

GREENLAWN FUNERAL HOME

CITY OF WILMINGTON, NC

JULY 11, 2018

TECHNICAL REVIEW COMMITTEE SUBMITTAL

CONDITIONAL DISTRICT REZONING CONDITIONS

1. THE USE AND DEVELOPMENT OF THE SUBJECT PROPERTY SHALL COMPLY WITH ALL REGULATIONS AND REQUIREMENTS IMPOSED BY THE LAND DEVELOPMENT CODE, THE CITY OF WILMINGTON TECHNICAL STANDARDS AND SPECIFICATIONS MANUAL AND ANY OTHER APPLICABLE FEDERAL, STATE OR LOCAL LAW, ORDINANCE OR REGULATION, AS WELL AS ANY CONDITION STATED BELOW. IN THE EVENT OF A CONFLICT, THE MORE STRINGENT REQUIREMENT OR HIGHER STANDARD SHALL APPLY.
2. APPROVAL OF THIS CONDITIONAL DISTRICT REZONING DOES NOT CONSTITUTE TECHNICAL APPROVAL OF A SITE PLAN. FINAL APPROVAL BY THE TECHNICAL REVIEW COMMITTEE AND THE ISSUANCE OF ALL REQUIRED PERMITS MUST OCCUR PRIOR TO RELEASE OF THE PROJECT FOR CONSTRUCTION.
3. IF FOR ANY REASON, ANY CONDITION FOR APPROVAL IS FOUND TO BE ILLEGAL OR INVALID OR IF THE APPLICANT SHOULD FAIL TO ACCEPT ANY CONDITION FOLLOWING APPROVAL, THE APPROVAL OF THE SITE PLAN FOR THE DISTRICT SHALL BE NULL AND VOID AND OF NO EFFECT AND PROCEEDINGS SHALL BE INSTITUTED TO REZONE THE PROPERTY TO IT PREVIOUS ZONING CLASSIFICATION.
4. THE USE AND DEVELOPMENT OF THE SUBJECT PROPERTY SHALL BE IN ACCORDANCE WITH THE APPROVED SITE PLAN AS SUBMITTED (DATED RECEIVED, JANUARY 24, 2018).
5. THE STRUCTURE FACING SHIPYARD BOULEVARD SHALL CONFORM TO THE ELEVATION AS PRESENTED (DATED RECEIVED, DECEMBER 21, 2017).
6. THE PROPOSED USES SHALL BE LIMITED TO A FUNERAL HOME AND CREMATORY WITH ASSOCIATED PARKING AND LANDSCAPING.
7. STRICT ADHERENCE TO THE DESIGN STANDARDS WILL BE CONFIRMED AS PART OF THE TECHNICAL REVIEW.
8. EXTERIOR LIGHTING SHALL BE INSTALLED SO AS NOT TO SHINE DIRECTLY ONTO ADJACENT RESIDENTIAL PARCELS.
9. ANY FREESTANDING SIGN(S) ON THE SITE SHALL BE A MAXIMUM OF 6 FEET IN HEIGHT, MONUMENT STYLE WITH LANDSCAPING AROUND THE BASE OF THE SIGN; NO POLE SIGNS SHALL BE PERMITTED.
10. THE CREATIVE STANDARD SHALL NOT BE USED TO SATISFY THE STREET YARD LANDSCAPING REQUIREMENTS.
11. THE BUFFER BETWEEN THE ADJACENT RESIDENTIAL ZONING DISTRICT AND THE PROPOSED USE SHALL MAINTAIN 100 PERCENT VISUAL OPACITY THROUGH THE PRESERVATION OF EXISTING VEGETATION AND SUPPLEMENTED, WHERE NECESSARY, WITH EVERGREEN PLANTINGS AS SHOWN ON THE SITE PLAN (DATED RECEIVED, JANUARY 24, 2018).
12. A MULTI-USE PATH SHALL BE INSTALLED ALONG THE FRONTAGE OF SHIPYARD BOULEVARD FROM THE PROPERTY BOUNDARY TO THE WEST TO THE SHARED DRIVEWAY WITH THE CEMETERY.
13. ALL CITY, STATE AND FEDERAL REGULATIONS SHALL BE MET.

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

1 inch

Approved Construction Plan

Name _____ Date _____

Planning _____
Traffic _____
Fire _____



Public Services • Engineering Division

APPROVED STORMWATER MANAGEMENT PLAN

Date: _____ Permit # _____

Signed: _____

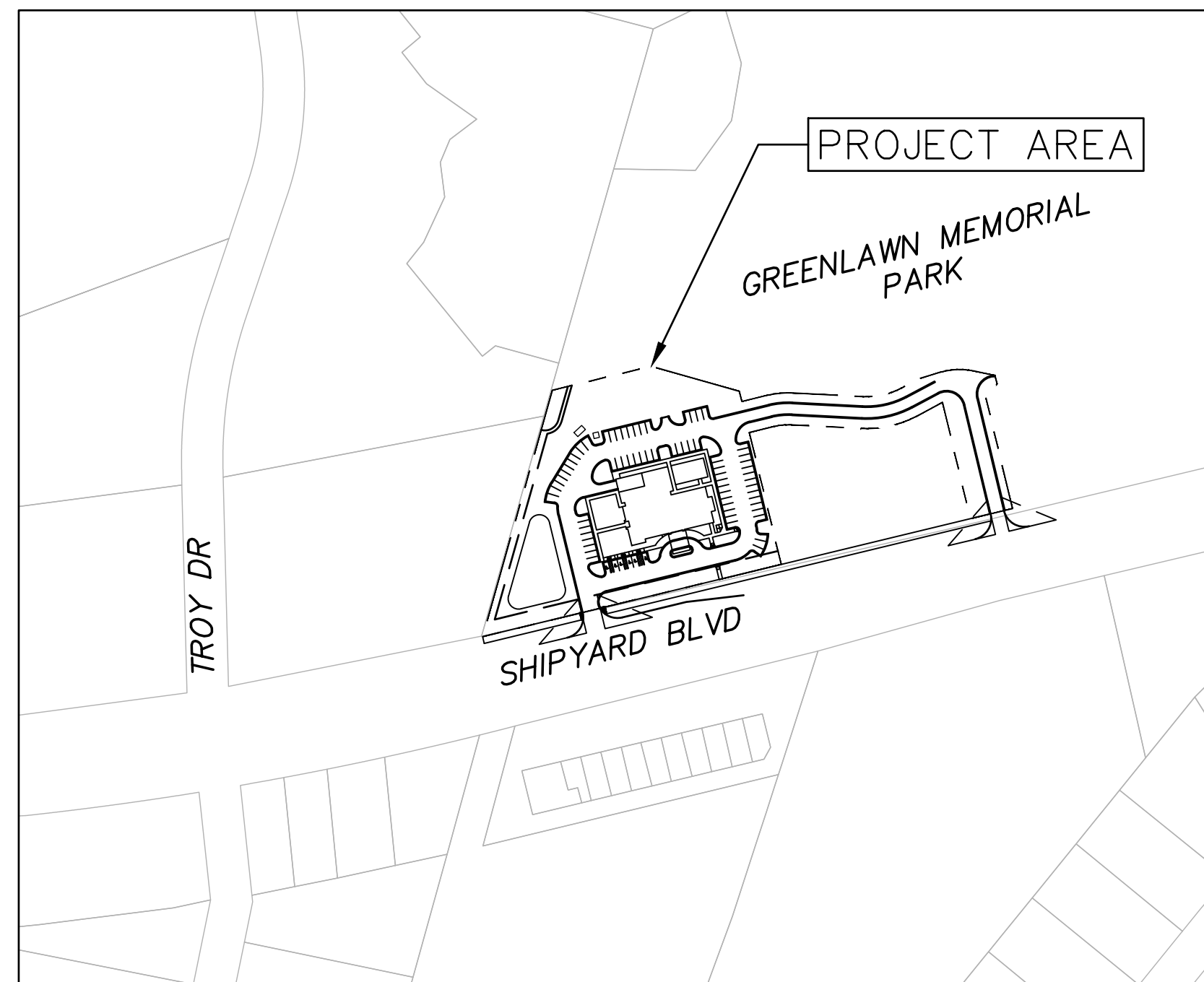
WATER AND SEWER DEMAND:

1. WATER 0 GPD (CURRENT USE)
2. WATER 5,835 GPD (PROPOSED USE)
3. SEWER 0 GPD (CURRENT USE)
4. SEWER 5,835 GPD (PROPOSED USE)

COUNTY AND AGENCY CONTACTS

- A. City of Wilmington**
Planning Department
 102 North Third Street
 PO BOX 1810
 Wilmington, NC 28402-1810
 (910)342-2782
- B. City of Wilmington**
Engineering
 212 Operations Center Drive
 PO BOX 1810
 Wilmington, NC 28402-1810
 (910) 341-7807
 Contact: Rob Gordon
 Email: Rob.Gordon@wilmingtonnc.gov
- C. New Hanover County**
Sediment and Erosion Control
 230 Government Center Drive, Suite 160
 Wilmington, NC 28403
 (910) 798-7432
 Contact: Beth Wetherill
 Email: BWetherill@nhcgov.com
- D. Cape Fear Public Utility Authority**
 235 Government Center Drive
 Wilmington, NC 28403
 (910) 332-6626

ISSUED FOR PERMITTING
NOT FOR CONSTRUCTION



VICINITY MAP

1"=200'

SHEET LIST TABLE		
SHEET NUMBER	SHEET TITLE	SHEET DESCRIPTION
1	G-001	COVER
2	G-002	GENERAL NOTES
3	G-003	CLOSE-OUT NOTES
4	CX-100	SITE INVENTORY/ EXISTING CONDITIONS
5	CX-101	SITE SURVEY
6	CE-101	PHASE 1 SEDIMENT AND EROSION CONTROL PLAN
7	CE-102	PHASE 2 SEDIMENT AND EROSION CONTROL PLAN
8	CS-100	OVERALL SITE PLAN
9	CG-101	GRADING AND STORMWATER PLAN
10	CU-100	OVERALL UTILITY PLAN
11	CL-101	LANDSCAPE PLAN
12	CE-501	SEDIMENT AND EROSION CONTROL DETAILS
13	CS-501	SITE DETAILS
14	CS-502	SITE DETAILS
15	CL-501	LANDSCAPE DETAILS
16	WSD-1	UTILITY DETAILS
17	WSD-2	UTILITY DETAILS
18	SSD-1	UTILITY DETAILS
19	SSD-2	UTILITY DETAILS
20	SSD-3	UTILITY DETAILS
21	SSD-4	UTILITY DETAILS

PROJECT DATA

NAME OF PROJECT:
 GREENLAWN FUNERAL HOME
 WILMINGTON, NORTH CAROLINA
 NEW HANOVER COUNTY

OWNER/DEVELOPER:
 SCI FUNERAL SERVICES OF NC, LLC
 1929 ALLEN PARKWAY
 HOUSTON, TX 77019
 CONTACT: JONATHAN GEREN
 EMAIL: JONATHAN.GEREN@SCI-US.COM

PREPARED BY:
 MCKIM & CREED, INC
 243 NORTH FRONT ST
 WILMINGTON, NC 28401
 PHONE: (910)343-1048
 FAX: (910)251-8282
 CONTACT: KATHRYN ESPINOZA, PE
 EMAIL: KESPINOZA@MCKIMCREED.COM



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 Wilmington, North Carolina 28401
 Phone: (910)343-1048 , Fax: (910)251-8282

License: F-1222

www.mckimcreed.com



Know what's below.
Call before you dig.

CAPE FEAR PUBLIC UTILITY AUTHORITY CONSTRUCTION PROCEDURE:

- 1. THE DESIGN ENGINEERING SHALL SUBMIT 3 SETS OF FINAL DESIGN PLANS AND APPROVED SPECIFICATIONS PRIOR TO SCHEDULING THE PRE-CONSTRUCTION MEETING.
2. SUBMITTALS FOR MATERIALS SHOULD BE MADE IN ACCORDANCE WITH CFPUA SPECIFICATION SECTION 01340. MATERIAL SHOP DRAWING SUBMITTALS ARE REQUIRED FOR ALL PHYSICAL ASSETS TO ENSURE THEY COMPLY WITH CFPUA TECHNICAL SPECIFICATIONS AND DETAILS.

MATERIAL VENDOR FURNISHES SUBMITTALS TO THE CONTRACTOR BASED ON THE PROJECT REQUIREMENTS.

CONTRACTOR REVIEWS THE SUBMITTALS FOR COMPLIANCE WITH THE APPROVED CONSTRUCTION DRAWINGS, CFPUA TECHNICAL SPECIFICATIONS AND DETAILS, AND FORWARDS TO THE DEVELOPER'S ENGINEER-OF-RECORD WHEN COMPLETE.

THE DEVELOPER'S ENGINEER-OF-RECORD VERIFIES COMPLIANCE, STAMPS AND SIGNS THE SUBMITTAL, AND FORWARDS THE PACKAGE TO THE CFPUA CONSTRUCTION MANAGER. IF IT IS DETERMINED THAT THE MATERIAL SHOP DRAWING SUBMITTAL IS NOT IN COMPLIANCE, THE ENGINEER SHALL RETURN IT TO THE CONTRACTOR FOR CORRECTION AND RESUBMISSION AS NOTED ABOVE.

CFPUA'S CONSTRUCTION MANAGER REVIEWS THE SUBMITTAL FROM THE DEVELOPER'S ENGINEER-OF-RECORD, VERIFIES COMPLIANCE, AND NOTIFIES THE ENGINEER THAT THE MATERIALS ARE APPROVED FOR CONSTRUCTION. IF IT IS DETERMINED THAT THE MATERIAL SHOP DRAWING SUBMITTAL IS NOT IN COMPLIANCE, THE SUBMITTAL WILL BE RETURNED TO THE ENGINEER FOR CORRECTION AND RESUBMISSION AS NOTED ABOVE.

- 3. ANY REQUEST FOR DEVIATIONS FROM THE STAMPED DRAWINGS AND MATERIAL SUBMITTALS MUST BE SUBMITTED TO THE CFPUA CONSTRUCTION MANAGER. THE DEVIATION WILL BE REVIEWED BY CFPUA STAFF. THE ENGINEER, CONTRACTOR AND CFPUA INSPECTOR WILL BE NOTIFIED IF IT IS APPROVED, NEEDS TO BE REVISED AND RESUBMITTED OR REJECTED. ANY CHANGES TO THE STAMPED CONSTRUCTION DOCUMENTS MADE IN THE FIELD BY THE CONTRACTOR MUST BE APPROVED BY THE ENGINEER OF RECORD AND CFPUA CONSTRUCTION MANAGER. THE CFPUA INSPECTOR CANNOT APPROVE MAJOR CHANGES FROM THE STAMPED CONSTRUCTION DOCUMENTS.
4. THE CFPUA INSPECTOR SHALL BE NOTIFIED WHEN ANY MATERIAL IS DELIVERED TO THE JOB SITE. THE CFPUA INSPECTOR WILL VERIFY THAT ALL MATERIALS MEET CFPUA SPECIFICATIONS, DETAILS, AND/OR APPROVED SUBMITTAL. THE CFPUA INSPECTOR WILL NOTIFY THE CONTRACTOR AND THE CFPUA CONSTRUCTION MANAGER OF ANY UNAPPROVED MATERIAL, AND THAT THE UNAPPROVED MATERIAL MUST BE REMOVED FROM THE PROJECT SITE.
5. CONTRACTOR SHALL GIVE TWO (2) BUSINESS DAYS NOTIFICATION FOR SCHEDULING TO THE ASSIGNED CFPUA INSPECTOR FOR EACH OF THE FOLLOWING:

OPERATING A CFPUA VALVE (INCLUDES TAPPING VALVES)

WHEN BEGINNING CONSTRUCTION AND IF THE CONTRACTOR PULLS OFF THE SITE

LAYING OUT OF ANY CONNECTION IN EXISTING MANHOLE

CUTTING IN ANY NEW MANHOLES ON EXISTING LINES

CORING ANY MANHOLES

CONNECTING TO AN EXISTING SEWER FORCE MAINS

CONNECTING ONTO EXISTING WATER LINES

ANY BORES AND THREADING CARRIER PIPES

ALL CAMERA WORK, TESTING, CHLORINATION AND WATER SAMPLING

ALL TESTING

CAPE FEAR PUBLIC UTILITY AUTHORITY TESTING PROCEDURE:

- 1. ALL STRUCTURES, PRESSURE PIPING AND GRAVITY SEWER PIPING SHALL BE TESTED BY THE CONTRACTOR AS SPECIFIED IN THE CFPUA SPECIFICATIONS IN ACCORDANCE WITH APPLICABLE REGULATIONS AND AS DIRECTED BY THE CFPUA INSPECTOR. ALL TESTING MUST BE CONDUCTED IN THE PRESENCE OF THE CFPUA INSPECTOR. THE CONTRACTOR IS TO GIVE TWO (2) BUSINESS DAYS NOTIFICATION FOR SCHEDULING TO THE ASSIGNED CFPUA INSPECTOR FOR ALL TESTING.

- 2. ALL PRESSURE PIPE LINES MUST BE SUBJECTED TO HYDROSTATIC TESTING IN ACCORDANCE WITH THE APPROPRIATE CFPUA SPECIFICATION. THESE PIPE LINES SHALL BE TESTED TO 150 PSI FOR A PERIOD OF TWO (2) HOURS. IF THE PRESSURE DROPS MORE THAN THREE (3) PSI, THE TEST FAILS. REFER TO THE APPROPRIATE CFPUA SPECIFICATION FOR MORE INFORMATION ON THE PROCEDURE.

- 3. ALL WATER MAINS AND SERVICES MUST BE FLUSHED, CHLORINATED AND SAMPLED IN ACCORDANCE WITH THE CFPUA SPECIFICATION 02660 AND AS DIRECTED BY THE CFPUA INSPECTOR.

- 4. SEWER LINE SEGMENT TESTING: EACH SEWER LINE SEGMENT (THE SEWER MAIN BETWEEN MANHOLES) SHALL BE TESTED:

THIRTY (30) DAYS AFTER INSTALLATION AND PRIOR TO FINAL ACCEPTANCE OF THE PROJECT, ALL SEWER LINE SEGMENTS AND ALL SERVICES SHALL BE CAMERA INSPECTED AND VIDEO RECORDED. THE CFPUA INSPECTOR WILL REVIEW THE VIDEO RECORDING FOR ACCEPTANCE.

AS AN ALTERNATIVE TO WAITING THIRTY (30) DAYS TO PERMIT STABILIZATION OF THE SOIL-PIPE SYSTEM, THE CFPUA MAY ACCEPT CERTIFICATION FROM A SOIL TESTING FIRM VERIFYING THAT THE BACKFILL OF THE TRENCH HAS BEEN COMPACTED TO AT LEAST 95% MAXIMUM DENSITY.

AFTER TWO (2) PAPER COPIES OF THE AS-BUILTS HAVE BEEN SUBMITTED TO THE CFPUA INSPECTOR.

AFTER GRAVEL HAS BEEN INSTALLED ON ALL ROADWAYS.

- 5. VIDEO INSPECTION TESTING: THE CONTRACTOR SHALL PROVIDE A DVD(S) OF EACH SEWER LINE SEGMENT AND SERVICE LINE TO ENSURE THAT THE LINES MEET MINIMUM STANDARDS. THE DVD(S) WILL BE REVIEWED IN THE ORDER THEY ARE RECEIVED. THE TYPICAL REVIEW TIME IS GENERALLY TEN (10) TO FIFTEEN (15) BUSINESS DAYS BUT WILL DEPEND ON THE COMPLEXITY OF THE PROJECT, SIZE, QUALITY OF THE DVD(S), ETC.

THE MAIN LINE CAMERA INSPECTION MUST HAVE PROJECT NAME, FOOTAGES, MANHOLE NUMBERS, AND DATES OF INSPECTION.

THE SERVICE LINE CAMERA INSPECTION MUST INCLUDE PROJECT NAME, FOOTAGES, ADDRESS AND/OR LOT NUMBER, AND DATE OF INSPECTION.

THE CAMERA INSPECTION MUST SHOW THE FULL DIAMETER OF THE PIPE.

THE CAMERA INSPECTION MUST BE PERFORMED UPON COMPLETION OF CLEANING AND POTABLE WATER INTRODUCED INTO THE SYSTEM TO BE TESTED. ALL DEFECTS IN THE PIPELINE AND APPURTENANCES SHALL BE REMEDIATED BY THE CONTRACTOR AT NO ADDITIONAL EXPENSE TO THE CFPUA AND WILL BE RE-INSPECTED AS OUTLINED ABOVE.

- 6. TWO (2) SETS OF AS-BUILT RECORD DRAWINGS SHALL BE PROVIDED IN ACCORDANCE WITH CFPUA SPECIFICATION SECTION 01720 FOR REVIEW.

CITY OF WILMINGTON RECORD DRAWING REQUIREMENTS:

RECORD DRAWINGS (AS-BUILTS) SHALL BE FILED IN THE ENGINEERING OFFICE FOR ASSET MANAGEMENT AND FUTURE USE. RECORD DRAWINGS SHOULD INDICATE WHAT HAS BEEN LOCATED BY THE SURVEYOR AND REFLECT WHAT IS ON AND IN THE GROUND AT A PARTICULAR SITE. ALL INFORMATION PERTAINS TO PUBLIC AND/OR PRIVATE INFRASTRUCTURE, SUCH AS STREETS, WATER, SEWER, AND DRAINAGE. ALL INFRASTRUCTURE SHOWN ON PLANS SHALL BE INDICATED PUBLIC OR PRIVATE. RECORD DRAWINGS SHALL BE SUBMITTED IN BOTH DIGITAL AND HARD COPY FORM. DIGITAL FILES SHALL BE AUTOCAD VERSION 2000 OR LATER. HARD COPIES SHALL HAVE AN ENGINEER'S SEAL AFFIXED AND THE SURVEYOR'S "STANDARDS OF PRACTICE" STATEMENT SIGNED AND SEALED.

PLANS SHALL INCLUDE

LOCATIONS, TOP ELEVATIONS, INVERT ELEVATIONS FOR ALL MANHOLES

FIRE HYDRANTS, WATER METERS AND SANITARY SEWER CLEANOUTS

NOTE OR SHOW UTILITY CROSSINGS

STREETS AND CURBLINES (LABELED "PUBLIC" OR "PRIVATE") WITH SPOT ELEVATIONS PROVIDED AT THE TOP OF CURB, EDGE OF PAVEMENT AND AT THE CENTERLINE EVERY 200 FT AND AT ALL STREETS SHOULD ALSO BE LABELED WITH THE COMPACTED STONE BASED THICKNESS AND ASPHALT THICKNESS

PAVEMENT MARKINGS AND ALL TRAFFIC SIGNS

SIDEWALKS WITH SPOT ELEVATIONS PROVIDED AT THE INSIDE EDGE, OUTSIDE EDGE AND AT THE CENTERLINE EVERY 100 FT AND AT ALL GRADE BREAKS

SIZE, SLOPE AND MATERIAL FOR ALL STORM DRAINAGE PIPES

FOR STORM DRAINAGE: TYPE/MATERIAL OF STRUCTURE, TOP ELEVATION, INVERTS IN AND OUT.

LOCATIONS OF STREET LIGHTING AND TYPE

VICINITY MAP

NORTH ARROW

DATE

SCALE FOR DRAWINGS SHALL BE 1"=20' OR 1"=30'; THE EXCEPTION BEING UTILITY PLANS, WHICH MAY BE SUBMITTED AT 1"=40' OR LESS. NO PLANS ACCEPTED AT 1"=50' OR MORE.

LEGEND

DETAILS IF NEEDED

VERTICAL DATUM

LOT NUMBERS AND LOT LINES

RIGHT-OF-WAY AND EASEMENT LINES

ANY STATE OF NC PERMIT NUMBERS (IF APPLICABLE)

HARD COPIES OF PLANS SHALL BE SIGNED/SEALED/DATED BY A LICENSED SURVEYOR

REQUIREMENTS FOR VIDEO INSPECTION OF STORM SEWER SYSTEMS:

GENERAL

- 1. ALL EQUIPMENT USED FOR CLEANING AND VIDEO INSPECTION SHALL BE SPECIFICALLY DESIGNED FOR THE WORK DESCRIBED HEREIN. ALL CAMERAS SHALL BE SELF-POWERED UNITS WITH COLOR, PAN-AND-TILT, MINIMUM RESOLUTION OF 640X480, AND THE ABILITY TO OPERATE IN 100% HUMIDITY CONDITIONS. THE LENS SHALL HAVE NOT LESS THAN A 65-DEGREE VIEWING ANGLE WITH EITHER AUTOMATIC OR REMOTE FOCUS AND IRIS CONTROLS.

- 2. ALL WORK DESCRIBED HEREIN SHALL BE COMPLETED IN ACCORDANCE WITH NASSCO PIPELINE ASSESSMENT AND CERTIFICATION PROGRAM/ MANHOLE ASSESSMENT AND CERTIFICATION PROGRAM (PACP/MACP) GUIDELINES.

- 3. THE CITY OF WILMINGTON (COW) RESERVES THE RIGHT TO REFUSE ANY RECORDING OR REPORT ON THE BASIS OF SUBSTANDARD QUALITY.

EXECUTION

- 1. ALL STORM PIPE INSTALLATIONS SHALL BE COMPLETELY INSTALLED A MINIMUM OF 30 DAYS PRIOR TO VIDEO INSPECTION. GENERALLY, INSPECTIONS SHALL OCCUR 30 DAYS PRIOR TO ASPHALT PAVING.

- 2. THE CONTRACTOR'S CLEANING OPERATIONS SHALL BE PERFORMED PRIOR TO THE VIDEO INSPECTION, AND SHALL FULLY CLEAN THE PIPES AND STRUCTURES AS WELL AS REMOVE ALL SEDIMENT, ROOTS, DEBRIS, ETC.

- 3. INSPECTIONS OF EACH PIPE SEGMENT SHALL BEGIN IN THE CENTER OF THE START DRAINAGE STRUCTURE AND END IN THE CENTER OF THE END DRAINAGE STRUCTURE. THE CAMERA SHALL BE MOVED THROUGH THE LINE IN EITHER DIRECTION AT A UNIFORM RATE BUT NOT GREATER THAN 30 FEET PER MINUTE (0.5 FT/SEC).

- 4. THE CAMERA SHALL BE STOPPED AT EACH PIPE JOINT, DEFECT, IMPERFECTION, ETC. AT THESE LOCATIONS, THE CAMERA SHALL BE PANNED, TILTED AND ROTATED TO FULLY VIEW AND DOCUMENT THE CONDITION OF THE JOINTS, DEFECTS, IMPERFECTIONS, ETC.

- 5. THE DIGITAL RECORDING SHALL BE FREE OF ELECTRICAL INTERFERENCE AND SHALL PRODUCE A CLEAR AND STABLE IMAGE.

- 6. VIDEO OVERLAY SHALL INCLUDE, AT A MINIMUM, THE OWNER NAME, PROJECT NAME, STREET NAME, DIAMETER OF PIPE, PIPE MATERIAL, DATE AND TIME OF INSPECTION, DIRECTION OF VIDEO (UPSTREAM OR DOWNSTREAM), DRAINAGE STRUCTURE NUMBER DESIGNATION FOR EACH DRAINAGE STRUCTURE ON THE PIPE SEGMENT INSPECTED THAT CORRESPONDS TO THE CONSTRUCTION PLANS. A CONSTANT OVERLAY DISPLAY OF THE STREET NAME, DRAINAGE STRUCTURE DESIGNATIONS (I.E. MH START#/MH END#), DATE AND DISTANCE SHALL APPEAR ON THE SCREEN. THE INSPECTOR SHALL MOVE THE CONSTANT OVERLAY DISPLAY SO IT DOES NOT INTERFERE WITH THE INSPECTION REVIEW.

- 7. INSPECTION OF EACH PIPE SEGMENT SHALL BE PROVIDED IN A SEPARATE VIDEO FILE. IN SITUATIONS WHERE REVERSE INSPECTION IS NECESSARY, THE REVERSE INSPECTION SHALL BE PROVIDED IN A SEPARATE VIDEO FILE.

- 8. ALL OBSERVATIONS/DEFECTS SHALL BE NOTED BY THE INSPECTOR, WHERE A TEXT DISPLAY SHALL APPEAR DESCRIBING THE OBSERVATION/DEFECT. TEXT SHALL DISPLAY FOR A MINIMUM OF 4 SECONDS. THE VIDEO FILE RECORDING SHALL PAUSE AS THE OPERATOR SELECTS THE OBSERVATION/DEFECT NOTATION, ELIMINATING "ON HOLD" VIDEO.

- 9. AN INSPECTION FORM SHALL BE COMPLETED AND SUBMITTED FOR EACH PIPE SEGMENT AND DRAINAGE STRUCTURE INSPECTED AND VIDEOED. AT A MINIMUM, OBSERVATION/DEFECT NOTES SHALL INCLUDE GENERAL INFO, DISTANCE WITHIN THE PIPE SEGMENT, DESCRIPTION, A SEVERITY RATING, AND A STILL PHOTOGRAPH.

DELIVERABLES

- 1. CORRESPONDENCE FROM THE ENGINEER OF RECORD CONFIRMING THAT HE/SHE HAS REVIEWED THE VIDEO INSPECTION PACKAGE FOR COMPLIANCE TO CONTENT AND HAS MADE AN EVALUATION WITH RECOMMENDATIONS FOR REPAIR AS NEEDED PER THE CITY GUIDELINES.
2. VIDEO INSPECTIONS CAPTURED LIVE OFF OF THE INSPECTION CAMERA TO BE SUBMITTED TO ON A DVD COMPATIBLE WITH WINDOWS MEDIA PLAYER. THE INSPECTIONS MUST BE IN ORDER AND COMPLETE.
3. ALL INSPECTION REPORTS COMPLETED FOR EACH PIPE SEGMENT AND DRAINAGE STRUCTURE WHETHER VIDEOED OR NOT SHALL BE SUBMITTED.

CITY OF WILMINGTON MATERIALS DOCUMENTATION AND TESTING (PROVIDED FOR INFORMATION ONLY/SUBJECT TO CHANGE):

Table with 6 columns: TEST TYPE, LOCATION FOR, TEST TARGET, SPEC, FREQUENCY AND TEST SECTIONS, DOCUMENTATION. Rows include SOIL PROCTORS, DENSITY - NUCLEAR GAUGE, DENSITY - ALTERNATES, PROOFROLL, DYNAMIC CONE PENETROMETER, DENSITY - NUCLEAR GAUGE, PROOFROLL, SAMPLING, MAKING & CURING TEST SPECIMENS, AIR TEST, SLUMP TEST, COMPRESSIVE STRENGTH, ASPHALT MIX, ASPHALT TEMPERATURE, DENSITY - NUCLEAR GAUGE CONTROL WITH CORE CHECKS, and CORE CONTROL AND CONTROL STRIPS WHEN NEEDED.

Approved Construction Plan form with fields for Name, Date, Planning, Traffic, Fire, and signature line. Includes City of Wilmington logo and Public Services/Engineering Division information.

For each open utility cut of City streets, a \$325 permit shall be required from the City prior to occupancy and/or project acceptance. 1 inch scale indicator.

Revision table with columns for REVNO, DESCRIPTIONS, REVISIONS, and DATE. Row 1: CITY OF WILMINGTON TECHNICAL REVIEW COMMITTEE SUBMITTAL, 07/11/2018.

FINAL DRAWING - FOR REVIEW PURPOSES ONLY

Seal area for the engineer or inspector.

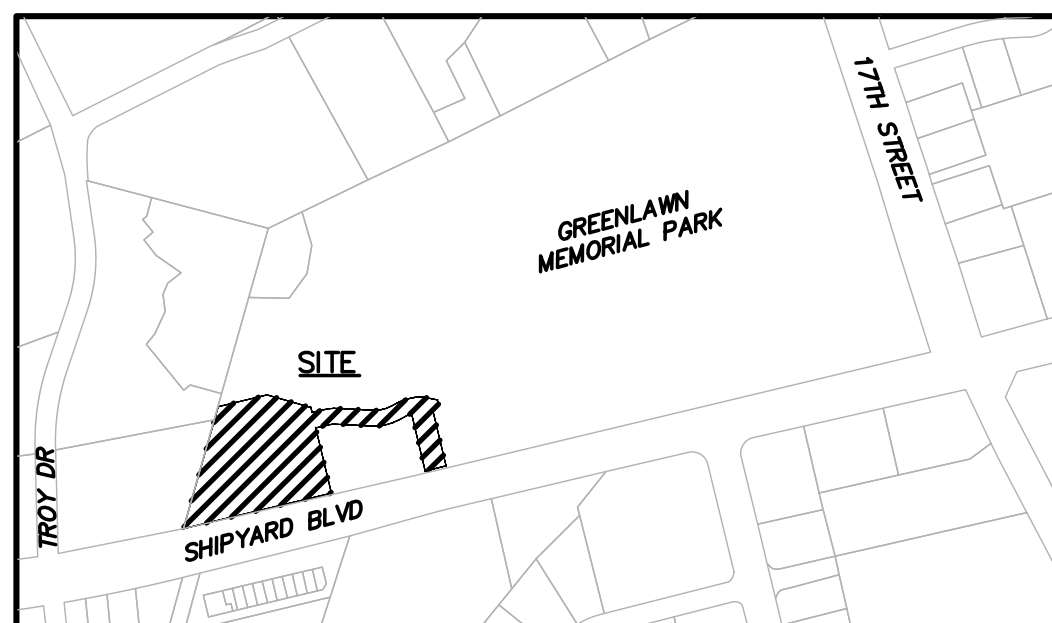
MCKIM & CREED logo and contact information: 243 North Front Street, Wilmington, North Carolina 28401, Phone: (910)343-1048, Fax: (910)251-8282, License: F-1222, www.mckimcreed.com

SCI NORTH CAROLINA FUNERAL SERVICES, LLC. 1929 ALLEN PKWY. HOUSTON, TX 77019

GREENLAWN FUNERAL HOME, WILMINGTON, NEW HANOVER COUNTY, NORTH CAROLINA. CLOSE-OUT NOTES

Project information block including DATE (07/11/2018), MCE PROJ # (07397-0001), DRAWN (ALM/EEM/KCBE), DESIGNED (KCBE/EEM/ALM), CHECKED (RMC), PROJ. MGR. (KCBE), SCALE (HORIZONTAL: N/A, VERTICAL: N/A), and DRAWING NUMBER (G-003).

STATUS: PRELIMINARY DESIGN ISSUED FOR PERMITTING. REVISION A



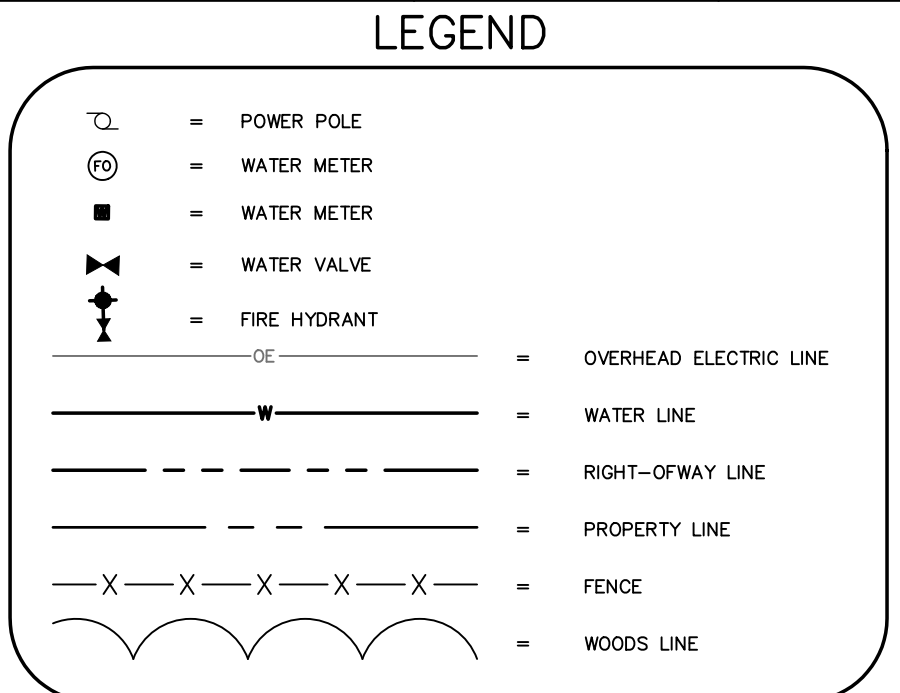
VICINITY MAP
NOT-TO-SCALE

SANDRIDGE APARTMENTS LP
D.B. 1998, PG. 388
LOT 3A HARBOR SQUARE TRACT
MB 24 PG 40

STORAGE VENTURES I INC
D.B. 1758, PG. 161
M.B. 24, PG. 39

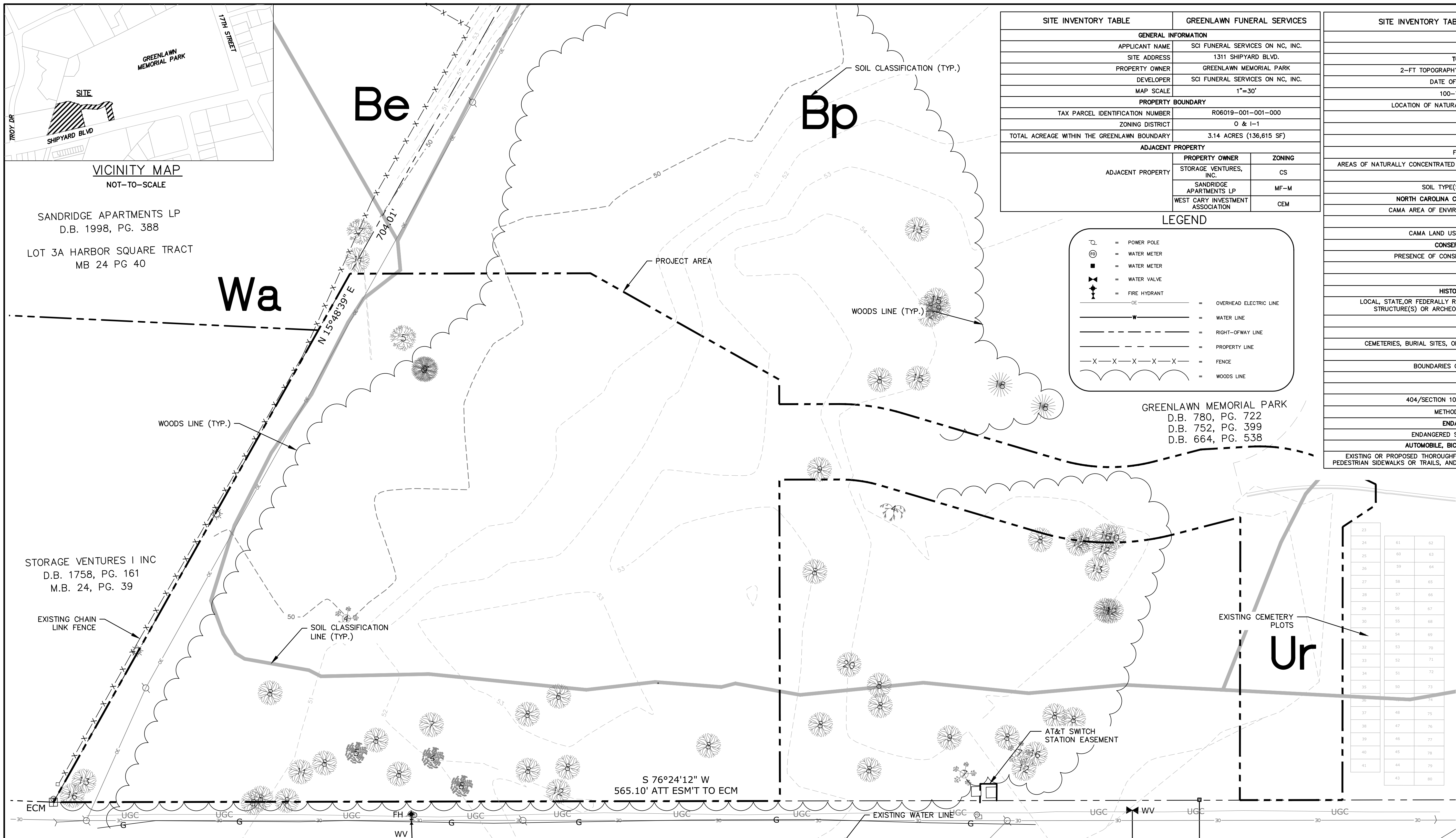
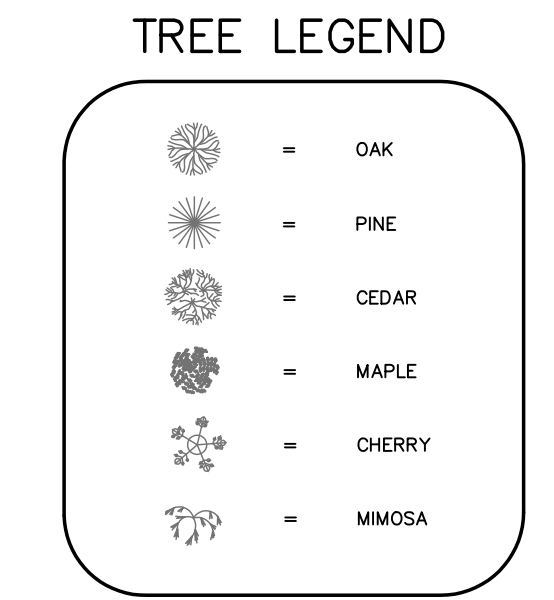
SITE INVENTORY TABLE		GREENLAWN FUNERAL SERVICES	
GENERAL INFORMATION			
APPLICANT NAME	SCI FUNERAL SERVICES ON NC, INC.		
SITE ADDRESS	1311 SHIPYARD BLVD.		
PROPERTY OWNER	GREENLAWN MEMORIAL PARK		
DEVELOPER	SCI FUNERAL SERVICES ON NC, INC.		
MAP SCALE	1"=30'		
PROPERTY BOUNDARY			
TAX PARCEL IDENTIFICATION NUMBER	R06019-001-001-000		
ZONING DISTRICT	O & I-1		
TOTAL ACREAGE WITHIN THE GREENLAWN BOUNDARY	3.14 ACRES (136,615 SF)		
ADJACENT PROPERTY			
ADJACENT PROPERTY	PROPERTY OWNER	ZONING	
	STORAGE VENTURES, INC.	CS	
	SANDRIDGE APARTMENTS LP	MF-M	
	WEST CARY INVESTMENT ASSOCIATION	CEM	

SITE INVENTORY TABLE		GREENLAWN FUNERAL SERVICES	
VICINITY			
VICINITY MAP	SEE CX-101		
TOPOGRAPHY AND DRAINAGE			
2-FT TOPOGRAPHY MINIMUM INTERVAL	SEE CX-100		
DATE OF TOPOGRAPHY DATA	8/23/2017		
100-YR FLOODPLAIN LINE	NOT PRESENT		
LOCATION OF NATURAL WATER FEATURES			
DITCHES	N/A		
STREAMS	N/A		
CREEKS	N/A		
FLOOD PRONE AREAS	LOCATED OUTSIDE 100-YR FLOOD ZONE		
AREAS OF NATURALLY CONCENTRATED SURFACE DRAINAGE	N/A		
SOIL			
SOIL TYPE(S) AND BOUNDARIES	SEE CX-100		
NORTH CAROLINA COASTAL AREA MANAGEMENT AD INFORMATION			
CAMA AREA OF ENVIRONMENTAL CONCERN	NOT PRESENT		
SETBACKS	N/A		
CAMA LAND USE CLASSIFICATION(S)	URBAN		
CONSERVATION RESOURCE REGULATIONS			
PRESENCE OF CONSERVATION RESOURCE	NOT PRESENT		
SETBACKS	N/A		
VEGETATED BUFFER	N/A		
HISTORIC AND ARCHEOLOGICAL SITES			
LOCAL, STATE, OR FEDERALLY RECOGNIZED HISTORIC STRUCTURE(S) OR ARCHEOLOGICAL RESOURCES	NOT PRESENT		
LOCATION	N/A		
CEMETERIES			
CEMETERIES, BURIAL SITES, OR BURIAL GROUNDS?	PRESENT		
FORESTED AREAS			
BOUNDARIES OF FORESTED AREAS	SEE CX-100		
DOMINANT SPECIES	OAK, PINE		
WETLANDS			
404/SECTION 10 WETLAND LOCATION	NOT PRESENT		
METHOD OF DETERMINATION	N/A		
ENDANGERED SPECIES OR HABITAT			
ENDANGERED SPECIES OR HABITAT	NOT PRESENT		
AUTOMOBILE, BICYCLE, PEDESTRIAN, OR TRANSIT FACILITIES			
EXISTING OR PROPOSED THOROUGHFARES, BIKE ROUTES, PEDESTRIAN SIDEWALKS OR TRAILS, AND TRANSIT FACILITIES	SIDEWALK, MULTI-USE TRAIL CONNECTION		



GREENLAWN MEMORIAL PARK
D.B. 780, PG. 722
D.B. 752, PG. 399
D.B. 664, PG. 538

- GENERAL NOTES:**
- SITE IS LOCATED OUTSIDE THE 100 YEAR FLOOD BOUNDARY
 - SOIL TYPES LOCATED ONSITE ARE BAYMEADE SAND, WAKULLA SAND, BORROW PIT, AND URBAN LAND.
 - THERE ARE CEMETERIES, BURIAL SITES, BURIAL GROUNDS LOCATED ON SITE.
 - THERE ARE NO PROTECTED SPECIES OR HABITATS LOCATED ONSITE.



