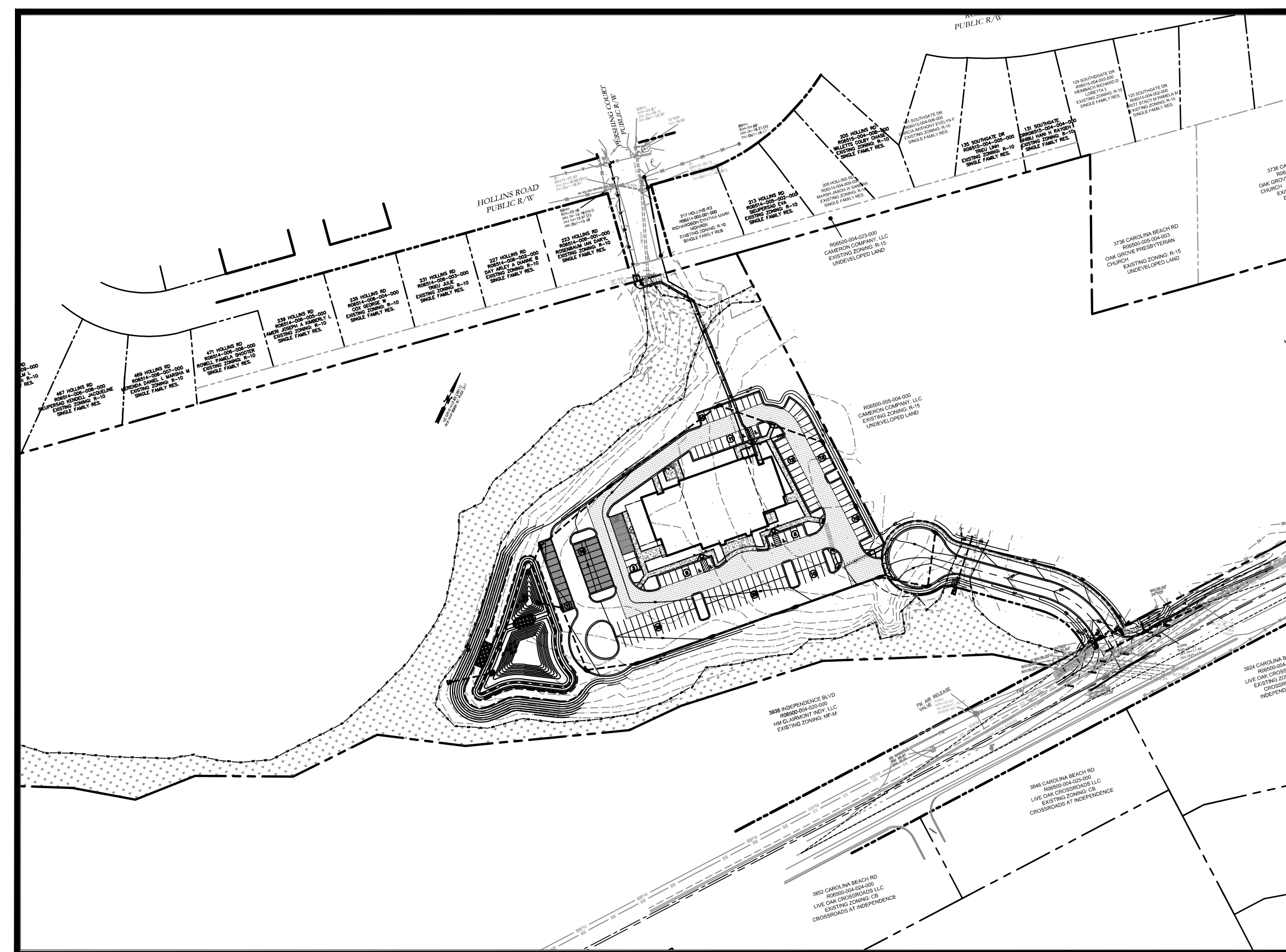
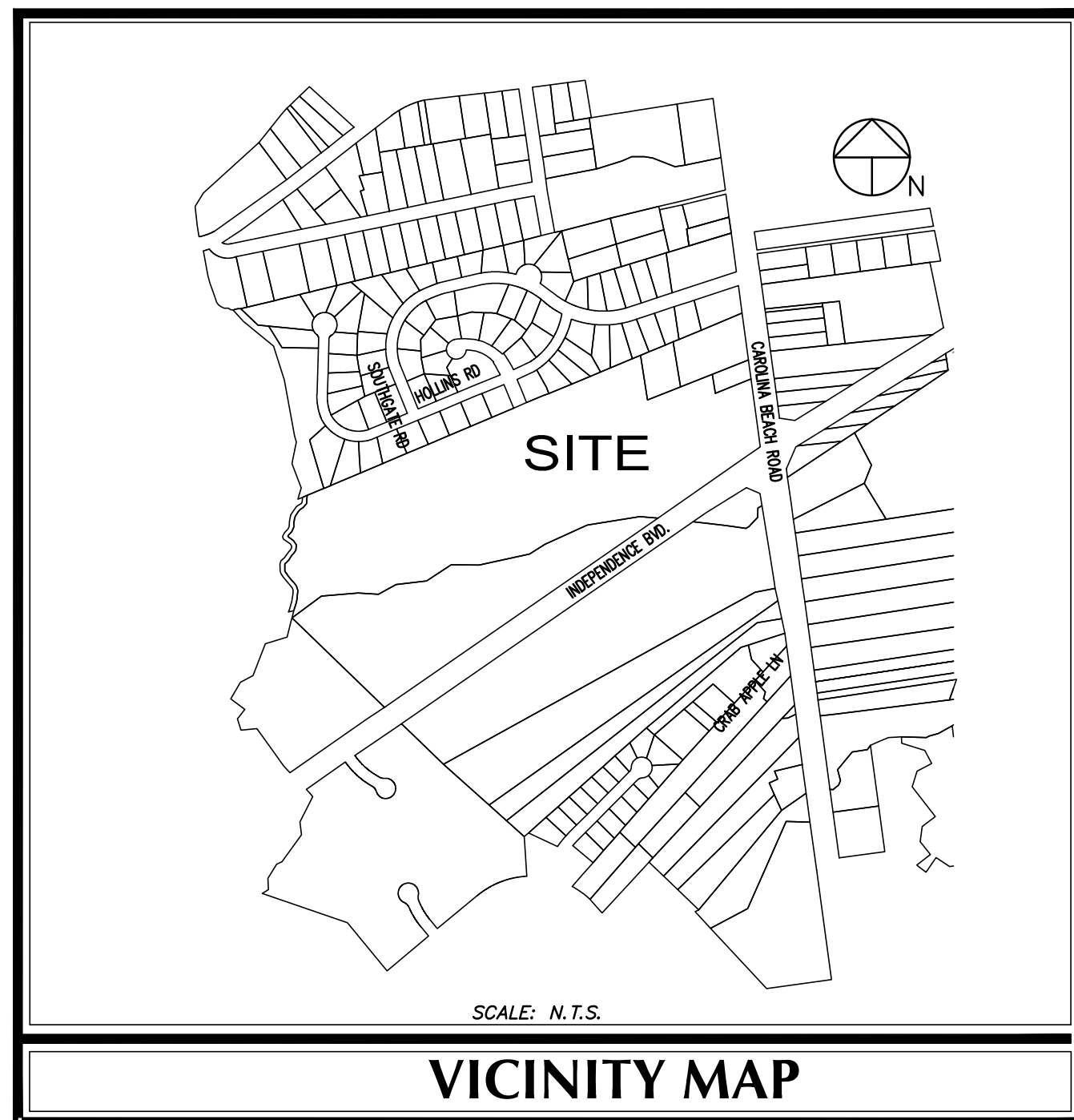


Site Development For *LIFE CHURCH*

SEPTEMBER, 2021

WILMINGTON, NORTH CAROLINA



DESCRIPTION	EXISTING	PROPOSED
PROPERTY BOUNDARY	---	---
EASEMENT	- - - - -	- - - - -
STREAM	~~~~~	~~~~~
STRUCTURE	=====	=====
MINOR CONTOURS	-----8-----	-----8-----
MAJOR CONTOURS	-----10-----	-----10-----
GAS LINE	-G-G-	-G-G-
OVERHEAD POWER	-OHP--OHP-	-OHP--OHP-
WATER LINE	-W--W-	-W--W-
SANITARY SEWER LINE	-SS--SS-	-SS--SS-
SANITARY SEWER MANHOLE	(S)	(S)
STORM DRAINAGE PIPE	=====	=====
STORM DRAINAGE STRUCTURE	○ □	● ■
TREE	○ □	● ■
CONCRETE	[Pattern]	[Pattern]
SILT FENCE	-SF--SF-	-SF--SF-
TREE PROTECTION FENCE	-TP--TP-	-TP--TP-
FIRE HYDRANT ASSEMBLY	→→	→→

OWNER

LIFE CHURCH
P.O. BOX 3489
WILMINGTON, NC 28403
TEL: 910-791-3859
tim.blevins@lifecc.com

PORT CITY CONSULTING ENGINEERS, PLLC
6216 STONEBRIDGE ROAD
WILMINGTON, NC 28409
910-599-1744 LICENSE No. P-1032
mhargrove@ec.rr.com



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SITE DATA TABLE	
GENERAL NOTES:	
1. NEW HANOVER COUNTY PARCEL NOS: PID R06500-004-022-000 PID R06500-005-004-000	
2. TOTAL AREA: 15.16 AC.±	
3. EXISTING ZONING: R-15	
4. BUILDING USES: CHURCH (16,563 SF) TYPE IIB CONSTRUCTION	
5. CAMA LAND USE: URBAN	
6. A SMALL PART OF THIS PROPERTY IS WITHIN THE FLOOD PLAIN AS PER FEMA FLOOD INSURANCE RATE MAP #3720312500K, EFFECTIVE DATE AUGUST 28, 2018 BUT NONE OF THIS PROJECT FALLS WITHIN THE FLOOD ZONE AREA.	
DEVELOPMENT DATA:	
Total Tract Area = 660,279 SF = 15.16 ac	
Totals Disturbed Area = 5.2 ac	
Max. Bldg. Hgts. - 35' Mean Roof	
Church - 33 ft - 1 Story	
Setbacks:	Required Church
Front	30 ft 144 ft
Side	10 ft 83 ft
Rear	25 ft 271 ft
Proposed Impervious Surface BUA:	
Bldg -	16,563 S.F. (2.51% Building Lot Coverage)
Paved Parking Lot -	72,000 S.F.
Paved Road -	11,745 S.F.
Road Sidewalk -	2,100 S.F.
Concrete Walkway for Church -	6,875 S.F.
Dumpster Pad -	275 S.F.
Driveway -	300 S.F.
Existing Offsite Impervious Area -	1,540 S.F.
Total -	111,398 S.F.
% Impervious: 111,398 / 660,279 = 16.87%	
Parking Requirements:	
Church: 1/3 Seats - 1/4 Seats (400 Seats)	
= Max - 133 Spaces	
Min - 100 Spaces	
Provided - 166 Spaces (133 Regular Spaces, 33 Pervious Pavement)	
6 HC Required - 6 Provided	
Bicycle Parking:	
Car Spaces: 166	
Bicycle Spaces Required: 15	
Bicycle Spaces Provided: 15	
Trash will be handled by Rollout Carts at the Church	
Trip Generation:	
Church (560) - 115 vpd, AM Peak - 6, PM Peak - 8	
Sunday Peak Peak - 79 Enter; 86 Exit	
Day Care Center (565) - 500 vpd, AM Peak - 50, PM Peak - 50	
Utility Capacity Requests:	
Proposed Sewer Capacity:	
Church: 400 seats @ 5 gpd - 2,000 gpd	
Church w/ Daycare: 129 people @ 25 gpd/person - 3,225 gpd	
Total - 5,225 gpd	
NOTE: ALL DESIGN AND CONSTRUCTION SHALL BE IN CONFORMANCE WITH CITY OF WILMINGTON & THE STATE OF NORTH CAROLINA	

COORDINATION NOTES

1. THE CONTRACTOR IS REQUIRED TO OBTAIN ANY/ALL PERMITS REQUIRED FOR CONSTRUCTION OF THESE PLANS.
2. ALL WORK IS TO BE IN ACCORDANCE WITH THE CITY OF WILMINGTON, THE CAPE FEAR PUBLIC UTILITY AUTHORITY (CFPUA) AND THE STATE OF NORTH CAROLINA.
3. THE CONTRACTOR IS TO ESTABLISH AND CHECK ALL HORIZONTAL AND VERTICAL CONTROLS TO BE USED WITH THE PROJECT. IN ADDITION, THE CONTRACTOR IS TO COMPUTE THE LAYOUT OF THE ENTIRE SITE PLAN IN ADVANCE OF BEGINNING ANY WORK ASSOCIATED WITH THE SUBJECT PLANS. CONTRACTOR SHALL EMPLOY A PROFESSIONAL SURVEYOR TO PERFORM SITE IMPROVEMENT STAKEOUT(S).
4. ANYTIME WORK IS PERFORMED OFF-SITE OR WITHIN AN EXISTING EASEMENT, THE CONTRACTOR IS TO NOTIFY THE HOLDER OF SAID EASEMENT AS TO THE NATURE OF PROPOSED WORK, AND TO FOLLOW ANY GUIDELINES OR STANDARDS WHICH ARE ASSOCIATED WITH OR REFERENCED IN THE RECORDED EASEMENT.

GENERAL NOTES:

1. EXISTING TOPOGRAPHY, BOUNDARY AND UTILITIES, HAVE BEEN PREPARED BY FIELD SURVEY BY PORT CITY LAND SURVEYING, PLLC. (910-791-0080)
2. REASONABLE CARE HAS BEEN EXERCISED IN SHOWING THE LOCATION OF EXISTING UTILITIES ON THE PLANS. THE EXACT LOCATION OF ALL EXISTING UTILITIES IS NOT KNOWN IN ALL CASES. THE CONTRACTOR SHALL EXPLORE THE AREA AHEAD OF DITCHING OPERATIONS BY OBSERVATIONS, ELECTRONIC DEVICES, HAND DIGGING AND BY PERSONAL CONTACT WITH THE UTILITY COMPANIES. IN ORDER TO LOCATE EXISTING UTILITIES IN ADVANCE OF TRENCHING OPERATIONS SO AS TO ELIMINATE OR MINIMIZE DAMAGE TO EXISTING UTILITIES, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COSTS RESULTING FROM ANY DAMAGE TO THE EXISTING UTILITY LINES INCLUDING LOSS OF UTILITY REVENUES. CONTRACTOR SHALL ARRANGE FOR TEMPORARY SUPPORT OF EXISTING UTILITIES, SUCH AS POLES, CONDUITS, FIBER OPTIC CABLES, TELEPHONE CABLES, WATER LINES, ETC...
3. CONTRACTOR SHALL COMPLY WITH THE LATEST REVISIONS AND INTERPRETATIONS OF THE DEPARTMENT OF LABOR SAFETY AND HEALTH REGULATIONS FOR CONSTRUCTION PROMULGATED UNDER THE OCCUPATIONAL SAFETY AND HEALTH ACT.
4. CONTRACTOR SHALL PLAN AND CONSTRUCT WORK SO AS TO CAUSE MINIMUM INCONVENIENCE TO THE OWNER AND THE PUBLIC. THE CONTRACTOR SHALL PROVIDE, ERECT AND MAINTAIN AT ALL TIMES DURING THE PROGRESS OR TEMPORARY SUSPENSION OF WORK, SUITABLE BARRIERS, FENCES, SIGNS OR OTHER ADEQUATE PROTECTION, INCLUDING FLAGMEN AND WATCHMEN AS NECESSARY TO INSURE THE SAFETY OF THE PUBLIC AS WELL AS THOSE ENGAGED IN THE CONSTRUCTION WORK. CONSTRUCTION SIGNING SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF "CONSTRUCTION AND MAINTENANCE OPERATIONS SUPPLEMENT TO THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" BY THE DOT.
5. ALL MATERIAL CLEARED OR DEMOLISHED BY THE CONTRACTOR IN ORDER TO CONSTRUCT THE WORK SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE PROPERLY DISPOSED OF OFF-SITE.
6. ALL WORK BY THE CONTRACTOR SHALL BE WARRANTED BY THE CONTRACTOR FOR A PERIOD OF ONE YEAR AFTER THE OWNER ACCEPTS THE WORK.
7. CONTRACTOR SHALL CALL THE NORTH CAROLINA ONE-CALL CENTER AT 1 (800) 632-4949 AND ALLOW THE CENTER TO LOCATE EXISTING UTILITIES BEFORE DIGGING.
8. CONTRACTOR SHALL REMOVE ASPHALT, AGGREGATE BASE COURSE, AND CONCRETE CURB & GUTTER WITHIN LIMITS OF DEMOLITION AS SHOWN ON PLAN.

DEMOLITION NOTES

1. CONTRACTOR TO COORDINATE WITH THE OWNER TO PROPERLY MAINTAIN OR RELOCATE EXISTING SERVICE CONNECTIONS WHEN NECESSARY
2. CONTRACTOR IS TO WALK THE SITE AND BECOME FAMILIAR WITH THE SCOPE OF DEMOLITION REQUIRED. ALL DEMOLITION WORK REQUIRED TO CONSTRUCT NEW SITE IMPROVEMENTS WILL BE PERFORMED BY THE CONTRACTOR AND WILL BE UNCLASSIFIED EXCAVATION.
3. DEMOLITION SHALL INCLUDE BUT IS NOT LIMITED TO THE EXCAVATION, HAULING AND OFFSITE DISPOSAL OF CONCRETE PADS, CONCRETE DITCHES, FOUNDATIONS, SLABS, STEPS, AND STRUCTURES; ABANDONED UTILITIES, BUILDINGS, PAVEMENTS AND ALL MATERIALS CLEARED AND STRIPPED TO THE EXTENT NECESSARY AS DIRECTED BY THE SOILS ENGINEER FOR THE INSTALLATION OF THE NEW IMPROVEMENTS AND WITHIN THE LIMITS OF CLEARING AND GRADING AND AS SHOWN ON THESE PLANS.
4. THE CONTRACTOR SHALL PROTECT ALL ADJACENT PROPERTY, STRUCTURES AND UTILITIES ON THE PROPERTY NOT TO BE DEMOLISHED. DAMAGE TO PROPERTIES OF OTHERS DUE TO THE CONTRACTOR'S ACTIVITIES SHALL BE REPLACED IN KIND BY THE CONTRACTOR AT NO COST TO OWNER.
5. ELECTRIC, TELEPHONE, SANITARY SEWER, WATER AND STORM SEWER UTILITIES THAT SERVICE OFF-SITE PROPERTIES SHALL BE MAINTAINED DURING THE CONSTRUCTION PROCESS BY THE CONTRACTOR.
6. EXISTING UTILITIES NOT INTENDED FOR DEMOLITION SHALL BE MAINTAINED, PROTECTED AND UNDISTURBED DURING DEMOLITION
7. ALL EXISTING IMPROVEMENTS INDICATED OR REQUIRED TO BE DEMOLISHED SHALL INCLUDE REMOVAL FROM THE PROPERTY AND PROPER DISPOSAL.
8. CONTRACTOR SHALL COORDINATE RELOCATION OF ALL EXISTING OVER HEAD AND UNDERGROUND UTILITIES INCLUDING CABLE, GAS, TELEPHONE AND ELECTRIC AND ANY OTHER UTILITIES THROUGH THE SITE WITH THE RESPECTIVE COMPANIES.
9. PROVIDE SMOOTH SAW CUT OF EXISTING PAVEMENTS, CURBS AND GUTTERS AND SIDEWALKS TO BE DEMOLISHED.
10. ALL DEMOLITION WORK SHALL BE DONE IN STRICT ACCORDANCE WITH LOCAL, STATE AND FEDERAL REGULATIONS AS WELL AS OSHA REGULATIONS.
11. INFORMATION CONCERNING UNDERGROUND UTILITIES WAS OBTAINED FROM AVAILABLE RECORDS, BUT THE CONTRACTOR MUST DETERMINE THE EXACT LOCATION AND ELEVATIONS OF THE MAINS BY DIGGING TEST PITS BY HAND.

EROSION AND SEDIMENT CONTROL NOTES

GENERAL NOTES:

1. CLEAR AND REMOVE FROM SITE ALL TREES, ROOTS, ROOT MAT, ETC. FROM THE AREA WITHIN DESIGNATED CLEARING LIMITS.
2. PLANT GRASS OVER ALL GRADED AREAS AS SHOWN IN THE TABLE ON THIS SHEET OF CEASE OF ANY GRASSING ACTIVITY.
3. CONTRACTOR SHALL BE RESPONSIBLE FOR CLEANING AND RESTORING TO PRE-CONSTRUCTION CONDITIONS ANY AREAS OUTSIDE THE PROJECT LIMITS THAT MAY INADVERTENTLY BE DAMAGED DUE TO THE FAILURE OF THE EROSION MEASURES
4. DURING GRADING AND AFTER GRADING HAS BEEN COMPLETED, CONTRACTOR SHALL CONTINUE TO MAINTAIN PERMANENT AND TEMPORARY EROSION CONTROL MEASURES UNTIL FINAL INSPECTION AND APPROVAL BY NEW HANOVER COUNTY.
5. WATER, FERTILIZE, MOW AND MAINTAIN SPRIGGED, SODDED AND PLANTED AREAS UNTIL FINAL APPROVAL BY NEW HANOVER COUNTY.
6. ANY BORROW MATERIAL BROUGHT ONTO SITE MUST BE FROM A LEGALLY OPERATED MINE OR OTHER APPROVED SOURCE.
7. ANY EXCESS MATERIAL REMOVED FROM SITE MUST BE HAULED TO A LEGALLY OPERATED MINE OR OTHER APPROVED SOURCE.

MAINTENANCE PLAN

1. ALL EROSION AND SEDIMENT CONTROL PRACTICES WILL BE CHECKED FOR STABILITY AND OPERATION FOLLOWING EVERY RUNOFF-PRODUCING RAINFALL BUT IN NO CASE LESS THAN ONCE EVERY WEEK. ANY NEEDED REPAIRS WILL BE MADE IMMEDIATELY TO MAINTAIN ALL PRACTICES AS DESIGNED.
2. ALL CONSTRUCTION ENTRANCES WILL BE PERIODICALLY TOP DRESSED WITH AN ADDITIONAL 2 INCHES OF #4 STONE TO MAINTAIN PROPER DEPTH. ANY SEDIMENT THAT IS TRACKED INTO THE STREET WILL BE IMMEDIATELY REMOVED.
3. SEDIMENT WILL BE REMOVED BEHIND THE SEDIMENT FENCE WHEN IT BECOMES 0.5 FEET DEEP AT THE FENCE. THE SEDIMENT FENCE WILL BE REPAIRED AS NECESSARY TO MAINTAIN A BARRIER. SILT FENCE STAKES WILL BE SPACED 6 FEET APART UNLESS A WIRE BACKING IS USED WITH 8 FOOT STAKE SPACING.
4. INSPECT INLET PROTECTION AT LEAST WEEKLY AND AFTER EACH SIGNIFICANT (1/2 INCH OR GREATER) RAINFALL EVENT. CLEAR THE MESH WIRE OF ANY DEBRIS OR OTHER OBJECTS TO PROVIDE ADEQUATE FLOW FOR SUBSEQUENT RAINS. TAKE CARE NOT TO DAMAGE OR UNDERCUT THE WIRE MESH DURING SEDIMENT REMOVAL. REPLACE STONE AS NEEDED.
5. INSPECT SKIMMER SEDIMENT BASINS AT LEAST WEEKLY AND AFTER EACH SIGNIFICANT (ONE INCH OR GREATER) RAINFALL EVENT AND REPAIR IMMEDIATELY. REMOVE SEDIMENT AND RESTORE THE BASIN TO ITS ORIGINAL DIMENSIONS WHEN SEDIMENT BASIN IS 1/2 FULL.

IF THE SKIMMER IS CLOGGED WITH TRASH, USUALLY JERKING ON THE ROPE WILL MAKE THE SKIMMER BOB UP AND DOWN AND DISLodge THE DEBRIS AND RESTORE FLOW. IF THIS DOES NOT WORK, PULL THE SKIMMER OVER TO THE SIDE OF THE BASIN AND REMOVE THE DEBRIS. ALSO CHECK THE ORIFICE INSIDE THE SKIMMER TO SEE IF IT IS CLOGGED; IF SO REMOVE THE DEBRIS.

IF THE SKIMMER ARM OR BARREL PIPE IS CLOGGED, THE ORIFICE CAN BE REMOVED AND THE OBSTRUCTION CLEARED WITH A PLUMBER'S SNAKE OR BY FLUSHING WITH WATER. BE SURE AND REPLACE THE ORIFICE BEFORE REPOSITIONING THE SKIMMER. CHECK FABRIC LINED SPILLWAY FOR DAMAGE AND MAKE ANY REPAIRS WITH FABRIC THAT SPANS THE FULL WIDTH OF THE SPILLWAY. CHECK THE EMBANKMENT, SPILLWAYS AND OUTLET FOR EROSION DAMAGE, AND INSPECT THE EMBANKMENT FOR PIPING AND SETTLEMENT. MAKE ALL NECESSARY REPAIRS IMMEDIATELY. REMOVE ALL TRASH AND THERE DEBRIS FROM THE SKIMMER AND POOL AREAS. FREEZING WEATHER CAN RESULT IN ICE FORMING IN THE BASIN. SOME SPECIAL PRECAUTIONS SHOULD BE TAKEN IN THE WINTER TO PREVENT THE SKIMMER FROM PLUGGING WITH ICE.
6. ALL SEEDED AREAS WILL BE FERTILIZED, RESEEDED AS NECESSARY, AND MULCHED ACCORDING TO SPECIFICATIONS IN THE VEGETATIVE PLAN TO MAINTAIN A VIGOROUS, DENSE VEGETATIVE COVER. ALL SLOPES WILL BE STABILIZED WITHIN 21 CALENDAR DAYS. ALL OTHER AREAS WILL BE STABILIZED WITHIN 15 WORKING DAYS.

PERMANENT SEEDING SCHEDULE

Seeding Mixture	RATE (LB/ACRE)
CAROLINA COASTAL SEED MIX (BLEND)	200
20.35% GULF ANNUAL RYEGRASS	
30.30% BROWNTOP MILLET	
29.75% FAWN TALL FESCUE	
9.65% CREEPING RED FESCUE	
7.4% UNHULLED BERMOUDAGRASS	
0.55% CENTIPEDEGRASS	

Seeding Dates
MARCH - JUNE

Soil Amendments
APPLY LIME AND FERTILIZER ACCORDING TO SOIL TESTS, OR APPLY 300 LB/ACRE 10-10-10 FERTILIZER.

Mulch
DO NOT MULCH.

Maintenance
FERTILIZE VERY SPARINGLY LB/ACRE NITROGEN IN SPRING WITH NO PHOSPHORUS. CENTIPEDE GRASS CANNOT TOLERATE HIGH PH OR EXCESS FERTILIZER.

TEMPORARY SEEDING-LATE WINTER/EARLY SPRING

Seeding Mixture	RATE (LB/ACRE)
WINTER AND EARLY SPRING	
SPECIES	
Rye (GRAIN)	
ANNUAL LESPEDEZA (KOBÉ IN PIEDMONT AND COASTAL PLAIN, KOREAN IN MOUNTAINS)	
OMIT ANNUAL LESPEDEZA WHEN DURATION OF TEMPORARY COVER IS NOT TO EXTEND BEYOND JUNE.	

SPECIES	RATE (LB/ACRE)
GERMAN MILLET	120
	50

FALL

SPECIES	RATE (LB/ACRE)
RYE (GRAIN)	40

Seeding dates
COASTAL PLAIN - DEC.1-APR. 15 - LATE WINTER AND EARLY SPRING
APRIL 15 - AUG. 15 - SUMMER
AUG. 15 - DEC. 30 - FALL

Soil amendments
FOLLOW RECOMMENDATIONS OF SOIL TESTS OR APPLY 2,000 LB/ACRE GROUND AGRICULTURAL LIMESTONE AND 750 LB/ACRE 10-10-10 FERTILIZER.

Mulch
APPLY 4,000 LB/ACRE STRAW. ANCHOR STRAW BY TACKING WITH ASPHALT, NETTING OR A MULCH ANCHORING TOOL. A DISK WITH BLADES SET NEARLY STRAIGHT CAN BE USED AS A MULCH ANCHORING TOOL.

Maintenance
REFERTILIZE IF GROWTH IS NOT FULLY ADEQUATE. RESEED, REFERTILIZE AND MULCH IMMEDIATELY FOLLOWING EROSION OR OTHER DAMAGE.

GENERAL GRADING NOTES

1. REASONABLE CARE HAS BEEN EXERCISED IN SHOWING THE LOCATION OF EXISTING UTILITIES ON THE PLANS. THE EXACT LOCATION OF SUCH UTILITIES IS NOT KNOWN IN ALL CASES. THE CONTRACTOR SHALL EXPLORE THE AREA AHEAD OF THE DITCHING OPERATION BY OBSERVATIONS, ELECTRONIC DEVICES, HAND DIGGING AND BY PERSONAL CONTACT WITH THE UTILITY COMPANIES IN ORDER TO LOCATE EXISTING UTILITIES IN ADVANCE OF THE TRENCHING OPERATIONS SO AS TO AVOID AND PREVENT DAMAGE TO THE EXISTING UTILITIES. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COST RESULTING FROM ANY DAMAGE TO THE EXISTING UTILITY LINES INCLUDING BUT NOT LIMITED TO REPAIRS AND LOSS SERVICE REVENUE. CONTRACTOR SHALL ARRANGE FOR TEMPORARY SUPPORT OF EXISTING UTILITIES, SUCH AS POLES, CONDUITS, FIBER OPTIC CABLES, TELEPHONE CABLES, WATER LINES, ETC...
2. CONTRACTOR SHALL COMPLY WITH THE LATEST REVISIONS AND INTERPRETATIONS OF THE DEPARTMENT OF LABOR SAFETY AND HEALTH REGULATIONS FOR CONSTRUCTION PROMULGATED UNDER THE OCCUPATIONAL SAFETY AND HEALTH ACT.
3. CONTRACTOR SHALL PLAN AND CONSTRUCT WORK SO AS TO CAUSE MINIMUM INCONVENIENCE TO THE OWNER AND THE PUBLIC. THE CONTRACTOR SHALL PROVIDE, ERECT AND MAINTAIN AT ALL TIMES DURING THE PROGRESS OR TEMPORARY SUSPENSION OF WORK, SUITABLE BARRIERS, FENCES, SIGNS OR OTHER ADEQUATE PROTECTION, INCLUDING FLAG MEN AND WATCHMEN AS NECESSARY TO INSURE THE SAFETY OF THE PUBLIC AS WELL AS THOSE ENGAGED IN THE CONSTRUCTION WORK. CONSTRUCTION SIGNING SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF "CONSTRUCTION AND MAINTENANCE OPERATIONS SUPPLEMENT TO THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" BY THE NCDOT.
4. ALL MATERIAL CLEARED AND GRUBBED BY THE CONTRACTOR IN ORDER TO CONSTRUCT THE WORK, SUCH AS TREES, VEGETATION, FENCING, ETC... SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE PROPERLY DISPOSED OF OFF-SITE OR BURNED IF PROPER PERMITS ARE RECEIVED.

SITE NOTES

1. ANY DISCREPANCY IN THIS PLAN AND ACTUAL FIELD CONDITIONS SHALL BE REPORTED TO THE OWNER PRIOR TO START OF CONSTRUCTION. GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFICATION OF ALL SETBACKS, EASEMENTS AND DIMENSIONS SHOWN HEREON BEFORE BEGINNING CONSTRUCTION.
2. THE GENERAL CONTRACTOR SHALL CONTACT ALL OWNERS OF EASEMENTS, UTILITIES AND R.O.W.'S PUBLIC OR PRIVATE, PRIOR TO WORKING IN THESE AREAS.
3. CONTRACTOR SHALL MAINTAIN THE SITE IN A MANNER SO THAT WORKMEN AND PUBLIC SHALL BE PROTECTED FROM INJURY, AND ADJOINING PROPERTY PROTECTED FROM DAMAGE.
4. ACCESS TO UTILITIES, FIRE HYDRANTS, STREET LIGHTING, ETC., SHALL REMAIN UNDISTURBED, UNLESS COORDINATED WITH THE RESPECTIVE UTILITY.
5. DO NOT SCALE THIS DRAWING AS IT IS A REPRODUCTION AND SUBJECT TO DISTORTION.
6. THE GENERAL CONTRACTOR SHALL REMOVE ALL DEBRIS FROM THE SITE UPON COMPLETION OF THE PROJECT AND AT LEAST ONCE A WEEK DURING CONSTRUCTION.
7. THE GENERAL CONTRACTOR SHALL KEEP THE AREA OUTSIDE THE "CONSTRUCTION LIMITS" BROOM CLEAN AT ALL TIMES.
8. CONTRACTOR SHALL MAINTAIN AN "AS-BUILT" SET OF DRAWINGS TO RECORD THE EXACT LOCATION OF ALL PIPING PRIOR TO CONCEALMENT. DRAWINGS SHALL BE GIVEN TO THE OWNER UPON COMPLETION OF THE PROJECT WITH A COPY OF THE TRANSMITTAL LETTER TO THE ENGINEER.
9. IF DEPARTURES FROM THE SPECIFICATIONS OR DRAWINGS ARE DEEMED NECESSARY BY THE CONTRACTOR, DETAILS OF SUCH DEPARTURES AND REASONS THEREOF SHALL BE GIVEN TO THE OWNER FOR REVIEW. NO DEPARTURES FROM THE CONTRACT DOCUMENT SHALL BE MADE WITHOUT THE PERMISSION OF THE OWNER.
10. CONTRACTOR SHALL VERIFY LOCATION AND ELEVATION OF ALL UNDERGROUND UTILITIES. THE LOCATION OF ALL EXISTING UTILITIES ARE NOT NECESSARILY SHOWN ON PLANS AND WHERE SHOWN ARE ONLY APPROXIMATE. THE CONTRACTOR SHALL ON HIS INITIATIVE AND AT NO EXTRA COST HAVE LOCATED ALL UNDERGROUND LINES AND STRUCTURES AS NECESSARY. NO CLAIMS FOR DAMAGES OR EXTRA COMPENSATION SHALL ACCRUE TO THE CONTRACTOR FROM THE PRESENCE OF SUCH PIPE OTHER OBSTRUCTIONS OR FROM DELAY DUE TO REMOVAL OR REARRANGEMENT OF THE SAME. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO UNDERGROUND STRUCTURES. CONTACT NORTH CAROLINA ONE CALL* TOLL FREE 1-800-632-4949 AT LEAST 48 HOURS PRIOR TO CONSTRUCTION. THE CONTRACTOR IS RESPONSIBLE FOR CONTACTING ALL NONSUBSCRIBING UTILITIES.
11. ALL PERMITS RELATIVE TO PROJECT MUST BE OBTAINED, PRIOR TO CONSTRUCTION
12. ALL CONSTRUCTION TO BE IN ACCORDANCE WITH PERMITS ISSUED AND APPLICABLE STATE, COUNTY, AND LOCAL CODES.
13. FOR BUILDING DIMENSIONS, SEE ARCHITECTURAL DRAWINGS.
14. ALL DIMENSIONS AND RADII ARE TO OUTSIDE FACE OF BUILDING OR TO FACE OF CURB UNLESS OTHERWISE NOTED.
15. THE CONTRACTOR SHALL OBTAIN AND PAY FOR ALL INSPECTIONS, CERTIFICATIONS, EQUIPMENT, ETC., THAT MAY BE REQUIRED.
16. THE ENGINEER AND/OR OWNER DISCLAIM ANY ROLE IN THE CONSTRUCTION MEANS AND METHODS ASSOCIATED WITH THE PROJECT AS SET FORTH IN THESE PLANS.

GENERAL STORM SEWER NOTES

1. ALL STORM SEWERS SHALL BE CONSTRUCTED IN ACCORDANCE WITH NEW HANOVER COUNTY AND THE STATE OF NORTH CAROLINA REQUIREMENTS AS SPECIFIED ON THE DRAWINGS AND IN THE PROJECT SPECIFICATIONS.
2. BEDDING FOR ALL STORM SEWER PIPE SHALL BE AS SPECIFIED ON THE DRAWINGS, PROJECT SPECIFICATIONS, AND MANUFACTURER SPECIFICATIONS.
3. ALL STORM SEWER PIPES SHOWN AS RCP ON THE PLANS SHALL BE REINFORCED CONCRETE PIPE CONFORMING TO ASTM C-76, UNLESS INDICATED OTHERWISE ON PLANS.

EXISTING UTILITY NOTES

1. IT IS THE RESPONSIBILITY OF THE GENERAL CONTRACTOR TO VERIFY THE ACTUAL LOCATION AND AVAILABILITY OF ALL EXISTING AND PROPOSED UTILITIES IN THE FIELD PRIOR TO GROUND BREAKING.
2. EXISTING UTILITIES AND STRUCTURES SHOWN, BOTH UNDERGROUND AND ABOVE GROUND, ARE BASED ON A FIELD SURVEY AND THE BEST AVAILABLE RECORD DRAWINGS. THE CONTRACTOR SHALL FIELD VERIFY FIELD CONDITIONS PRIOR TO BEGINNING RELATED CONSTRUCTION. ANY DISCREPANCIES SHALL BE REPORTED TO THE OWNER'S REPRESENTATIVE IMMEDIATELY.

UTILITY CONTACTS:

1. CONTACT THE NORTH CAROLINA ONE CALL CENTER PRIOR TO DOING AND DIGGING. 1-800-632-4949

NOTICE REQUIRED

ALL EXISTING UNDERGROUND UTILITIES SHALL BE PHYSICALLY LOCATED BY CONTRACTOR PRIOR TO THE BEGINNING OF ANY CONSTRUCTION IN THE VICINITY OF SAID UTILITIES.


CONTRACTORS SHALL NOTIFY OPERATORS WHO MAINTAIN UNDERGROUND UTILITY LINES IN THE AREA OF PROPOSED EXCAVATION AT LEAST THREE WORKING DAYS, BUT NOT MORE THAN TWELVE WORKING DAYS PRIOR TO ANY EXCAVATION OR DEMOLITION.

CONTACT "CAROLINA ONE CALL" AT
1-800-632-4949 or 811

EMERGENCY DIAL 911 POLICE - FIRE - RESCUE

STATE OF NORTH CAROLINA
COUNTY OF NEW HANOVER

CITY OF WILMINGTON
SUBDIVISION REVIEW BOARD
FILE NO.: SRB-6-421

ATTEST:

Amy Bradshaw
Designated Secretary to the Subdivision Review Board

ORDER APPROVING A PRELIMINARY PLAN

This matter came before the Wilmington Subdivision Review Board (SRB) for a public hearing on April 21, 2021, to consider case number SRB-6-421 submitted by Port City Consulting Engineers, PLLC on behalf of Life Church for preliminary plan approval for the construction of a public street and utility extensions located at 3930 Independence Boulevard. The property contains approximately 17 acres and is currently zoned R-15, Residential District.

The SRB having heard the evidence and arguments presented at the hearing makes the following findings of fact:

1. The site includes approximately 17.0 acres of a larger 26.3 acre tract that is vacant and currently zoned R-15, Residential.
2. On April 20, 2016, the Wilmington Subdivision Review Board approved a preliminary plan for a 30,000 square-foot religious institution that included the construction of a private street, utility extensions, and stormwater management facilities. This project was never constructed, and the approval has since expired.
3. The applicant proposes to construct a new public cul-de-sac street to provide access the site.
4. The parent tract has frontage on both Independence Boulevard and Carolina Beach Road.
5. The new public street is proposed as a 60-foot private non-residential collector street with a 36-foot drive aisle, vertical curb and gutter, and a 7-foot wide plaza.
6. The applicant proposes to extend water and sewer infrastructure into the subject property to serve the development.
7. The applicant proposes to construct stormwater management infrastructure to serve the proposed development.
8. The Technical Standards and Specifications Manual stipulates that all public and private streets include sidewalks on both sides of the street. The applicant proposes sidewalk on one side of the street due to the proposed street cross-section and wetland crossing and a waiver is required.

THEREFORE, IT IS ORDERED that the preliminary plan for the construction of a public street and utility extensions located at 3930 Independence Boulevard is approved subject to the following:

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.

SRB Approval Order SRB-6-421 3930 Independence Boulevard Page 1 of 3


SRB Approval Order SRB-6-421 3930 Independence Boulevard Page 3 of 3

2. Approval of this preliminary plan does not constitute technical approval of a site plan. Final approval by the Technical Review Committee and the issuance of all required permits must occur prior to release of the project for construction.
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 preliminary plan shall be null and void.
4. The use and development of the subject property shall be in accordance with the approved preliminary plan as submitted and approved.
5. Utilities shall be placed in appropriate locations relative to the public rights-of-way and co-location of water and sewer utilities with the required street trees (per the City TSSM) shall be pursued by the applicant and designer.
6. A tree preservation plan and tree removal permit shall be required for this project and city staff shall issue these based on acceptable limits of clearing and tree preservation.
7. Trees designated to be preserved shall be properly protected during construction and tree protection fencing shall be noted on the construction plans. Tree clearing will be limited to essential site improvements within the project limits as shown on the approved site plan.
8. If necessary, resource areas, buffers and setbacks per requirements of the LDC shall be shown and labeled on the Preliminary Plan.
9. All existing and proposed public and non-municipal easements shall be added as necessary to the Preliminary Plan.
10. An acceptable Preliminary Plan which adequately addresses all TRC/SRB comments shall be submitted for signature within thirty (30) calendar days of SRB approval.
11. The applicant shall obtain approval of the street name from the city addressing coordinator and place the approved name on the Preliminary Plan. This is required prior to plat recordation and/or site plan submission.
12. All City, State and Federal regulations shall be met.
13. All Technical Review Committee requirements shall be met.

It is further ordered that the following allowances and waivers from the city's technical standards (TSSM) and Land Development Code (LDC) requirements are granted:

1. Conditional approval of a waiver to allow sidewalk to be constructed on only the north side of the street due to the location of the existing wetlands. Sidewalk shall be required along the southwestern side of the street if that site is ever developed in the future.

SIGNED this 23rd day of APRIL, 2021.


David Cowell, Chairman
Subdivision Review Board

SRB Approval Order SRB-6-421 3930 Independence Boulevard Page 2 of 3

No.	Revision	Date	By
1	REVISED PER CITY COMMENTS	11/2/21	MNH

Designer	MNH	Scale	AS SHOWN
Drawn By	MNH	Date	JUNE, 2021
Checked By	MNH	Job No.	

NEW HANOVER COUNTY

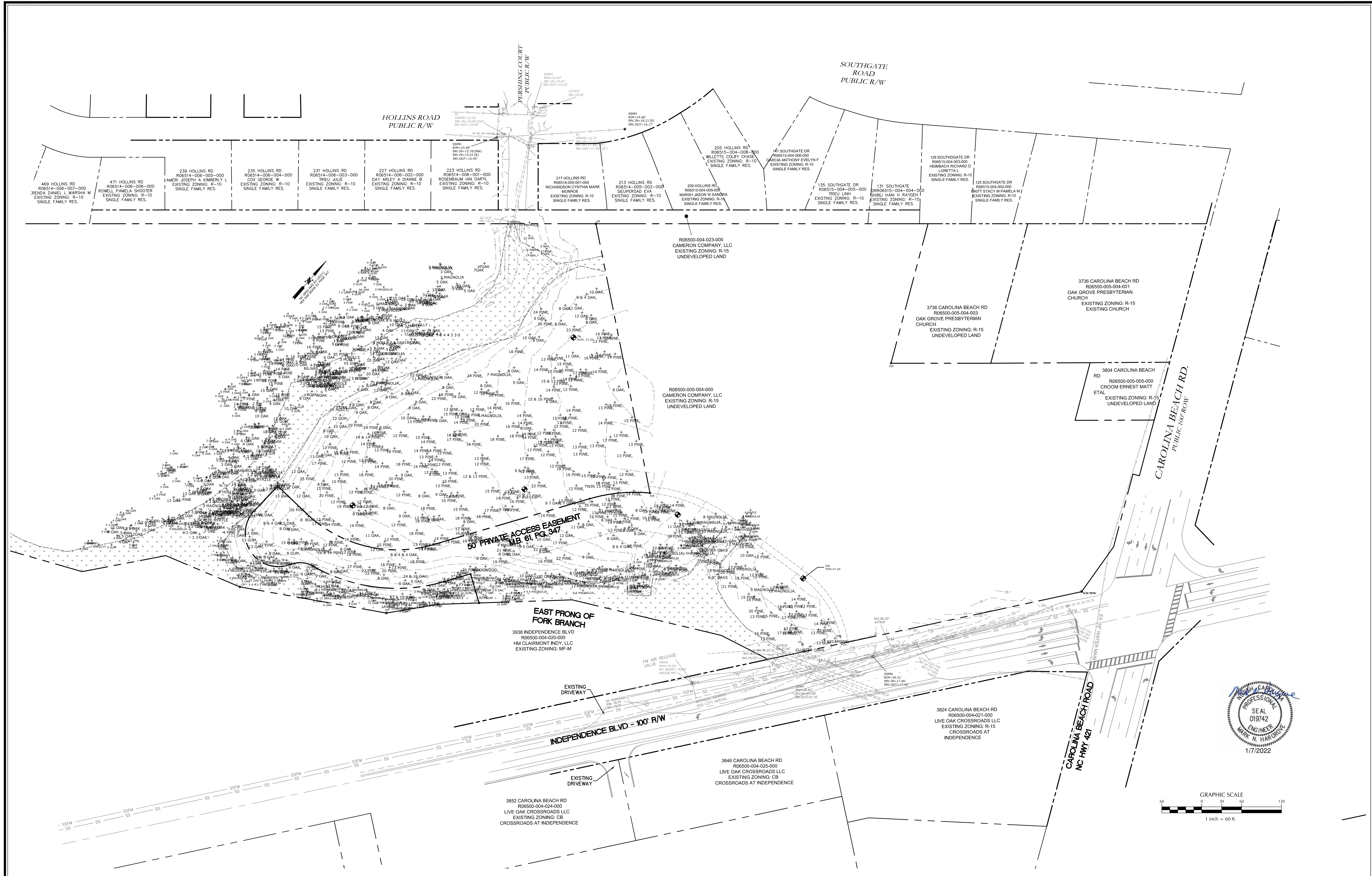
LIFE CHURCH
NORTH CAROLINA

LIFE CHURCH
P.O. BOX 3489
WILMINGTON, NC 28403

PORT CITY CONSULTING
ENGINEERS, PLLC
6216 STONEBRIDGE ROAD
WILMINGTON, NC 28409
910-599-1744 LICENSE No. P-1032

GENERAL NOTES

Sheet No.
C-1



No.	Revision	Date	By
1	ADDED TREES	1/7/22	MNH

Designer: MNH
 Date: MAY, 2021
 Scale: AS SHOWN
 Drawn By: MNH
 Checked By: MNH

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EXISTING CONDITIONS

Sheet No.
C-2

30° RCP
INV. 11.31

R06500-004-023-000
CAMERON COMPANY, LLC
EXISTING ZONING: R-15
UNDEVELOPED LAND

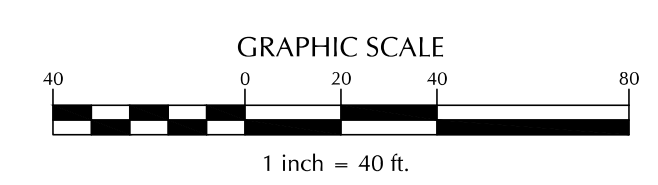
3736 C
ROE
OAK GROVE
CHURCH
EXIS'
UND

R06500-005-004-000
CAMERON COMPANY, LLC
EXISTING ZONING: R-15
UNDEVELOPED LAND

- 15 PINE X REGULATED TREE TO BE REMOVED
- (X) SIGNIFICANT TREE TO BE REMOVED
- (+) SIGNIFICANT TREE BEING SAVED AND REMAINING ON SITE

3938 INDEPENDENCE BLVD
R06500-004-020-000
HM CLAIRMONT INDY, LLC
EXISTING ZONING: MF-M

3846 CAROLINA BEACH RD
R06500-004-025-000
LIVE OAK CROSSROADS LLC
EXISTING ZONING: CB
CROSSROADS AT INDEPENDENCE



No.	Revision	Date	By
1	REVISED TREE REMOVAL PLAN	1/7/22	MNH

Designer	MNH	Scale	AS SHOWN
Drawn By	MNH	Date	MAY, 2021
Checked By	MNH	Job No.	

