

# Administrative Site Plan

## South Main

### Town of Rolesville

### Wake County, North Carolina

Add case number SP22-06 to the cover sheet.

Also, add the case number of the rezoning to the cover sheet.

**HOLDING COMMENT:** There is a subsequent rezoning case MA 22-07. This site plan is contingent upon the approval of the rezoning application.



**PROJECT INFORMATION:**

PROJECT: MAIN STREET COMMERCIAL

OWNER / DEVELOPER: TOY STORAGE, LLC  
2700 GRESHAM LAKE RD.  
RALEIGH, NC 27615  
(919) 604-0505

PHONE: (919) 210-3934  
CONTACT: ALLEN MASSEY  
EMAIL: STORIT@AOL.COM

ENGINEER: KEITH P. GETTLE, PE  
GETTLE ENGINEERING AND DESIGN, PLLC  
3616 WAXWING CT.  
WAKE FOREST, NC 27587

PHONE: (919) 210-3934  
EMAIL: KPGETTLE@GMAIL.COM

SURVEYOR: CAWTHORNE MOSS AND PANCIERA P.C.  
333 SOUTH WHITE STREET  
WAKE FOREST NORTH CAROLINA 27588  
(919) 556-3148

PHONE: (919) 210-3934  
EMAIL: KPGETTLE@GMAIL.COM

PROJECT ADDRESS: 503 SOUTH MAIN STREET, ROLESVILLE NC  
PIN: 1758784708  
ZONING: GC  
EXIST USE: VACANT  
OVERLAY: NONE  
FLOOD ZONE: NO FLOOD HAZARDS AREAS PER FEMA FIRM 3720175800K  
IMPERVIOUS: EXISTING: 4195 SF (.1 ACRES)

SHEET	DESCRIPTION
	Cover Sheet
	Existing Conditions Survey
	Standard Notes
	Existing Conditions & Demolition Plan
	Site Plan
	Grading Plan
	Utility Plan
	Utility Plan - SS Extension
	Landscape Plan
	Lighting Plan (TBD)
	Standard Site Details
	Site and Stormwater Details
	BMP Device Detail
	Sanitary Sewer Details
	Water Details
	Phase 1 - Erosion Control Plan
	Phase 2 - Erosion Control Plan
	Phase 3 - Erosion Control Plan
	Phase 4 - Erosion Control Plan
	Erosion Control Details
	Erosion Control Details
	ECG01 Requirements

Ensure that lighting plan is in compliance with LDO Section 6.6

**SITE DATA:**

SITE ADDRESS: 503 SOUTH MAIN  
PIN: 0753971338  
SITE AREA: 1.80 AC (78,408 SF)  
IMPERVIOUS PROPOSED: 1.37 ACRES (59,677 SF)  
IMPERVIOUS PERCENT (%): 76%  
WATERSHED: MILBURNIE LAKE - NEUSE  
HUC: 0302020107

LATITUDE: 35.916120  
LONGITUDE: -78.468430  
ZONING DISTRICT: GC  
FUTURE LAND USE: COMMERCIAL

OPEN SPACE SIZE REQD: 3920 SF (5%)  
OPEN SPACE SIZE PROVIDED: 4150 SF (5%)  
OPEN AREA SUMMARY: ACTIVE OPEN AREA 1 = 2042 SF  
ACTIVE OPEN AREA 2 = 1172 SF  
ACTIVE OPEN AREA 3 = 936

BUILDING SETBACKS: 20' (FRONT)  
15' (SIDE)  
35' (REAR)

BUILDING HEIGHT (MAX): 35'

PARKING SUMMARY: RESIDENTIAL UPPER STORY: MIN 1 / UNIT  
COMMERCIAL: MIN 2.5 SPACE / 1000 SF  
PARKING MIN REQUIRED: 45 SPACES  
PARKING PROVIDED: 63 SPACES  
BIKE PARKING (REQUIRED / PROVIDED): 1 PER BLDG  
TOTAL DENUDED AREA: 87,654 SF (2.01 ACRES)

Within the site data table include the proposed building height as well as the overall square footage of the structure. Only the commercial square footage is provided on the site plan.

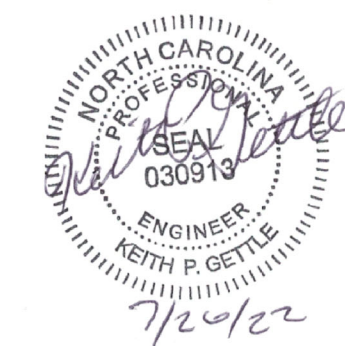
**GENERAL NOTES**

- BOUNDARY AND TOPO INFORMATION TAKEN FROM CAWTHORNE, MOSS & PANCIERA, P.C., SURVEYING, TITLED TOPOGRAPHIC SURVEY FOR TOY STORAGE LLC, DATED MARCH 3, 2022.
- CONTRACTOR SHALL VERIFY THE LOCATION OF ALL EXISTING UTILITIES & SHALL BE RESPONSIBLE FOR ANY DAMAGE RESULTING FROM HIS ACTIVITIES. CALL UTILITY LOCATOR SERVICE AT LEAST 48 HOURS PRIOR TO DIGGING.
- ALL CONSTRUCTION WILL BE IN STRICT CONFORMANCE TO THE TOWN OF ROLESVILLE, CITY OF RALEIGH, WAKE COUNTY AND NCDOT STANDARDS AND SPECIFICATIONS.
- NO CHANGES MAY BE MADE TO THE APPROVED DRAWINGS WITHOUT WRITTEN PERMISSION FROM THE ISSUING AUTHORITY.