Approved Construction Plan	
Name	Date
Planning	
Traffic	
Fire	

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

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

1 inch

REV. NO.	DESCRIPTION	DATE

FINAL DRAWING FOR REVIEW PURPOSES ONLY

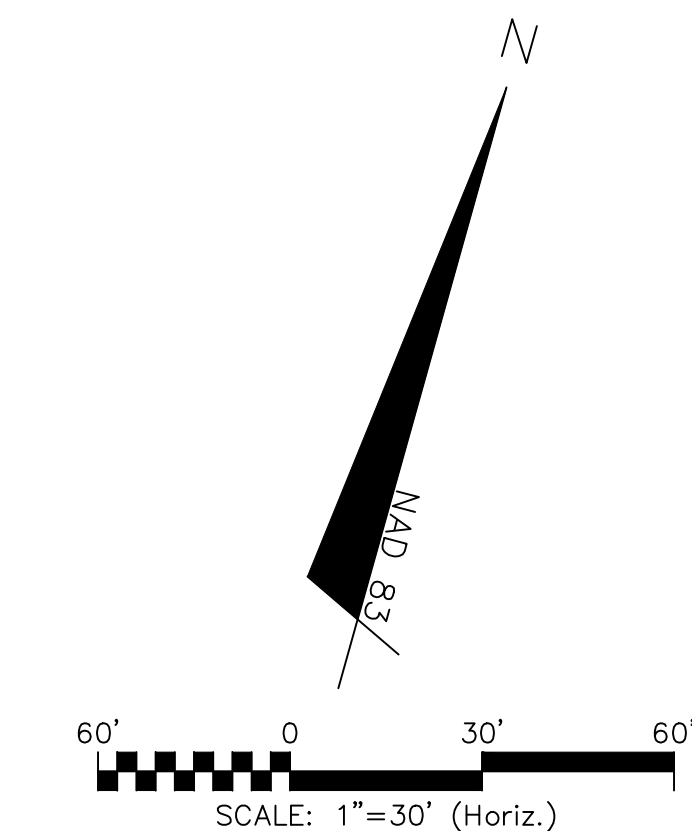
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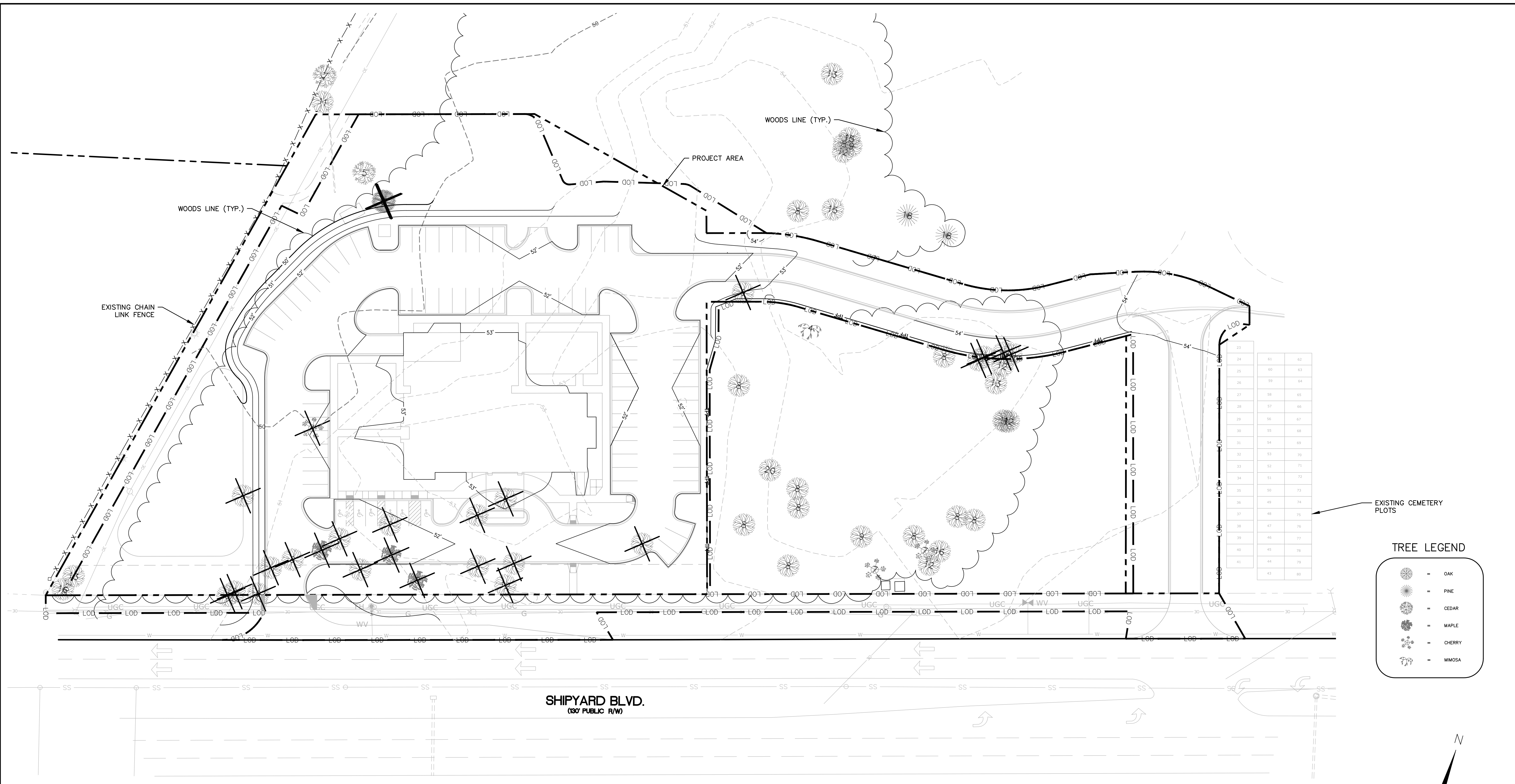
MCKIM & CREED
243 North Front Street
Wilmington, North Carolina 28401
Phone: (910)343-1048, Fax: (910)251-8282
License: F-1222
www.mckimcreed.com

SCI NORTH CAROLINA FUNERAL SERVICES, LLC.
1929 ALLEN PKWY.
HOUSTON, TX 77019

GREENLAWN FUNERAL HOME
WILMINGTON, NEW HANOVER COUNTY, NORTH CAROLINA
SITE INVENTORY/ EXISTING CONDITIONS

DATE: 07/11/2018
MCE PROJ. # 07397-0001
DRAWN: ALM/EEM/KCBE
DESIGNED: KCBE/EEM/ALM
CHECKED: RMC
PROJ. MGR.: KCBE
SCALE: HORIZONTAL: 1"=30'
VERTICAL: N/A
MAC FILE NUMBER: CX-100
DRAWING NUMBER: 4
REVISION: A
STATUS: PRELIMINARY DESIGN
ISSUED FOR PERMITTING





TREE LEGEND

- = OAK
- = PINE
- = CEDAR
- = MAPLE
- = CHERRY
- = MIMOSA

23	61	62
24	60	63
25	59	64
26	58	65
27	57	66
28	56	67
29	55	68
30	54	69
31	53	70
32	52	71
33	51	72
34	50	73
35	49	74
36	48	75
37	47	76
38	46	77
39	45	78
40	44	79
41	43	80

DEMOLITION NOTES:

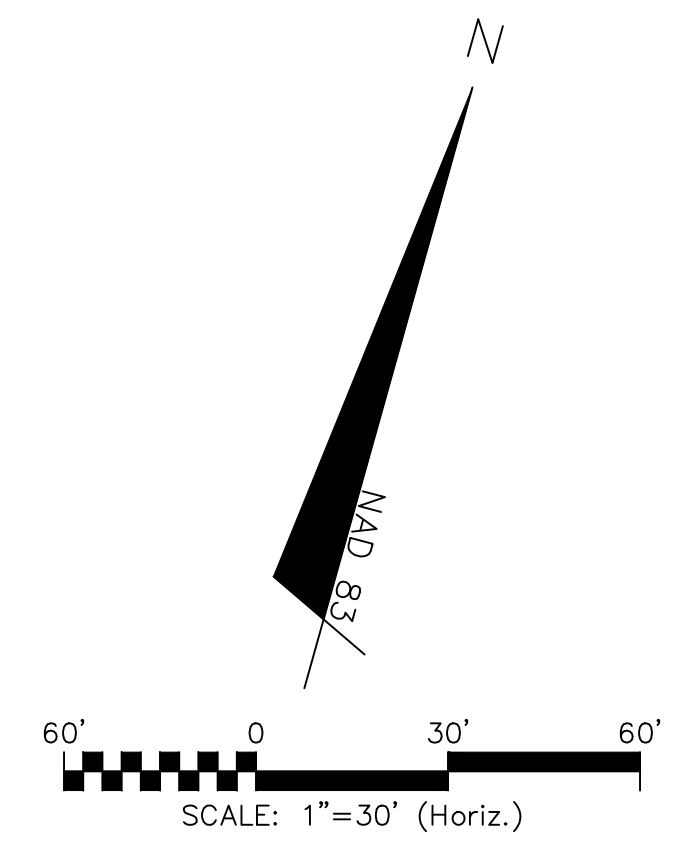
- NO EARTH DISTURBING ACTIVITIES SHALL COMMENCE UNTIL ALL PERIMETER EROSION CONTROL MEASURES ARE IN PLACE IN ACCORDANCE WITH THE EROSION CONTROL SEQUENCE SHOWN IN THESE PLANS.
- THE CONTRACTOR SHALL ASSUME RESPONSIBILITY FOR THE PROTECTION OF ALL PROPERTY CORNER MONUMENTS, AND SHALL HAVE, AT HIS EXPENSE. ALL CORNER MONUMENTS REPLACED WHICH ARE DISTURBED BY CONSTRUCTION ACTIVITIES.
- CONTRACTOR IS RESPONSIBLE FOR REPAIRS OF DAMAGE TO ANY EXISTING IMPROVEMENTS, AT HIS EXPENSE, DURING CONSTRUCTION, SUCH AS, BUT NOT LIMITED TO, DRAINAGE, UTILITIES, PAVEMENT, STRIPING, CURB, ETC. REPAIRS SHALL BE EQUAL TO OR BETTER THAN EXISTING CONDITIONS.
- CONTRACTOR SHALL COMPLY TO THE FULLEST EXTENT WITH ALL REGULATIONS GOVERNING THE DEMOLITION, REMOVAL, TRANSPORTATION AND DISPOSAL DO ALL DEMOLITION DEBRIS.
- CONTRACTOR SHALL COMPLY TO THE FULLEST EXTENT WITH THE LATEST OSHA STANDARDS FOR EXCAVATION AND TRENCHING PROCEDURES. CONTRACTOR SHALL USE SUPPORT SYSTEMS, SLOPING, BENCHING, ETC. AS NECESSARY FOR THESE OPERATIONS, AND SHALL COMPLY WITH ALL OSHA PERFORMANCE CRITERIA.
- CONTRACTOR SHALL TAKE SPECIAL CARE TO PROTECT ALL UTILITIES AND APPURTENANCES TO REMAIN.

Public Services Engineering Division
APPROVED STORMWATER MANAGEMENT PLAN
Date: _____ Permit # _____
Signed: _____

Approved Construction Plan

Name	Date
Planning	_____
Traffic	_____
Fire	_____

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



REV. NO.	DESCRIPTIONS	DATE

SEAL
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SEAL

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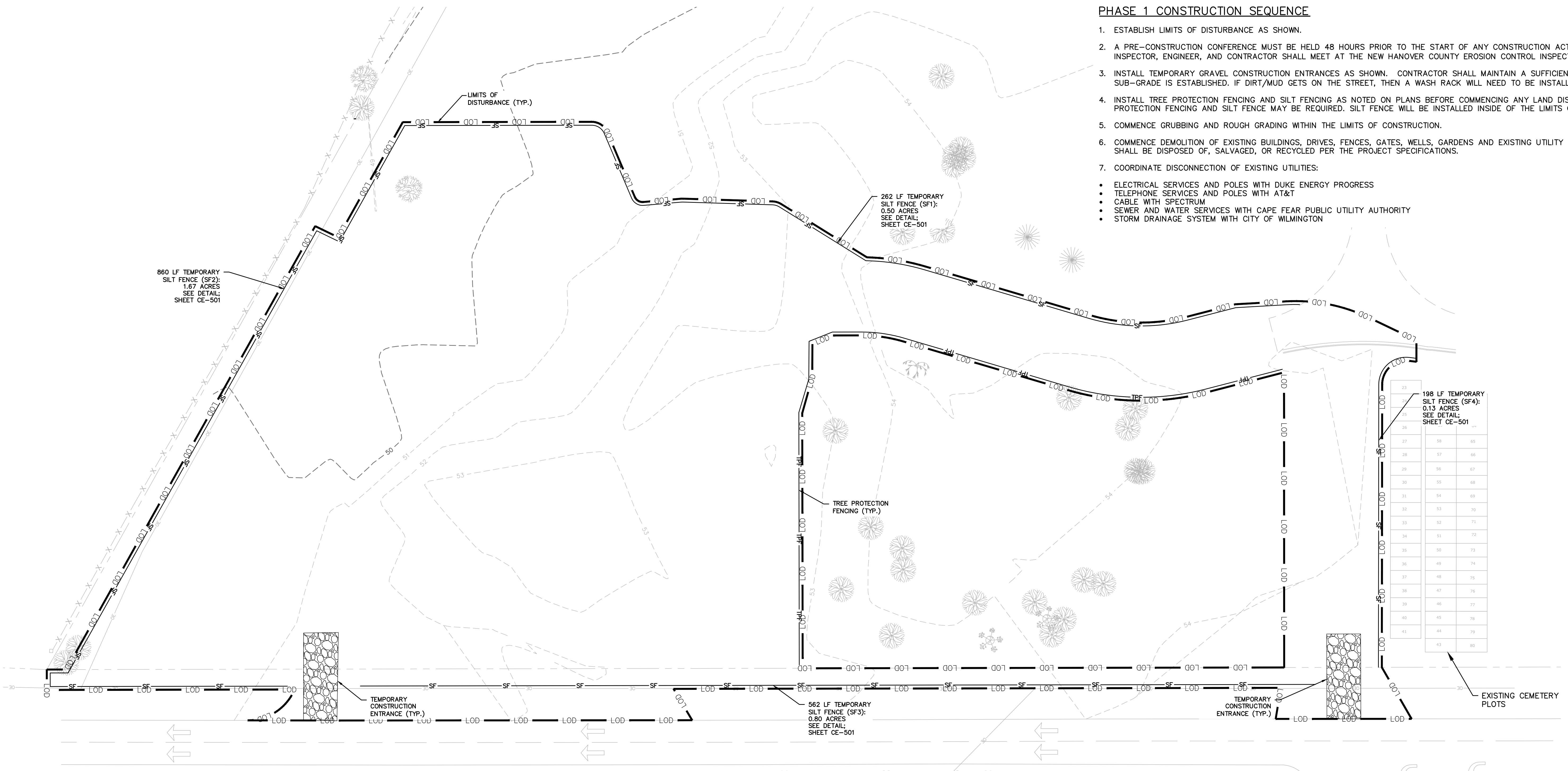
SCI NORTH CAROLINA FUNERAL SERVICES, LLC.
1929 ALLEN PKWY.
HOUSTON, TX 77019

GREENLAWN FUNERAL HOME
WILMINGTON, NEW HANOVER COUNTY, NORTH CAROLINA
SITE SURVEY

DATE: 07/11/2018	SCALE: 1"=30'	MAC FILE NUMBER: CX-101
MCE PROJ. # 07397-0001	HORIZONTAL: 1"=30'	DRAWING NUMBER: 5
DRAWN: ALM/EEM/KCBE	VERTICAL: N/A	
DESIGNED: KCBE/EEM/ALM		
CHECKED: RMC		
PROJ. MGR: KCBE		
STATUS: PRELIMINARY DESIGN ISSUED FOR PERMITTING		REVISION: _____

PHASE 1 CONSTRUCTION SEQUENCE

1. ESTABLISH LIMITS OF DISTURBANCE AS SHOWN.
2. A PRE-CONSTRUCTION CONFERENCE MUST BE HELD 48 HOURS PRIOR TO THE START OF ANY CONSTRUCTION ACTIVITIES. THE EROSION CONTROL INSPECTOR, ENGINEER, AND CONTRACTOR SHALL MEET AT THE NEW HANOVER COUNTY EROSION CONTROL INSPECTOR'S OFFICE.
3. INSTALL TEMPORARY GRAVEL CONSTRUCTION ENTRANCES AS SHOWN. CONTRACTOR SHALL MAINTAIN A SUFFICIENT GRAVEL ENTRANCE UNTIL FINAL SUB-GRADE IS ESTABLISHED. IF DIRT/MUD GETS ON THE STREET, THEN A WASH RACK WILL NEED TO BE INSTALLED.
4. INSTALL TREE PROTECTION FENCING AND SILT FENCING AS NOTED ON PLANS BEFORE COMMENCING ANY LAND DISTURBANCE ACTIVITY. ADDITIONAL TREE PROTECTION FENCING AND SILT FENCING MAY BE REQUIRED. SILT FENCE WILL BE INSTALLED INSIDE OF THE LIMITS OF DISTURBANCE LINE.
5. COMMENCE GRUBBING AND ROUGH GRADING WITHIN THE LIMITS OF CONSTRUCTION.
6. COMMENCE DEMOLITION OF EXISTING BUILDINGS, DRIVES, FENCES, GATES, WELLS, GARDENS AND EXISTING UTILITY SERVICES. ALL DEMOLITION MATERIAL SHALL BE DISPOSED OF, SALVAGED, OR RECYCLED PER THE PROJECT SPECIFICATIONS.
7. COORDINATE DISCONNECTION OF EXISTING UTILITIES:
 - ELECTRICAL SERVICES AND POLES WITH DUKE ENERGY PROGRESS
 - TELEPHONE SERVICES AND POLES WITH AT&T
 - CABLE WITH SPECTRUM
 - SEWER AND WATER SERVICES WITH CAPE FEAR PUBLIC UTILITY AUTHORITY
 - STORM DRAINAGE SYSTEM WITH CITY OF WILMINGTON



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

1 inch

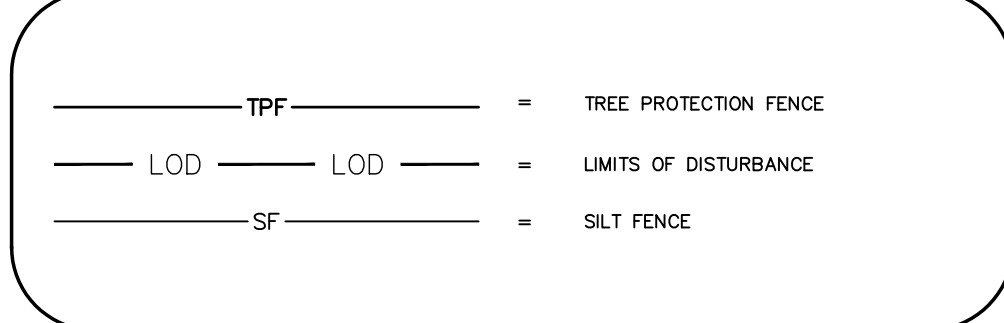
Approved Construction Plan

Name	Date
Planning	
Traffic	
Fire	

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

SHIPYARD BLVD.
(30' PUBLIC R/W)

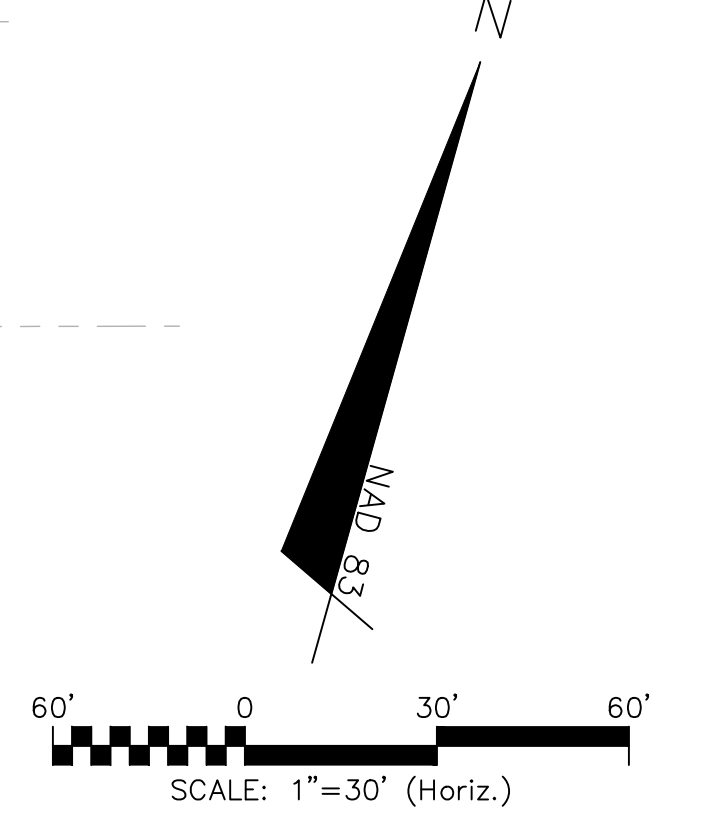
LEGEND



NOTE:

- WHERE SILT FENCE IS REQUIRED IN THE SAME PLACE AS TREE PROTECTION FENCING, ORANGE SILT FENCE AND SIGNAGE FOR TREE PROTECTION MAY BE USED INSTEAD OF DUPLICATE FENCING. SIGNAGE MUST MEET CITY OF WILMINGTON REQUIREMENTS FOR TREE PROTECTION DURING CONSTRUCTION (SD 15-09).
- SILT FENCE AND TREE PROTECTION FENCE TO BE PLACED AT LIMITS OF DISTURBANCE AND HAS BEEN SHOWN AS AN OFFSET FOR CLARITY.

LIMITS OF DISTURBANCE = 3.35 AC
LAT: 34° 11' 35" N
LONG: 77° 55' 36" W



REV. NO.	DESCRIPTIONS REVISIONS	DATE

FINAL DRAWING - FOR REVIEW PURPOSES ONLY

SEAL

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HOUSTON, TX 77019

GREENLAWN FUNERAL HOME
WILMINGTON, NEW HANOVER COUNTY, NORTH CAROLINA
PHASE 1 SEDIMENT AND EROSION CONTROL PLAN

DATE: 07/11/2018	SCALE: HORIZONTAL: 1"=30'	MAC FILE NUMBER: CE-101
MCE PROJ. # 07397-0001	VERTICAL: N/A	DRAWING NUMBER: 6
DRAWN: ALM/EEM/KCBE		
DESIGNED: KCBE/EEM/ALM		
CHECKED: RMC		
PROJ. MGR: KCBE		
STATUS: PRELIMINARY DESIGN ISSUED FOR PERMITTING		REVISION: A

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

1 inch

Approved Construction Plan

Name _____ Date _____

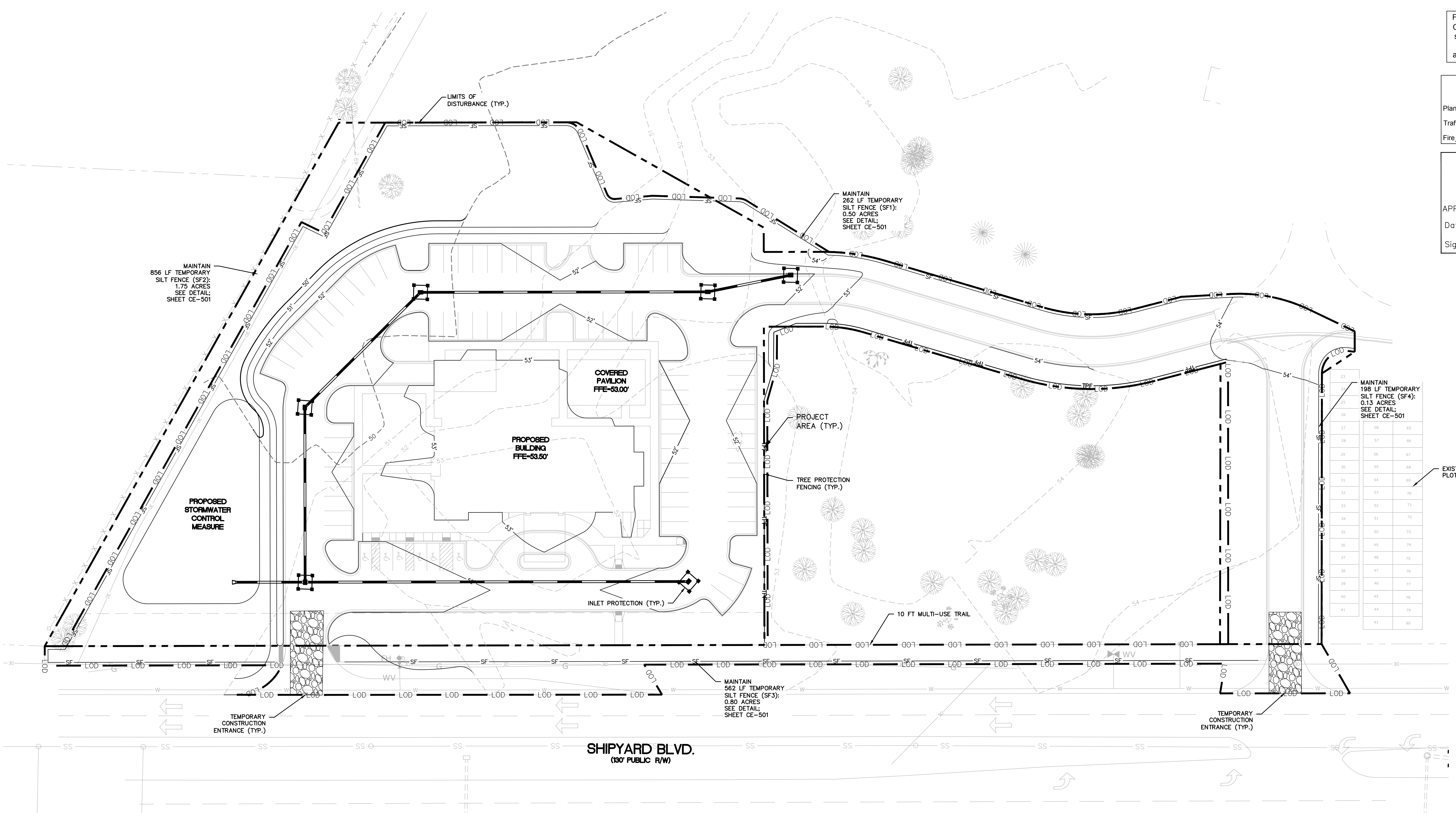
Planning _____
Traffic _____
Fire _____



Public Services Engineering Division
APPROVED STORMWATER MANAGEMENT PLAN

Date: _____ Permit #: _____

Signed: _____



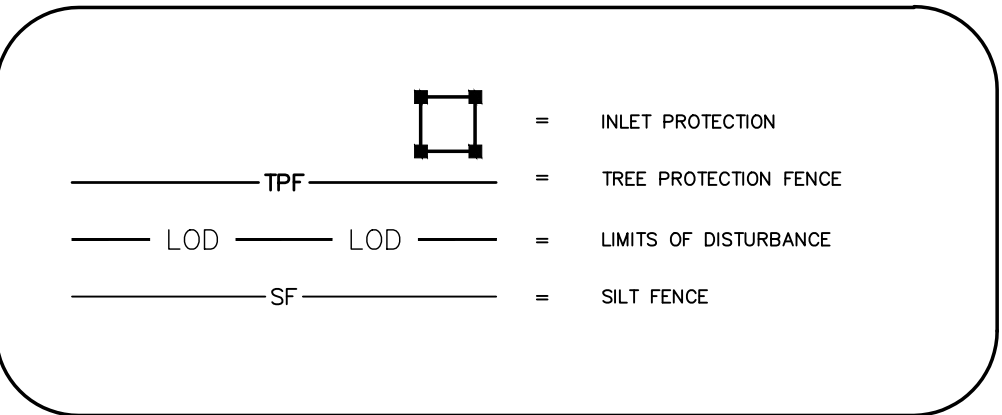
PHASE 2 CONSTRUCTION SEQUENCE

1. BEGIN PHASE 2 SEDIMENT AND EROSION CONTROL UPON COMPLETION OF CLEARING AND GRUBBING OPERATIONS, ROUGH GRADING OF THE SITE AND INSTALLATION OF THE STORM WATER COLLECTION SYSTEM.
2. MAINTAIN MEASURES FROM PHASE 1 AS SHOWN IN THIS PHASE 2 SEDIMENT AND EROSION CONTROL DRAWING.
3. REMOVE MEASURES FROM PHASE 1 AS SHOWN. STABILIZE THESE AREAS ACCORDING TO THE STABILIZATION MEASURE REQUIRED HEREIN.
4. INSTALL INLET PROTECTION AS SHOWN IN THE PHASE 2 PLAN AND CONSTRUCTION DETAILS.
5. COMPLETE CONSTRUCTION OF THE PROPOSED IMPROVEMENTS.
6. UPON COMPLETION OF CONSTRUCTION, ESTABLISH PERMANENT GROUND COVER AND OVERALL SITE STABILIZATION.
7. REMOVE THE SEDIMENT AND EROSION CONTROL MEASURES.
8. REFER TO G-002 FOR EROSION AND SEDIMENT CONTROL NOTES AND MAINTENANCE PLAN.

NOTE:

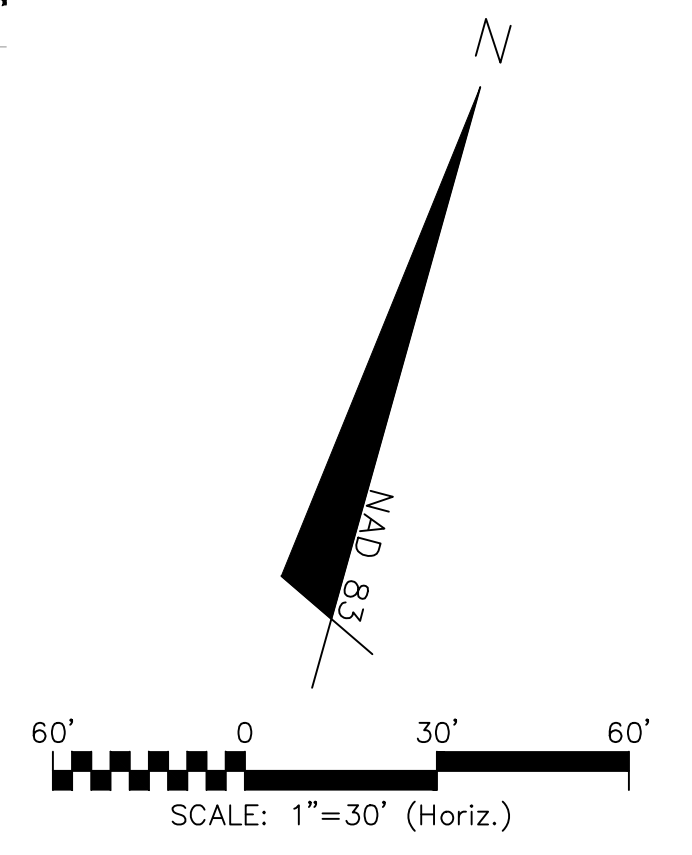
- WHERE SILT FENCE IS REQUIRED IN THE SAME PLACE AS TREE PROTECTION FENCING, ORANGE SILT FENCE AND SIGNAGE FOR TREE PROTECTION MAY BE USED INSTEAD OF DUPLICATE FENCING. SIGNAGE MUST MEET CITY OF WILMINGTON REQUIREMENTS FOR TREE PROTECTION DURING CONSTRUCTION (SD 15-09).
- SILT FENCE TO BE PLACED AT LIMITS OF DISTURBANCE AND HAS BEEN SHOWN AS AN OFFSET FOR CLARITY.

LEGEND



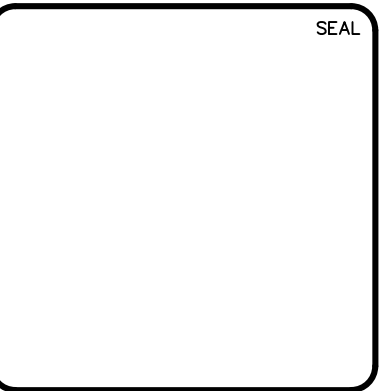
LIMITS OF DISTURBANCE - 3.46 AC

LAT: 34° 11' 35" N
LONG: 77° 55' 36" W



REV. NO.	DESCRIPTION	DATE
A	CITY OF WILMINGTON TECHNICAL REVIEW COMMITTEE SUBMITTAL	07/11/2018

FINAL DRAWING - FOR REVIEW PURPOSES ONLY



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HOUSTON, TX 77019

GREENLAWN FUNERAL HOME
WILMINGTON, NEW HANOVER COUNTY, NORTH CAROLINA
PHASE 2 SEDIMENT AND EROSION CONTROL PLAN

DATE: 07/11/2018
MCE PROJ. # 07397-0001
DRAWN ALM/EEM/KCBE
DESIGNED KCBE/EEM/ALM
CHECKED RMC
PROJ. MGR. KCBE

SCALE: HORIZONTAL: 1"=30'
VERTICAL: N/A
MAC FILE NUMBER: CE-102
DRAWING NUMBER: 7

STATUS: PRELIMINARY DESIGN ISSUED FOR PERMITTING
REVISION: A

SANDRIDGE APARTMENTS LP
D.B. 1998, PG. 388
LOT 3A HARBOR SQUARE TRACT
MB 24 PG 40

STORAGE VENTURES I INC
D.B. 1758, PG. 161
M.B. 24, PG. 39

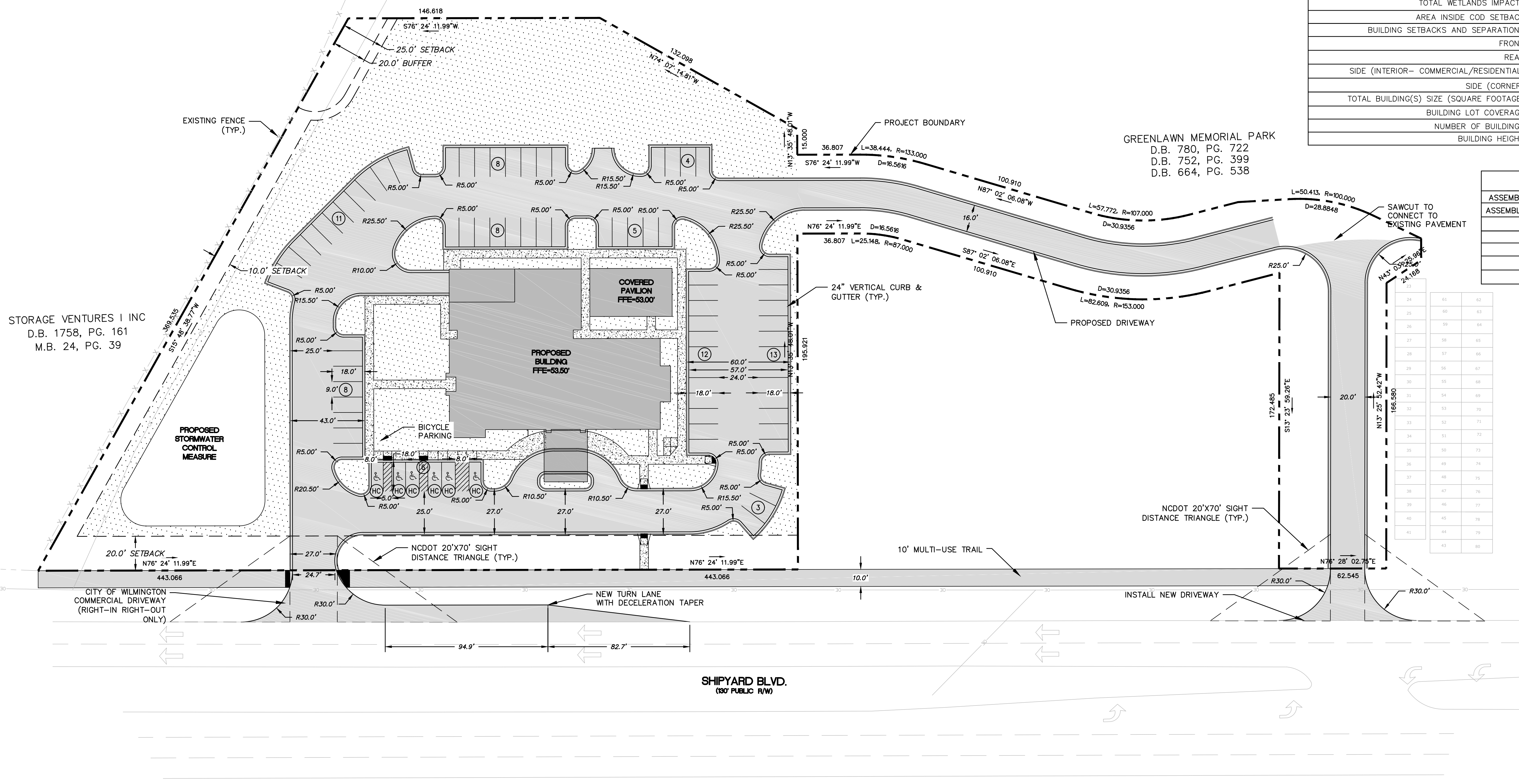
GREENLAWN MEMORIAL PARK
D.B. 780, PG. 722
D.B. 752, PG. 399
D.B. 664, PG. 538

SITE DATA TABLE		GREENLAWN FUNERAL SERVICES
PARCEL ADDRESS	1311 SHIPYARD BLVD.	
TAX PARCEL IDENTIFICATION NUMBER	R06019-001-001-000	
ZONING DISTRICT	O & I-1	
TOTAL ACREAGE WITHIN GREENLAWN BOUNDARY	3.14 ACRES (136,615 SF)	
PROPOSED NUMBER OF BUILDINGS	2	
TOTAL WETLANDS WITHIN PROJECT TRACT	0.00 ACRES (0 SF)	
TOTAL WETLANDS IMPACTS	0.00 ACRES (0 SF)	
AREA INSIDE COD SETBACK	0.00 ACRES (0 SF)	
BUILDING SETBACKS AND SEPARATIONS	REQUIRED	PROPOSED
FRONT	20 FT	20 FT
REAR	20 FT	N/A
SIDE (INTERIOR- COMMERCIAL/RESIDENTIAL)	10 FT/20 FT	10 FT/20 FT
SIDE (CORNER)	20 FT	N/A
TOTAL BUILDING(S) SIZE (SQUARE FOOTAGE)	11,920 SF	
BUILDING LOT COVERAGE	8.7%	
NUMBER OF BUILDINGS	2	
BUILDING HEIGHT	25 FT	

PARKING CALCULATIONS	
ASSEMBLY HALL PARK MIN (1 SPACE/4 SEATS)	63
ASSEMBLY HALL PARK MAX (1 SPACE/3 SEATS)	83
(#) PARKING SPACES PROVIDED	78
ACCESSIBLE SPACES REQUIRED	4
(HC) ACCESSIBLE SPACES PROVIDED	6
BICYCLE PARKING SPACES REQUIRED	5
(B) BICYCLE PARKING SPACES PROVIDED	5

SURFACE MATERIAL LEGEND

- ROADWAY ASPHALT
- SIDEWALK
- OPEN SPACE



SHIPYARD BLVD.
(80' PUBLIC R/W)

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

Date: _____ Permit # _____
Signed: _____

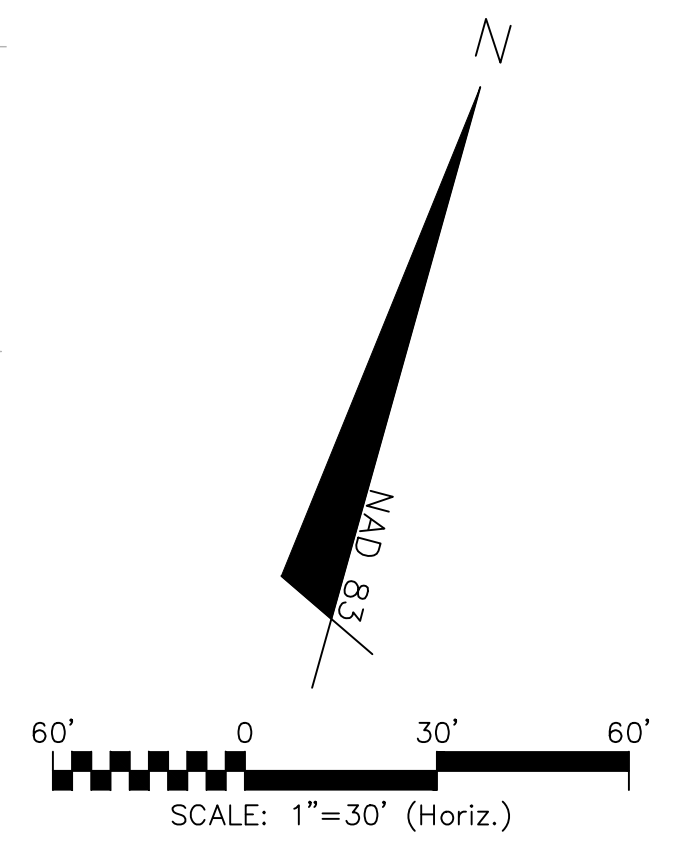
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1 inch

Approved Construction Plan

Name	Date
Planning	_____
Traffic	_____
Fire	_____

- GENERAL NOTES**
- A LANDSCAPING PLAN INDICATING THE LOCATION OF REQUIRED STREET TREES SHALL BE SUBMITTED TO THE CITY OF WILMINGTON TRAFFIC ENGINEERING DIVISION AND PARKS AND RECREATION DEPARTMENT FOR APPROVAL PRIOR TO THE RECORDING OF THE FINAL PLAT.
 - ALL PROPOSED VEGETATION WITHIN SIGHT DISTANCE TRIANGLES SHALL NOT INTERFERE WITH VISUAL SIGHT LINES FROM 30' - 10'.
 - 10 FT SEPARATION REQUIRED BETWEEN BUILDINGS.
 - INTERNAL TRASH COLLECTION TO BE TAKEN TO GREENLAWN CEMETERY CENTRAL WASTE DISPOSAL LOCATION.



REV. NO.	DESCRIPTIONS	DATE
A	CITY OF WILMINGTON TECHNICAL REVIEW COMMITTEE SUBMITTAL	07/11/2018

FINAL DRAWING FOR REVIEW PURPOSES ONLY

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GREENLAWN FUNERAL HOME
WILMINGTON, NEW HANOVER COUNTY, NORTH CAROLINA

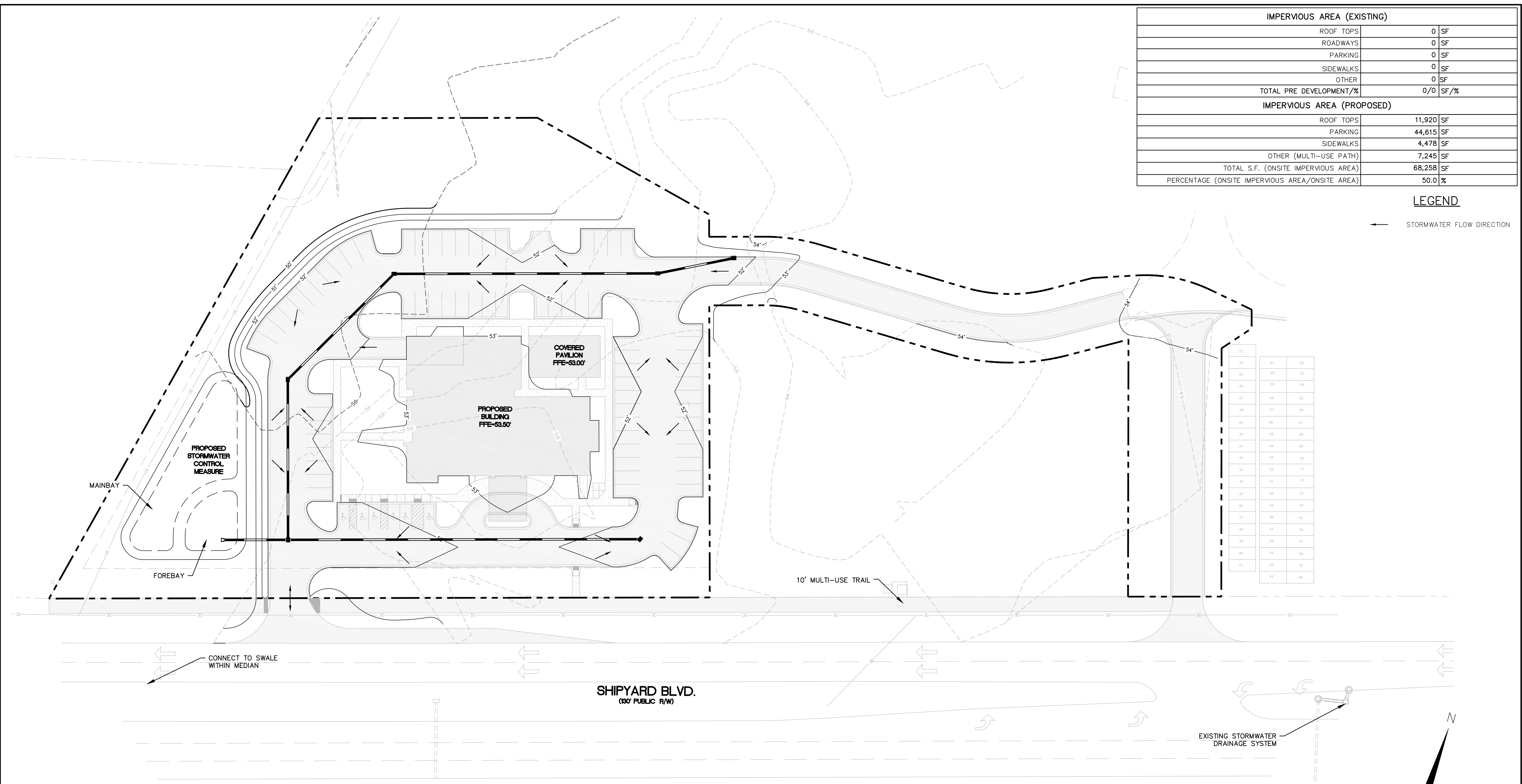
OVERALL SITE PLAN

DATE: 07/11/2018	SCALE: HORIZONTAL: 1"=30'	MAC FILE NUMBER: CS-100
MCE PROJ. # 07397-0001	VERTICAL: N/A	DRAWING NUMBER: 8
DRAWN: ALM/EEM/KCBE	DESIGNED: KCBE/EEM/ALM	CHECKED: RMC
PROJ. MGR: KCBE	STATUS: PRELIMINARY DESIGN ISSUED FOR PERMITTING	REVISION: A

IMPERVIOUS AREA (EXISTING)		
ROOF TOPS	0	SF
ROADWAYS	0	SF
PARKING	0	SF
SIDEWALKS	0	SF
OTHER	0	SF
TOTAL PRE DEVELOPMENT/%	0/0	SF/%
IMPERVIOUS AREA (PROPOSED)		
ROOF TOPS	11,920	SF
PARKING	44,615	SF
SIDEWALKS	4,478	SF
OTHER (MULTI-USE PATH)	7,245	SF
TOTAL S.F. (ONSITE IMPERVIOUS AREA)	68,258	SF
PERCENTAGE (ONSITE IMPERVIOUS AREA/ONSITE AREA)	50.0	%

LEGEND

← STORMWATER FLOW DIRECTION

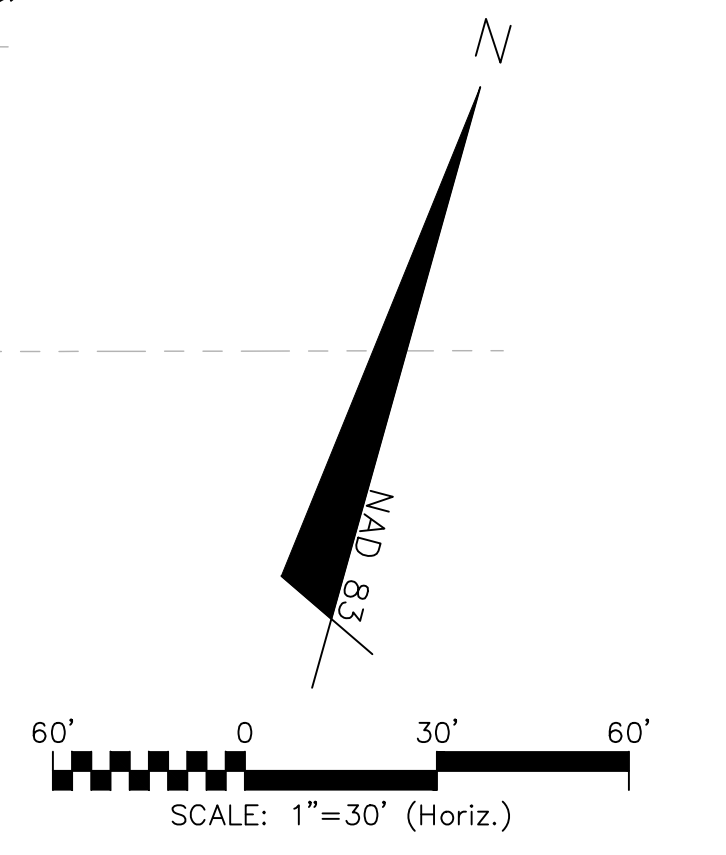


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1 inch

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

Approved Construction Plan	
Name	Date
Planning	
Traffic	
Fire	



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A	CITY OF WILMINGTON TECHNICAL REVIEW COMMITTEE SUBMITTAL	07/11/2018

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HOUSTON, TX 77019

GREENLAWN FUNERAL HOME
WILMINGTON, NEW HANOVER COUNTY, NORTH CAROLINA
GRADING AND STORMWATER PLAN

DATE: 07/11/2018	SCALE: HORIZONTAL: 1"=30'	MAC FILE NUMBER: CG-101
MCE PROJ. # 07397-0001	VERTICAL: N/A	DRAWING NUMBER: 9
DRAWN: ALM/EEM/KCBE		
DESIGNED: KCBE/EEM/ALM		
CHECKED: RMC		
PROJ. MGR.: KCBE		
STATUS: PRELIMINARY DESIGN ISSUED FOR PERMITTING		REVISION: A

UTILITY CONFLICT TABLE

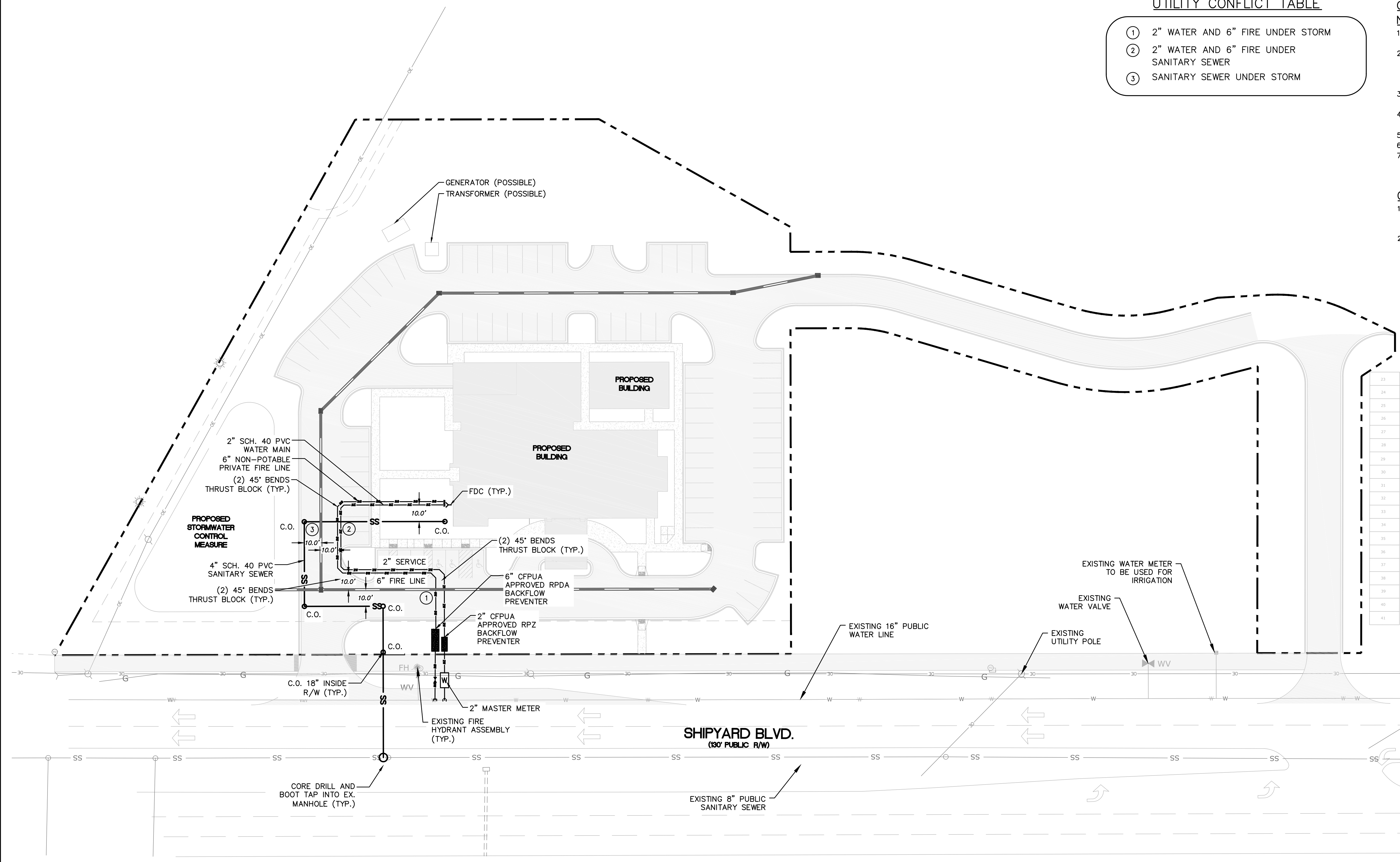
- ① 2" WATER AND 6" FIRE UNDER STORM
- ② 2" WATER AND 6" FIRE UNDER SANITARY SEWER
- ③ SANITARY SEWER UNDER STORM

CAPE FEAR PUBLIC UTILITY AUTHORITY STANDARD

- NOTES:
- SEWER GUARDS REQUIRED AT ALL MANHOLES. STAINLESS STEEL SEWER GUARDS REQUIRED AT MANHOLES LOCATED IN TRAFFIC AREAS.
 - WATER AND SEWER SERVICES SHALL BE PERPENDICULAR TO MAIN AND TERMINATE AT RIGHT-OF-WAY LINE. SEWER SERVICES IN CUL-DE-SACS ARE REQUIRED TO BE PERPENDICULAR, OR MUST ORIGINATE IN END OF LINE MANHOLE AND TERMINATE IN RIGHT-OF-WAY LINE.
 - ALL SERVICES TYING INTO DUCTILE IRON MAINS SHALL BE CONSTRUCTED OF CLASS 50, DIP, WITH PROTECTO 401 CERAMIC EPOXY LINING.
 - UTILITY CONNECTIONS OUTSIDE OF PROJECT BOUNDARIES SUBJECT TO OBTAINING EASEMENT.
 - NO FLEXIBLE COUPLINGS SHALL BE USED.
 - ALL STAINLESS STEEL FASTENERS SHALL BE 316.
 - CLEANOUTS SHALL BE LOCATED A MINIMUM OF 12 FEET FROM ALL PROPERTY CORNERS. WATER METER BOXES ARE TO BE A MINIMUM OF 5 FEET FROM THE PROPERTY CORNER.