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WILMINGTON, NC 28409
910-599-1744 LICENSE No. P-1032

TREE REMOVAL PLAN

Sheet No.
C-2.1

TREE SCHEDULE

Table with 2 columns: Point, Description. Contains tree inventory data for points 160-401.

Table with 2 columns: Point, Description. Contains tree inventory data for points 402-615.

Table with 2 columns: Point, Description. Contains tree inventory data for points 616-1024.

Table with 2 columns: Point, Description. Contains tree inventory data for points 1024-1515.

TREES LOCATED 12-6-21

Table with 2 columns: Point, Description. Contains tree inventory data for points 1316-1484.

TREES LOCATED 12-16-21

Table with 2 columns: Point, Description. Contains tree inventory data for points 1385-1515.

TREES LOCATED 12-16-21

Table with 2 columns: Point, Description. Contains tree inventory data for points 1446-1572.

TREES LOCATED 12-20-21

Table with 2 columns: Point, Description. Contains tree inventory data for points 1573-1705.

TREES LOCATED 12-20-21

Table with 2 columns: Point, Description. Contains tree inventory data for points 1706-1834.

TREES LOCATED 12-22-21

Table with 2 columns: Point, Description. Contains tree inventory data for points 1835-1961.

TREES LOCATED 12-22-21

Table with 2 columns: Point, Description. Contains tree inventory data for points 1962-2031.

TREES LOCATED 12-22-21

Table with 2 columns: Point, Description. Contains tree inventory data for points 1765-1961.

TREES LOCATED 12-23-21

Table with 2 columns: Point, Description. Contains tree inventory data for points 1903-1961.



1/7/2022

Revision table with columns: No., Revision, Date, By.

Design information table with columns: Designer, Scale, Date, Checked By.

Project name: LIFE CHURCH, location: WILMINGTON, NORTH CAROLINA.

Client information: LIFE CHURCH, P.O. BOX 3489, WILMINGTON, NC 28403.

Consulting firm: PORT CITY CONSULTING ENGINEERS, PLLC, 6216 STONEBRIDGE ROAD, WILMINGTON, NC 28409.

Project title: TREE SCHEDULE, Sheet No. C-2.2.

NC GRID NAD 83 (2011)
REF. MAP BOOK G1 PAGE 347

NOTES:

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

ANY TREES AND/OR AREAS DESIGNATED TO BE PROTECTED MUST BE PROPERLY BARRICADED WITH FENCING AND PROTECTED THROUGHOUT CONSTRUCTION TO INSURE THAT NO CLEARING, GRADING OR STAGING OF MATERIALS WILL OCCUR IN THOSE AREAS.

NO EQUIPMENT IS ALLOWED ON SITE UNTIL ALL TREE PROTECTION FENCING AND SILT FENCING IS INSTALLED AND APPROVED. PROTECTIVE FENCING IS TO BE MAINTAINED THROUGHOUT THE DURATION OF THE PROJECT, AND CONTRACTORS SHALL RECEIVE ADEQUATE INSTRUCTION ON TREE PROTECTION METHODS.

ANY REQUIRED INSTALLATION OR RELOCATION OF TRAFFIC SIGNS IS THE RESPONSIBILITY OF THE PROJECT DEVELOPER. PLEASE COORDINATE WITH CITY TRAFFIC SIGNS AND MARKINGS MANAGER OR SUPERVISOR PRIOR TO INSTALLATION OF ANY TRAFFIC SIGNS OR MARKINGS IN PUBLIC ROW.

ALL PAVEMENT MARKINGS IN PUBLIC RIGHTS-OF-WAY AND FOR DRIVEWAYS ARE TO BE THERMOPLASTIC AND MEET CITY AND/OR NCDOT STANDARDS. [DETAIL SD 11-03 AND SD 15-13 COW TECH STDS]

ALL SIGNS AND PAVEMENT MARKINGS IN AREAS OPEN TO THE PUBLIC TRAFFIC MUST MEET MUTCD (MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES) STANDARDS [DETAILS SD 15-13 COW TECH STDS]

ALL TRAFFIC CONTROL SIGNS AND MARKINGS OFF THE RIGHT-OF-WAY ARE TO BE MAINTAINED BY THE PROPERTY OWNER IN ACCORDANCE WITH MUTCD STANDARDS.

ALL PARKING STALL MARKINGS AND LANE ARROWS WITHIN THE PARKING AREAS SHALL BE WHITE

A UTILITY CUT PERMIT IS REQUIRED FOR EACH OPEN CUT OF A CITY STREET. CONTACT 341-5888 FOR MORE DETAILS.

ANY BROKEN OR MISSING SIDEWALK PANELS, DRIVEWAY PANELS AND CURBING WILL BE REPLACED.

CONTACT THE NORTH CAROLINA ONE CALL CENTER AT 1-800-632-4949 (811) PRIOR TO CONTACTING CITY OF WILMINGTON, TRAFFIC ENGINEERING REGARDING THE UTILITIES IN THE ROW.

CALL TRAFFIC ENGINEERING AT 910-341-7888 TO DISCUSS STREET LIGHTING OPTIONS.

A LANDSCAPING PLAN INDICATING THE LOCATION OF REQUIRED STREET TREES SHALL BE SUBMITTED TO THE CITY OF WILMINGTON TRAFFIC DIVISION AND RECREATION DEPARTMENT FOR REVIEW AND APPROVAL PRIOR TO RECORDING THE FINAL PLAT.

TACTILE WARNING MATS WILL BE INSTALLED ON ALL WHEELCHAIR RAMPS

WATER AND SEWER SERVICE SHALL MEET CAPE FEAR PUBLIC UTILITY AUTHORITY (CFPUA) DETAILS AND SPECIFICATIONS

PROJECT SHALL COMPLY WITH CFPUA CROSS CONNECTION CONTROL REQUIREMENTS. WATER METER(S) CANNOT BE RELEASED UNTIL ALL REQUIREMENTS ARE MET AND THE STATE HAS GIVEN THEIR FINAL APPROVAL. CALL 910-343-3910 FOR INFORMATION

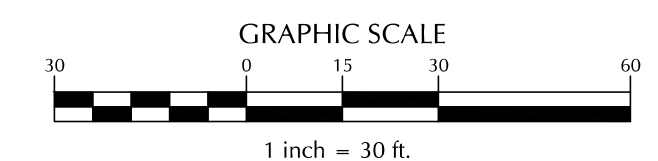
IF THE CONTRACTOR DESIRES CFPUA WATER FOR CONSTRUCTION, HE SHALL APPLY IN ADVANCE FOR THIS SERVICE AND MUST PROVIDE A REDUCED PRESSURE ZONE (RPZ) BACKFLOW PREVENTION DEVICE ON THE DEVELOPER'S SIDE OF THE WATER METER BOX

NO OBSTRUCTIONS ARE PERMITTED IN THE SPACE BETWEEN THIRTY (30) INCHES AND TEN (10) FEET ABOVE THE GROUND WITHIN THE TRIANGULAR SIGHT DISTANCE

R06500-005-004-000
CAMERON COMPANY, LLC
EXISTING ZONING: R-15
UNDEVELOPED LAND

PROPOSED
LIFE CHURCH
16,500 SF FOOTPRINT

3938 INDEPENDENCE BLVD
R06500-004-020-000
HM CLAIRMONT INDY, LLC
EXISTING ZONING: MF-M



No.	Revision	Date	By

Designer	MNH	Scale	AS SHOWN
Drawn By	MNH	Date	MAY, 2021
Checked By	MNH	Job No.	

LIFE CHURCH
WILMINGTON
NORTH CAROLINA

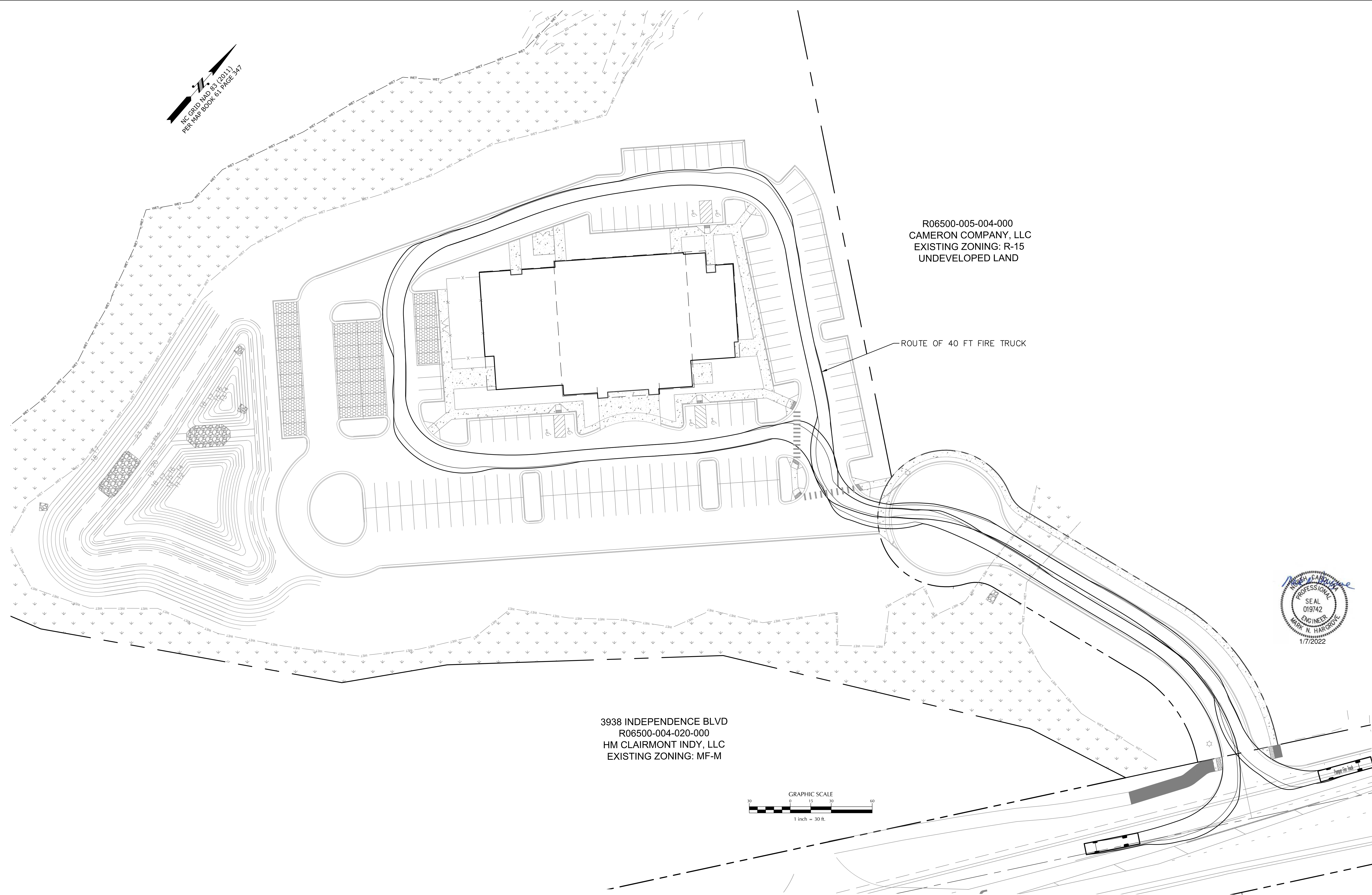
LIFE CHURCH
P.O. BOX 3489
WILMINGTON, NC 28403

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6216 STONEBRIDGE ROAD
WILMINGTON, NC 28409
910-599-1744 LICENSE No. P-1032

SITE LAYOUT PLAN

Sheet No.
C-3

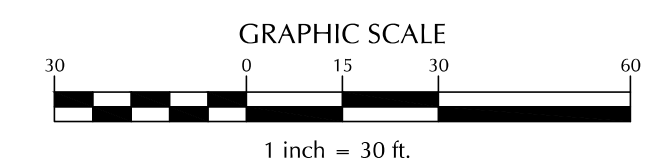
NC CRUI NMD 63 (2011)
PER MAP BOOK 61 PAGE 347



R06500-005-004-000
CAMERON COMPANY, LLC
EXISTING ZONING: R-15
UNDEVELOPED LAND

ROUTE OF 40 FT FIRE TRUCK

3938 INDEPENDENCE BLVD
R06500-004-020-000
HM CLAIRMONT INDY, LLC
EXISTING ZONING: MF-M



No.	Revision	Date	By

Designer	MNH	Scale	AS SHOWN
Drawn By	MNH	Date	MAY, 2021
Checked By	MNH	Job No.	

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NORTH CAROLINA

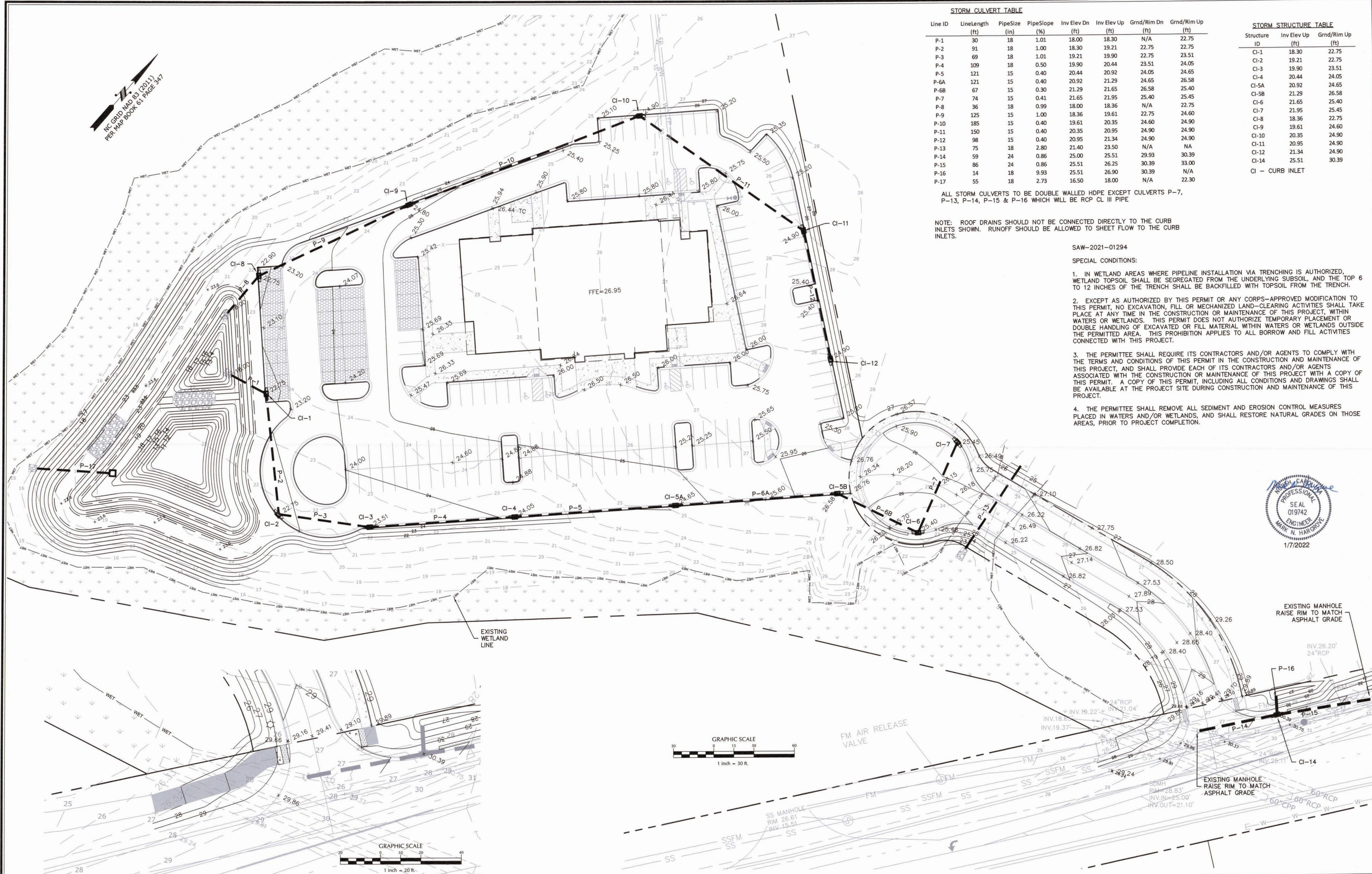
LIFE CHURCH
P.O. BOX 3489
WILMINGTON, NC 28403

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910-599-1744 LICENSE No. P-1032

TRUCK TURNING TEMPLATE

Sheet No.
C-3.1

NC GRID MAP 83 (2011)
 PER MAP BOOK 6, PAGE 347



Line ID	Line Length (ft)	Pipe Size (in)	Pipe Slope (%)	Inv Elev Dn (ft)	Inv Elev Up (ft)	Grnd/Rim Dn (ft)	Grnd/Rim Up (ft)
P-1	30	18	1.01	18.00	18.30	N/A	22.75
P-2	91	18	1.00	18.30	19.21	22.75	22.75
P-3	69	18	1.01	19.21	19.90	22.75	23.51
P-4	109	18	0.50	19.90	20.44	23.51	24.05
P-5	121	15	0.40	20.44	20.92	24.05	24.65
P-6A	121	15	0.40	20.92	21.29	24.65	26.58
P-6B	67	15	0.30	21.29	21.65	26.58	25.40
P-7	74	15	0.41	21.65	21.95	25.40	25.45
P-8	36	18	0.99	18.00	18.36	N/A	22.75
P-9	125	15	1.00	18.36	19.61	22.75	24.60
P-10	185	15	0.40	19.61	20.35	24.60	24.90
P-11	150	15	0.40	20.35	20.95	24.90	24.90
P-12	98	15	0.40	20.95	21.34	24.90	24.90
P-13	75	18	2.80	21.40	23.50	N/A	NA
P-14	59	24	0.86	25.00	25.51	29.93	30.39
P-15	86	24	0.86	25.51	26.25	30.39	33.00
P-16	14	18	9.93	25.51	26.90	30.39	N/A
P-17	55	18	2.73	16.50	18.00	N/A	22.30

Structure ID	Inv Elev Up (ft)	Grnd/Rim Up (ft)
CI-1	18.30	22.75
CI-2	19.21	22.75
CI-3	19.90	23.51
CI-4	20.44	24.05
CI-5A	20.92	24.65
CI-5B	21.29	26.58
CI-6	21.65	25.40
CI-7	21.95	25.45
CI-8	18.36	22.75
CI-9	19.61	24.60
CI-10	20.35	24.90
CI-11	20.95	24.90
CI-12	21.34	24.90
CI-14	25.51	30.39

CI - CURB INLET

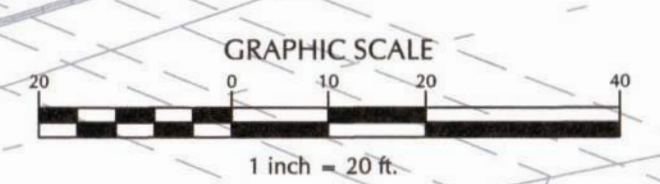
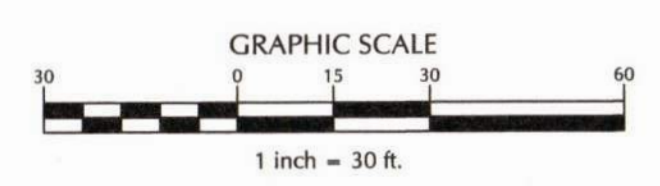
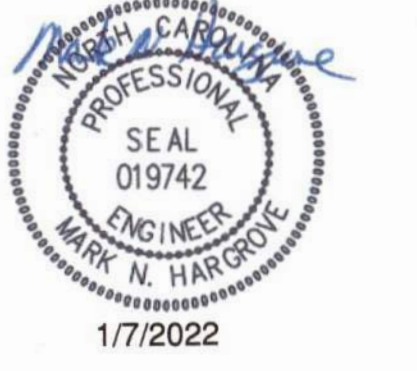
ALL STORM CULVERTS TO BE DOUBLE WALLED HDPE EXCEPT CULVERTS P-7, P-13, P-14, P-15 & P-16 WHICH WILL BE RCP CL III PIPE

NOTE: ROOF DRAINS SHOULD NOT BE CONNECTED DIRECTLY TO THE CURB INLETS SHOWN. RUNOFF SHOULD BE ALLOWED TO SHEET FLOW TO THE CURB INLETS.

SAW-2021-01294

SPECIAL CONDITIONS:

- IN WETLAND AREAS WHERE PIPELINE INSTALLATION VIA TRENCHING IS AUTHORIZED, WETLAND TOPSOIL SHALL BE SEGREGATED FROM THE UNDERLYING SUBSOIL, AND THE TOP 6 TO 12 INCHES OF THE TRENCH SHALL BE BACKFILLED WITH TOPSOIL FROM THE TRENCH.
- EXCEPT AS AUTHORIZED BY THIS PERMIT OR ANY CORPS-APPROVED MODIFICATION TO THIS PERMIT, NO EXCAVATION, FILL OR MECHANIZED LAND-CLEARING ACTIVITIES SHALL TAKE PLACE AT ANY TIME IN THE CONSTRUCTION OR MAINTENANCE OF THIS PROJECT, WITHIN WATERS OR WETLANDS. THIS PERMIT DOES NOT AUTHORIZE TEMPORARY PLACEMENT OR DOUBLE HANDLING OF EXCAVATED OR FILL MATERIAL WITHIN WATERS OR WETLANDS OUTSIDE THE PERMITTED AREA. THIS PROHIBITION APPLIES TO ALL BORROW AND FILL ACTIVITIES CONNECTED WITH THIS PROJECT.
- THE PERMITTEE SHALL REQUIRE ITS CONTRACTORS AND/OR AGENTS TO COMPLY WITH THE TERMS AND CONDITIONS OF THIS PERMIT IN THE CONSTRUCTION AND MAINTENANCE OF THIS PROJECT, AND SHALL PROVIDE EACH OF ITS CONTRACTORS AND/OR AGENTS ASSOCIATED WITH THE CONSTRUCTION OR MAINTENANCE OF THIS PROJECT WITH A COPY OF THIS PERMIT. A COPY OF THIS PERMIT, INCLUDING ALL CONDITIONS AND DRAWINGS SHALL BE AVAILABLE AT THE PROJECT SITE DURING CONSTRUCTION AND MAINTENANCE OF THIS PROJECT.
- THE PERMITTEE SHALL REMOVE ALL SEDIMENT AND EROSION CONTROL MEASURES PLACED IN WATERS AND/OR WETLANDS, AND SHALL RESTORE NATURAL GRADES ON THOSE AREAS, PRIOR TO PROJECT COMPLETION.



No.	Revision	Date	By
1	REVISED PLAN	1/7/22	MNH

Designer: MNH
 Scale: AS SHOWN
 Drawn By: MNH
 Date: MAY, 2021
 Checked By: MNH
 Job No.

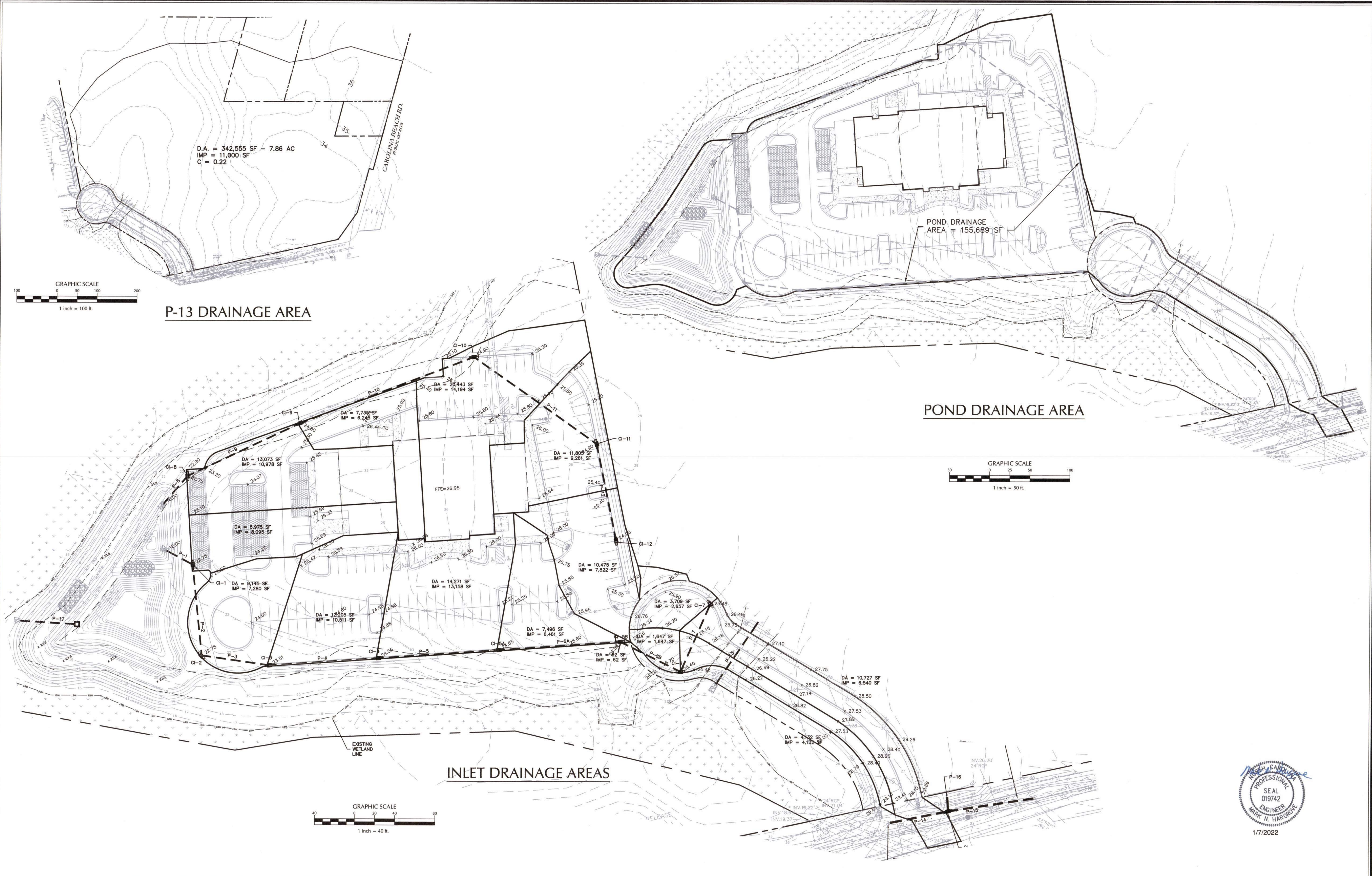
LIFE CHURCH
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 NORTH CAROLINA

LIFE CHURCH
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 WILMINGTON, NC 28403

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GRADING & DRAINAGE PLAN

Sheet No. C-4



D.A. = 342,555 SF - 7.86 AC
 IMP = 11,000 SF
 C = 0.22

POND DRAINAGE
 AREA = 155,689 SF

P-13 DRAINAGE AREA

POND DRAINAGE AREA

INLET DRAINAGE AREAS

GRAPHIC SCALE
 1 inch = 40 ft.



1/7/2022

No.	Revision	Date	By
1	REVISED SITE PLAN	1/7/22	MNH

Designer	MNH	Scale	AS SHOWN
Drawn By	MNH	Date	MAY, 2021
Checked By	MNH	Job No.	

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 NORTH CAROLINA

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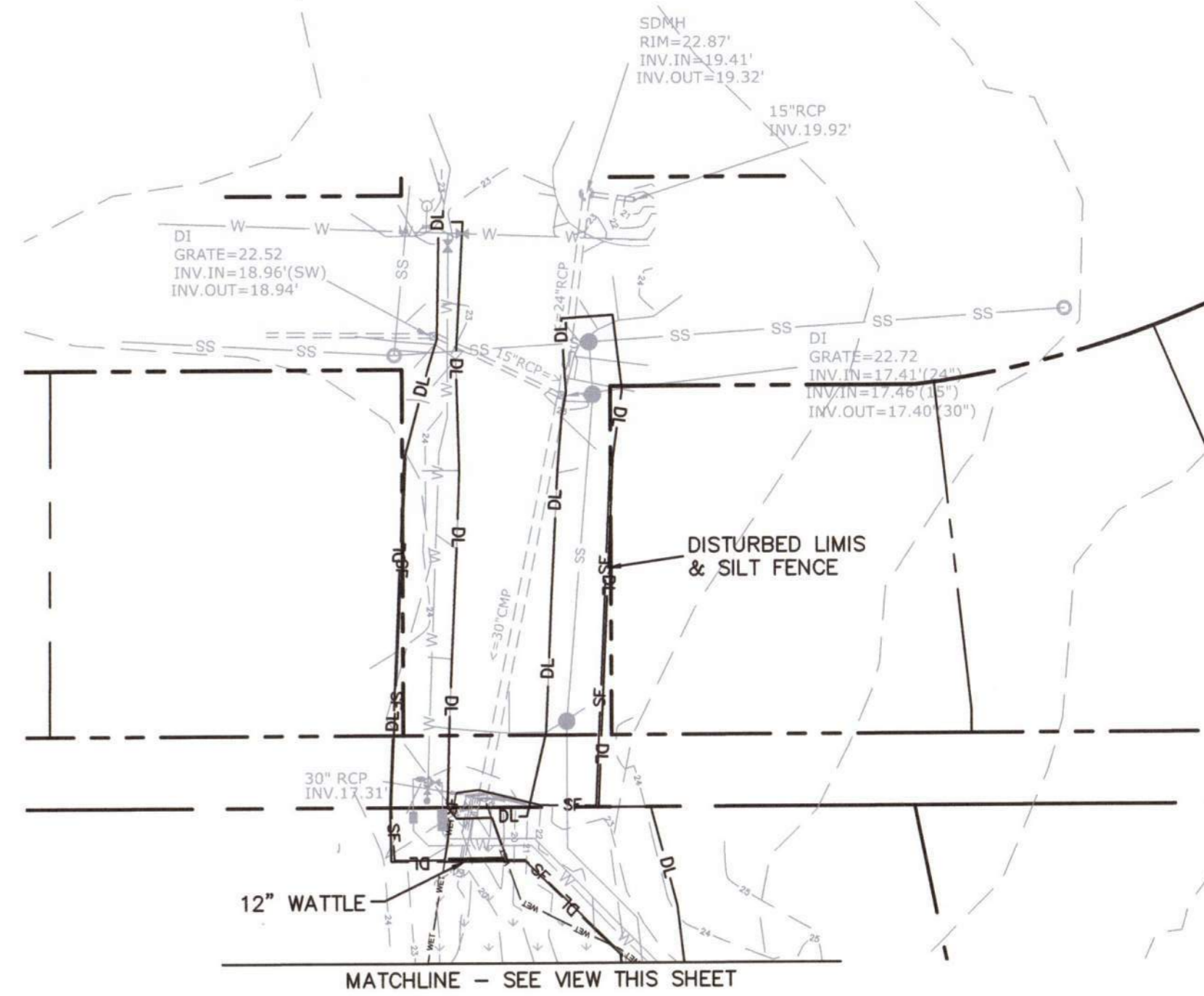
PORT CITY CONSULTING ENGINEERS, PLLC
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 910-599-1744 LICENSE No. P-1032

DRAINAGE AREA PLAN

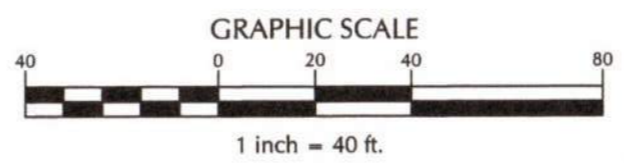
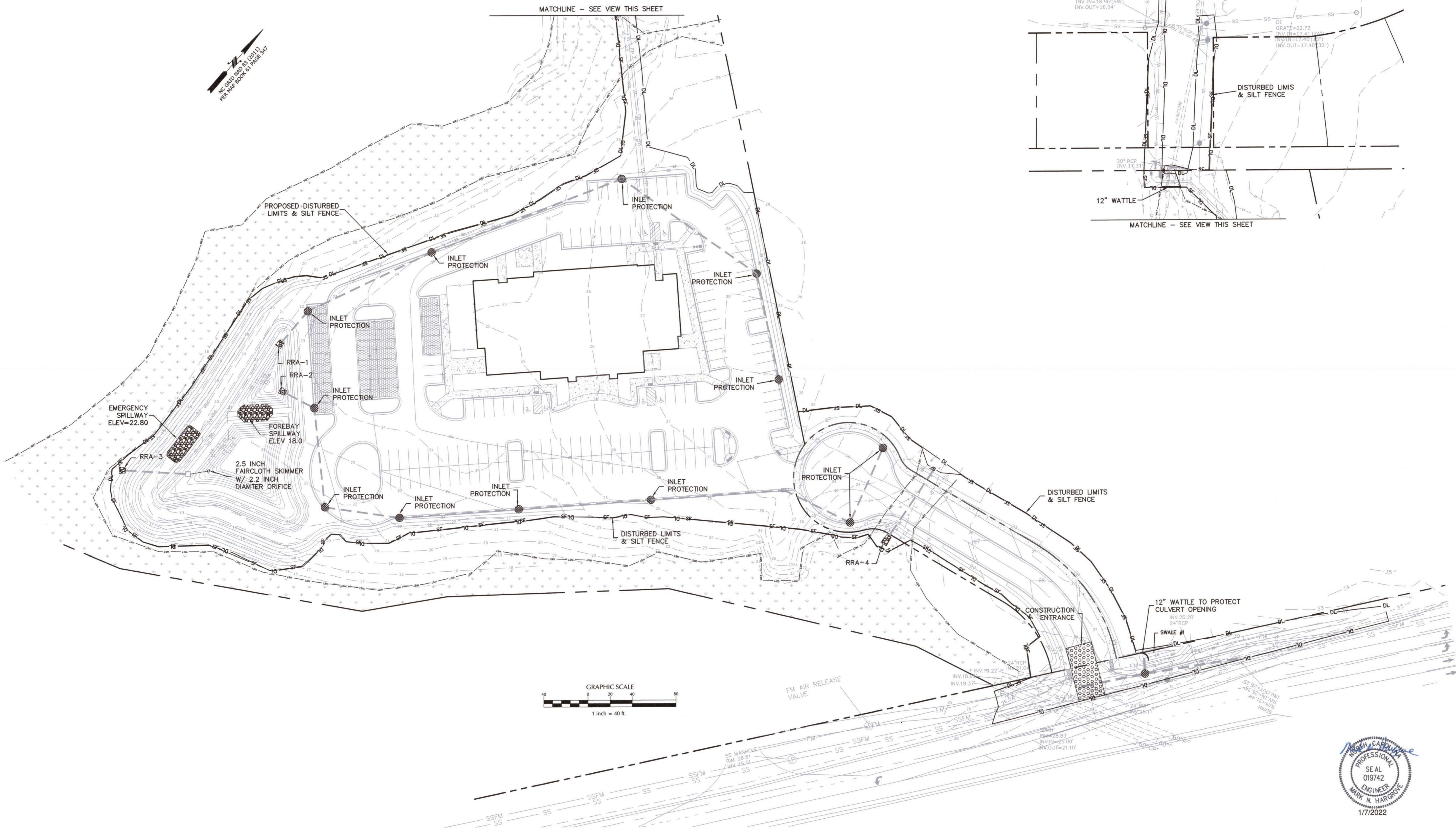
Sheet No.
C-4.1



MATCHLINE - SEE VIEW THIS SHEET



MATCHLINE - SEE VIEW THIS SHEET



No.	Revision	Date	By
1	REVISED SITE & PER COUNTY COMMENTS	1/7/22	MNH

Designer	MNH	Scale	AS SHOWN
Drawn By	MNH	Date	MAY, 2021
Checked By	MNH	Job No.	

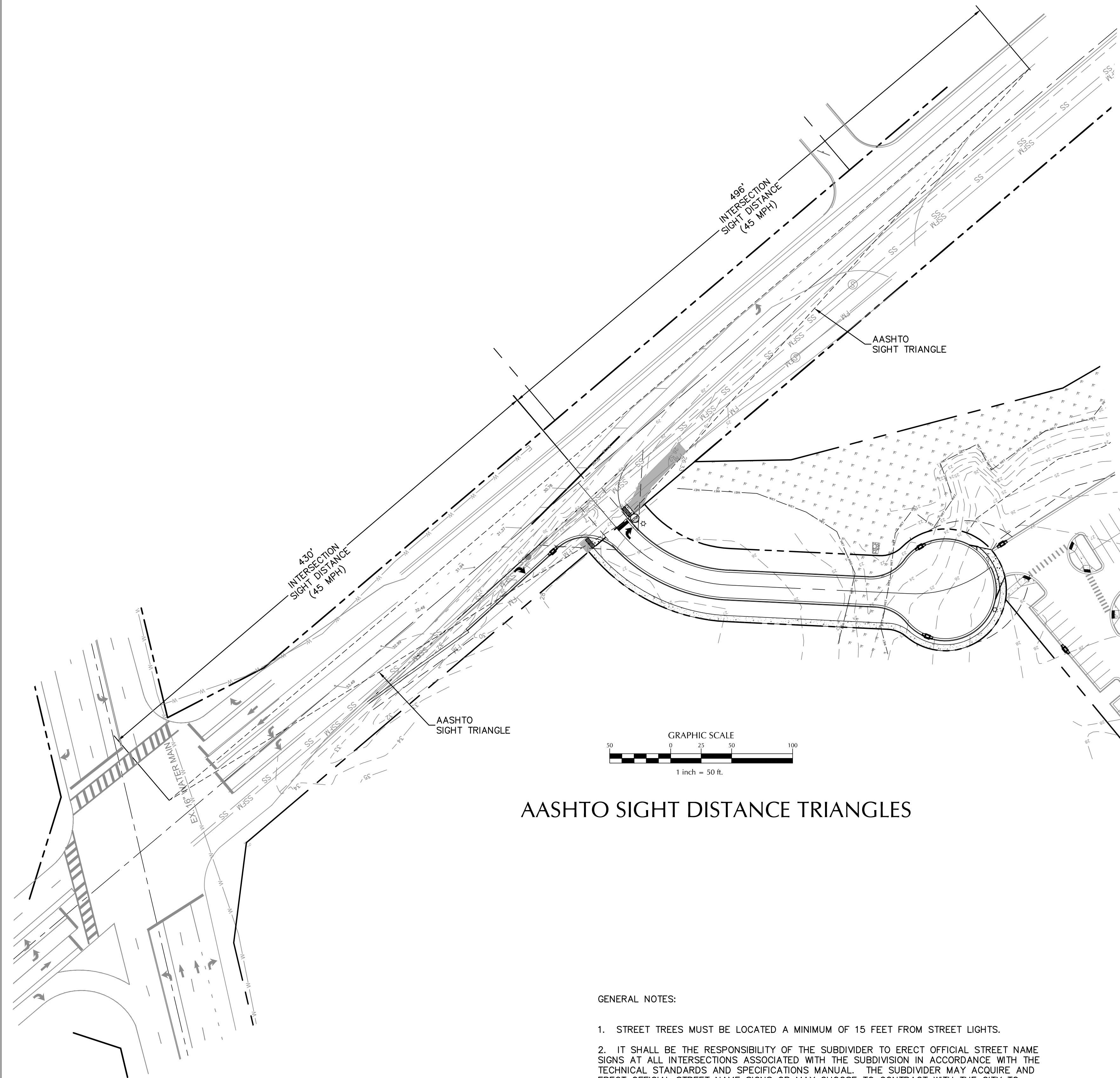
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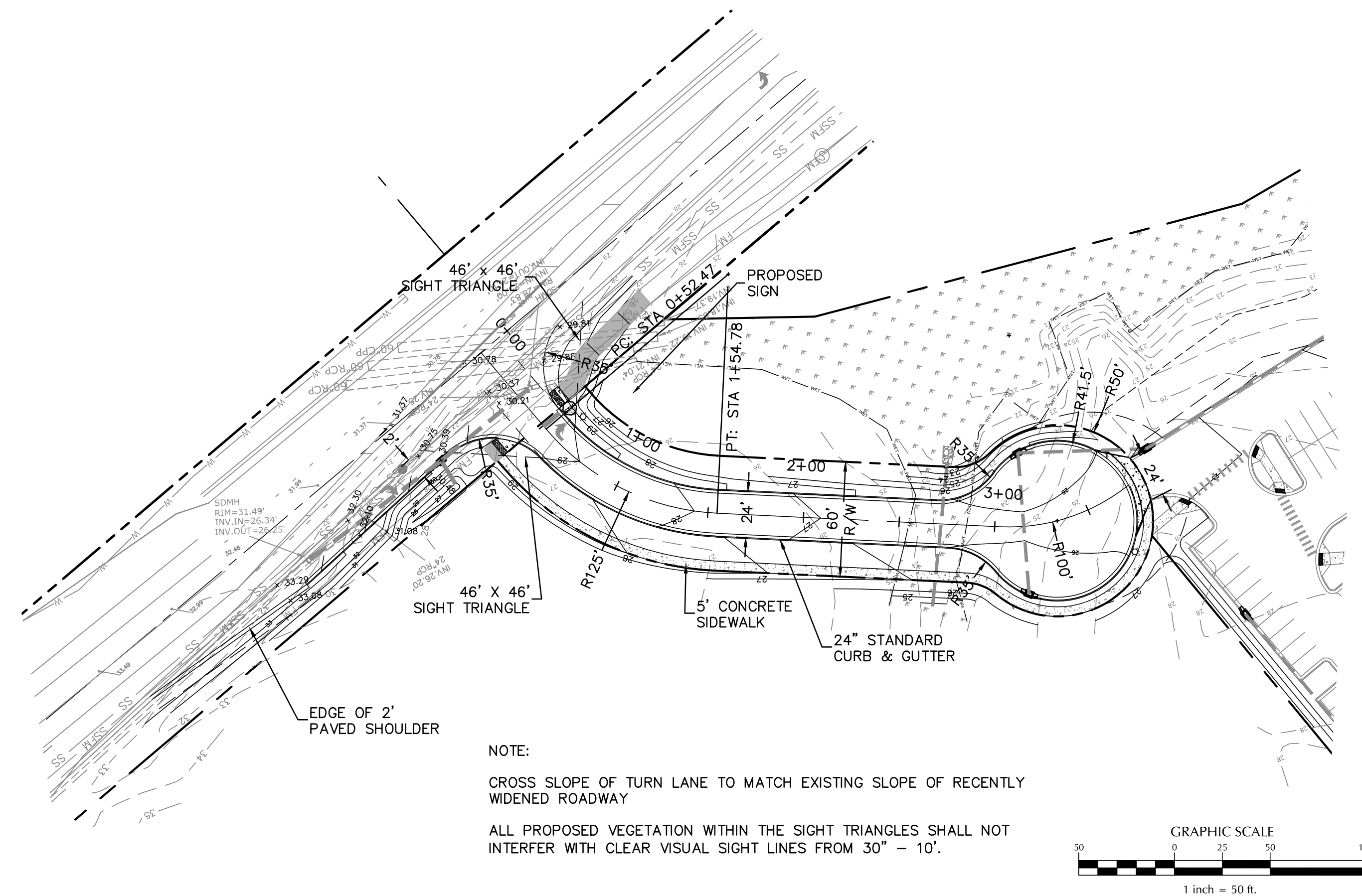
EROSION CONTROL PLAN

Sheet No.
 C-5

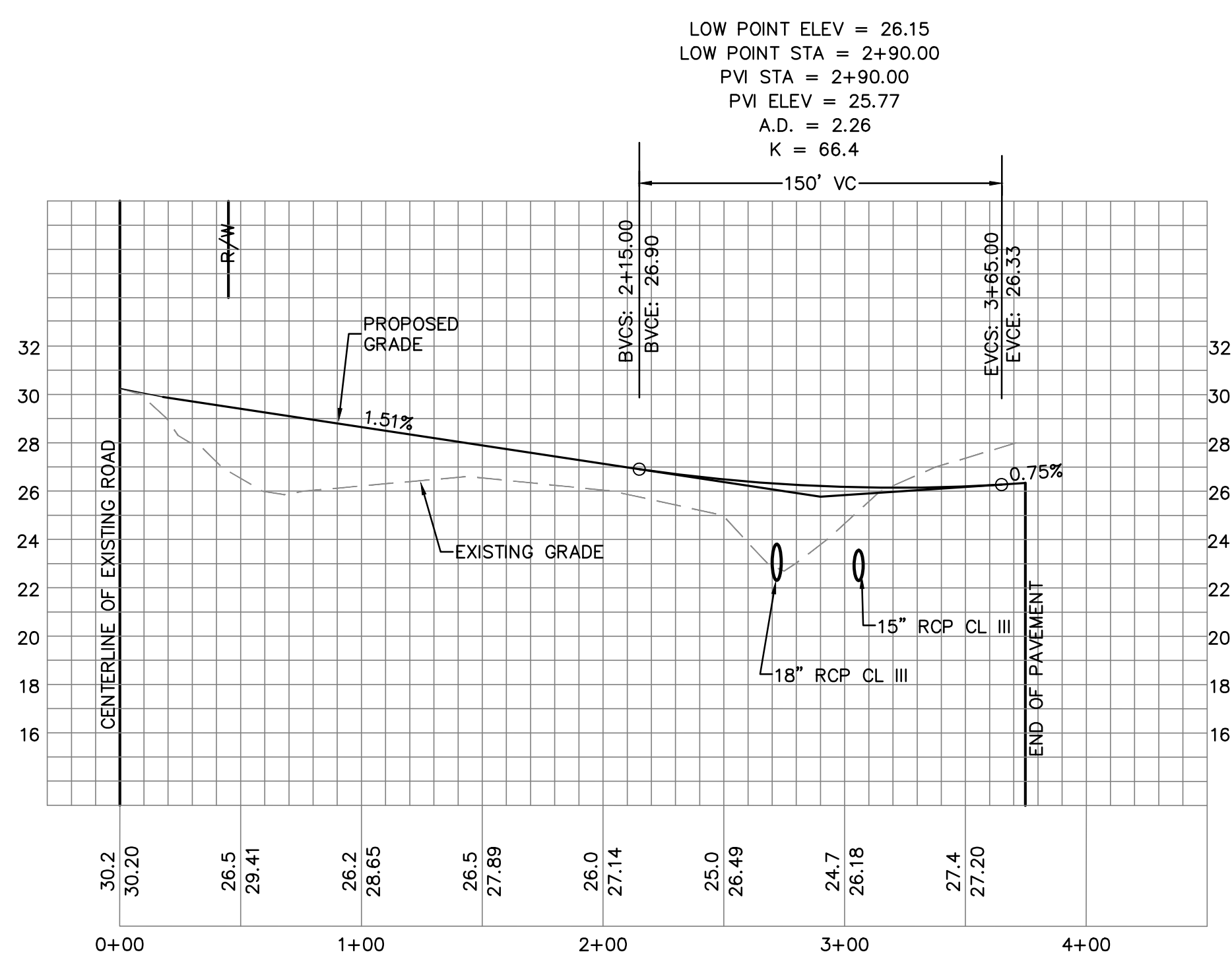


AASHTO SIGHT DISTANCE TRIANGLES

- GENERAL NOTES:
1. STREET TREES MUST BE LOCATED A MINIMUM OF 15 FEET FROM STREET LIGHTS.
 2. IT SHALL BE THE RESPONSIBILITY OF THE SUBDIVIDER TO ERECT OFFICIAL STREET NAME SIGNS AT ALL INTERSECTIONS ASSOCIATED WITH THE SUBDIVISION IN ACCORDANCE WITH THE TECHNICAL STANDARDS AND SPECIFICATIONS MANUAL. THE SUBDIVIDER MAY ACQUIRE AND ERECT OFFICIAL STREET NAME SIGNS OR MAY CHOOSE TO CONTRACT WITH THE CITY TO INSTALL THE STREET SIGNS AND THE SUBDIVIDER SHALL PAY THE COST OF SUCH INSTALLATION. CONTACT TRAFFIC ENGINEERING AT 341-7888 TO DISCUSS INSTALLATION OF TRAFFIC AND STREET NAME SIGNS. PROPOSED STREET NAMES MUST BE APPROVED PRIOR TO INSTALLATION OR STREET SIGNS.