	NEW	EXISTING
DRAINAGE STRUCTURE	□ □ □ □ □	□ □ □ □ □
SANITARY SEWER MANHOLE	⊙	⊙
SANITARY SEWER CLEANOUT	— C.O.	— C.O.
WATER VALVE	⊙	⊙
FIRE HYDRANT	⊙	⊙
OVERHEAD UTILITY LINE	OH	OH
UNDERGROUND ELECTRIC LINE	E	E
UNDERGROUND TELECOM/DATA LINE	TD	TD
FIBER OPTIC CABLE	FO	FO
GAS LINE	G	G
STORM DRAINAGE PIPE	SD	SD
SANITARY SEWER LINE	SS	SS
WATER LINE	W	W
SURFACE ELEVATION CONTOUR	400	400
SURFACE SPOT ELEVATION	⊕ 308.44	⊕ 308.44
CLEARING LIMIT/TREE LINE	~ ~ ~ ~ ~	~ ~ ~ ~ ~
LIMIT OF DISTURBANCE	— — — — —	— — — — —
ELECTRICAL TRANSFORMER PAD	T	T
TOWNHOME PARKING (NUMBER)	71	

**PUBLIC IMPROVEMENT QUANTITIES**

PHASE NUMBER(S)	PHASE 1
NUMBER OF LOT (S)	1
LOT NUMBERS BY PHASE	1
NUMBER OF UNITS	1
LIVABLE OF UNITS	11 UNITS
OPEN SPACE (YES/NO)	YES
NUMBER OF OPEN SPACE LOTS	0
PUBLIC WATER (LF)	0
PUBLIC SEWER (LF)	0
PUBLIC STREET (LF) - FULL	0
PUBLIC STREET (LF) - PARTIAL	0
STREET SIGNS (LF)	0
WATER SERVICE STUBS	1
WATER SERVICE ABANDONED	2
SEWER SERVICE STUBS (NEW)	1
SEWER SERVICE REMOVED	0



**PRELIMINARY  
DO NOT USE FOR  
CONSTRUCTION**

**SITE PERMITTING APPROVAL**

**Water and Sewer Permits (if applicable)**  
The City of Raleigh consents to the connection and extension of the City's Public Sewer System as shown on this plan. The material and construction methods used for this project shall conform to the standards and specifications of the City's Public Utilities Handbook. City of Raleigh Public Utilities Department Permit # \_\_\_\_\_

The City of Raleigh consents to the connection and extension of the City's Public Water System as shown on this plan. The material and construction methods used for this project shall conform to the standards and specifications of the City's Public Utilities Handbook. City of Raleigh Public Utilities Department Permit # \_\_\_\_\_

The City of Raleigh consents to the connection to its public sewer system and extension of the private sewer collection system as shown on this plan. The material and construction methods used for this project shall conform to the standards and specifications of the City's Public Utilities Handbook. City of Raleigh Public Utilities Department Permit # \_\_\_\_\_

**CITY OF RALEIGH - PLANS AUTHORIZED FOR CONSTRUCTION**  
Plans for the proposed use have been reviewed for general compliance with applicable codes. This limited review, and authorization for construction, is not to be considered an approval or endorsement of the project, nor shall it be construed to permit any violation of City, State or Federal Law. All construction must be in accordance with all local, State, and Federal rules and regulations.

**Electronic Approval:** This approval is being issued electronically. This approval is valid only upon the signature of a City of Raleigh Review Officer below. The City will retain a copy of the approved plans. Any work authorized by this approval must proceed in accordance with the plans signed on file with the City. This electronic approval may not be relied upon if any modification to this approval once issued will invalidate this approval.

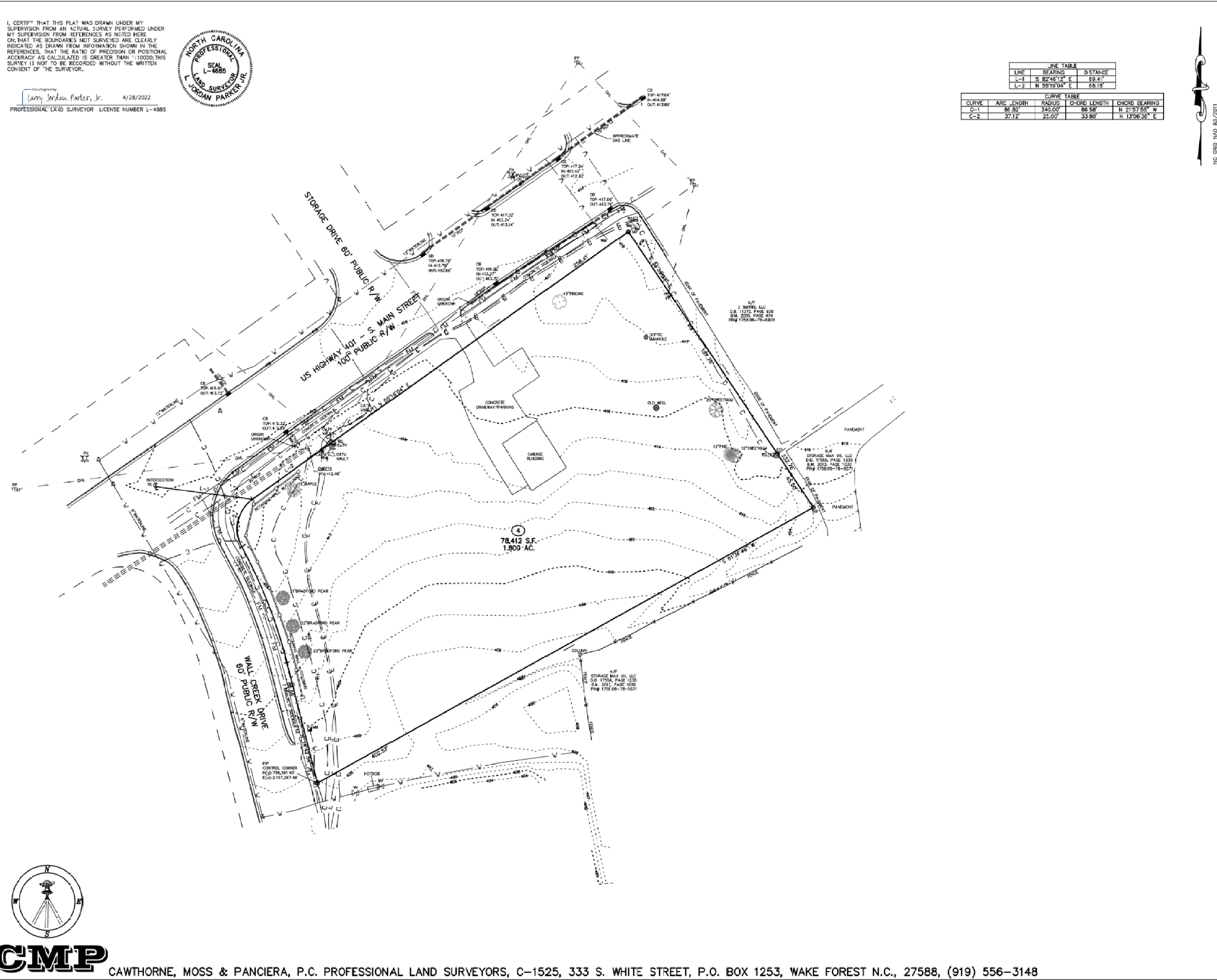
City of Raleigh Development Approval \_\_\_\_\_  
City of Raleigh Review Officer \_\_\_\_\_