GENERAL NOTES:

- A NCDOT UTILITY ENCROACHMENT PERMIT IS NECESSARY FOR THE WATER MAIN TAPS, THE SANITARY SEWER CONNECTION, AND STORMWATER OUTLET IN THE MEDIAN.
- ANY EXISTING UTILITIES SHOWN WITHIN THE 10' MULTI-USE TRAIL SHALL BE RELOCATED.



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

Name	Date
Planning	
Traffic	
Fire	

REV. NO.	DESCRIPTIONS	DATE
A	CITY OF WILMINGTON TECHNICAL REVIEW COMMITTEE SUBMITTAL	07/11/2018
	REVISIONS	

FINAL DRAWING FOR REVIEW PURPOSES ONLY

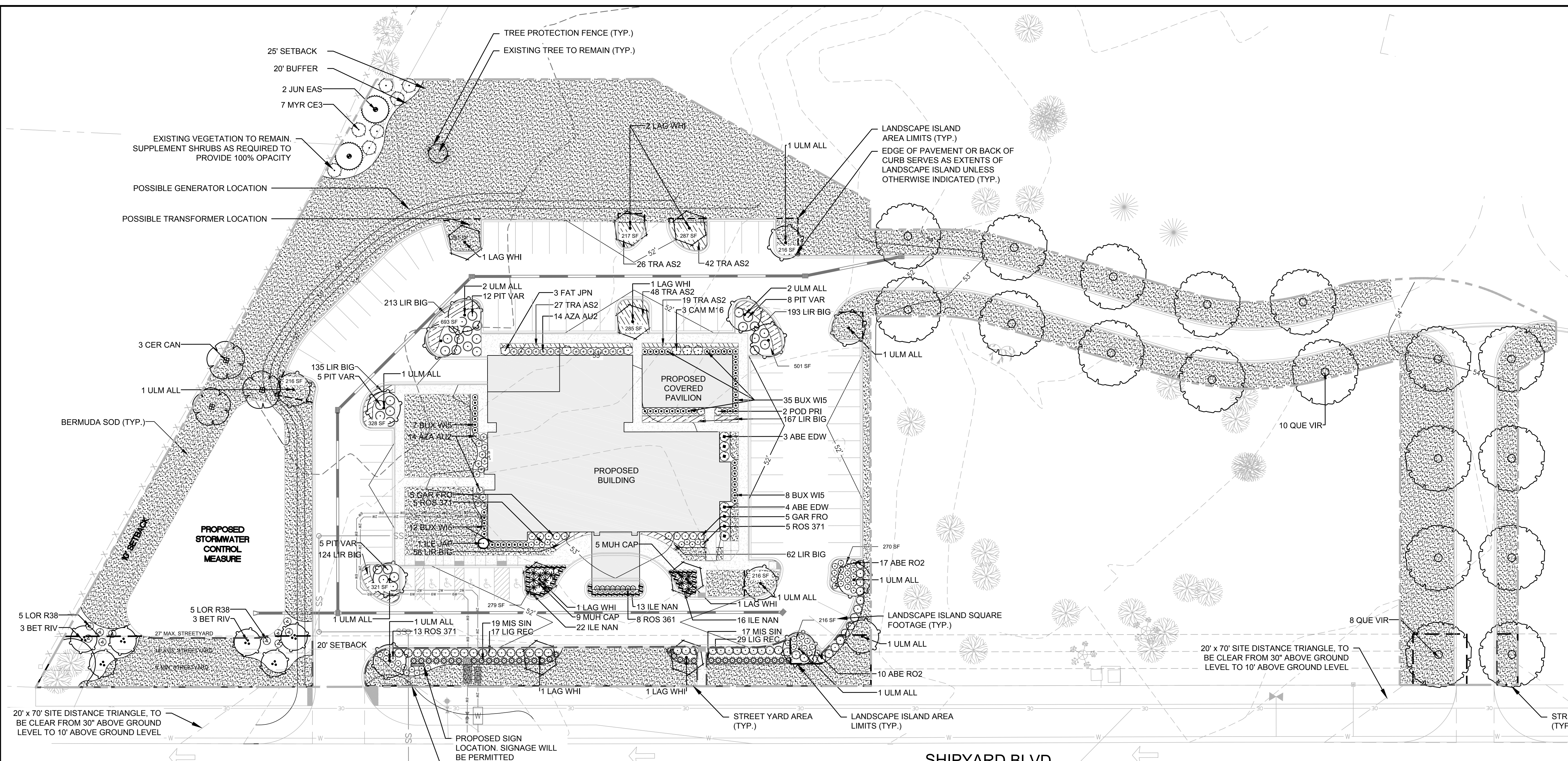
SEAL

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GREENLAWN FUNERAL HOME
WILMINGTON, NEW HANOVER COUNTY, NORTH CAROLINA
OVERALL UTILITY PLAN

DATE: 07/11/2018	SCALE: 1"=30'	MAC FILE NUMBER: CU-100
MCE PROJ. # 07397-0001	HORIZONTAL: 1"=30'	DRAWING NUMBER: 10
DRAWN: ALM/EEM/KCBE	VERTICAL: N/A	
DESIGNED: KCBE/EEM/ALM		
CHECKED: RMC		
PROJ. MGR.: KCBE		
STATUS: PRELIMINARY DESIGN ISSUED FOR PERMITTING		REVISION: A



SITE DATA		
REQUIREMENT	REQUIRED	PROPOSED
SEC 18-448 - GENERAL STANDARDS FOR LANDSCAPING PROVIDE 15 TREES PER DISTURBED ACRE 3.14 ACRES X 15 TREES = 47.1 TREES 7 EXISTING TREE CREDITS = 51 PROPOSED TREES 58 TREES	47 TREES	58 TREES
SEC 18-460 - MITIGATION REGULATED TREES REMOVED WITHIN THE AREA OF DISTURBANCE NECESSARY FOR ESSENTIAL SITE IMPROVEMENTS ARE EXEMPT FROM MITIGATION. NO SIGNIFICANT TREES ARE PRESENT ON SITE.	AWAITING TREE SURVEY	AWAITING TREE SURVEY
SEC 18-477 - GENERAL - (D) TABLE I STREET YARD AREA EQUAL TO THE LINEAR STREET FRONTAGE MULTIPLIED BY THE AVERAGE MULTIPLIER FOR O&I ZONE LINEAR FRONTAGE = 455 LF AVERAGE MULTIPLIER = 18 455 X 18 = 8,190 SF 15% ALLOWABLE IMPERVIOUS COVERAGE 8,190 X 0.15 = 1,228.5 SF MINIMUM STANDARD: FOR EVERY SIX HUNDRED (600) SQUARE FEET OF STREET YARD AREA 1 CANOPY TREE OR 3 UNDERSTORY TREES (OVERHEAD POWER) AND 6 SHRUBS 8,190/600 = 13.65 TREES 13.7 X 3 = 41.1 UNDERSTORY TREES 13.7 X 6 = 82.2 SHRUBS 2 EXISTING CANOPY 12 PROPOSED CANOPY 14 CANOPY TREES	8,190 SF STREET YARD AREA WITH 1,228.5 SF MAX IMPERVIOUS COVERAGE	10,123 SF AREA WITH 107 SF IMPERVIOUS COVERAGE
SEC 18-481 - INTERIOR AREA LANDSCAPING PROVIDE 30% SHADE COVERAGE OVER THE INTERIOR AREA OF THE PARKING FACILITY PARKING FACILITY AREA = 43,628 SF 43,628 X 0.30 = 13,088 SF 18 TREES X 707 SF = 12,726 SF (FULL CREDIT) 16 PERIMETER TREES = 1,739 SF (OVERLAP AREA) 12,726 SF + 1,739 SF = 14,465 SF 14,465 / 43,628 = 33%	30% COVERAGE 13,088 SF	33% COVERAGE 14,465 SF
SEC 18-483 - PARKING AREA SCREENING WHEN A PARKING FACILITY IS WITHIN FIFTY (50) FEET OF A RIGHT-OF-WAY A LOW BUFFER SHALL BE INCORPORATED. A MINIMUM OF THREE (3) FEET IN HEIGHT AND FIVE (5) FEET IN WIDTH.	3' HT X 5' WIDE BUFFER	3' HT X 5' WIDE BUFFER
SEC 18-490 - FOUNDATION PLANTINGS THE AREA OF THE BUILDING FACE ADJACENT TO THE PARKING AREA SHALL BE COMPUTED AND MULTIPLIED BY A MINIMUM OF 12% AND AN EQUAL AREA IS TO BE PROVIDED IN LANDSCAPING NORTH - 125' X 25' HT X .12 = 375 SF SOUTH - 83' X 25' HT X .12 = 279 SF EAST - 94' X 25' HT X .12 = 282 SF WEST - 89' X 25' HT X .12 = 270 SF	NORTH - 375 SF SOUTH - 279 SF EAST - 282 SF WEST - 270 SF	NORTH - 744 SF SOUTH - 530 SF EAST - 496 SF WEST - 441 SF
SEC 18-497 - LOCATION OF BUFFER YARDS BUFFER YARDS REQUIRED ADJACENT TO RESIDENTIAL USE. 100% OPACITY FROM GROUND TO 8' HEIGHT. INCLUDE INTERMITTENT MATERIAL (TO 20' HEIGHT) AT A RATE OF 1 TREE/30 LF 60 LF/30 LF = 2 TREES	2 TREES, 100% OPACITY TO HEIGHT OF 8'	2 TREES, SHRUBS TO SUPPLEMENT EXISTING VEGETATION TO ACHIEVE 100% OPACITY TO HEIGHT OF 8'
CA/WTSSM SD 15-16 - TYPICAL POND LANDSCAPE VEGETATION TO BE EVENLY DISTRIBUTED AT APPROXIMATELY 100' INTERVALS AROUND POND. POND AREA = 7,201 SF (16 ACRE) 5' LANDSCAPE STRIP AROUND POND	5' LANDSCAPE STRIP AROUND POND	5' LANDSCAPE STRIP AROUND POND

PLANT LEGEND		
TREES	CODE	BOTANICAL NAME
	BET RIV	BETULA NIGRA RIVER BIRCH
	CER CAN	CERCIS CANADENSIS 'FOREST PANSY' TM FOREST PANSY REDBUD
	ILE JAP	ILEX CRENATA 'STEEDS' STEEDS JAPANESE HOLLY
	JUN EAS	JUNIPERUS VIRGINIANA EASTERN RED CEDAR
	LAG WHI	LAGERSTROEMIA X 'NATCHEZ' GRAPE MYRTLE
	QUE VIR	QUERCUS VIRGINIANA SOUTHERN LIVE OAK
	ULM ALL	ULMUS PARVIFOLIA 'ALLEE' ALLEE LACEBARK ELM

SHRUBS	CODE	BOTANICAL NAME
	ABE EDW	ABELIA X GRANDIFLORA 'EDWARD GOUCHER' GLOSSY ABELIA
	ABE RO2	ABELIA X GRANDIFLORA 'ROSE CREEK' ROSE CREEK ABELIA
	AZA AU2	AZALEA ENCORE 'AUTUMN ANGEL' TM AUTUMN ANGEL AZALEA
	BUX W15	BUXUS MICROPHYLLA 'WINTERGREEN' WINTERGREEN BOXWOOD
	CAM M16	CAMELLIA SASANQUA 'MINE NO YUKI' WHITE CAMELLIA
	FAT JPN	FATSIA JAPONICA JAPANESE FATSIA
	GAR FRO	GARDENIA JASMINOIDES 'FROSTPROOF' FROSTPROOF GARDENIA
	ILE NAN	ILEX VOMITORIA 'NANA' DWARF YAUPON
	LIG REC	LIGUSTRUM JAPONICUM 'RECURVIFOLIUM' WAX LEAF LIGUSTRUM
	LOR R38	LOROPETALUM CHINENSE 'RUBY' RUBY LOROPETALUM
	MIS SIN	MISCANTHUS SINENSIS 'ADAGIO' ADAGIO EULALIA GRASS

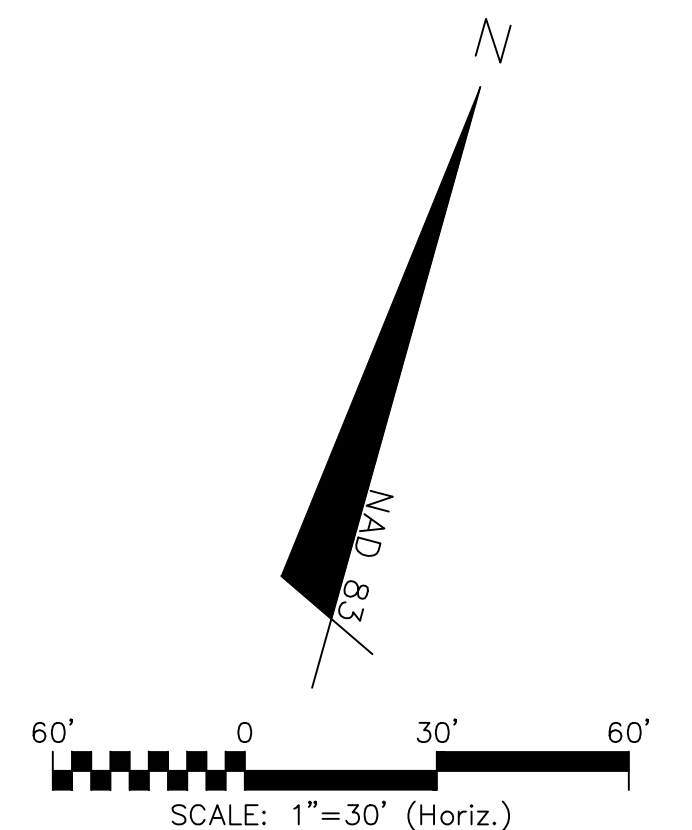
SHRUBS	CODE	BOTANICAL NAME
	MUH CAP	MUHLENBERGIA CAPILLARIS 'REGAL MIST' TM MUHLY
	MYR CE3	MYRICA CERIFERA WAX MYRTLE
	PIT VAR	PITTOSPORUM TOBIRA 'VARIEGATA' VARIEGATED MOCK ORANGE
	POD PRI	PODOCARPUS MACROPHYLLUS 'PRINGLES' DWARF PODOCARPUS
	ROS 371	ROSA X 'MEIGALPIO' RED DRIFT ROSE
	ROS 361	ROSA X 'RADTKO' RED DOUBLE KNOCK OUT ROSE
GROUND COVERS	CODE	BOTANICAL NAME
	CYN DAC	CYNODON DACTYLON BERMUDA GRASS
	LIR BIG	LIRIOPE MUSCARI 'BIG BLUE' BIG BLUE LILYTURF
	TRA AS2	TRACHELOSPERMUM ASIATICUM 'ASIATIC' ASIATIC JASMINE

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

1 inch

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

Approved Construction Plan
Name: _____ Date: _____
Planning: _____
Traffic: _____
Fire: _____



REV. NO.	DESCRIPTION	DATE
A	CITY OF WILMINGTON TECHNICAL REVIEW COMMITTEE SUBMITTAL	07/11/2018

FINAL DRAWING FOR REVIEW PURPOSES ONLY

SEAL

MCKIM & CREED
243 North Front Street
Wilmington, North Carolina 28401
Phone: (910)343-1048, Fax: (910)251-8282
License: F-1222
www.mckimcreed.com

SCI NORTH CAROLINA FUNERAL SERVICES, LLC.
1929 ALLEN PKWY.
HOUSTON, TX 77019

GREENLAWN FUNERAL HOME
WILMINGTON, NEW HANOVER COUNTY, NORTH CAROLINA
LANDSCAPE PLAN

DATE:	SCALE:	MAC FILE NUMBER:
07/11/2018	HORIZONTAL: 1"=30'	CL-101
MCE PROJ. # 07397-0001	VERTICAL: N/A	DRAWING NUMBER: 11
DESIGNED: ALM		
CHECKED: RMC		
PROJ. MGR: KCB		
STATUS: PRELIMINARY DESIGN	REVISION: A	
ISSUED FOR PERMITTING		

SEEDBED PREPARATION:

1. CHISEL COMPACTED AREAS AND SPREAD TOPSOIL 3 INCHES DEEP OVER ADVERSE SOIL CONDITIONS, IF AVAILABLE.
2. RIP THE ENTRANCE AREA TO 6 INCHES DEPTH.
3. REMOVE ALL LOOSE ROCK, ROOTS, AND OTHER OBSTRUCTIONS LEAVING SURFACE REASONABLY SMOOTH AND UNIFORM.
4. APPLY AGRICULTURAL LIME, FERTILIZER, AND SUPERPHOSPHATE UNIFORMLY AND MIX WITH SOIL. (SEE BELOW)*.
5. CONTINUE TILLAGE UNTIL A WELL - PULVERIZED, FIRM, REASONABLY UNIFORM SEEDBED IS PREPARED 4 TO 6 INCHES DEEP.
6. SEED ON A FRESHLY PREPARED SEEDBED AND COVER SEED LIGHTLY WITH SEEDING EQUIPMENT OR CULTIPACK AFTER SEEDING.
7. MULCH IMMEDIATELY AFTER SEEDING AND ANCHOR MULCH.
8. INSPECT ALL SEEDBED AREAS AND MAKE NECESSARY REPAIRS OR RESEEDINGS WITHIN THE PLANTING SEASON, IF POSSIBLE. IF STAND SHOULD BE OVER 60% DAMAGED, REESTABLISH FOLLOWING ORIGINAL LIME, FERTILIZER AND SEEDING RATES.
9. CONSULT CONSERVATION INSPECTOR ON MAINTENANCE TREATMENT AND FERTILIZATION AFTER PERMANENT COVER IS ESTABLISHED.
10. APPLY:
AGRICULTURAL LIMESTONE - 2 TONS/ACRE
FERTILIZER - 1000 LBS/ACRE (10-10-10)
SUPERPHOSPHATE - 500 LBS/ACRE (20%)
MULCH - 2 TONS/ACRE (SMALL GRAIN STRAW)
ANCHOR - ASPHALT EMULSION AT 450 GAL/ACRE

TREE PROTECTION NOTES:

1. NO LAND DISTURBANCE INCLUDING TREE REMOVAL IS TO OCCUR OUTSIDE THE LIMITS OF DISTURBANCE SHOWN ON THE PLANS. [18-457(b)]
2. PROTECTIVE FENCING IS TO BE PROPERLY MAINTAINED THROUGHOUT THE DURATION OF THE PROJECT. [18-458]
3. LAND CLEARING AND CONSTRUCTION CONTRACTORS SHALL RECEIVE ADEQUATE INSTRUCTION ON TREE PROTECTION REQUIREMENTS AND METHODS. [18-457(d)]
4. ANY TREES AND/OR AREAS DESIGNATED TO BE PROTECTED MUST PROPERLY BARRICADED WITH FENCING AND PROTECTED THROUGHOUT CONSTRUCTION TO INSURE THAT NO CLEARING AND GRADING OR STAGING OF MATERIALS WILL OCCUR IN THOSE AREAS. [18-458]
5. NO EQUIPMENT IS ALLOWED ON THE SITE UNTIL ALL TREE PROTECTION FENCING AND SILT FENCING HAS BEEN INSTALLED AND APPROVED. [18-458]
6. REGULATED AND SIGNIFICANT TREES IN THE STREET YARD [18-456(c)] AND ANY TREES IN ANY REQUIRED BUFFERS [18-456(b)] ARE REQUIRED TO BE RETAINED.

6 GENERAL NOTES

N/A

GROUND STABILIZATION CRITERIA		
SITE AREA DESCRIPTION	STABILIZATION TIMEFRAME	STABILIZATION TIMEFRAME EXCEPTIONS
PERIMETER DIKES, SWALES, DITCHES AND SLOPES	7 DAYS	NONE
HIGH QUALITY WATER ZONES	7 DAYS	NONE
SLOPES STEEPER THAN 3:1	7 DAYS	IF SLOPES ARE 10 FT OR LESS IN LENGTH AND ARE NOT STEEPER THAN 2:1, 14 DAYS ARE ALLOWED
SLOPES 3:1 OR FLATTER	14 DAYS	7 DAYS FOR SLOPES GREATER THAN 50 FT IN LENGTH
ALL OTHER AREAS WITH SLOPES FLATTER THAN 4:1	14 DAYS	NONE (EXCEPT FOR PERIMETERS AND HOW ZONES)

PERMANENT SEEDING			
GRASS TYPE	AMOUNT/1000 S.F.	TIME OF SEEDING	INITIAL
BERMUDA, COMMON	1-2 LBS.	APRIL - JUNE	25 LBS. 10-10-10
FESCUE, TALL (KENTUCKY 31)	5-7 LBS	JUNE - AUGUST FEB. - OCT.	25 LBS 10-10-10
SERICEA LESPEDEZA (SLOPES)	1-2 LBS	MARCH - APRIL	25 LBS 10-10-10

TEMPORARY SEEDING			
GRASS TYPE	AMOUNT/1000 S.F.	TIME OF SEEDING	INITIAL
RYE GRAIN	1-2 LBS.	APRIL - JUNE	25 LBS. 10-10-10
BROWNTOP MILLET	1-2 LBS	JUNE - AUGUST	25 LBS 10-10-10

NOTE (G.S. 113A-57 (2))

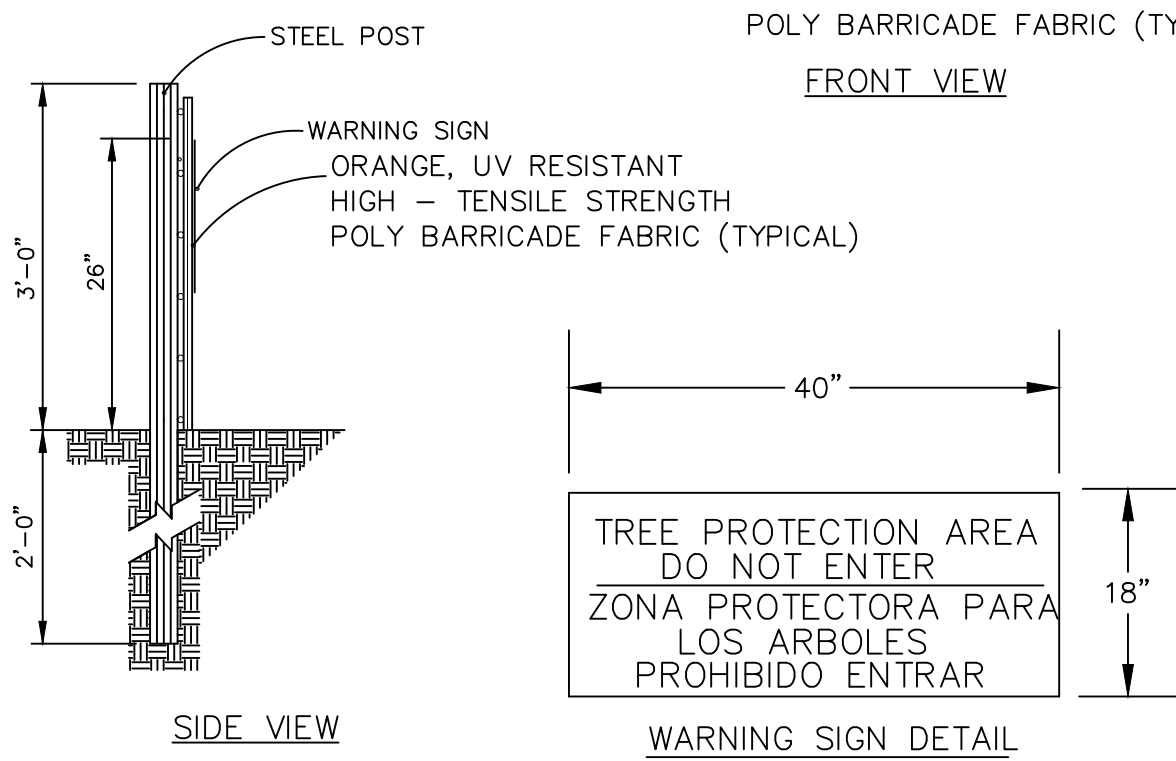
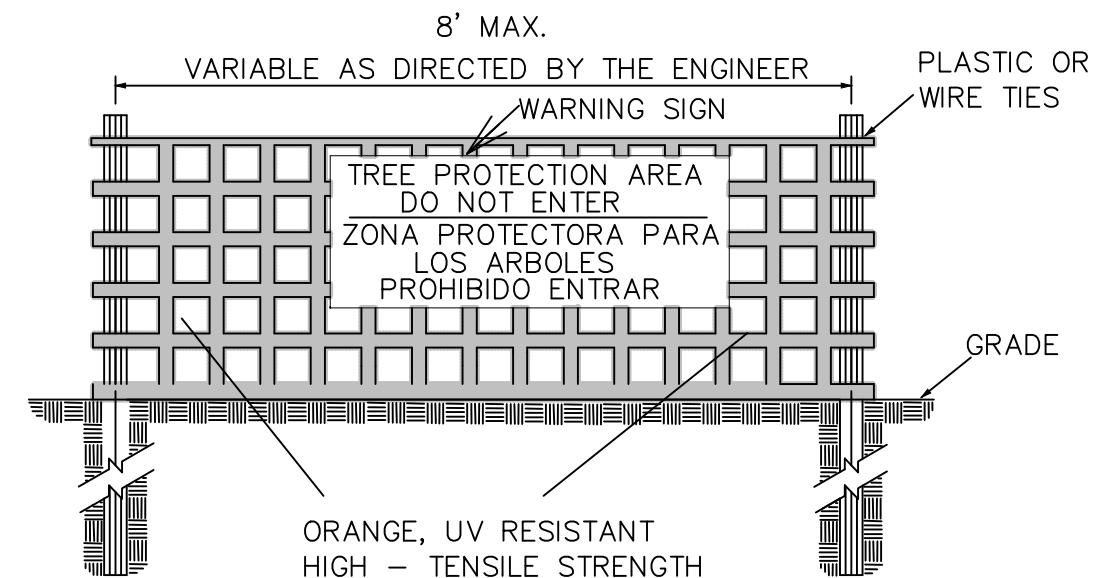
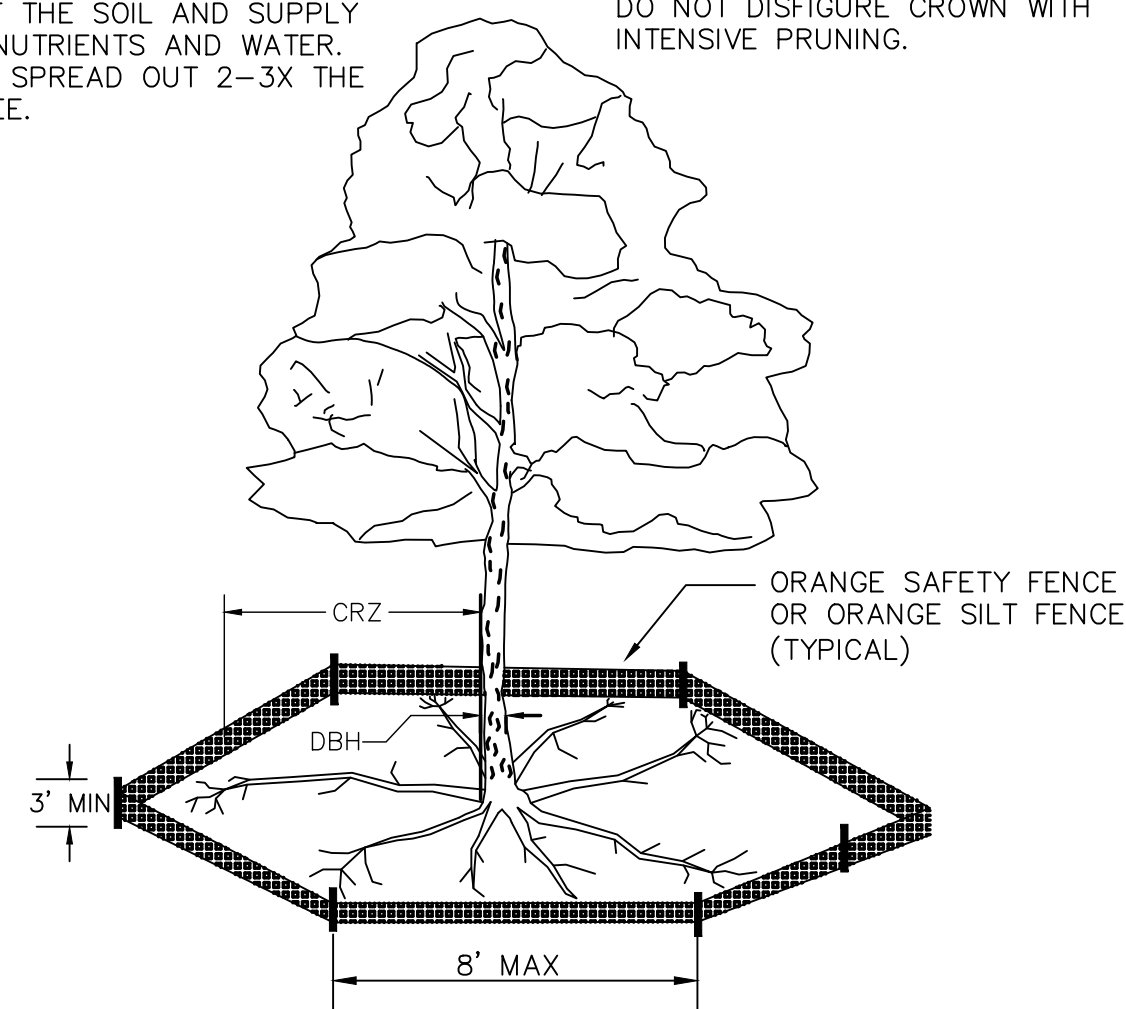
THE ANGLE FOR GRADED SLOPES AND FILLS SHALL BE NO GREATER THAN THE ANGLE THAT CAN BE RETAINED BY VEGETATIVE COVER OR OTHER ADEQUATE EROSION CONTROL DEVICES OR STRUCTURES. IN ANY EVENT, SLOPES LEFT EXPOSED WILL, WITHIN 21 CALENDAR DAYS OF COMPLETION OF ANY GRADING, BE PLANTED OR OTHERWISE PROVIDED WITH TEMPORARY OR PERMANENT GROUND COVER, DEVICES, OR STRUCTURES SUFFICIENT TO RESTRAIN EROSION.

5 GENERAL NOTES

N/A

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

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



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

METHOD OF TREE PROTECTION DURING CONSTRUCTION
SD 15-09

7 TREE SAVE

N/A

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

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

Approved Construction Plan
Name _____ Date _____
Planning _____
Traffic _____
Fire _____

DANDY SACK™

REGULAR FLOW DANDY SACK™ (BLACK)

Mechanical Properties	Test Method	Units	MARV
Grab Tensile Strength	ASTM D 4632	lb (kg)	1.78 (400) x 1.40 (315)
Grab Tensile Elongation	ASTM D 4632	%	15 x 15
Puncture Strength	ASTM D 4633	lb (kg)	0.67 (150)
Mullen Burst Strength	ASTM D 3786	kPa (psi)	5008 (600)
Trapezoid Tear Strength	ASTM D 4533	lb (kg)	0.67 (150) x 0.73 (163)
UV Resistance	ASTM D 4355	hr (hrs)	2
Apparent Opening Size	ASTM D 4751	mm (US Std Sieve)	0.425 (40)
Flow Rate	ASTM D 4491	l/min/m² (gal/min/ft²)	2802 (70)
Permeability	ASTM D 4491	Sec	0.90

HI-FLOW DANDY SACK™ (SAFETY ORANGE)

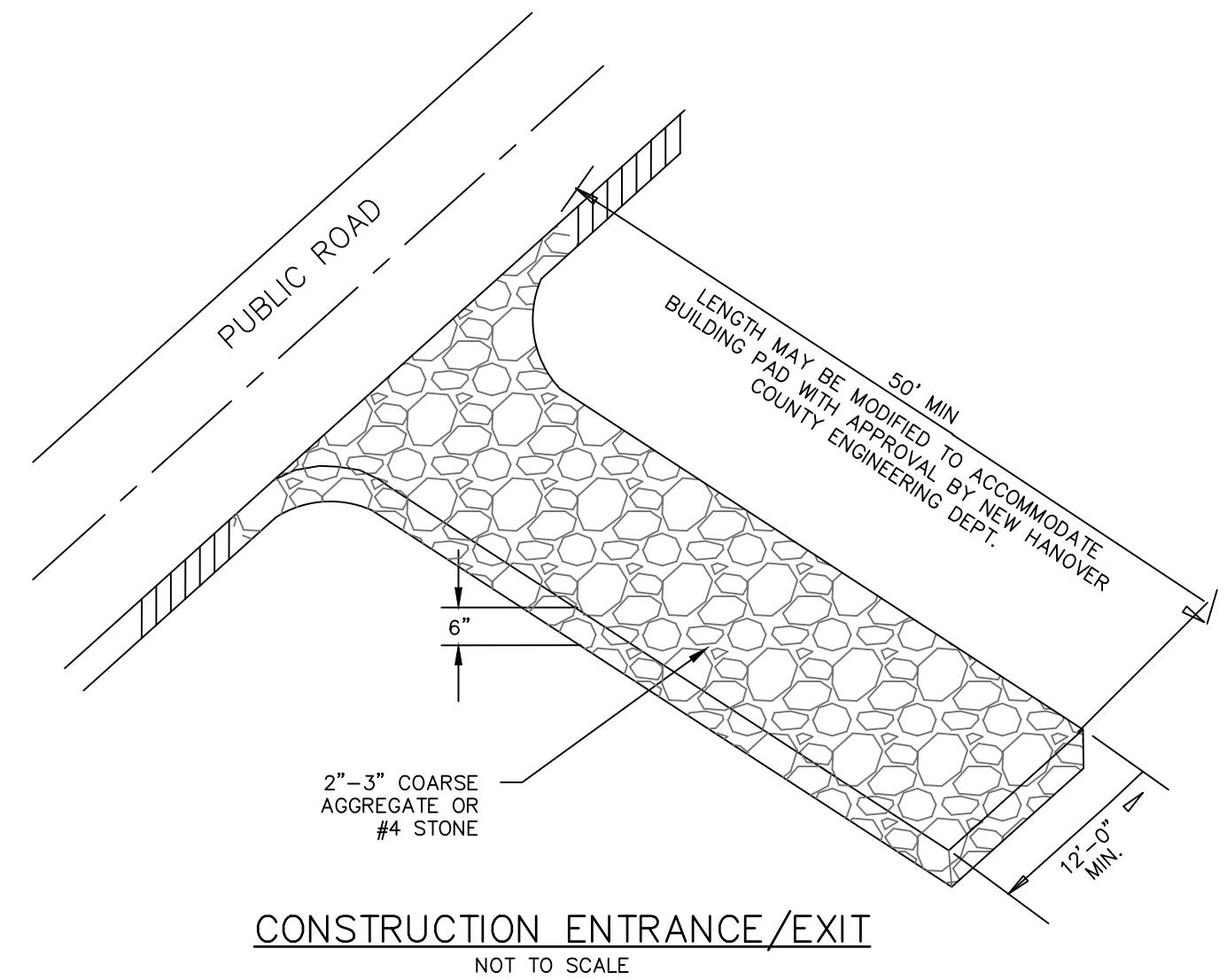
Mechanical Properties	Test Method	Units	MARV
Grab Tensile Strength	ASTM D 4632	lb (kg)	1.62 (365) x 0.89 (200)
Grab Tensile Elongation	ASTM D 4632	%	14 x 10
Puncture Strength	ASTM D 4633	lb (kg)	0.40 (90)
Mullen Burst Strength	ASTM D 3786	kPa (psi)	3097 (450)
Trapezoid Tear Strength	ASTM D 4533	lb (kg)	0.51 (115) x 0.33 (75)
UV Resistance	ASTM D 4355	hr (hrs)	2
Apparent Opening Size	ASTM D 4751	mm (US Std Sieve)	0.425 (40)
Flow Rate	ASTM D 4491	l/min/m² (gal/min/ft²)	5907 (145)
Permeability	ASTM D 4491	Sec	2.1

NOTE: THE DANDY SACK™ WILL BE MANUFACTURED IN THE U.S.A. FROM A WOMEN MONOPOLMENT FABRIC THAT MEETS OR EXCEEDS THE FOLLOWING SPECIFICATIONS:

TEMPORARY DANDY SACK® INLET PROTECTION
NOT TO SCALE

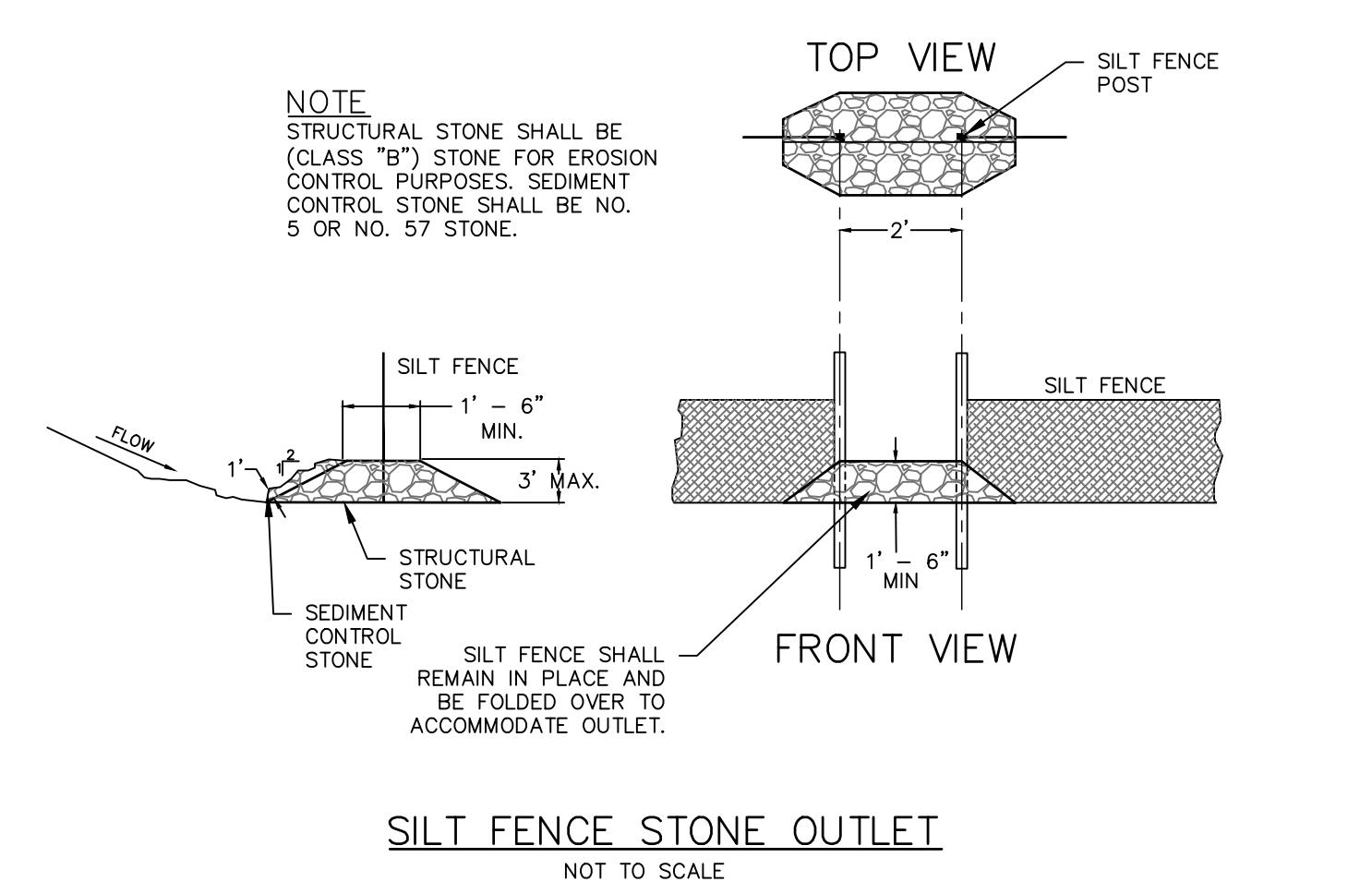
1 INLET PROTECTION

NOT TO SCALE



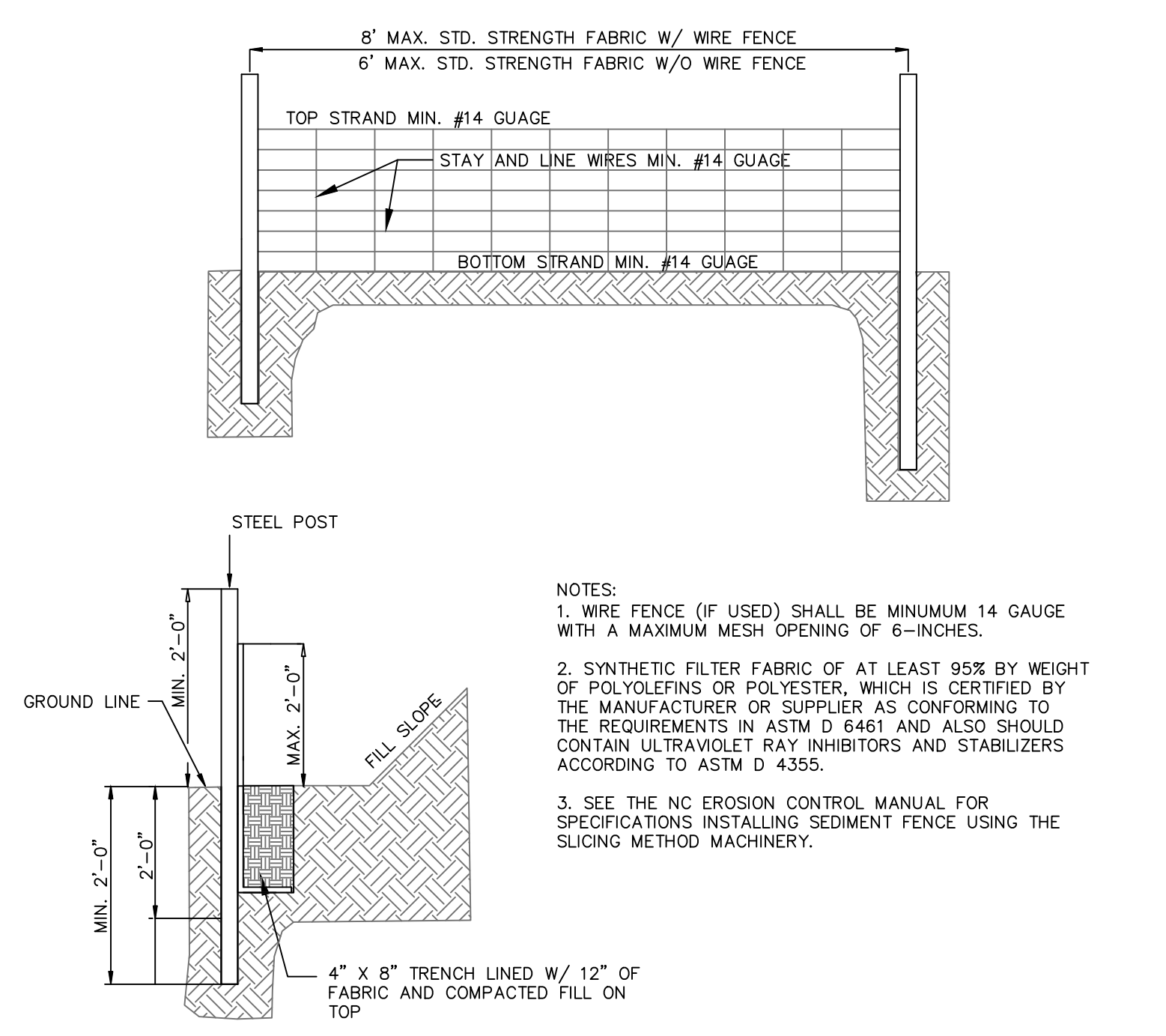
3 CONSTRUCTION ENTRANCE

NOT TO SCALE



4 SILT FENCE OUTLET

NOT TO SCALE



TEMPORARY SILT FENCE

NOT TO SCALE

SILT FENCE No.	Drainage Area ac	Length ft	Acre per 100 ft	0.25 Acre per 100 ft YES/NO
PHASE 1 AND 2 SILT FENCE				
SF 1	0.50	262.00	0.19	YES
SF 2	1.67	860.00	0.19	YES
SF 3	0.80	562.00	0.14	YES
SF 4	0.13	198.00	0.07	YES

- Notes:
1. Calculation taken from Table 6.62a of the NCDENR ESC Manual for slopes < 2% only.