NOTE:
 CROSS SLOPE OF TURN LANE TO MATCH EXISTING SLOPE OF RECENTLY WIDENED ROADWAY.
 ALL PROPOSED VEGETATION WITHIN THE SIGHT TRIANGLES SHALL NOT INTERFERE WITH CLEAR VISUAL SIGHT LINES FROM 30' - 10'.



No.	Revision	Date	By
1	REVISED PLAN PER CITY COMMENTS	1/7/22	MNH

Designer	MNH	Scale	AS SHOWN
Drawn By	MNH	Date	MAY, 2021
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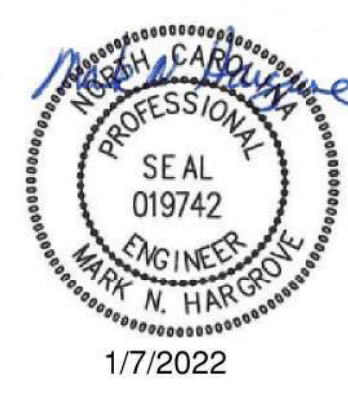
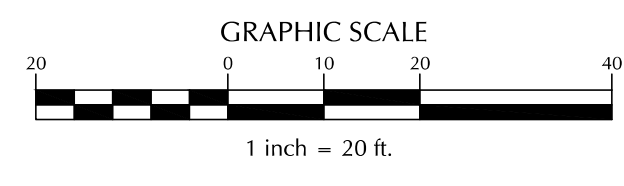
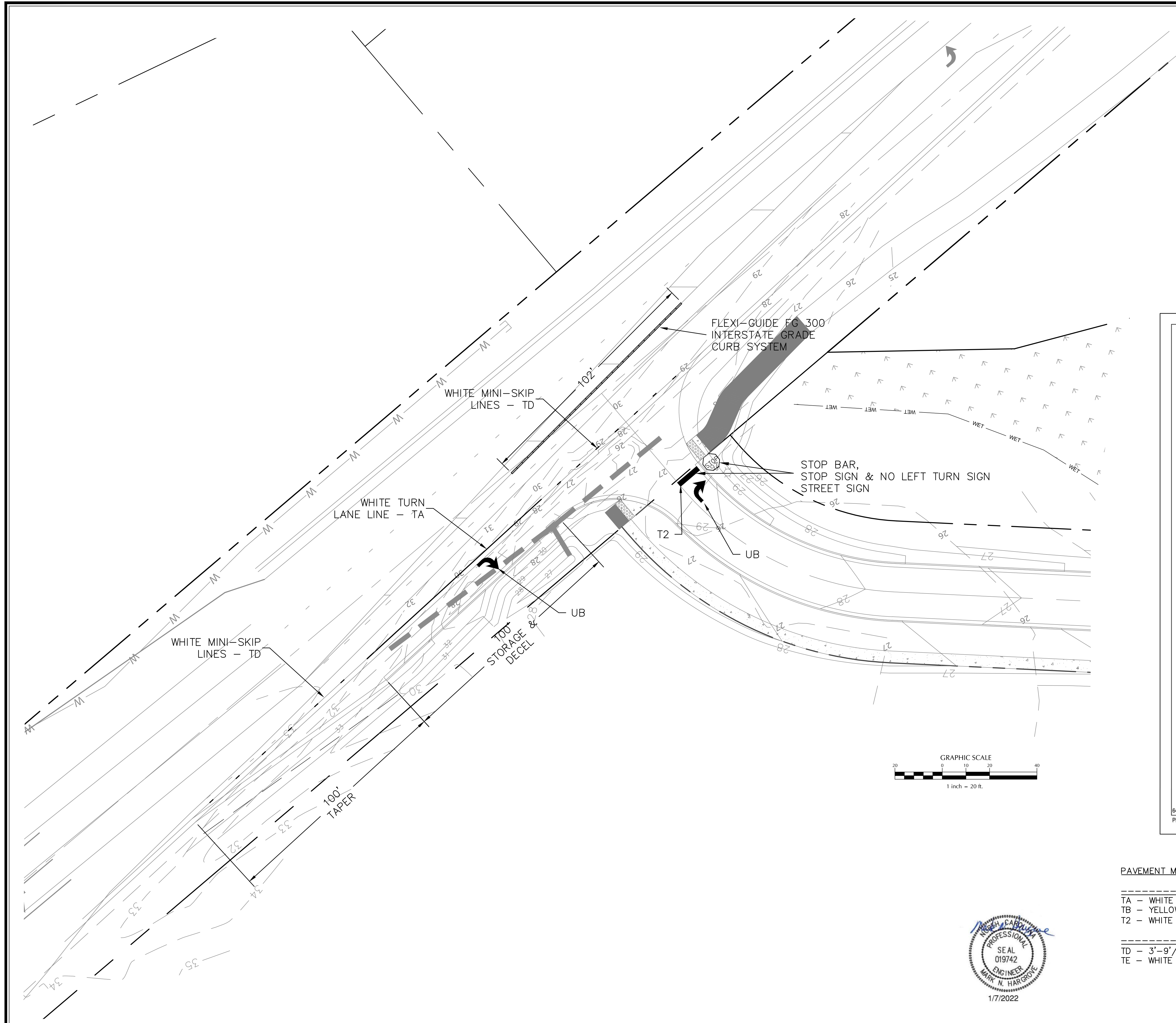
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 WILMINGTON, NC 28403

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 ENGINEERS, PLLC
 6216 STONEBRIDGE ROAD
 WILMINGTON, NC 28409
 910-599-1744 LICENSE No. P-1032

ROAD PLAN/PROFILE

Sheet No.
C-6





PEXCO, DAVIDSON TRAFFIC CONTROL PRODUCTS
 3110 70TH AVENUE EAST
 TACOMA, WA 98424, USA
 TOLL FREE: 1-877-335-4638
 PHONE: (253) 284-8000
 FAX: (253) 284-8080
 www.pexco.com/traffic

SELECT DESIRED POST:

EFX GRADE
 UR GRADE

SPECIFY DESIRED HEIGHT:

18" 36"
 24" 42"
 28" 48"
 CUSTOM (SEE NOTE 4)

SELECT DESIRED POST COLOR:

WHITE
 YELLOW
 FLUORESCENT ORANGE
 CUSTOM (SEE NOTE 3)

SELECT DESIRED REFLECTIVE SHEETING:

REFLEXITE AR 1000
 3M HIGH INTENSITY GRADE

SELECT DESIRED SHEETING COLOR:

WHITE
 YELLOW
 FLUORESCENT YELLOW
 CUSTOM (SEE NOTE 3)

SELECT DESIRED OPTIONAL WP:

4' X 22" PANEL
 4' X 33" VERTICAL PANEL

MANUFACTURER NOTES:

- CRASHWORTHINESS TESTED TO M.A.S.H. 2016 STANDARDS.
- POSTS AND REFLECTIVE SHEETING ARE AVAILABLE IN CUSTOM COLORS. CONTACT MANUFACTURER.
- FLEXI-GUIDE POSTS CAN BE CUT TO ANY LENGTH YOU DESIRE. CALL FOR DETAILS.

NOTES:

- INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
- DO NOT SCALE DRAWING.
- THIS DRAWING IS INTENDED FOR USE BY ARCHITECTS, ENGINEERS, CONTRACTORS, CONSULTANTS AND DESIGN PROFESSIONALS FOR PLANNING PURPOSES ONLY. THIS DRAWING MAY NOT BE USED FOR CONSTRUCTION.
- ALL INFORMATION CONTAINED HEREIN WAS CURRENT AT THE TIME OF DEVELOPMENT BUT MUST BE REVIEWED AND APPROVED BY THE PRODUCT MANUFACTURER TO BE CONSIDERED ACCURATE.
- CONTRACTOR'S NOTE: FOR PRODUCT AND COMPANY INFORMATION VISIT www.CADdetails.com/info AND ENTER REFERENCE NUMBER 644-036.

FLEXI-GUIDE FG 300 CURB SYSTEMS: INTERSTATE GRADE AND TURNPIKE GRADE

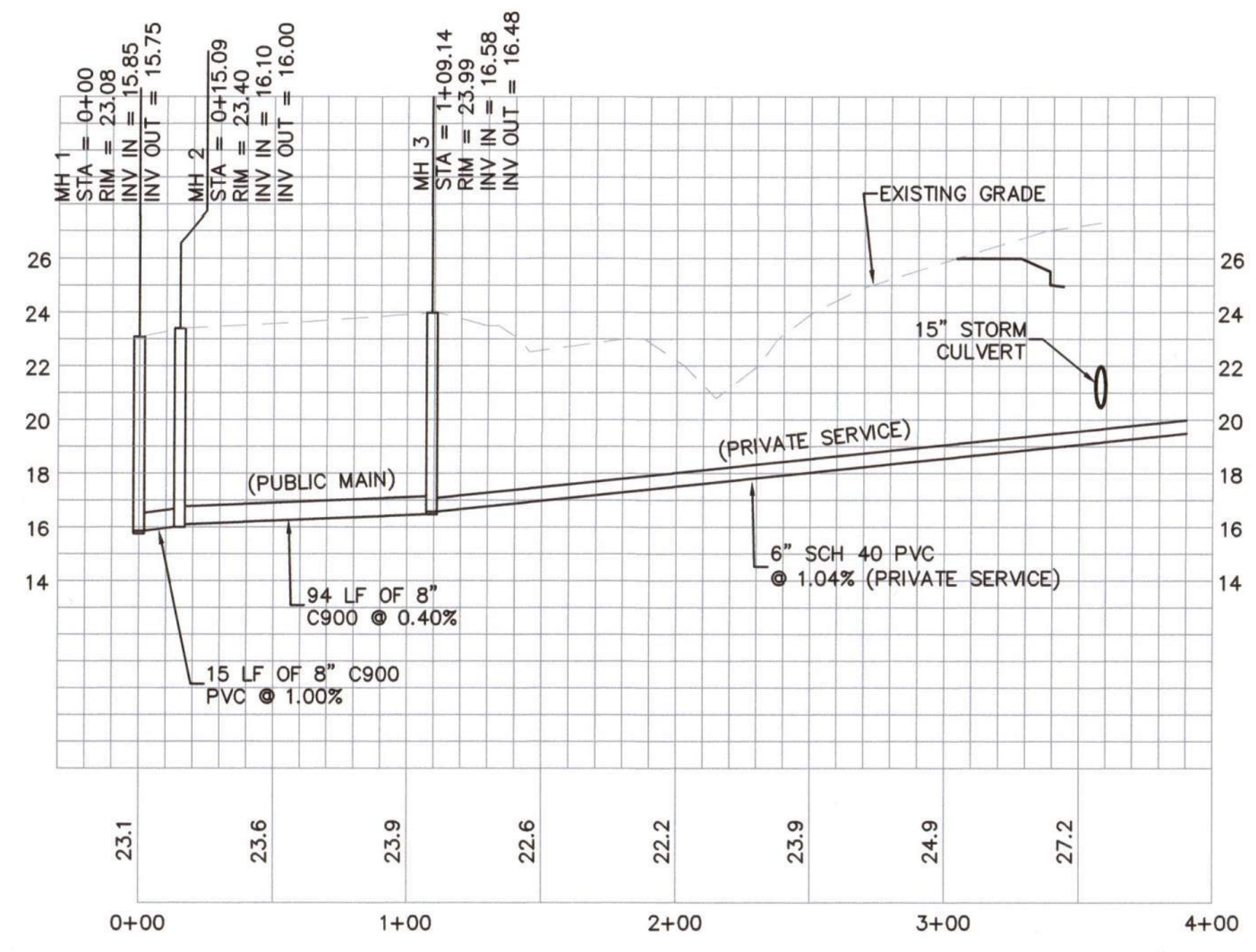
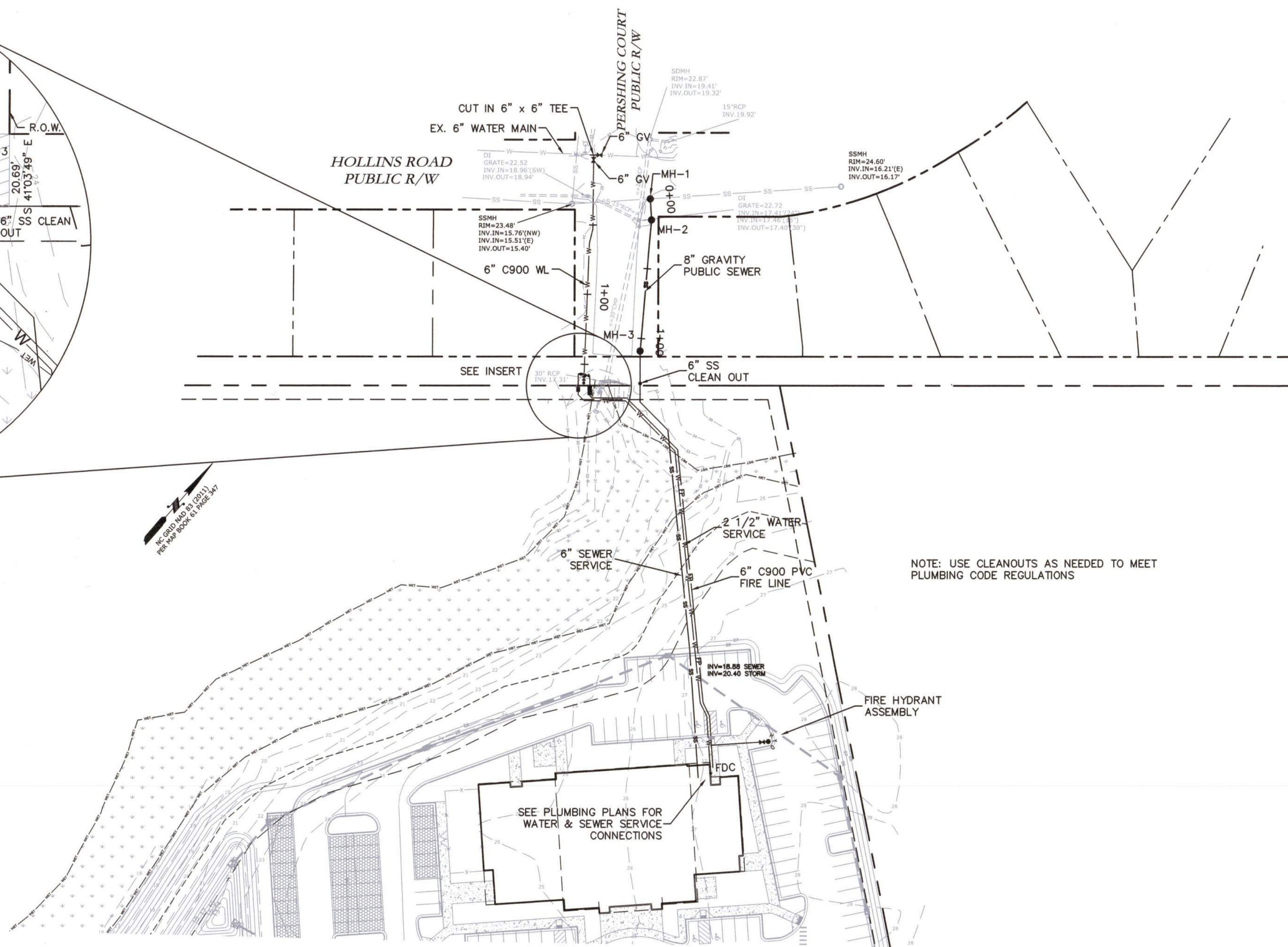
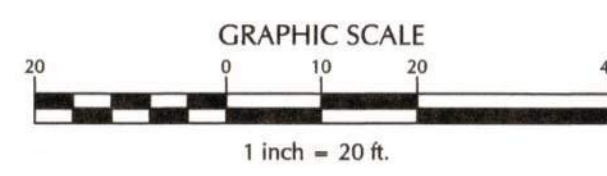
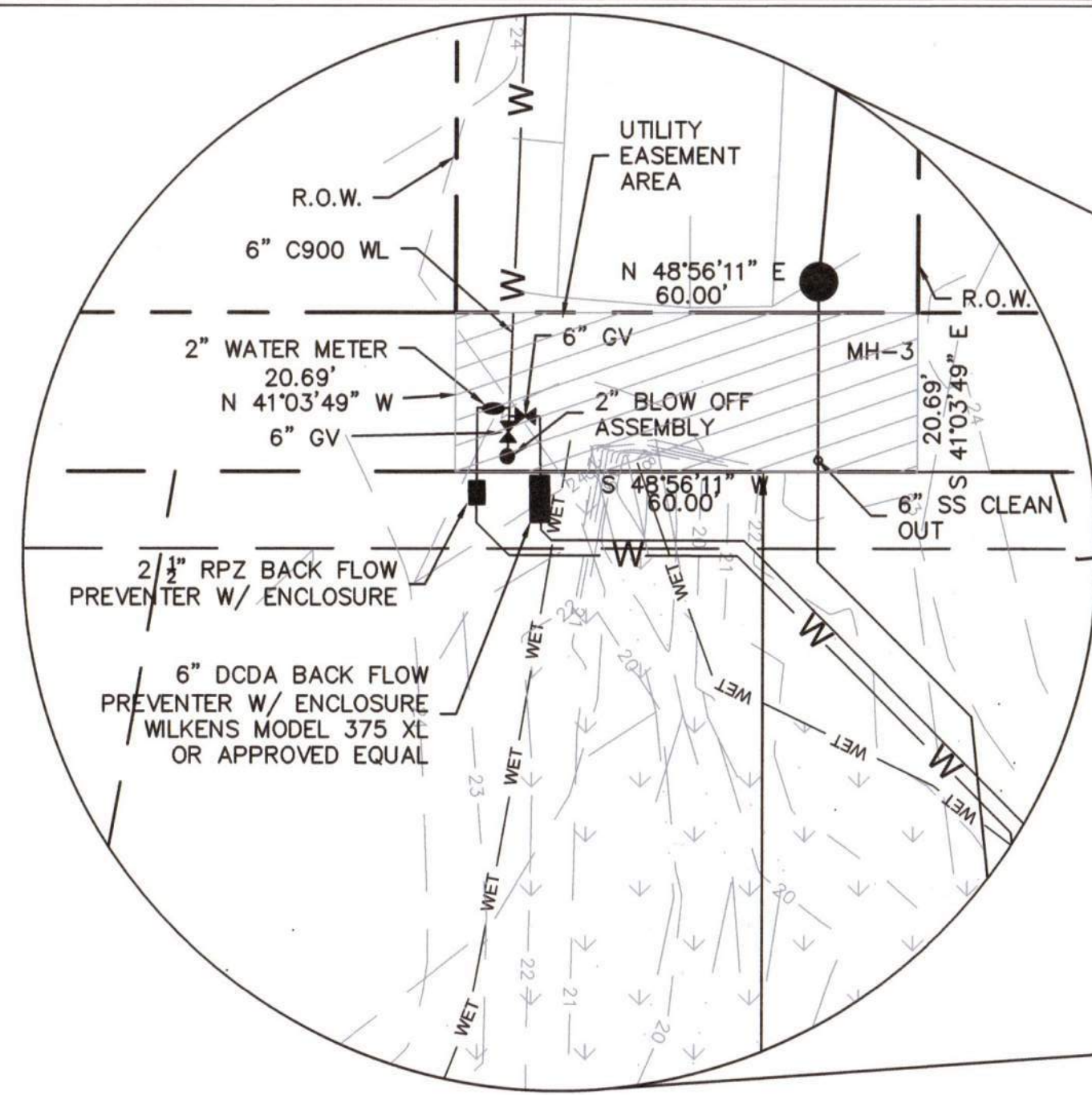
FG 300 INTERSTATE GRADE CURB SYSTEM

644-036
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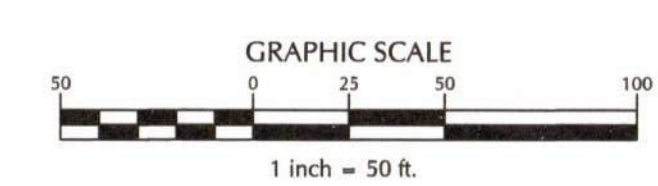
REVISION DATE 04/01/2021
CADdetails.com

- PAVEMENT MARKING LINES**
- THERMOPLASTIC (4", 90 mils)
 - TA - WHITE EDGE LINE
 - TB - YELLOW EDGE LINE
 - T2 - WHITE STOP BAR (24" WIDTH)
 - THERMOPLASTIC (4", 90 mils)
 - TD - 3'-9"/SP WHITE MINI SKIP
 - TE - WHITE SOLID LANE LINE
- PAVEMENT MARKING SYMBOLS**
- THERMOPLASTIC (90 mils)
 - UB - RIGHT TURN ARROW

No.	Revision	Date	By	Designer MNH	Scale AS SHOWN	LIFE CHURCH WILMINGTON NORTH CAROLINA	LIFE CHURCH P.O. BOX 3489 WILMINGTON, NC 28403	PORT CITY CONSULTING ENGINEERS, PLLC 6216 STONEBRIDGE ROAD WILMINGTON, NC 28409 910-599-1744 LICENSE No. P-1032	PAVEMENT MARKING PLAN	Sheet No.
				Drawn By MNH	Date MAY, 2021					C-6.1
				Checked By MNH	Job No.					



- FIRE & LIFE SAFETY NOTES:
- CONTRACTOR SHALL MAINTAIN AN ALL WEATHER ACCESS FOR EMERGENCY VEHICLES AT ALL TIMES DURING CONSTRUCTION
 - NEW HYDRANTS MU BE BROUGHT INTO SERVICE PRIOR TO COMBUSTIBLE MATERIALS DELIVERED TO THE JOB SITE
 - A HYDRANT MUST BE WITHIN 150' OF THE FDC (MEASURED AS THE TRUCK DRIVES FOR PRACTICAL USE)
 - FDC MUST BE WITHIN 40' OF THE FIRE APPARATUS PLACEMENT
 - LANDSCAPING OR PARKING CANNOT BLOCK OR IMPEDE FDC'S OR FIRE HYDRANTS. A 3-FOOT CLEAR SPACE SHALL ALWAYS BE MAINTAINED AROUND THE CIRCUMFERENCE OF THE HYDRANTS AND FDC'S.
 - ADDITIONAL FIRE PROTECTION AND/OR ACCESSIBILITY REQUIREMENTS MAY BE REQUIRED DUE TO ANY SPECIAL CIRCUMSTANCES CONCERNING THE PROJECT.
 - PRIVATE UNDERGROUND FIRE LINES REQUIRE A SEPARATE UNDERGROUND FIRE LINE PERMIT FROM THE WILMINGTON FIRE AND LIFE SAFETY DIVISION (910-343-0696)
 - CONTRACTOR SHALL SUBMIT A RADIO SIGNAL STRENGTH STUDY FOR ALL COMMERCIAL BUILDINGS THAT DEMONSTRATES THAT EXISTING EMERGENCY RESPONDER RADIO SIGNAL LEVELS MEET THE REQUIREMENT OF SECTION 510 OF THE 2018 NC FIRE CODE.
 - ALL ISOLATION VALVES WITHIN THE 'HOT BOX' AND BETWEEN THE 'HOTBOX' AND RISER ROOM, MUST BE ELECTRONICALLY SUPERVISED.



No.	Revision	Date	By
1	REVISED PER CFPWA COMMENTS	10/6/21	MNH

Designer	MNH	Scale	AS SHOWN
Drawn By	MNH	Date	MAY, 2021
Checked By	MNH	Job No.	

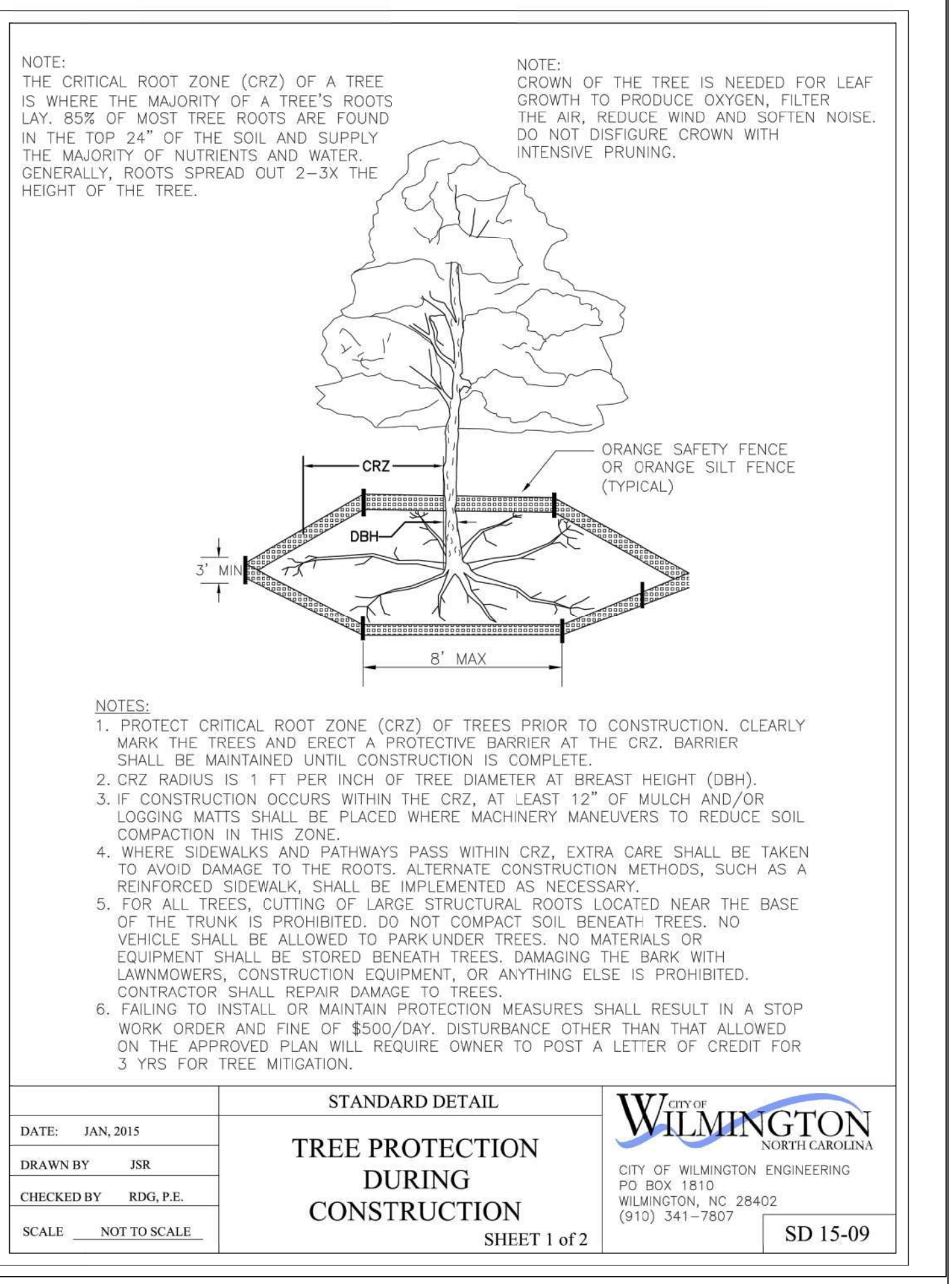
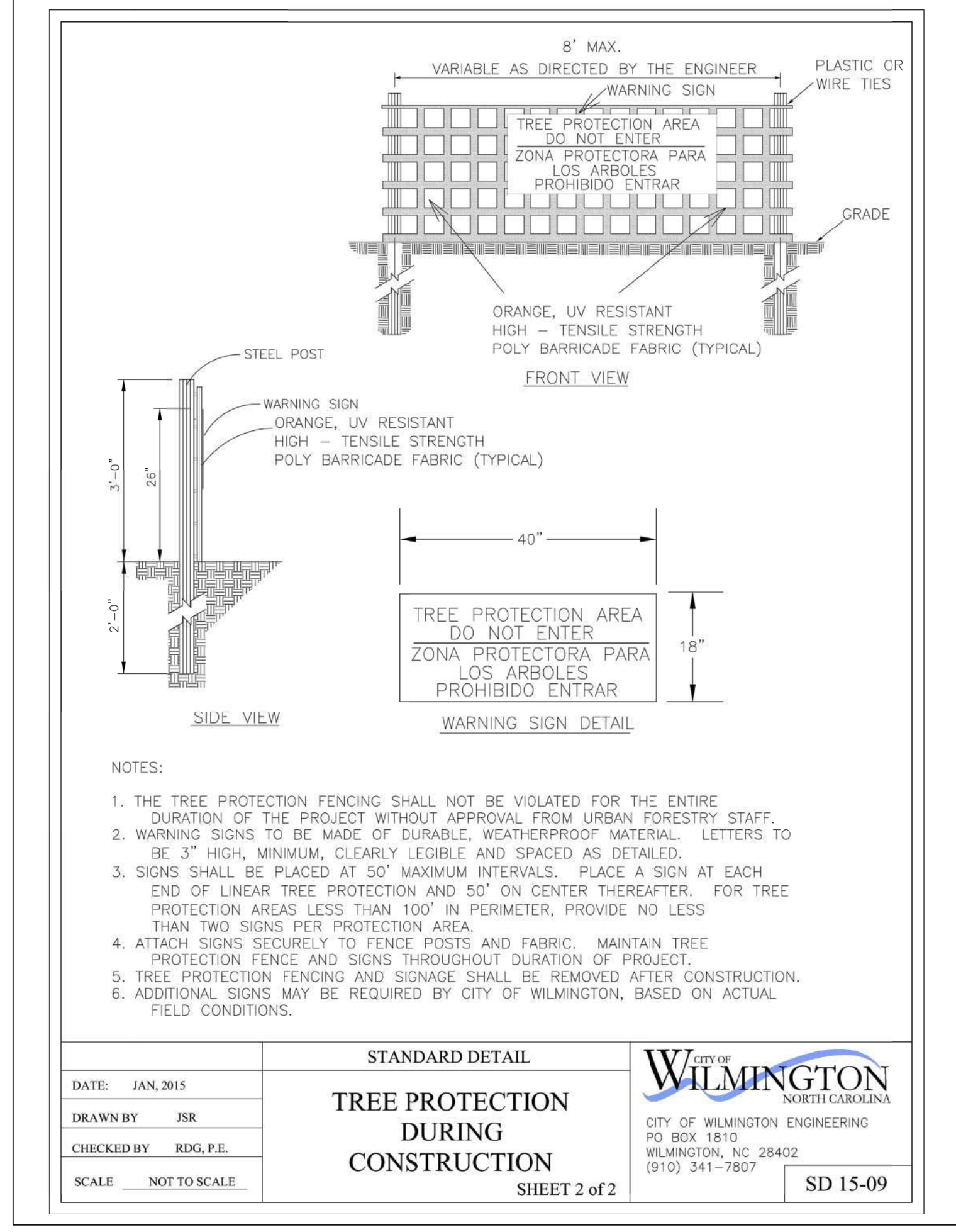
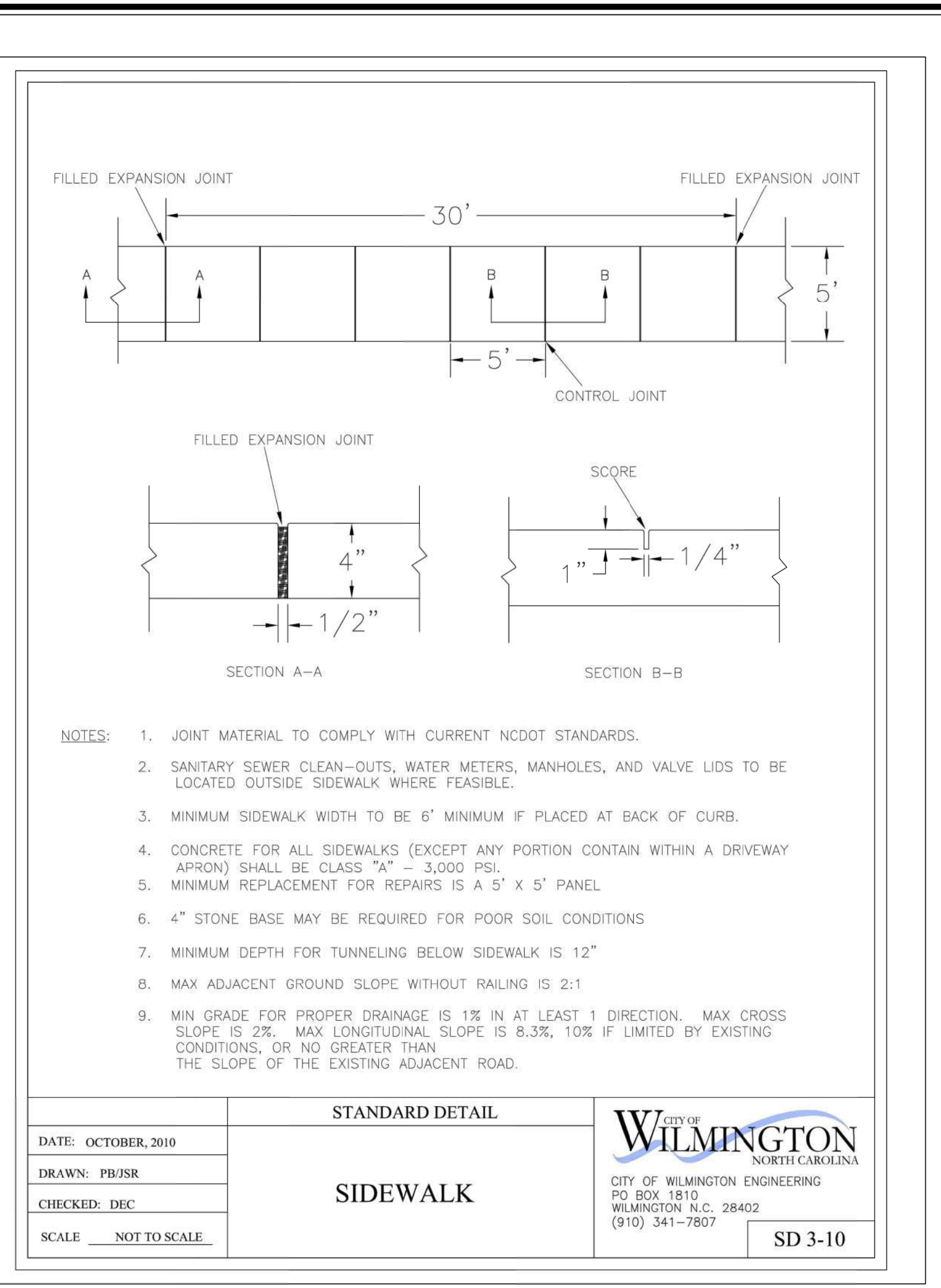
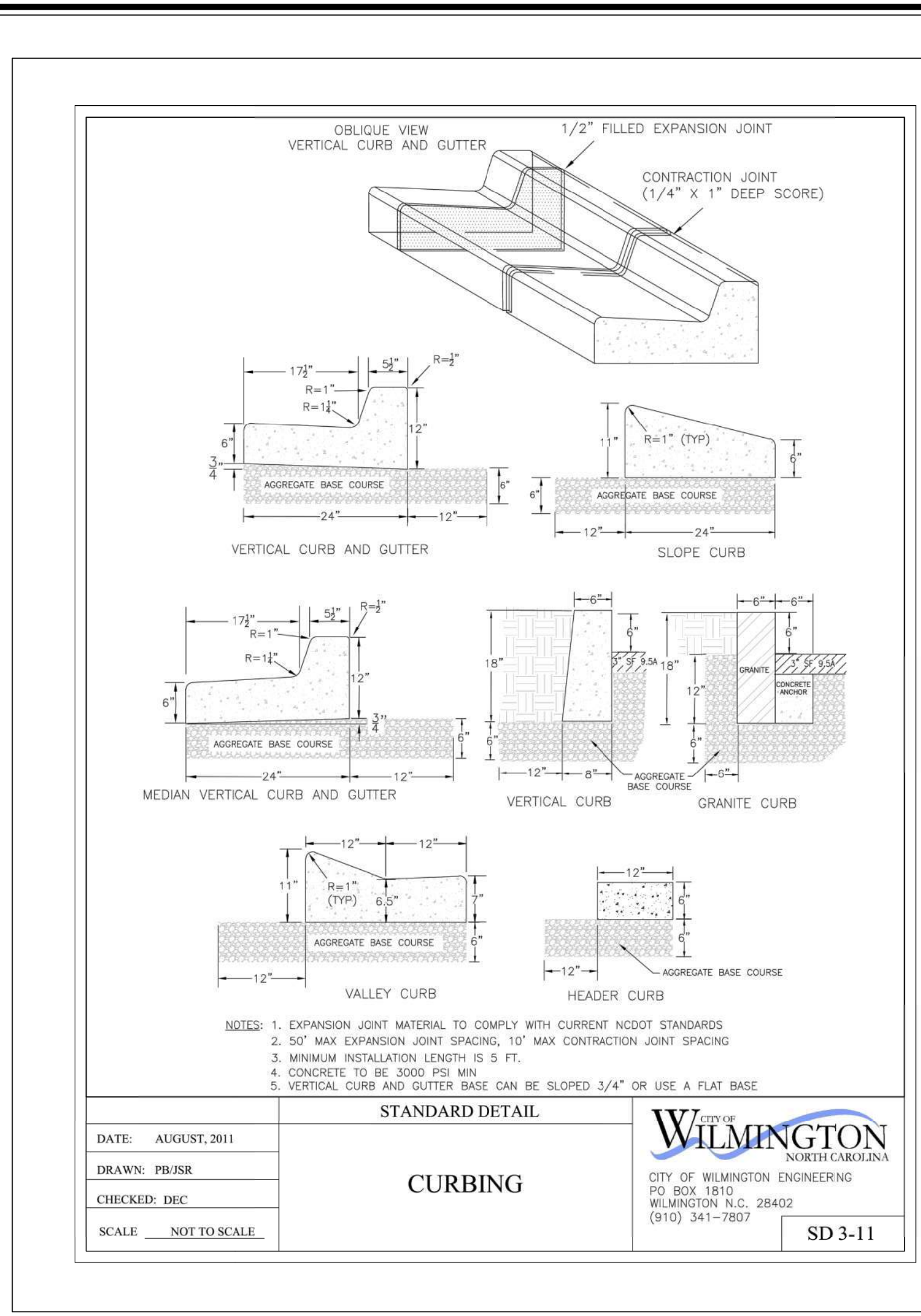
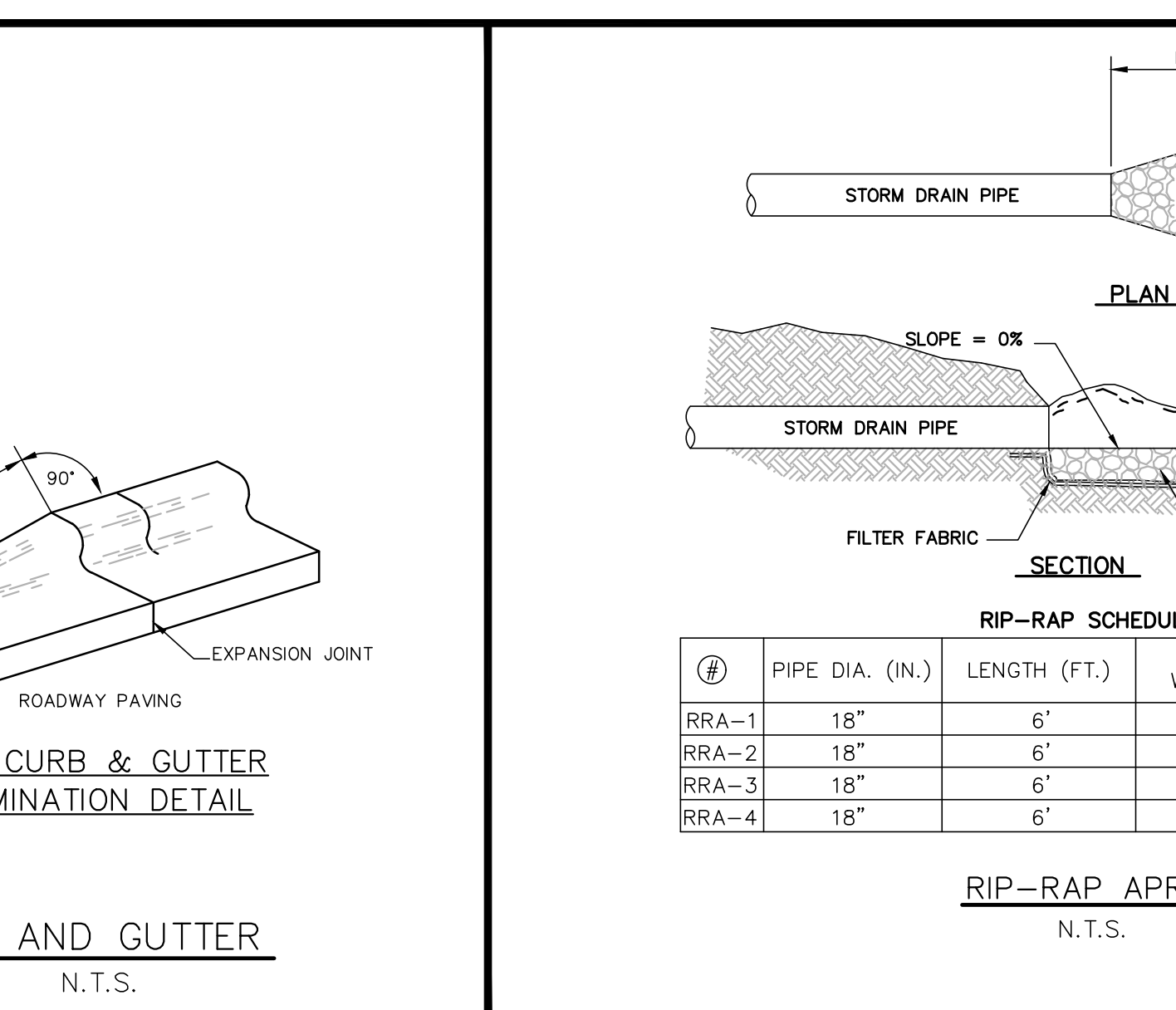
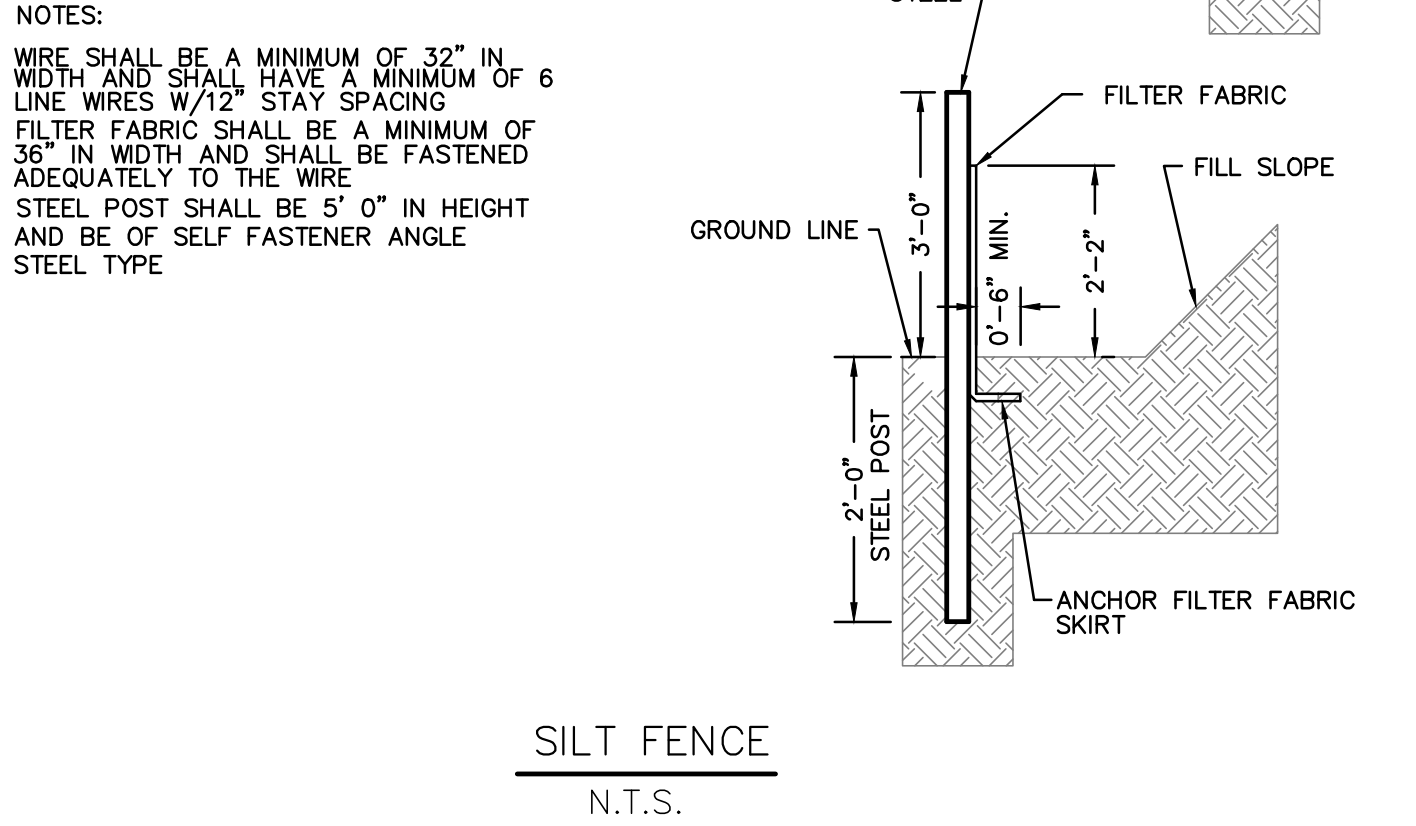
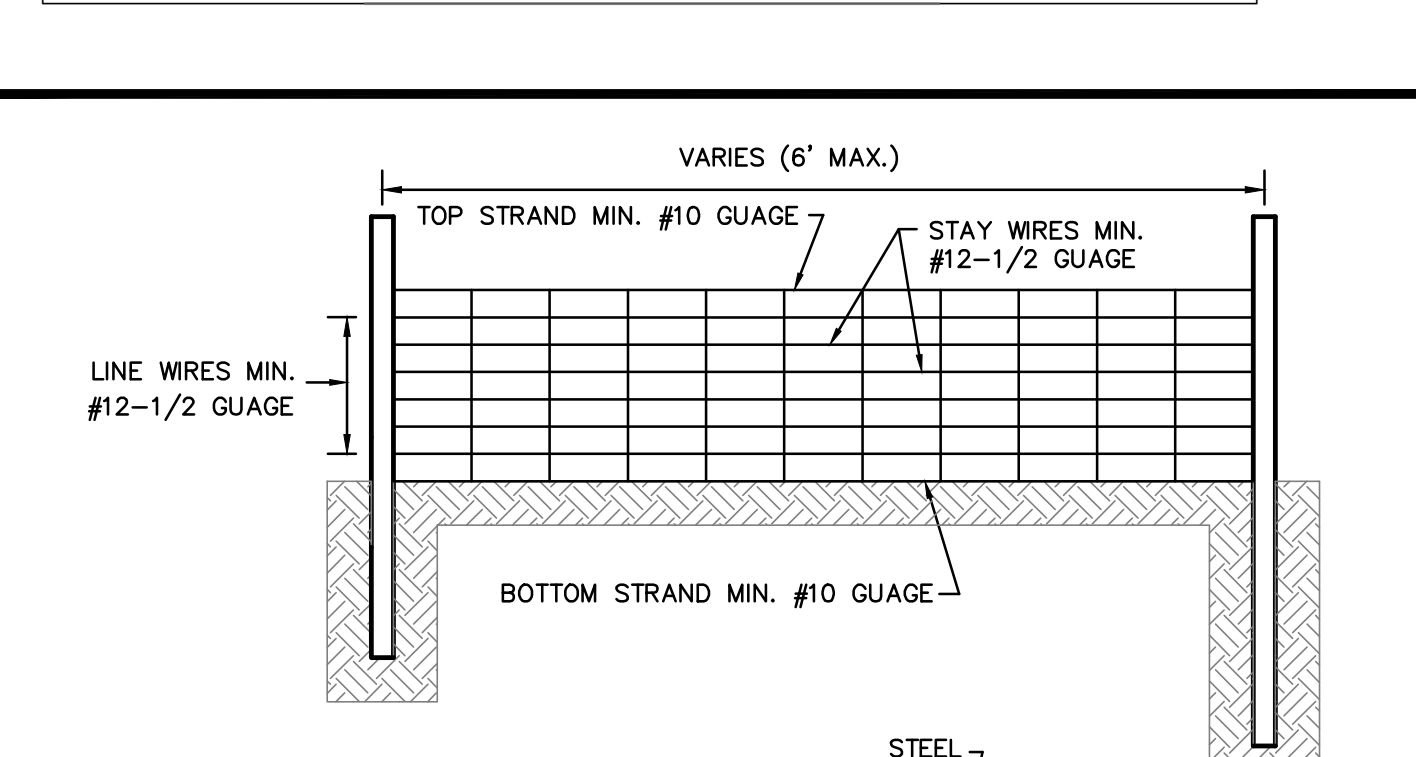
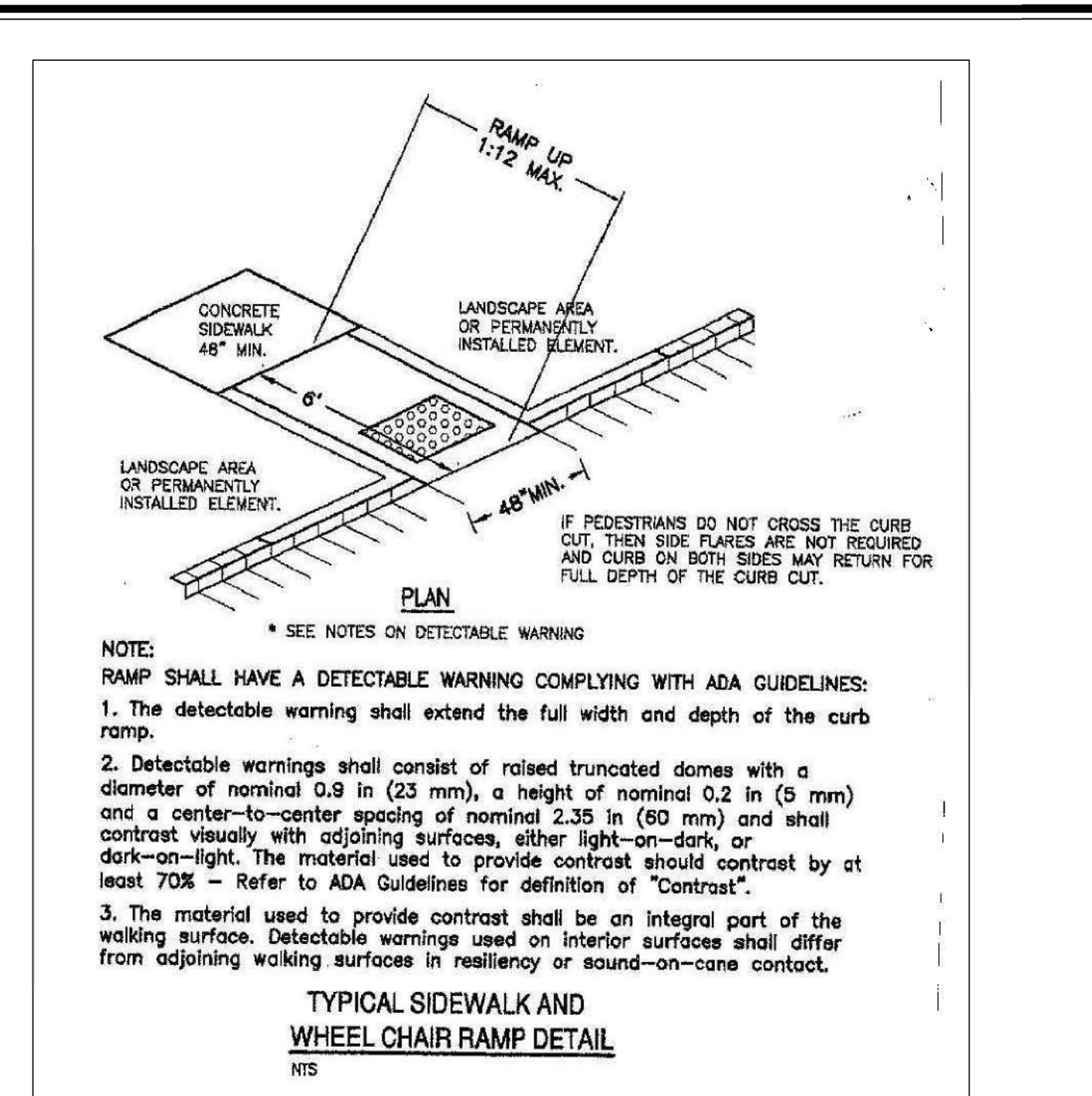
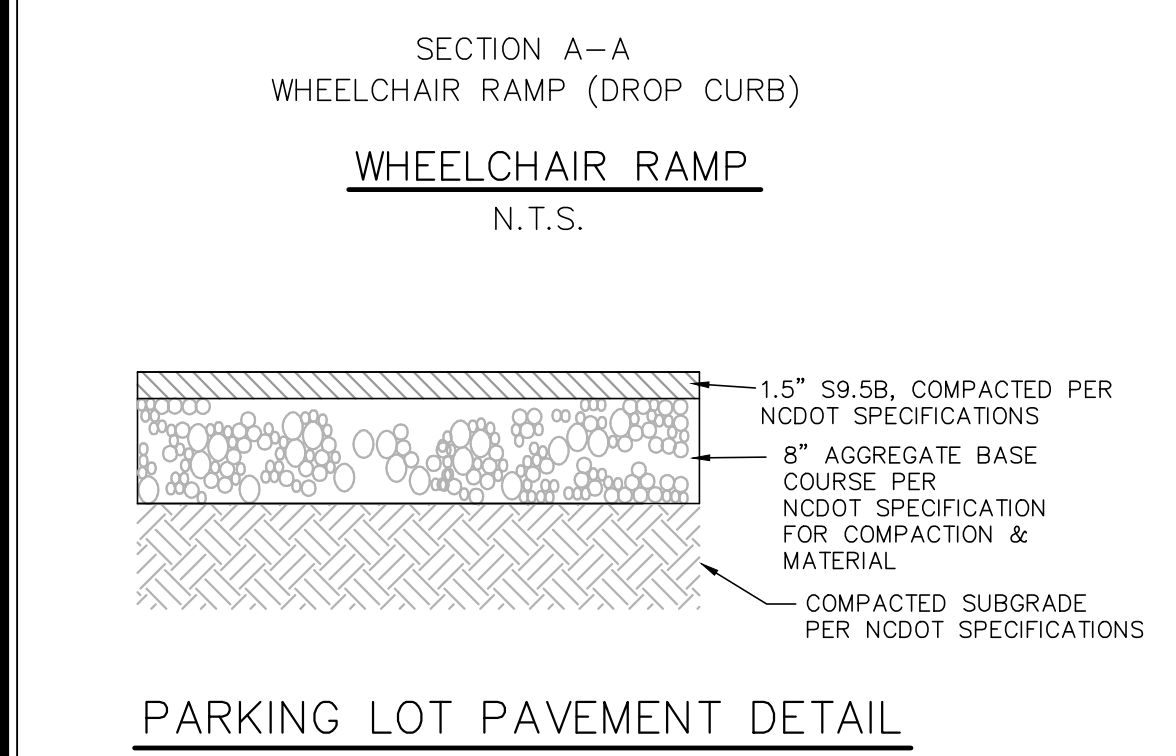
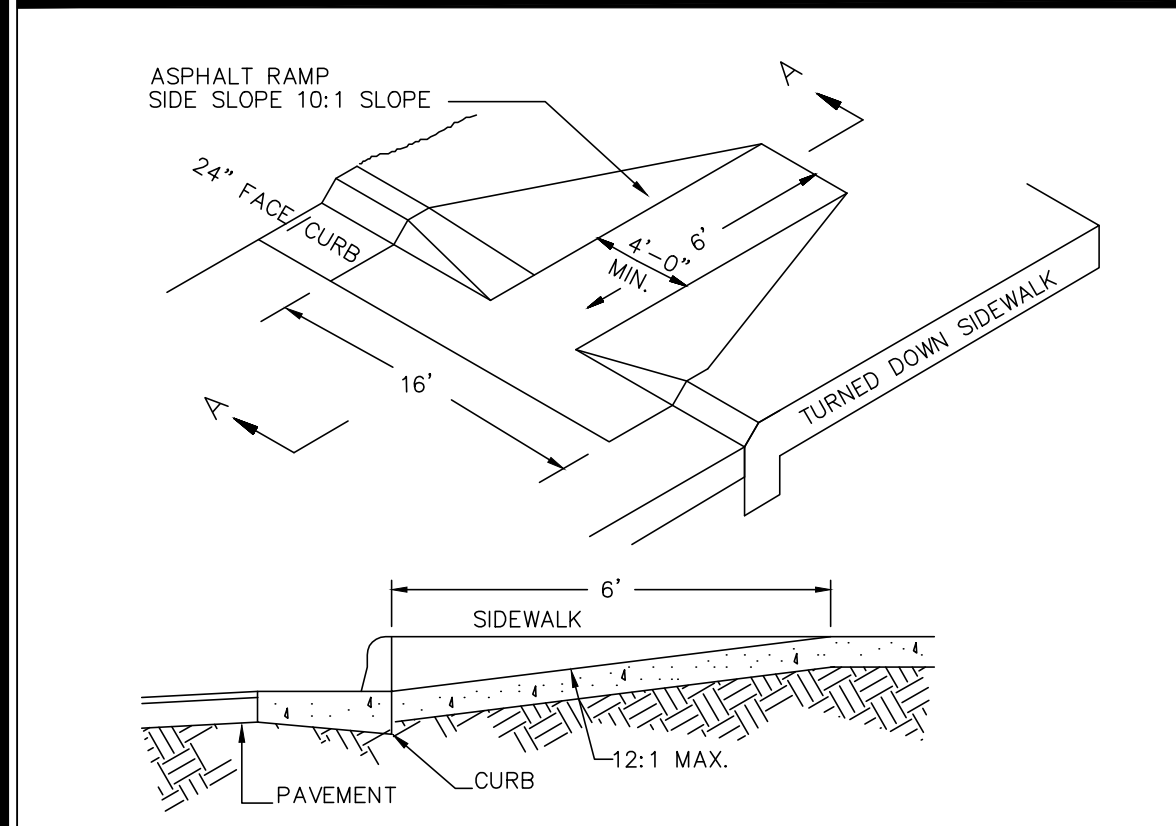
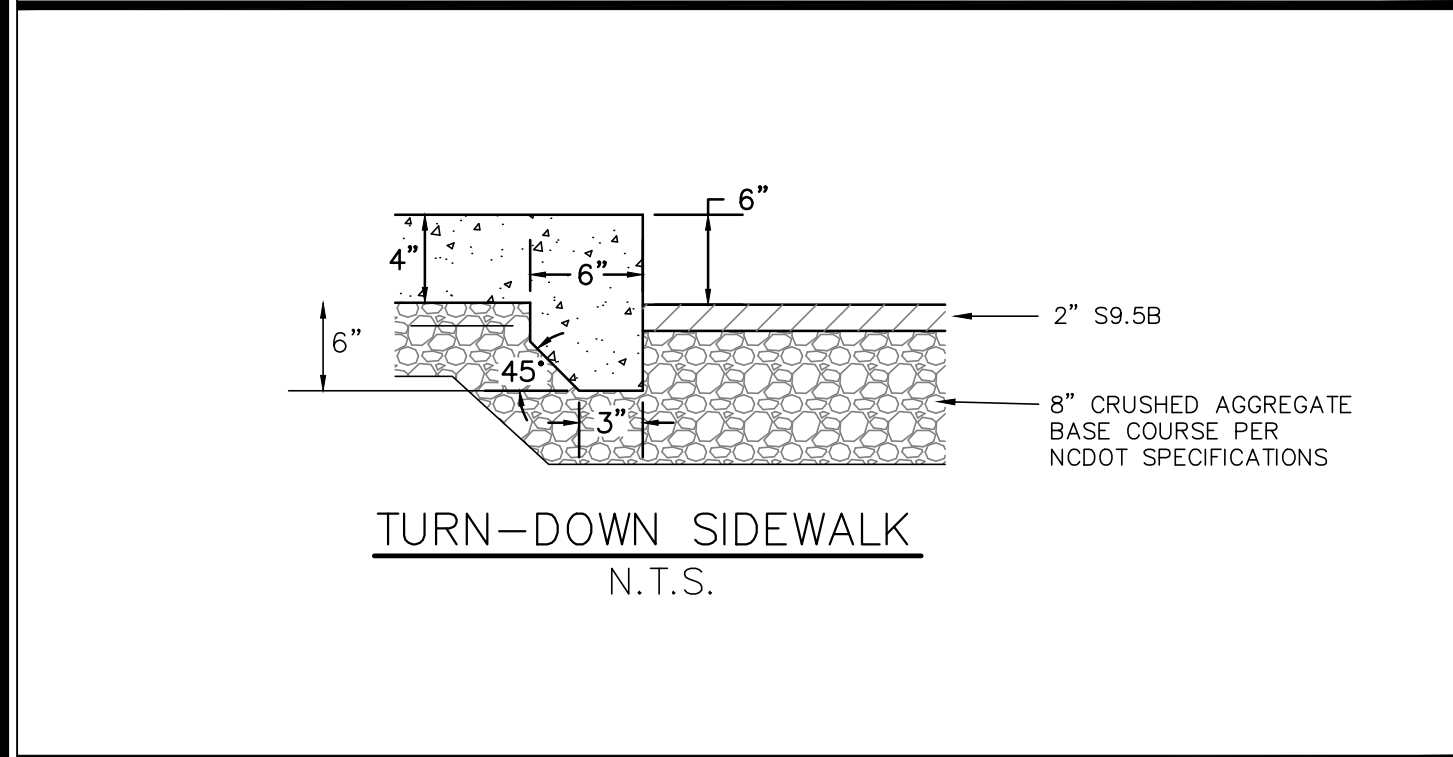
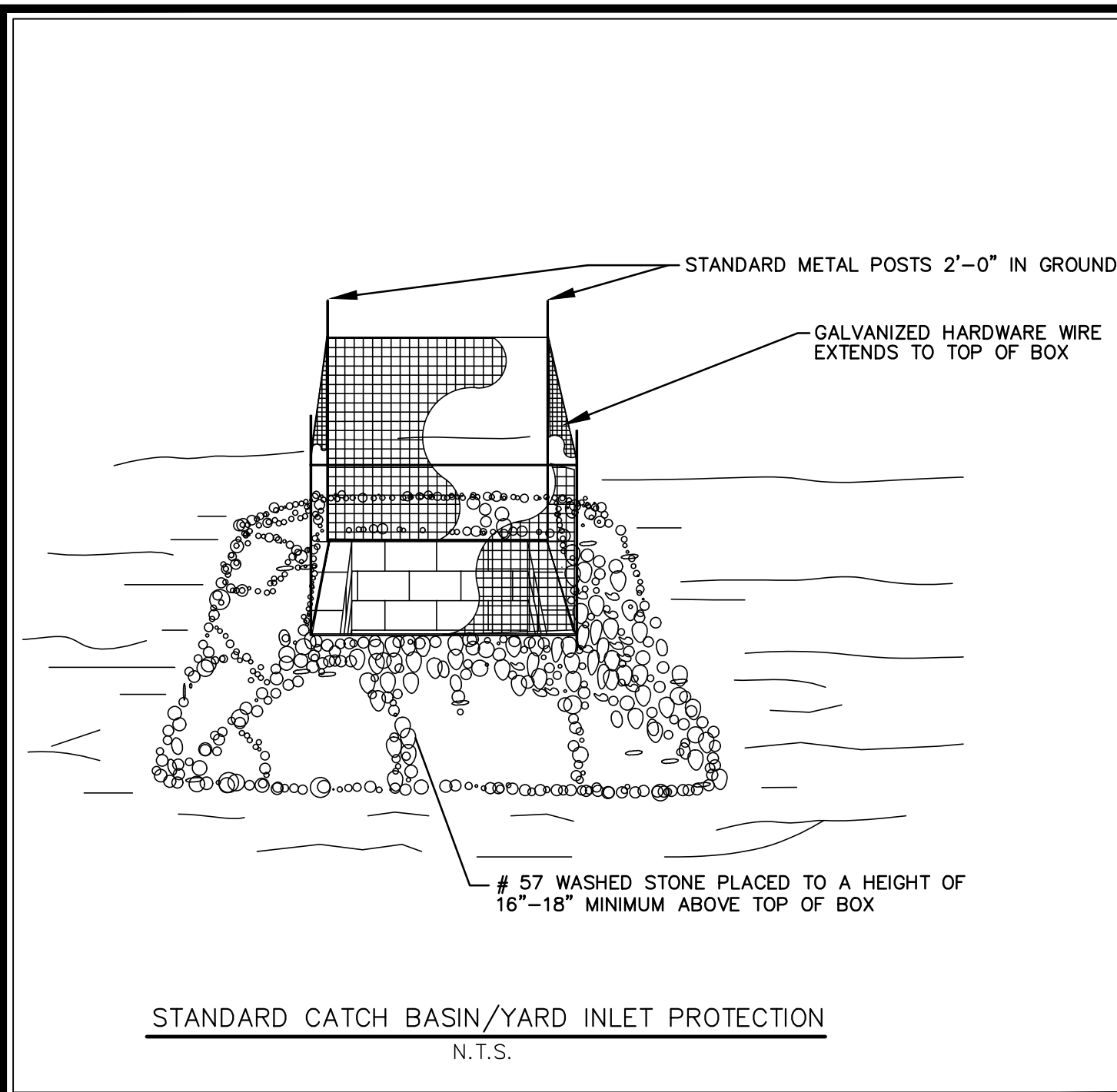
LIFE CHURCH
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 NORTH CAROLINA