I, CERTIFY THAT THIS PLAN WAS DRAWN UNDER MY SUPERVISION FROM AN ACTUAL SURVEY PERFORMED UNDER MY SUPERVISION FROM REFERENCES AS NOTED HERE ON; THAT THE BOUNDARIES NOT SURVEYED ARE CLEARLY INDICATED AS DRAWN FROM INFORMATION SHOWN IN THE REFERENCES; THAT THE RATIO OF PRECISION OR POSITIONAL ACCURACY AS CALCULATED IS GREATER THAN 1:10000; THIS SURVEY IS NOT TO BE RECORDED WITHOUT THE WRITTEN CONSENT OF THE SURVEYOR.

Prepared by: Jerry Jordan Parker, Jr. 4/28/2022  
 PROFESSIONAL LAND SURVEYOR LICENSE NUMBER L-4885



CAWTHORNE, MOSS & PANCIERA, P.C. PROFESSIONAL LAND SURVEYORS, C-1525, 333 S. WHITE STREET, P.O. BOX 1253, WAKE FOREST N.C., 27588, (919) 556-3148



LINE TABLE			
LINE	BEARING	DISTANCE	
L-1	S 82°41'12" E	89.61'	
L-2	N 59°19'04" E	68.15'	

CURVE TABLE				
CURVE	ARC LENGTH	RADIUS	C-ORIG LENGTH	CHORD BEARING
C-1	86.50'	340.00'	86.50'	N 21°57'55" W
C-2	37.12'	22.00'	33.80'	N 13°26'36" E



VICINITY MAP

**LEGEND:**

- EP - EXISTING IRON PIPE
- EB - EXISTING IRON BAR
- BP - BENT IRON PIPE
- BB - BENT IRON BAR
- CB - CONCRETE CURB
- CP - CONCRETE CURB
- EPK - EXISTING PV NAIL
- SPK - SET IRON NAIL
- NP - NEW IRON PIPE SET
- RP - RIGHT OF WAY
- CATV - CABLE TV BOX
- EB - ELECTRIC BOX
- TEL - TELEPHONE PEDESTAL
- IP - IRON PIPE
- OP - OVERHEAD PIPE
- LP - LIGHT POLE
- WP - WATER PIPE
- MP - WATER MAIN
- CCO - SEWER CLEAN-OUT
- CO - CONCRETE
- CB - CATCH BASIN
- MANH - MANHOLE
- FH - FIRE HYDRANT

- NOTES:**
- THIS PLAN SUBJECT TO ALL EASEMENTS, AGREEMENTS AND RIGHTS OF WAY OF RECORD PRIOR TO THE DATE OF THIS PLAN.
  - UNDERGROUND UTILITIES HAVE BEEN MARKED OR LOCATED FOR THIS PLAN BY SO MAPPING, PLLC.
  - ALL BEARINGS AND DISTANCES ARE HORIZONTAL GROUND MEASUREMENTS.
  - ALL ELEVATIONS ARE BASED ON NAVD 83.
  - ALL CONTOURS ARE AT 1' INTERVALS HIGHLIGHTED EVERY 5'.