2 TEMPORARY SILT FENCE

NOT TO SCALE

REV. NO.	DESCRIPTIONS	DATE
A	CITY OF WILMINGTON TECHNICAL REVIEW COMMITTEE SUBMITAL	07/11/2018

FINAL DRAWING - FOR REVIEW PURPOSES ONLY

SEAL

MCKIM & CREED
243 North Front Street
Wilmington, North Carolina 28401
Phone: (910)343-1048, Fax: (910)251-8282
License: F-1222
www.mckimcreed.com

SCI NORTH CAROLINA FUNERAL SERVICES, LLC.
1929 ALLEN PKWY.
HOUSTON, TX 77019

GREENLAWN FUNERAL HOME
WILMINGTON, NEW HANOVER COUNTY, NORTH CAROLINA
SEDIMENT AND EROSION CONTROL DETAILS

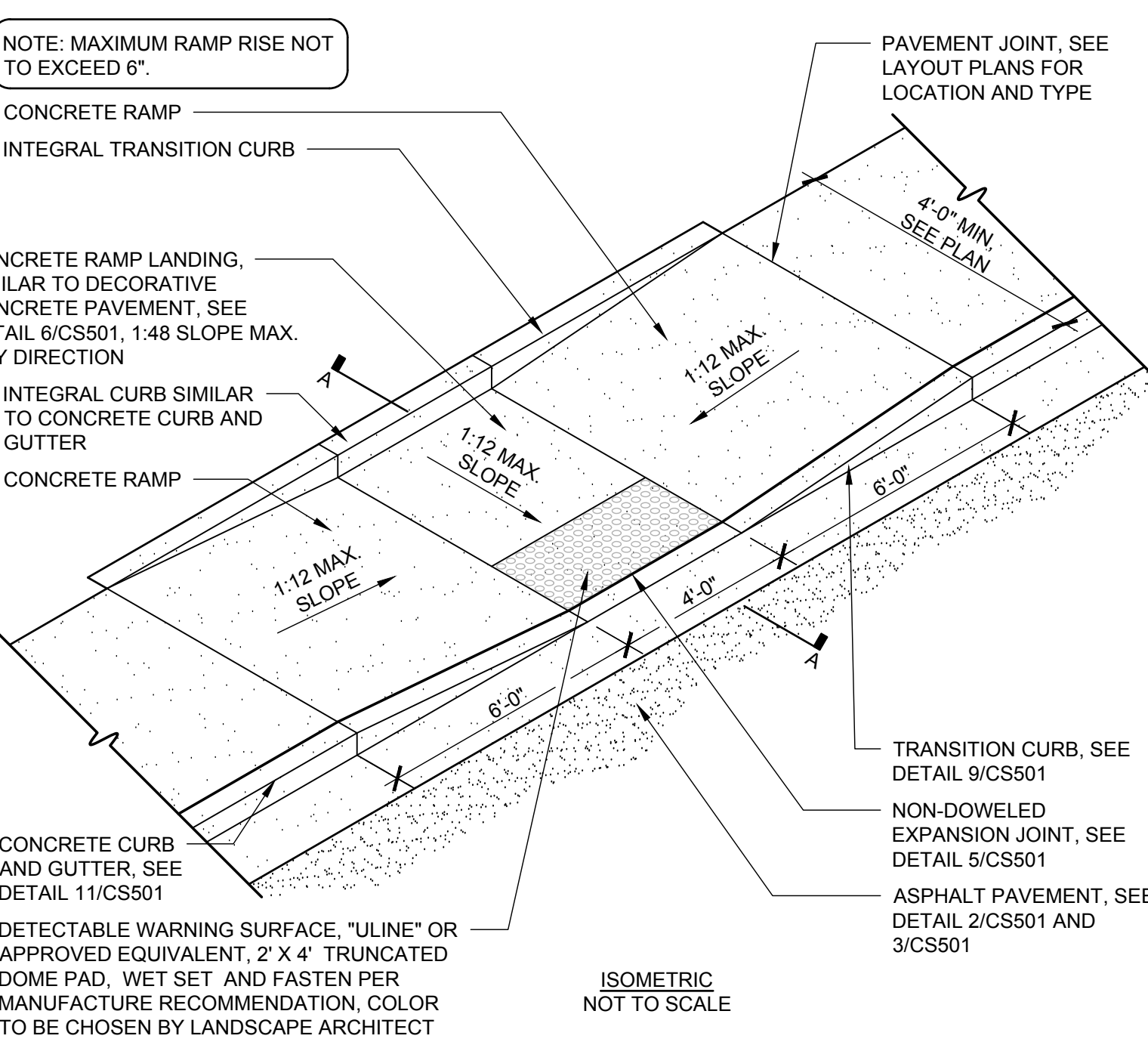
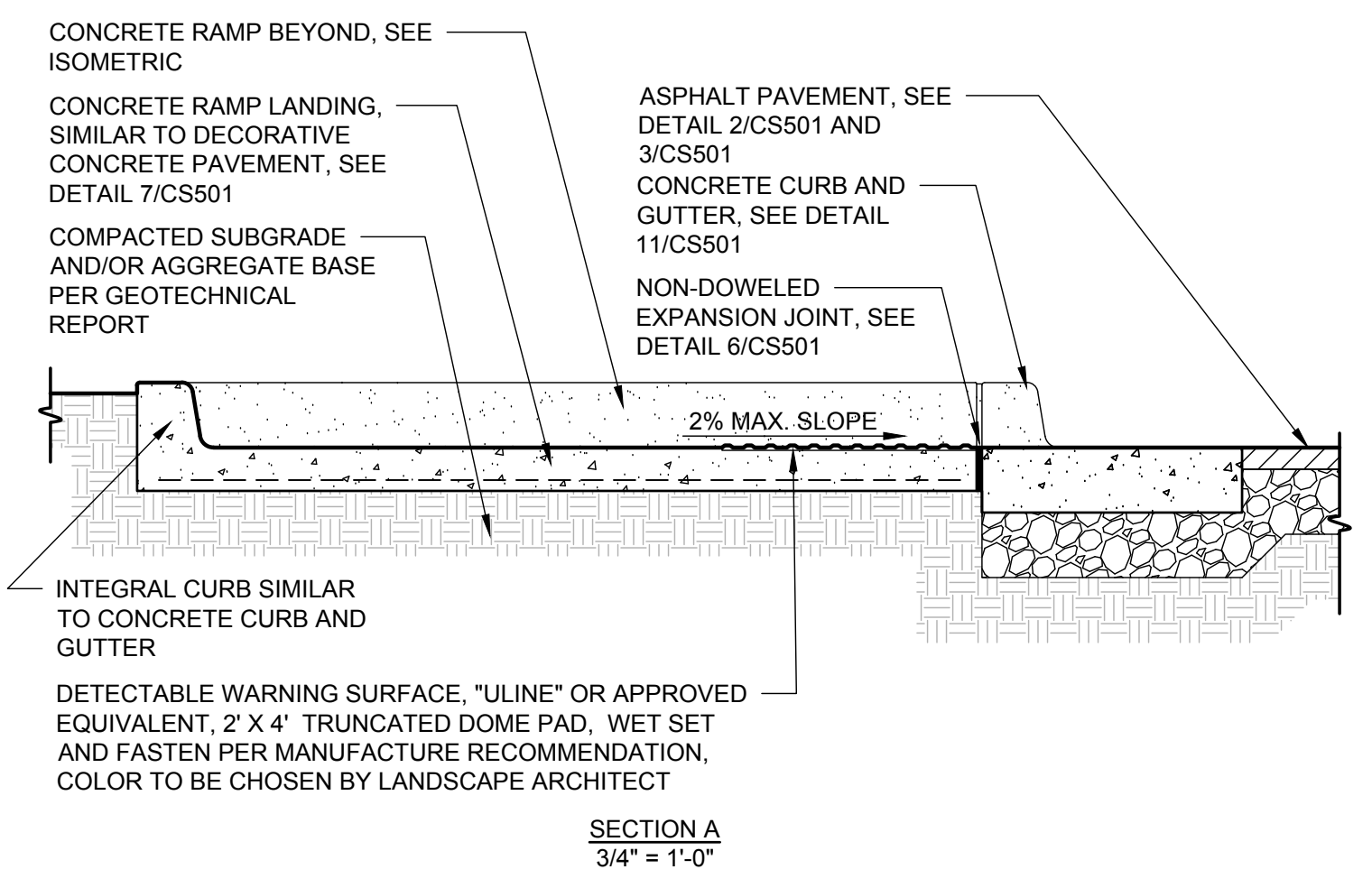
DATE: 07/11/2018
MCE PROJ. # 07397-0001
DRAWN ALM/EEM/KCBE
DESIGNED KCBE/EEM/ALM
CHECKED RMC
PROJ. MGR. KCBE

SCALE: HORIZONTAL: N/A
VERTICAL: N/A

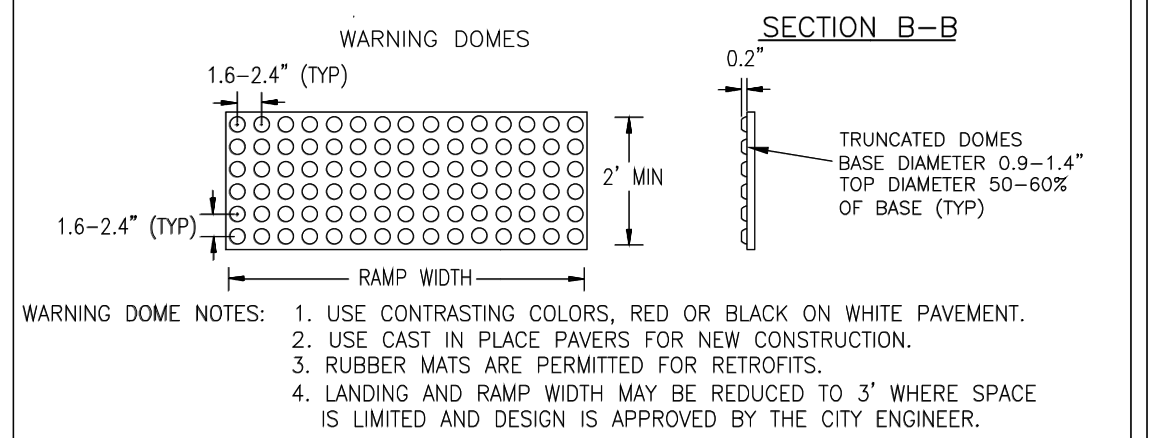
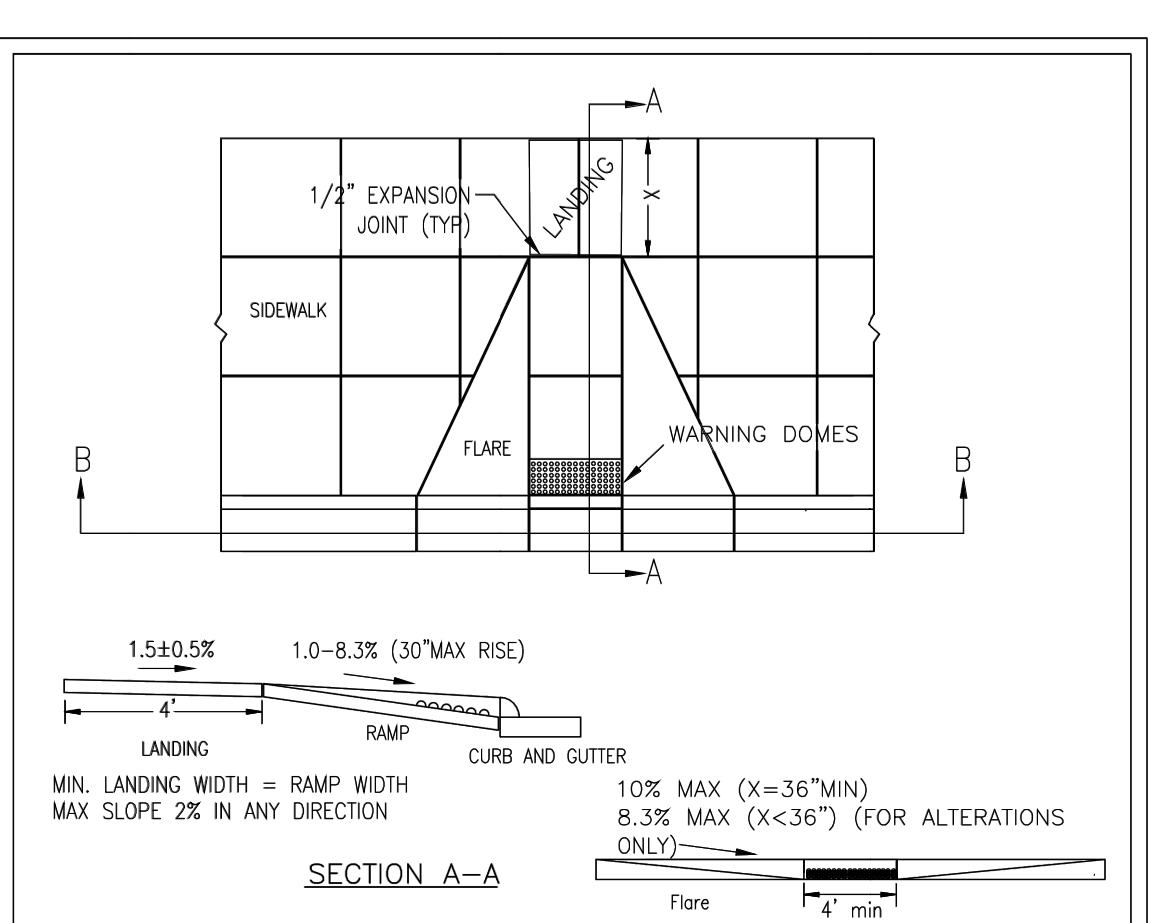
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STATUS: PRELIMINARY DESIGN
ISSUED FOR PERMITTING

REVISION: A

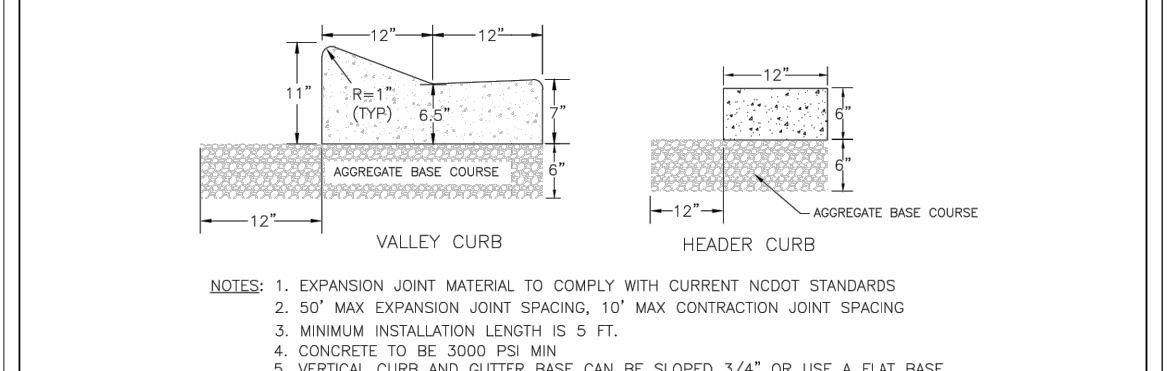
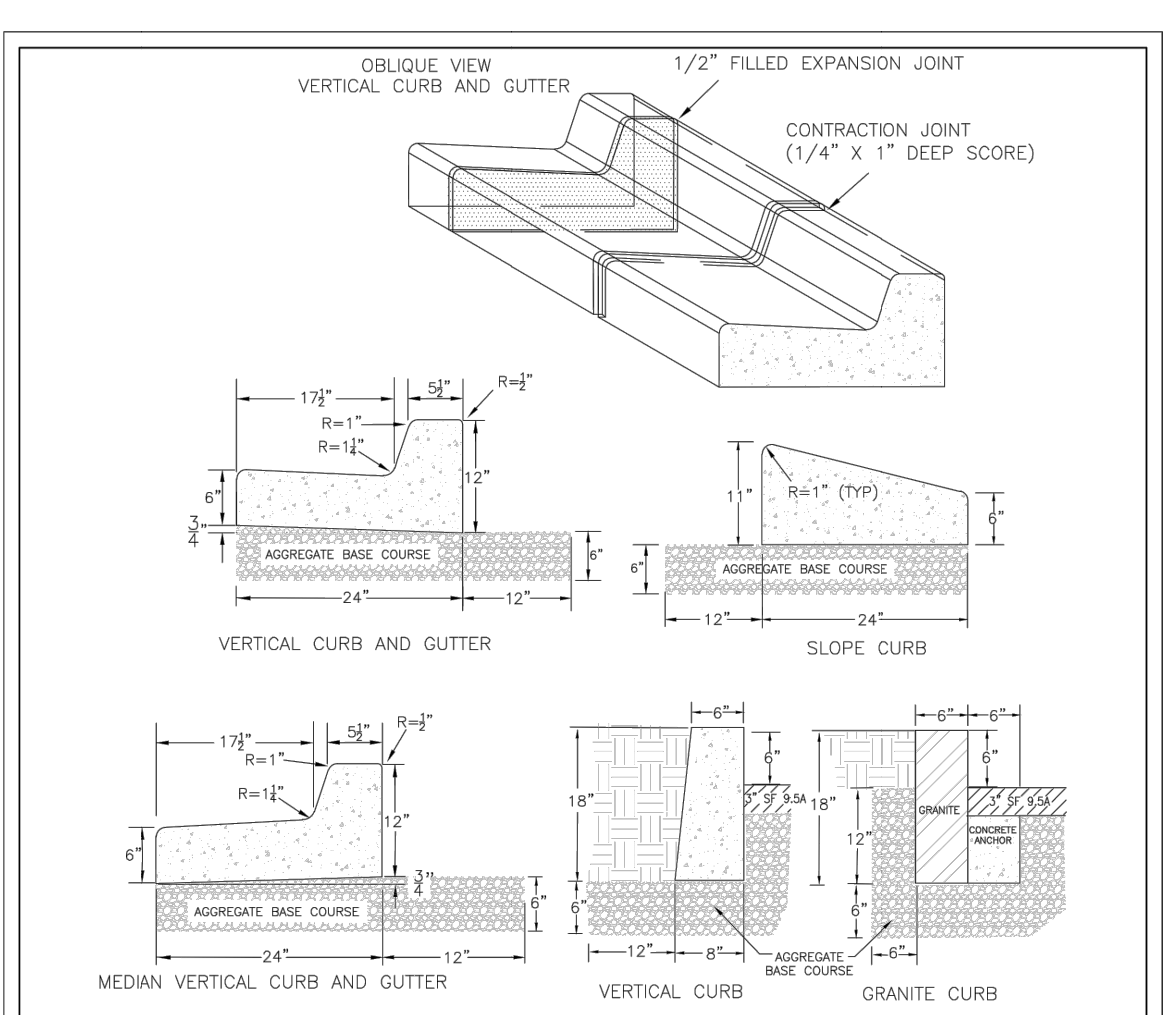


4 CURBED HANDICAP ACCESSIBLE RAMP NOT TO SCALE



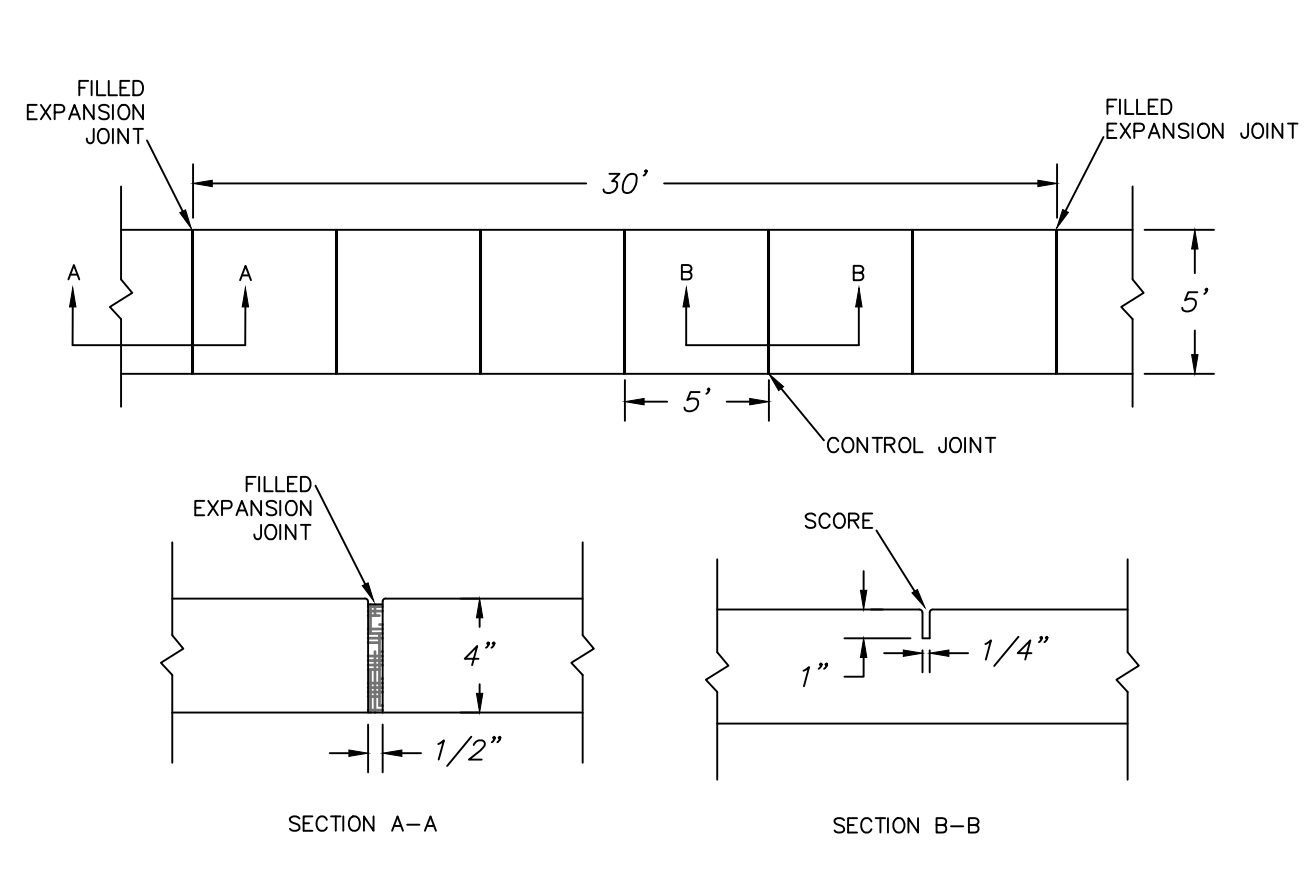
DATE: DECEMBER, 2010	STANDARD DETAIL	
DRAWN: PBJ/SR	PERPENDICULAR CURB RAMP	
CHECKED: DEC	ADJACENT TO WALKING SURFACE	
SCALE: NOT TO SCALE	SD 3-07	

3 PERPENDICULAR RAMP NOT TO SCALE



DATE: AUGUST, 2011	STANDARD DETAIL	
DRAWN: PBJ/SR	CURBING	
CHECKED: DEC	SD 3-11	
SCALE: NOT TO SCALE		

2 CURBING NOT TO SCALE



DATE: AUGUST, 2011	STANDARD DETAIL	
DRAWN: PBJ/SR	SIDEWALK	
CHECKED: DEC	SD 3-11	
SCALE: NOT TO SCALE		

1 SIDEWALK DETAIL N/A

- GENERAL NOTES**
- IN ACCORDANCE WITH N.C.G.S. 136-44.14, ALL STREET CURBS BEING CONSTRUCTED OR RECONSTRUCTED SHALL PROVIDE WHEELCHAIR RAMPS FOR THE PHYSICALLY HANDICAPPED ON EACH SIDE OF ANY STREET OR ROAD, WHERE CURBS AND SIDEWALKS ARE PROVIDED AND AT OTHER MAJOR POINTS OF PEDESTRIAN FLOW.
 - WHEELCHAIR RAMPS SHALL BE LOCATED AS INDICATED IN DETAIL DRAWINGS; HOWEVER, EXISTING LIGHT POLES, FIRE HYDRANTS, DROP INLETS, ETC. MAY AFFECT PLACEMENT.
 - CURB RAMPS SHALL HAVE DETECTABLE WARNINGS EXTENDING THE FULL WIDTH OF THE RAMP AND A MINIMUM OF 2-FT. IN LENGTH.
- CONSTRUCTION NOTES**
- CONSTRUCTION SHALL CONFORM WITH CONSTRUCTION STANDARDS OF THE GOVERNING BODY WHICH HAS JURISDICTION OF THE PARTICULAR STREET.
 - WHEELCHAIR RAMPS SHALL BE CONSTRUCTED OF CLASS "A" CONCRETE WITH THE SURFACE HAVING A ROUGH, NON-SKID TYPE FINISH.
 - A 1/2-IN. EXPANSION JOINT SHALL BE REQUIRED WHERE THE CONCRETE WHEELCHAIR RAMP JOINS ANY RIGID PAVEMENT OR STRUCTURE.
 - IN NO CASE SHALL THE WIDTH OF A CURB RAMP OR CURB CUT BE LESS THAN 40-IN. (3-FT, 4-IN.), NOT INCLUDING THE FLARED SIDES.
 - TRANSITIONS FROM RAMPS TO WALKS, GUTTERS OR STREETS SHALL BE FLUSH AND FREE OF ABRUPT CHANGES.
 - THE MAXIMUM SLOPE ON THE CURB RAMP RUN IS 1:12.
 - THE MAXIMUM CROSS SLOPE OF THE CURB RAMP IS 1:50.
 - MAXIMUM SLOPES OF ADJOINING GUTTERS, ROAD SURFACE IMMEDIATELY ADJACENT TO THE CURB RAMP, OR ACCESSIBLE ROUTE SHALL NOT EXCEED 1:20.
 - ANY RAISED ISLANDS IN CROSSINGS SHALL BE CUT THROUGH LEVEL WITH THE STREET OR HAVE CURB RAMPS AT BOTH SIDES AND A LEVEL AREA AT LEAST 48-IN. LONG BETWEEN THE CURB RAMPS.

- DETECTABLE WARNINGS SHALL CONSIST OF RAISED TRUNCATED DOMES WITH A DIAMETER OF NOMINAL 0.9-IN., A HEIGHT OF NOMINAL 0.2-IN. AND A CENTER-TO-CENTER SPACING OF NOMINAL 2.35-IN. AND SHALL CONTRAST VISUALLY WITH ADJOINING SURFACES, EITHER LIGHT-ON-DARK, OR DARK-ON-LIGHT.
- ADDITIONAL NOTES**
- STOP BARS SHALL BE USED WHERE IT IS IMPORTANT TO INDICATE THE POINT BEHIND WHICH VEHICLES ARE REQUIRED TO STOP IN COMPLIANCE WITH A TRAFFIC SIGNAL, STOP SIGN OR OTHER LEGAL REQUIREMENT.
 - PARKING SHALL BE A MINIMUM OF 20 FEET BACK OF THE PEDESTRIAN CROSSWALK.
 - ALL PAVEMENT MARKINGS SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES, PUBLISHED BY THE FEDERAL HIGHWAY ADMINISTRATION. THIS DOCUMENT IS AVAILABLE FROM THE SUPERINTENDENT OF DOCUMENTS, U.S. GOVERNMENT PRINTING OFFICE, WASHINGTON, D.C. 20402.
 - INSTALL REFLECTORS PER CITY AND NCDOT STANDARDS. TRAFFIC ENGINEERING MUST APPROVE OF PAVEMENT MARKING LAYOUT PRIOR TO ACTUAL STRIPING.
 - CURB RAMPS AT MARKED CROSSINGS SHALL BE WHOLLY CONTAINED WITHIN THE MARKINGS, EXCLUDING ANY FLARED SIDES.
 - THE BOTTOM OF DIAGONAL (CORNER TYPE) CURB RAMPS AT MARKED CROSSINGS SHALL HAVE 48-IN. MINIMUM CLEAR SPACE WITHIN THE MARKINGS.
 - IF DIAGONAL CURB RAMPS HAVE FLARED SIDES, THEY SHALL HAVE AT LEAST A 24-IN. LONG SEGMENT OF STRAIGHT CURB LOCATED ON EACH SIDE OF THE CURB RAMP AND WITHIN THE MARKED CROSSING.

Public Services • Engineering Division

APPROVED STORMWATER MANAGEMENT PLAN

Name: _____ Date: _____

Permit # _____

Signed: _____

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1 inch

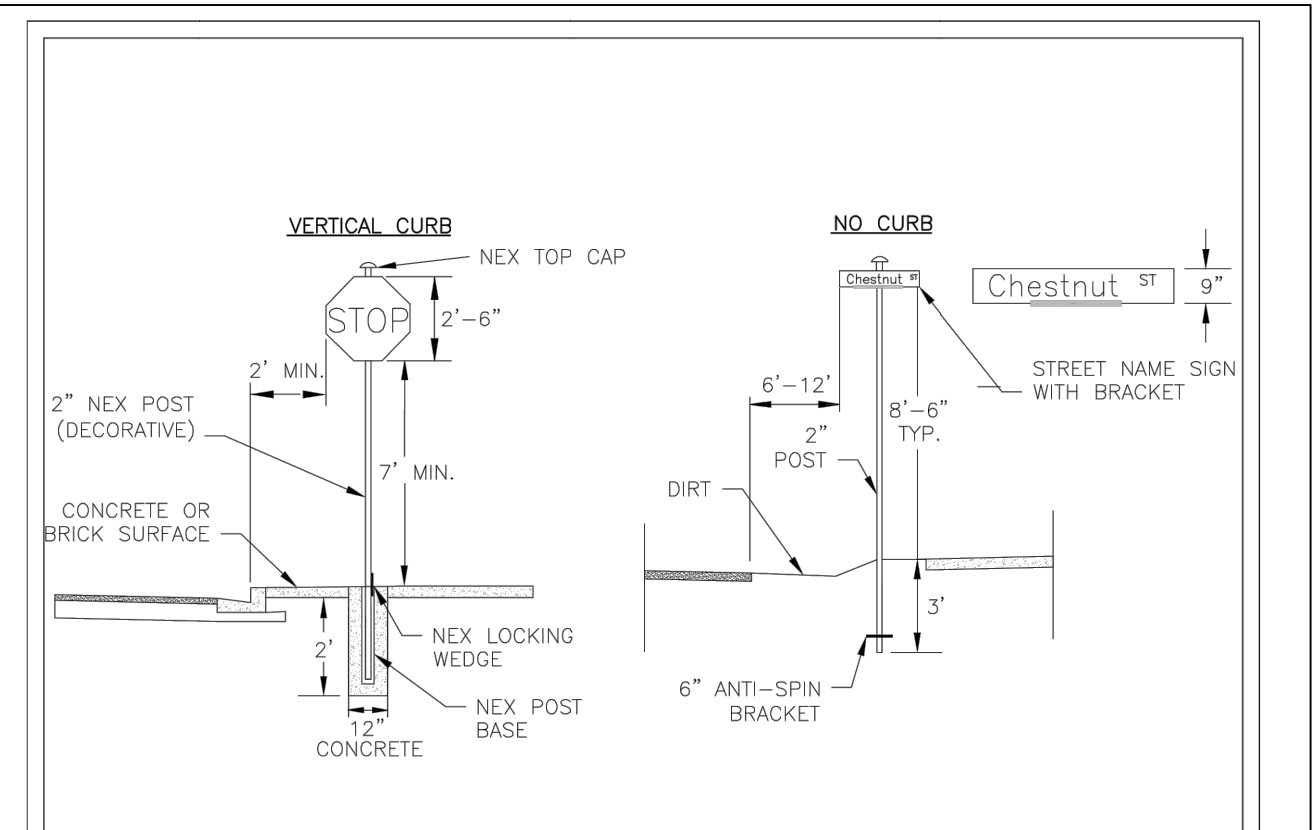
Approved Construction Plan

Name: _____ Date: _____

Planning: _____

Traffic: _____

Fire: _____



DATE: NOVEMBER, 2011	STANDARD DETAIL	
DRAWN BY: JSR	STREET SIGNS AND LOCATION	
CHECKED BY: BOR, P.E.	SHEET 1 of 2	
SCALE: NOT TO SCALE	SD 15-03	

6 STREET SIGN LOCATIONS NOT TO SCALE

- SIGNS**
- All signs shall meet the requirements of MUTCD and City Traffic Engineering in effect at the time of construction.
 - 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".
 - SPECIAL DESIGNATION signs by location and type shall adhere to City of Wilmington signage plan (i.e. downtown, historic, cross-city trail, parks, riverfront, scenic by-way, parking, etc.) and all associated policies.
 - 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.
 - 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.
 - 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.
 - 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.
 - All sign lettering, colors and fonts shall adhere to the MUTCD in effect at the time of construction. Fluorescent 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**
- 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.
 - 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.
 - 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.

DATE: NOVEMBER, 2011	STANDARD DETAIL	
DRAWN BY: JSR	STREET SIGNS AND LOCATION	
CHECKED BY: BOR, P.E.	SHEET 2 of 2	
SCALE: NOT TO SCALE	SD 15-03	

5 STREET SIGN LOCATIONS NOT TO SCALE

REVNO.	CITY OF WILMINGTON TECHNICAL REVIEW COMMITTEE SUBMITTAL	DATE
A		07/11/2016
	DESCRIPTIONS	
	REVISIONS	

FINAL DRAWING FOR REVIEW PURPOSES ONLY

SEAL

243 North Front Street
 Wilmington, North Carolina 28401
 Phone: (910)343-1048, Fax: (910)251-8282
 License: F-1222
 www.mckimcreed.com

SCI NORTH CAROLINA FUNERAL SERVICES, LLC.
 1929 ALLEN PKWY.
 HOUSTON, TX 77019

GREENLAWN FUNERAL HOME
 WILMINGTON, NEW HANOVER COUNTY, NORTH CAROLINA

SITE DETAILS

DATE: 06/06/2018	MCE PROJ. # 07397-0001	SCALE	MAC FILE NUMBER
DRAWN: ALM/EE/KCBE	DESIGNED: KCBE/EE/ALM	HORIZONTAL: N/A	CS-501
CHECKED: RMC	PROJ. MGR.: KCBE	VERTICAL: N/A	DRAWING NUMBER
			13
STATUS: PRELIMINARY DESIGN			REVISION
ISSUED FOR PERMITTING			A

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

Date: _____ Permit # _____
Signed: _____

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

1 inch

Approved Construction Plan

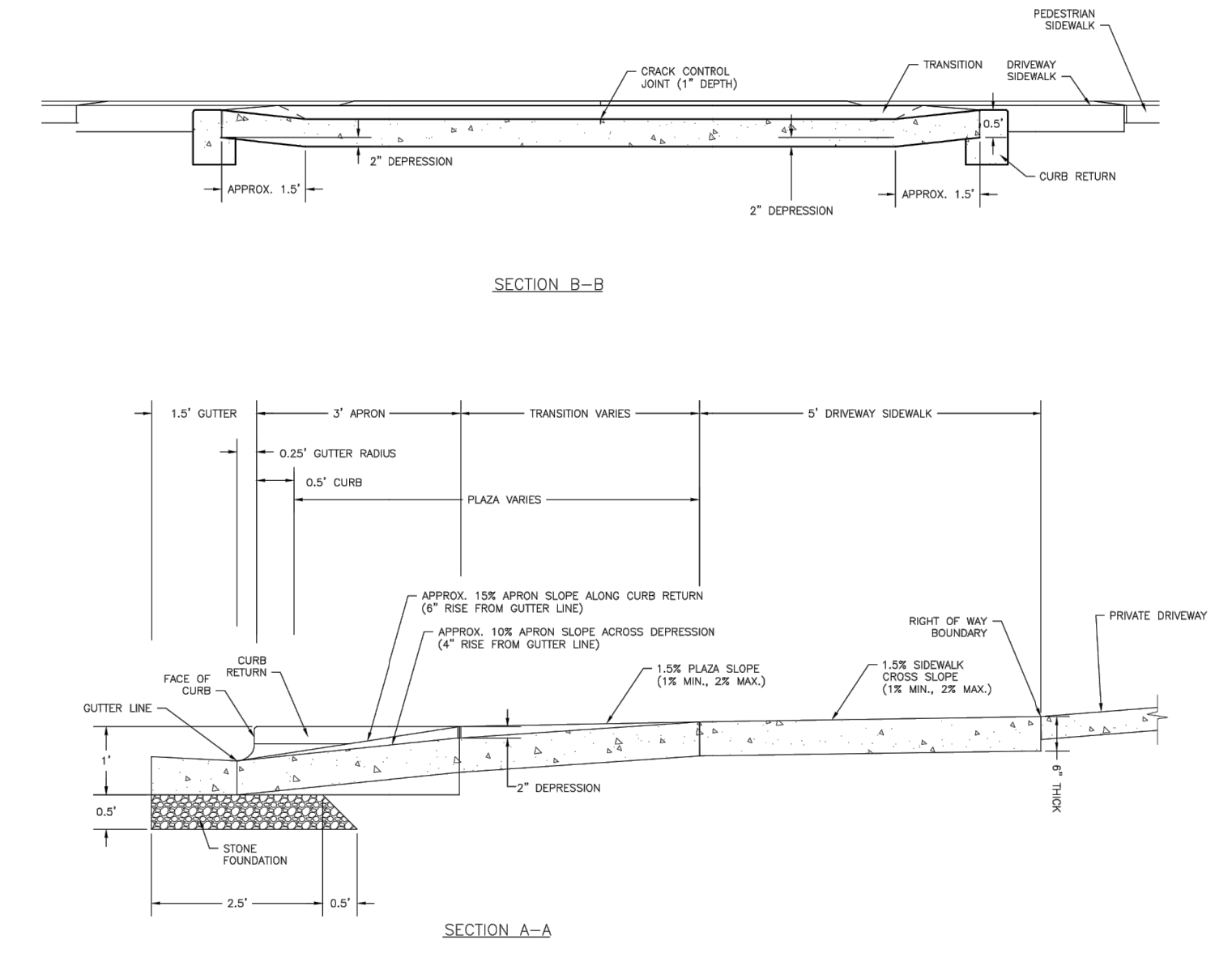
Name _____ Date _____

Planning _____
Traffic _____
Fire _____

DATE: JUNE 1, 2018
DRAWN BY: JSR
CHECKED BY: D.E.C./P.E.
SCALE: NOT TO SCALE

STANDARD DETAIL
COMMERCIAL DRIVEWAY SECTIONS
2 OF 2

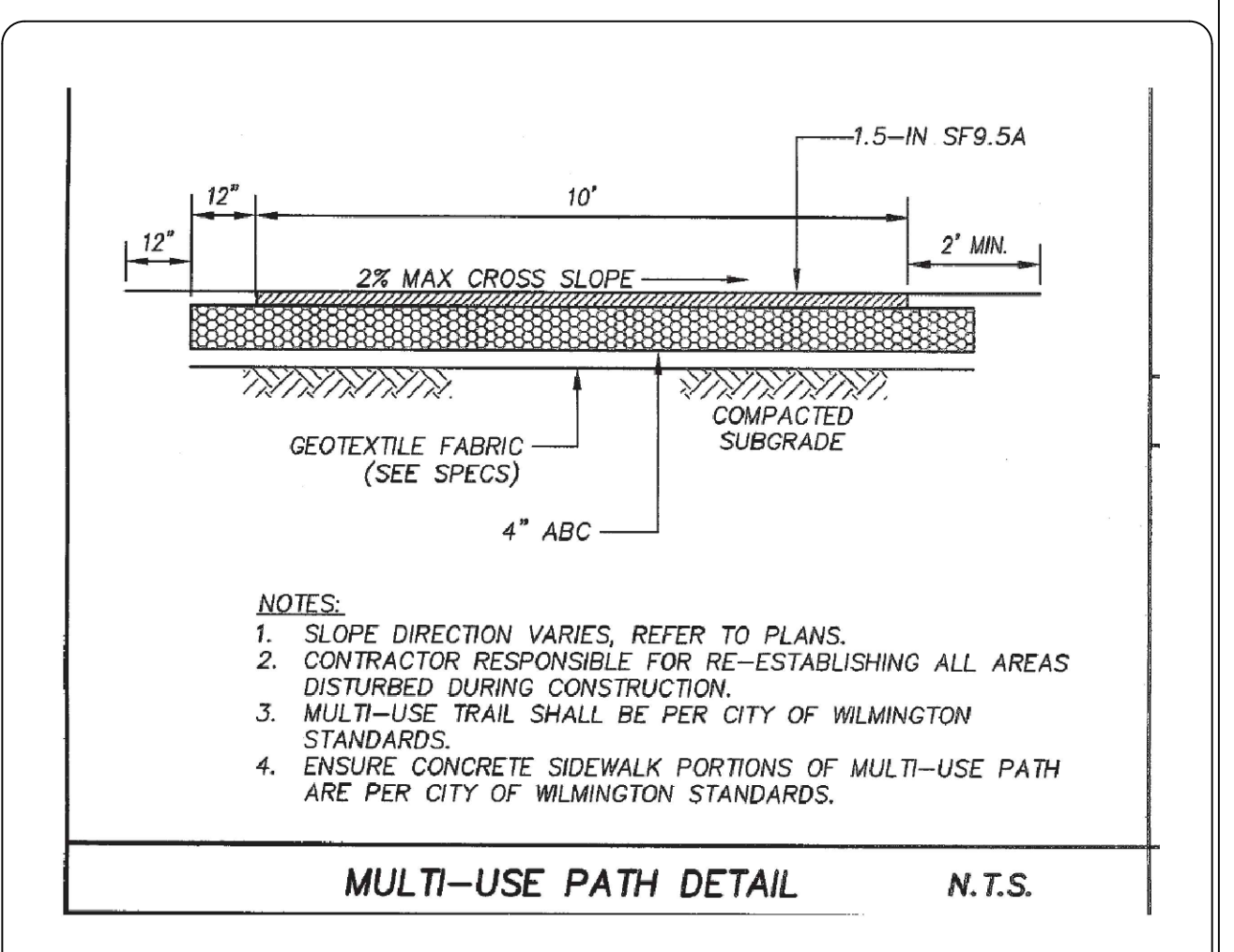
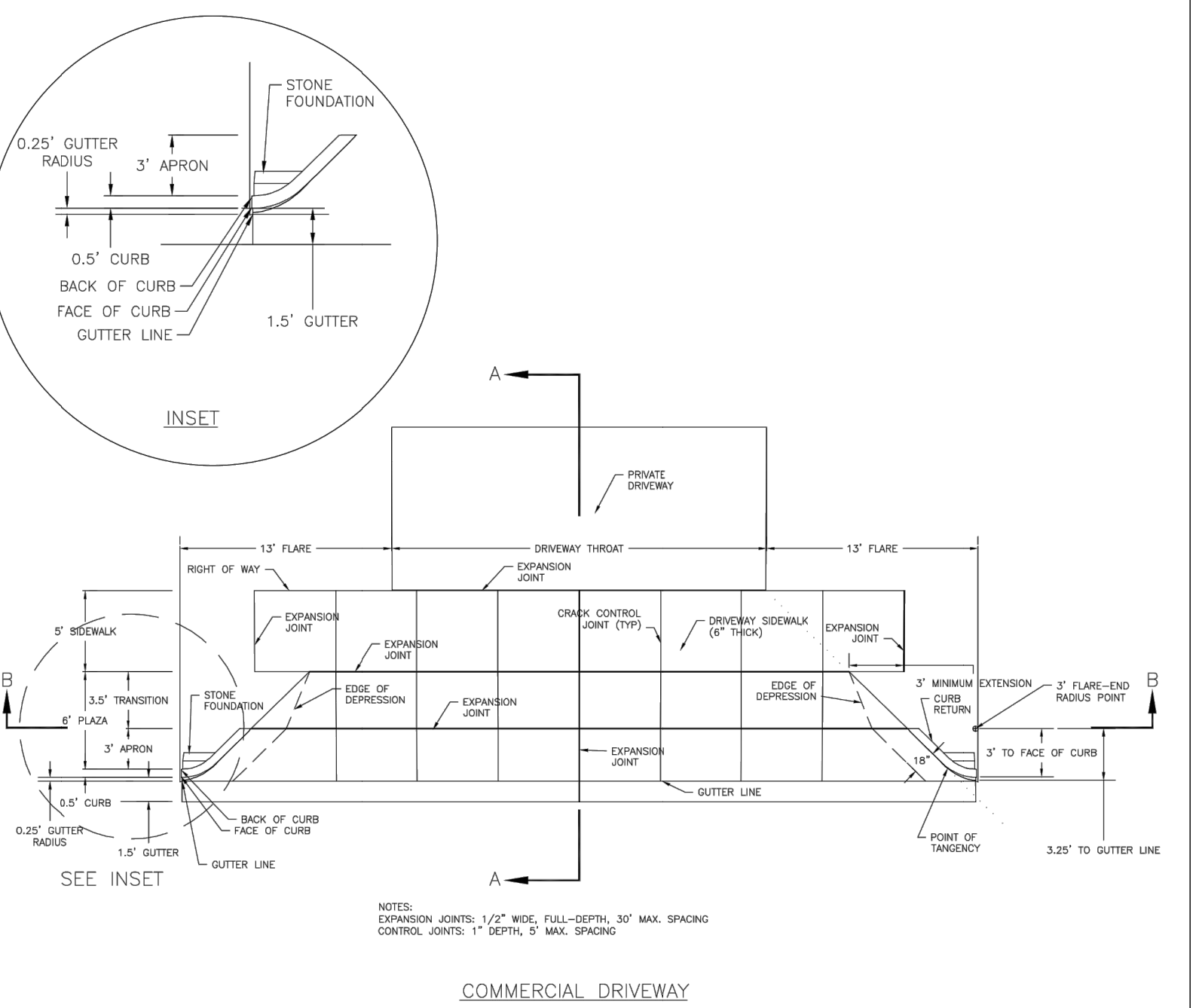
WILMINGTON
CITY OF WILMINGTON ENGINEERING
WILMINGTON, N.C. 28402
(910) 341-7857
SD 3-03.4



DATE: JUNE 1, 2018
DRAWN BY: JSR
CHECKED BY: D.E.C./P.E.
SCALE: NOT TO SCALE

STANDARD DETAIL
COMMERCIAL DRIVEWAY PLAN
1 OF 2

WILMINGTON
CITY OF WILMINGTON ENGINEERING
WILMINGTON, N.C. 28402
(910) 341-7857
SD 3-03.3



2 10-FT MULTI-USE PATH DETAIL N/A

1 DRIVEWAY DETAIL N/A

REVNO.	DESCRIPTION	DATE
A	CITY OF WILMINGTON TECHNICAL REVIEW COMMITTEE SUBMITTAL	07/11/2018

FINAL DRAWING - FOR REVIEW PURPOSES ONLY

SEAL

MCKIM & CREED
243 North Front Street
Wilmington, North Carolina 28401
Phone: (910)343-1048, Fax: (910)251-8282
License: F-1222
www.mckimcreed.com

SCI NORTH CAROLINA FUNERAL SERVICES, LLC.
1929 ALLEN PKWY.
HOUSTON, TX 77019

GREENLAWN FUNERAL HOME
WILMINGTON, NEW HANOVER COUNTY, NORTH CAROLINA

SITE DETAILS

DATE: 06/06/2018
MCE PROJ. # 07397-0001
DRAWN ALM/EEM/KCBE
DESIGNED KCBE/EEM/ALM
CHECKED RMC
PROJ. MGR. KCBE

SCALE: HORIZONTAL: N/A, VERTICAL: N/A

MAC FILE NUMBER: CS-502
DRAWING NUMBER: 14

STATUS: PRELIMINARY DESIGN
ISSUED FOR PERMITTING

REVISION: A

TREE SCHEDULE

Table with columns: TREES, CODE, BOTANICAL NAME, SIZE, CALIBER, HEIGHT, QTY, REMARKS. Lists various tree species and their specifications.

