilmington, North Carolina
New Hanover County

This document, together with the concepts and designs presented herein, as an instrument of services, is intended only for the specific purpose and client for which it was prepared. Reuse of and improper reliance on this document without written authorization and adaptation by Triangle Site Design, PLLC shall be without liability to Triangle Site Design, PLLC.

REVISIONS	No.	Date	Desc.

Drawn Checked Approved
Project No. 009014
Date: April 30, 2019
Title

SITE INVENTORY MAP
Sheet No. **C1.9**