**LINE TYPE LEGEND**

- PROPERTY LINE - LINE SURVEYED
- - - RIGHT-OF-WAY
- ADJOINING LINE - LINE NOT SURVEYED
- - - CONCRETE LINE
- - - BUILDING SETBACK
- - - EASEMENT
- - - BUFFER
- - - FLOOD HAZARDOUS SOILS
- - - ELECTRIC LINE
- - - FORCE MAIN (ELECTRIC)
- - - WATER LINE
- - - COMMUNICATION
- - - GAS

TOPOGRAPHIC SURVEY FOR  
**TOY STORAGE, LLC**  
 503 S. MAIN STREET  
 LOT 4, HESS INC.  
 OWNER: TOY STORAGE, LLC  
 REF: D.B. 18244, PAGE 2611  
 TOWN OF ROLESVILLE  
 WAKE COUNTY, NORTH CAROLINA

SCALE 1"=30'

MARCH 3, 2022  
 REVISED APRIL 22, 2022  
 ZONED R-1  
 PIN #1758.07-78-4708

**Gettle Engineering and Design, PLLC**  
 3616 Waxwing Court,  
 Wake Forest, North Carolina 27587  
 (919) 210-3934 Firm License P-2538

NO.	DATE	REVISION/DESCRIPTION	BY
1	07-26-2022	INITIAL SUBMITTAL	BY
2	DATE	COMMENT	BY
3	DATE	COMMENT	BY
4	DATE	COMMENT	BY
5	DATE	COMMENT	BY
6	DATE	COMMENT	BY
8	DATE	COMMENT	BY



**Existing Conditions Survey**  
 South Main  
 503 South Main Street  
 Rolesville, Wake County, North Carolina

Project No. XXXXX  
 Dwg No.

PRELIMINARY  
 DO NOT USE FOR  
 CONSTRUCTION

UTILITY SPECIFICATIONS

EXISTING CONDITIONS

INFORMATION ABOUT EXISTING UNDERGROUND FACILITIES AND SUBSURFACE CONDITIONS INDICATED ON THESE DRAWINGS IS NOT BASED ON AN EXHAUSTIVE INVESTIGATION OF SUCH FACILITIES OR CONDITIONS...

PROTECTION AND SAFETY

PRIOR TO BEGINNING WORK, AND AS NEEDED DURING THE COURSE OF PROJECT WORK, CONTRACTOR SHALL NOTIFY ALL APPLICABLE UTILITY LOCATION SERVICES AND UTILITY PROVIDERS TO REASONABLY VERIFY THE LOCATION OF ALL KNOWN OR SUSPECTED UTILITIES...

COMPLIANCE

ALL WATER SYSTEM AND SANITARY SEWER WORK SHALL BE IN ACCORDANCE WITH THE FOLLOWING: 1. REQUIREMENTS OF THE CITY OF RALEIGH, INCLUDING THE LATEST EDITION OF CONSTRUCTION STANDARDS AND SPECIFICATIONS...

NOTIFICATIONS

NOTIFY THE ENGINEER AT LEAST TWO BUSINESS DAYS PRIOR TO BEGINNING OR RESUMING WATERLINE OR SANITARY SEWER WORK, THE ENGINEER MUST OBSERVE CONSTRUCTION, INSTALLATION, BACKFILLING, AND TESTING WORK...

TRENCHING AND BACKFILLING

WHERE ROCK OR OTHER HARD MATERIAL OCCURS AT THE DESIGNED TRENCH BOTTOM, OVEREXCAVATE TRENCH DEPTH 6 INCHES AND REPLACE OVEREXCAVATION MATERIAL WITH #67 STONE BEDDING...

STORAGE AND HANDLING

PIPING, FITTINGS, GASKETS, AND OTHER MATERIALS SHALL BE KEPT CLEAN WHILE BEING STORED AND DURING CONSTRUCTION ACTIVITIES. PIPE BUNDLES SHALL BE STORED ON FLAT SURFACES WITH UNIFORM SUPPORT...

WATER SYSTEM

PROVIDE ALL WATER SYSTEM MATERIALS IN ACCORDANCE WITH LOCAL WATER AUTHORITY REQUIREMENTS. INSTALL WATERLINES TO PROVIDE 36" COVER TO FINISHED GRADE, UNLESS OTHERWISE SHOWN OR APPROVED BY THE ENGINEER AND INSPECTOR...

BACKFLOW PREVENTION

BACKFLOW PREVENTER ASSEMBLIES AND ENCLOSURES SHALL CONFORM TO ALL LOCAL WATER AUTHORITY REQUIREMENTS, AND SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS...

FIRE PROTECTION

WATER MAINS SHALL BE INSTALLED AND MADE OPERATIONAL AS SOON AS PRACTICAL TO PROVIDE ACTIVE FIRE HYDRANT SERVICE DURING BUILDING CONSTRUCTION.

UTILITY SPECIFICATIONS (cont.)

SANITARY SEWER

SANITARY SEWER MAIN PIPING SHALL BE DUCTILE IRON PIPE PER AWWA C151, PRESSURE CLASS 350, WITH INTERIOR EPOXY LINING AND EXTERIOR BITUMINOUS SEAL. JOINTS SHALL BE PUSH-ON TYPE WITH RUBBER GASKETS PER AWWA C111...

CONNECTIONS

FOR CONNECTIONS TO EXISTING UTILITY AND DRAINAGE LINES, CONTRACTOR SHALL VERIFY EXISTING PIPE SIZE AND MATERIAL, AND PROVIDE APPROPRIATE CONNECTION FITTINGS.

TESTING AND ACCEPTANCE

THE GEOTECHNICAL ENGINEER SHALL PROVIDE MATERIAL AND DENSITY TESTING DURING THE COURSE OF THE WORK. PRIOR TO PLACEMENT OF ANY BASE OR PAVEMENT, CONTRACTOR SHALL PROVIDE PROOF-ROLLING OF ALL TRENCH AREAS TO THE SATISFACTION OF THE GEOTECHNICAL ENGINEER...

OTHER

CONTRACTOR SHALL PROVIDE PRIMARY COORDINATION WITH UTILITY SERVICE PROVIDERS FOR BUILDING UTILITY SERVICES. THIS WORK SHALL INCLUDE MAKING APPLICATIONS FOR SERVICE, COORDINATING AND SCHEDULING WORK BY OTHERS, VERIFYING ROUTINGS AND EQUIPMENT LOCATIONS...