SHRUB SCHEDULE

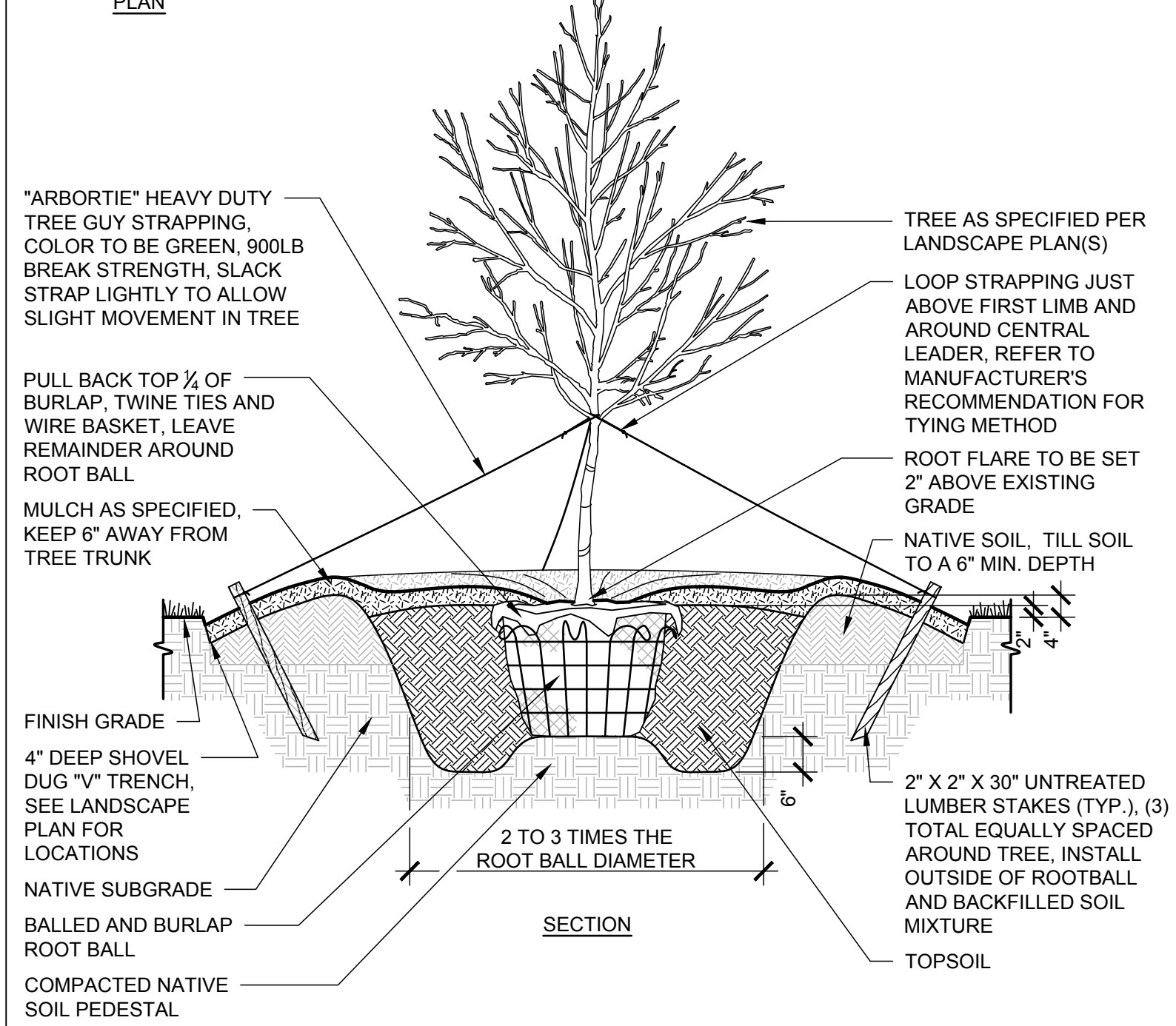
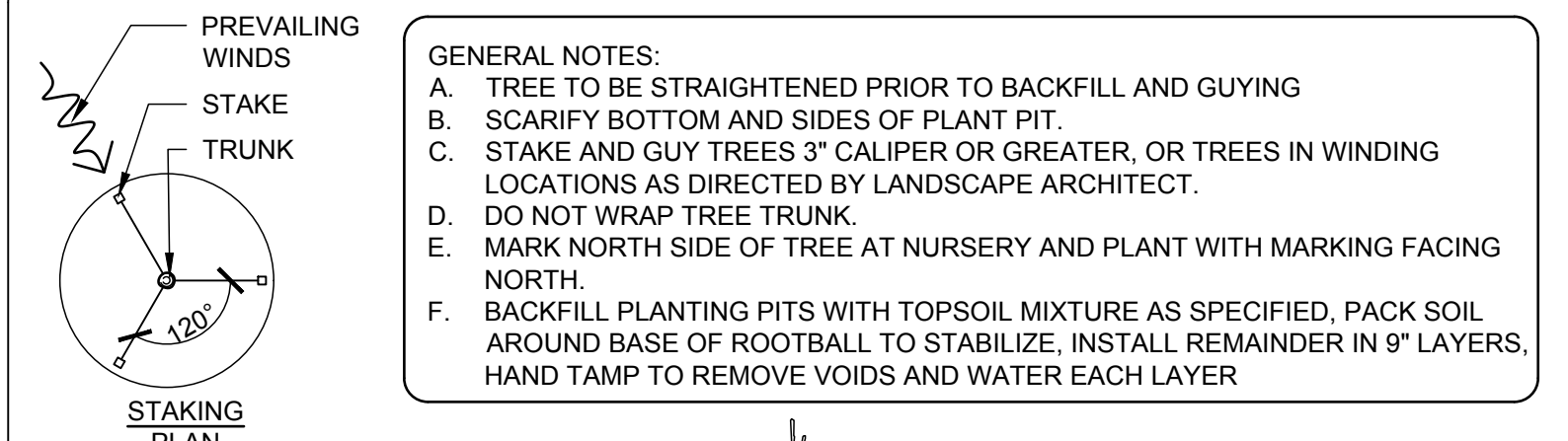
Table with columns: SHRUBS, CODE, BOTANICAL NAME, SIZE, HEIGHT, SPREAD, SPACING, QTY, REMARKS. Lists various shrub species and their specifications.

GROUNDCOVER SCHEDULE

Table with columns: GROUNDCOVERS, CODE, BOTANICAL NAME, SIZE, SPACING, QTY. Lists groundcover species and their specifications.

NOTE: * ALL PLANTING BEDS TO RECEIVE A 3" LAYER OF PINESTRAW THROUGHOUT (1 BAL PER 50 SF OF BED AREA).

- A. ALL EXISTING VEGETATION THAT IS USED TO MEET LANDSCAPING REQUIREMENTS... H. ALL PLANT BEDS OR RAISED SAUCER RINGS SHALL BE EDGED WITH SMOOTH, CONTINUOUS CURVES... T. TREES SHALL BE LOCATED A MINIMUM OF 5 FEET FROM SEWER/WATER CONNECTIONS... Z. LANDSCAPE ARCHITECT OR OWNER SHALL APPROVE PLACEMENT OF TREES PRIOR TO PLANTING.



4 PLANTING NOTES SCALE: 1/2" = 1'-0"

5 CITY STAMPS NO SCALE. Includes text about open utility cuts: 'For each open utility cut of City streets, a \$325 permit shall be required from the City prior to occupancy and/or project acceptance.' and a '1 inch' scale bar. Also features a 'Approved Construction Plan' stamp and the City of Wilmington logo.

3 TYPICAL GROUNDCOVER PLANTING SCALE: 1/2" = 1'-0". Includes a 'PLANT SPACING CHART' table and a 'SECTION' diagram showing ground cover root ball, mulch, and native subgrade layers.

2 TYPICAL TREE PLANTING SCALE: 1/2" = 1'-0"

1 TYPICAL SHRUB PLANTING SCALE: 1/2" = 1'-0". Includes a 'PLANT SPACING CHART' table and a 'SECTION' diagram showing shrub root ball, mulch, and native subgrade layers.

6 PLANT SCHEDULE NO SCALE. Includes a table for revisions and a 'FINAL DRAWING - FOR REVIEW PURPOSES ONLY' stamp.

5 CITY STAMPS NO SCALE. Includes the 'Approved Construction Plan' stamp and the City of Wilmington logo.

3 TYPICAL GROUNDCOVER PLANTING NO SCALE. Includes the 'Approved Construction Plan' stamp and the City of Wilmington logo.

1 TYPICAL SHRUB PLANTING NO SCALE. Includes the 'Approved Construction Plan' stamp and the City of Wilmington logo.

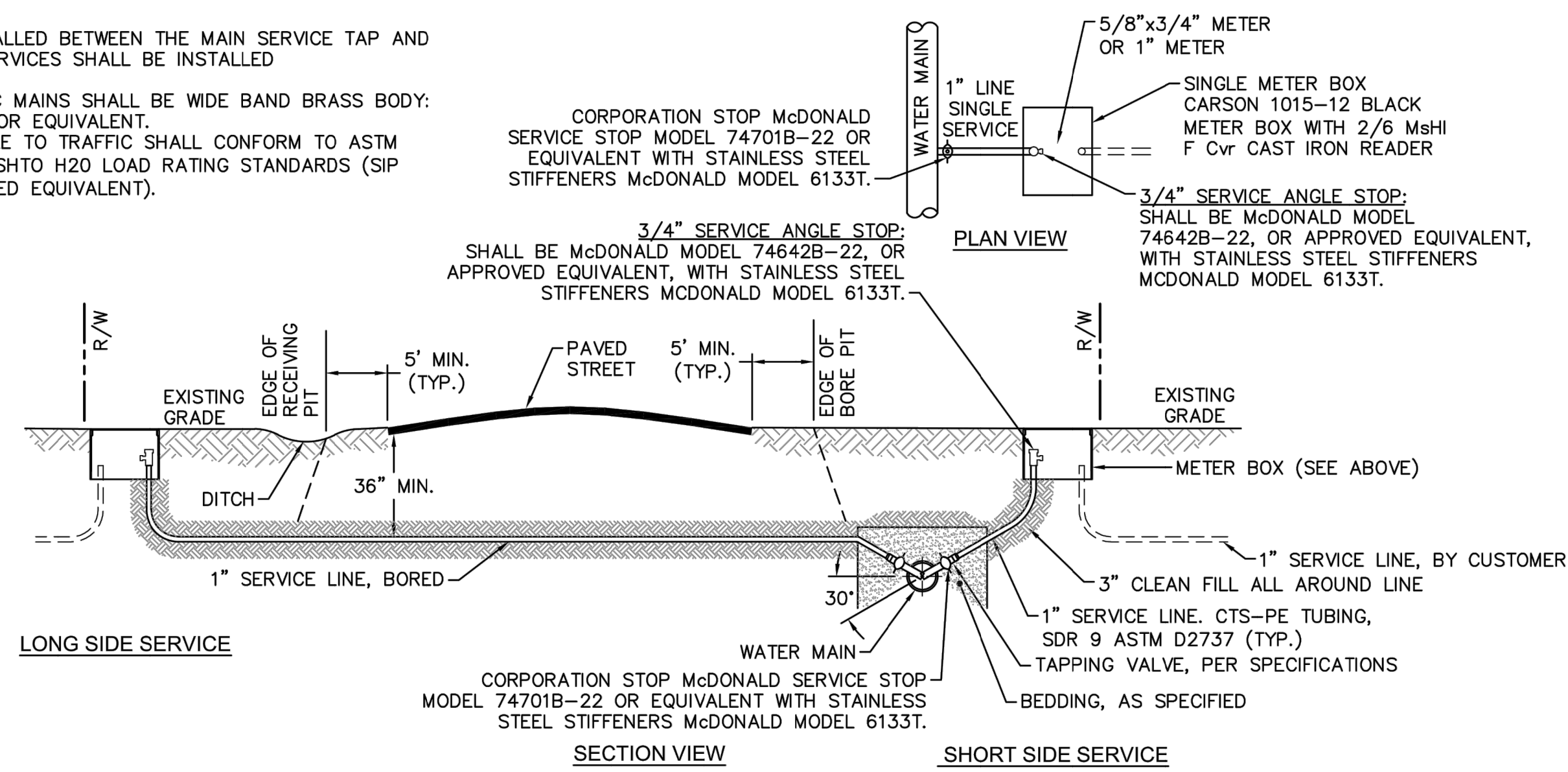
GREENLAWN FUNERAL HOME LANDSCAPE DETAILS. Includes contact information for SCI North Carolina Funeral Services, LLC and drawing details.

MCKIM & CREED logo and contact information: 243 North Front Street, Wilmington, North Carolina 28401.

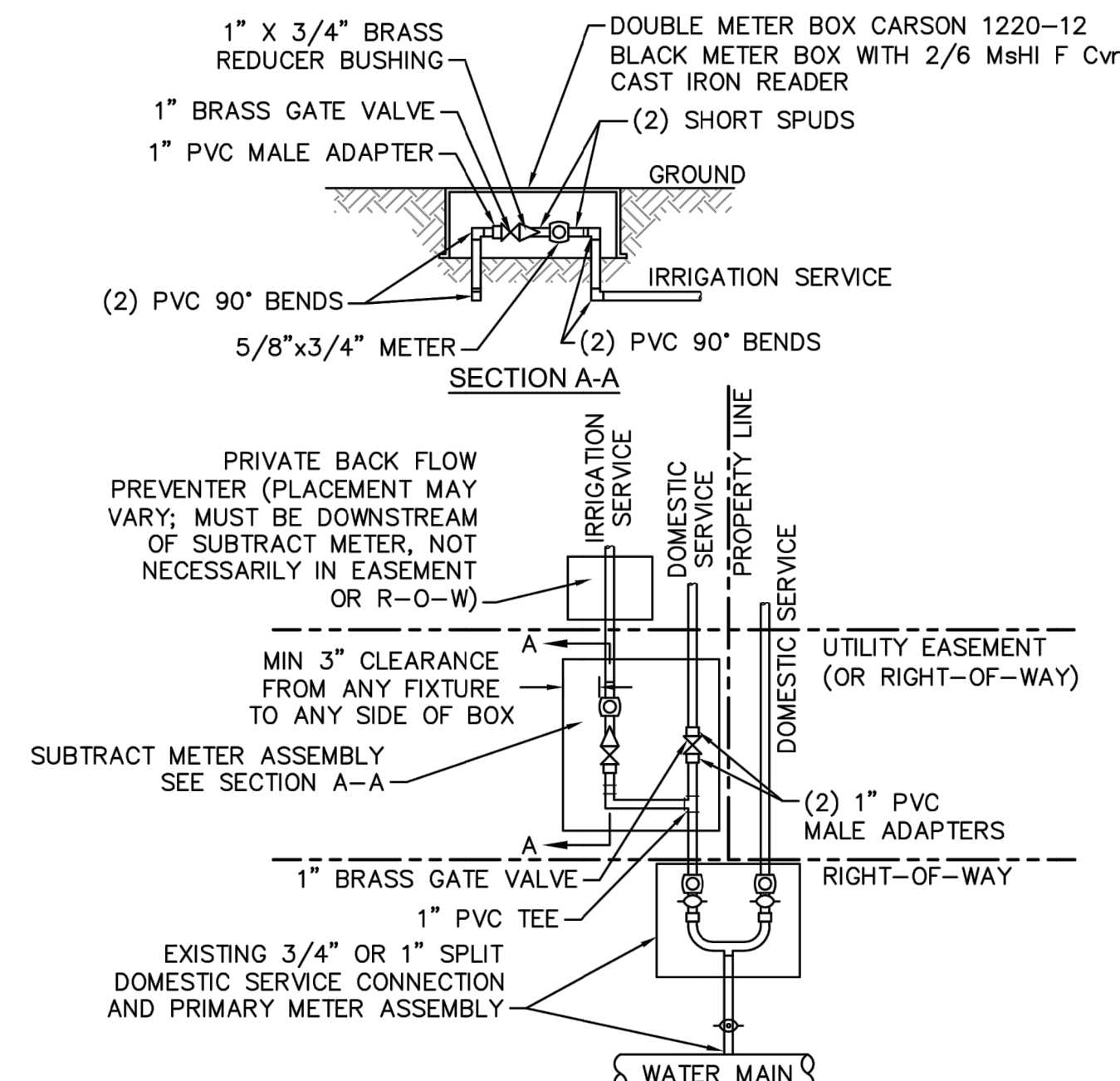
GREENLAWN FUNERAL HOME LANDSCAPE DETAILS. Includes drawing title and project information.

Drawing details table: DATE: 07/11/2018, SCALE: HORIZONTAL 1"=30', VERTICAL N/A, DRAWING NUMBER: 15, STATUS: PRELIMINARY DESIGN ISSUED FOR PERMITTING.

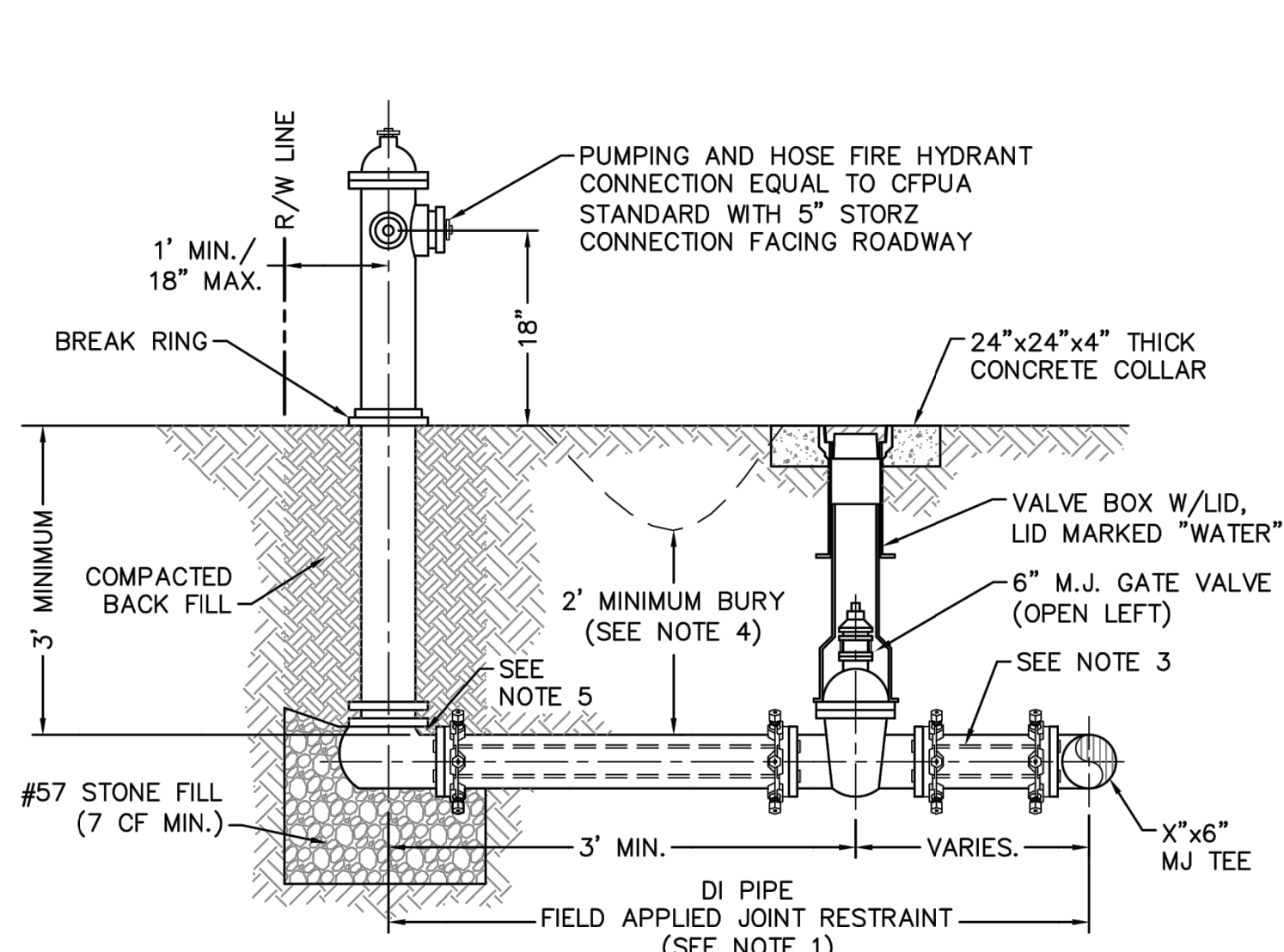
- NOTES:**
- NO JOINT SHALL BE INSTALLED BETWEEN THE MAIN SERVICE TAP AND THE METER STOP. ALL SERVICES SHALL BE INSTALLED PERPENDICULAR TO MAIN.
 - SERVICE SADDLES ON PVC MAINS SHALL BE WIDE BAND BRASS BODY: SADDLE McDONALD 3801 OR EQUIVALENT.
 - METER BOXES SUSCEPTIBLE TO TRAFFIC SHALL CONFORM TO ASTM A48, CLASS 30B AND AASHTO H20 LOAD RATING STANDARDS (SIP MODEL 4242, OR APPROVED EQUIVALENT).



NOTE:
TYPICAL WATER SERVICE CONNECTION FOR RESIDENTIAL SINGLE FAMILY HOME ON CFPUA WATER SYSTEM



- NOTES:**
- BEYOND THE PRIMARY DOMESTIC METER ASSEMBLY, CFPUA IS ONLY RESPONSIBLE FOR METER AND WASHERS OF SUBTRACT METER ASSEMBLY.
 - ALL PIPE AND FITTINGS UP TO FINAL SERVICE LINE TO BE 1" EXCLUDING METERS.



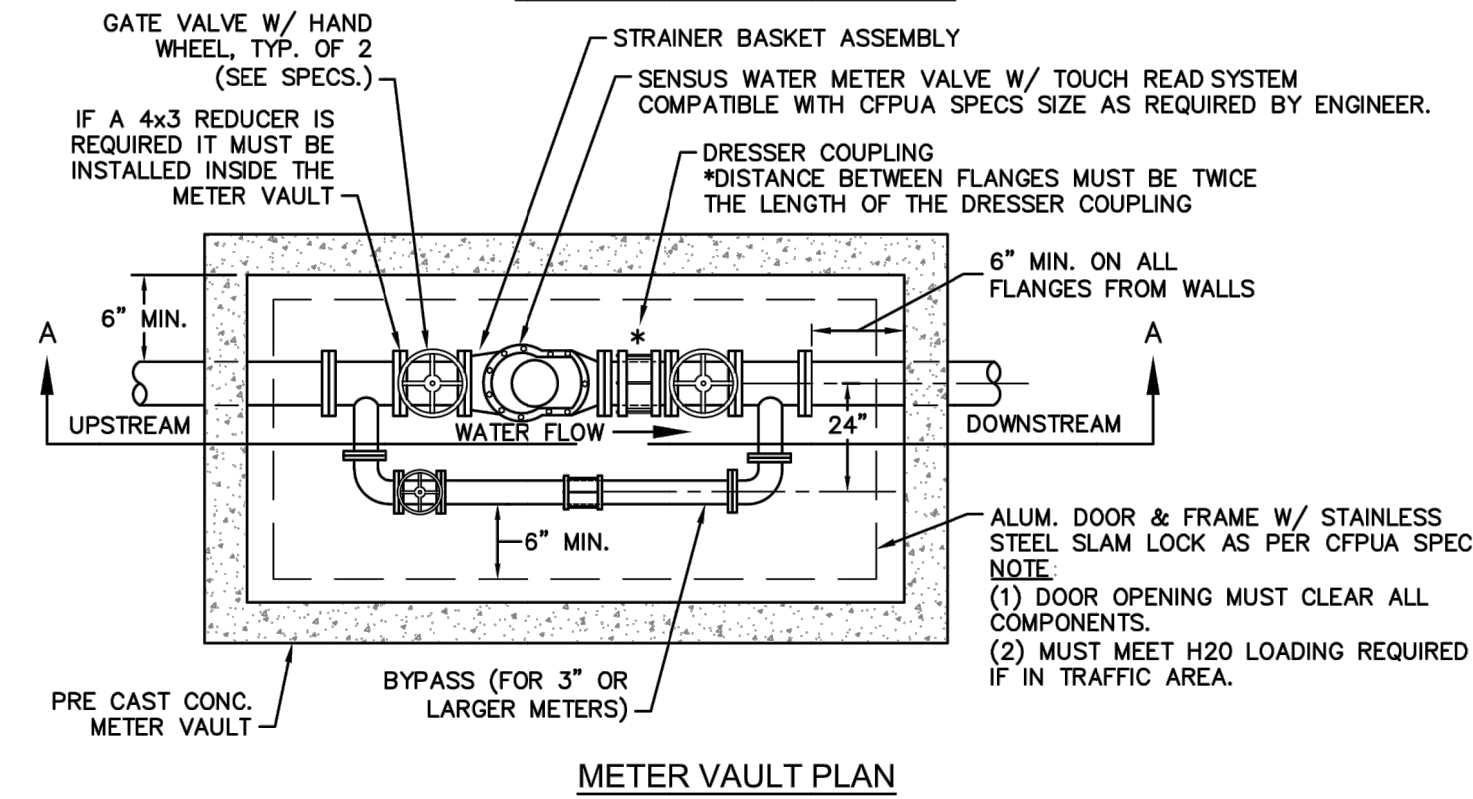
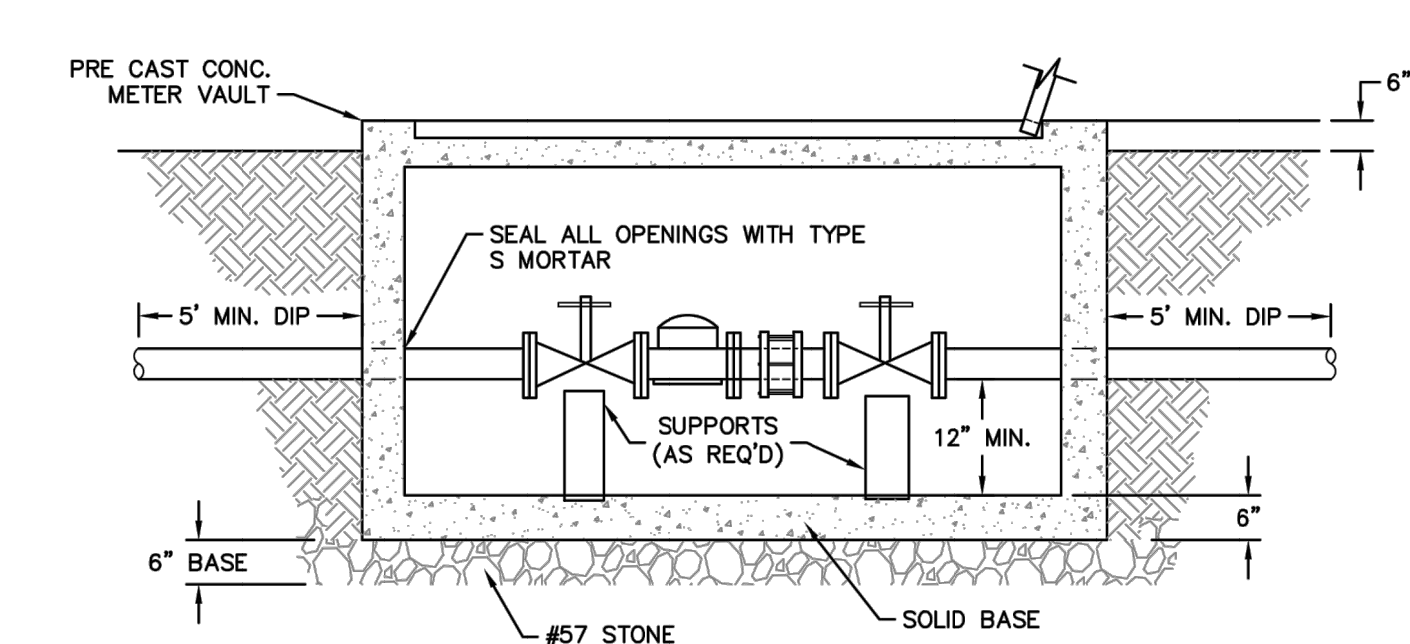
- NOTES:**
- JOINT RESTRAINT SYSTEMS SHALL BE WEDGE ACTION STYLE FOR DI PIPE AS MANUFACTURED BY EBAA IRON, SIGMA, STAR PIPE PRODUCTS OR APPROVED EQUAL.
 - WHEN HYDRANT LEGS REQUIRE FULL LENGTH PIPE SECTIONS, OVER BELL RESTRAINT SYSTEM SHALL HAVE 316 STAINLESS STEEL HARNESS AND FASTENERS.
 - CONTINUOUS 316 STAINLESS STEEL RODS (TEE TO VALVE AND VALVE TO HYDRANT) MAY BE USED WITH COR-BLUE MJ T-BOLT AND GASKET KITS, AS AN ALTERNATIVE.
 - HYDRANT AND VALVE SHALL BE PLACED OUTSIDE DITCH LIMITS.
 - WEEP HOLES OPEN AND UNBLOCKED TO DRAIN.

WD-10 FIRE HYDRANT ASSEMBLY
NOT TO SCALE

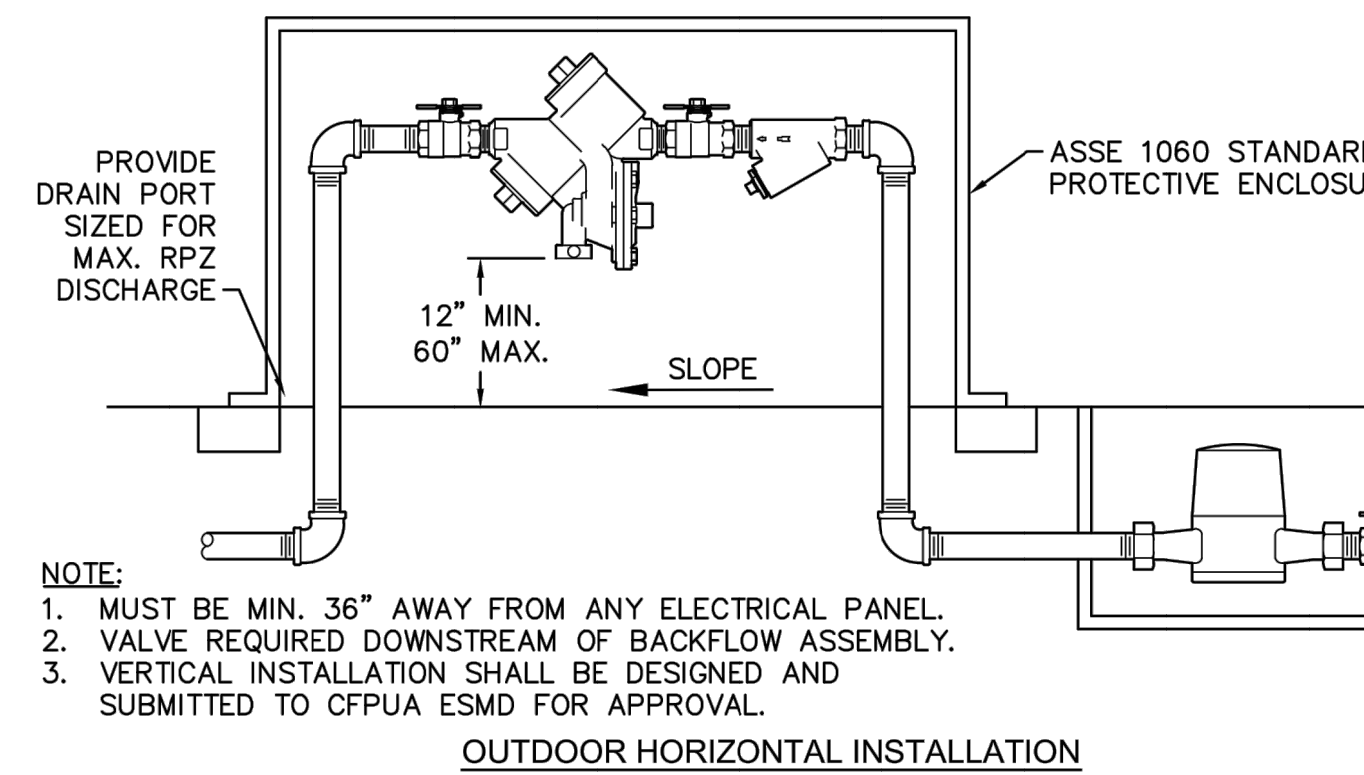
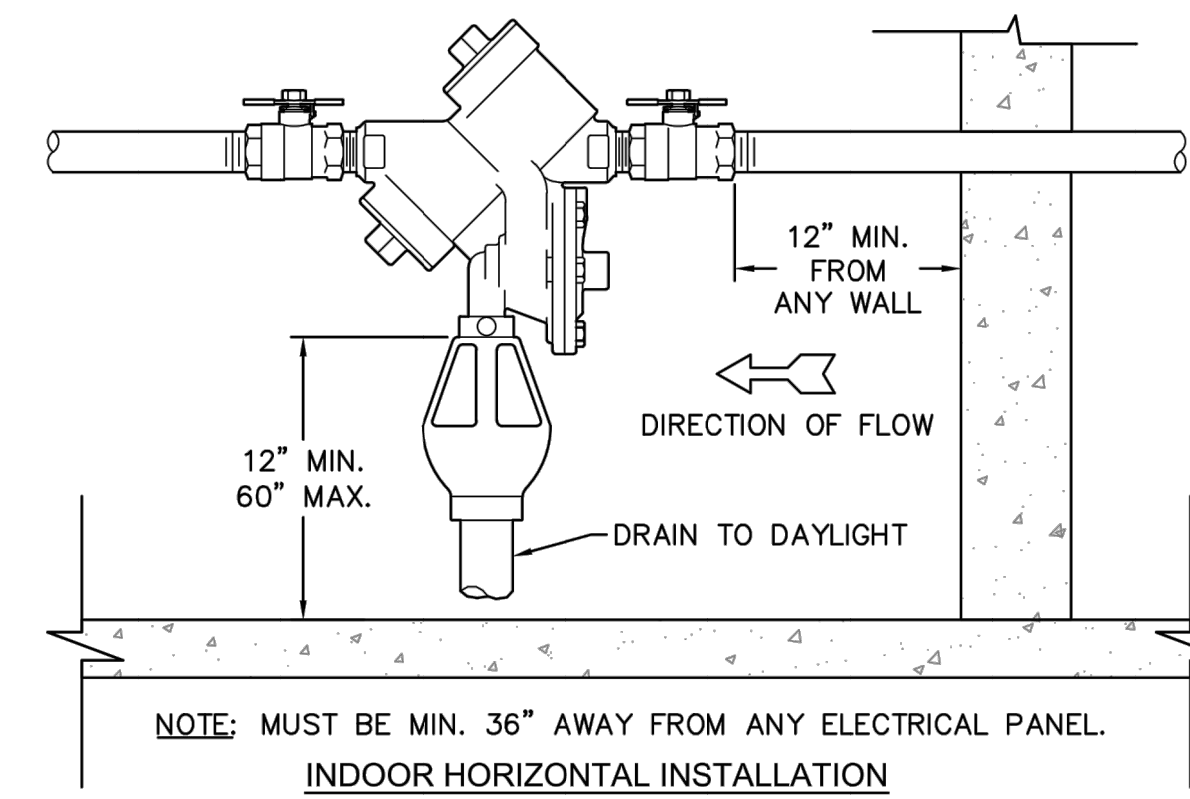
CAPE FEAR PUBLIC UTILITY AUTHORITY STANDARD NOTES:

- SEWER GUARDS REQUIRED AT ALL MANHOLES. STAINLESS STEEL SEWER GUARDS REQUIRED AT MANHOLES LOCATED IN TRAFFIC AREAS.
- WATER AND SEWER SERVICES SHALL BE PERPENDICULAR TO MAIN AND TERMINATE AT RIGHT-OF-WAY LINE. SEWER SERVICES IN CUL-DE-SACS ARE REQUIRED TO BE PERPENDICULAR, OR MUST ORIGINATE IN END OF LINE MANHOLE AND TERMINATE AT RIGHT-OF-WAY LINE.
- ALL SERVICES TYING INTO DUCTILE IRON MAINS SHALL BE CONSTRUCTED OF CLASS 50, DIP, WITH PROTECTO 401 CERAMIC EPOXY LINING.
- MINIMUM 10' UTILITIES EASEMENT PROVIDED ALONG THE FRONTAGE OF ALL LOTS AND AS SHOWN FOR NEW DEVELOPMENTS.
- NO FLEXIBLE COUPLINGS SHALL BE USED.
- ALL STAINLESS STEEL FASTENERS SHALL BE 316.
- CLEANOUTS SHALL BE LOCATED A MINIMUM OF 12 FEET FROM ALL PROPERTY CORNERS. WATER METER BOXES ARE TO BE A MINIMUM OF 5 FEET FROM THE PROPERTY CORNER.

WD-19 STANDARD NOTES
(REQUIRED ON ALL PLAN AND PROFILE SHEETS)



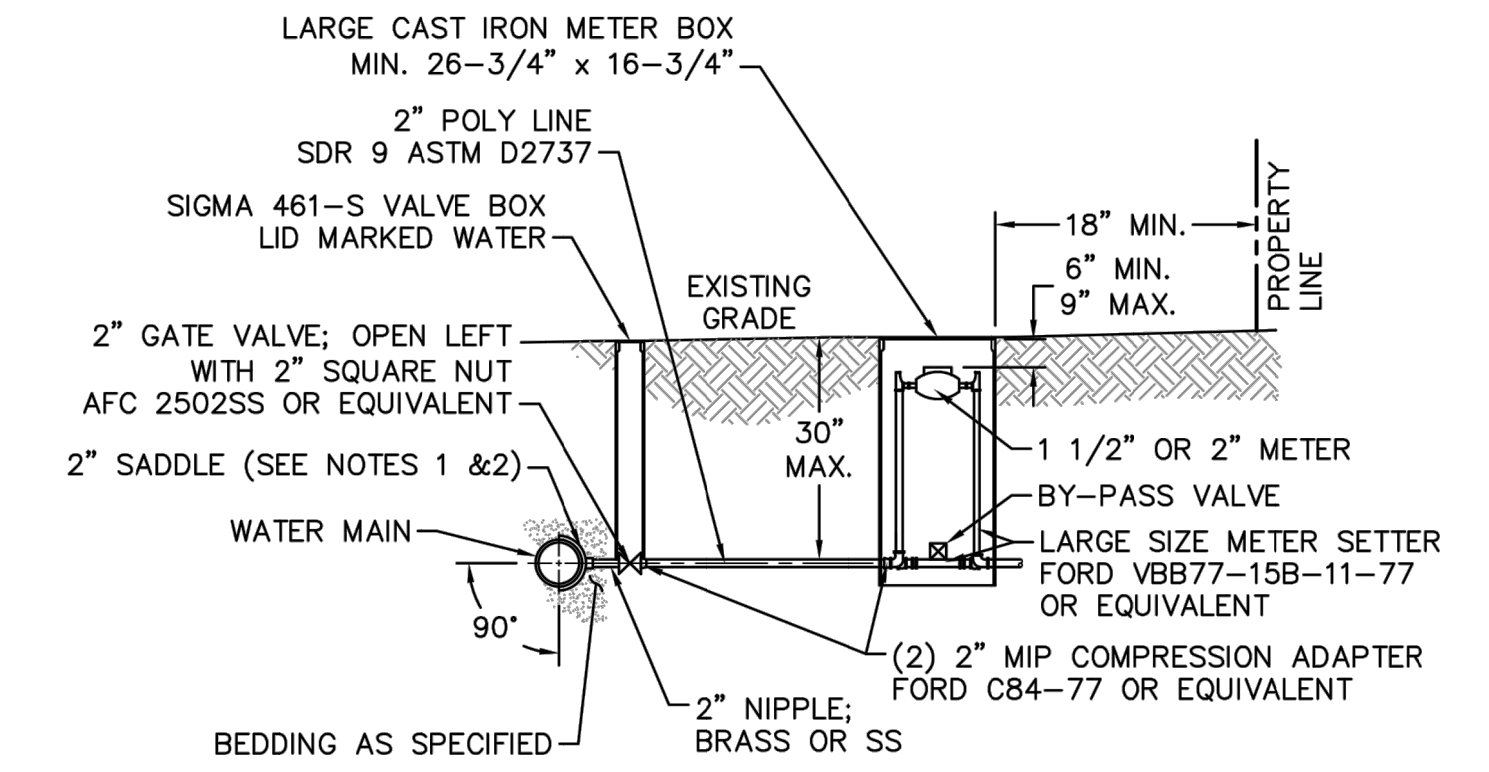
WD-1 WATER METER VAULT
NOT TO SCALE



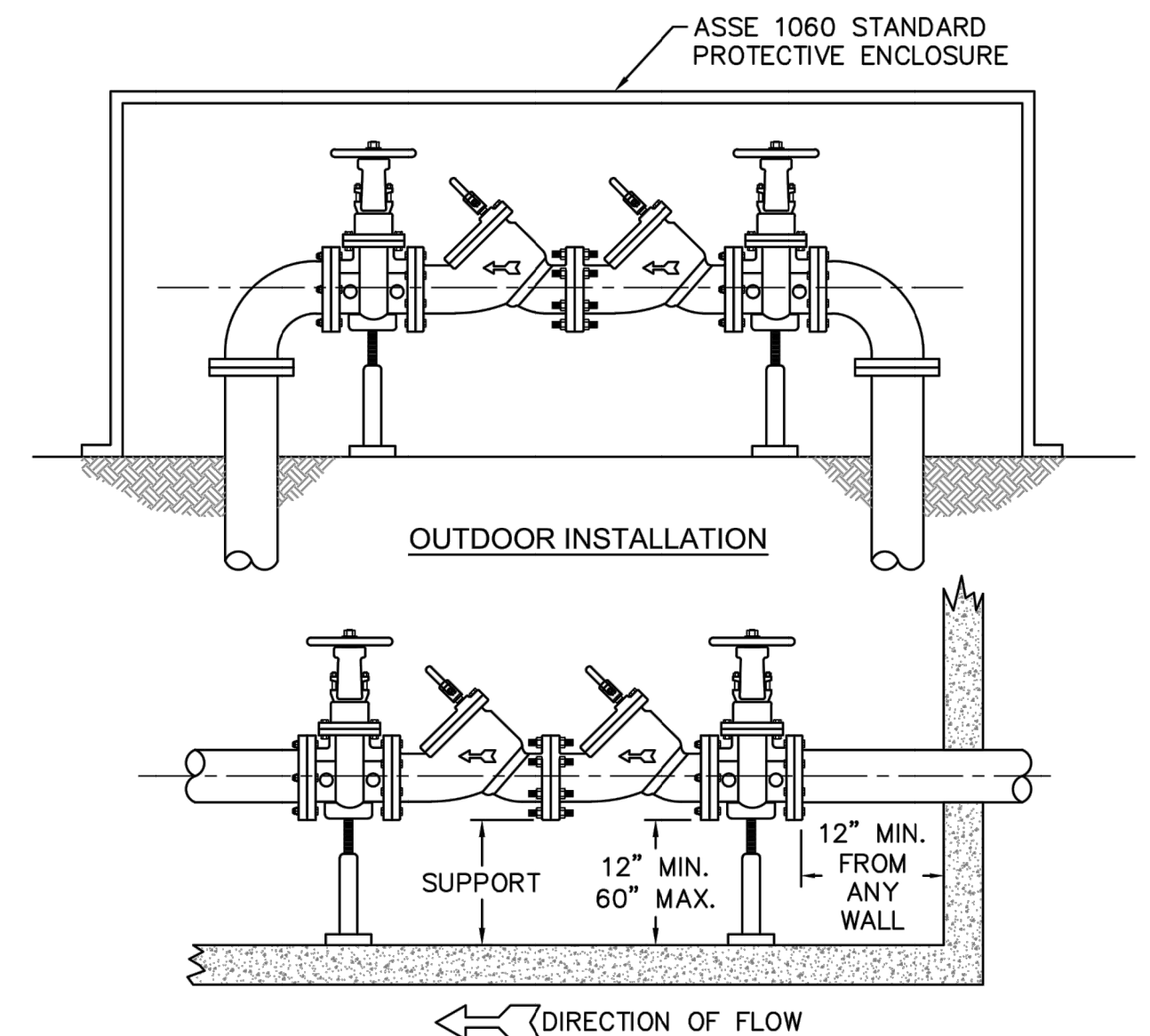
- NOTE:**
- MUST BE MIN. 36" AWAY FROM ANY ELECTRICAL PANEL.
 - VALVE REQUIRED DOWNSTREAM OF BACKFLOW ASSEMBLY.
 - VERTICAL INSTALLATION SHALL BE DESIGNED AND SUBMITTED TO CFPUA ESMD FOR APPROVAL.

WD-12 REDUCED PRESSURE PRINCIPLE ASSEMBLY
NOT TO SCALE

REV:	DESCRIPTION:	DATE:
1	Single Service Connection, Double Service Connection, and Large Meter Revised	10/26/12
2	Single Service Connection and Fire Hydrant Details Revised	7/23/13
3	Fire Hydrant Detail Revised	01/03/14
4	Revised Fire Hydrant Assembly To Show 5" STORZ Connection	04/10/15
5	Revised Fire Hydrant Assembly To Show Full DIP Hydrant Leg	01/19/16
6	Revised Water Meter Vault and Large Meter Details, Added Standard Notes	02/15/16



- NOTES:**
- ALL SERVICES SHALL BE INSTALLED PERPENDICULAR TO MAIN.
 - SERVICE SADDLES ON PVC MAINS SHALL BE WIDE BAND BRASS BODY: McDONALD 3800, FORD S90 (DOUBLE STRAP) OR EQUIVALENT.
 - METER BOXES SUSCEPTIBLE TO TRAFFIC SHALL CONFORM TO ASTM A48, CLASS 30B AND AASHTO H20 LOAD RATING STANDARDS (OLDCASTLE PRECAST MODEL B1730 OR APPROVED EQUIVALENT).
 - METER BOXES SUSCEPTIBLE TO INCIDENTAL, NON-DELIBERATE TRAFFIC SHALL CONFORM TO ANSI/SCTE 77 TIER 15 LOAD RATING STANDARDS (SYNERTECH MODEL DUO 17x30 OR APPROVED EQUIVALENT).
 - NON-TRAFFIC METER BOXES SHALL BE SIGMA MB2203 OR APPROVED EQUIVALENT.
 - 3" CLEAN FILL REQUIRED ALL AROUND 2" POLY SERVICE LINE.



- NOTE:**
- MUST BE MIN. 36" AWAY FROM ANY ELECTRICAL PANEL.
 - VALVE REQUIRED DOWNSTREAM OF BACKFLOW ASSEMBLY.
 - VERTICAL INSTALLATION SHALL BE DESIGNED AND SUBMITTED TO CFPUA ESMD FOR APPROVAL.

- GENERAL NOTES:**
- NO EXCAVATED MATERIAL SHALL BE PLACED IN ANY STREAM, DITCH OR DRAINAGE-WAY.
 - THE CONTRACTOR IS RESPONSIBLE FOR LOCATING ALL UNDERGROUND UTILITIES BEFORE ANY CONSTRUCTION BEGINS.
 - THE CONTRACTOR IS RESPONSIBLE FOR TEMPORARY SEDIMENT AND EROSION CONTROL MEASURES WHILE CONSTRUCTION IS IN PROGRESS.
 - THE CONTRACTOR IS RESPONSIBLE FOR STABILIZATION OF ALL DISTURBED AREAS.
 - THE CONTRACTOR IS RESPONSIBLE FOR LAY DOWN AND STOCKPILE AREAS (TO ARRANGE AND ENSURE COMPLIANCE WITH ALL LOCAL AND STATE REGULATIONS).