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 WILMINGTON, NC 28403

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UTILITY PLAN/PROFILE

Sheet No.
 C-7



No.	Revision	Date	By

Designer: MNH
Scale: AS SHOWN
Drawn By: MNH
Date: JUNE, 2021
Checked By: MNH
Job No.:

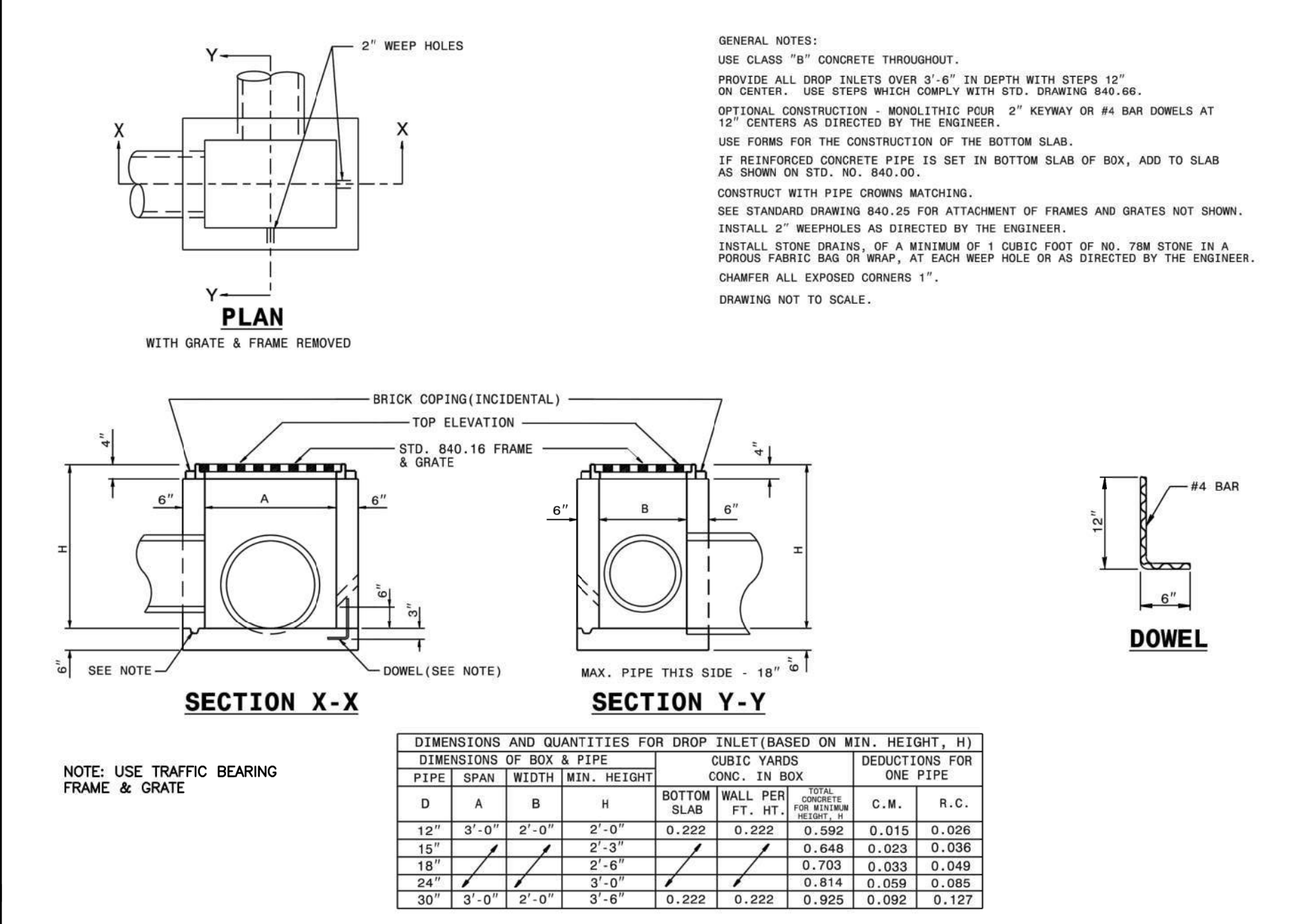
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6216 STONEBRIDGE ROAD
WILMINGTON, NC 28409
910-599-1744 LICENSE No. P-1032

MISCELLANEOUS DETAILS

Sheet No.
C-8.0



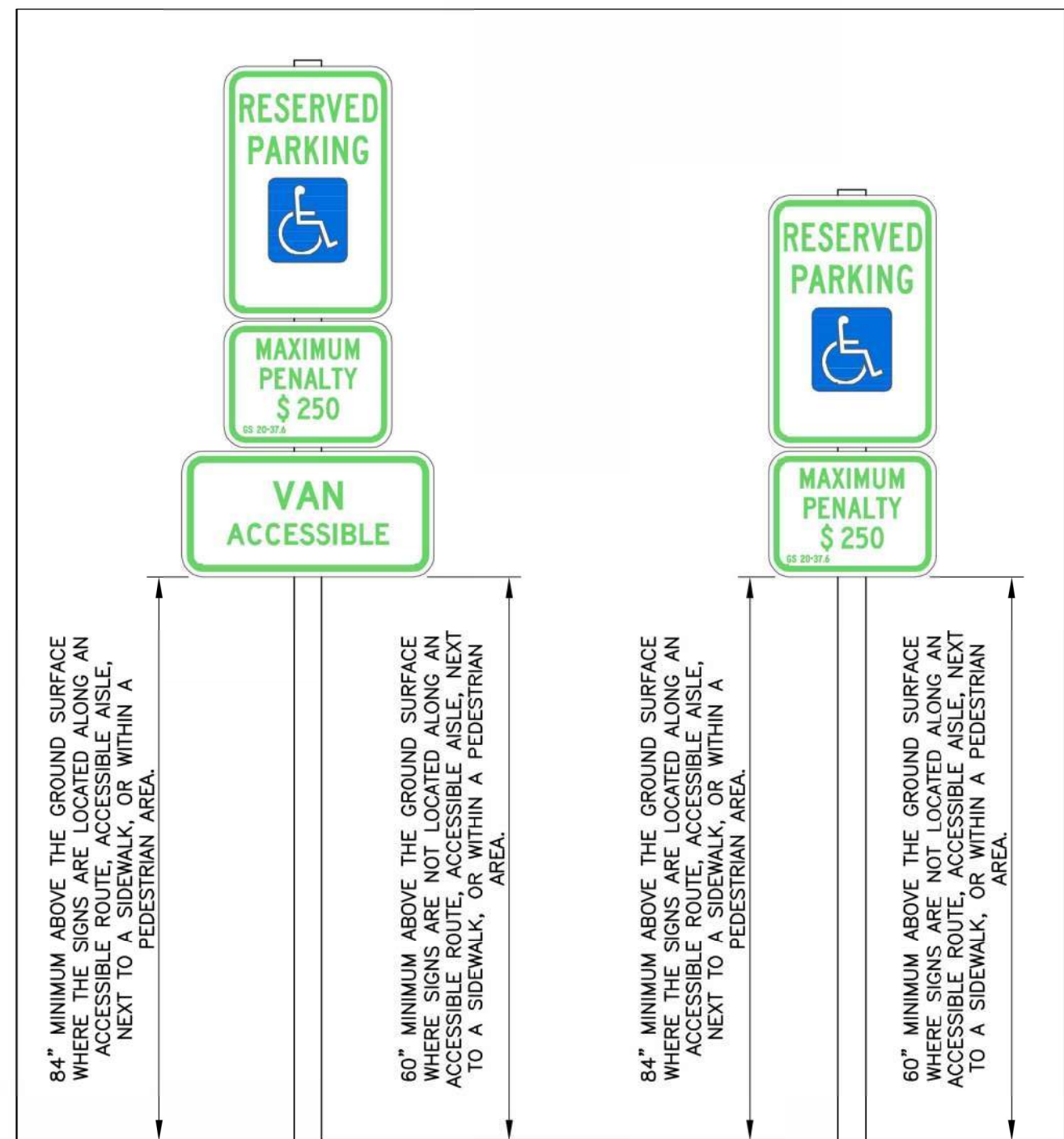
DIMENSIONS AND QUANTITIES FOR DROP INLET (BASED ON MIN. HEIGHT, H)

PIPE	SPAN	WIDTH	MIN. HEIGHT	BOTTOM WALL PERFT	CONC. IN BOX	REDUCTIONS FOR ONE PIPE	C.M.	R.C.
12"	3'-0"	2'-0"	2'-0"	0.222	0.592	0.015	0.028	
15"	3'-0"	2'-0"	2'-3"	0.222	0.648	0.023	0.030	
18"	3'-0"	2'-0"	2'-6"	0.222	0.703	0.033	0.040	
24"	3'-0"	2'-0"	3'-0"	0.222	0.814	0.059	0.085	
30"	3'-0"	2'-0"	3'-6"	0.222	0.925	0.092	0.127	

STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N.C.

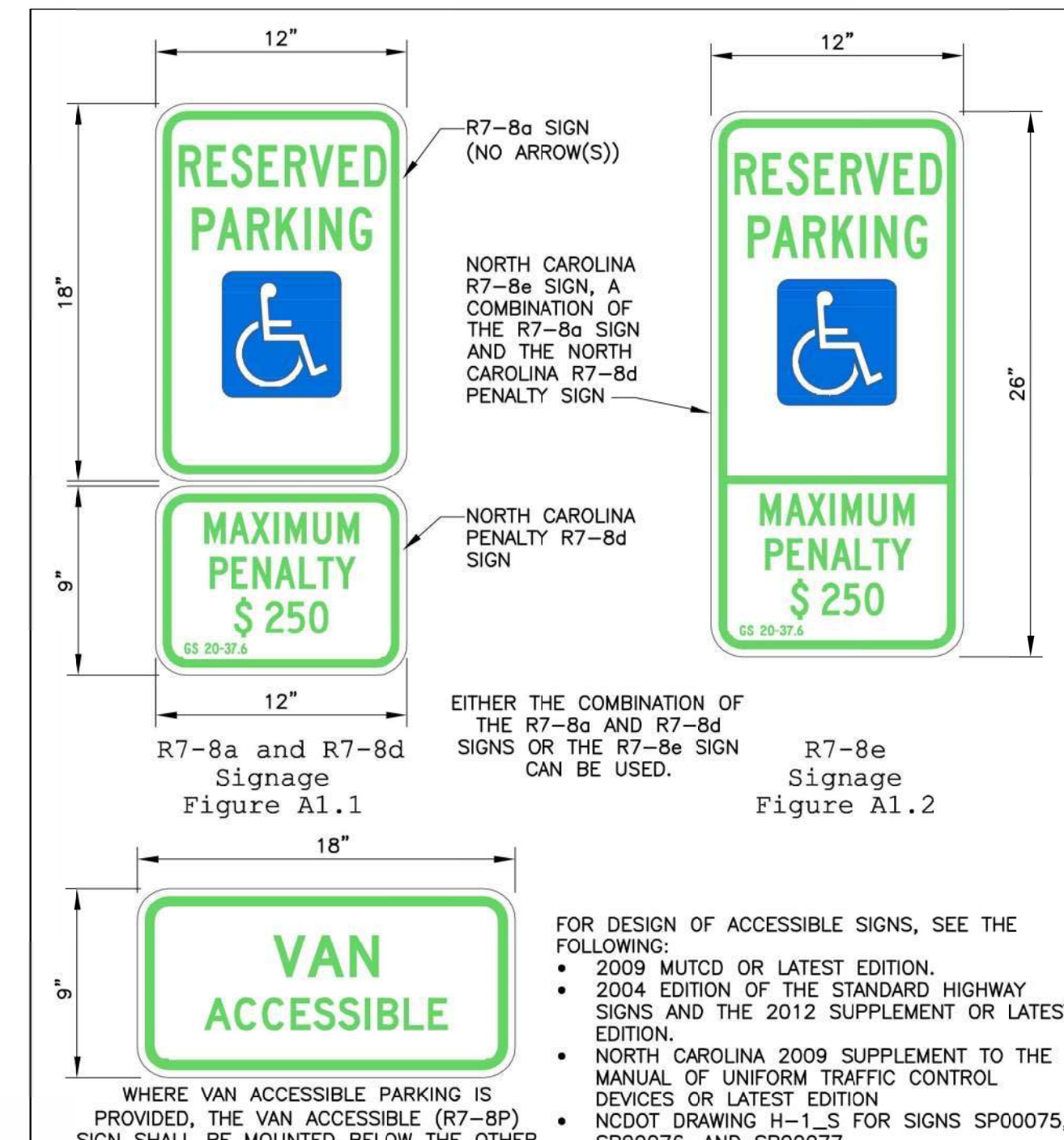
ROADWAY STANDARD DRAWING FOR CONCRETE DROP INLET 12" THRU 30" PIPE

840.14



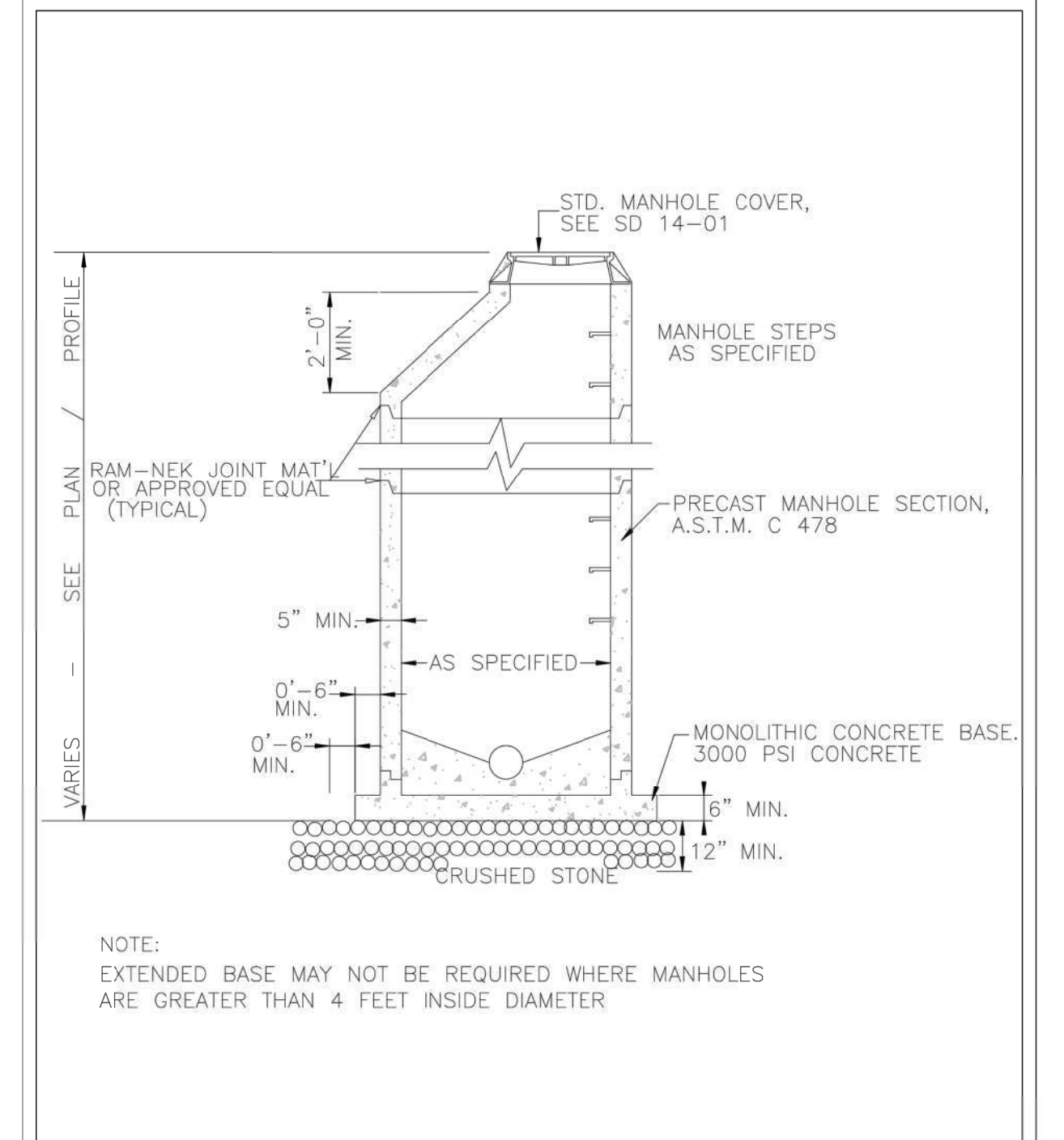
DATE: NOVEMBER 8, 2016 ACCESSIBLE PARKING SIGNS AND INSTALLATION DETAILS SHEET A2 OF 5

WILMINGTON TRAFFIC ENGINEERS



DATE: NOVEMBER 8, 2016 ACCESSIBLE PARKING SIGNS AND INSTALLATION DETAILS SHEET A1 OF 5

WILMINGTON TRAFFIC ENGINEERS



STANDARD DETAIL PRECAST MANHOLE

DATE: 2001

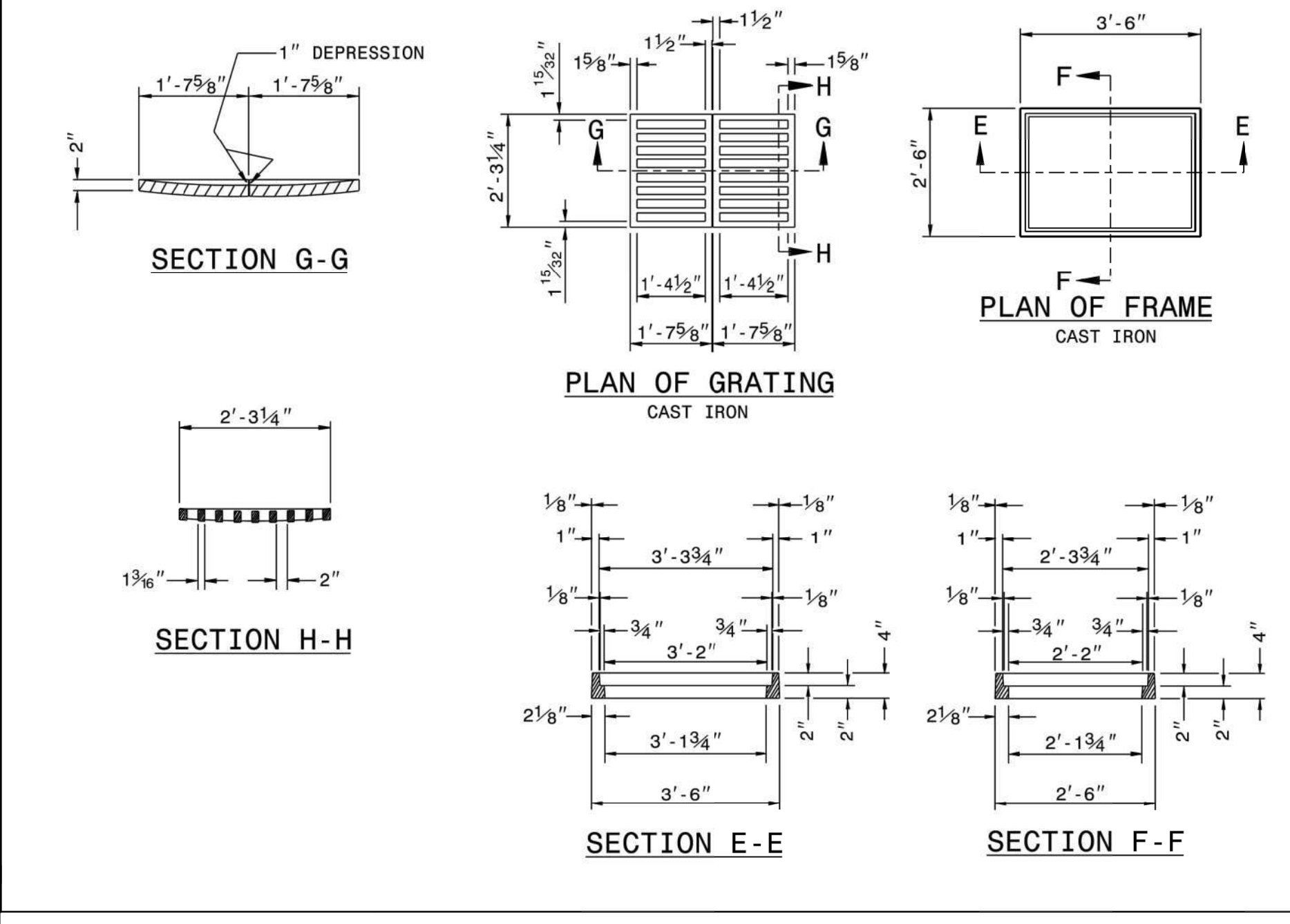
DRAWN BY: JSR/CMR

CHECKED BY: B.P., P.E.

SCALE: NOT TO SCALE

CITY OF WILMINGTON ENGINEERING

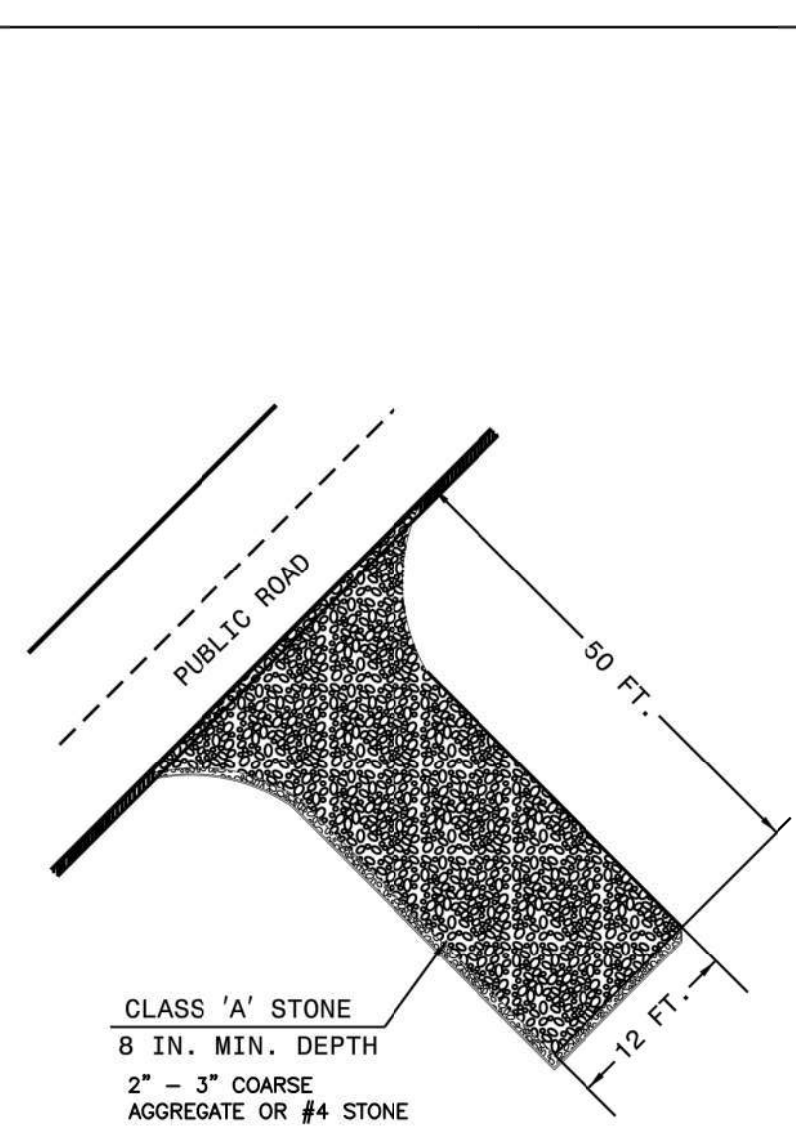
SD 14-11



STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N.C.