GENERAL GRADING AND STORM DRAINAGE SPECIFICATIONS

EXISTING CONDITIONS

INFORMATION ABOUT EXISTING UNDERGROUND FACILITIES AND SUBSURFACE CONDITIONS INDICATED ON THESE DRAWINGS IS NOT BASED ON AN EXHAUSTIVE INVESTIGATION OF SUCH FACILITIES OR CONDITIONS...

PROTECTION AND SAFETY

PRIOR TO BEGINNING WORK, AND AS NEEDED DURING THE COURSE OF PROJECT WORK, CONTRACTOR SHALL NOTIFY ALL APPLICABLE UTILITY LOCATION SERVICES AND UTILITY PROVIDERS TO REASONABLY VERIFY THE LOCATION OF ALL KNOWN OR SUSPECTED UTILITIES...

COMPLIANCE

ALL WORK SHALL BE IN ACCORDANCE WITH APPLICABLE STANDARDS AND REQUIREMENTS OF THE CITY OF RALEIGH, TOWN OF ROLESVILLE, WAKE COUNTY SEDIMENTATION AND EROSION CONTROL OFFICE, AND THE N.C. STATE BUILDING CODES.

NOTIFICATIONS

NOTIFY THE ENGINEER AT LEAST TWO BUSINESS DAYS PRIOR TO BEGINNING OR RESUMING ANY STORM DRAINAGE OR STORMWATER IMPOUNDMENT BASIN WORK...

QUALITY CONTROL

ALL EARTHWORK OPERATIONS, INCLUDING TOPSOIL STRIPPING, STOCKPILING, EXCAVATION, FILLING, COMPACTING, TRENCHING, BACKFILLING, RETAINING WALLS, AND FINE-GRADING, SHALL BE PERFORMED IN ACCORDANCE WITH THE RECOMMENDATIONS OF A GEOTECHNICAL ENGINEER...

CLEARING & GRUBBING

ALL VEGETATIVE MATERIAL DISLOCATED BY CLEARING AND GRUBBING ACTIVITIES SHALL BE COMPLETELY REMOVED FROM THE PROJECT SITE AND LEGALLY DISPOSED. NO ONSITE BURNING OF CLEARING WASTE SHALL OCCUR.

GRADING

STRUCTURAL FILL IS DEFINED AS SOIL CLASSIFIED AS SM, SC, ML, AND CL, FREE OF VEGETATIVE MATTER, DEBRIS OR OTHER UNSUITABLE MATTER, FREE OF ROCKS LARGER THAN 3 INCHES IN ANY DIMENSION...

TRENCHING AND BACKFILLING

WHERE ROCK OR OTHER HARD MATERIAL OCCURS AT THE DESIGNED TRENCH BOTTOM, OVEREXCAVATE TRENCH DEPTH 6 INCHES AND REPLACE OVEREXCAVATION MATERIAL WITH #67 STONE BEDDING...

STORM DRAINAGE SYSTEM

STORM DRAINAGE STRUCTURES SHALL CONFORM TO ROLESVILLE AND NCDOT STANDARDS, AND MAY BE CONSTRUCTED OF EITHER SOLID MASONRY OR PRE-CAST CONCRETE. "KNOCK-OUT" TYPE PRE-CAST STRUCTURES SHALL NOT BE USED WHERE THE DESIGNED PIPE CONFIGURATION WOULD REQUIRE REMOVAL OF STRUCTURAL CORNERS OR ALTERATION OF DESIGNED PIPE ENTRY ANGLES...

SURFACE DRAINAGE

ALL SPOT ELEVATIONS SHOWN ARE FINISHED SURFACE ELEVATIONS. SPOT ELEVATIONS SHALL TAKE PRECEDENCE OVER ELEVATION CONTOURS. ALL ELEVATIONS SHOWN ON CURB AND GUTTER REFER TO TOP OF CURB, UNLESS OTHERWISE INDICATED.

ACCESSIBILITY

FINISHED WALKWAY ELEVATIONS ABUTTING EXTERIOR DOORWAY THRESHOLDS SHALL BE ONE-FOURTH INCH BELOW THE ADJOINING FINISHED FLOOR ELEVATION. EXTERIOR PADS AND WALKWAYS SHALL SLOPE AWAY FROM THE BUILDING AT A SLOPE NO LESS THAN 1.0% AND NO GREATER THAN 2.0%.

BMP NOTES

SEE THE DETAIL SHEET FOR SPECIFICS REGARDING THE BIORETENTION DEVICE. THE BMP WILL BE LOCATED IN A DRAINAGE EASEMENT WITH ACCESS TO THE PUBLIC RIGHT OF WAY.

CITY OF RALEIGH UTILITY NOTES

1. ALL MATERIALS & CONSTRUCTION METHODS SHALL BE IN ACCORDANCE WITH CITY OF RALEIGH DESIGN STANDARDS, DETAILS & SPECIFICATIONS (REFERENCE: COR PUD HANDBOOK, CURRENT EDITION).

2. UTILITY SEPARATION REQUIREMENTS: a) A DISTANCE OF 100' SHALL BE MAINTAINED BETWEEN SANITARY SEWER & ANY PRIVATE OR PUBLIC WATER SUPPLY SOURCE SUCH AS AN IMPOUNDED RESERVOIR USED AS A SOURCE OF DRINKING WATER...

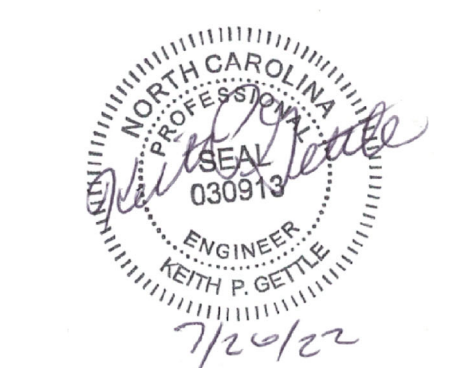
3. ANY NECESSARY FIELD REVISIONS ARE SUBJECT TO REVIEW & APPROVAL OF AN AMENDED PLAN OR PROFILE BY THE CITY OF RALEIGH PUBLIC UTILITIES DEPARTMENT PRIOR TO CONSTRUCTION.