THE DETAILS SHOWN HEREON SUPERCEDE CFPUA WRITTEN TECHNICAL SPECIFICATIONS VERSIONS 1.00 - 1.04

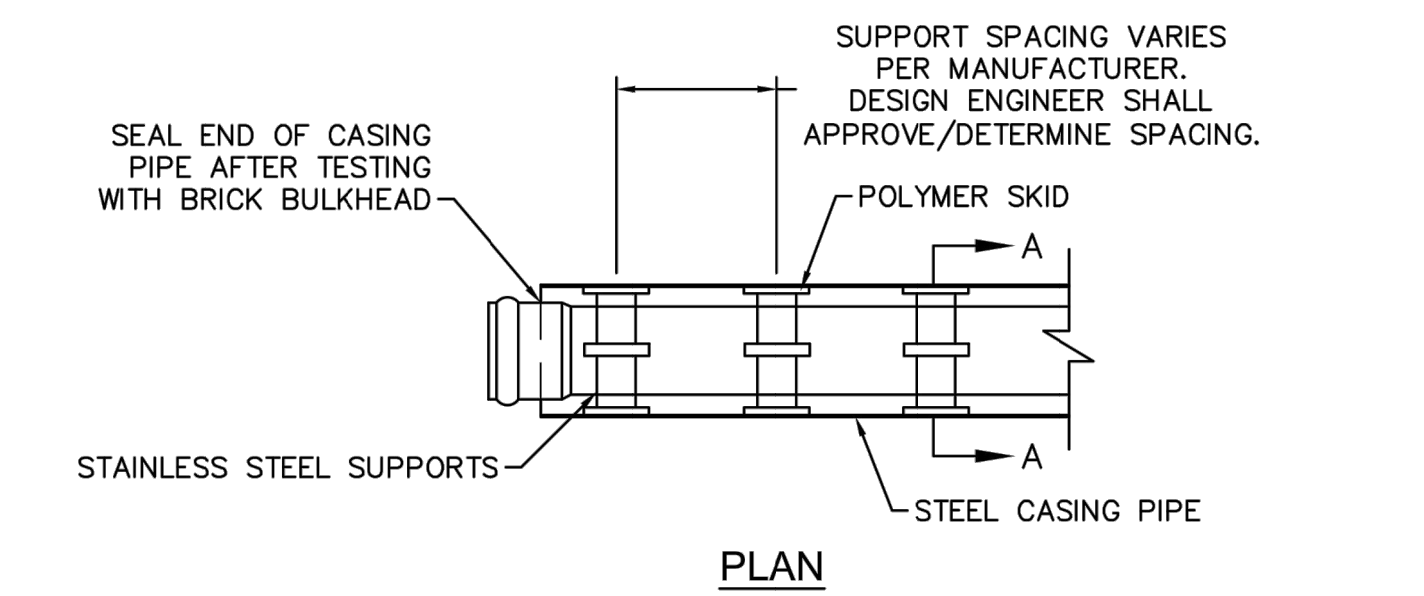
CFPUA WATER DISTRIBUTION SYSTEM

STANDARD DETAILS

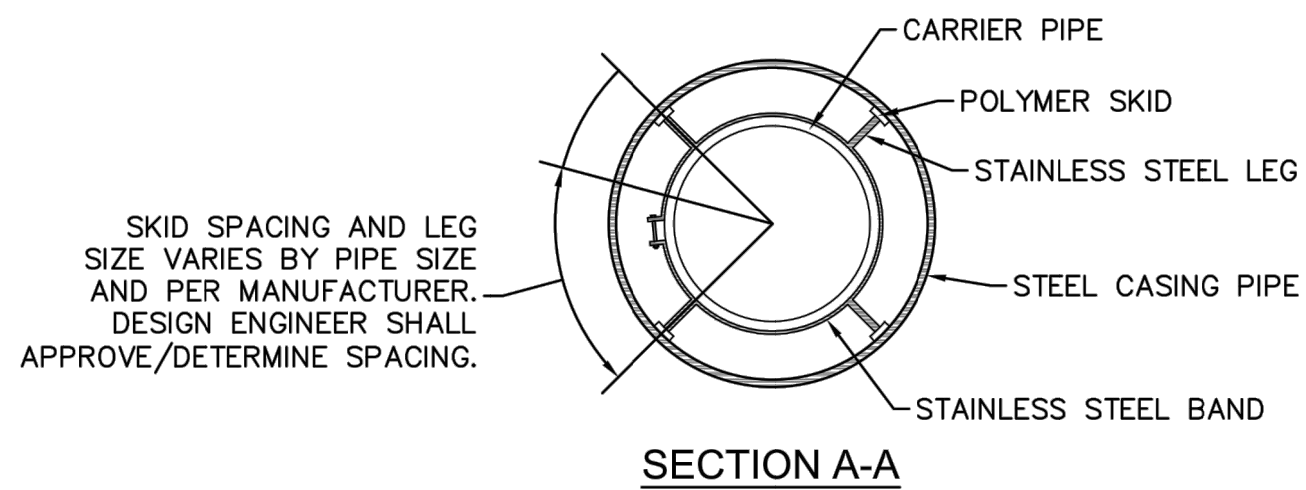
CAPE FEAR PUBLIC UTILITY AUTHORITY
235 GOVERNMENT CENTER DRIVE
WILMINGTON, NC 28403
OFFICE: (910)332-6560

DATE:
1/9/12
SCALE:
N/A
DRAWN BY:
CFPUA
CHECKED BY:
CFPUA
PROJECT NO.:

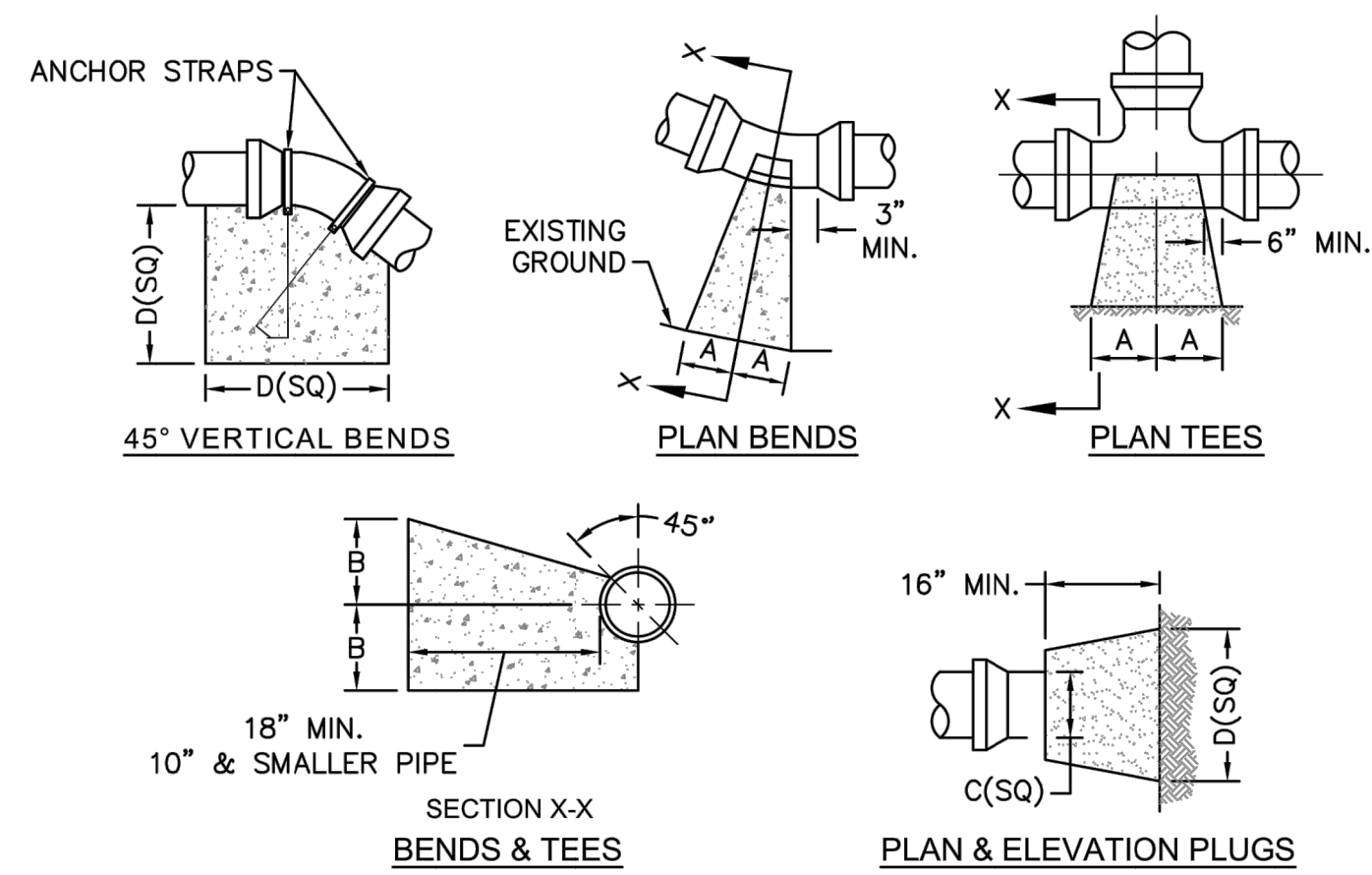
SHEET NO:
WSD-1



NOTE: PIPE SUPPORT TO BE PLACED TO PROVIDE PROPER SUPPORT, ALIGNMENT, AND GRADE AS SPECIFIED. CONTINUOUS SUPPORTS MAY BE USED AS ALTERNATIVE. OIL, GREASE, OR PETROLEUM PRODUCT MAY NOT BE USED AS LUBRICANT.



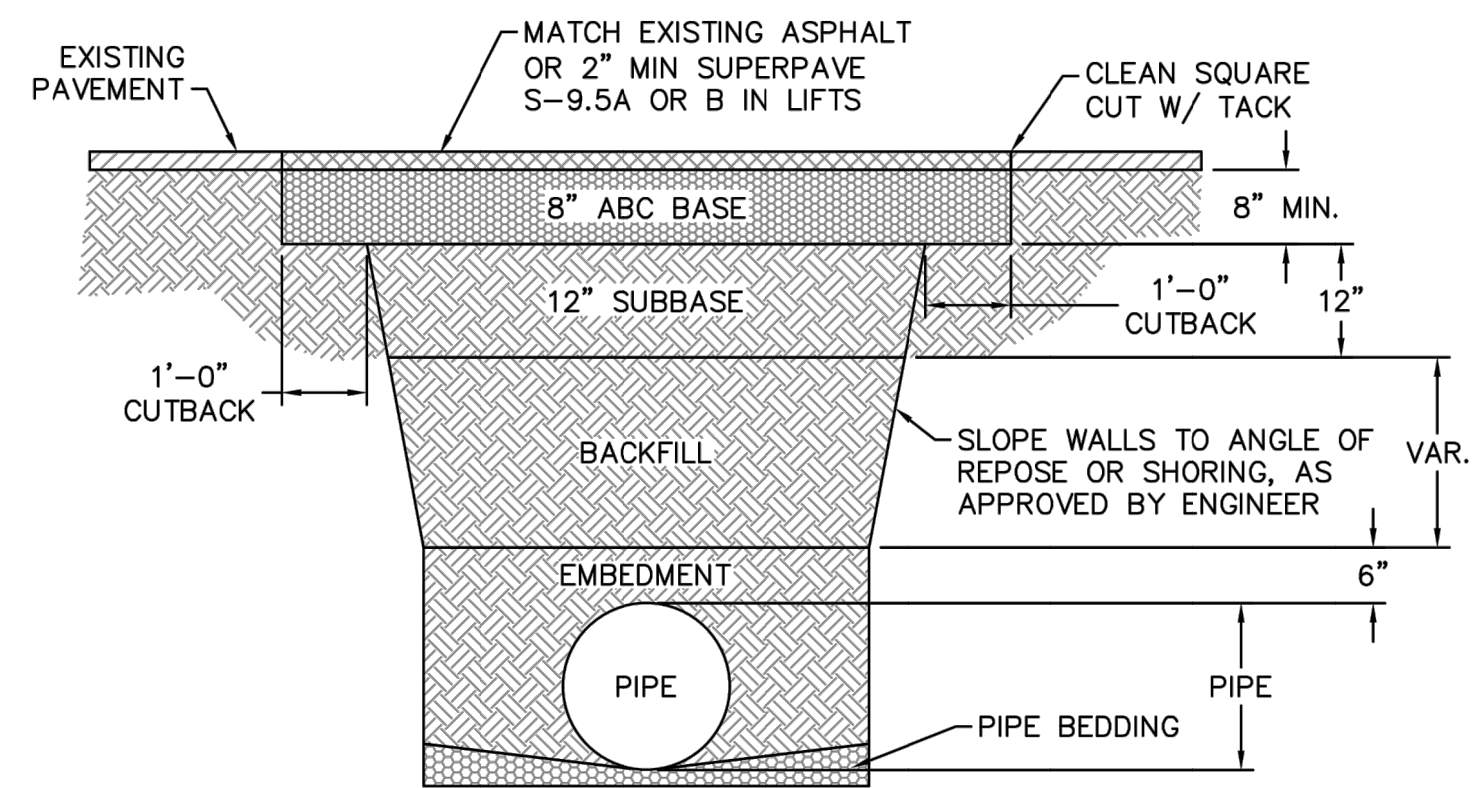
WD-15 PIPE CASING SUPPORT DETAIL
NOT TO SCALE



SIZE	90 BENDS		45 BENDS		22-1/2 BENDS		TEES/PLUGS		45 VERT. BENDS
	A	B	A	B	A	B	A	B	
3"	8"	6"	5"	6"	3"	7"	6"	8"	27"
4"	8"	9"	5"	8"	3"	11"	6"	9"	28"
6"	14"	11"	9"	9"	8"	8"	12"	9"	36"
8"	16"	16"	12"	12"	10"	13"	14"	13"	42"
10"	18"	22"	15"	14"	14"	16"	18"	15"	50"
12"	20"	28"	18"	17"	16"	16"	22"	18"	62"
14"	26"	29"	21"	19"	18"	18"	26"	20"	72"
16"	33"	29"	25"	21"	20"	21"	32"	21"	83"
18"	40"	30"	28"	24"	22"	23"	36"	24"	88"

NOTES:
1. BASED ON 160 PSI TEST PRESSURE AND 2000 PSF SOIL BEARING CAPACITY.
2. ALL BEARING SURFACES TO BE CARRIED TO UNDISTURBED GROUND.
3. USE MEG-A-LUG (PREFERRED) IN LIEU OF BLOCKING AND RODDING.

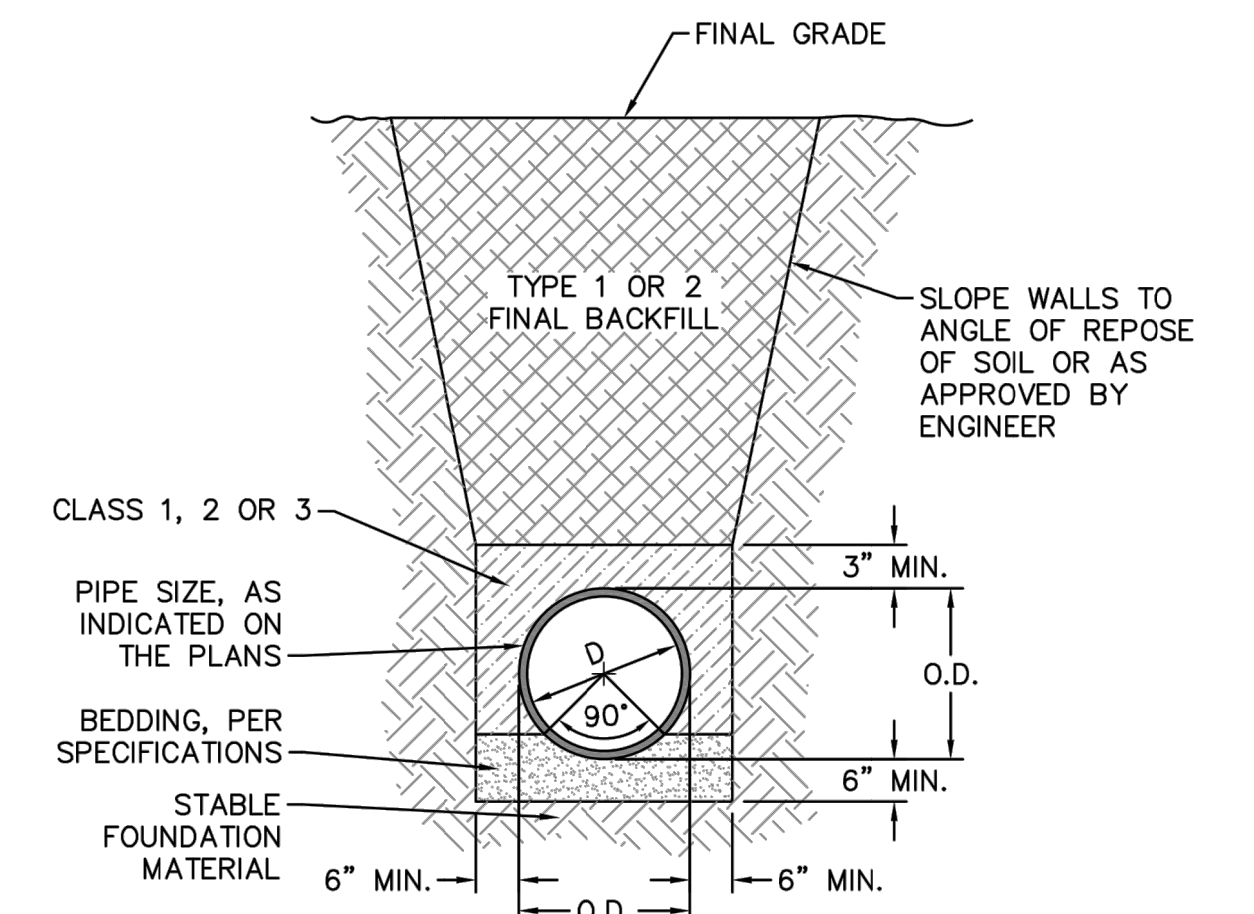
WD-4 THRUST BLOCK DETAIL
NOT TO SCALE



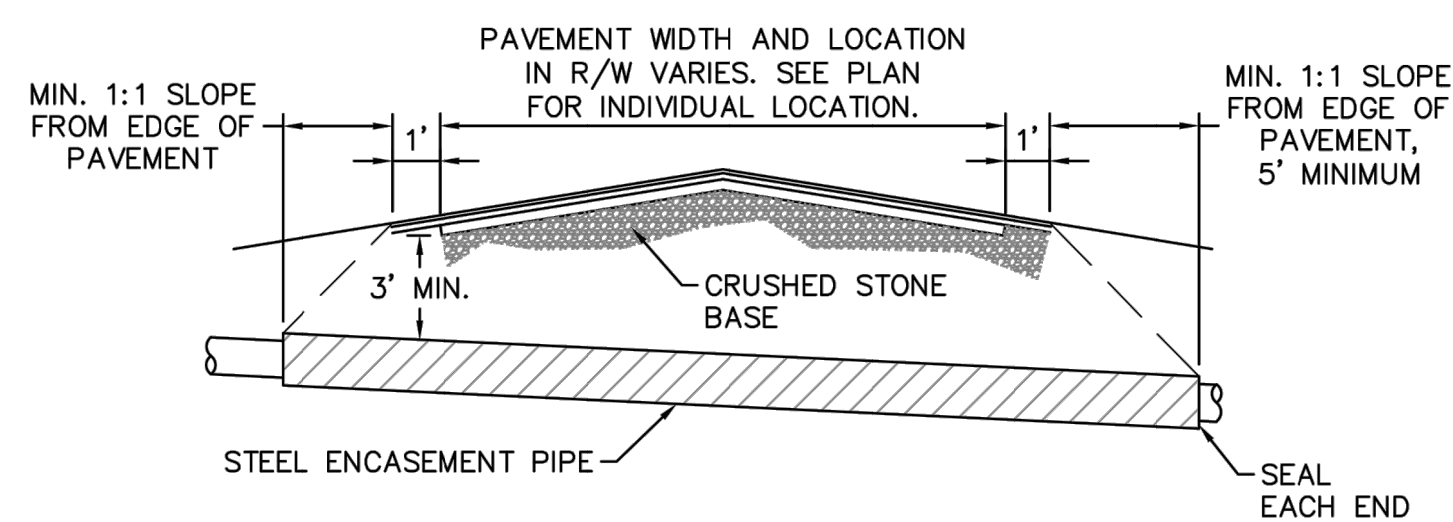
NOTES:
1. BACKFILL SHALL BE SUITABLE MATERIAL THAT IS FREE FROM HEAVY CLAY, GUMBOS, DEBRIS, ORGANICS AND LITTLE TO NO EXCESSIVE MOISTURE.
2. SELECT BACKFILL MAY BE SUBSTITUTED OR REQUIRED BY CITY TO ACHIEVE COMPACTION, (I.E. #57, ABC, CRUSHED LIMESTONE, CLEAN SAND, FLOWABLE FILL, ETC).
3. 8-INCH OF ABC BASE MATERIAL SHALL BE USED ON CITY STREETS.
4. BACKFILL AND BASE MATERIALS SHALL BE COMPACTED 12" MINIMUM LIFTS
5. SOIL SHALL BE COMPACTED BY A MECHANIZED TAMPER (I.E. JUMPING JACK). HOWEVER, VIBRATORY ROLLERS > 18" WIDTH MAY BE USED FOR LARGER EXCAVATIONS. THE PLATE TAMP METHOD SHALL NOT BE USED.
6. ALL APPROVED CASTINGS SHALL BE SET FLUSH TO GRADE AND SUPPORTED IF APPLICABLE.
7. ABC BASE AND SUBBASE COMPACTED TO 98% AND BACKFILL AND EMBEDMENT COMPACTED TO 90% AS DETERMINED BY THE MODIFIED PROCTOR AASHTO METHOD T-99.
8. 1-FOOT CUTBACKS OF ASPHALT SHALL BE PREPARED ON UNDISTURBED SOIL. MINIMUM ASPHALT DENSITY IS 90%.

(FOR PRIVATE ROADS AND PAVED AREAS; CONTRACTOR TO MEET MIN. REQUIREMENTS AS DEFINED BY RIGHT-OF-WAY OWNER FOR PUBLIC ROAD REPAIRS)

WD-14 PAVEMENT REPAIR WHERE PIPE INSTALLED
NOT TO SCALE

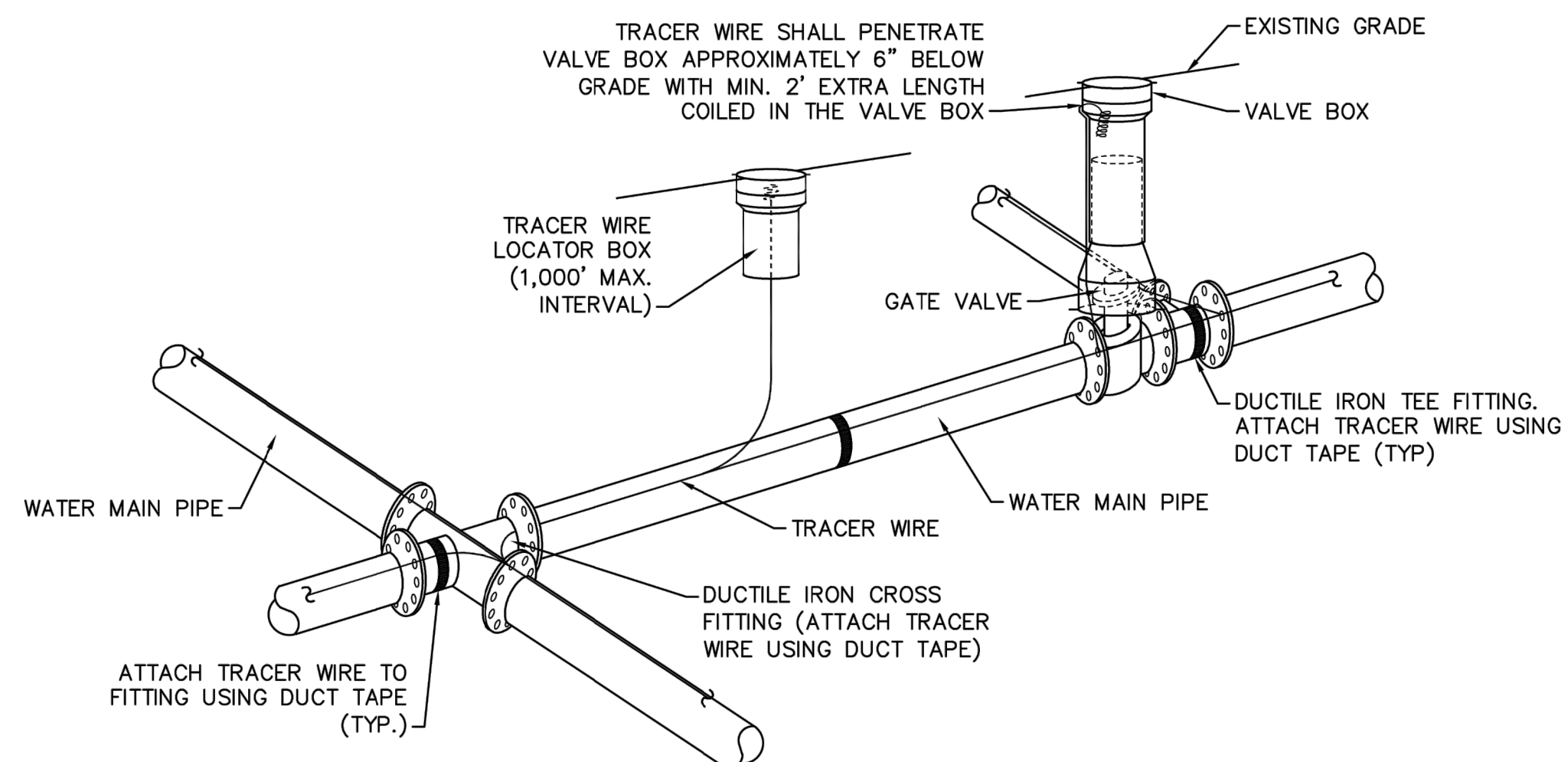


WD-13 TYPICAL TRENCH DETAIL
NOT TO SCALE



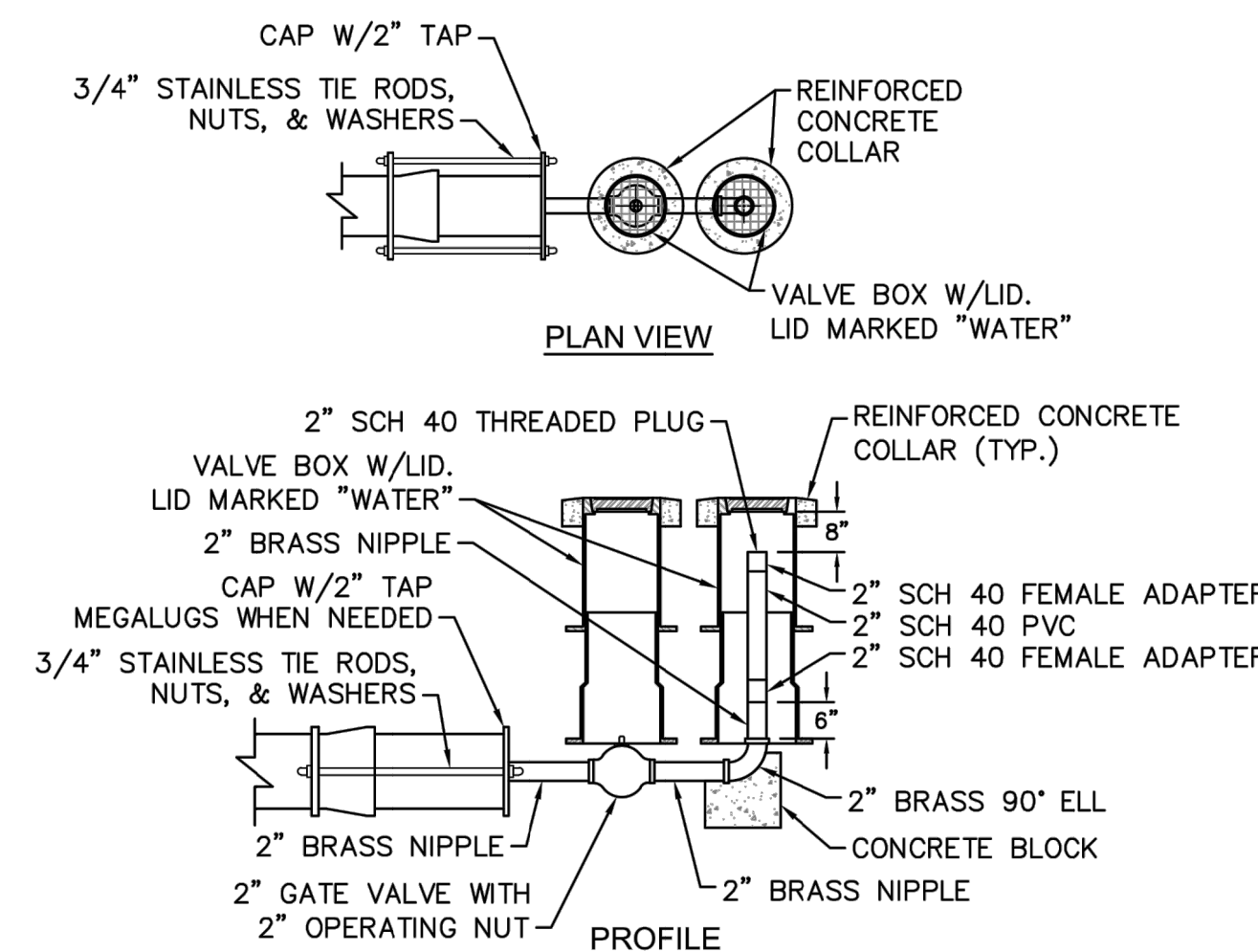
NOTES:
1. CASING WILL BE INSTALLED AT LINE AND GRADE SHOWN ON INDIVIDUAL PROFILE FOR EACH CROSSING. BORING/JACKING TO LINE AND GRADE IS REQUIRED.
2. TRACER WIRE SHALL BE CONTINUED THROUGH CASING.

WD-16 TYPICAL BORING/ JACKING DETAIL
NOT TO SCALE

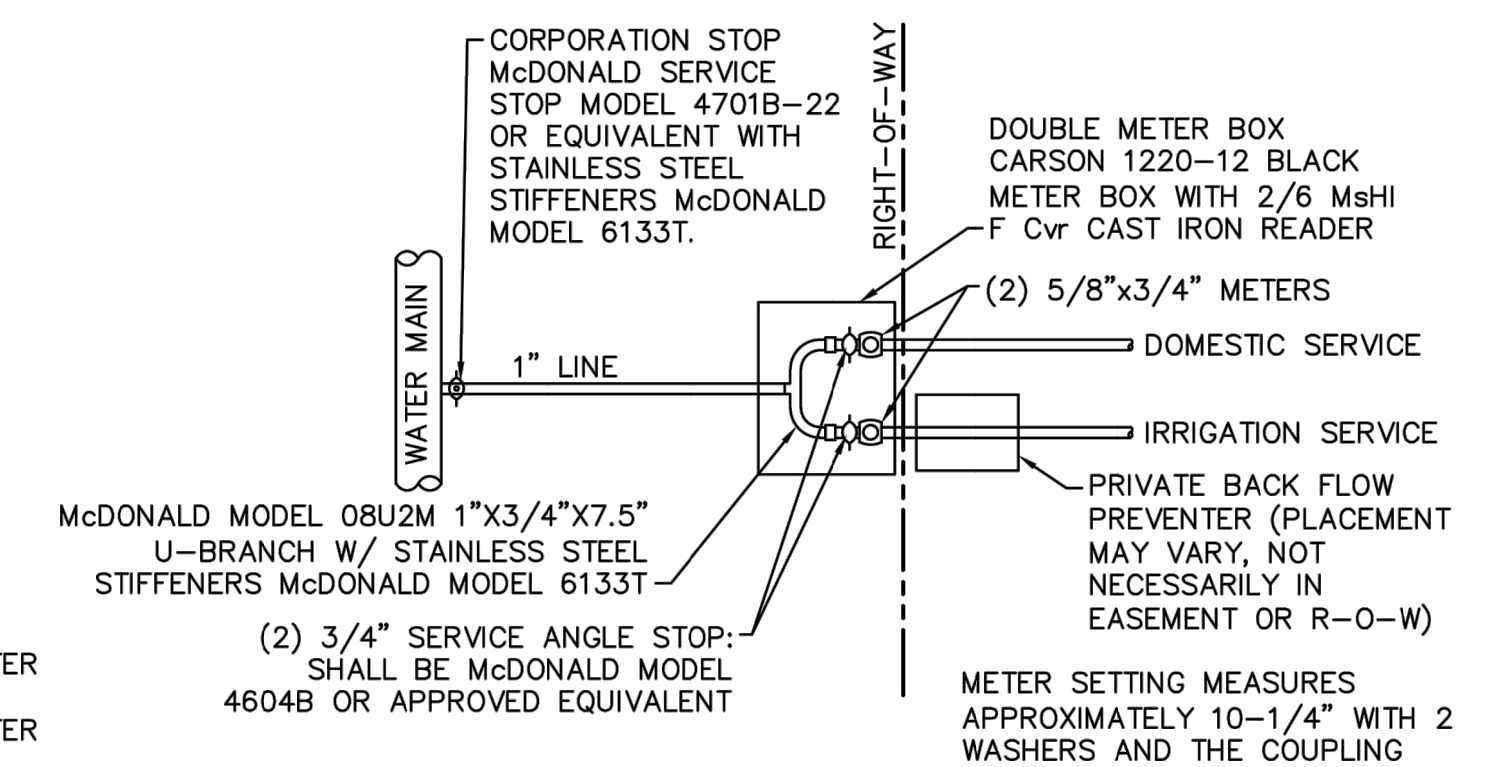


NOTES:
1. TRACER WIRE SHALL BE #10 COPPER SOLID CORE COPPER WIRE WITH GAS AND OIL RESISTANT INSULATION.
2. WIRE SHALL BE STRAPPED TO ALL PVC WATER MAIN PIPING WITH DUCT TAPE AT 12 FOOT INTERVALS ALONG THE PIPE.
3. SECURE WIRE TO ALL TEE AND CROSS FITTINGS WITH DUCT TAPE.
4. ALL SPLICES IN THE WIRE SHALL BE MADE WITH 3M DBR DIRECT BURY SPLICE KIT AN UNDERGROUND RATED, WATERTIGHT, AND APPROVED SPLICE CONNECTOR OR APPROVED EQUAL.

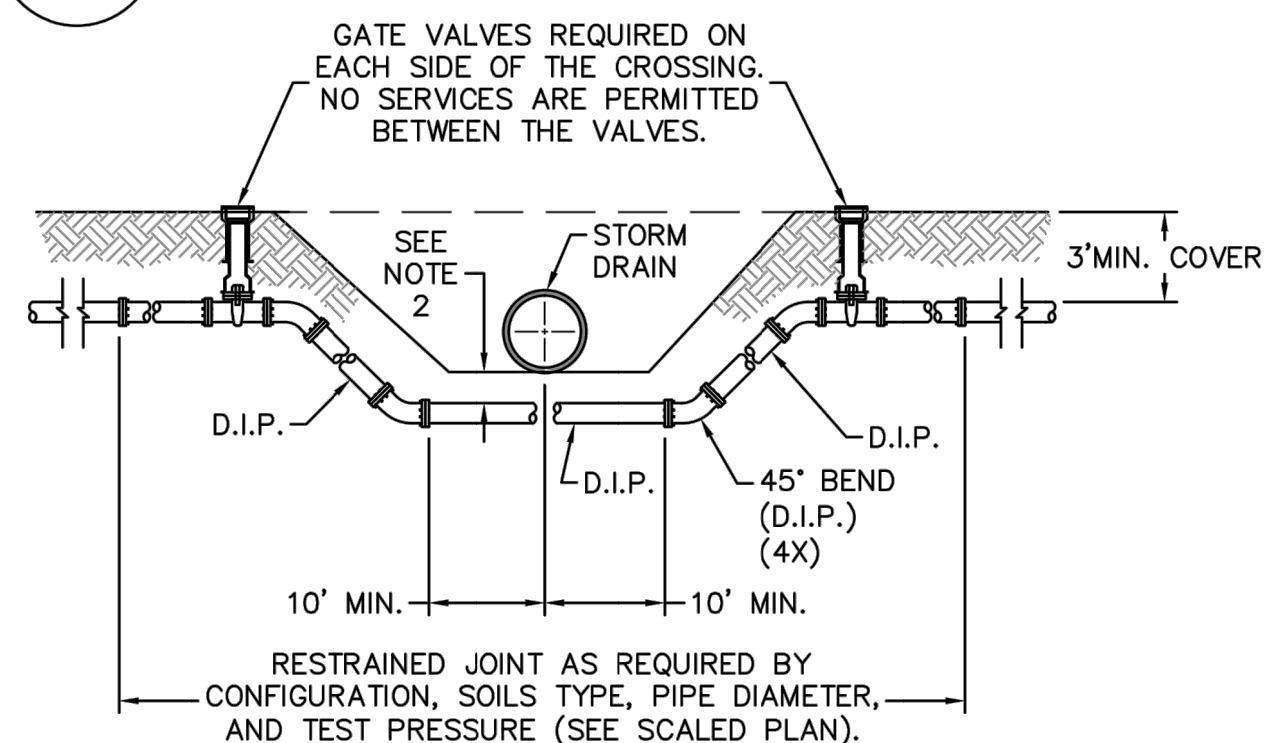
WD-17 TRACER WIRE DETAIL
NOT TO SCALE



WD-5 2" BLOW-OFF
NOT TO SCALE

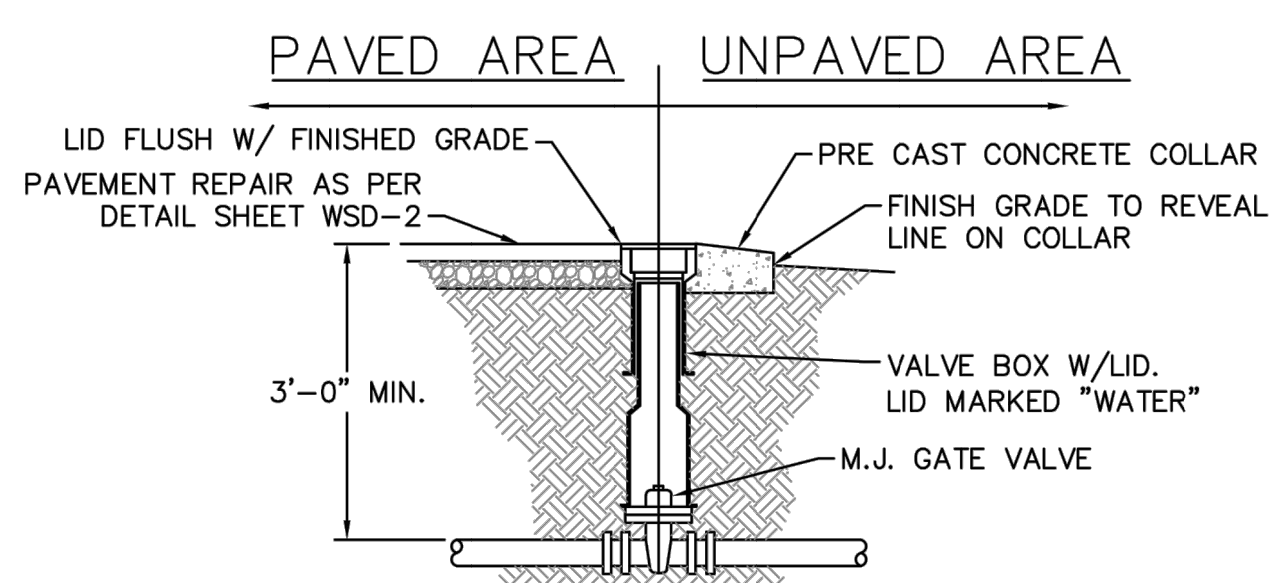


WD-9 DOUBLE SERVICE CONNECTION
NOT TO SCALE

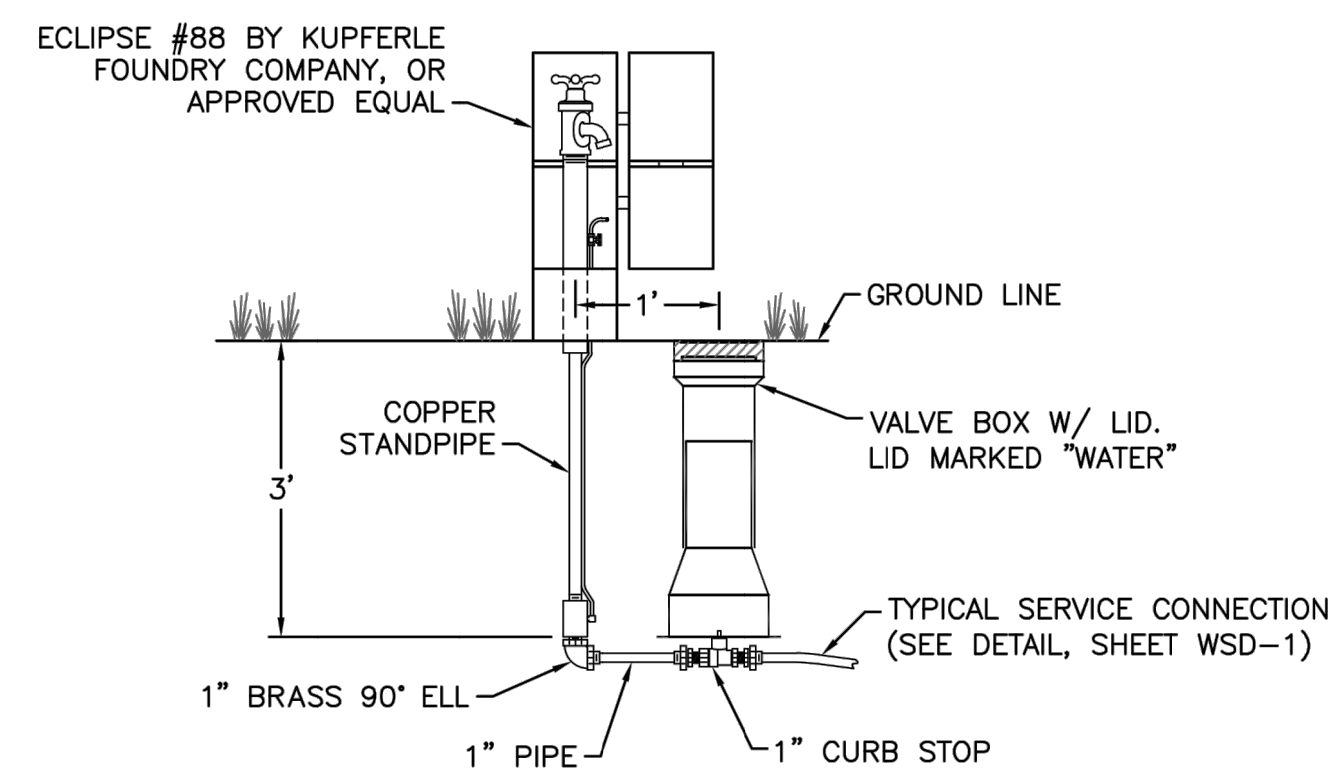


NOTES:
1. USE PRESSURE CLASS 350 DIP, UNLESS SPECIFIED OTHERWISE.
2. MINIMUM DEPTH REQUIRED, UNLESS SPECIFIED OTHERWISE BY CFPUA:
a. IN DOT R/W, 36" MIN. TYPICAL, OR 24" MIN. WHEN CROSSING A DITCH LINE.
b. ALL OTHER LOCATIONS, 30" MIN.
c. WHEN STORM DRAIN INVERT IS BURIED AT OR BELOW ABOVE DEPTHS, 18" MIN. CLEARANCE IS REQUIRED.

WD-2 WATER MAIN DITCH AND STORM DRAIN CROSSING
NOT TO SCALE



WD-3 VALVE DETAIL
NOT TO SCALE



WD-6 SAMPLING STATION
NOT TO SCALE

GENERAL NOTES:
1. NO EXCAVATED MATERIAL SHALL BE PLACED IN ANY STREAM, DITCH OR DRAINAGE-WAY.
2. THE CONTRACTOR IS RESPONSIBLE FOR LOCATING ALL UNDERGROUND UTILITIES BEFORE ANY CONSTRUCTION BEGINS.
3. THE CONTRACTOR IS RESPONSIBLE FOR TEMPORARY SEDIMENT AND EROSION CONTROL MEASURES WHILE CONSTRUCTION IS IN PROGRESS.
4. THE CONTRACTOR IS RESPONSIBLE FOR STABILIZATION OF ALL DISTURBED AREAS.
5. THE CONTRACTOR IS RESPONSIBLE FOR LAY DOWN AND STOCKPILE AREAS (TO ARRANGE AND ENSURE COMPLIANCE WITH ALL LOCAL AND STATE REGULATIONS).