ROADWAY STANDARD DRAWING FOR DROP INLET FRAME AND GRATES FOR USE WITH STD. DWG. S 840.14 AND 840.15

840.16

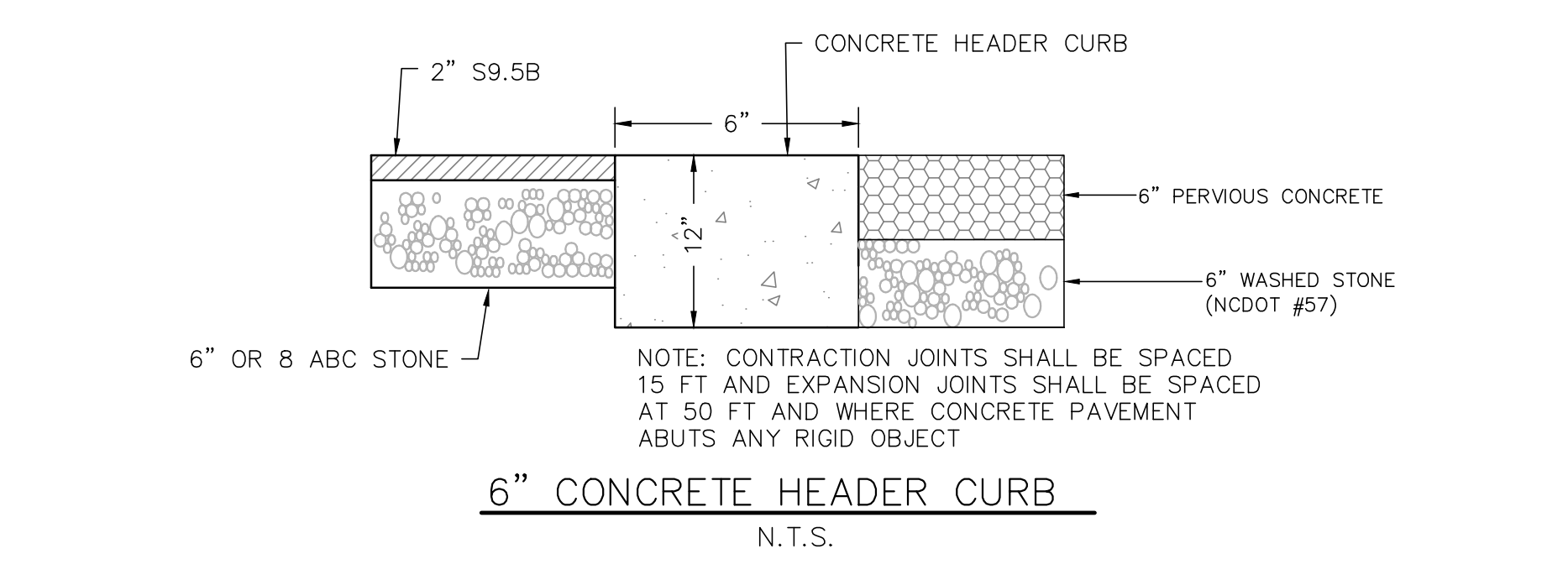
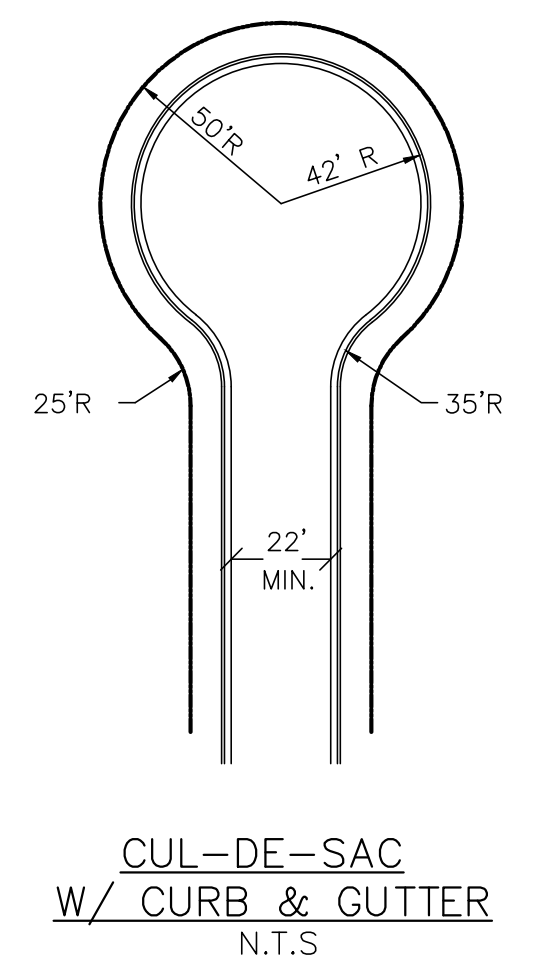
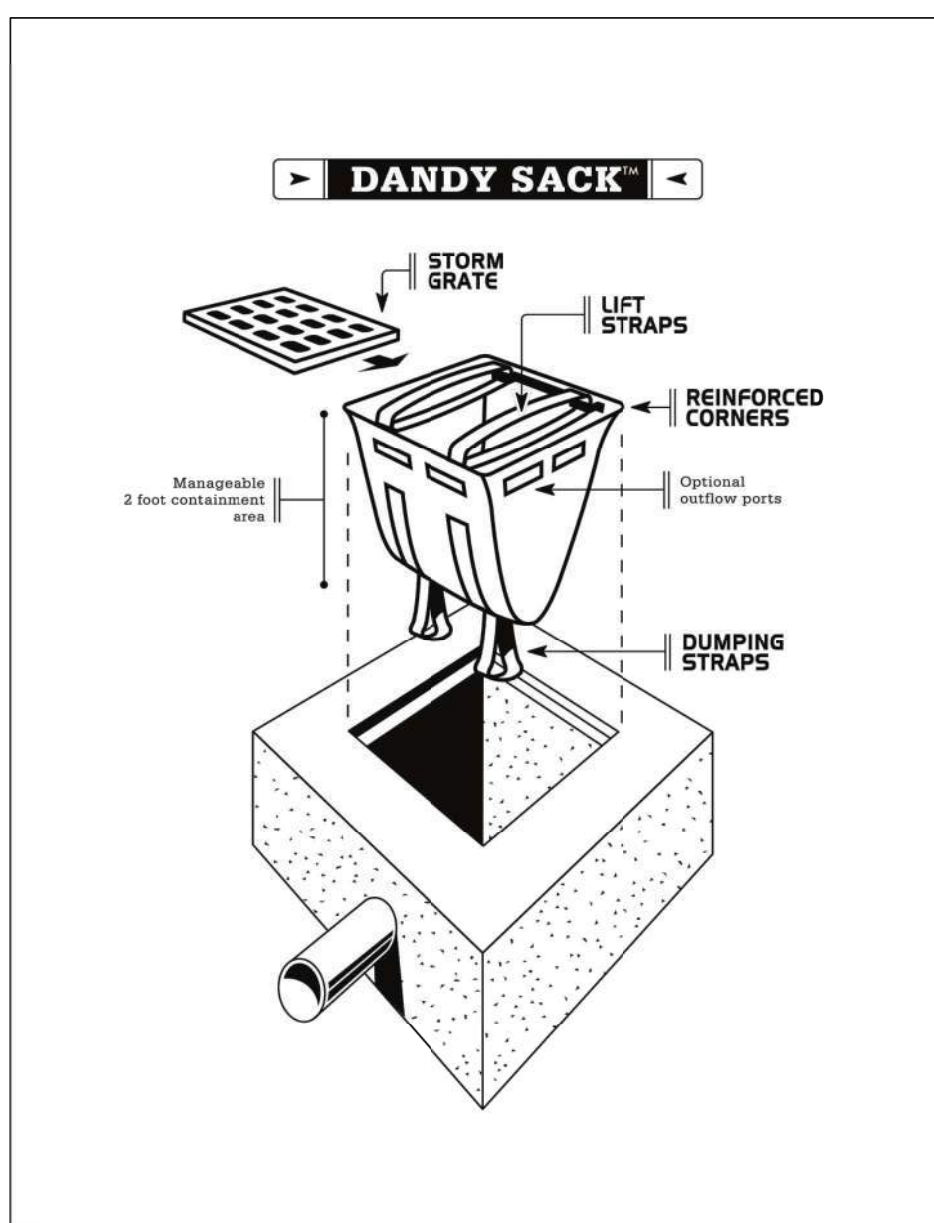


- NOTES:
- PROVIDE TURNING RADIUS SUFFICIENT TO ACCOMMODATE LARGE TRUCKS.
 - LOCATE ENTRANCES TO PROVIDE FOR UTILIZATION BY ALL CONSTRUCTION VEHICLES.
 - MUST BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR DIRECT FLOW OF MUD ONTO STREETS. PERIODIC TOPDRESSING WITH STONE WILL BE NECESSARY.
 - ANY MATERIAL TRACKED ONTO THE ROADWAY MUST BE CLEANED UP IMMEDIATELY.
 - LOCATE GRAVEL CONSTRUCTION ENTRANCE AT ALL POINTS OF INGRESS AND EGRESS UNTIL SITE IS STABILIZED. PROVIDE FREQUENT CHECKS OF THE DEVICE AND TIMELY MAINTENANCE.
 - NUMBER AND LOCATION OF CONSTRUCTION ENTRANCES TO BE DETERMINED BY THE ENGINEER.
 - USE CLASS 'A' STONE OR OTHER COARSE AGGREGATE APPROVED BY THE ENGINEER.
 - INSTALL CONSTRUCTION ENTRANCES IN A WAY TO PREVENT VEHICLES FROM BYPASSING CONSTRUCTION ENTRANCE LEAVING PROJECT SITE.

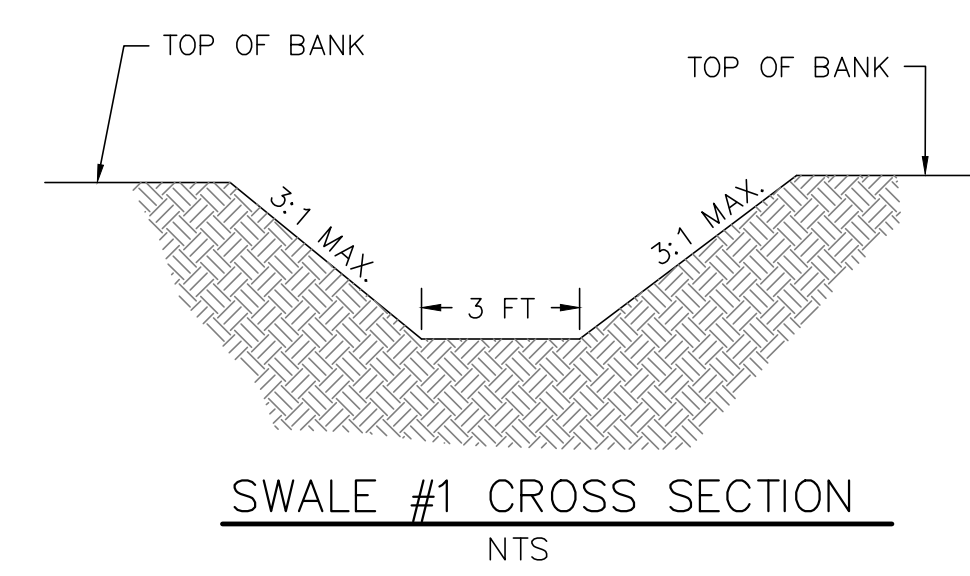
STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N.C.

ROADWAY STANDARD DRAWING FOR GRAVEL CONSTRUCTION ENTRANCE

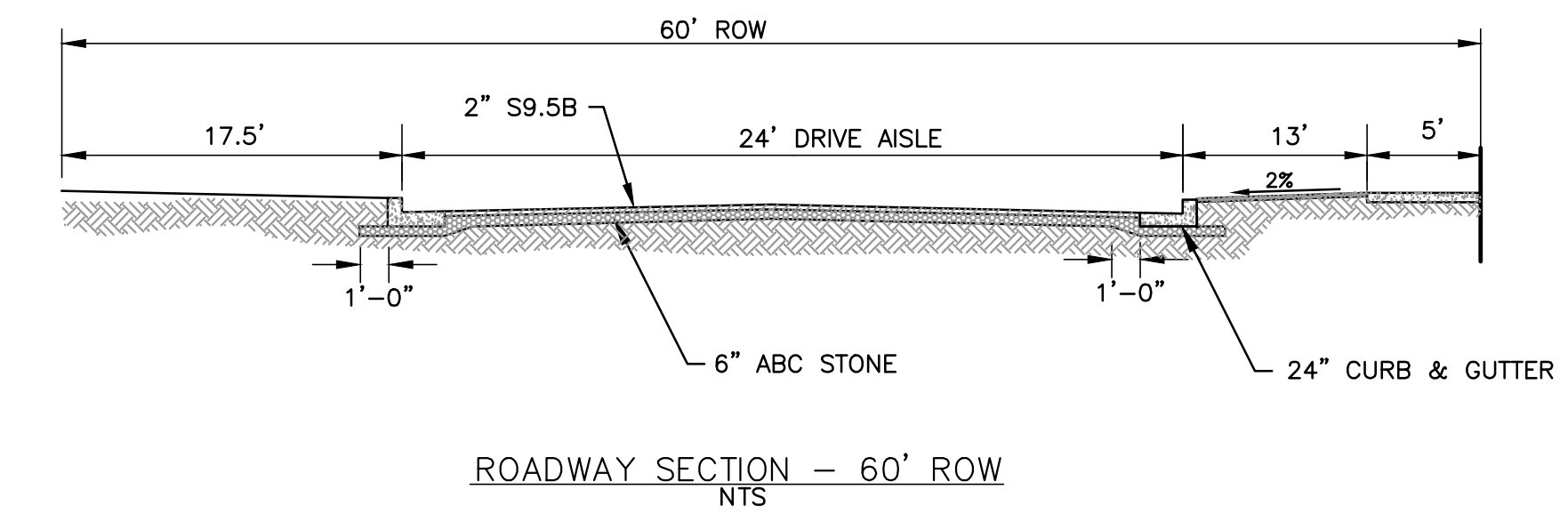
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6" CONCRETE HEADER CURB N.T.S.



SWALE #1 CROSS SECTION N.T.S.



ROADWAY SECTION - 60' ROW N.T.S.



No.	Revision	Date	By
1	REVISED PER COUNTY COMMENTS	11/22/21	MNH

Designer: MNH
 Drawn By: MNH
 Checked By: MNH

Scale: AS SHOWN
 Date: JUNE, 2021
 Job No.

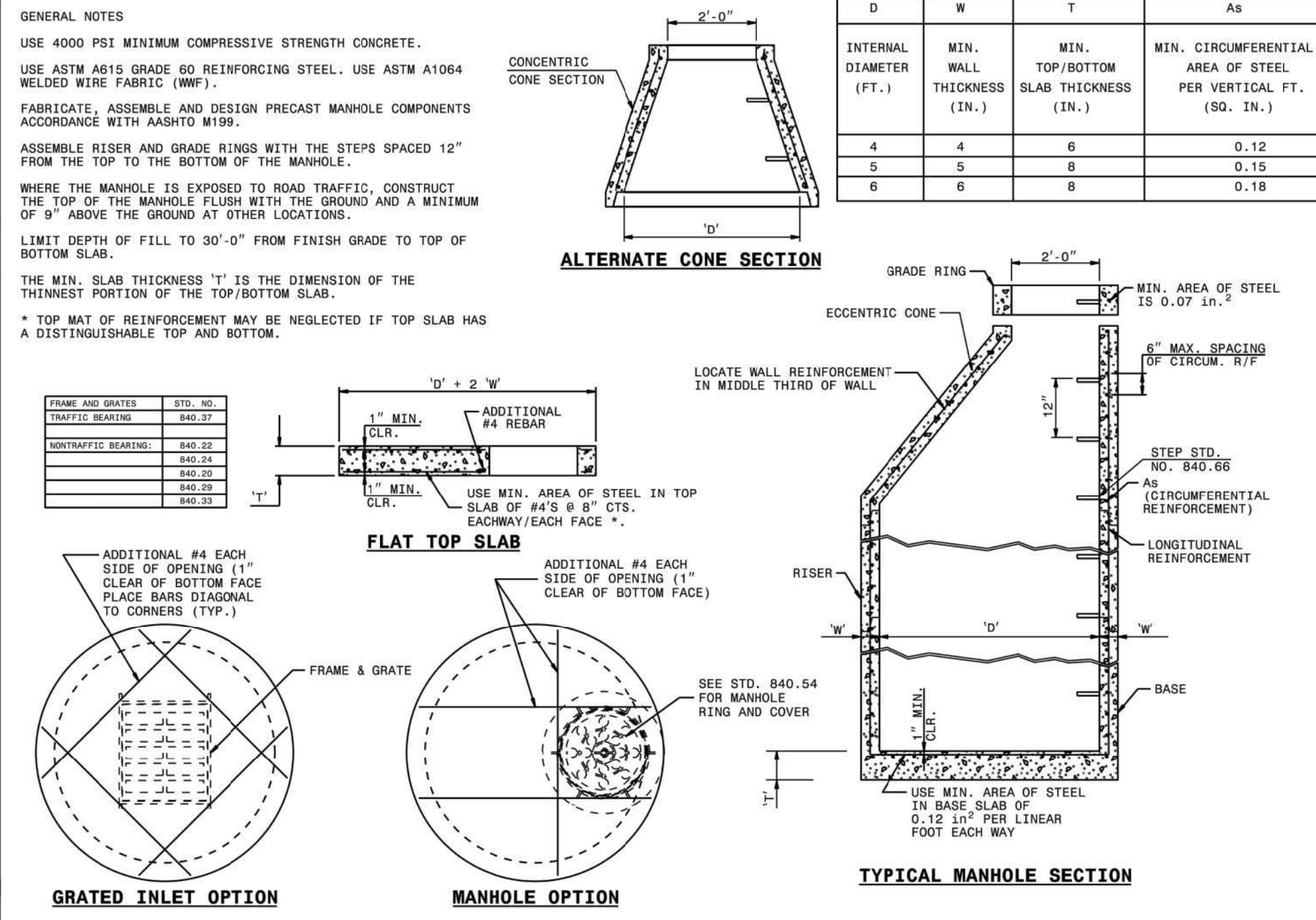
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 910-599-1744 LICENSE No. P-1032

MISCELLANEOUS DETAILS

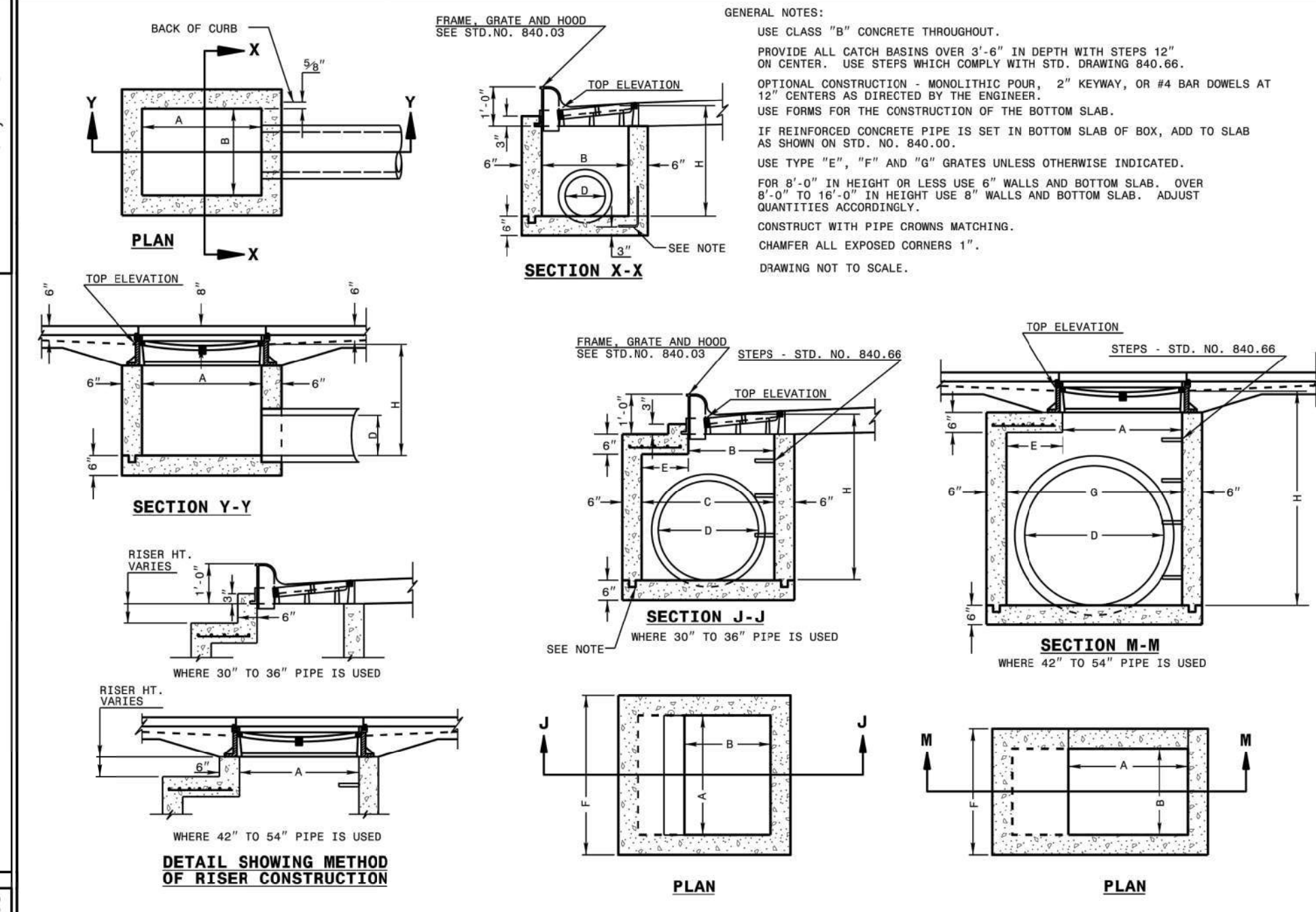
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STATE OF NORTH CAROLINA
 DEPT. OF TRANSPORTATION
 DIVISION OF HIGHWAYS
 RALEIGH, N.C.

ROADWAY STANDARD DRAWING FOR
 PRECAST MANHOLE 4', 5', AND 6' DIAMETER
 12" THRU 48" PIPE

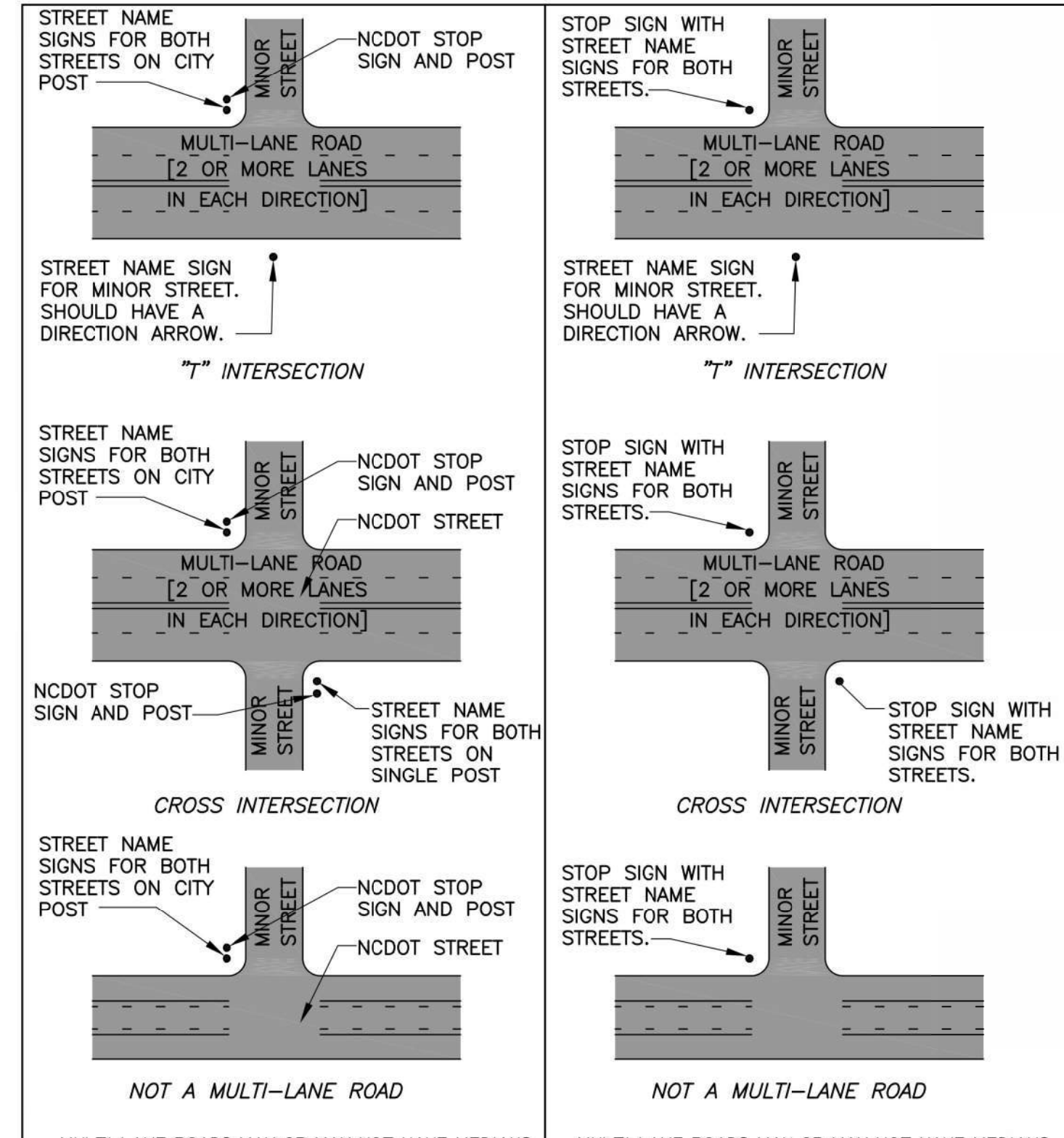
SHEET 1 OF 1
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STATE OF NORTH CAROLINA
 DEPT. OF TRANSPORTATION
 DIVISION OF HIGHWAYS
 RALEIGH, N.C.

ROADWAY STANDARD DRAWING FOR
 CONCRETE CATCH BASIN
 12" THRU 54" PIPE

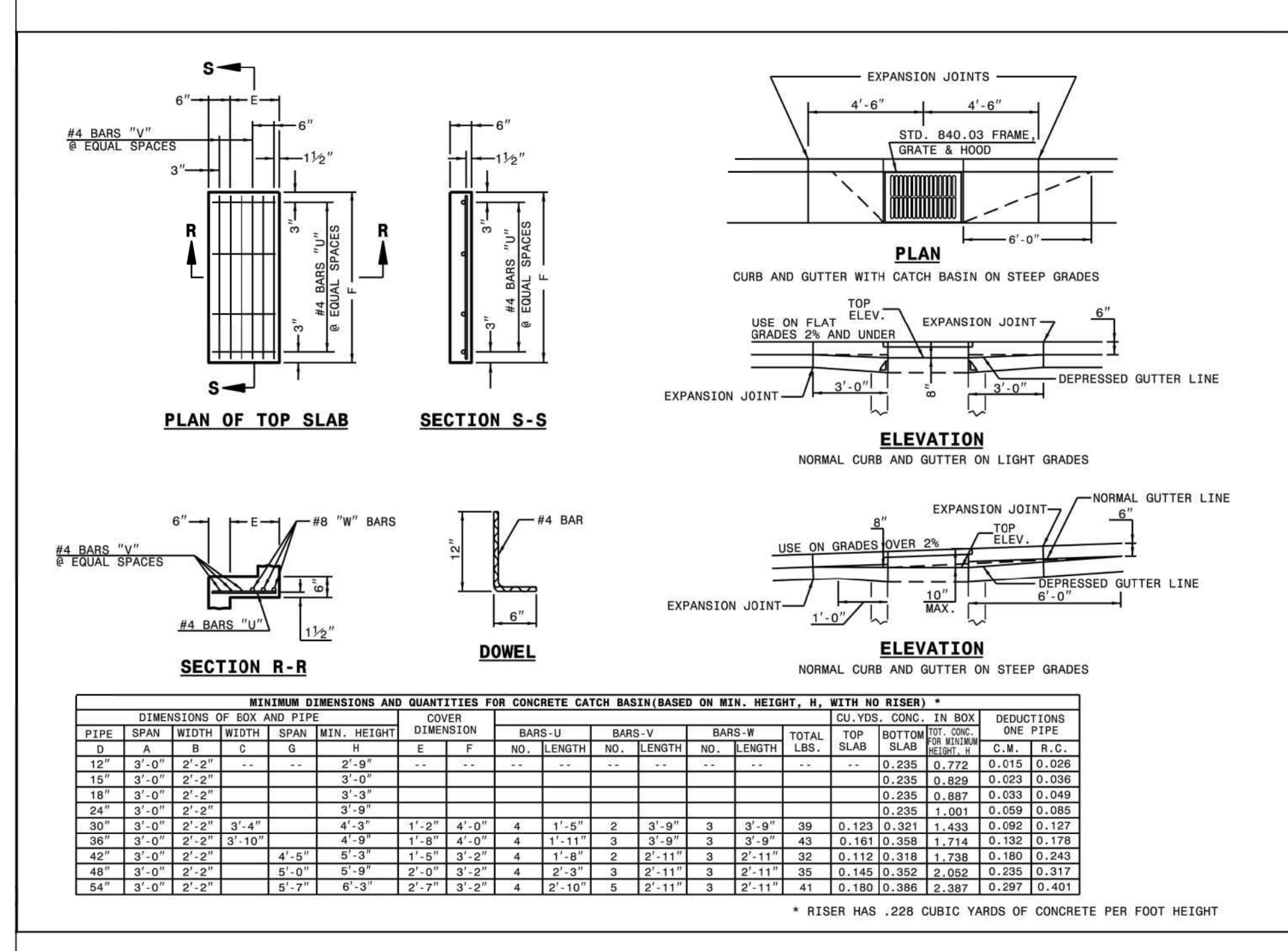
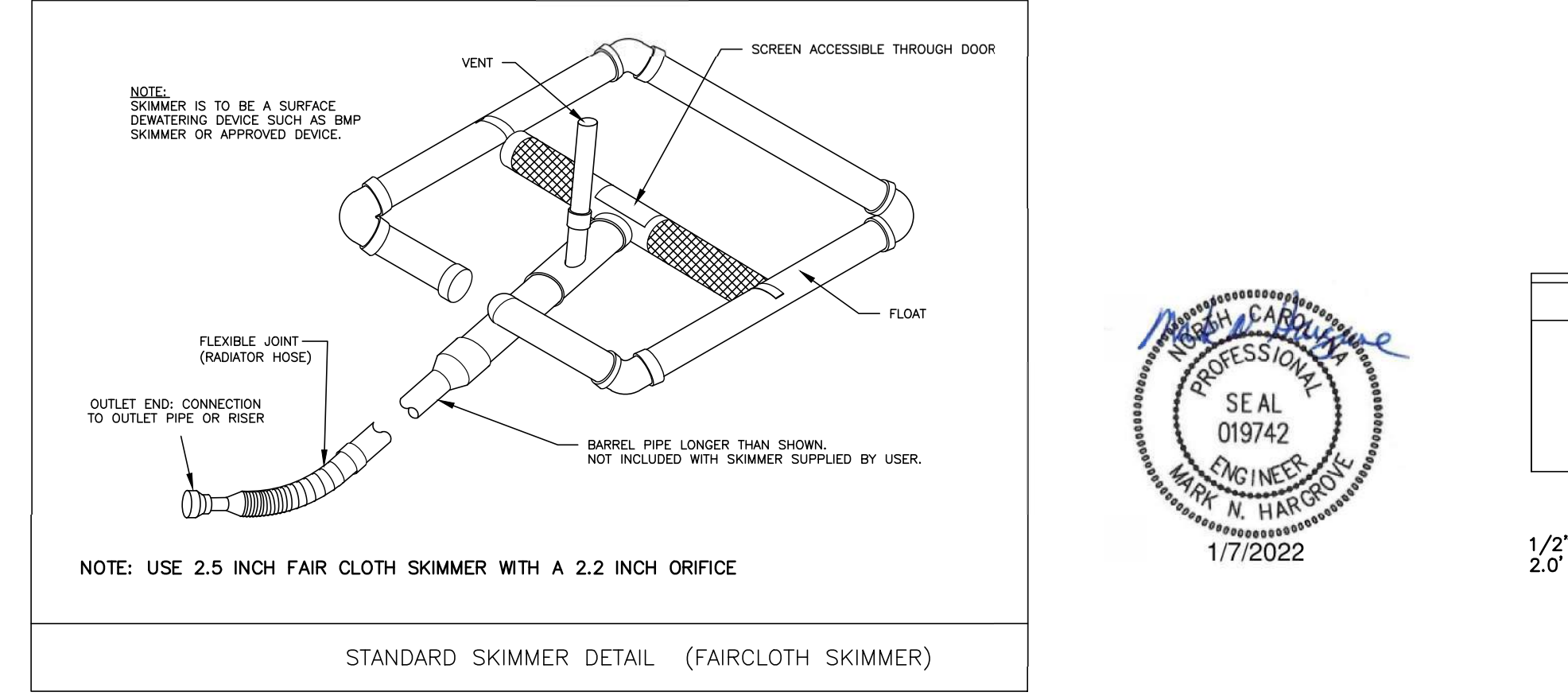
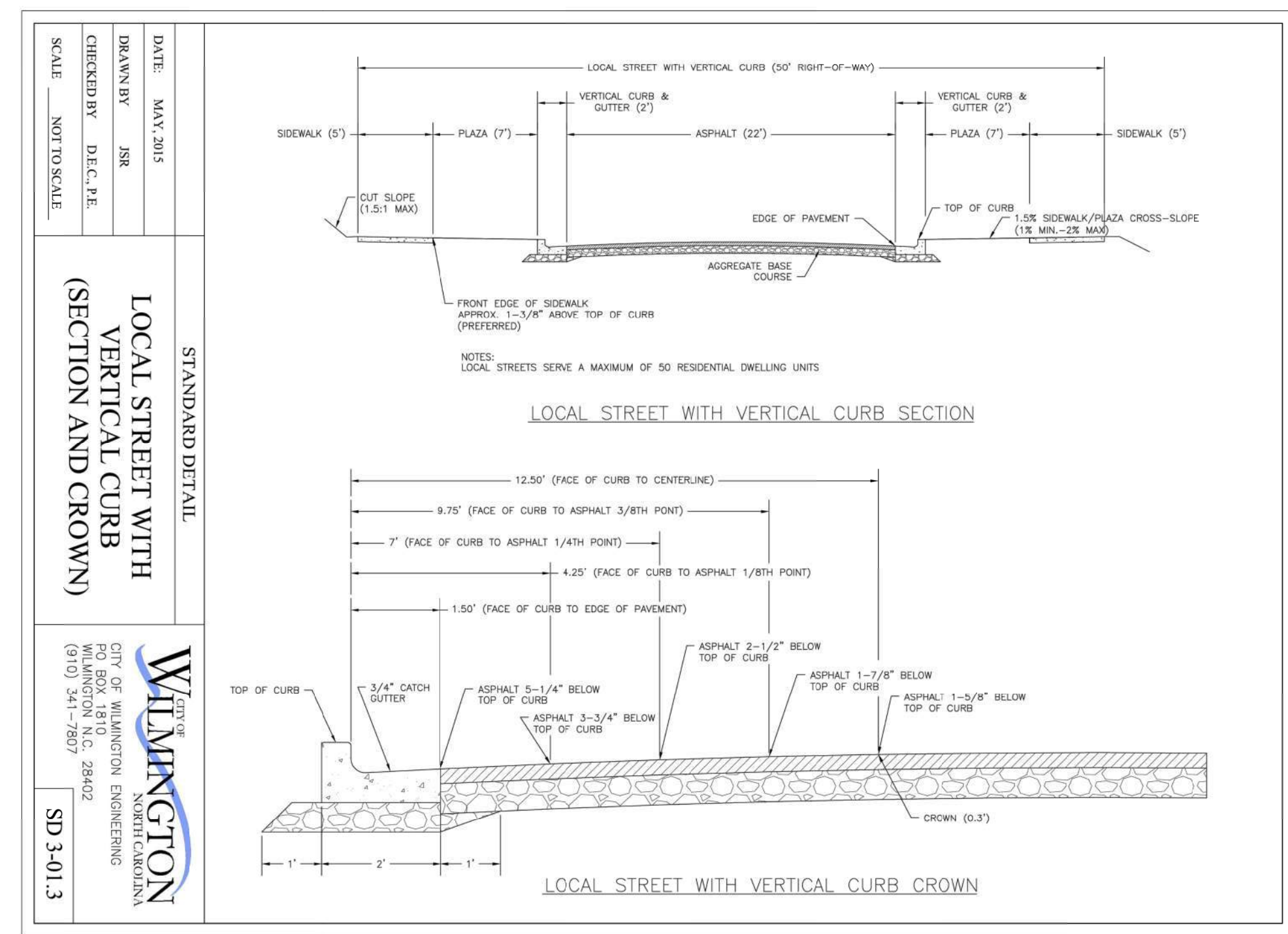
SHEET 1 OF 2
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DATE: SEPTEMBER 29, 2014
 REVISED: October 6, 2020
 DRAWN BY: DALE THOMPSON
 CHECKED BY: RANDALL GLAZIER
 SCALE: NOT TO SCALE

Locations for Installation of Posts for Street Name Signs at Streets Intersections

WILMINGTON
 CIVIL ENGINEERING
 P.O. Box 1937 • Wilmington, NC 28402 • (910) 341-7800
 DETAIL NO.: TE6-01



STATE OF NORTH CAROLINA
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 DIVISION OF HIGHWAYS
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ROADWAY STANDARD DRAWING FOR
 CONCRETE CATCH BASIN
 12" THRU 54" PIPE

SHEET 2 OF 2
 840.02

No.	Revision	Date	By
1	REVISED PER CITY COMMENTS	1/7/22	MNH

Designer	MNH	Scale	AS SHOWN
Drawn By	MNH	Date	JUNE, 2021
Checked By	MNH	Job No.	

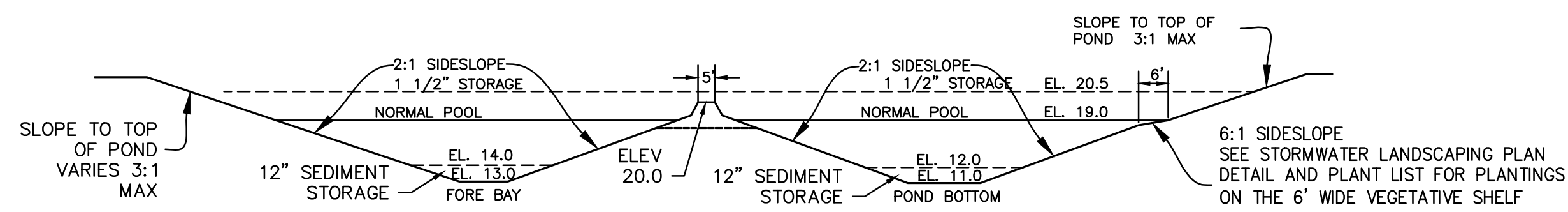
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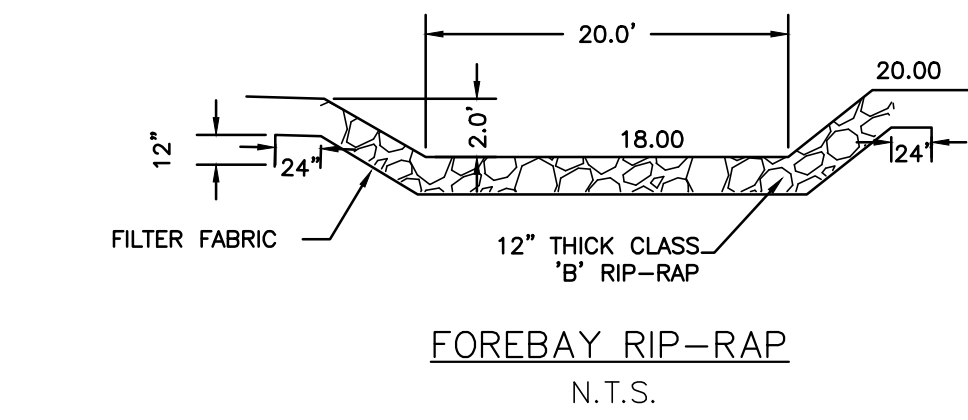
MISCELLANEOUS DETAILS
 C-8.2

Sheet No.
 C-8.2

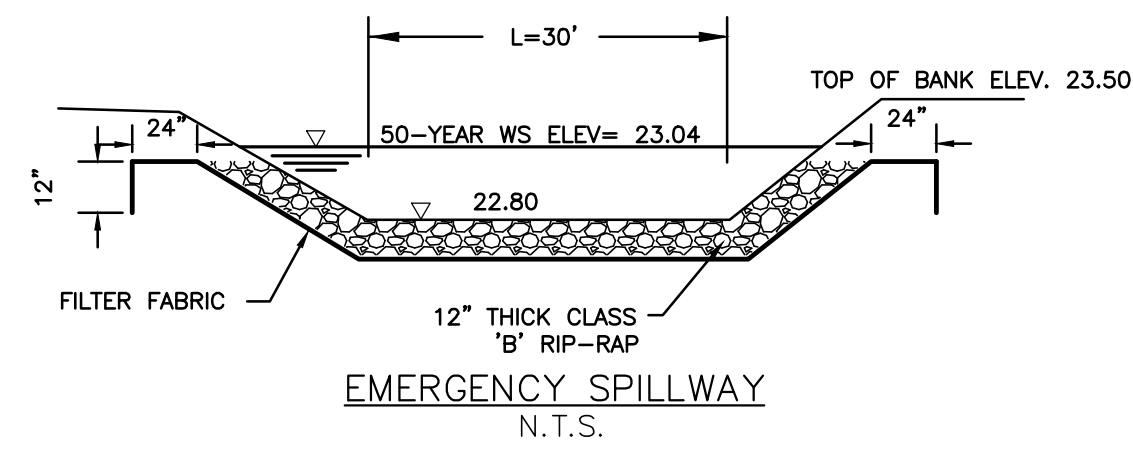


NORMAL POOL ELEVATION	SHELF BOTTOM ELEVATION	POND DEPTH (FT)	VOLUME SHELF (CF)	POND BOTTOM SHELF AREA (SF)	SURFACE AREA PROVIDED (SF)	SURFACE AREA REQUIRED (SF)	PERIMETER PERMANENT POOL (LF)	AVERAGE POND DEPTH (FT)
19.0	18.0	5.0	1,059	6,109	4,276	13,899	324	4.82

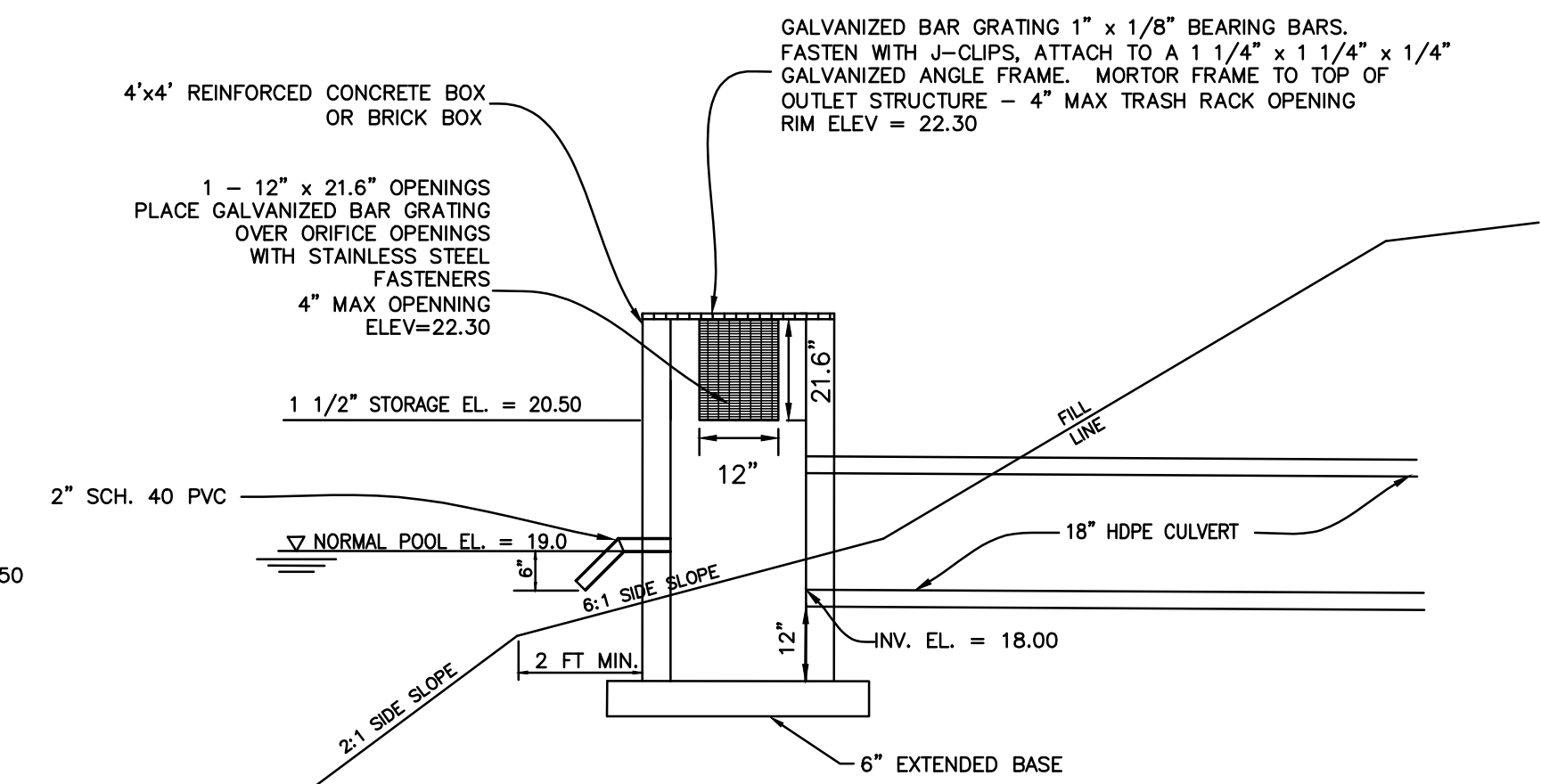
POND CROSS-SECTION
N.T.S.



FOREBAY RIP-RAP
N.T.S.



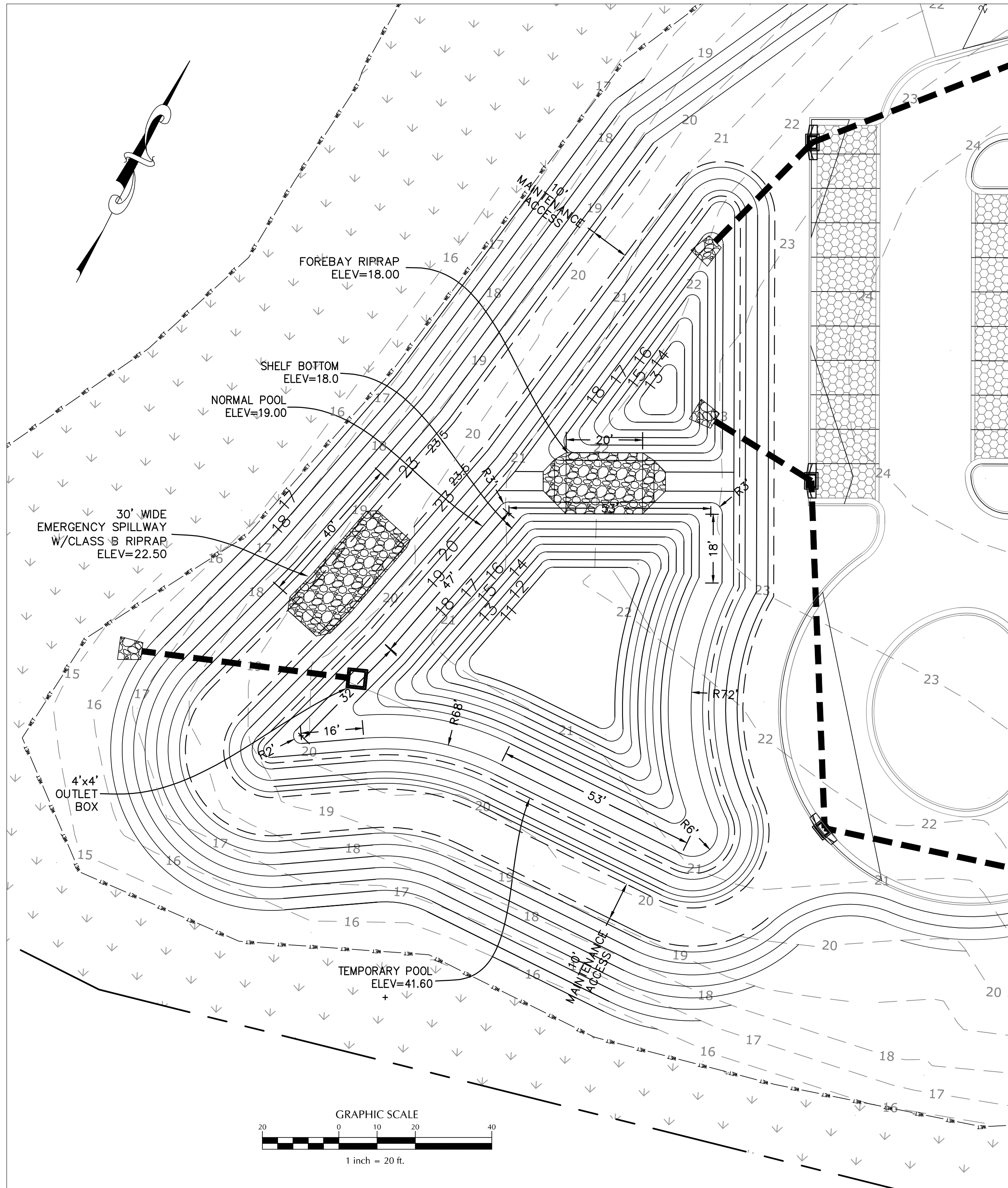
EMERGENCY SPILLWAY
N.T.S.



OUTLET STRUCTURE DETAIL
N.T.S.