4. CONTRACTOR SHALL MAINTAIN CONTINUOUS WATER TO EXISTING RESIDENCES & BUSINESSES THROUGHOUT CONSTRUCTION OF PROJECT. ANY NECESSARY SERVICE INTERRUPTIONS SHALL BE PRECEDED BY A 24 HOUR ADVANCE NOTICE TO THE CITY OF RALEIGH PUBLIC UTILITIES DEPARTMENT.

11. NCDOT / RAILROAD ENCROACHMENT AGREEMENTS ARE REQUIRED FOR ANY UTILITY WORK (INCLUDING MAIN EXTENSIONS AND SERVICE TAPS) WITHIN STATE OR RAILROAD ROW PRIOR TO CONSTRUCTION.

Gettle Engineering and Design, PLLC
3616 Waxwing Court,
Wake Forest, North Carolina 27587
(919) 210-3934 Firm License P-2538

Table with 9 columns: NO., DATE, INITIALS, COMMENT, BY. Rows 1-9.



Standard Notes
South Main
503 South Main Street
Rolesville, Wake County, North Carolina

Project No. XXXXX
Dwg No. C1

PRELIMINARY
DO NOT USE FOR
CONSTRUCTION

DEMOLITION NOTES

- DO NOT INTERRUPT EXISTING UTILITIES SERVING FACILITIES OCCUPIED BY THE OWNER OR OTHERS EXCEPT WHEN PERMITTED UNDER THE FOLLOWING CONDITIONS AND THEN ONLY AFTER ARRANGING TO PROVIDE ACCEPTABLE TEMPORARY UTILITY SERVICES. (1) NOTIFY OWNER NOT LESS THAN ONE WEEK IN ADVANCE OF PROPOSED UTILITY INTERRUPTIONS. (2) DO NOT PROCEED WITH UTILITY INTERRUPTIONS WITHOUT RECEIVING OWNER WRITTEN PERMISSION. (3) COORDINATE ALL UTILITY RELOCATION WITH APPROPRIATE UTILITY PROVIDER.
- SUBSURFACE FEATURES ARE SHOWN IN APPROXIMATE LOCATION. CONTRACTOR IS RESPONSIBLE FOR SUBSURFACE UTILITY EXPLORATION TO DETERMINE UTILITY LOCATIONS AND DEPTHS.
- VERIFY LOCATIONS AND SIZES OF ALL EXISTING FEATURES PRIOR TO COMMENCEMENT OF CONSTRUCTION.
- LOCATE EXISTING UTILITIES PRIOR TO CONSTRUCTION, AND REPAIR OR REPLACE ANY DAMAGES TO EXISTING UTILITIES RESULTING FROM CONSTRUCTION.

Some tree types and sizes labels are missing.

Label tree protection fencing as demoing is shown on this page.

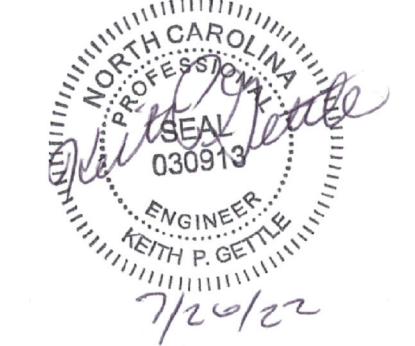
This tree needs to be shown on the site plan sheet if the intention is for it to be preserved.

Per LDO Section 6.2.4.5.B.11, The critical root zone of each preserved tree must be within the protective yard. Twenty-five (25) percent of the critical root zone may be disturbed.

Removal of this 20" Sweetgum will require mitigation as it is a tree that qualifies for preservation per LDO Section 6.4.5.B.3. It shall be replaced on-site with at least four (4) or more trees of similar species and size.

Gettle Engineering and Design, PLLC  
3616 Waxwing Court,  
Wake Forest, North Carolina 27687  
(919) 210-3934  
Firm License P-2538