THE DETAILS SHOWN HEREON SUPERCEDE CFPUA WRITTEN TECHNICAL SPECIFICATIONS VERSIONS 1.00 - 1.04

REV:	DESCRIPTION:	DATE:
1	Revised Water Main Ditch and Storm Crossing Detail	11/12/13
2	Revised Water Main Ditch and Storm Crossing Detail	05/05/14
3	Revised Tracer Wire Detail	10/20/15
4	Added Backflow Preventer to Double Service Connection Detail	02/01/16
5	Revised Sampling Station Detail	02/15/16

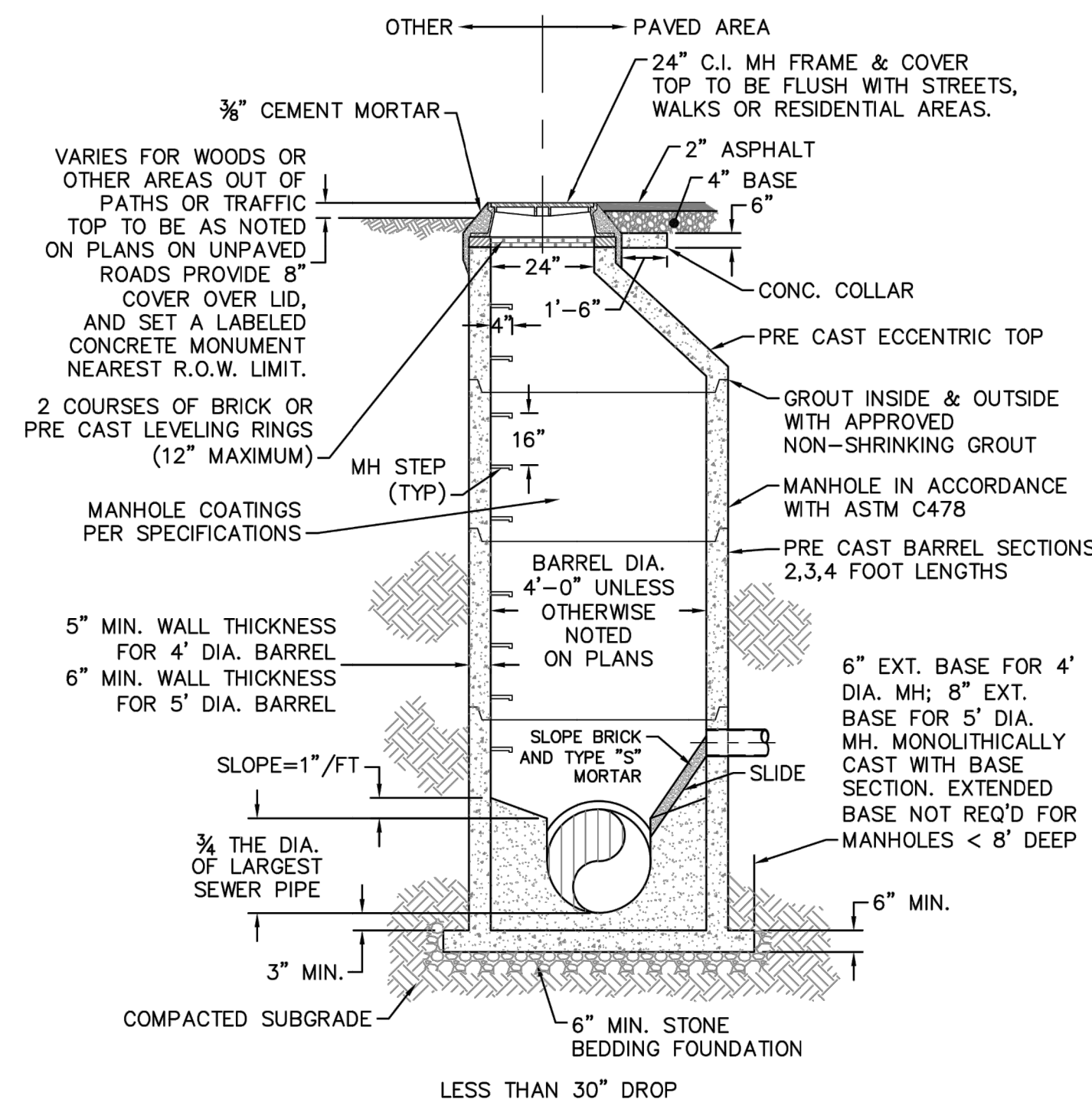
CFPUA WATER DISTRIBUTION SYSTEM

STANDARD DETAILS

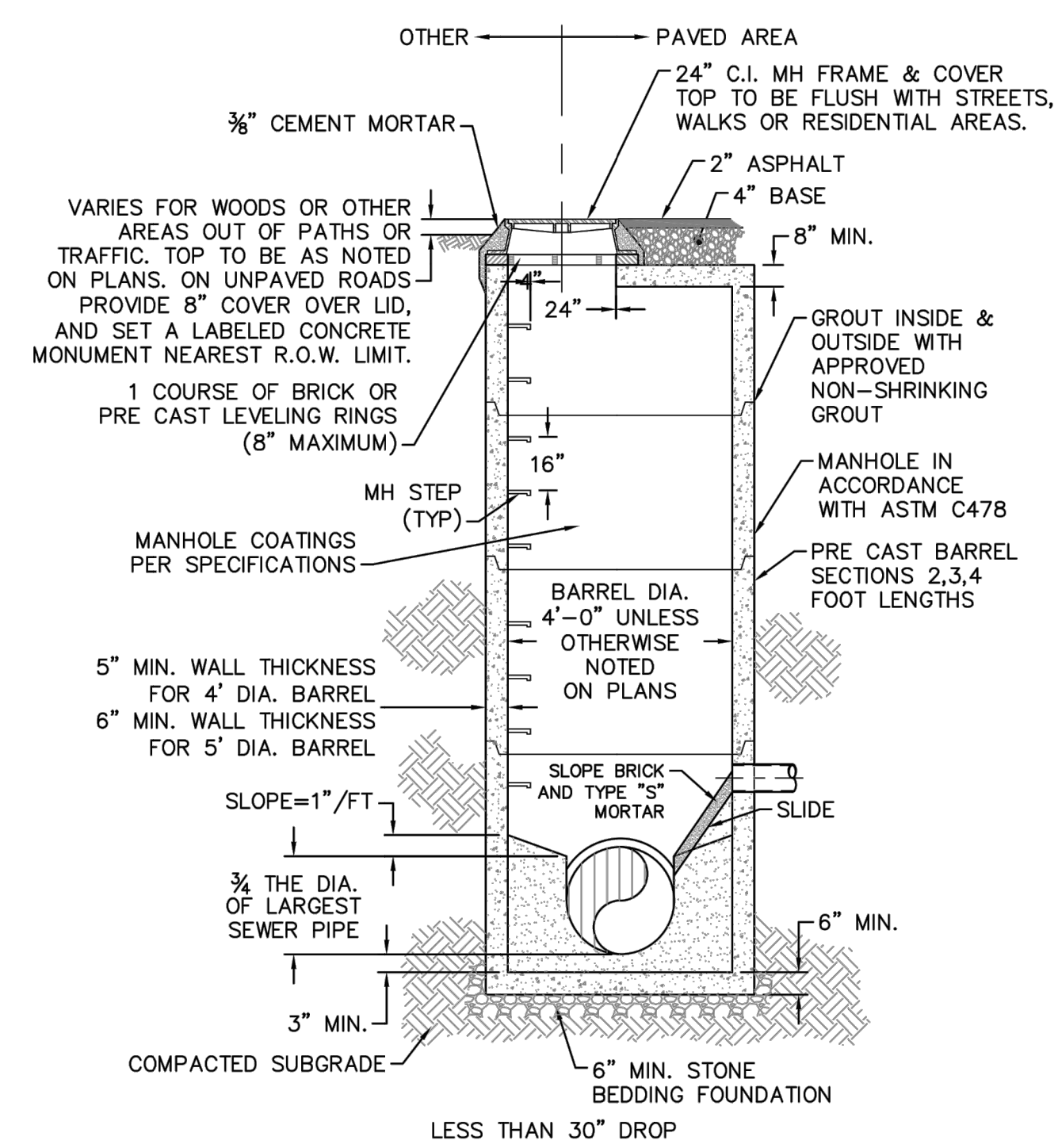
CAPE FEAR PUBLIC UTILITY AUTHORITY
235 GOVERNMENT CENTER DRIVE
WILMINGTON, NC 28403
OFFICE: (910)332-6560

DATE:
1/9/12
SCALE:
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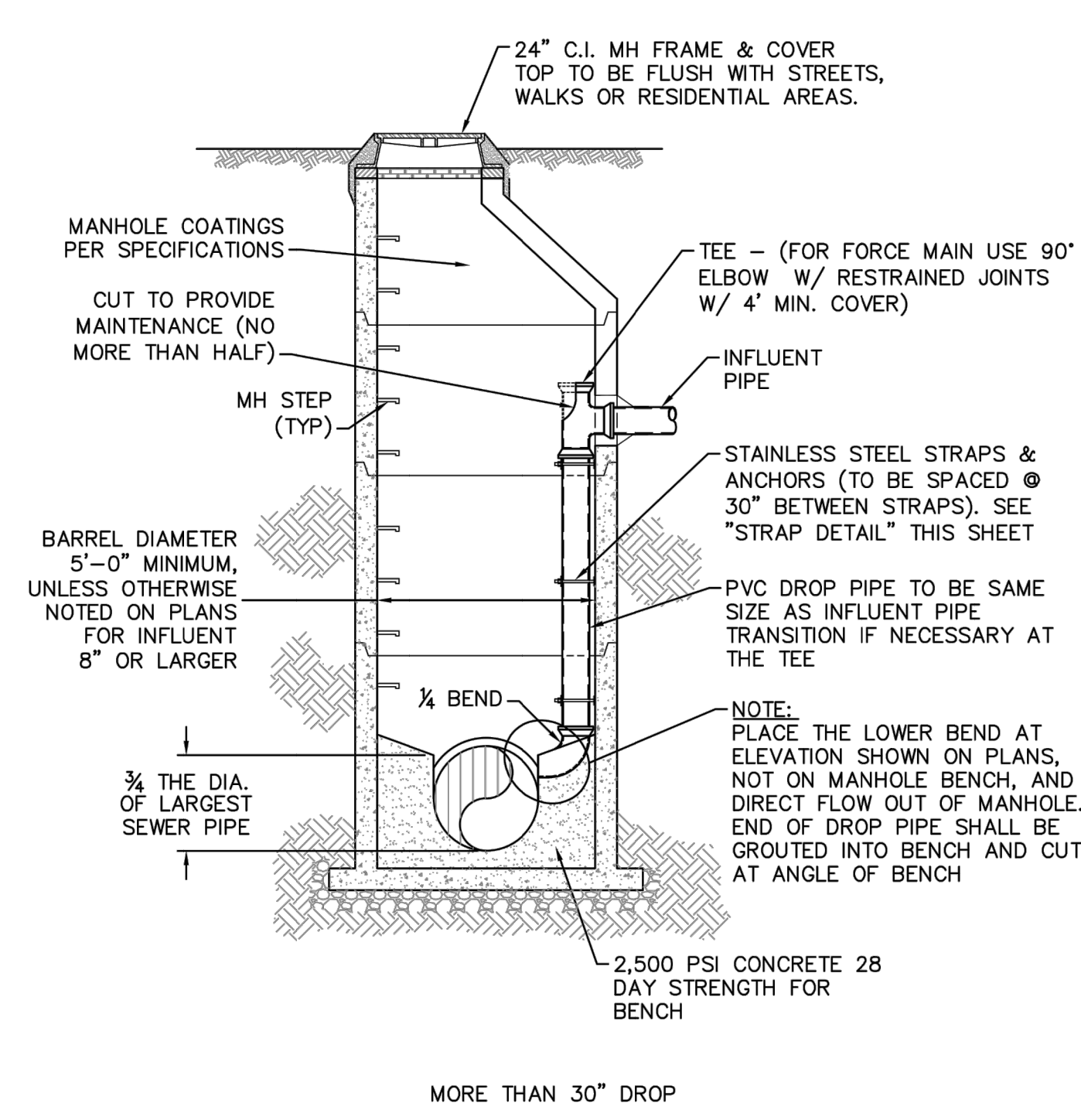
SHEET NO:
WSD-2



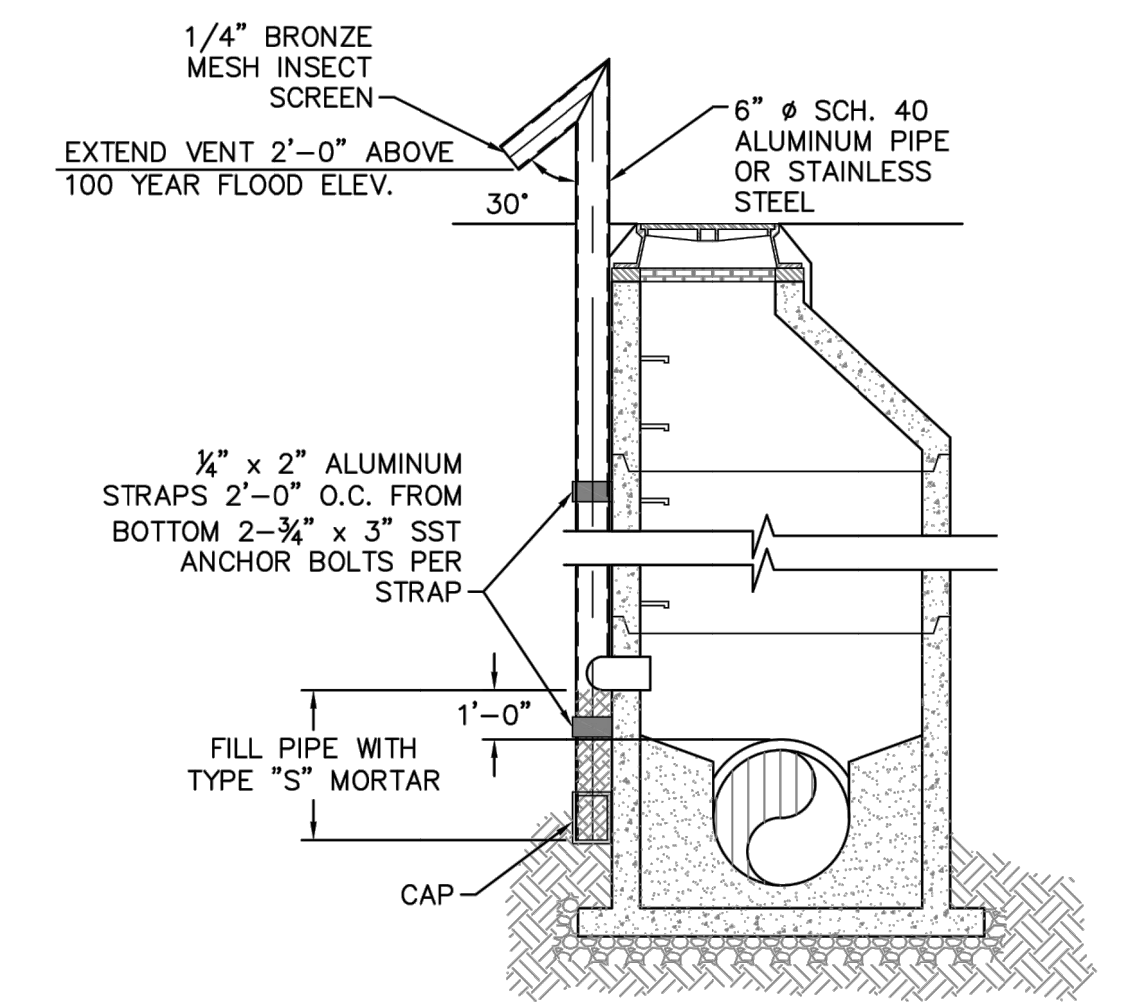
SD-1 PRECAST CONCRETE OFFSET MANHOLE TYPICAL
NOT TO SCALE



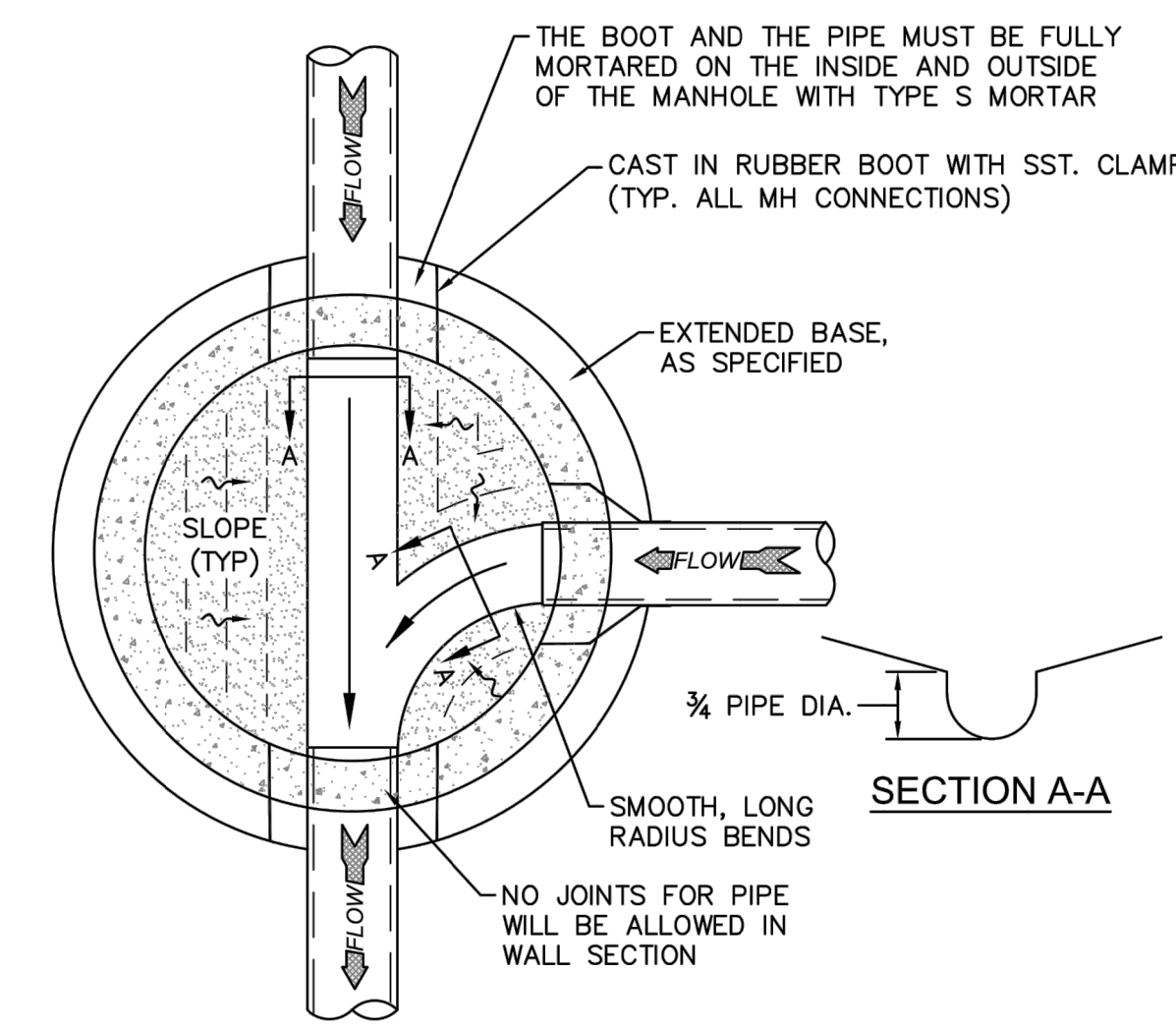
SD-2 PRECAST CONCRETE FLAT TOP MANHOLE TYPICAL
NOT TO SCALE



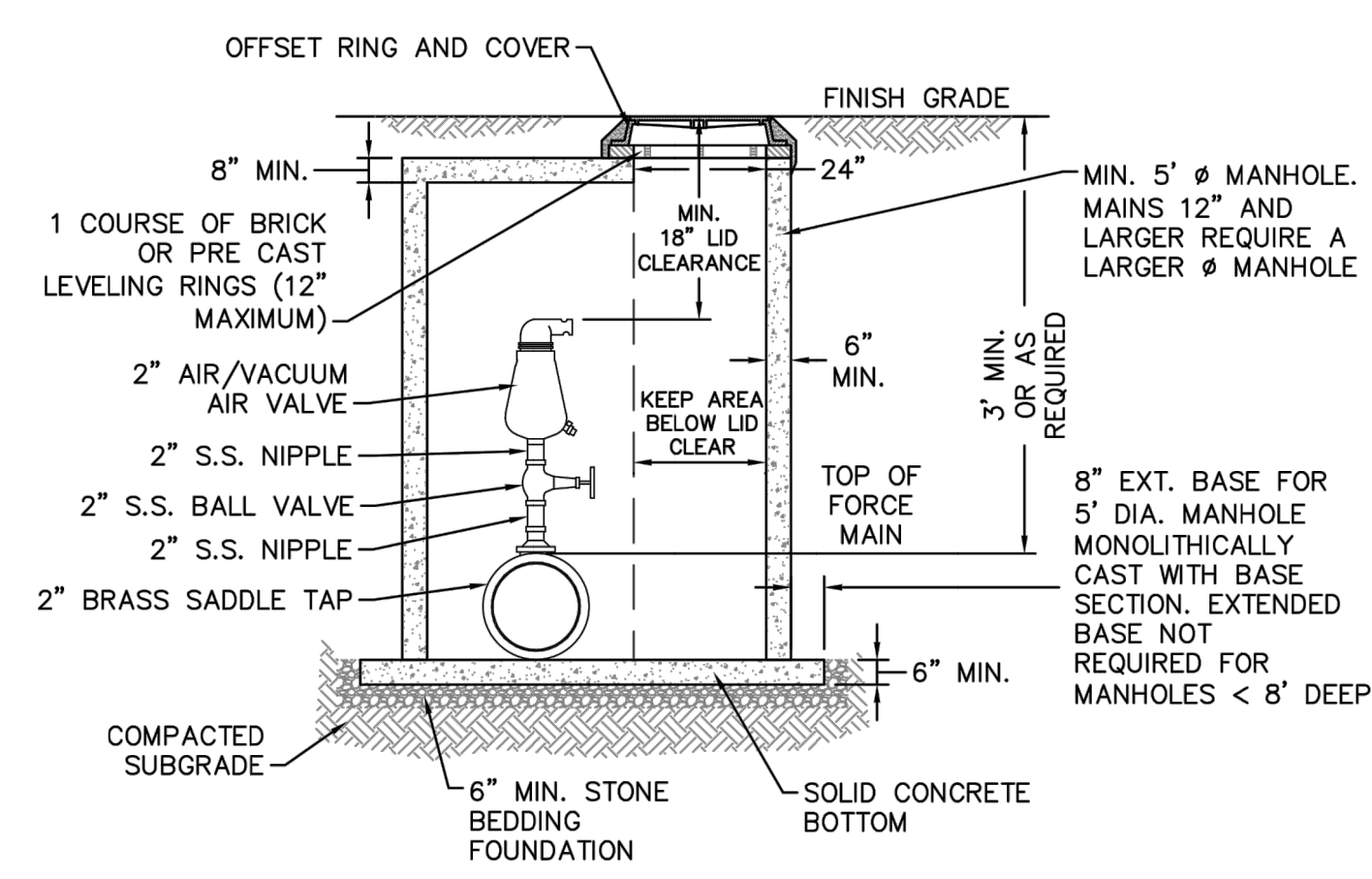
SD-3 DROP MANHOLE
NOT TO SCALE



SD-4 STANDARD VENT MANHOLE
NOT TO SCALE

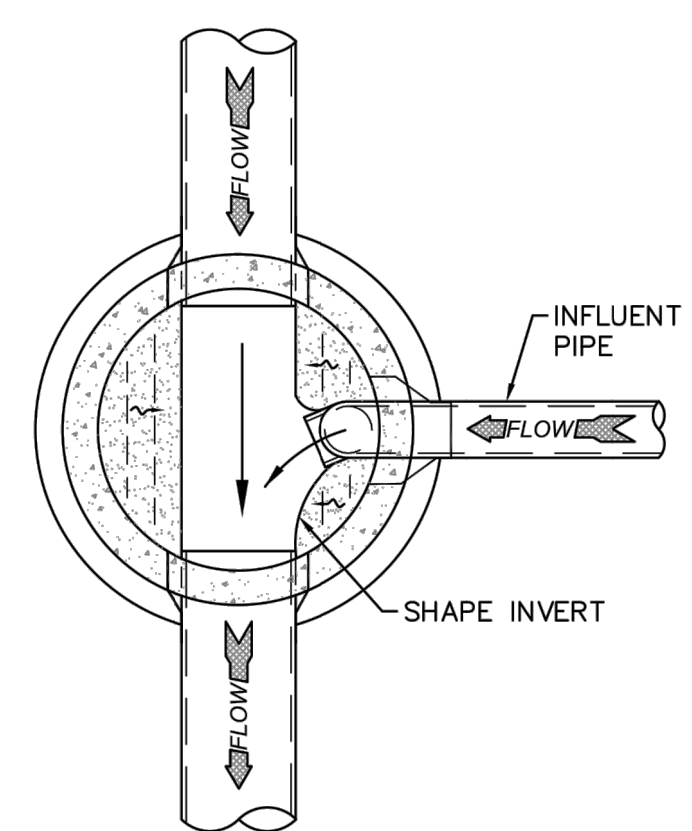


SD-5 MANHOLE FLOOR PLAN
NOT TO SCALE

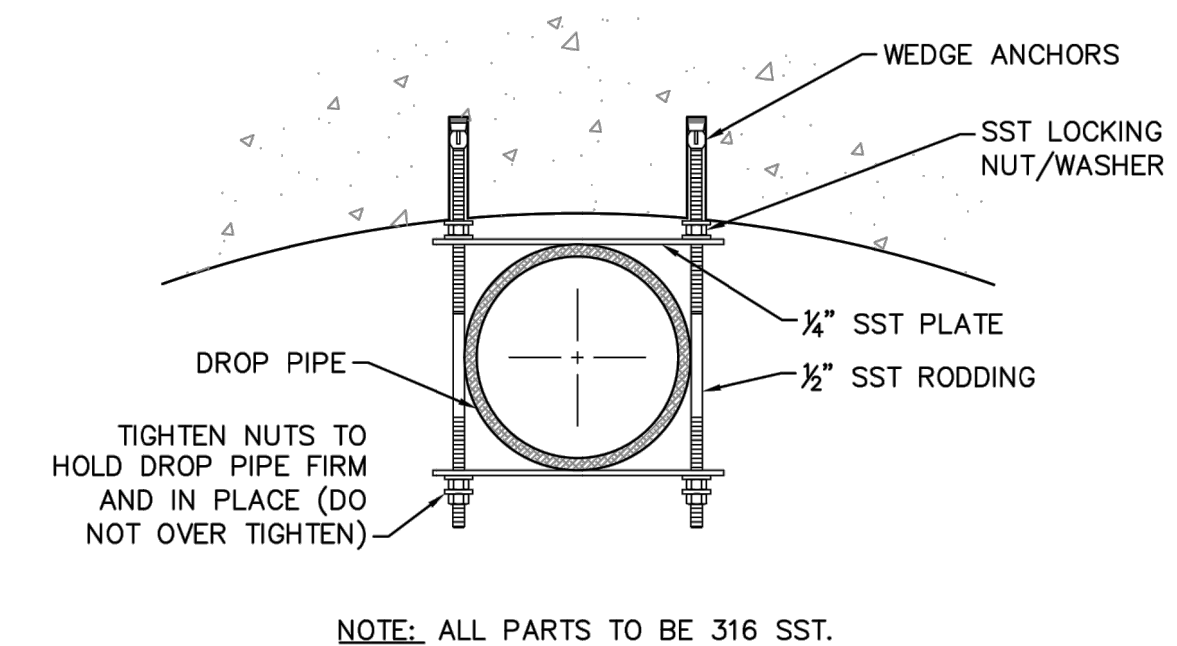


NOTES:
1. CONTRACTOR TO INSTALL VALVE AND MANHOLE AT SUFFICIENT DEPTH TO ALLOW FOR ACCESS.
2. FORCE MAIN TO BE OFFSET IN MANHOLE TO KEEP AREA BELOW LID CLEAR.
3. REFER TO SPECIFICATIONS FOR ADDITIONAL DETAILS.
4. USE CAST IN RUBBER BOOT WITH SST. CLAMPS FOR ALL MH CONNECTIONS, INCLUDING FORCE MAIN.

SD-6 AIR / VACUUM AND AIR RELEASE COMBINATION VALVE
NOT TO SCALE



SD-7 DROP MANHOLE FLOOR PLAN
NOT TO SCALE



SD-8 STRAP DETAIL
NOT TO SCALE

- CAPE FEAR PUBLIC UTILITY AUTHORITY STANDARD NOTES:**
- SEWER GUARDS REQUIRED AT ALL MANHOLES. STAINLESS STEEL SEWER GUARDS REQUIRED AT MANHOLES LOCATED IN TRAFFIC AREAS.
 - WATER AND SEWER SERVICES SHALL BE PERPENDICULAR TO MAIN AND TERMINATE AT RIGHT-OF-WAY LINE. SEWER SERVICES IN CUL-DE-SACS ARE REQUIRED TO BE PERPENDICULAR, OR MUST ORIGINATE IN END OF LINE MANHOLE AND TERMINATE AT RIGHT-OF-WAY LINE.
 - ALL SERVICES TYING INTO DUCTILE IRON MAINS SHALL BE CONSTRUCTED OF CLASS 50, DIP, WITH PROTECTO 401 CERAMIC EPOXY LINING.
 - MINIMUM 10' UTILITIES EASEMENT PROVIDED ALONG THE FRONTAGE OF ALL LOTS AND AS SHOWN FOR NEW DEVELOPMENTS.
 - NO FLEXIBLE COUPLINGS SHALL BE USED.
 - ALL STAINLESS STEEL FASTENERS SHALL BE 316.
 - CLEANOUTS SHALL BE LOCATED A MINIMUM OF 12 FEET FROM ALL PROPERTY CORNERS. WATER METER BOXES ARE TO BE A MINIMUM OF 5 FEET FROM THE PROPERTY CORNER.

SD-9 STANDARD NOTES
(REQUIRED ON ALL PLAN AND PROFILE SHEETS)

- GENERAL NOTES:**
- NO EXCAVATED MATERIAL SHALL BE PLACED IN ANY STREAM, DITCH OR DRAINAGE-WAY.
 - THE CONTRACTOR IS RESPONSIBLE FOR LOCATING ALL UNDERGROUND UTILITIES BEFORE ANY CONSTRUCTION BEGINS.
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THE DETAILS SHOWN HEREON SUPERCEDE CFPUA WRITTEN TECHNICAL SPECIFICATIONS VERSIONS 1.00 - 1.04

REV:	DESCRIPTION:	DATE:
1	AIR / VACUUM AND AIR RELEASE COMBINATION VALVE REVISED	10/26/12
2	STANDARD SEWER NOTE #6 REVISED	12/10/12
3	REVISED STANDARD VENT MANHOLE TO EXTEND VENT 2'-0" ABOVE 100 YR FLOOD	11/20/14
4	Revised Multiple Details	02/15/16

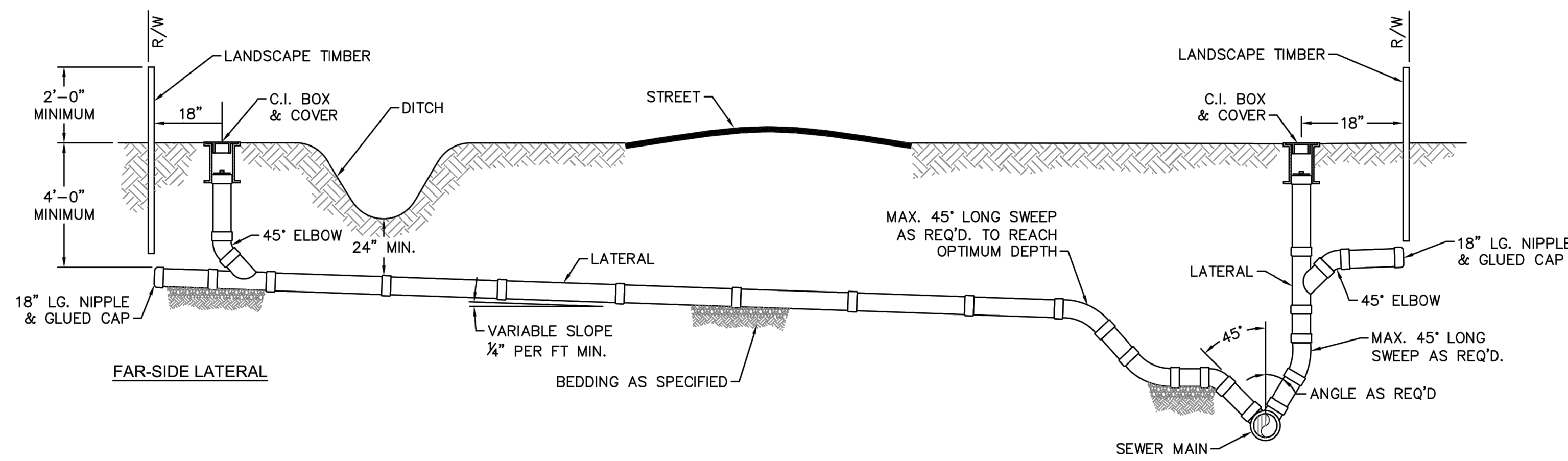
CFPUA SANITARY SEWER

STANDARD DETAILS

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235 GOVERNMENT CENTER DRIVE
WILMINGTON, NC 28403
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NOTE: FOR PRIVATE 8" SERVICES, MANHOLES ARE REQUIRED FOR TIE-IN TO MAIN

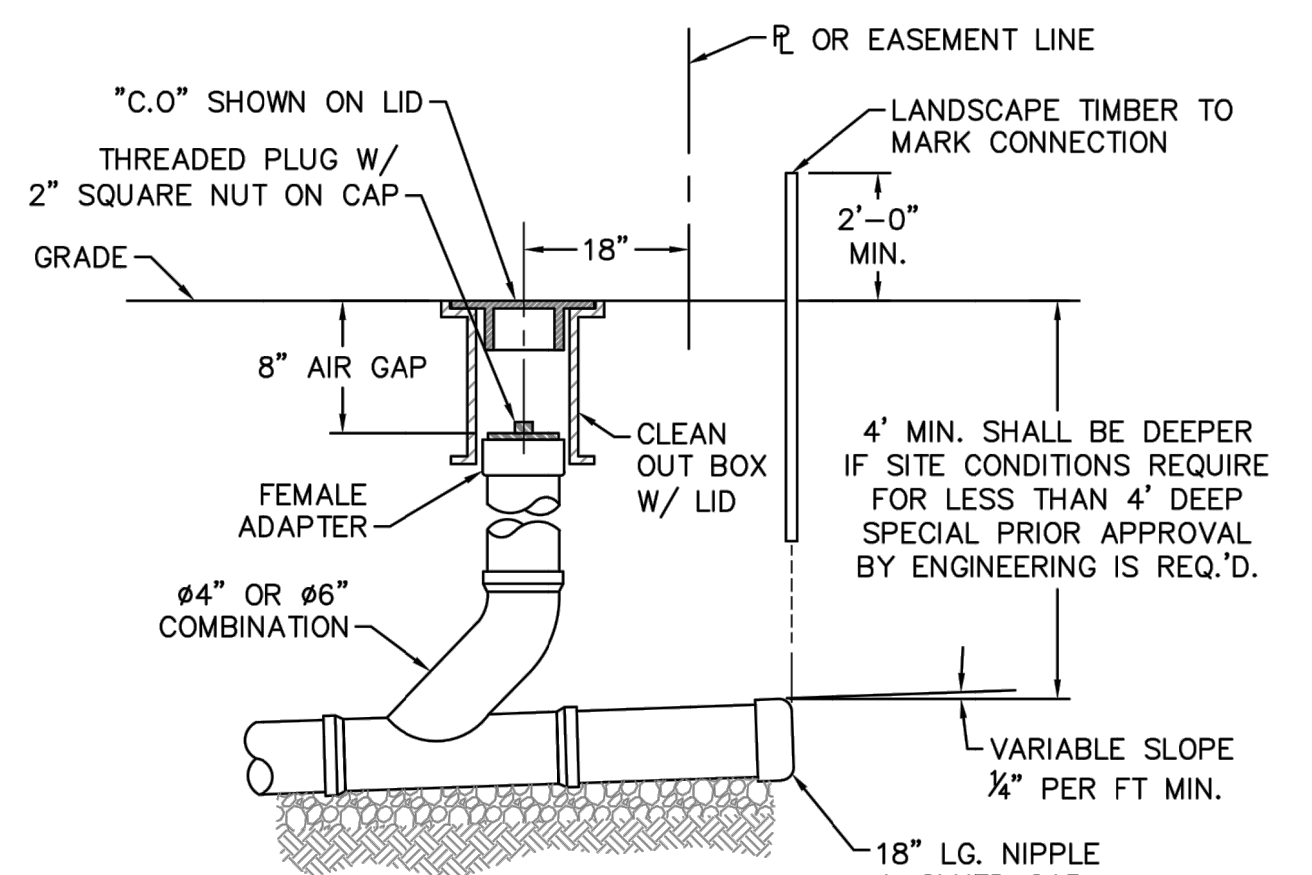
STANDARD SERVICE CONNECTION TO SANITARY SEWER

SD-19 NOT TO SCALE

NOTE: FOR PRIVATE 8" SERVICES, MANHOLES ARE REQUIRED FOR CONNECTION TO SYSTEM AND AT THE PROPERTY LINE, WITH REQUIRED EASEMENT.

STANDARD SERVICE LATERAL

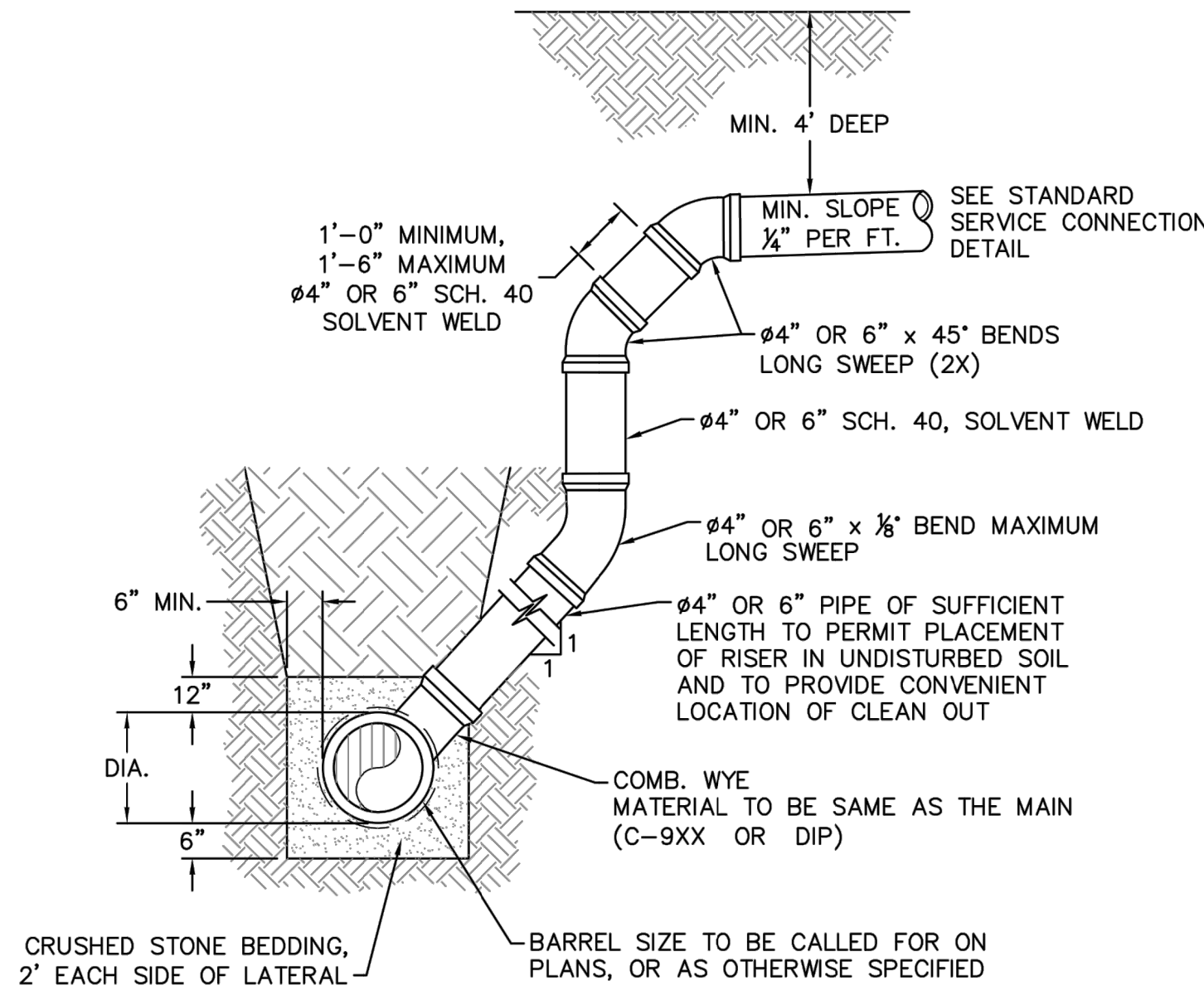
SD-10 NOT TO SCALE



NOTE: FOR PRIVATE 8" SERVICES, MANHOLES ARE REQUIRED FOR CONNECTION TO SYSTEM AND AT THE PROPERTY LINE, WITH REQUIRED EASEMENT.

SERVICE CONNECTION AND CLEAN-OUT

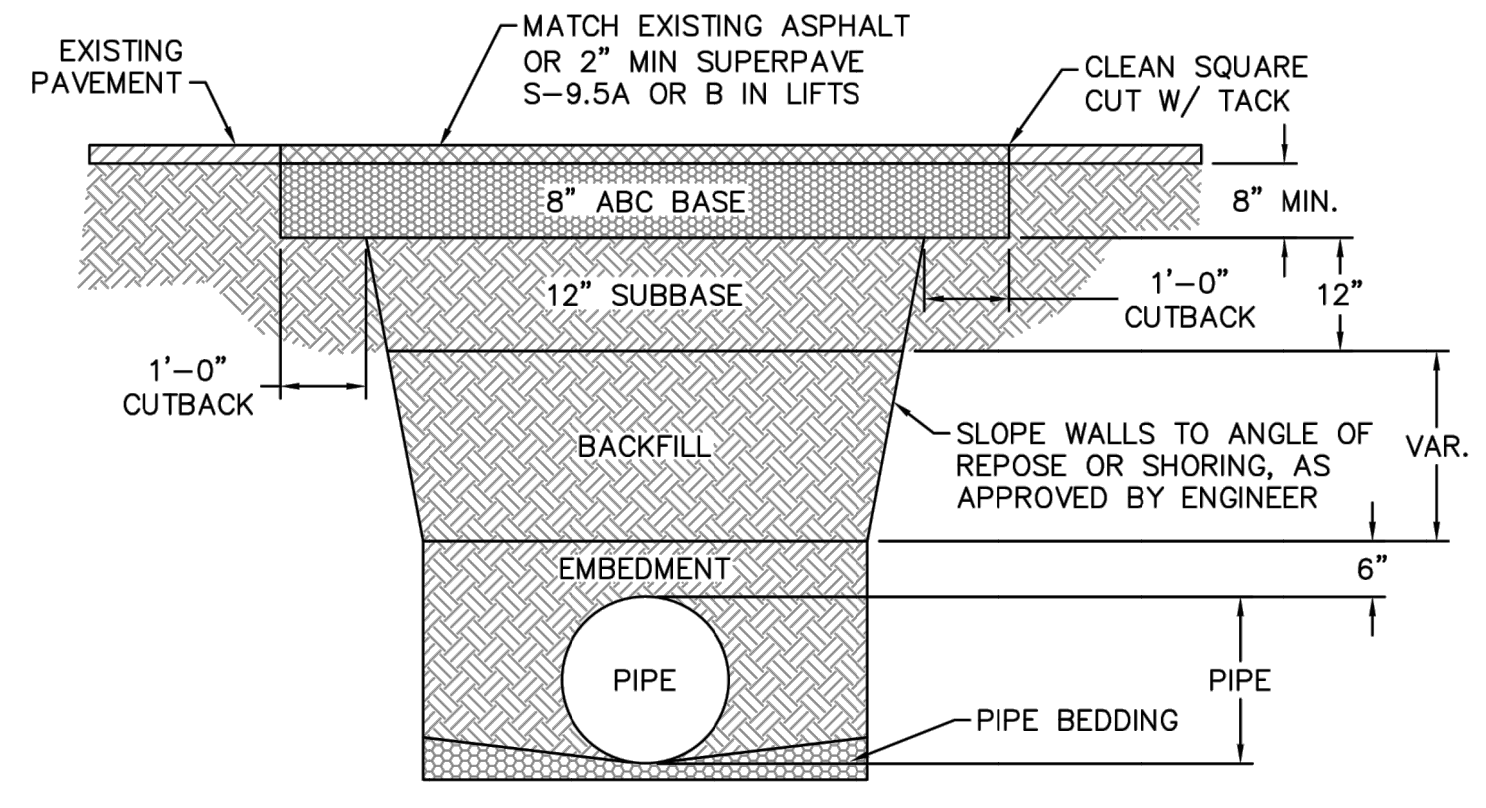
SD-11 NOT TO SCALE



- NOTES:
- SAMPLING CHAMBER SHALL BE APPROVED BY CFPUA PRIOR TO INSTALLATION
 - SAMPLING CHAMBER SHALL BE LEAK PROOF
 - SAMPLING CHAMBER TO BE PLACED OUTSIDE RIGHT-OF-WAY OR EASEMENT ON PRIVATE PROPERTY
- ECCENTRIC REDUCING FITTING. MATCH SIZE OF SERVICE LINE PLUMBING AS NECESSARY. INSTALL TO MATCH INVERT.

SAMPLING CHAMBER

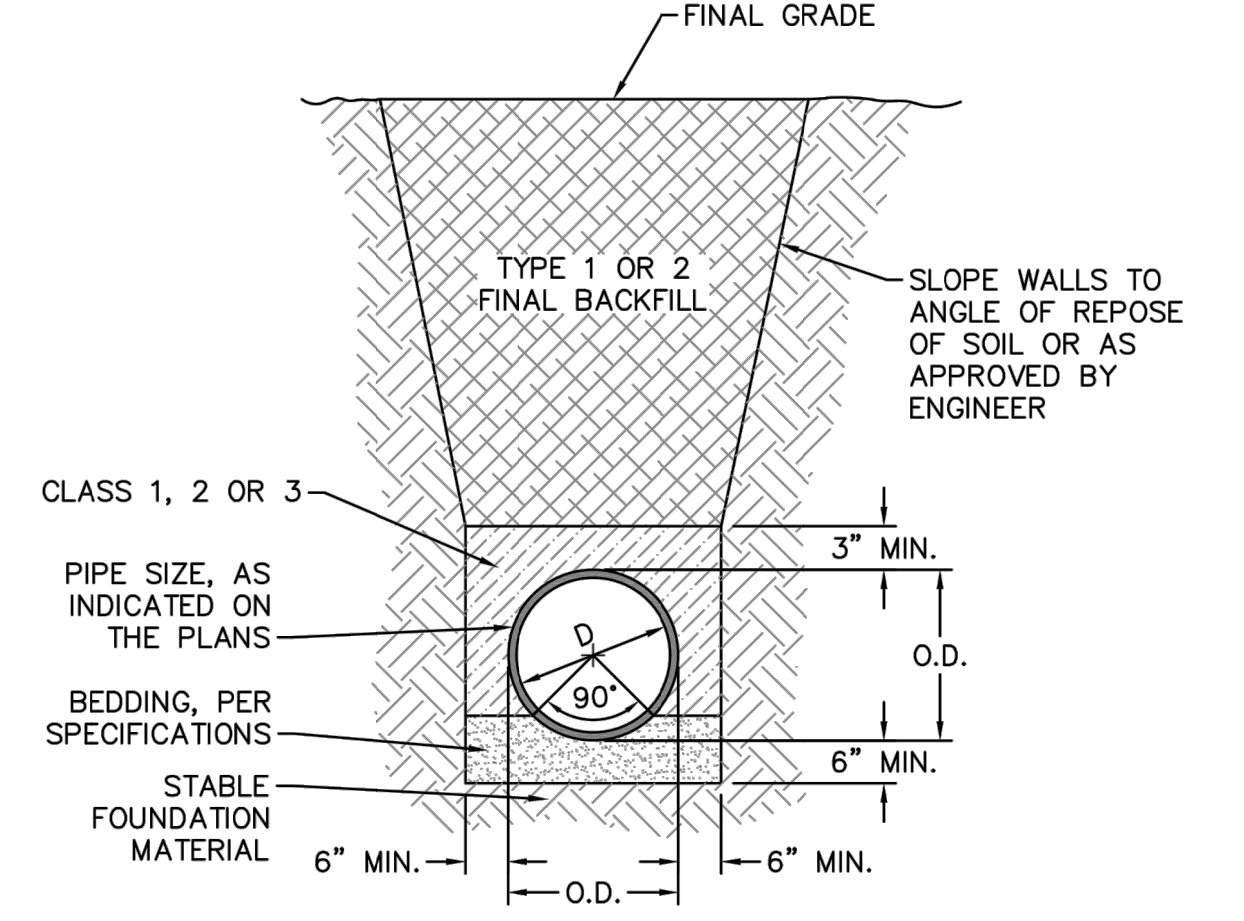
SD-13 NOT TO SCALE



- NOTES:
- BACKFILL SHALL BE SUITABLE MATERIAL THAT IS FREE FROM HEAVY CLAY, GUMBOS, DEBRIS, ORGANICS AND LITTLE TO NO EXCESSIVE MOISTURE.
 - SELECT BACKFILL MAY BE SUBSTITUTED OR REQUIRED BY CITY TO ACHIEVE COMPACTION, (I.E. #57, ABC, CRUSHED LIMESTONE, CLEAN SAND, FLOWABLE FILL, ETC).
 - 8-INCH OF ABC BASE MATERIAL SHALL BE USED ON CITY STREETS.
 - BACKFILL AND BASE MATERIALS SHALL BE COMPACTED 12" MINIMUM LIFTS
 - SOIL SHALL BE COMPACTED BY A MECHANIZED TAMPER (I.E. JUMPING JACK), HOWEVER, VIBRATORY ROLLERS > 18" WIDTH MAY BE USED FOR LARGER EXCAVATIONS. THE PLATE TAMP METHOD SHALL NOT BE USED.
 - ALL APPROVED CASTINGS SHALL BE SET FLUSH TO GRADE AND SUPPORTED IF APPLICABLE.
 - ABC BASE AND SUBBASE COMPACTED TO 98% AND BACKFILL AND EMBEDEMNT COMPACTED TO 90% AS DETERMINED BY THE MODIFIED PROCTOR AASHTO METHOD T-99.
 - 1-FOOT CUTBACKS OF ASPHALT SHALL BE PREPARED ON UNDISTURBED SOIL. MINIMUM ASPHALT DENSITY IS 90%.
- (FOR PRIVATE ROADS AND PAVED AREAS; CONTRACTOR TO MEET MIN. REQUIREMENTS AS DEFINED BY RIGHT-OF-WAY OWNER FOR PUBLIC ROAD REPAIRS)

PAVEMENT REPAIR WHERE PIPE INSTALLED

SD-14 NOT TO SCALE



TYPICAL TRENCH DETAIL

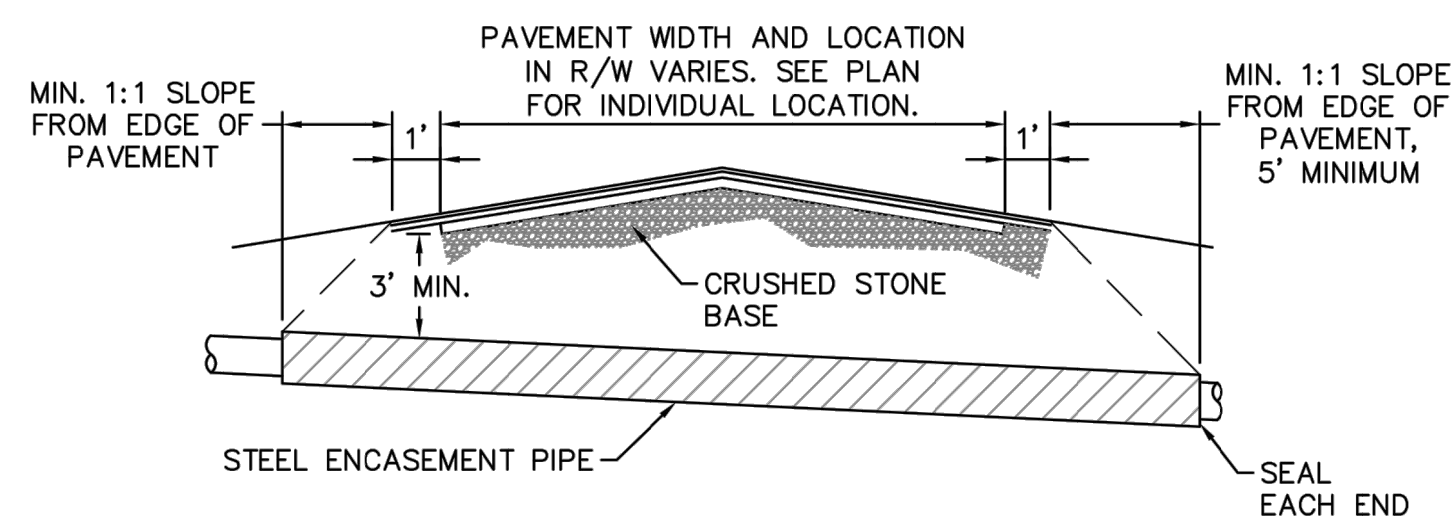
SD-15 NOT TO SCALE

- GENERAL NOTES:
- NO EXCAVATED MATERIAL SHALL BE PLACED IN ANY STREAM, DITCH OR DRAINAGE-WAY.
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THE DETAILS SHOWN HEREON SUPERCEDE CFPUA WRITTEN TECHNICAL SPECIFICATIONS VERSIONS 1.00 - 1.04

DEEP SERVICE LATERAL

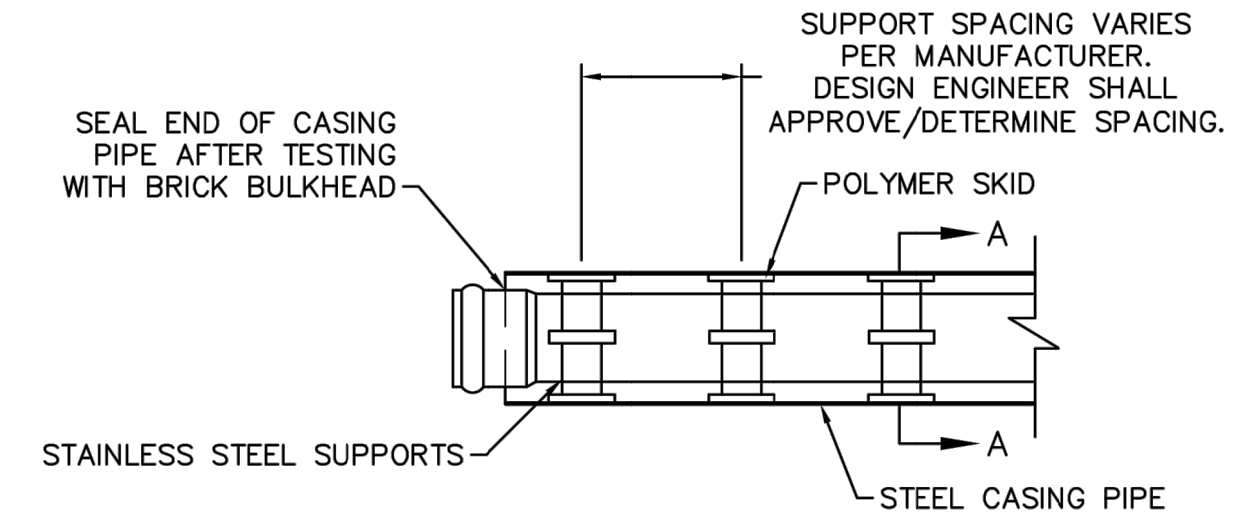
SD-12 NOT TO SCALE



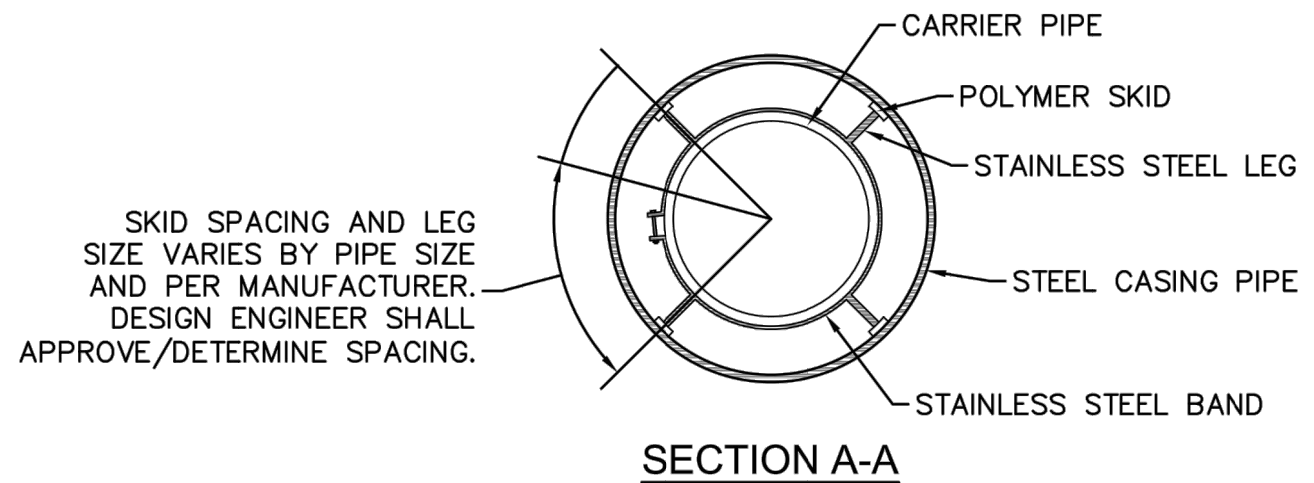
- NOTES:
- CASING WILL BE INSTALLED AT LINE AND GRADE SHOWN ON INDIVIDUAL PROFILE FOR EACH CROSSING. BORING/JACKING TO LINE AND GRADE IS REQUIRED.
 - TRACER WIRE SHALL BE CONTINUED THROUGH CASING.