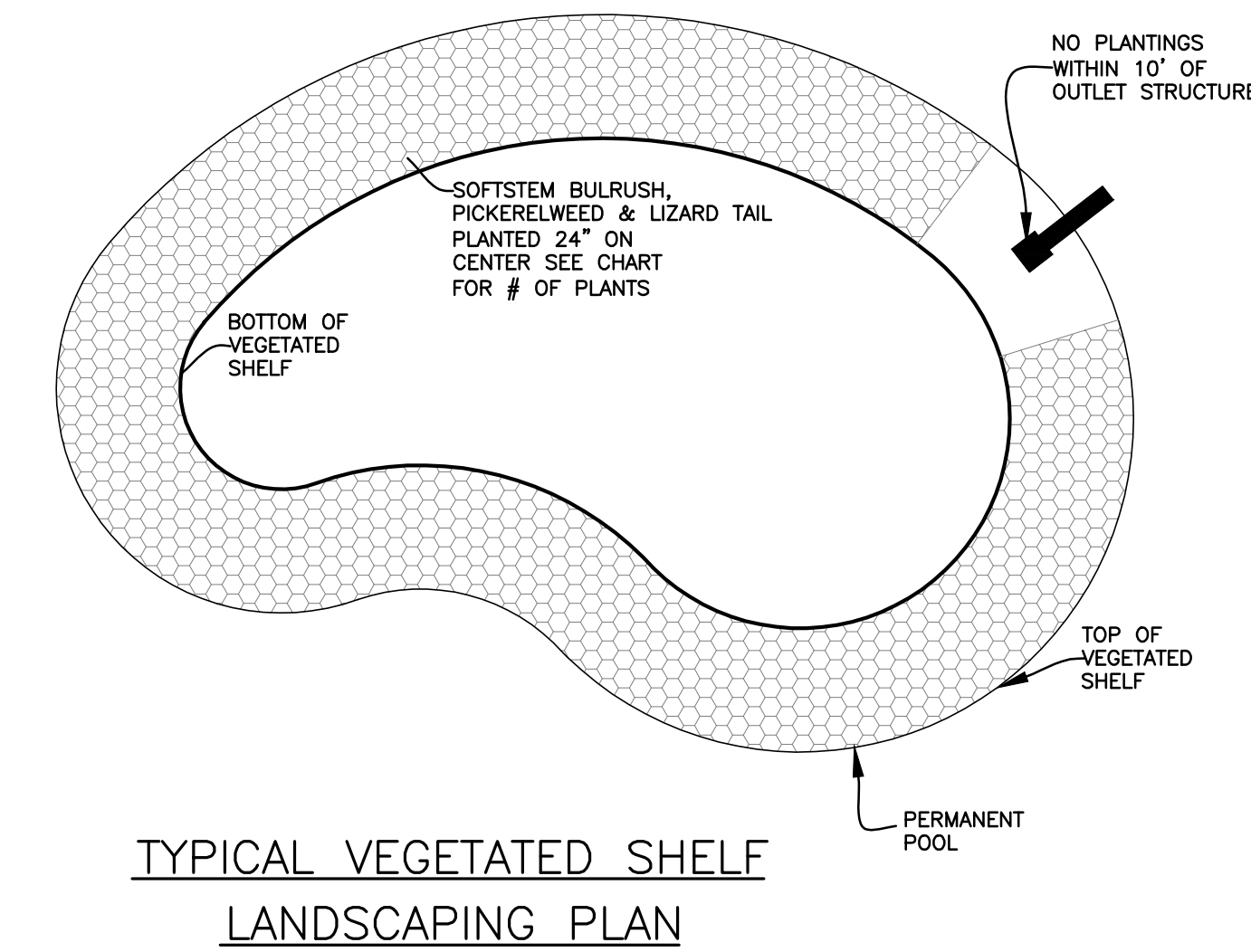
NOTES:

- DESIGN ELEVATIONS FOR WET DETENTION BASIN ARE TO AN ELEVATION OF 12.0 IN THE MAIN POND AND 14.0 IN THE FOREBAY WITH SEDIMENT STORAGE DOWN TO 11.0 IN THE MAIN POND AND 13.0 IN THE FOREBAY.
- ALL IMPERVIOUS SITE AREA TO BE DRAINED TO PROPOSED STORM SEWER SYSTEM AND DISCHARGED TO THE WET DETENTION POND.
- POND WILL BE PUMPED DOWN BY MECHANICAL MEANS IN CASE OF EMERGENCY.
- PRIOR TO USE AS A WET DETENTION BASIN, SEDIMENT BASIN WILL BE MUCKED OUT.
- ALL SLOPES ABOVE & BELOW PERMANENT POOL TO BE 2:1 MAX.



NOTES:

- DO NOT PLANT TREES WITHIN 10 FEET OF THE INLET OR OUTLET PIPES, SPILLWAYS OR FLOW SPREADERS. TREE SPECIES WITH WATER-SEEKING ROOTS SUCH AS WEEPING WILLOWS AND POPLARS, SHOULD BE AVOIDED WITHIN 50 FEET OF PIPES OR MANMADE STRUCTURES. EVERGREEN TREES WHICH PRODUCE RELATIVELY LITTLE LEAF-FALL ARE PREFERRED IN AREAS DRAINING TO DETENTION DEVICES. TREES SHOULD BE SET BACK SO THAT BRANCHES DO NOT EXTEND OVER THE PERMANENT POOL.



TYPICAL VEGETATED SHELF
LANDSCAPING PLAN

VEGETATED SHELF = 1,651 S.F.
@ 1 PLANT PER 4 SF (24" O.C.) = 413 PLANTS

PLANT TYPE	QTY	BOTANICAL NAME	COMMON NAME	ROOT	CALIPER	HEIGHT	NOTES
HERBACEOUS	137	Schoenoplectus tabernaemontani	Softstem Bulrush	CONT.	4" Pot		24" O.C.
	138	Pontederia cordata	Pickereelweed	CONT.	4" Pot		24" O.C.
	138	Saururus cernuus	Lizard Tail	CONT.	4" Pot		24" O.C.

NOTES:

- NO PLANTINGS WITHIN 10' OF OUTLET STRUCTURE.
- BECAUSE MOST STORMWATER BASINS ARE EXCAVATED TO DEEP SUB-SOILS, THEY OFTEN LACK THE NUTRIENTS AND ORGANIC MATTER NEEDED TO SUPPORT VIGOROUS GROWTH OF PLANTS. ALL LANDSCAPE MATERIAL, INCLUDING GRASS, SHOULD BE PLANTED IN GOOD TOPSOIL. NATIVE UNDERLYING SOILS MAY BE SUITABLE FOR PLANTING IF AMENDED WITH 4 INCHES OF WELL-AGED COMPOST TILLED INTO THE SUBGRADE. COMPOST SHOULD MEET SPECIFICATIONS FOR GRADE A COMPOST QUALITY.
- A MINIMUM ONE-YEAR WARRANTY PERIOD STIPULATING REQUIREMENTS FOR PLANT SURVIVAL/REPLACEMENT.



No.	Revision	Date	By
1	REVISED PER CITY COMMENTS	11/15/21	MNH

Designer	MNH	Scale	AS SHOWN
Drawn By	MNH	Date	JUNE, 2021
Checked By	MNH	Job No.	

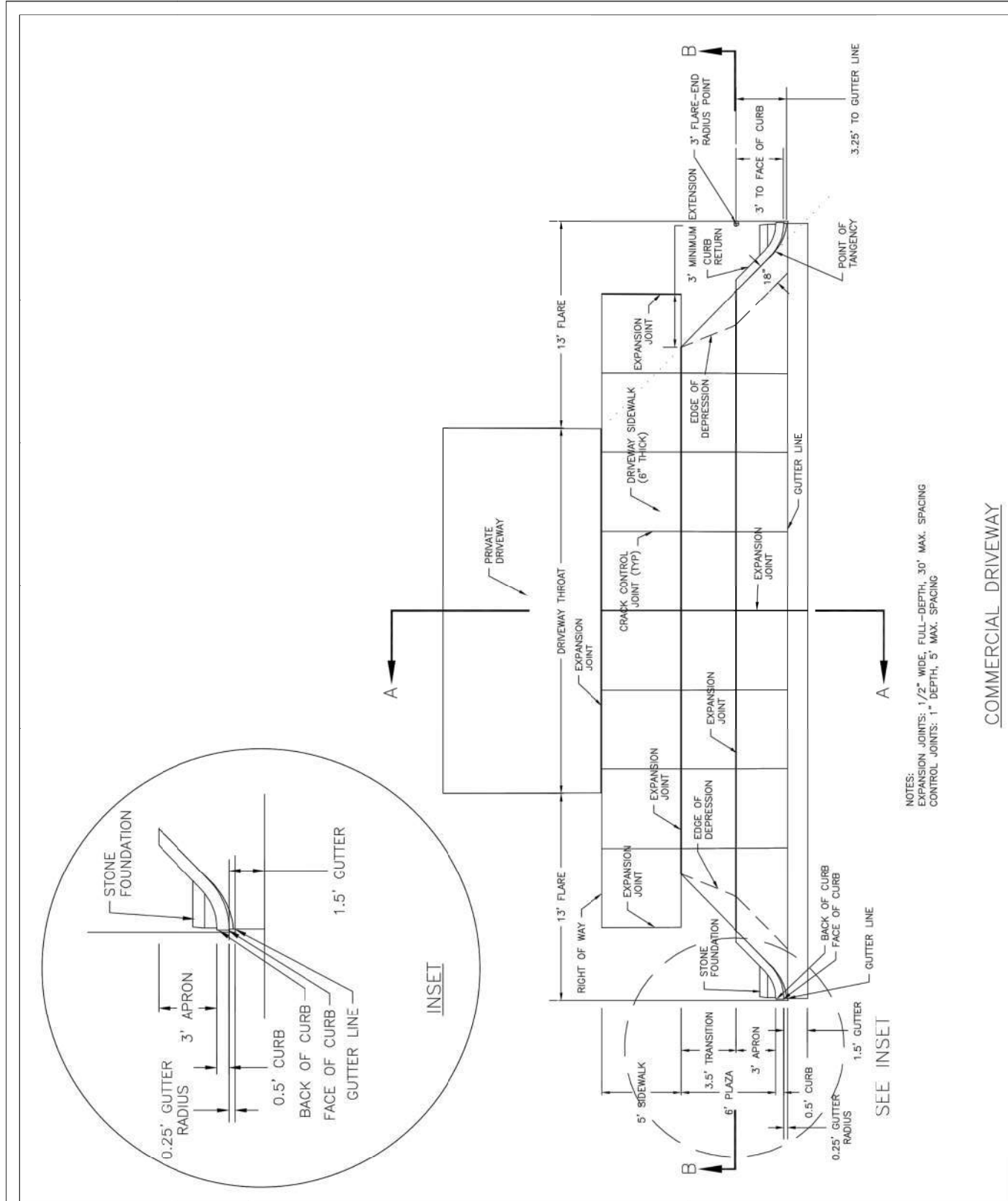
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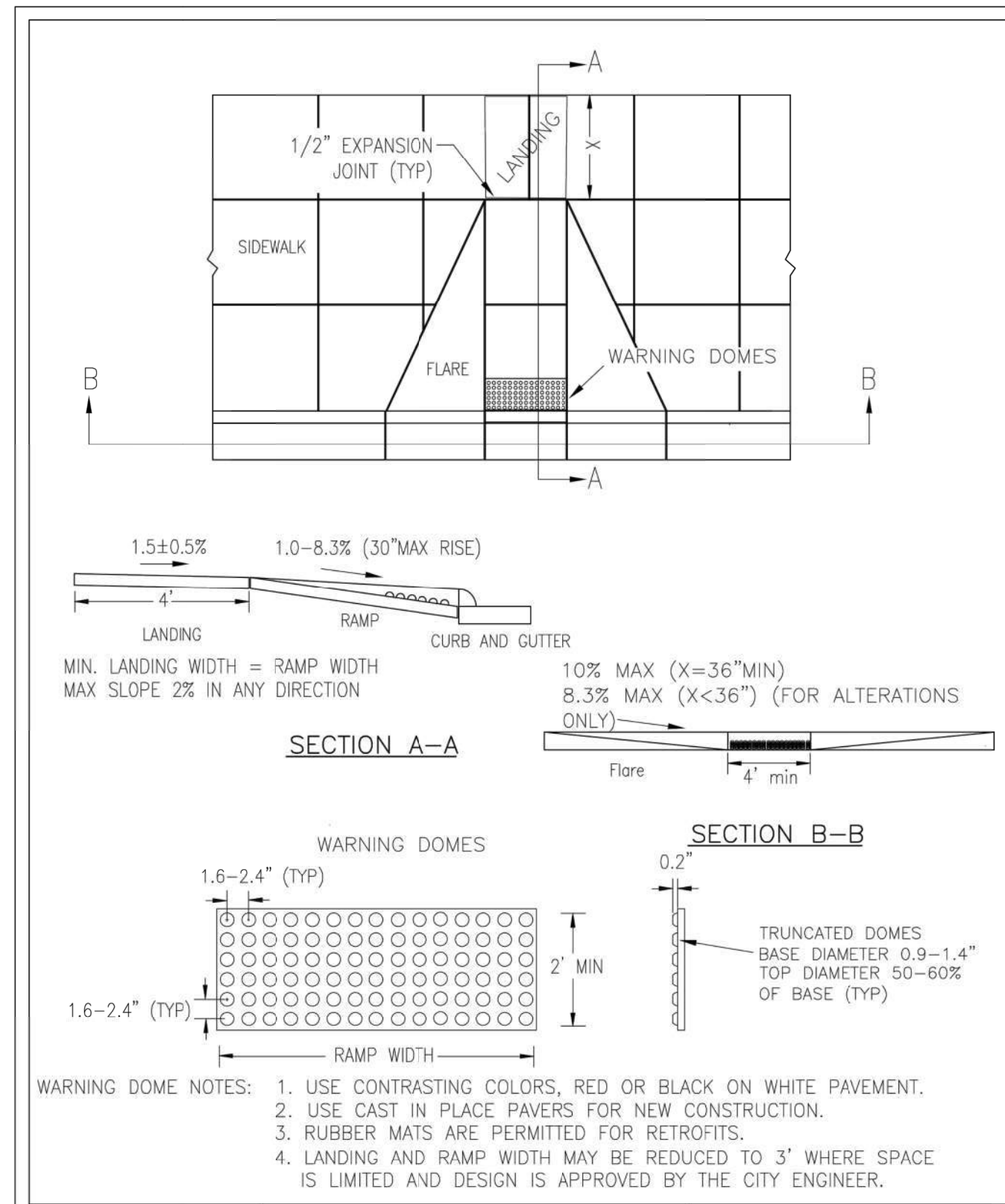
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910-599-1744 LICENSE No. P-1032

POND DETAILS

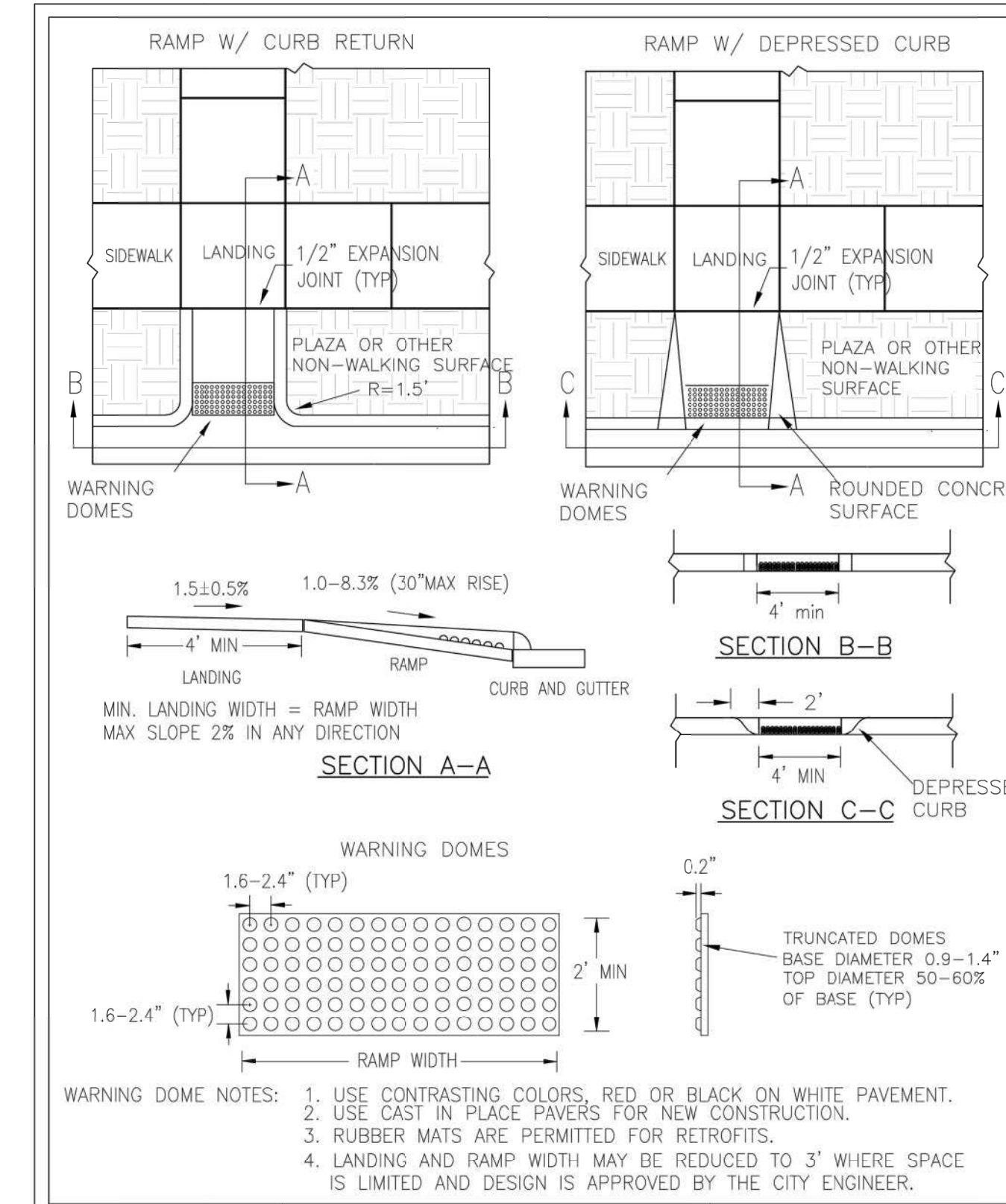
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C-8.3



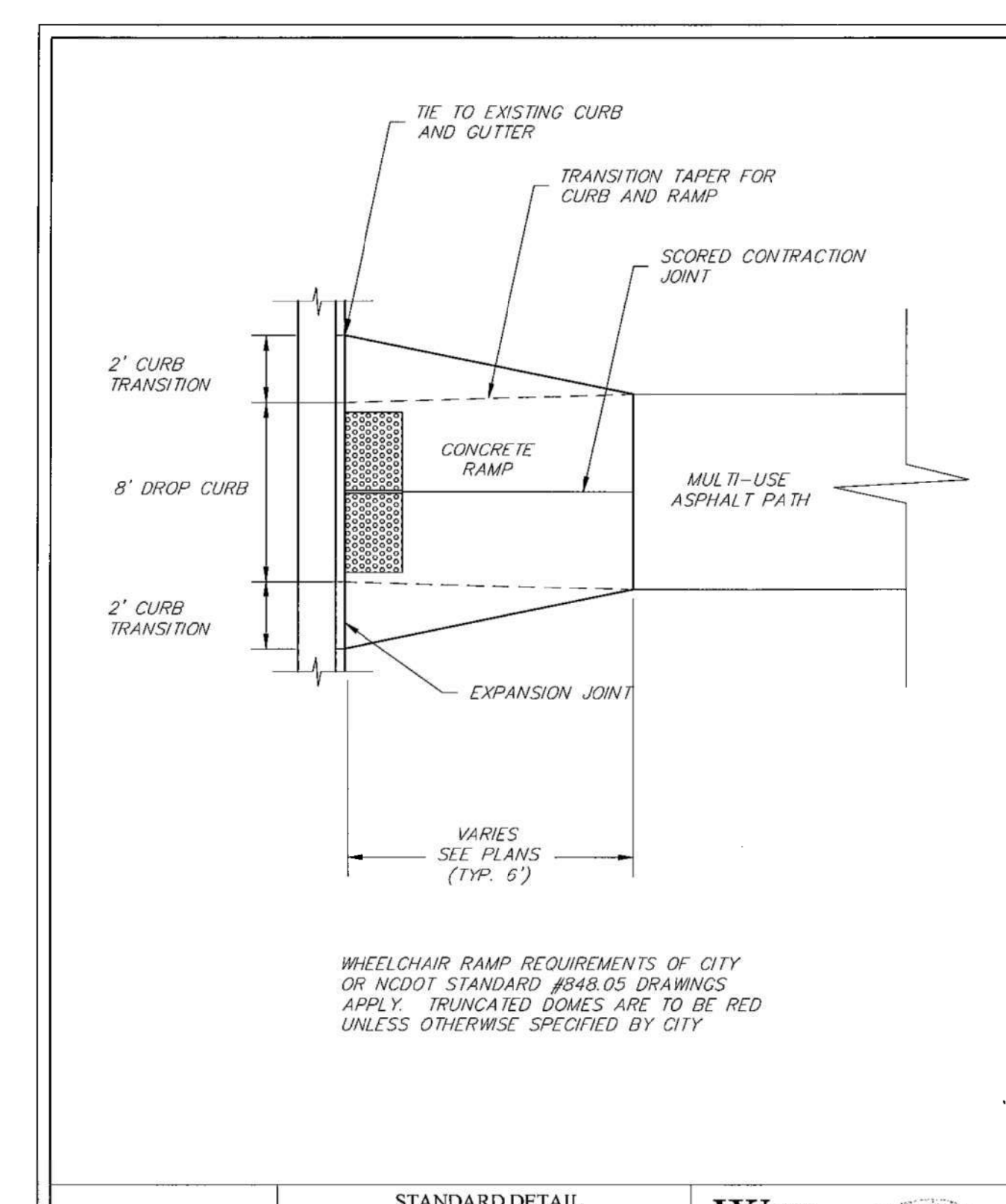
STANDARD DETAIL		<p>CITY OF WILMINGTON ENGINEERING PO BOX 1810 WILMINGTON N.C. 28402 (910) 341-7807</p>	SD 3-03.3
DATE:	FEB. 14, 2017		
DRAWN BY:	JSR		
CHECKED BY:	D.E.C., P.E.		
SCALE:	NOT TO SCALE		



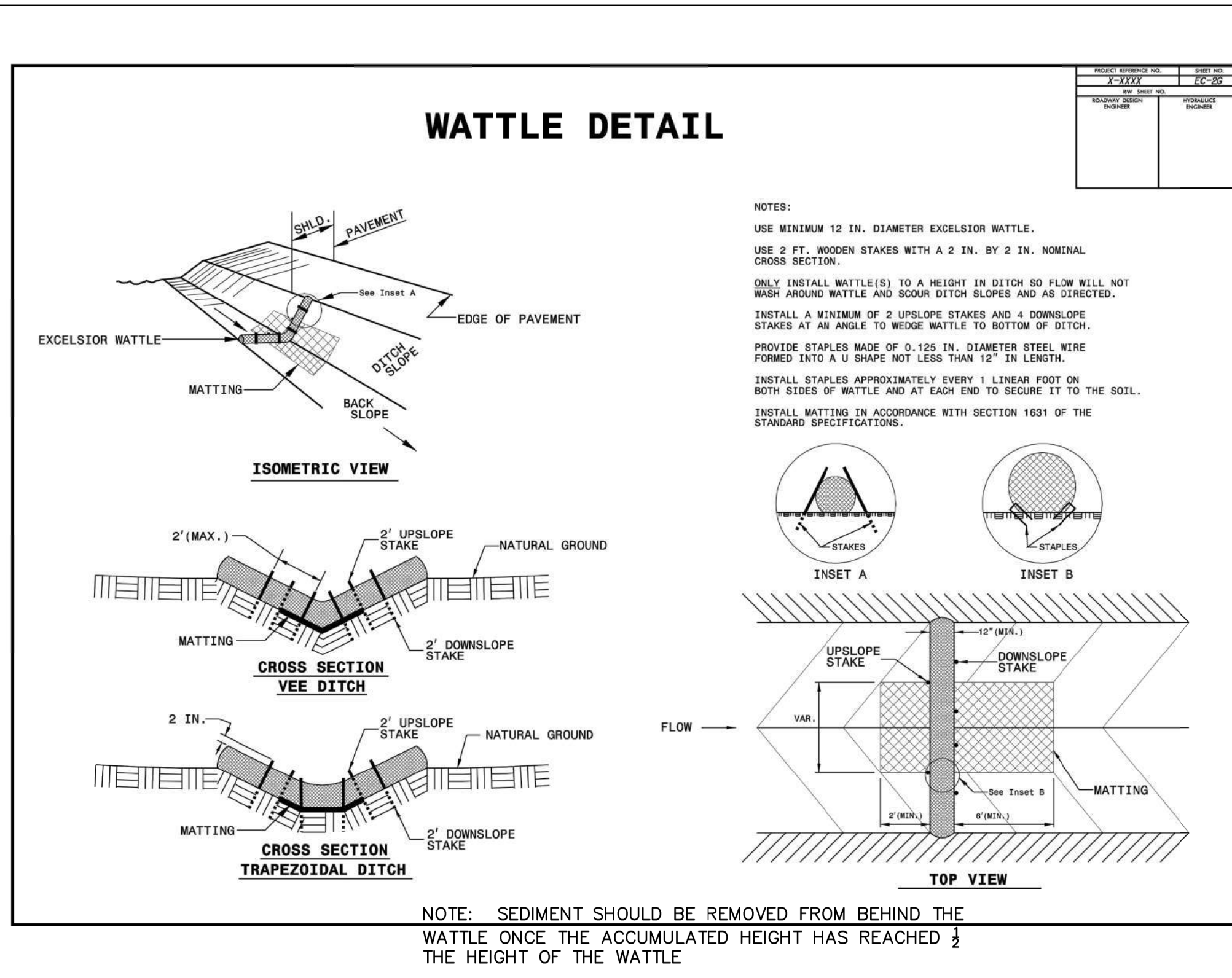
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DATE:	DECEMBER, 2010		
DRAWN BY:	PBJSR		
CHECKED BY:	DEC		
SCALE:	NOT TO SCALE		



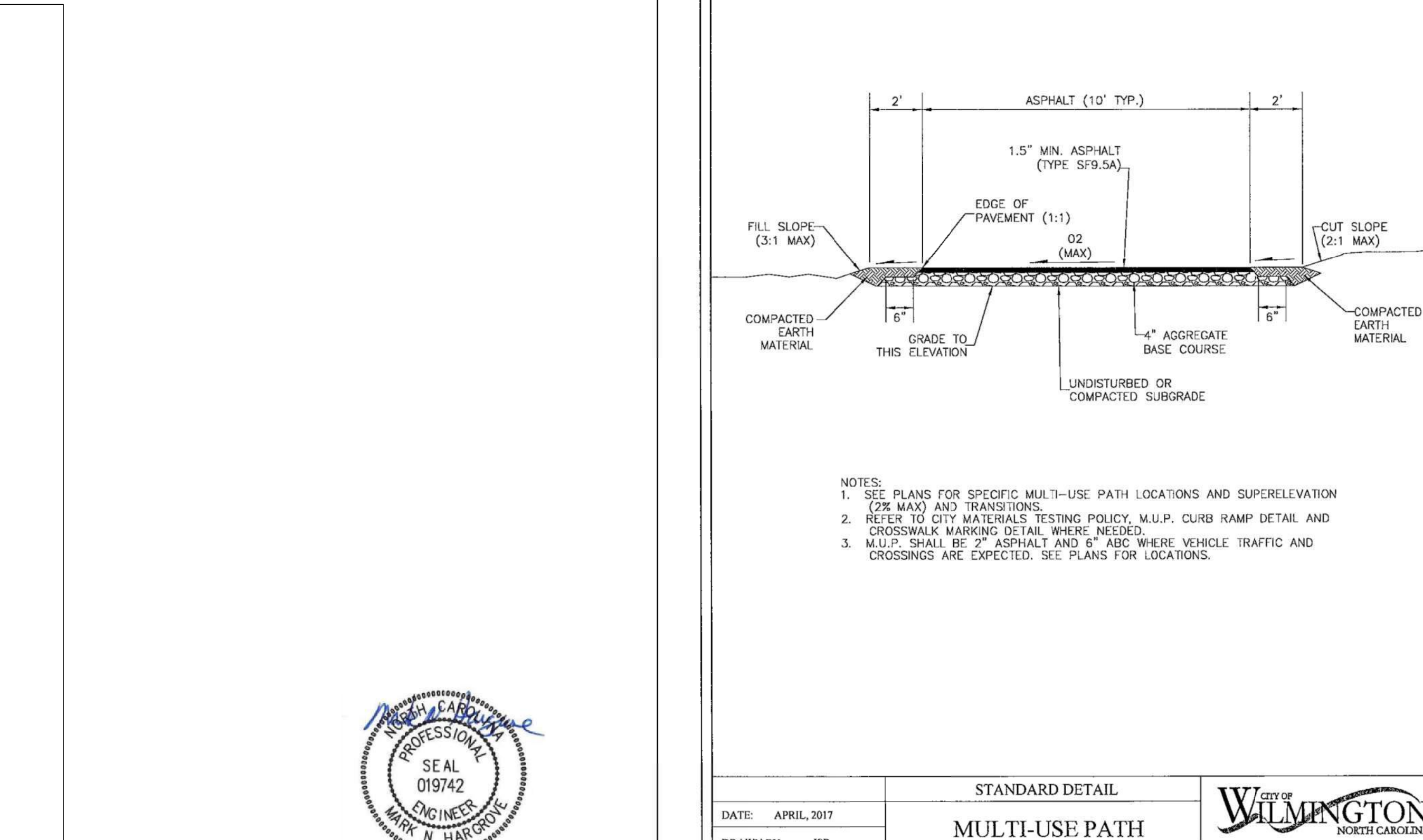
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DATE:	DECEMBER, 2010		
DRAWN BY:	PBJSR		
CHECKED BY:	DEC		
SCALE:	NOT TO SCALE		



STANDARD DETAIL		<p>CITY OF WILMINGTON ENGINEERING PO BOX 1810 WILMINGTON N.C. 28402 (910) 341-7807</p>	SD X-XX
DATE:	MAR, 2017		
DRAWN BY:	JSR		
CHECKED BY:	D.E.C., P.E.		
SCALE:	NOT TO SCALE		



STANDARD DETAIL		<p>CITY OF WILMINGTON ENGINEERING PO BOX 1810 WILMINGTON N.C. 28402 (910) 341-7807</p>	SD X-XX
DATE:	APRIL, 2017		
DRAWN BY:	JSR		
CHECKED BY:	D.E.C., P.E.		
SCALE:	NOT TO SCALE		



STANDARD DETAIL		<p>CITY OF WILMINGTON ENGINEERING PO BOX 1810 WILMINGTON N.C. 28402 (910) 341-7807</p>	SD X-XX
DATE:	APRIL, 2017		
DRAWN BY:	JSR		
CHECKED BY:	D.E.C., P.E.		
SCALE:	NOT TO SCALE		

No.	Revision	Date	By

Designer	MNH	Scale	AS SHOWN
Drawn By	MNH	Date	JUNE, 2021
Checked By	MNH	Job No.	

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MISCELLANEOUS DETAILS

Sheet No.
C-8.4

PART III
SELF-INSPECTION, RECORDKEEPING AND REPORTING

SECTION A: SELF-INSPECTION
Self-inspections are required during normal business hours in accordance with the table below. When adverse weather or site conditions would cause the safety of the inspection personnel to be in jeopardy, the inspection may be delayed until the next business day on which it is safe to perform the inspection. In addition, when a storm event of equal to or greater than 1.0 inch occurs outside of normal business hours, the self-inspection shall be performed upon the commencement of the next business day. Any time when inspections were delayed shall be noted in the Inspection Record.

Inspect	Frequency (during normal business hours)	Inspection records must include:
(1) Rain gauge maintained in good working order	Daily	Daily rainfall amounts. If no daily rain gauge observations are made during weekend or holiday periods, and no individual day rainfall information is available, record the cumulative rain measurement for those unmeasured days (i.e. the wettest day if a site inspection is needed). Days on which no rainfall occurred shall be recorded as "dry". The permittee may use another rain-measuring device approved by the Division.
(2) E&SC Measures	At least once per 7 calendar days and within 24 hours of a rain event ≥ 1.0 inch in 24 hours	1. Identification of the measures inspected. 2. Date and time of the inspection. 3. Name of the person performing the inspection. 4. Indication of whether the measures were operating properly. 5. Description of maintenance needs for the measures. 6. Description, evidence, and date of corrective actions taken.
(3) Stormwater discharge outfalls (SDCs)	At least once per 7 calendar days and within 24 hours of a rain event ≥ 1.0 inch in 24 hours	1. Identification of the discharge outfalls inspected. 2. Date and time of the inspection. 3. Name of the person performing the inspection. 4. Evidence of indicators of stormwater pollution such as oil sheen, floating or suspended solids or discoloration. 5. Indication of visible sediment leaving the site. 6. Description, evidence, and date of corrective actions taken.
(4) Portwater of site	At least once per 7 calendar days and within 24 hours of a rain event ≥ 1.0 inch in 24 hours	If visible sedimentation is found outside site limits, then a record of the following shall be made: 1. Actions taken to clean up or stabilize the sediment that has left the site limits. 2. Description, evidence, and date of corrective actions taken, and 3. An explanation as to the actions taken to control future sedimentation.
(5) Streams or wetlands onsite or offsite (where accessible)	At least once per 7 calendar days and within 24 hours of a rain event ≥ 1.0 inch in 24 hours	If the stream or wetland has increased visible sedimentation or a stream has visible increased turbidity from the construction activity, then a record of the following shall be made: 1. Description, evidence and date of corrective actions taken, and 2. Records of the required reports to the appropriate Division Regional Office per Part II, Section C, Item (2)(g) of this permit.
(6) Ground stabilization measures	After each phase of grading	1. The phase of grading (invasion of perimeter E&SC measures, clearing and grubbing, installation of storm drainage facilities, completion of all land-disturbing activity, construction or redevelopment, permanent ground cover). 2. Documentation that the required ground stabilization measures have been provided within the required timeframe or an assurance that they will be provided as soon as possible.

NOTE: The rain inspection resets the required 7 calendar day inspection requirement.

PART III
SELF-INSPECTION, RECORDKEEPING AND REPORTING

SECTION B: RECORDKEEPING
1. E&SC Plan Documentation
The approved E&SC plan as well as any approved deviation shall be kept on the site. The approved E&SC plan must be kept up-to-date throughout the coverage under this permit. The following items pertaining to the E&SC plan shall be kept on site and available for inspection at all times during normal business hours.

Item to Document	Documentation Requirements
(a) Each E&SC measure has been installed and does not significantly deviate from the locations, dimensions and relative elevations shown on the approved E&SC plan.	Initial and date each E&SC measure on a copy of the approved E&SC plan or complete, date and sign an inspection report that lists each E&SC measure shown on the approved E&SC plan. This documentation is required upon the initial installation of the E&SC measures or if the E&SC measures are modified after initial installation.
(b) A phase of grading has been completed.	Initial and date a copy of the approved E&SC plan or complete, date and sign an inspection report to indicate completion of the construction phase.
(c) Ground cover is located and installed in accordance with the approved E&SC plan.	Initial and date a copy of the approved E&SC plan or complete, date and sign an inspection report to indicate completion of the ground cover specifications.
(d) The maintenance and repair requirements for all E&SC measures have been performed.	Complete, date and sign an inspection report.
(e) Corrective actions have been taken to E&SC measures.	Initial and date a copy of the approved E&SC plan or complete, date and sign an inspection report to indicate the completion of the corrective action.

2. Additional Documentation to be Kept on Site
In addition to the E&SC plan documents above, the following items shall be kept on the site and available for inspectors at all times during normal business hours, unless the Division provides a site-specific exemption based on unique site conditions that make this requirement not practical:
(a) This General Permit as well as the Certificate of Coverage, after it is received.
(b) Records of inspections made during the previous twelve months. The permittee shall record the required observations on the Inspection Record Form provided by the Division or a similar inspection form that includes all the required elements. Use of electronically-available records in lieu of the required paper copies will be allowed if shown to provide equal access and utility as the hard-copy records.

3. Documentation to be Retained for Three Years
All data used to complete the e-NOD and all inspection records shall be maintained for a period of three years after project completion and made available upon request. [40 CFR 122.41]

PART III
SELF-INSPECTION, RECORDKEEPING AND REPORTING

SECTION C: REPORTING
1. Occurrences that Must be Reported
Permittees shall report the following occurrences:
(a) Visible sediment deposition in a stream or wetland.
(b) Oil spills if:
• They are 25 gallons or more,
• They are less than 25 gallons but cannot be cleaned up within 24 hours,
• They cause sheen on surface waters (regardless of volume), or
• They are within 100 feet of surface waters (regardless of volume).
(c) Releases of hazardous substances in excess of reportable quantities under Section 311 of the Clean Water Act (Ref: 40 CFR 110.3 and 40 CFR 117.3) or Section 102 of CERCLA (Ref: 40 CFR 302.4) or G.S. 143-215.85.
(d) Anticipated bypasses and unanticipated bypasses.
(e) Noncompliance with the conditions of this permit that may endanger health or the environment.

2. Reporting Timeframes and Other Requirements
After a permittee becomes aware of an occurrence that must be reported, he shall contact the appropriate Division regional office within the timeframes and in accordance with the other requirements listed below. Occurrences outside normal business hours may also be reported to the Department's Environmental Emergency Center personnel at (800) 858-0368.

Occurrence	Reporting Timeframes (After Discovery) and Other Requirements
(a) Visible sediment deposition in a stream or wetland	• Within 24 hours , an oral or electronic notification. • Within 7 calendar days , a report that includes a description of the sediment and actions taken to address the cause of the deposition. Division staff may waive the requirement for a written report on a case-by-case basis. • If the stream is named on the NC 303(d) list as impaired for sediment-related causes, the permittee may be required to perform additional monitoring, inspections or apply more stringent practices if staff determine that additional requirements are needed to assure compliance with the federal or state impaired-waters conditions.
(b) Oil spills and release of hazardous substances per Item 1(b)-(c) above	• Within 24 hours , an oral or electronic notification. The notification shall include information about the date, time, nature, volume and location of the spill or release.
(c) Anticipated bypasses [40 CFR 122.41(m)(3)]	• A report of at least ten days before the date of the bypass, if possible. The report shall include an evaluation of the anticipated quality and effect of the bypass.
(d) Unanticipated bypasses [40 CFR 122.41(m)(3)]	• Within 24 hours , an oral or electronic notification. • Within 7 calendar days , a report that includes an evaluation of the quality and effect of the bypass.
(e) Noncompliance with the conditions of this permit that may endanger health or the environment [40 CFR 122.41(h)(7)]	• Within 24 hours , an oral or electronic notification. • Within 7 calendar days , a report that contains a description of the noncompliance, and its causes; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time noncompliance is expected to continue; and steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance. [40 CFR 122.41(h)(8)]. • Division staff may waive the requirement for a written report on a case-by-case basis.

PART II, SECTION G, ITEM (4)
DRAW DOWN OF SEDIMENT BASINS FOR MAINTENANCE OR CLOSE OUT

Sediment basins and traps that receive runoff from drainage areas of one acre or more shall use outlet structures that withdraw water from the surface when these devices need to be drawn down for maintenance or close out unless this is infeasible. The circumstances in which it is not feasible to withdraw water from the surface shall be rare (for example, times with extended cold weather). Non-surface withdrawals from sediment basins shall be allowed only when all of the following criteria have been met:

- The E&SC plan authority has been provided with documentation of the non-surface withdrawal and the specific time periods or conditions in which it will occur. The non-surface withdrawal shall not commence until the E&SC plan authority has approved these items.
- The non-surface withdrawal has been reported as an anticipated bypass in accordance with Part III, Section C, Item (2)(c) and (d) of this permit.
- Dewatering discharges are treated with controls to minimize discharges of pollutants from stormwater that is removed from the sediment basin. Examples of appropriate controls include properly sited, designed and maintained dewatering tanks, weir tanks, and filtration systems.
- Vegetated, upland areas of the sites or a properly designed stone pad is used to the extent feasible at the outlet of the dewatering treatment devices described in Item (c) above.
- Velocity dissipation devices such as check dams, sediment traps, and riprap are provided at the discharge points of all dewatering devices, and
- Sediment removed from the dewatering treatment devices described in Item (c) above is disposed of in a manner that does not cause deposition of sediment into waters of the United States.

NORTH CAROLINA Environmental Quality

EFFECTIVE: 04/01/19

GROUND STABILIZATION AND MATERIALS HANDLING PRACTICES FOR COMPLIANCE WITH THE NCG01 CONSTRUCTION GENERAL PERMIT
Implementing the details and specifications on this plan sheet will result in the construction activity being considered compliant with the Ground Stabilization and Materials Handling sections of the NCG01 Construction General Permit (Sections E and F, respectively). The permittee shall comply with the Erosion and Sediment Control plan approved by the delegated authority having jurisdiction. All details and specifications shown on this sheet may not apply depending on site conditions and the delegated authority having jurisdiction.

SECTION E: GROUND STABILIZATION

Site Area Description	Required Ground Stabilization Timeframes	Stabilize within this many calendar days after ceasing land disturbance	Timeframe variations
(a) Perimeter dikes, swales, ditches, and perimeter slopes		7	None
(b) High Quality Water (HQW) Zones		7	None
(c) Slopes steeper than 3:1		7	If slopes are 10' or less in length and are not steeper than 2:1, 14 days are allowed.
(d) Slopes 3:1 to 4:1		14	-7 days for slopes greater than 50' in length and with slopes steeper than 4:1 -7 days for perimeter dikes, swales, ditches, perimeter slopes and HQW Zones -10 days for Falls Lake Watershed
(e) Areas with slopes flatter than 4:1		14	-7 days for perimeter dikes, swales, ditches, perimeter slopes and HQW Zones -10 days for Falls Lake Watershed unless there is zero slope

Note: After the permanent cessation of construction activities, any areas with temporary ground stabilization shall be converted to permanent ground stabilization as soon as practicable but in no case longer than 90 calendar days after the last land disturbing activity. Temporary ground stabilization shall be maintained in a manner to render the surface stable against accelerated erosion until permanent ground stabilization is achieved.

GROUND STABILIZATION SPECIFICATION
Stabilize the ground sufficiently so that rain will not dislodge the soil. Use one of the techniques in the table below:

Temporary Stabilization	Permanent Stabilization
<ul style="list-style-type: none"> Temporary grass seed covered with straw or other mulches and tackifiers Hydroseeding Roller erosion control products with or without temporary grass seed Appropriately applied straw or other mulch with mat Plastic sheeting 	<ul style="list-style-type: none"> Permanent grass seed covered with straw or other mulches and tackifiers Geotextile fabrics such as permanent soil reinforcement matting Hydroseeding Shrubs or other permanent plantings covered with mulch Uniform and evenly distributed ground cover sufficient to restrain erosion Structural methods such as concrete, asphalt or retaining walls Roller erosion control products with grass seed

POLYACRYLAMIDES (PAMS) AND FLOCCULANTS

- Select flocculants that are appropriate for the soils being exposed during construction, selecting from the NC DWR List of Approved PAMS/Flocculants.
- Apply flocculants at or before the inlets to Erosion and Sediment Control Measures.
- Apply flocculants at the concentrations specified in the NC DWR List of Approved PAMS/Flocculants and in accordance with the manufacturer's instructions.
- Provide ponding area for containment of treated Stormwater before discharging offsite.
- Store flocculants in leak-proof containers that are kept under storm-resistant cover or surrounded by secondary containment structures.

- EQUIPMENT AND VEHICLE MAINTENANCE**
- Maintain vehicles and equipment to prevent discharge of fluids.
 - Provide drip pans under any stored equipment.
 - Identify leaks and repair as soon as feasible, or remove leaking equipment from the project.
 - Collect all spent fluids, store in separate containers and properly dispose as hazardous waste (recycle when possible).
 - Remove leaking vehicles and construction equipment from service until the problem has been corrected.
 - Bring used fuels, lubricants, coolants, hydraulic fluids and other petroleum products to a recycling or disposal center that handles these materials.
- LITTER, BUILDING MATERIAL AND LAND CLEARING WASTE**
- Never bury or burn waste. Place litter and debris in approved waste containers.
 - Provide a sufficient number and size of waste containers (e.g. dumpster, trash receptacle) on site to contain construction and domestic wastes.
 - Locate waste containers at least 50 feet away from storm drain inlets and surface waters unless no other alternatives are reasonably available.
 - Locate waste containers on areas that do not receive substantial amounts of runoff from upland areas and does not drain directly to a storm drain, stream or wetland.
 - Cover waste containers at the end of each workday and before storm events or provide secondary containment. Repair or replace damaged waste containers.
 - Anchor all lightweight items in waste containers during times of high winds.
 - Empty waste containers as needed to prevent overflow. Clean up immediately if containers overflow.
 - Dispose waste off-site at an approved disposal facility.
 - On business days, clean up and dispose of waste in designated waste containers.
- PAINT AND OTHER LIQUID WASTE**
- Do not dump paint and other liquid waste into storm drains, streams or wetlands.
 - Locate paint washouts at least 50 feet away from storm drain inlets and surface waters unless no other alternatives are reasonably available.
 - Contain liquid wastes in a controlled area.
 - Containment must be labeled, sized and placed appropriately for the needs of site.
 - Prevent the discharge of soaps, solvents, detergents and other liquid wastes from construction sites.
- PORTABLE TOILETS**
- Install portable toilets on level ground, at least 50 feet away from storm drains, streams or wetlands unless there is no alternative reasonably available. If 50 foot offset is not attainable, provide relocation of portable toilet behind silt fence or place on a gravel pad and surround with sand bags.
 - Provide staking or anchoring of portable toilets during periods of high winds or in high foot traffic areas.
 - Monitor portable toilets for leaking and properly dispose of any leaked material. Utilize a licensed sanitary waste hauler to remove leaking portable toilets and replace with properly operating unit.
- EARTHEN STOCKPILE MANAGEMENT**
- Show stockpile locations on plans. Locate earthen-material stockpile areas at least 50 feet away from storm drain inlets, sediment basins, perimeter sediment controls and surface waters unless it can be shown no other alternatives are reasonably available.
 - Protect stockpile with silt fence installed along toe of slope with a minimum offset of five feet from the toe of stockpile.
 - Provide stable stone access point when feasible.
 - Stabilize stockpile within the timeframes provided on this sheet and in accordance with the approved plan and any additional requirements. Soil stabilization is defined as vegetative, physical or chemical coverage techniques that will restrain accelerated erosion on disturbed soils for temporary or permanent control needs.

CONCRETE WASHOUTS

- Do not discharge concrete or cement slurry from the site.
- Dispose of, or recycle settled, hardened concrete residue in accordance with local and state solid waste regulations and at an approved facility.
- Manage washout from mortar mixers in accordance with the above item and in addition place the mixer and associated materials on impervious barrier and within lot perimeter silt fence.
- Install temporary concrete washouts per local requirements, where applicable. If an alternate method or product is to be used, contact your approval authority for review and approval. If local standard details are not available, use one of the two types of temporary concrete washouts provided on this detail.
- Do not use concrete washouts for dewatering or storing defective curb or sidewalk sections. Stormwater accumulated within the washout may not be pumped into or discharged to the storm drain system or receiving surface waters. Liquid waste must be pumped out and removed from project.
- Locate washouts at least 50 feet from storm drain inlets and surface waters unless it can be shown that no other alternatives are reasonably available. At a minimum, install protection of storm drain inlet(s) closest to the washout which could receive spills or overflow.
- Locate washouts in an easily accessible area, on level ground and install a stone entrance pad in front of the washout. Additional controls may be required by the approving authority.
- Install at least one sign directing concrete trucks to the washout within the project limits. Post signage on the washout itself to identify this location.
- Remove leavings from the washout when at approximately 75% capacity to limit overflow events. Replace the tarp, sand bags or other temporary structural components when no longer functional. When utilizing alternative or proprietary products, follow manufacturer's instructions.
- At the completion of the concrete work, remove remaining leavings and dispose of in an approved disposal facility. Fill pit, if applicable, and stabilize any disturbance caused by removal of washout.

HAZARDOUS AND TOXIC WASTE

- Create designated hazardous waste collection areas on-site.
- Place hazardous waste containers under cover or in secondary containment.
- Do not store hazardous chemicals, drums or bagged materials directly on the ground.