NO.	DATE	INITIALS	REVISION DESCRIPTION
1	07/26/2022		INITIAL SUBMITTAL
2			
3			
4			
5			
6			
7			
8			

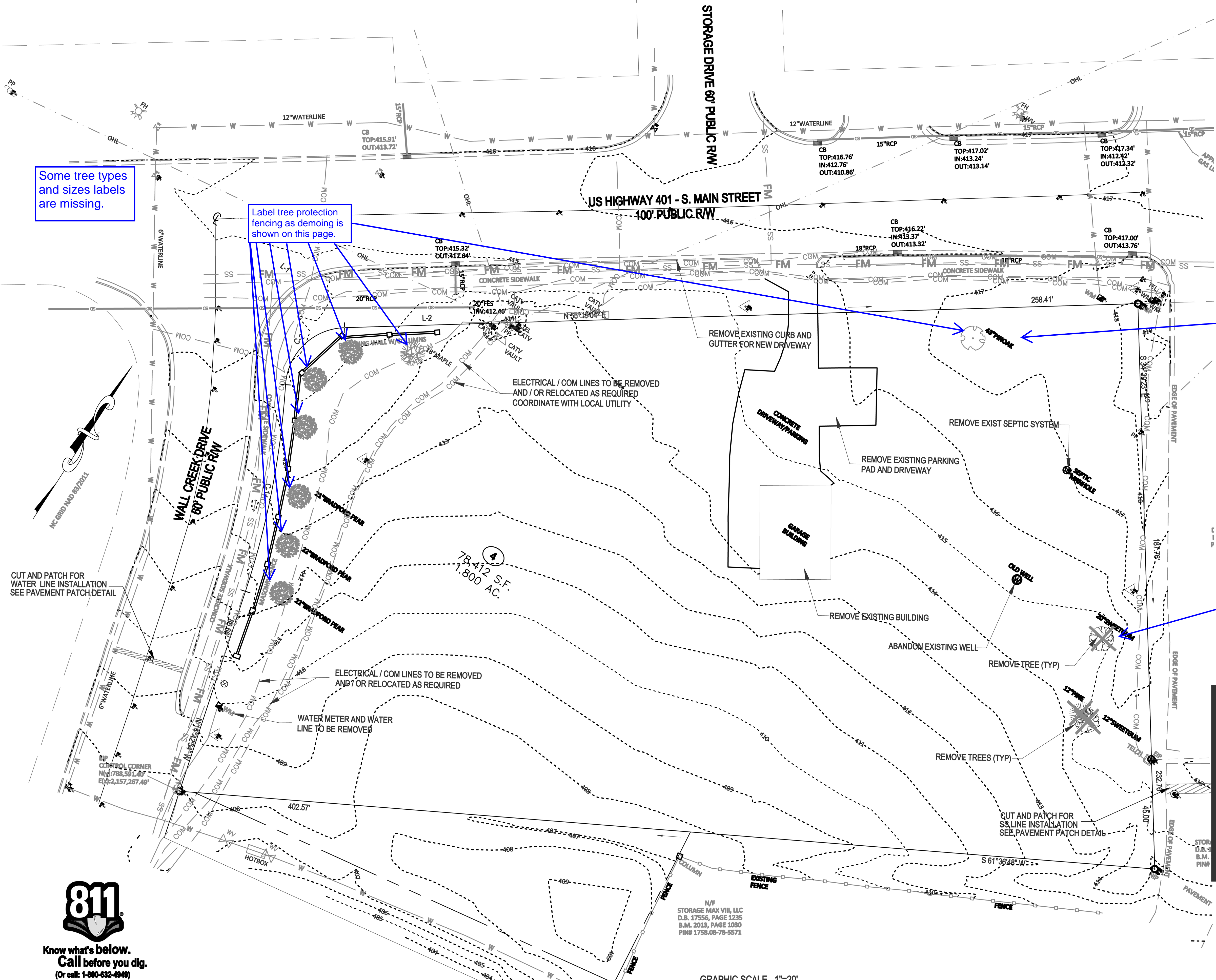


Existing Conditions / Demolition Plan  
South Main  
503 South Main Street  
Rolesville, Wake County, North Carolina