TYPICAL BORING/ JACKING DETAIL

SD-16 NOT TO SCALE



NOTE: PIPE SUPPORT TO BE PLACED TO PROVIDE PROPER SUPPORT, ALIGNMENT, AND GRADE AS SPECIFIED. CONTINUOUS SUPPORTS MAY BE USED AS ALTERNATIVE. OIL, GREASE, OR PETROLEUM PRODUCT MAY NOT BE USED AS LUBRICANT.



PIPE CASING SUPPORT DETAIL

SD-17 NOT TO SCALE

REV:	DESCRIPTION:	DATE:
1	SAMPLING CHAMBER REVISED	10/26/12
2	Revised Multiple Details	02/15/16

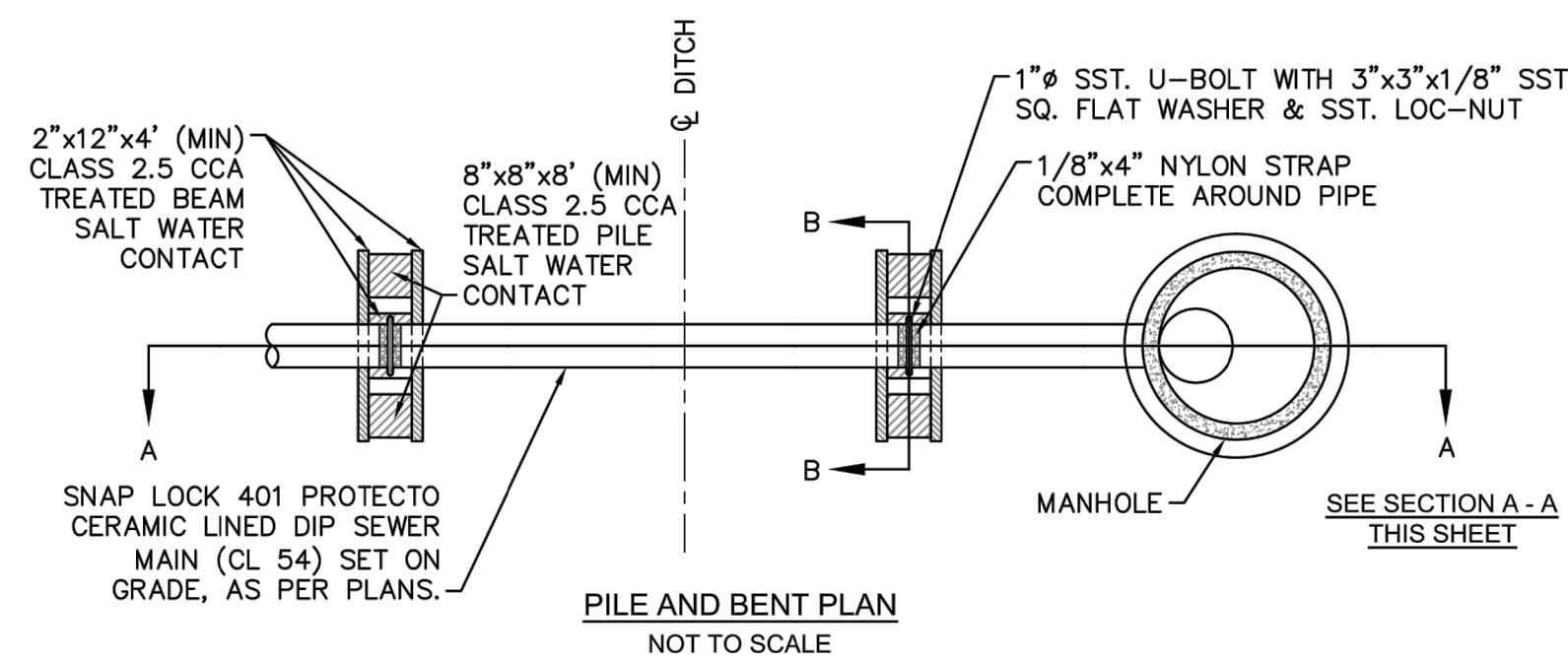
CFPUA SANITARY SEWER

STANDARD DETAILS

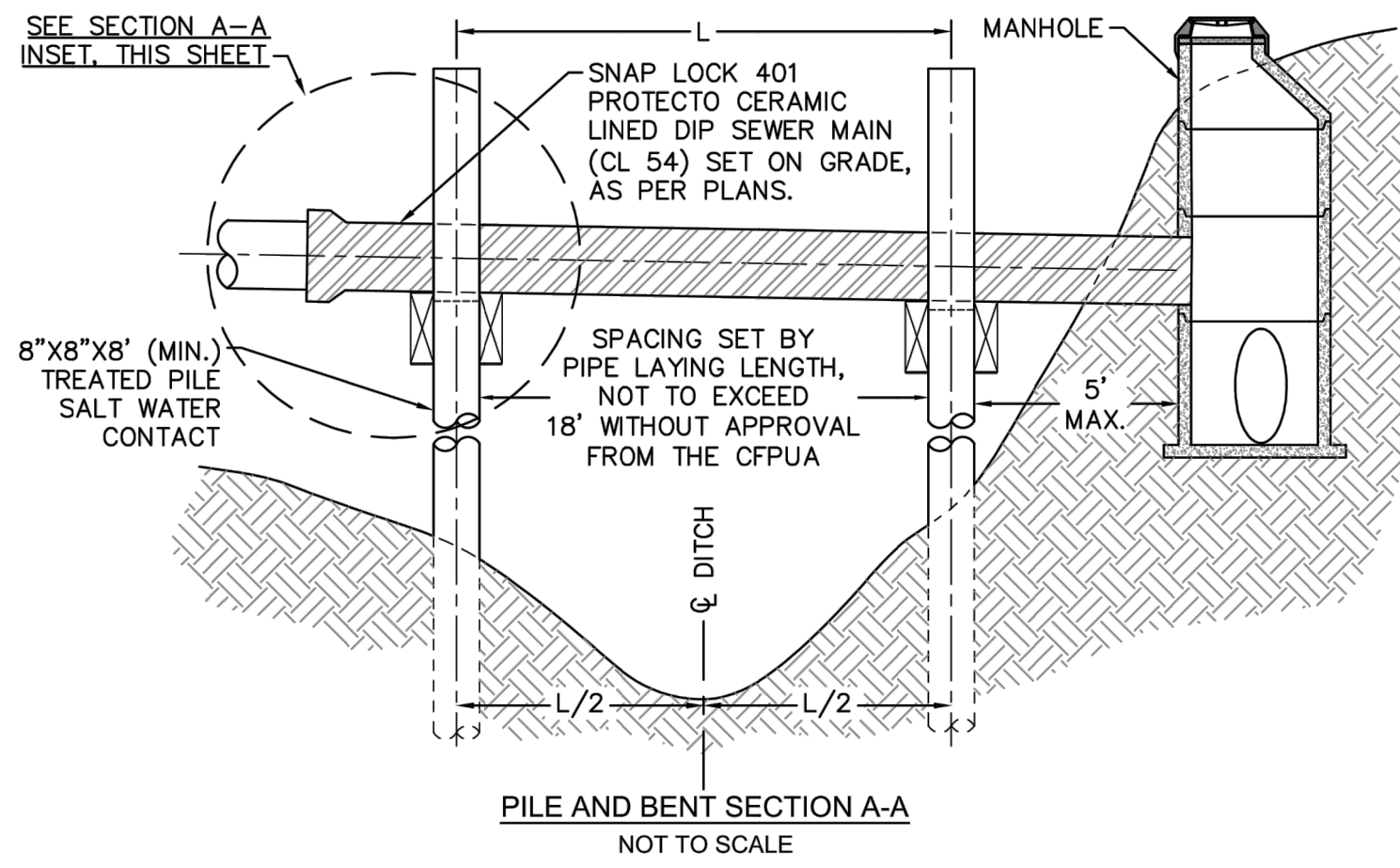
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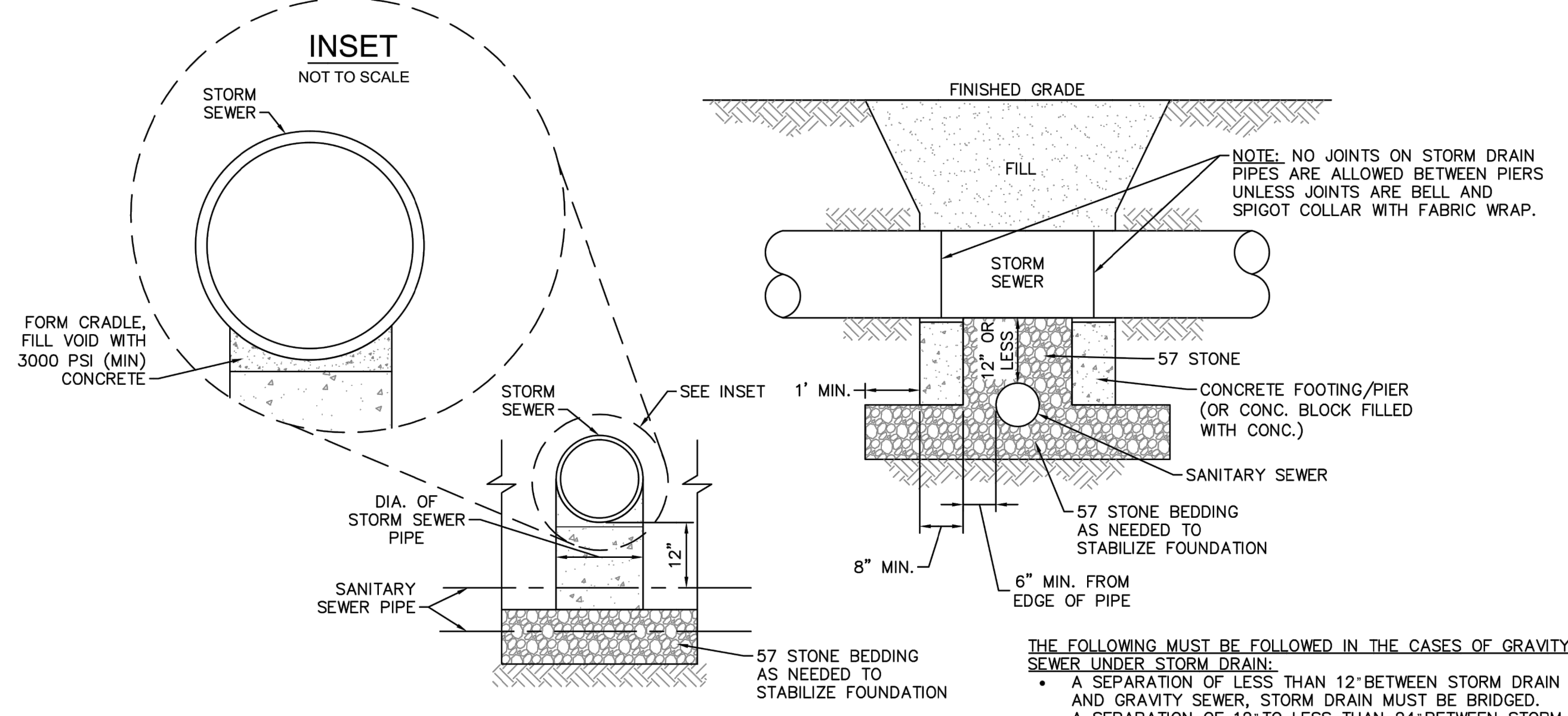
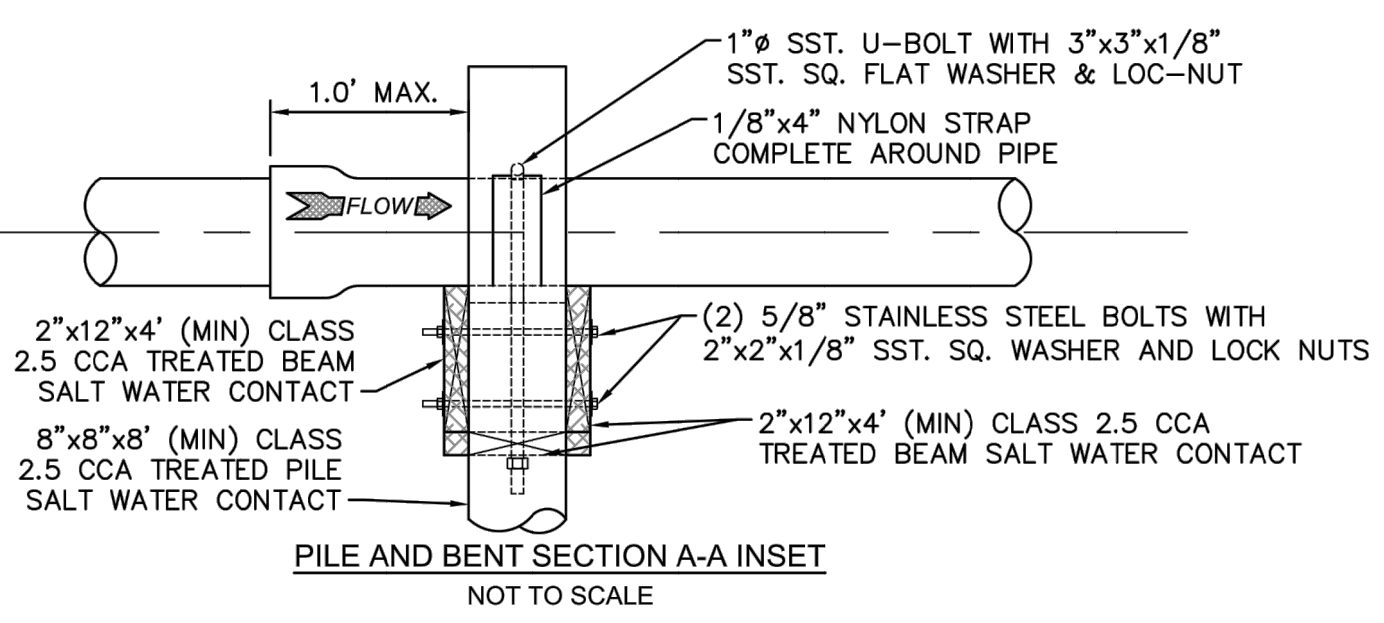
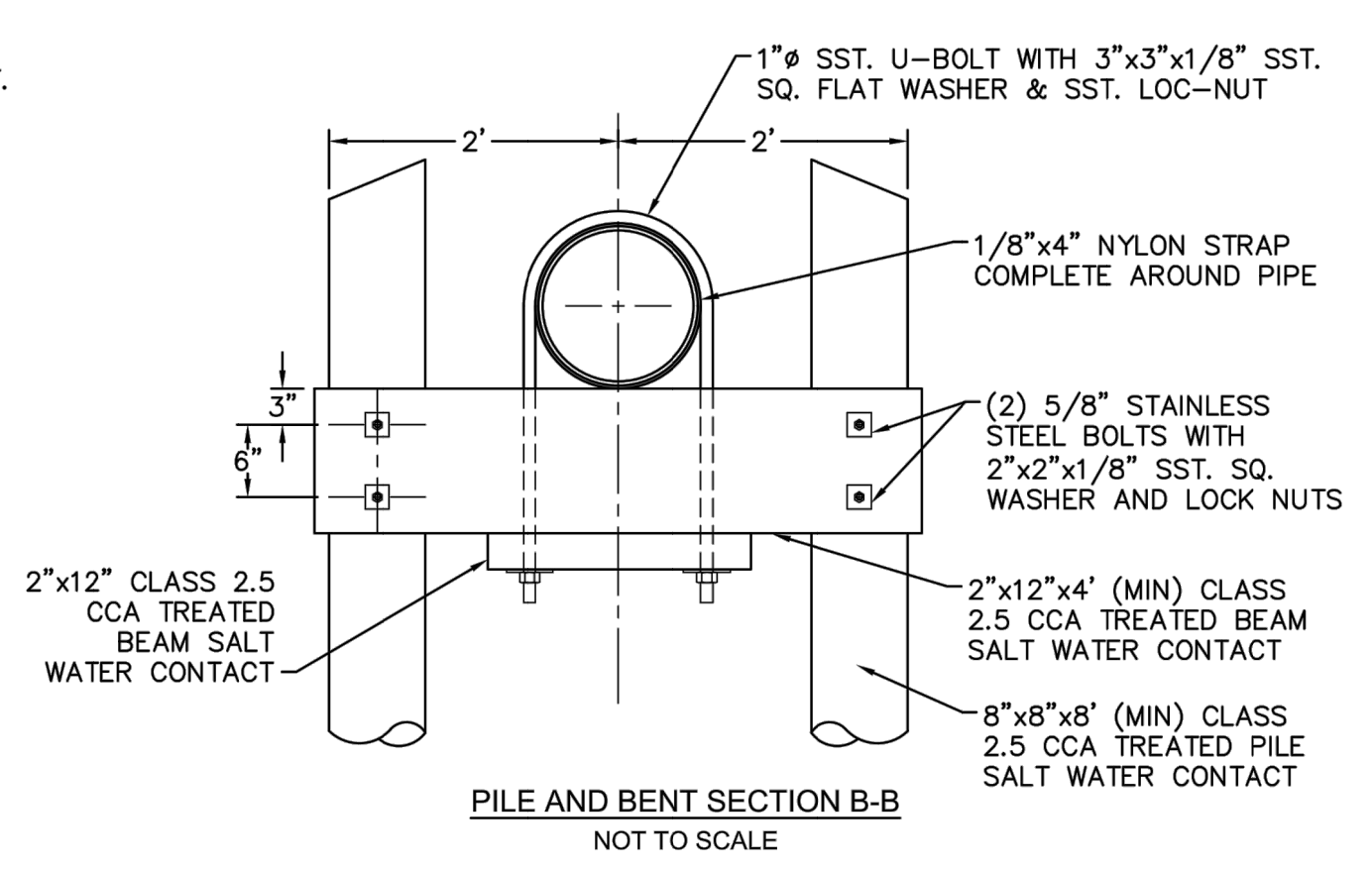
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- NOTES:**
1. PILES AND PILE DRIVING SHALL CONFORM TO NCDOT STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES, JANUARY 2002, SECTIONS 445, 450, 1082-2 & 1084-2.
 2. CENTERLINE OF BOLTS TO BE A MINIMUM OF 3" FROM OUTSIDE EDGE OF TIMBER. BOLTS TO BE A MINIMUM OF 3" CENTERLINE TO CENTERLINE.
 3. ALL STAINLESS STEEL SHALL BE 316. STAINLESS STRAP TO BE COLD FORMED.
 4. PILE SHALL NOT OBSTRUCT FLOW OR CAUSE EROSION OF DITCH/STREAM BANK.
 5. MIN. CLASS 54 DIP-ENGINEER MUST DESIGN LOADING.
 6. DESIGN SHALL BE APPROVED BY CFPUA.

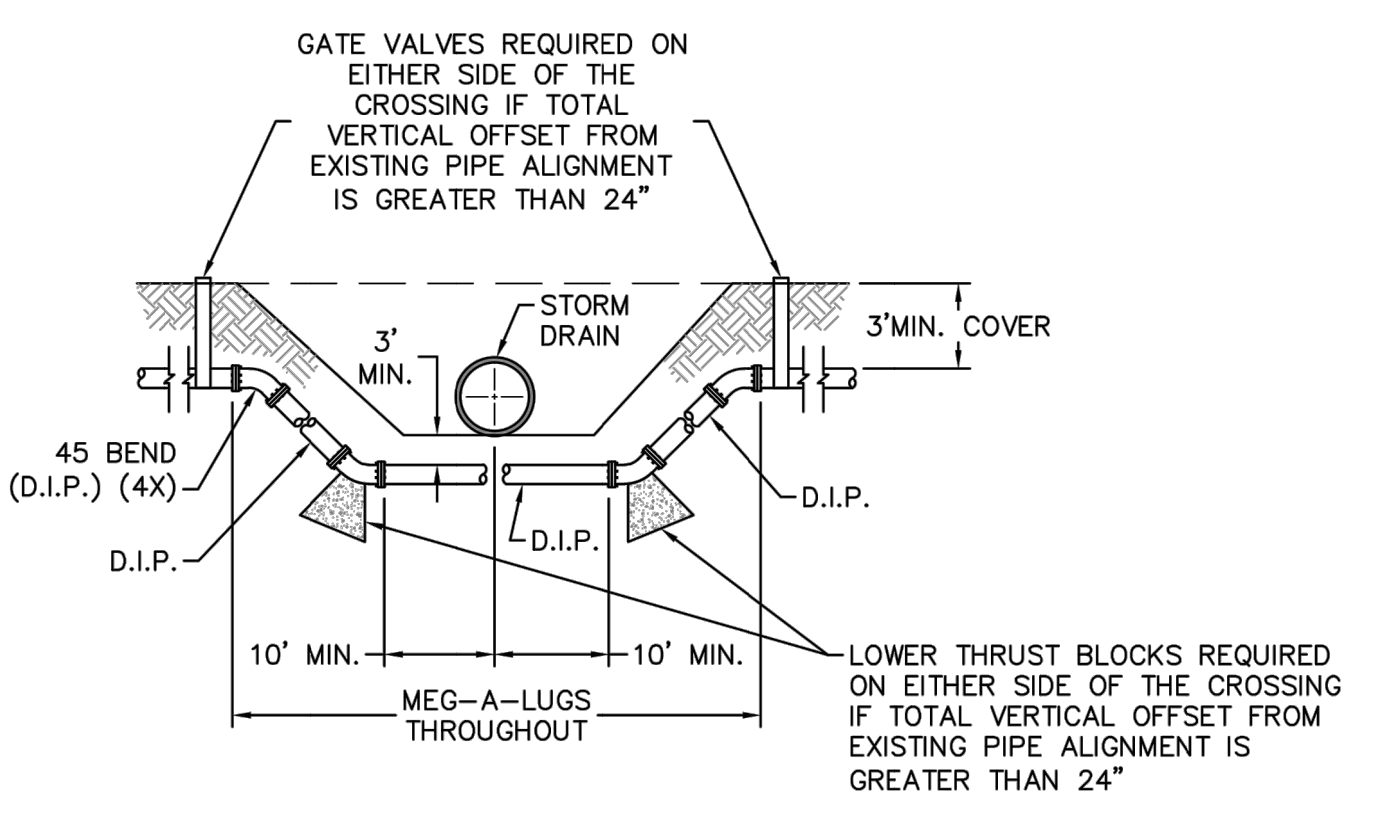


SD-20 PILE AND BENT DETAIL
NOT TO SCALE



SD-24 STRUCTURAL BRIDGING DETAIL FOR STORMWATER OVER GRAVITY SEWER INSTALLATIONS WITH LESS THAN 12" SEPARATION
NOT TO SCALE

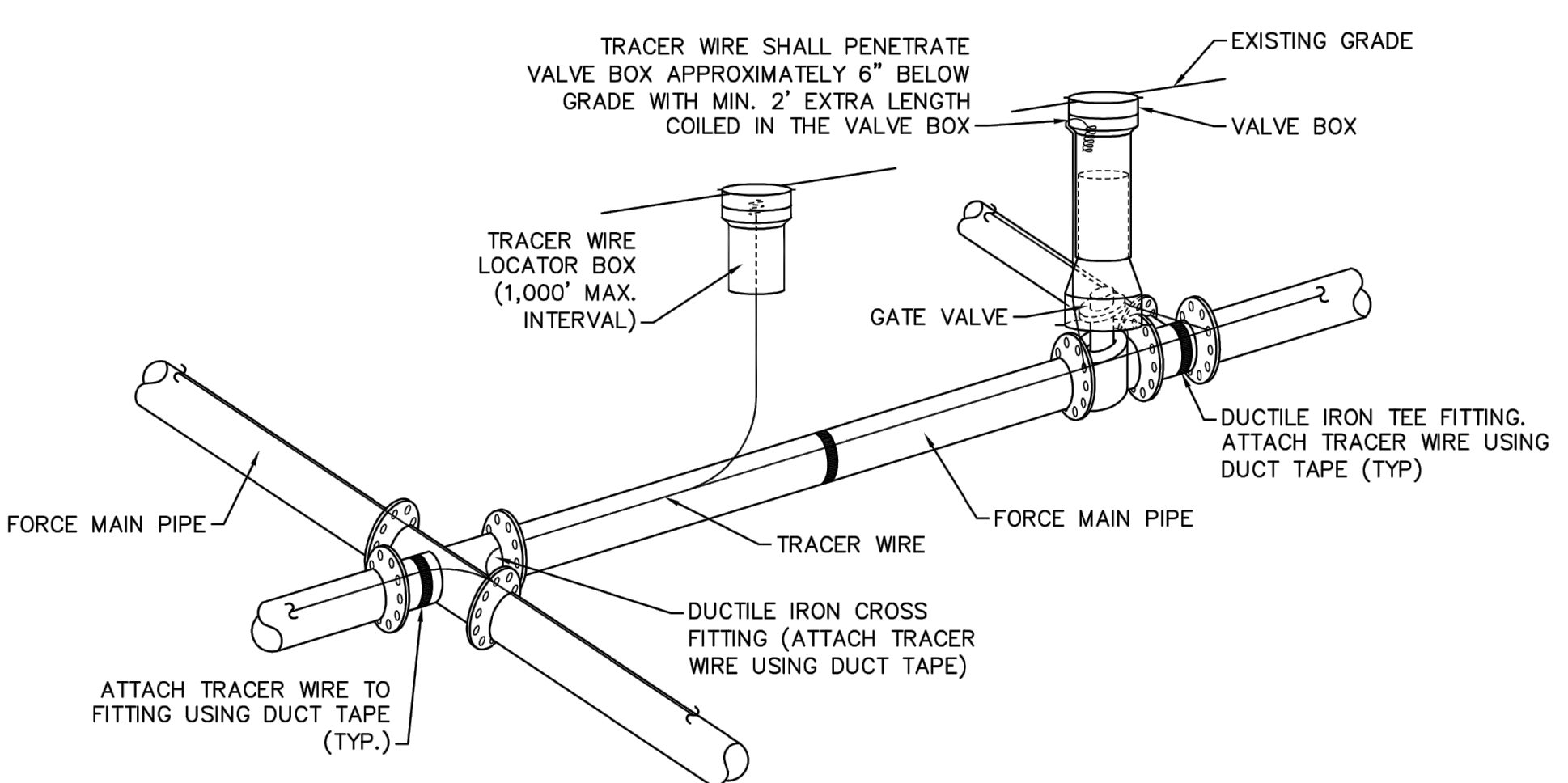
- THE FOLLOWING MUST BE FOLLOWED IN THE CASES OF GRAVITY SEWER UNDER STORM DRAIN:**
- A SEPARATION OF LESS THAN 12" BETWEEN STORM DRAIN AND GRAVITY SEWER, STORM DRAIN MUST BE BRIDGED.
 - A SEPARATION OF 12" TO LESS THAN 24" BETWEEN STORM DRAIN AND GRAVITY SEWER, GRAVITY SEWER CAN BE DIP OR STORM DRAIN CAN BE BRIDGED. (PER DWR REGULATIONS)
 - A SEPARATION OF 24" OR GREATER BETWEEN STORM DRAIN AND GRAVITY SEWER REQUIRES NO BRIDGING OR DIP.



SD-18 FORCE MAIN DITCH AND STORM DRAIN CROSSING
NOT TO SCALE

- GENERAL NOTES:**
1. NO EXCAVATED MATERIAL SHALL BE PLACED IN ANY STREAM, DITCH OR DRAINAGE-WAY.
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- NOTES:**
1. TRACER WIRE SHALL BE #10 COPPER SOLID CORE COPPER WIRE WITH GAS AND OIL RESISTANT INSULATION.
 2. WIRE SHALL BE STRAPPED TO ALL PVC FORCE MAIN PIPING WITH DUCT TAPE AT 12 FOOT INTERVALS ALONG THE PIPE.
 3. SECURE WIRE TO ALL TEE AND CROSS FITTINGS WITH DUCT TAPE.
 4. ALL SPLICES IN THE WIRE SHALL BE MADE WITH 3M DBR DIRECT BURY SPLICE KIT AN UNDERGROUND RATED, WATERTIGHT, AND APPROVED SPLICE CONNECTOR OR APPROVED EQUAL.

SD-21 TRACER WIRE DETAIL
NOT TO SCALE

REV:	DESCRIPTION:	DATE:
1	ADDED NOTES TO THE STRUCTURAL BRIDGING DETAIL	03/11/15
2	Revised Tracer Wire Detail	10/20/15
3	Revised Force Main Ditch and Storm Drain Crossing Detail	02/15/16

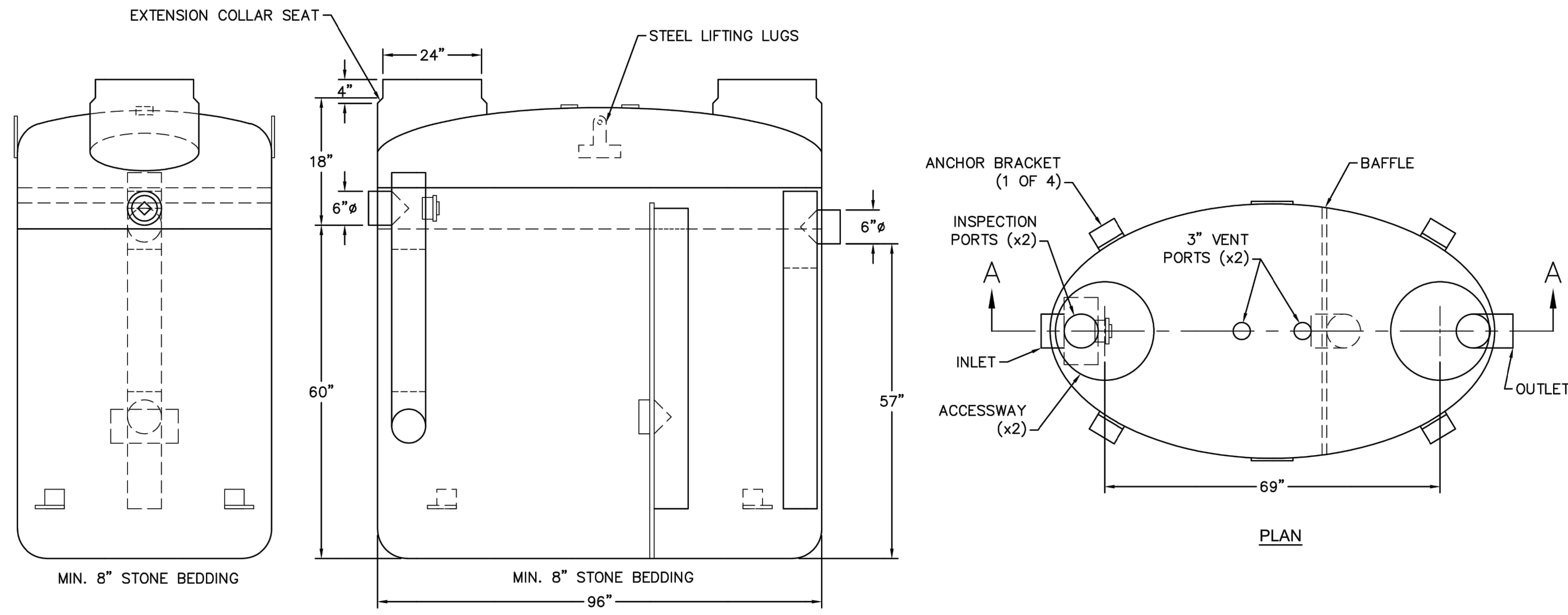
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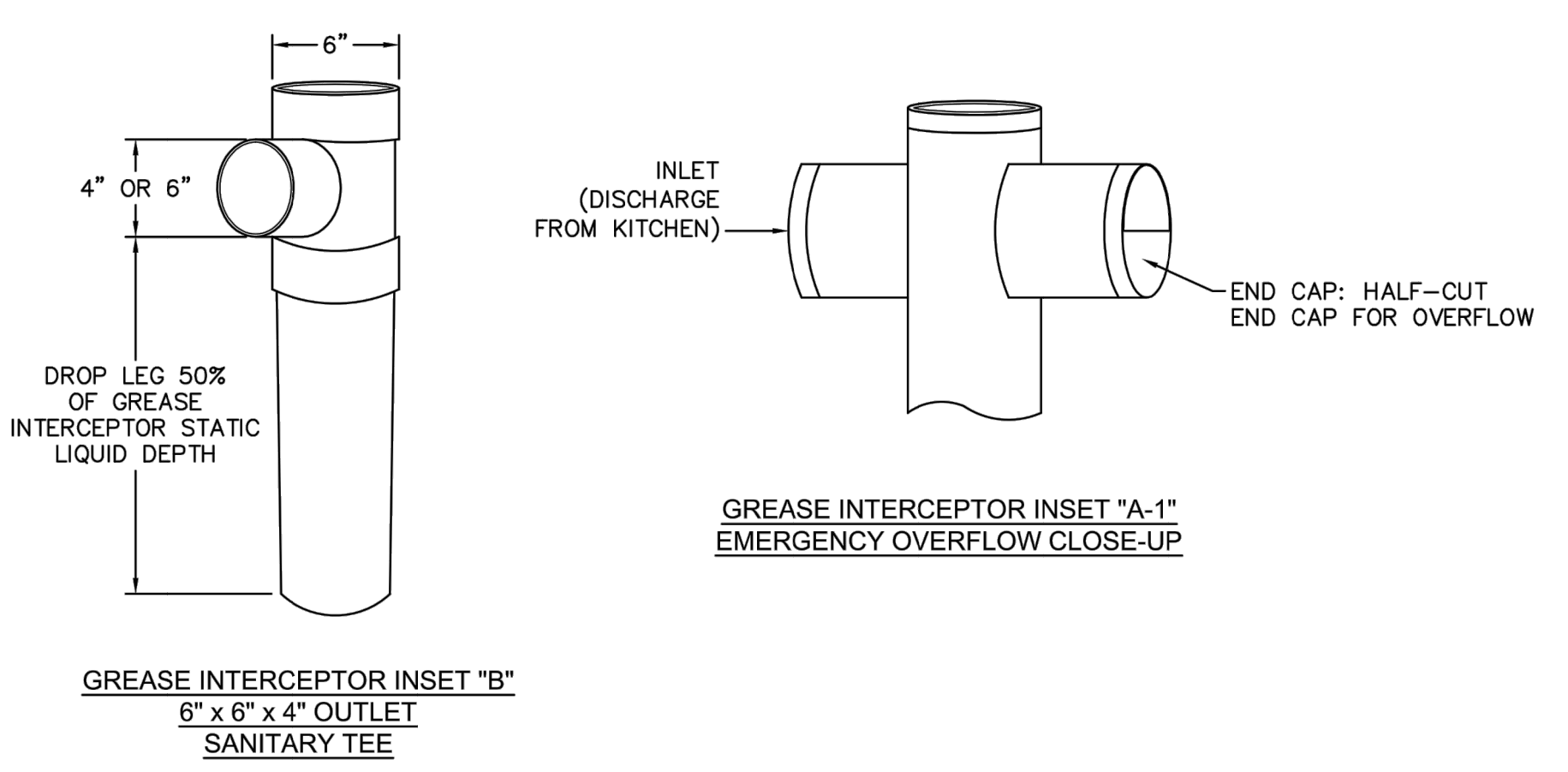
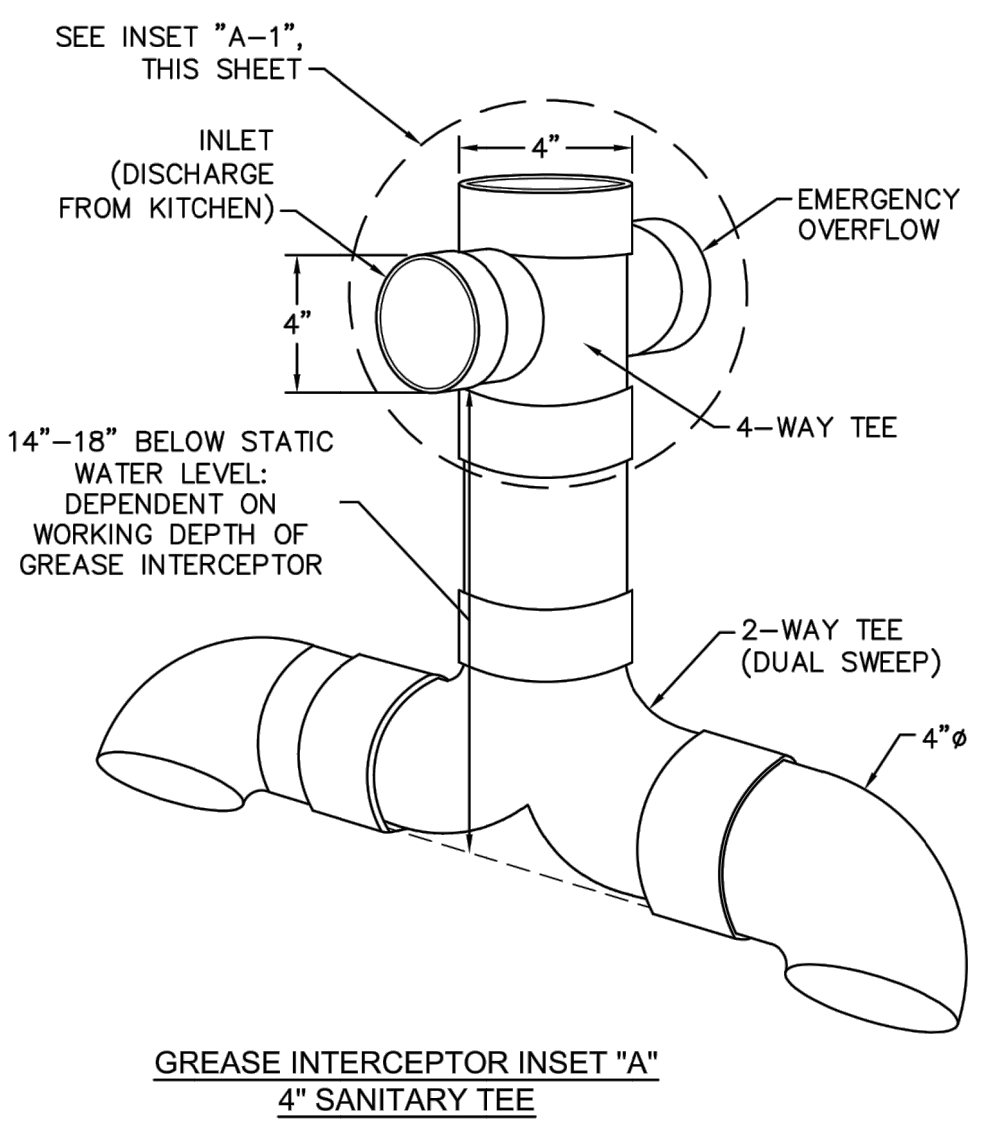
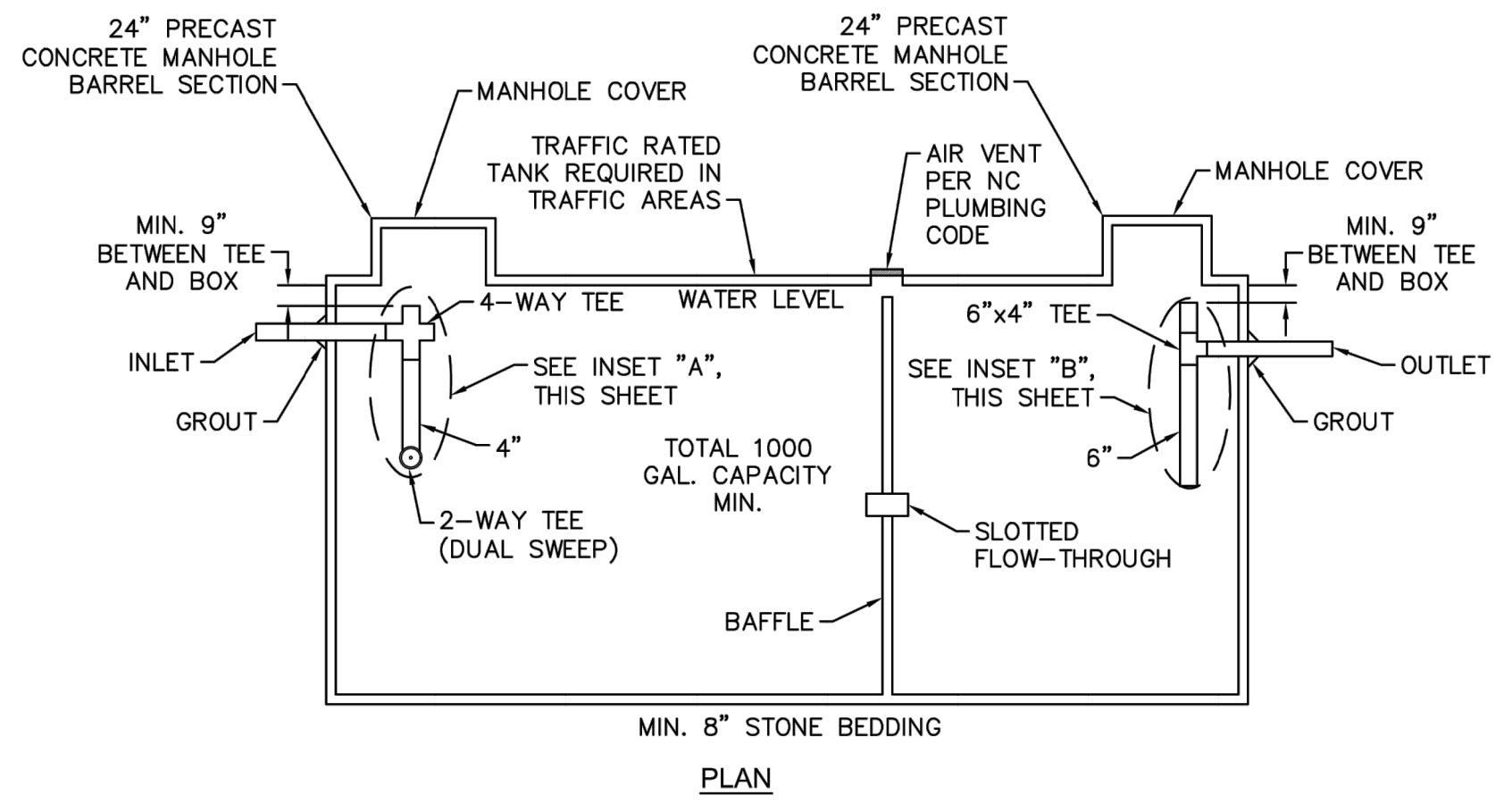
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- NOTES:**
1. FOR GRAVITY APPLICATIONS ONLY.
 2. MIN. THICKNESS: 1/4" WALL AND 3/8" TOP AND BOTTOM BOWLS.
 3. STANDARD PIPE STUBS ARE SOCKET SDR 35 PVC.
 4. EXTENSION COLLARS SHALL BE CAULKED WITH SIKAFLEX OR EQUIVALENT FOR WATERTIGHT SEAL.
 5. FOLLOW MANUFACTURE'S SPECS FOR TRAFFIC OR PEDESTRIAN LOADING.

SD-22 FIBERGLASS GREASE INTERCEPTOR
NOT TO SCALE



SD-23 CONCRETE GREASE INTERCEPTOR
NOT TO SCALE

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REV:	DESCRIPTION:	DATE:

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STANDARD DETAILS		SCALE: N/A
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		CHECKED BY: CFPUA
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