NORTH CAROLINA Environmental Quality

EFFECTIVE: 04/01/19

NCG01 GROUND STABILIZATION AND MATERIALS HANDLING

EFFECTIVE: 04/01/19

NORTH CAROLINA Environmental Quality

No.	Revision	Date	By

Designer	MNH	Scale	AS SHOWN
Drawn By	MNH	Date	JUNE, 2021
Checked By	MNH	Job No.	

LIFE CHURCH
NORTH CAROLINA

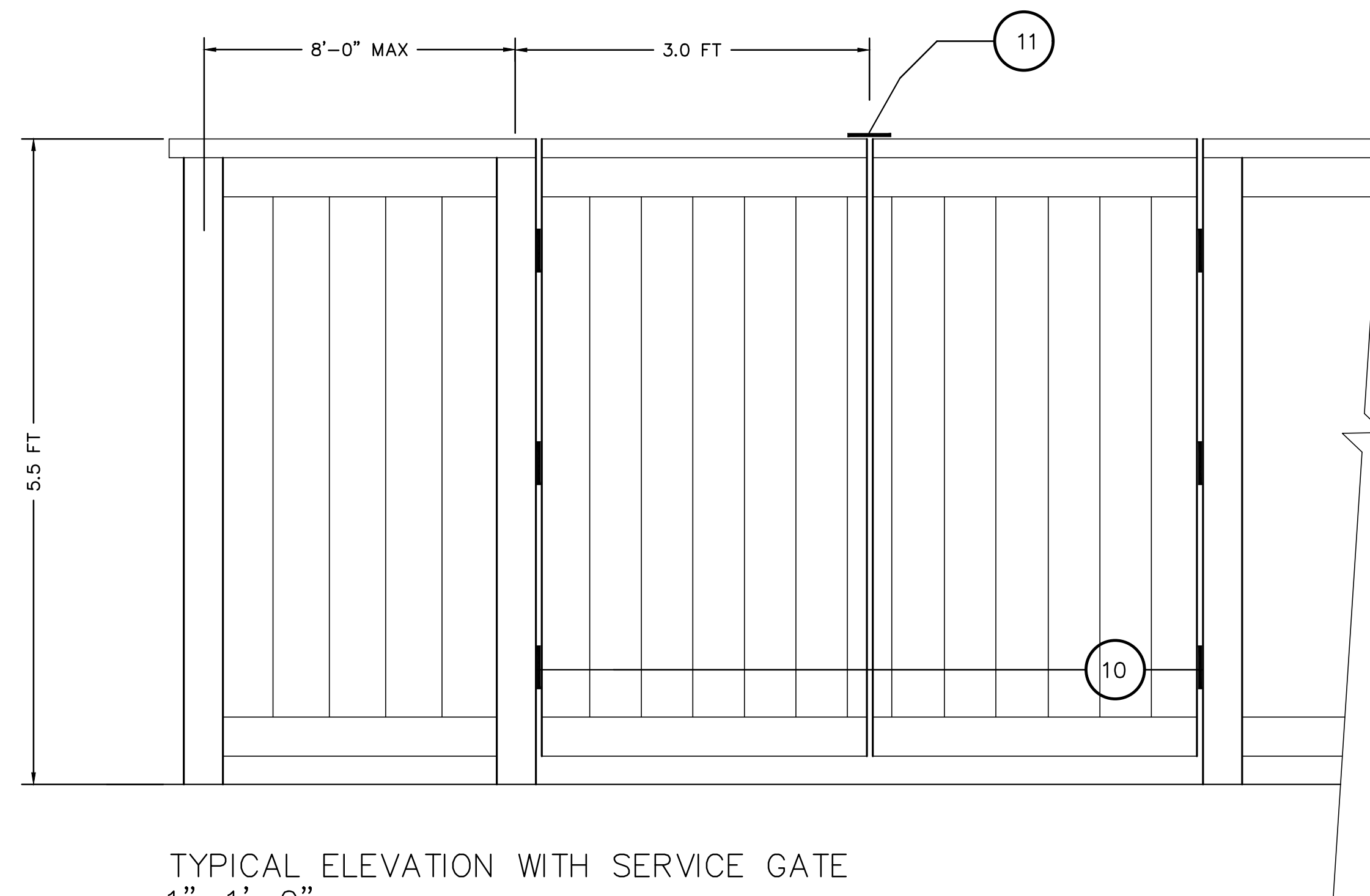
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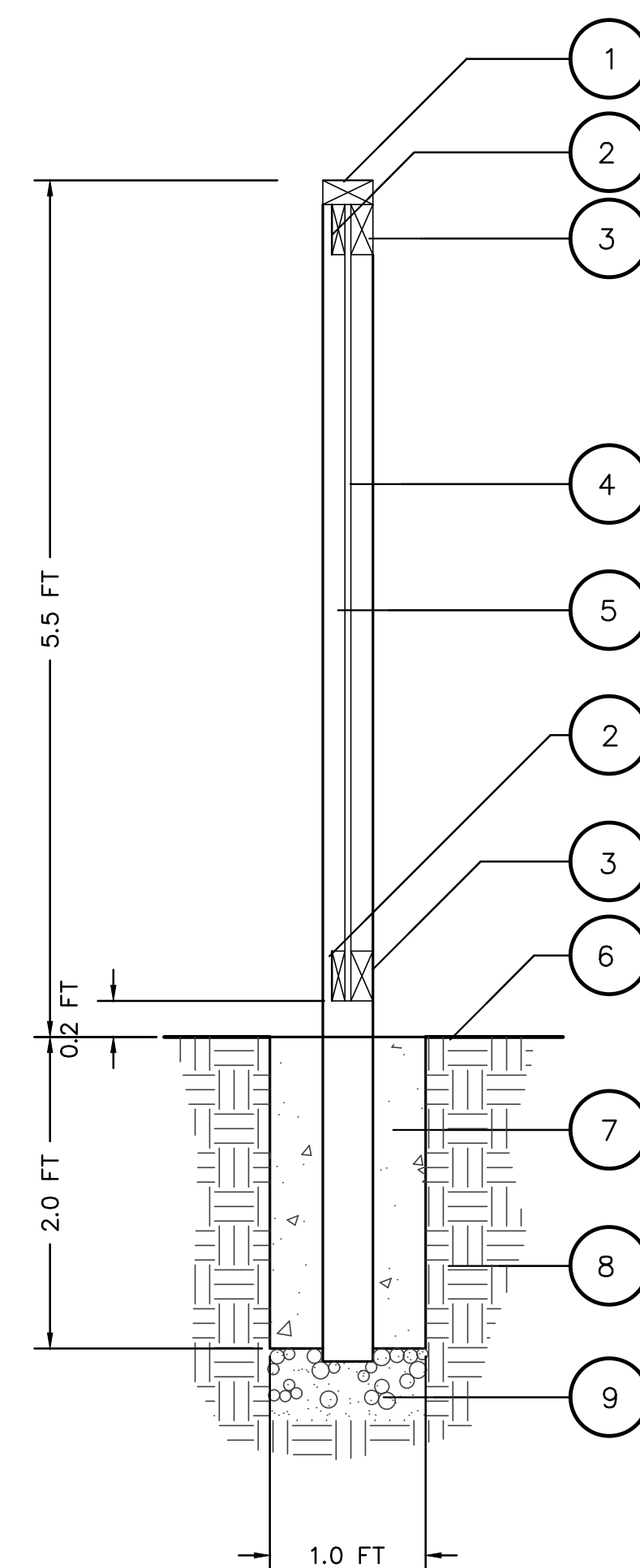
MISCELLANEOUS DETAILS

Sheet No.
C-8.5





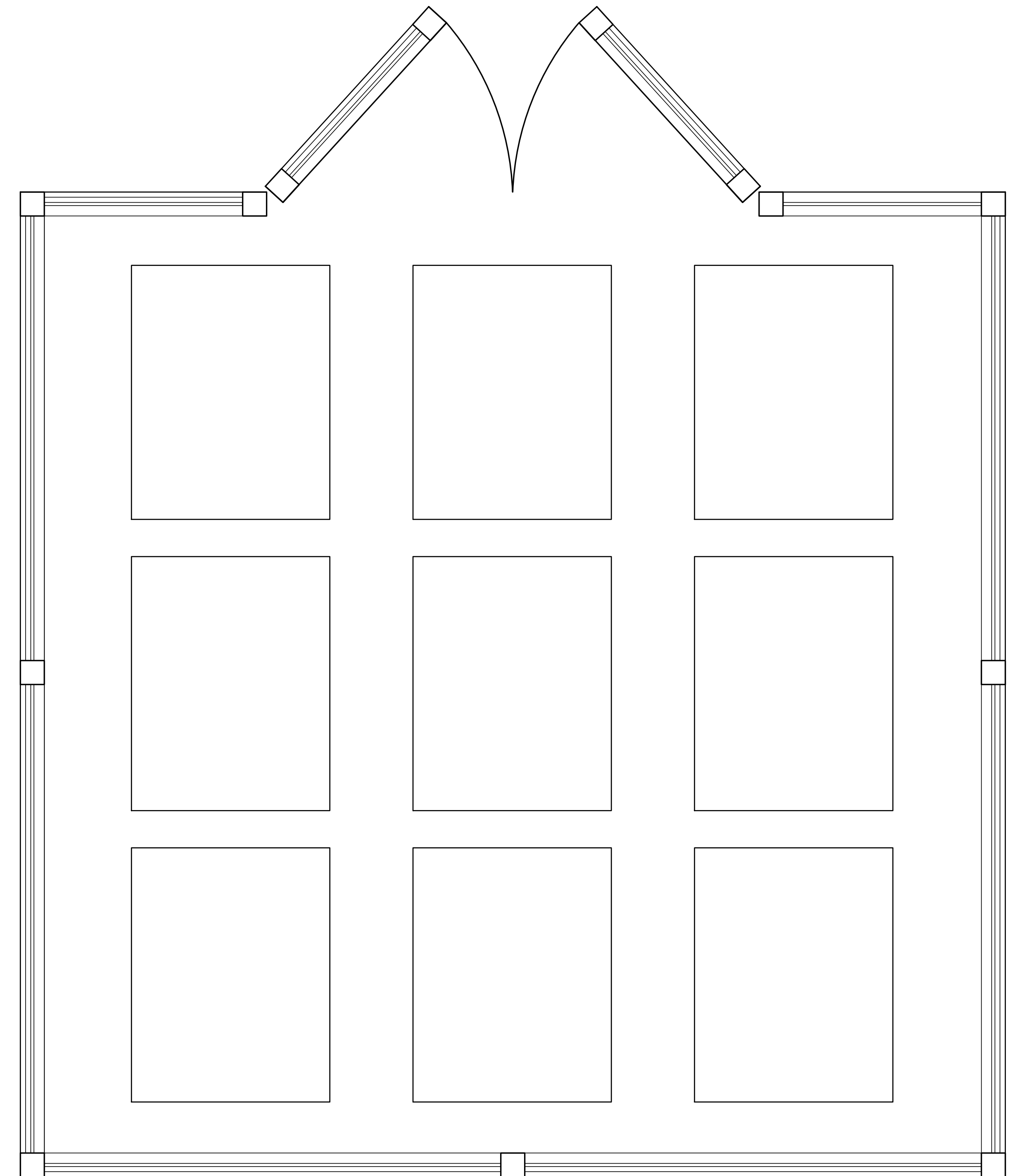
TYPICAL ELEVATION WITH SERVICE GATE
1"=1'-0"



- NOTES:
- FOR PAINTED FENCE: WOOD SPRUCE WITH PRESSURE TREATED DOUGLAS FIR POSTS.
- FOR NATURAL OR STAINED FENCE: WOOD TO BE CEDAR W/ REDWOOD POSTS.
- USE 6 X 6 KING POST WHERE WOOD FENCE ABUTS TUBULAR STEEL FENCE, MASONRY WALLS, AND CHANGE IN DIRECTION.
1. 2 X 4 CAP
 2. 1 X 4 TRIM (TOP AND BOTTOM)
 3. 2 X 4 STRINGER
 4. 4 X 4 POST @ 8'-0" O.C. TO BE LOCATED AT TOP AND TOE OF SLOPE WHERE OCCURS
 5. 1 X 6 VERTICAL BOARDS (BUTT JOINTED)
 6. FINISH GRADE
 7. CONCRETE FOOTING
 8. COMPACTED SUBGRADE
 9. GRAVEL BASE
 10. (3) HEAVY DUTY HINGES SELF-CLOSING
 11. GATE LATCH, LOCKABLE SELF-CLOSING

FENCE SECTION
1"=1'-0"

WOOD FENCE W/SERVICE GATE



No.	Revision	Date	By

Designer	MNH	Scale	AS SHOWN
Drawn By	MNH	Date	JUNE, 2021
Checked By	MNH	Job No.	

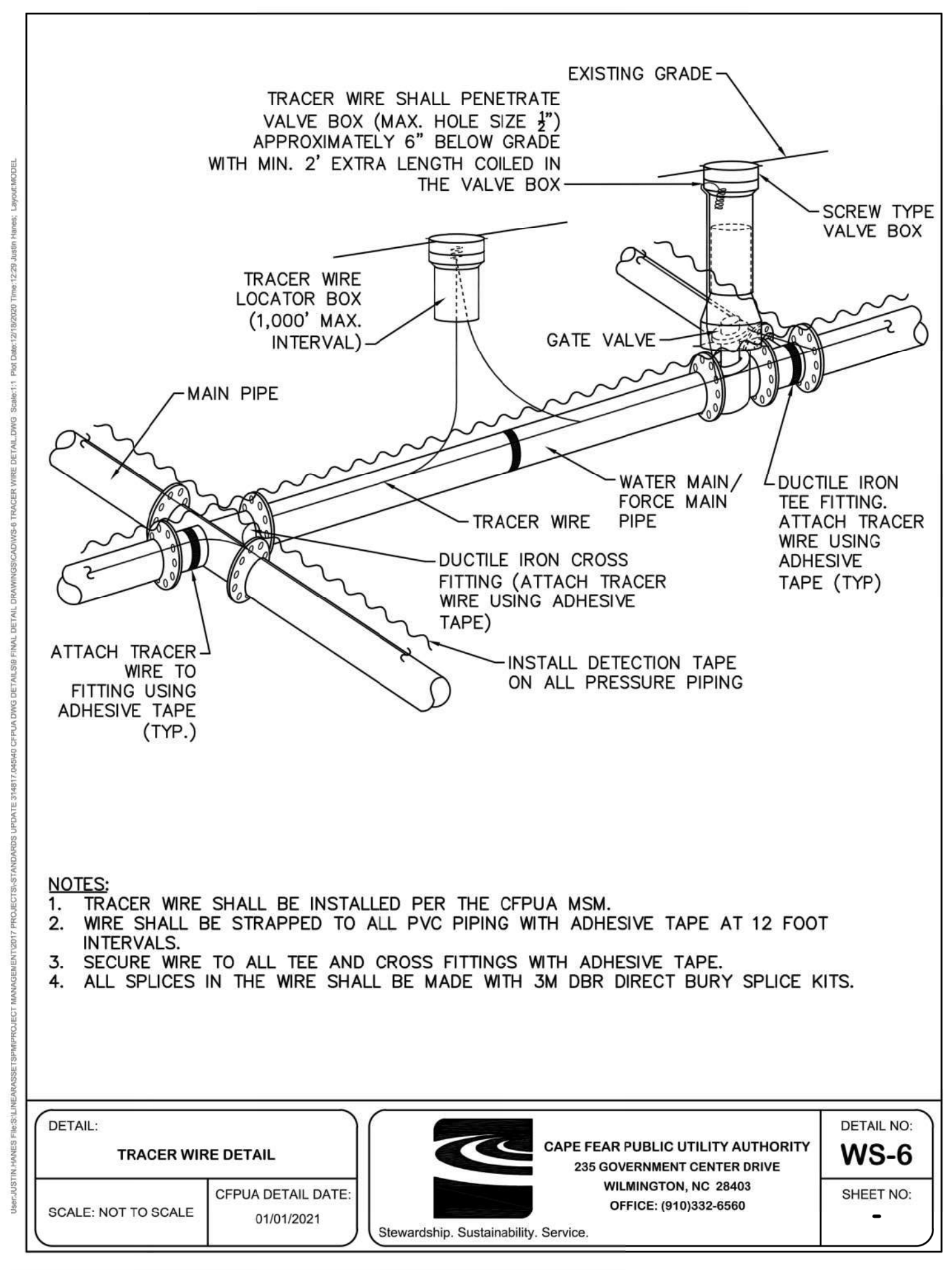
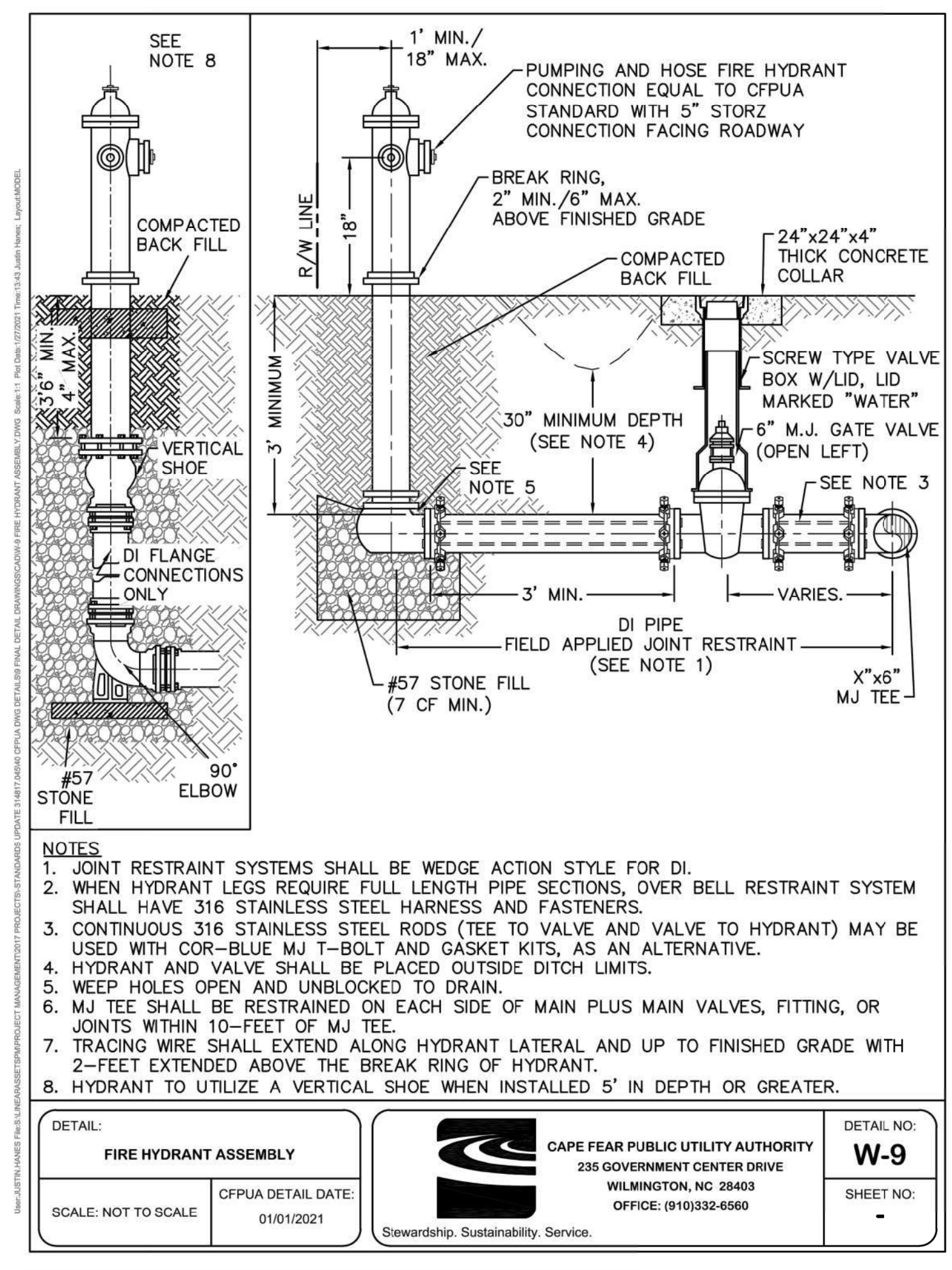
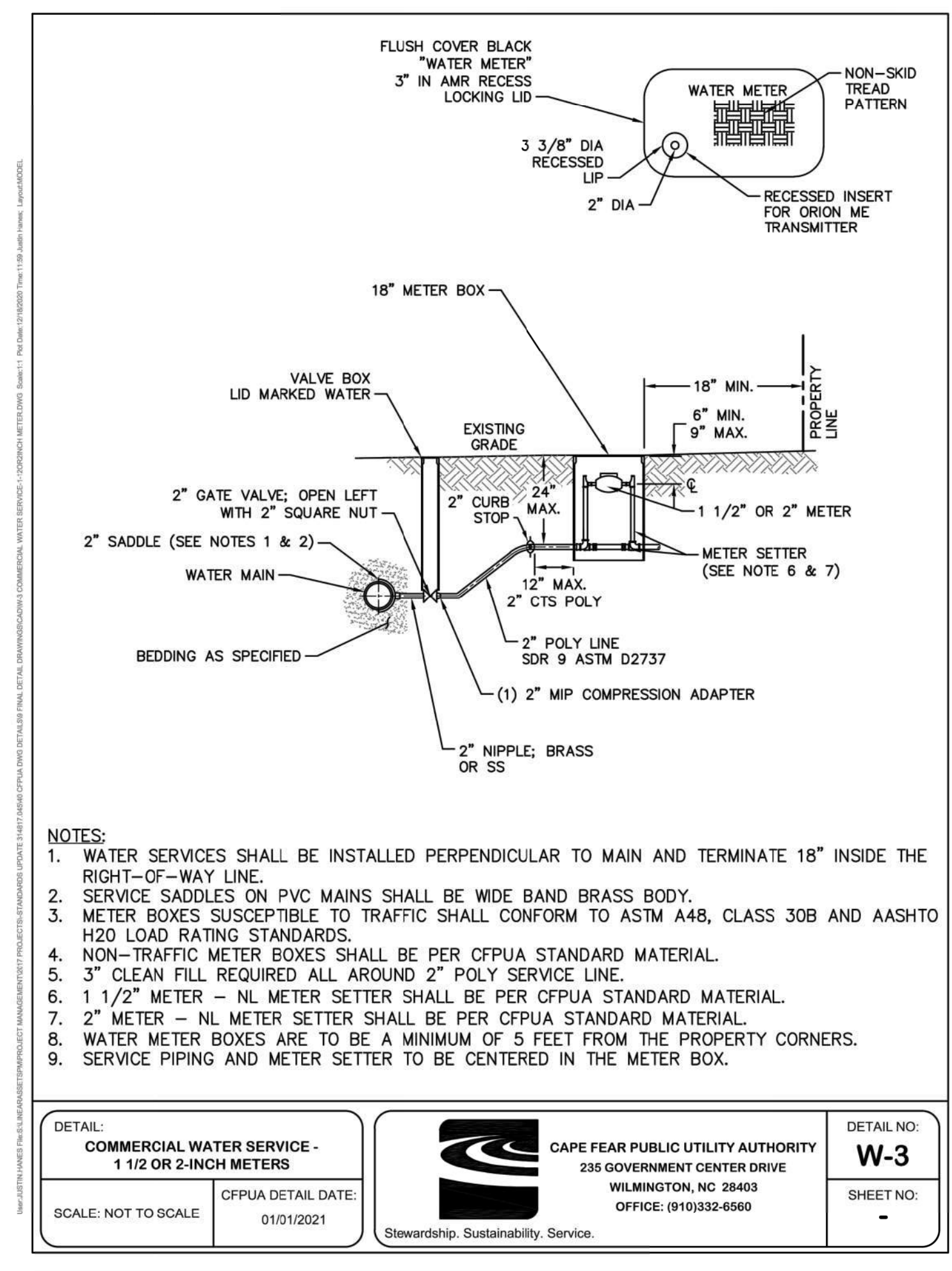
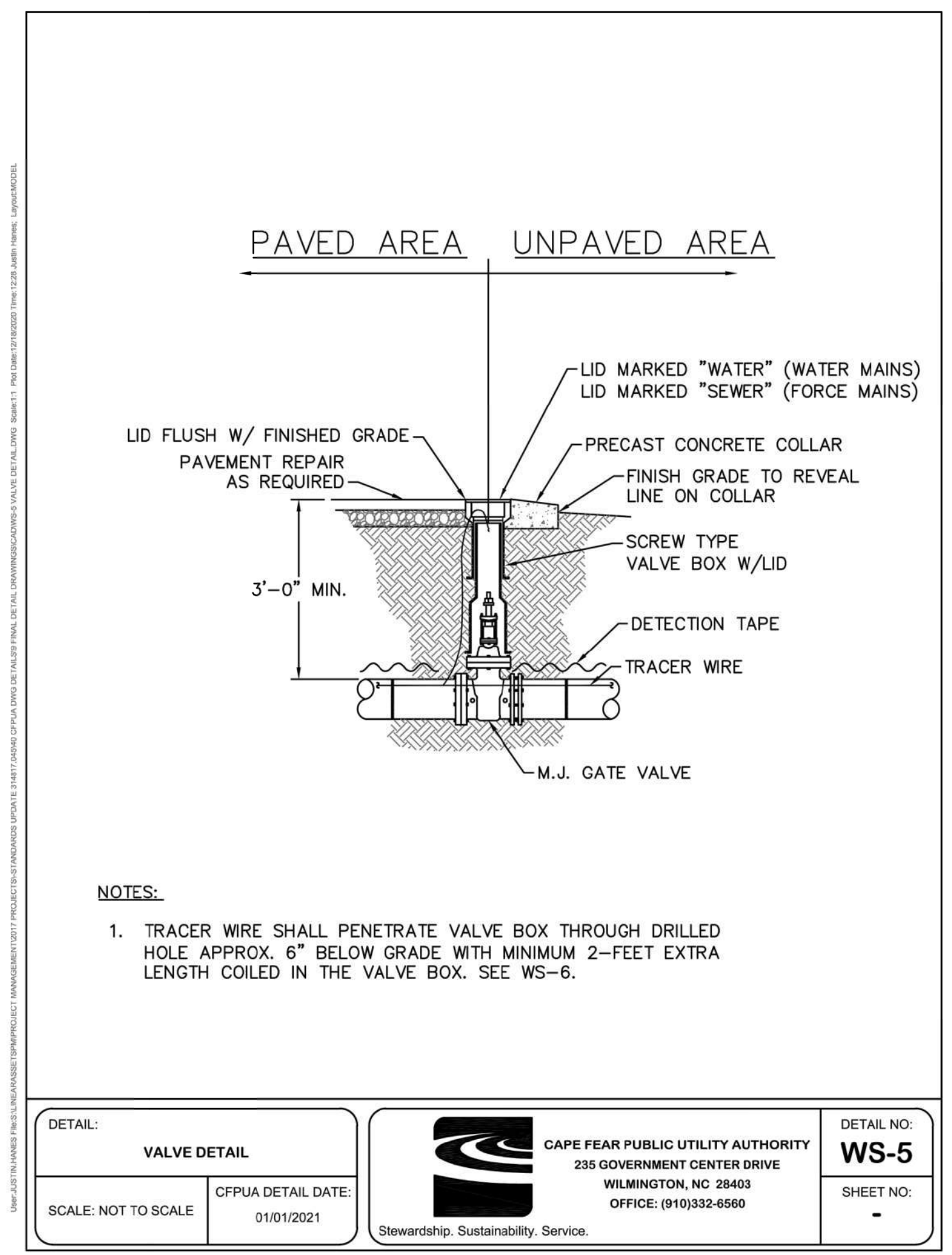
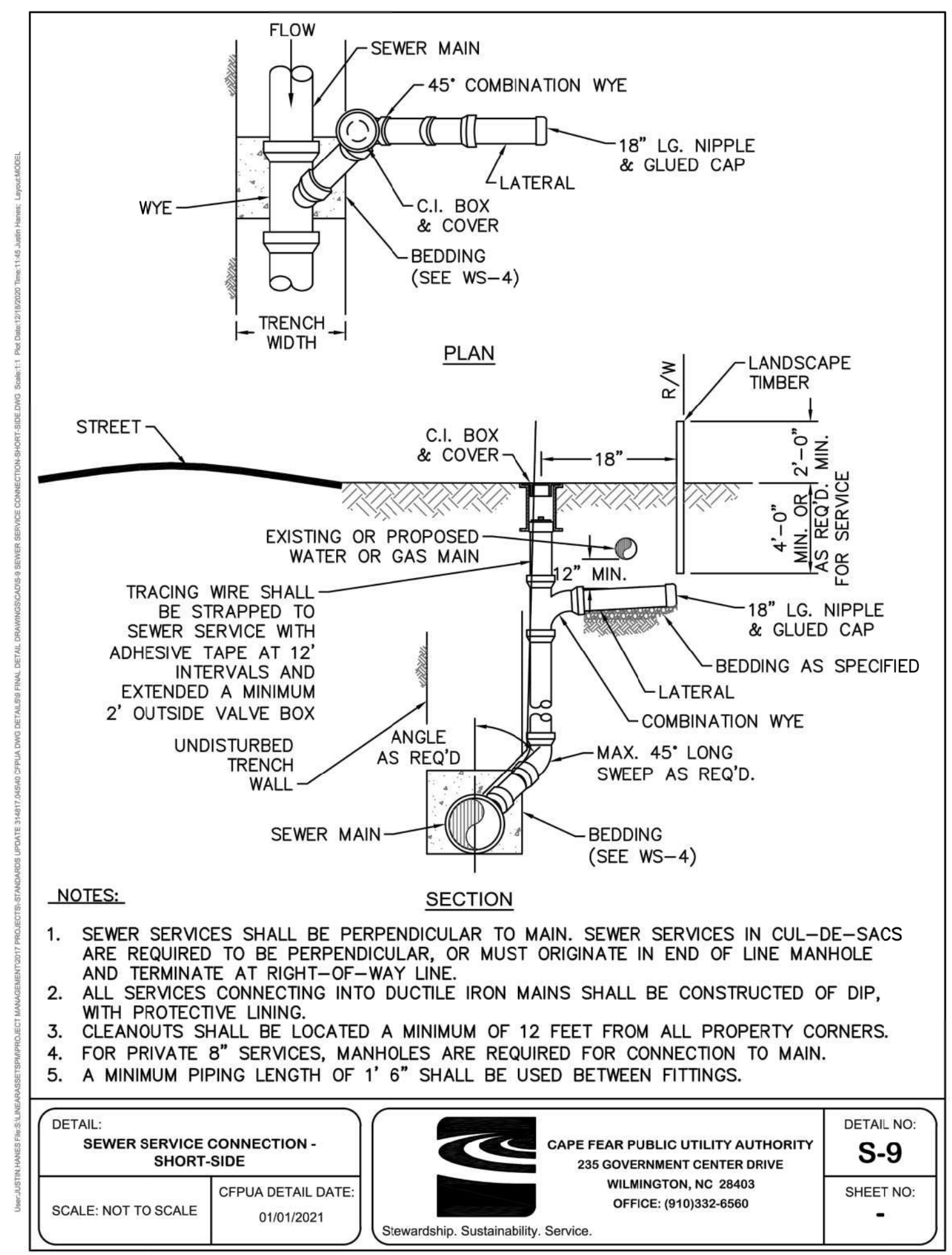
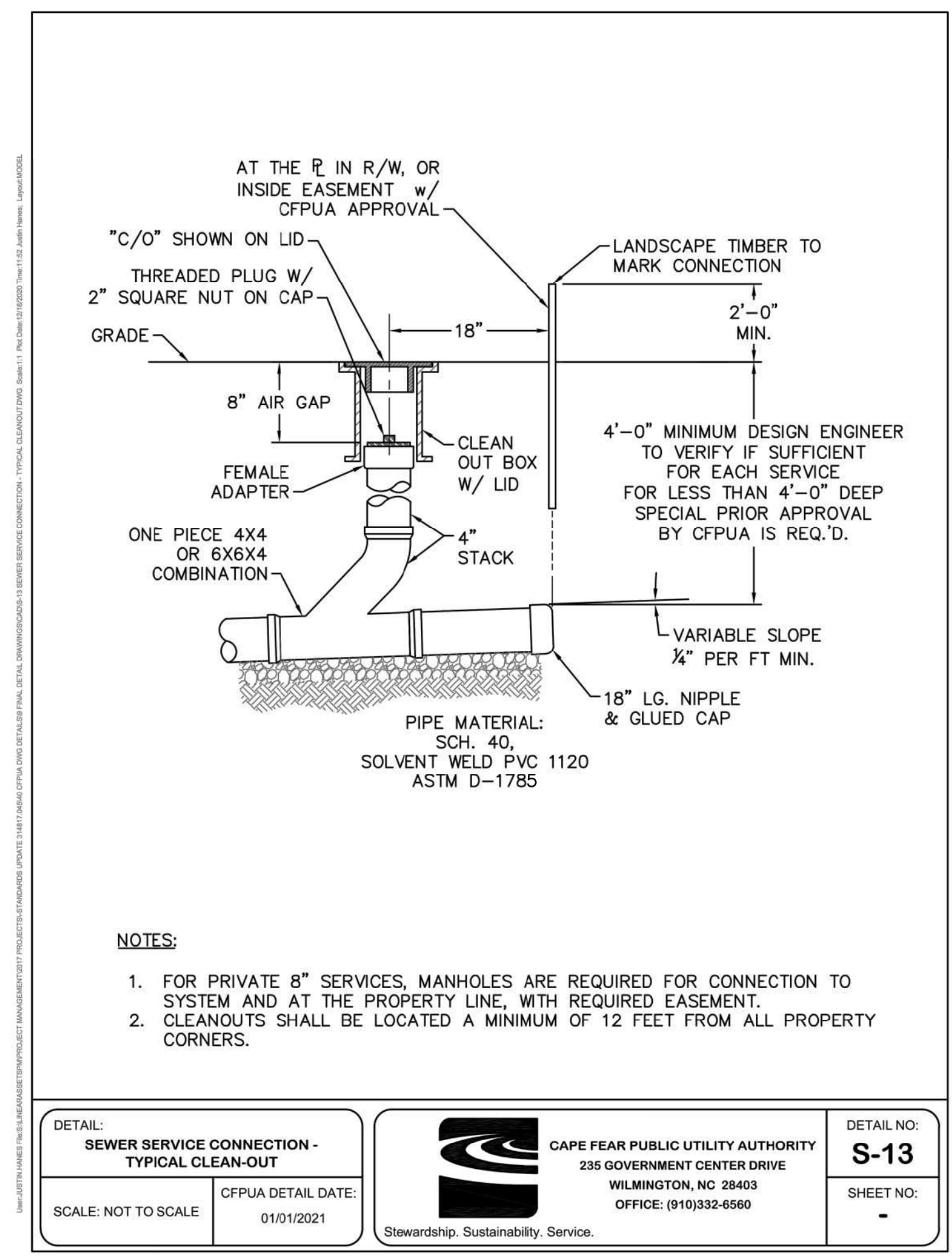
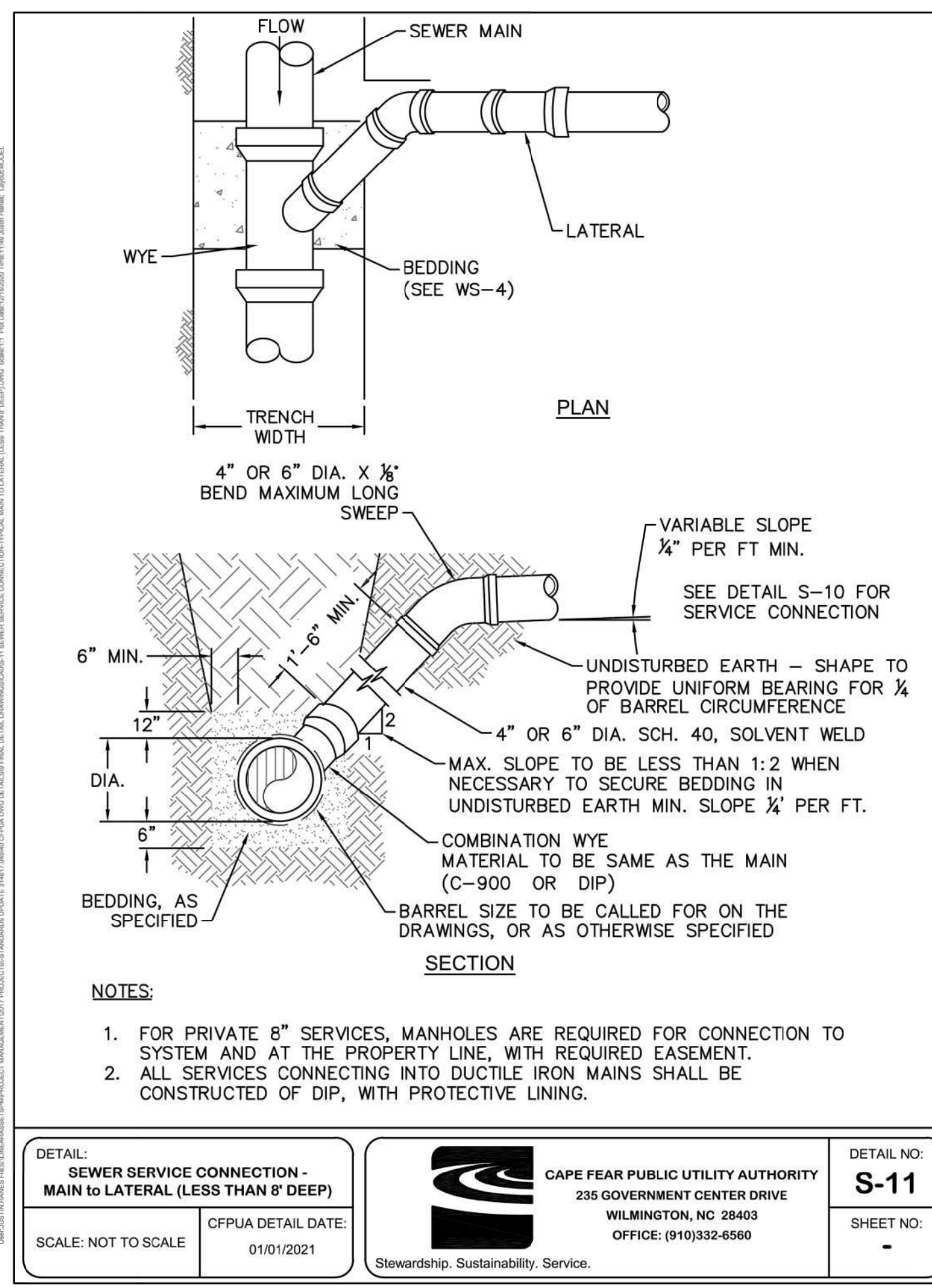
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MISCELLANEOUS DETAILS

Sheet No.
C-8.6



No.	Revision	Date	By

Designer	MNH	Scale	AS SHOWN
Drawn By	MNH	Date	JUNE, 2021
Checked By	MNH	Job No.	

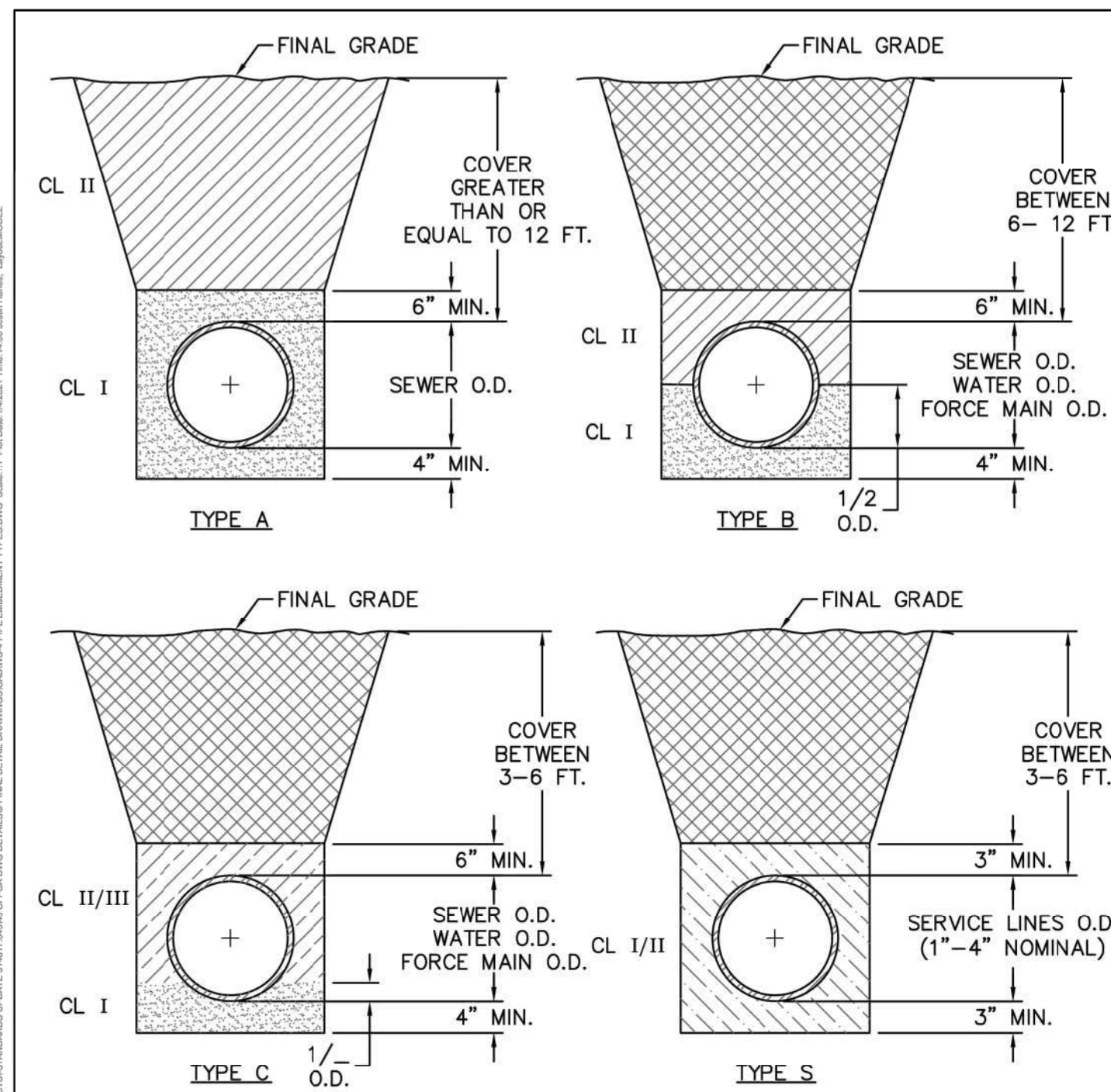
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CFPUA WATER & SANITARY SEWER
STANDARD DETAILS

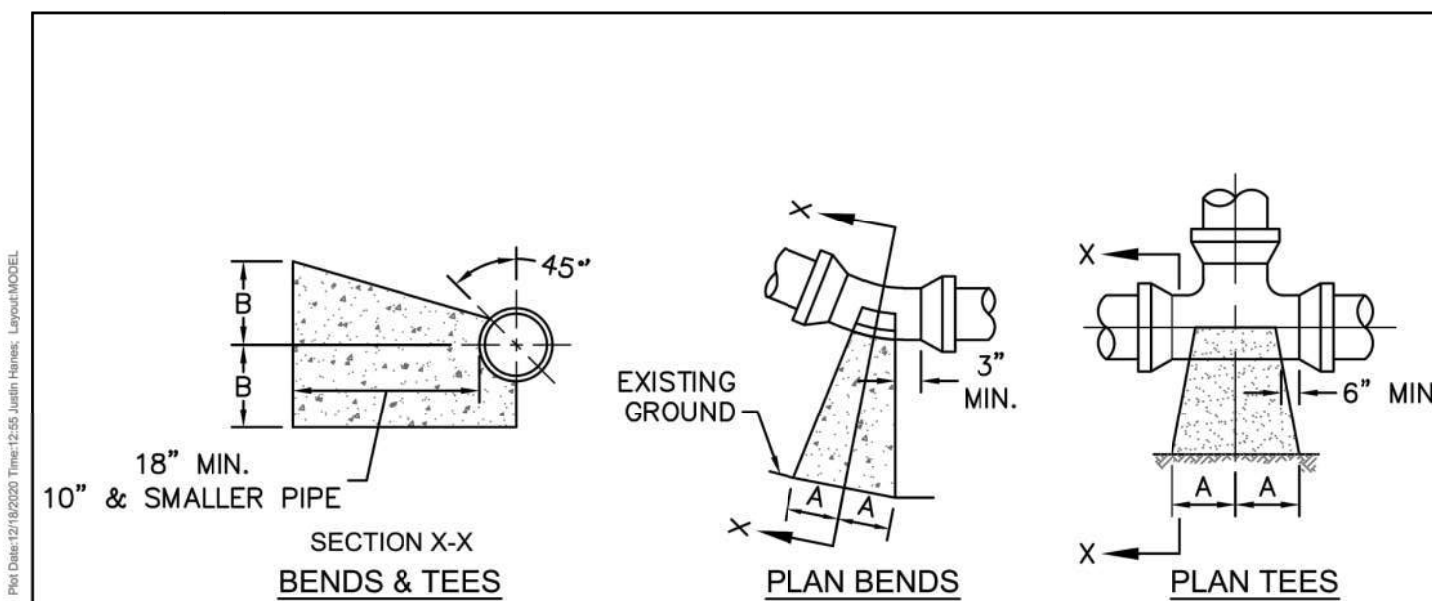
Sheet No.
C-9.0



COMPACTION NOTES:

- ALL ZONES: 95% STD EFFORT PER ASTM D698, EXCEPT AS STATED IN COMPACTION NOTE 2.
- 12" SUBGRADE UNDER PAVEMENT: 98% STD EFFORT PER ASTM D698.
- BEDDING REQUIREMENTS FOR SEWER FORCE MAINS AND WATER MAINS WITHIN TYPE A THROUGH TYPE S CONDITIONS, SHALL BE FOLLOWED IF IT HAS BEEN DETERMINED THAT UNSUITABLE SOILS EXIST WITHIN THE EXCAVATED TRENCH. OTHERWISE BEDDING FOR SEWER FORCE MAINS AND WATER MAINS MAY BE CLASS I OR CLASS II.

DETAIL: PIPE EMBEDMENT TYPES	CAPE FEAR PUBLIC UTILITY AUTHORITY 235 GOVERNMENT CENTER DRIVE WILMINGTON, NC 28403 OFFICE: (910)332-6560 Stewardship, Sustainability, Service.	DETAIL NO: WS-4
SCALE: NOT TO SCALE		CFPUA DETAIL DATE: 01/01/2021



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:

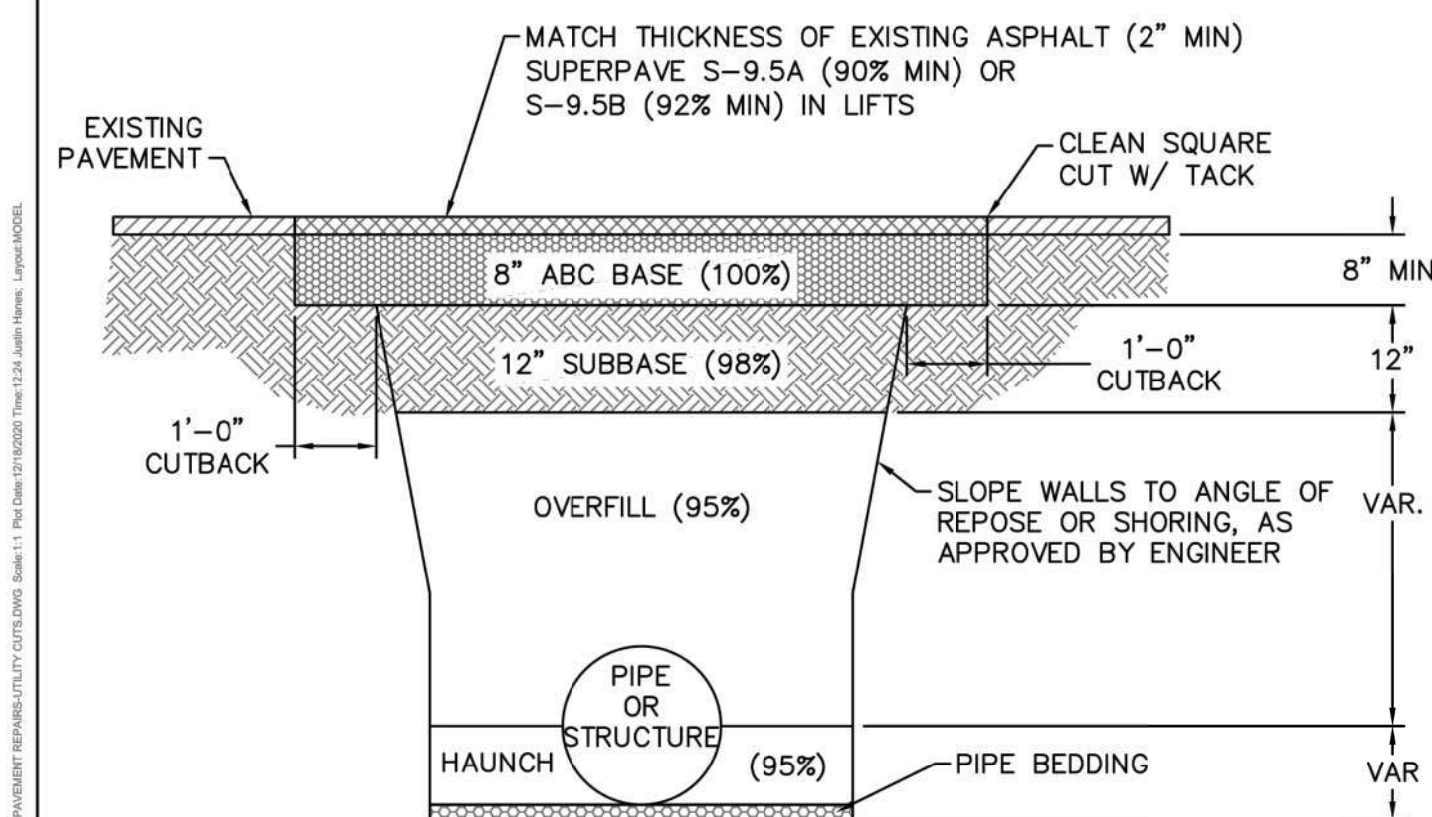
- THRUST BLOCKING IS NOT PERMITTED EXCEPT IN SPECIAL INSTALLATIONS WHERE DESIGNED BY ENGINEER AND APPROVED BY CFPUA.
- ALLOW 7-DAY MINIMUM CONCRETE CURE TIME BEFORE PLACING LOAD ON THRUST BLOCK.
- BASED ON 160 PSI TEST PRESSURE AND 2,000 PSF SOIL BEARING CAPACITY.
- ALL BEARING SURFACES TO BE CARRIED TO UNDISTURBED GROUND.
- PIPE & FITTINGS TO BE WRAPPED IN 10 MIL PLASTIC PRIOR TO THRUST BLOCK BEING POURED.

DETAIL: THRUST BLOCK	CAPE FEAR PUBLIC UTILITY AUTHORITY 235 GOVERNMENT CENTER DRIVE WILMINGTON, NC 28403 OFFICE: (910)332-6560 Stewardship, Sustainability, Service.	DETAIL NO: WS-13
SCALE: NOT TO SCALE		CFPUA DETAIL DATE: 01/01/2021

CAPE FEAR PUBLIC UTILITY AUTHORITY STANDARD NOTES:

- ALL PROPOSED ADDITIONS TO THE CAPE FEAR PUBLIC UTILITY AUTHORITY (CFPUA) WATER DISTRIBUTION AND SANITARY SEWER COLLECTION SYSTEMS, AS SHOWN AND SPECIFIED HEREIN, SHALL BE DESIGNED AND CONSTRUCTED TO CONFORM TO STATE RULES AND THE CFPUA'S MINIMUM TECHNICAL STANDARDS. THE CFPUA MINIMUM TECHNICAL STANDARDS ARE CONTAINED IN THE CURRENT DESIGN GUIDANCE MANUAL, MATERIAL SPECIFICATION MANUAL, TECHNICAL SPECIFICATIONS FOR CONSTRUCTION, AND STANDARD DRAWING DETAILS.
- 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 18" INSIDE 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 18" INSIDE RIGHT-OF-WAY LINE. ALL SEWER SERVICES CONNECTING TO DUCTILE IRON MAINS SHALL ALSO BE CONSTRUCTED OF DIP.
- 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 TYPE 316.
- CLEANOUTS SHALL BE LOCATED A MINIMUM OF 6 FEET FROM ALL PROPERTY CORNERS.
- WATER METER BOXES ARE TO BE A MINIMUM OF 5 FEET FROM THE PROPERTY CORNER.
- UNUSED SERVICES SHALL BE ABANDONED. ABANDONED WATER SERVICES SHALL BE DISCONNECTED FROM MAIN.
- A MINIMUM OF 10' OF MAIN LINE, 5' UPSTREAM AND 5' DOWNSTREAM SHALL BE REPLACED FOR NEW SEWER SERVICE CONNECTIONS TO EXISTING CLAY GRAVITY SEWER MAINS.
- A MINIMUM OF 20' OF MAIN LINE, 10' UPSTREAM AND 10' DOWNSTREAM SHALL BE REPLACED FOR NEW CUT IN MANHOLES ON EXISTING CLAY GRAVITY SEWER MAINS.
- PROVIDE A MINIMUM DISTANCE OF SIX (6) INCHES BETWEEN EDGE OF MANHOLE CORE HOLES AND MANHOLE BARREL JOINTS. PROVIDE A MINIMUM DISTANCE OF SIX (6) INCHES BETWEEN EDGES OF CORE HOLES. CORING THE MANHOLE CONE IS NOT PERMITTED.
- WATER MAIN AND FORCE MAIN PIPE INSTALLED BY OPEN CUT SHALL BE BURIED AT A MINIMUM OF THREE (3) FEET AND A MAXIMUM OF FIVE (5) FEET BELOW FINISHED GRADE. DEPTHS GREATER THAN FIVE (5) FEET MUST BE APPROVED BY CFPUA.
- ALL MANHOLE MAIN LINE AND SERVICE PIPING TO BE INSTALLED AT A MINIMUM OF CROWN TO CROWN OF THE LARGEST DIAMETER PIPE.

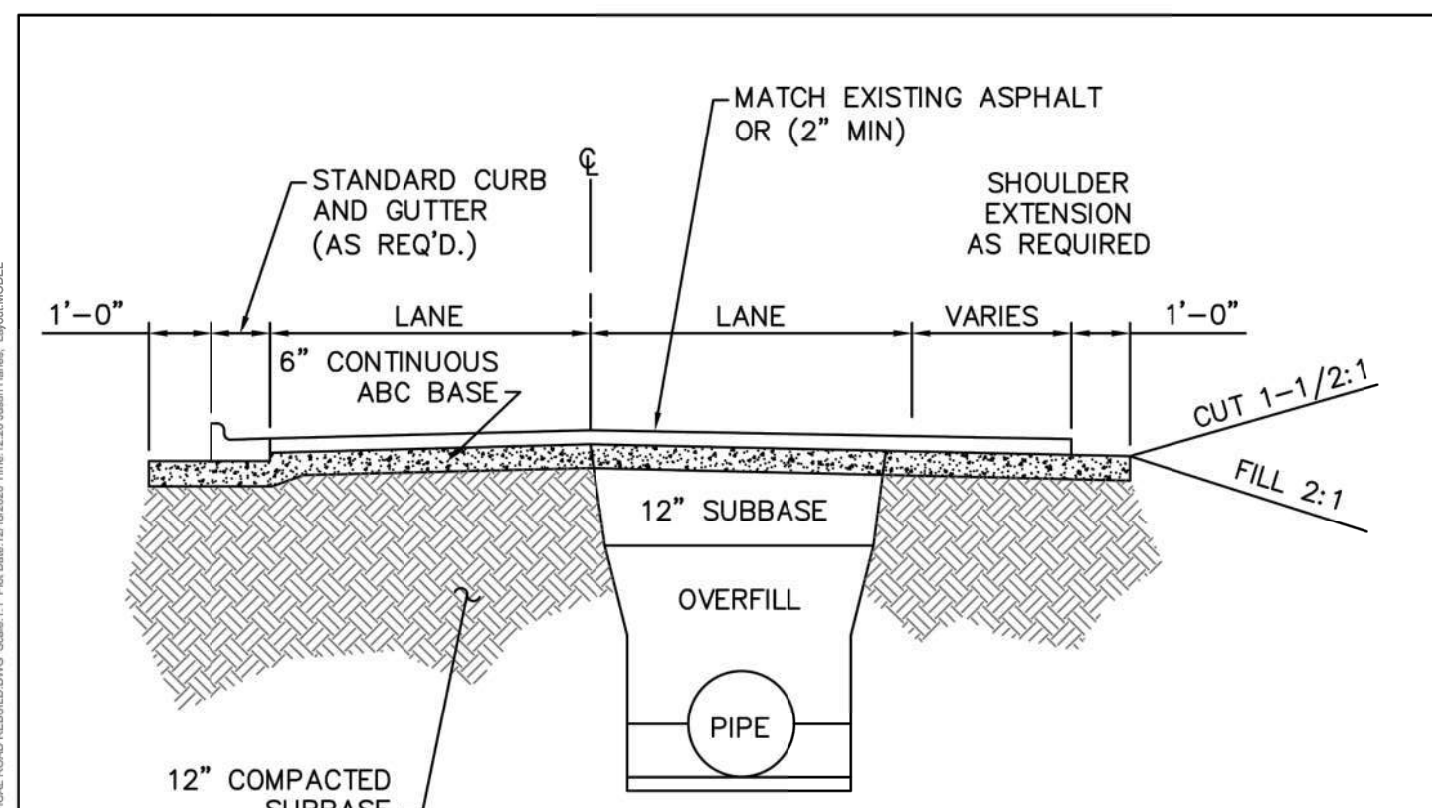
DETAIL: STANDARD NOTES (REQUIRED ON ALL PLAN AND PROFILE SHEETS)	CAPE FEAR PUBLIC UTILITY AUTHORITY 235 GOVERNMENT CENTER DRIVE WILMINGTON, NC 28403 OFFICE: (910)332-6560 Stewardship, Sustainability, Service.	DETAIL NO: WS-14
SCALE: NOT TO SCALE		CFPUA DETAIL DATE: 01/01/2021



NOTES:

- CONTRACTOR SHALL ENSURE BOTTOM OF TRENCH IS SUITABLE FOR INSTALLATION AND DOES NOT REQUIRE FOUNDATION CONDITIONING STONE.
- FILL 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 STONE, ABC, CRUSHED LIMESTONE, CLEAN SAND, FLOWABLE FILL, ETC.).
- SOIL SHALL BE INSTALLED IN 6"-8" LIFTS AND 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.
- COMPACT MATERIALS TO MINIMUM % DENSITY SHOWN IN DIAGRAM AS DETERMINED BY THE STANDARD PROCTOR METHOD ASTM D-698-A FOR SOILS, AND ASTM D-698-C FOR ABC STONE, AND BY NUCLEAR GAGE OR CORE SAMPLE FOR ASPHALT.
- CUTBACKS OF ASPHALT SHALL BE PREPARED ON EDGE OF EXCAVATION OVER TOP OF UNDISTURBED SOIL.

DETAIL: CITY OF WILMINGTON PAVEMENT REPAIRS-UTILITY CUTS	CAPE FEAR PUBLIC UTILITY AUTHORITY 235 GOVERNMENT CENTER DRIVE WILMINGTON, NC 28403 OFFICE: (910)332-6560 Stewardship, Sustainability, Service.	DETAIL NO: WS-1
SCALE: NOT TO SCALE		CFPUA DETAIL DATE: 01/01/2021



NOTES:

- PAVEMENT RESTORATION DESIGN IS DEPENDENT ON CITY OF WILMINGTON STREET CUT POLICY AND PERMITTED CONDITIONS.
- PIPE TRENCH AND COMPACTION REQUIREMENTS PER SPECIFICATIONS. SEE WS-1.

DETAIL: CITY OF WILMINGTON TYPICAL ROAD REBUILD	CAPE FEAR PUBLIC UTILITY AUTHORITY 235 GOVERNMENT CENTER DRIVE WILMINGTON, NC 28403 OFFICE: (910)332-6560 Stewardship, Sustainability, Service.	DETAIL NO: WS-2
SCALE: NOT TO SCALE		CFPUA DETAIL DATE: 01/01/2021



No.	Revision	Date	By
1	CHANGED PROJECT NAME	8/13/20	MNH

Designer: MNH
 Drawn By: MNH
 Checked By: MNH
 Scale: AS SHOWN
 Date: JUNE, 2021
 Job No.

LIFE CHURCH
 NORTH CAROLINA

LIFE CHURCH
 P.O. BOX 3489
 WILMINGTON, NC 28403

PORT CITY CONSULTING
 ENGINEERS, PLLC
 6216 STONEBRIDGE ROAD
 WILMINGTON, NC 28409
 910-599-1744 LICENSE No. P-1032

**CFPUA WATER & SANITARY SEWER
 STANDARD DETAILS**

Sheet No.
C-8.1

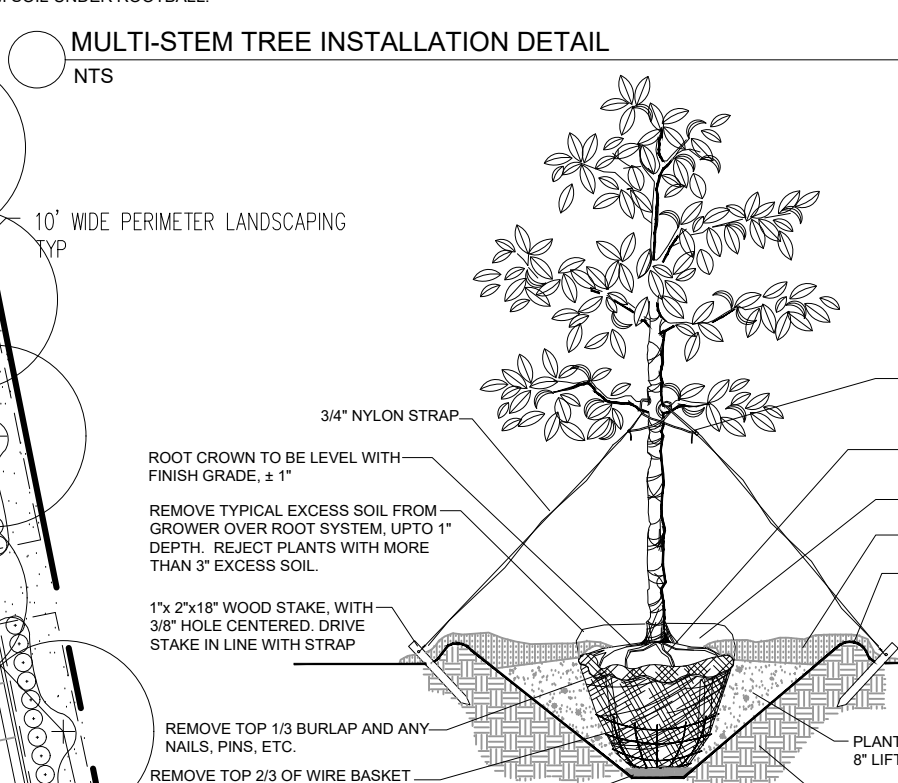
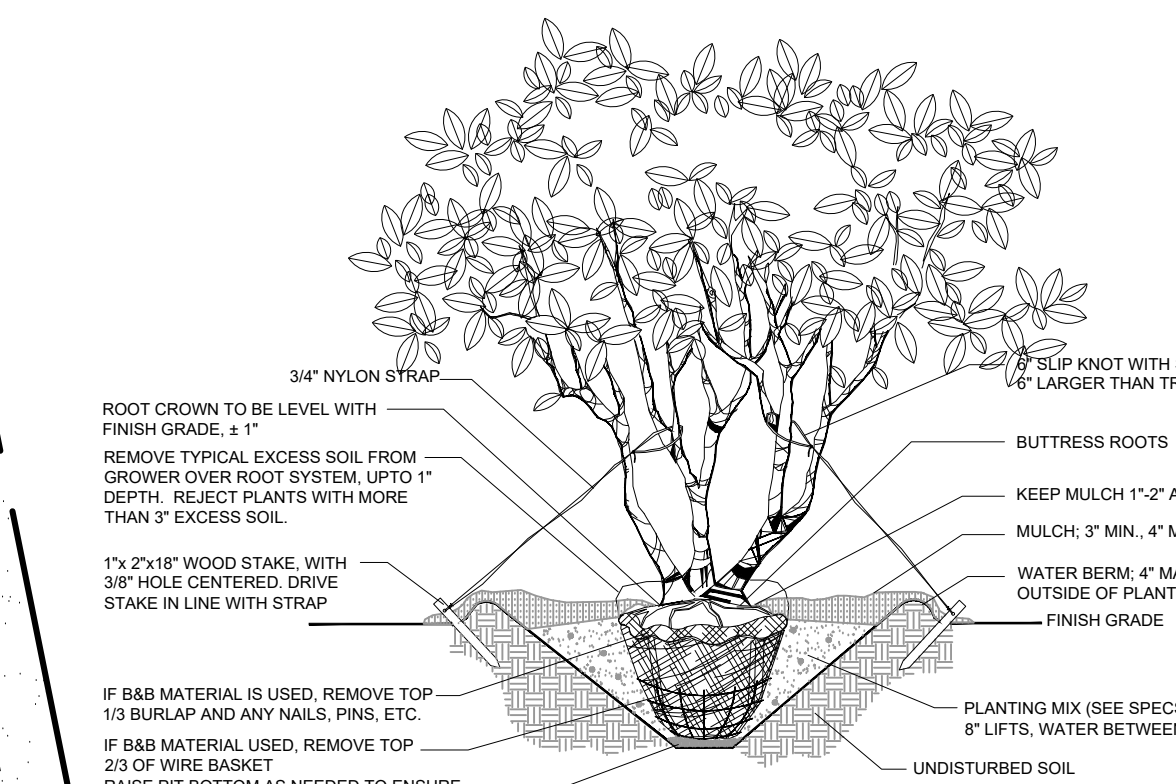
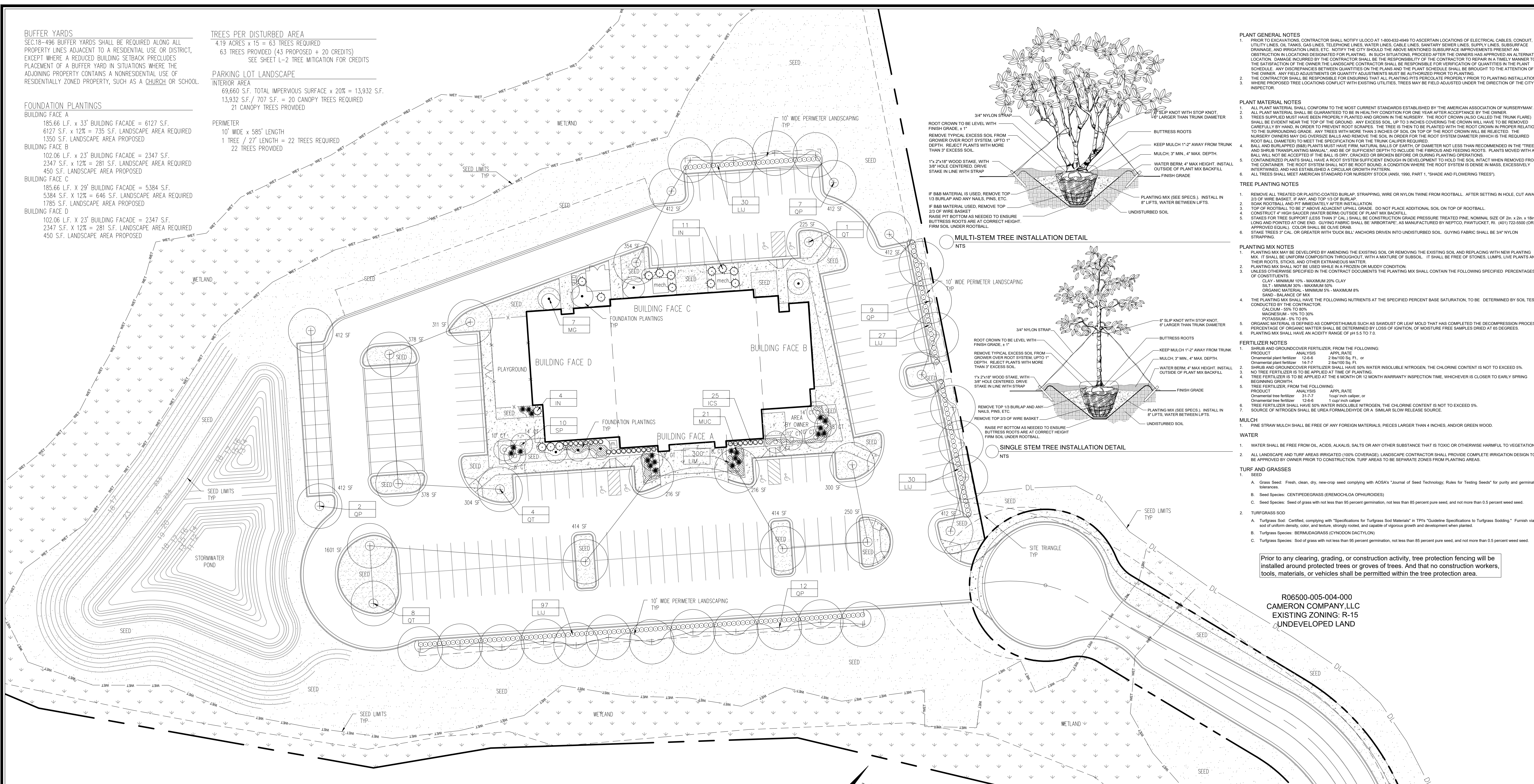
BUFFER YARDS
 SEC.18-496 BUFFER YARDS SHALL BE REQUIRED ALONG ALL PROPERTY LINES ADJACENT TO A RESIDENTIAL USE OR DISTRICT, EXCEPT WHERE A REDUCED BUILDING SETBACK PRECLUDES PLACEMENT OF A BUFFER YARD IN SITUATIONS WHERE THE ADJOINING PROPERTY CONTAINS A NONRESIDENTIAL USE OF RESIDENTIALLY ZONED PROPERTY, SUCH AS A CHURCH OR SCHOOL.

FOUNDATION PLANTINGS
BUILDING FACE A
 185.66 L.F. x 33' BUILDING FACADE = 6127 S.F.
 6127 S.F. x 12% = 735 S.F. LANDSCAPE AREA REQUIRED
 1350 S.F. LANDSCAPE AREA PROPOSED
BUILDING FACE B
 102.06 L.F. x 23' BUILDING FACADE = 2347 S.F.
 2347 S.F. x 12% = 281 S.F. LANDSCAPE AREA REQUIRED
 450 S.F. LANDSCAPE AREA PROPOSED
BUILDING FACE C
 185.66 L.F. x 29' BUILDING FACADE = 5384 S.F.
 5384 S.F. x 12% = 646 S.F. LANDSCAPE AREA REQUIRED
 1785 S.F. LANDSCAPE AREA PROPOSED
BUILDING FACE D
 102.06 L.F. x 23' BUILDING FACADE = 2347 S.F.
 2347 S.F. x 12% = 281 S.F. LANDSCAPE AREA REQUIRED
 450 S.F. LANDSCAPE AREA PROPOSED

TREES PER DISTURBED AREA
 4.19 ACRES x 15 = 63 TREES REQUIRED
 6.3 TREES PROVIDED (43 PROPOSED + 20 CREDITS)
 SEE SHEET L-2 TREE MITIGATION FOR CREDITS

PARKING LOT LANDSCAPE
 INTERIOR AREA
 69,660 S.F. TOTAL IMPERVIOUS SURFACE x 20% = 13,932 S.F.
 13,932 S.F. / 707' S.F. = 20 CANOPY TREES REQUIRED
 21 CANOPY TREES PROVIDED

PERIMETER
 10' WIDE x 585' LENGTH
 1 TREE / 27' LENGTH = 22 TREES REQUIRED
 22 TREES PROVIDED



PLANT GENERAL NOTES

- PRIOR TO EXCAVATIONS, CONTRACTOR SHALL NOTIFY UDCO AT 1-800-602-4969 TO ASCERTAIN LOCATIONS OF ELECTRICAL CABLES, CONDUIT, UTILITY LINES OR TANKS, GAS LINES, TELEPHONE LINES, WATER LINES, CABLE LINES, SANITARY SEWER LINES, SUPPLY LINES, SUBSURFACE DRAINAGE AND IRRIGATION LINES, ETC. NOTIFY THE CITY SHOULD THE ABOVE MENTIONED SUBSURFACE IMPROVEMENTS PRESENT AN OBSTRUCTION TO ANY PLANTING OR DESIGNATED IN SUCH SITUATIONS PROCEED WITH THE OWNER'S APPROVED ALTERNATE LOCATION. DAMAGE INCURRED BY THE CONTRACTOR SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO REPAIR IN A TIMELY MANNER TO THE SATISFACTION OF THE OWNER. THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFICATION OF QUANTITIES IN THE PLANT SCHEDULE. ANY DISCREPANCIES BETWEEN QUANTITIES ON THE PLANS AND THE PLANT SCHEDULE SHALL BE BROUGHT TO THE ATTENTION OF THE OWNER. ANY FIELD ADJUSTMENTS OR QUANTITY ADJUSTMENTS MUST BE AUTHORIZED PRIOR TO PLANTING.
- CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING THAT ALL PLANTING PITS PERCOLATE PROPERLY PRIOR TO PLANTING INSTALLATION.
- WHERE PROPOSED TREE LOCATIONS CONFLICT WITH EXISTING UTILITIES, TREES MAY BE FIELD ADJUSTED UNDER THE DIRECTION OF THE CITY INSPECTOR.

PLANT MATERIAL NOTES

- ALL PLANT MATERIAL SHALL CONFORM TO THE MOST CURRENT STANDARDS ESTABLISHED BY THE AMERICAN ASSOCIATION OF NURSERMEN.
- ALL PLANT MATERIAL SHALL BE GUARANTEED TO BE IN HEALTHY CONDITION FOR ONE YEAR AFTER ACCEPTANCE BY THE OWNER.
- TREES SUPPLIED MUST HAVE BEEN PROPERLY PLANTED AND GROWN IN THE NURSERY. THE ROOT CROWN (ALSO CALLED THE TRUNK FLARE) SHALL BE EVIDENT NEAR THE TOP OF THE GROUND. ANY EXCESS SOIL UP TO 3 INCHES COVERING THE CROWN WILL HAVE TO BE REMOVED CAREFULLY BY HAND IN ORDER TO PREVENT ROOT SCARPS. THE TREE IS THEN TO BE PLANTED WITH THE ROOT CROWN IN PROPER RELATION TO THE SURROUNDING GRADE. ANY TREES WITH MORE THAN 3 INCHES OF SOIL ON TOP OF THE ROOT CROWN WILL BE REJECTED. THE NURSERY OWNERS MAY DO OVERSIZE BALLS AND REMOVE THE SOIL IN ORDER FOR THE ROOT SYSTEM DIAMETER (WHICH IS THE REQUIRED ROOT BALL DIAMETER) TO MEET THE SPECIFICATION FOR THE TRUNK CALIPER REQUIRED.
- BALL AND BURLAPPED (B&B) PLANTS MUST HAVE FIRM, NATURAL BALLS OF EARTH OF DIAMETER NOT LESS THAN RECOMMENDED IN THE TREE AND SHRUB TRANSPORTING MANUAL, AND OF SUFFICIENT DEPTH TO INCLUDE THE FIBROUS AND FEEDING ROOTS. PLANTS MOVED WITH A BALL WILL NOT BE ACCEPTED IF THE BALL IS DRY, CRACKED OR BROKEN BEFORE OR DURING PLANTING OPERATIONS.
- CONTAINER PLANTS MUST BE PLANTED IN A SYSTEM SUFFICIENT ENOUGH TO HOLD THE SOIL IN PLACE WHEN REMOVED FROM THE CONTAINER. THE ROOT SYSTEM SHALL NOT BE ROOT BOUND, A CONDITION WHERE THE ROOT SYSTEM IS DENSE IN MASS, EXCESSIVELY INTERWIND, AND HAS ESTABLISHED A CIRCULAR GROWTH PATTERN.
- ALL TREES SHALL MEET AMERICAN STANDARD FOR NURSERY STOCK (ANSI, 1990, PART 1, "SHADE AND FLOWERING TREES").

TREE PLANTING NOTES

- REMOVE ALL TREATED OR PLASTIC-COATED BURLAP, STRAPPING, WIRE OR NYLON TWINE FROM ROOTBALL. AFTER SETTING IN HOLE, CUT AWAY 2/3 OF WIRE BASKET, IF ANY, AND TOP 1/3 OF BURLAP.
- SEAM ROOTBALL AND FIT IMMEDIATELY AFTER INSTALLATION.
- TOP OF ROOTBALL TO BE 2" ABOVE ADJACENT UPHILL GRADE. DO NOT PLACE ADDITIONAL SOIL ON TOP OF ROOTBALL.
- CONSTRUCT 4" HIGH SAUCER (WATER RESERVOIR) OF PLANT MIX BACKFILL.
- STAKES FOR TREE SUPPORT (LESS THAN 3" CAL.) SHALL BE CONSTRUCTION GRADE PRESSURE TREATED PINE, NOMINAL SIZE OF 2in. x 2in. x 16in. LONG AND POINTED AT ONE END. FABRIC SHALL BE ARBORTAPE, AS MANUFACTURED BY (P&G), PART #LCKE191. (401) 120-000 (OR APPROVED EQUAL). COLOR SHALL BE OLIVE DRAB.
- STAKE TREES 3" CAL. OR GREATER WITH DUCK BILL, 6" ANCHORS DRIVEN INTO UNDISTURBED SOIL. GUYING FABRIC SHALL BE 3/4" NYLON STRAPPING.

PLANTING MIX NOTES

- PLANTING MIX MAY BE DEVELOPED BY AMENDING THE EXISTING SOIL OR REMOVING THE EXISTING SOIL AND REPLACING WITH NEW PLANTING MIX. IT SHALL BE UNIFORM COMPOSITION THROUGHOUT, WITH A MIXTURE OF SUBSOIL. IT SHALL BE FREE OF STONES, LUMPS, LIVE PLANTS AND OTHER FOREIGN MATTER.
- PLANTING MIX SHALL NOT BE USED WHILE IN A FROZEN OR MUDDY CONDITION.
- UNLESS OTHERWISE SPECIFIED IN THE CONTRACT DOCUMENTS THE PLANTING MIX SHALL CONTAIN THE FOLLOWING SPECIFIED PERCENTAGES OF CONSTITUENTS:
 CLAY - MINIMUM 10% - MAXIMUM 20%
 SILT - MINIMUM 30% - MAXIMUM 50%
 ORGANIC MATERIAL - MINIMUM 5% - MAXIMUM 8%
 SAND - BALANCE OF MIX
- THE PLANTING MIX SHALL HAVE THE FOLLOWING NUTRIENTS AT THE SPECIFIED PERCENT BASE SATURATION, TO BE DETERMINED BY SOIL TEST CONDUCTED BY THE CONTRACTOR:
 CALCIUM - 50% TO 80%
 MAGNESIUM - 10% TO 30%
 POTASSIUM - 5% TO 10%
- ORGANIC MATERIAL IS DEFINED AS COMPOSTHUMUS SUCH AS SAWDUST OR LEAF MOLD THAT HAS COMPLETED THE DECOMPRESSION PROCESS. PERCENTAGE OF ORGANIC MATTER SHALL BE DETERMINED BY LOSS OF IGNITION, OF MOISTURE FREE SAMPLES DRIED AT 65 DEGREES.
- PLANTING MIX SHALL HAVE AN ACIDITY RANGE OF PH 5.5 TO 7.0.

FERTILIZER NOTES

- SHRUB AND GROUNDCOVER FERTILIZER, FROM THE FOLLOWING:
 PRODUCT ANALYSIS APPL. RATE
 Ornamental plant fertilizer 12-6-6 2 to 100 sq. ft.
 Ornamental plant fertilizer 14-7-7 2 to 100 sq. ft.
 SHRUBS AND GROUNDCOVER FERTILIZER SHALL HAVE 50% WATER INSOLUBLE NITROGEN, THE CHLORINE CONTENT IS NOT TO EXCEED 5%. NO TREE FERTILIZER IS TO BE APPLIED AT TIME OF PLANTING.
- TREE FERTILIZER IS TO BE APPLIED AT THE 6 MONTH OR 12 MONTH WARRANTY INSPECTION TIME, WHICHEVER IS CLOSER TO EARLY SPRING BEGINNING GROWTH.
- TREE FERTILIZER, FROM THE FOLLOWING:
 PRODUCT ANALYSIS APPL. RATE
 Ornamental tree fertilizer 31-7-7 1 to 2 inch caliper or
 Ornamental tree fertilizer 12-6-6 1 to 2 inch caliper
- TREE FERTILIZER SHALL HAVE 50% WATER INSOLUBLE NITROGEN, THE CHLORINE CONTENT IS NOT TO EXCEED 5%. SOURCE OF NITROGEN SHALL BE UREA FORMALDEHYDE OR A SIMILAR SLOW RELEASE SOURCE.

MULCH
 1. ONE STRAW MULCH SHALL BE FREE OF ANY FOREIGN MATERIALS, PICES LARGER THAN 4 INCHES, AND/OR GREEN WOOD.

WATER

- WATER SHALL BE FREE FROM OIL, ACIDS, ALKALIS, SALTS OR ANY OTHER SUBSTANCE THAT IS TOXIC OR OTHERWISE HARMFUL TO VEGETATION.
- ALL LANDSCAPE AND TURF AREAS IRRIGATED (100% COVERAGE). LANDSCAPE CONTRACTOR SHALL PROVIDE COMPLETE IRRIGATION DESIGN TO BE APPROVED BY OWNER PRIOR TO CONSTRUCTION. TURF AREAS TO BE SEPARATE ZONES FROM PLANTING AREAS.

TURF AND GRASSES

- SEED
 - Grass Seed: Fresh, clean, dry, new-crop seed complying with AOSA's "Journal of Seed Technology, Rules for Testing Seeds" for purity and germination efficiency.
 - Seed Species: CENTPEDEGRASS (EREMOCHLOA ORHULOIDES)
 - Seed Species: Seed of grass with not less than 95 percent germination, not less than 85 percent pure seed, and not more than 0.5 percent weed seed.
- TURFGRASS SOD
 - Turfgrass Sod: Certified, complying with "Specifications for Turfgrass Sod Matings" in TP's "Guideline Specifications to Turfgrass Sodding". Furnish viable sod of uniform density, color and texture, strongly rooted, and capable of vigorous growth and development when planted.
 - Turfgrass Species: BERMUDEGRASS (CYNOCHLOA DACTYLON)
 - Turfgrass Species: Sod of grass with not less than 95 percent germination, not less than 85 percent pure seed, and not more than 0.5 percent weed seed.

Prior to any clearing, grading, or construction activity, tree protection fencing will be installed around protected trees or groves of trees. And that no construction workers, tools, materials, or vehicles shall be permitted within the tree protection area.

R06500-005-004-000
 CAMERON COMPANY, LLC
 EXISTING ZONING: R-15
 UNDEVELOPED LAND

PLANT LIST

KEY	QTY.	SCIENTIFIC NAME	COMMON NAME	HEIGHT/ SPREAD	CAL.	CAL. CONT.	REMARKS
TREES							
IN	15	NELLIE R STEVENS	NELLIE STEVENS HOLLY	8' HT		50	MATCHED SPECIMEN, FULL FULL TO GROUND
MG	7	MAGNOLIA GRANDIFLORA	SOUTHERN MAGNOLIA	8' HT		15	MATCHED SPECIMEN, FULL
OP	30	QUERUS VIRGINIANA	LIVE OAK	12"-14" HT	2.5"		MATCHED SPECIMEN, FULL STRAIGHT TRUNK
OT	13	QUERUS TEXANA	NUTTALL OAK	12"-14" HT	2.5"		MATCHED SPECIMEN, FULL STRAIGHT TRUNK
SP	10	SABAL PALMETTO	CABBAGE PALM	8"-14" CT AS NOTED			MATCHED SPECIMEN, FULL STRAIGHT TRUNK
SHRUBS AND GROUNDCOVER							
LU	184	LIQUIDUM JAPONICUM EAST BAY	EAST BAY LIQUIDUM	24" HT		3	FULL, 36" O.C.
LM	300	LIRIODIOPSIS EVERGREEN GIANT	LIRIOPE	8"-12" HT		1	FULL, 24" O.C.
ICS	25	LEX ORNATA SOFT TOUCH HOLLY	SOFT TOUCH HOLLY	18"-24" HT		3	FULL, 30" O.C.
MUC	21	MULHEMBERGIA CAPILLARIS	PINK MUHLY GRASS	14"-18" HT		3	FULL, 30" O.C.
LAWN AND MULCH							
SEED - CENTPEDE, SEE LOCATIONS ON PLANTING PLAN							
MULCH - PINE STRAW							

Approved Construction Plan

Name: _____ Date: _____

Planning: _____

Public Utilities: _____

Traffic: _____

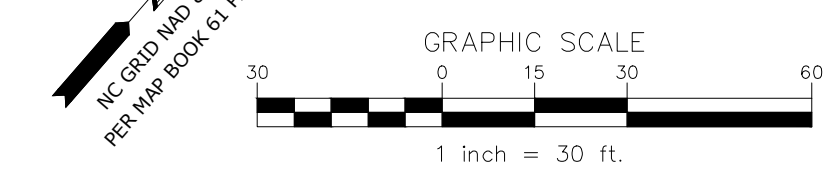
Fire: _____

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

Date: _____ Permit # _____

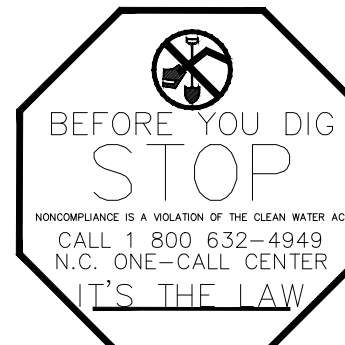
Signed: _____

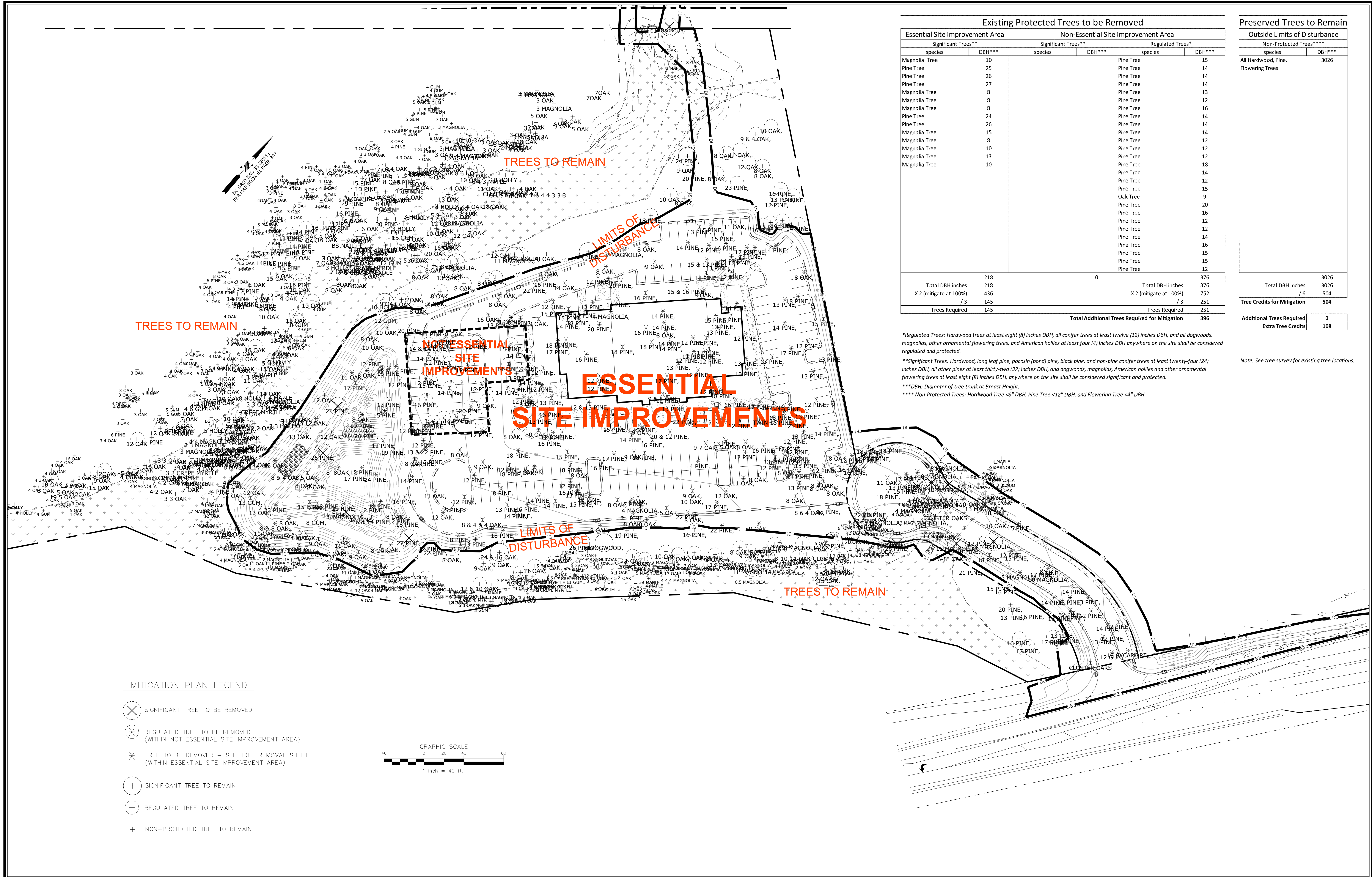
3938 INDEPENDENCE BLVD
 R06500-004-020-000
 HM CLAIMMONT INDY, LLC
 EXISTING ZONING: MF-M



PLANTING NOTES

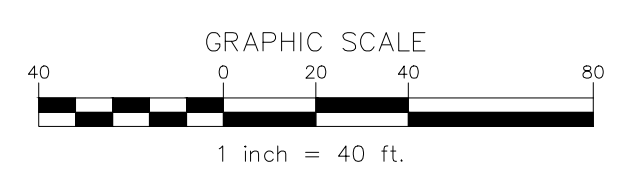
- NO PLANTINGS OVER THIRTY (30) INCHES IN HEIGHT ALLOWED IN VISION CLEARANCE.
- PROTECTION FROM VEHICULAR TRAFFIC PROVIDED AROUND ALL LANDSCAPING WITH A MINIMUM HEIGHT OF SIX (6) INCHES.
- OWNER IS RESPONSIBLE FOR MAINTENANCE TO ENSURE PLANT MATERIAL LIVES AND PROSPERS.
- PLANTING PLANS SHALL BE APPROVED BY LANDSCAPE ARCHITECT PRIOR TO INSTALLATION.
- LANDSCAPING SHALL BE REQUIRED AT THE ENDS OF ALL PARKING ROWS.
- A LOW BUFFER SHALL BE REQUIRED WHERE PARKING IS WITHIN FIFTY (50) FEET OF THE RIGHT-OF-WAY. LANDSCAPED ISLANDS SHALL BE A MINIMUM WIDTH OF TWELVE (12) FEET (BACK OF CURB TO BACK OF CURB) AND A MINIMUM OF TWO HUNDRED AND SIXTYE (216) SQUARE FEET.
- A MINIMUM OF FIFTEEN (15) TREES, 2 INCHES OR GREATER IN DIAMETER AS MEASURED 6 INCHES ABOVE GROUND PER DISTURBED ACRE.





MITIGATION PLAN LEGEND

- SIGNIFICANT TREE TO BE REMOVED
- REGULATED TREE TO BE REMOVED (WITHIN NOT ESSENTIAL SITE IMPROVEMENT AREA)
- TREE TO BE REMOVED - SEE TREE REMOVAL SHEET (WITHIN ESSENTIAL SITE IMPROVEMENT AREA)
- SIGNIFICANT TREE TO REMAIN
- REGULATED TREE TO REMAIN
- NON-PROTECTED TREE TO REMAIN



Existing Protected Trees to be Removed			
Essential Site Improvement Area		Non-Essential Site Improvement Area	
Significant Trees**	Regulated Trees*	Significant Trees**	Regulated Trees*
species	DBH***	species	DBH***
Magnolia Tree	10	Pine Tree	15
Pine Tree	25	Pine Tree	14
Pine Tree	26	Pine Tree	14
Pine Tree	27	Pine Tree	14
Magnolia Tree	8	Pine Tree	13
Magnolia Tree	8	Magnolia Tree	12
Magnolia Tree	8	Pine Tree	16
Pine Tree	24	Pine Tree	14
Pine Tree	26	Pine Tree	14
Magnolia Tree	15	Magnolia Tree	14
Magnolia Tree	8	Pine Tree	12
Magnolia Tree	10	Magnolia Tree	12
Magnolia Tree	13	Pine Tree	18
Magnolia Tree	10	Pine Tree	14
		Pine Tree	12
		Pine Tree	15
		Oak Tree	9
		Pine Tree	20
		Pine Tree	16
		Pine Tree	12
		Pine Tree	12
		Pine Tree	14
		Pine Tree	16
		Pine Tree	15
		Pine Tree	15
		Pine Tree	12
Total DBH inches	218	0	376
Total DBH inches	218		376
X 2 (mitigate at 100%)	436	X 2 (mitigate at 100%)	752
/ 3	145	/ 3	251
Trees Required	145	Trees Required	251
		Total Additional Trees Required for Mitigation	396

*Regulated Trees: Hardwood trees at least eight (8) inches DBH, all conifer trees at least twelve (12) inches DBH, and all dogwoods, magnolias, other ornamental flowering trees, and American hollies at least four (4) inches DBH anywhere on the site shall be considered regulated and protected.

**Significant Trees: Hardwood, long leaf pine, pocom (pond) pine, black pine, and non-pine conifer trees at least twenty-four (24) inches DBH, all other pines at least thirty-two (32) inches DBH, and dogwoods, magnolias, American hollies and other ornamental flowering trees at least eight (8) inches DBH, anywhere on the site shall be considered significant and protected.

***DBH: Diameter of tree trunk at Breast Height.

**** Non-Protected Trees: Hardwood Tree <8" DBH, Pine Tree <12" DBH, and Flowering Tree <4" DBH.

Preserved Trees to Remain	
Outside Limits of Disturbance	
Non-Protected Trees****	DBH***
species	DBH***
All Hardwood, Pine, Flowering Trees	3026
Total DBH inches	3026
/ 6	504
Tree Credits for Mitigation	504
Additional Trees Required	0
Extra Tree Credits	108

Note: See tree survey for existing tree locations.