Project No. XXXXX

Dwg No. C2

PRELIMINARY  
DO NOT USE FOR  
CONSTRUCTION

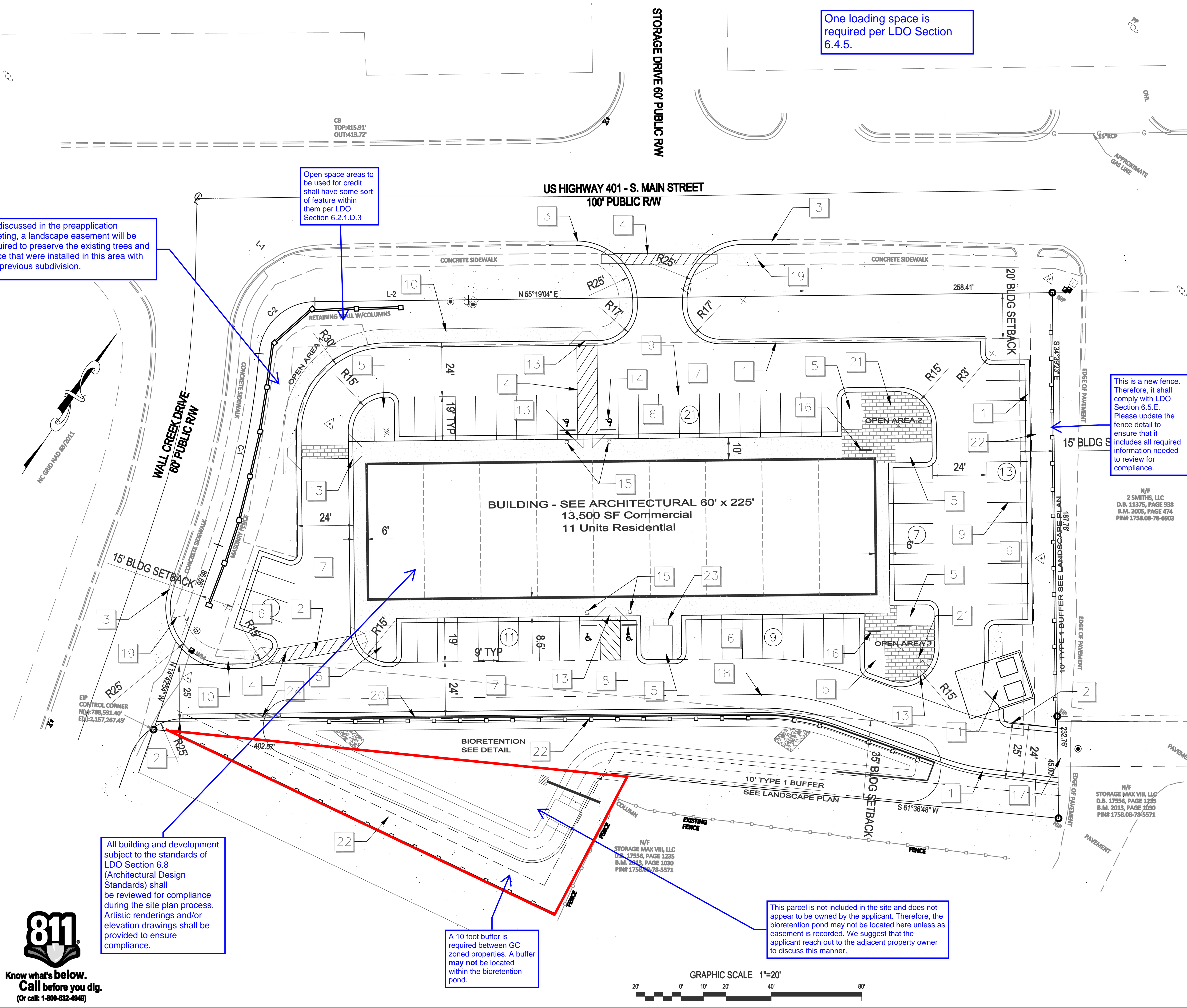


NOTES

- SEE SHEET C1 FOR STANDARD NOTES.

MATCH LINE SEE SHEET C6

N/F STORAGE MAX VILL, LLC  
D.B. 17556, PAGE 1235  
B.M. 2013, PAGE 1030  
PIN# 1758-08-78-5571



One loading space is required per LDO Section 6.4.5.

Open space areas to be used for credit shall have some sort of feature within them per LDO Section 6.2.1.D.3

As discussed in the preapplication meeting, a landscape easement will be required to preserve the existing trees and fence that were installed in this area with the previous subdivision.

This is a new fence. Therefore, it shall comply with LDO Section 6.5.E. Please update the fence detail to ensure that it includes all required information needed to review for compliance.

A parking space shall be delineated as "Mail Kiosk" parking for the Mail truck to park as blocking the driveway will cause issues.

All building and development subject to the standards of LDO Section 6.8 (Architectural Design Standards) shall be reviewed for compliance during the site plan process. Artistic renderings and/or elevation drawings shall be provided to ensure compliance.

A 10 foot buffer is required between GC zoned properties. A buffer may not be located within the bioretention pond.

This parcel is not included in the site and does not appear to be owned by the applicant. Therefore, the bioretention pond may not be located here unless an easement is recorded. We suggest that the applicant reach out to the adjacent property owner to discuss this manner.

KEY KEYED NOTES - SITE PLAN

- 1 24" STANDARD CONCRETE CURB AND GUTTER - ON SITE
- 2 25' CROSS ACCESS EASEMENT WITH 24" WIDE DRIVE
- 3 TRANSITION FROM 30" CURB & GUTTER TO 24" CURB & GUTTER AT CURB TURNOUT. TIE INTO EXISTING CURB PAINTED STRIPING FOR CROWSWALK
- 4 LANDSCAPE ISLAND - SEE LANDSCAPE PLAN
- 5 STANDARD-DUTY BITUMINOUS PAVING - PRIMARILY IN PARKING AREAS
- 6 HEAVY-DUTY BITUMINOUS PAVING - PRIMARILY IN DRIVE AISLES - SEE DETAIL
- 7 WHEEL STOP - SET 24" CLEAR FROM EDGE OF SPACE AT HANDICAP PARKING.
- 8 PAINTED PARKING SPACE STRIPING USING 4" WIDE WHITE STRIPES.
- 9 4" THK. STANDARD CONCRETE WALK, 6" WIDE UNLESS OTHERWISE NOTED.
- 10 DUMPSTER ENCLOSURE & PAD - SEE DETAIL
- 11 LIGHT POLE AND FIXTURE - SEE LIGHTING PLAN
- 12 HANDICAP RAMP, SEE DETAIL.
- 13 PAINTED UNIVERSAL HANDICAPPED SYMBOL AND HANDICAPPED ACCESS AISLE STRIPING.
- 14 HANDICAP PARKING SIGNAGE - SEE DETAIL TYPICAL AT HANDICAP PARKING SPACES
- 15 BICYCLE PARKING RACK - SEE DETAIL
- 16 TIE INTO EXISTING ROADWAY
- 17 BMP EASEMENT
- 18 TIE INTO EXISTING SIDEWALK
- 19 SEGMENTAL BLOCK WALL AT THE BMP
- 20 PAVERS AT OPEN AREA
- 21 FENCE
- 22 MAIL KIOSK - SEE DETAIL
- 23 ROLL TYPE GUTTER (AREA SHADED)

SITE NOTES

1. WHERE NEW CURB AND GUTTER IS INSTALLED IN A PUBLIC STREET RIGHT-OF-WAY, USE 90" CURB AND GUTTER. IN OTHER LOCATIONS, USE 24" CURB AND GUTTER.
2. ALL CURB DIMENSIONS ARE MEASURED TO BACK OF CURB, AND ALL CURB RADII ARE 3 FEET, UNLESS INDICATED OTHERWISE.
3. USE REVERSE-PITCH CURB AND GUTTER WHERE ADJACENT PAVEMENT SLOPES AWAY FROM CURB, AND STANDARD-PITCH CURB AND GUTTER ELSEWHERE, UNLESS OTHERWISE NOTED. PROVIDE POSITIVE DRAINAGE ALONG AND FROM ALL GUTTERS.
4. ALL SITE CONCRETE SHALL HAVE A MINIMUM 28-DAY COMPRESSIVE STRENGTH OF 3000 PSI UNLESS OTHERWISE INDICATED.
5. ALL BASE AND PAVING WORK SHALL COMPLY WITH LOCAL STANDARDS. INDICATED PAVEMENT THICKNESSES REFER TO COMPACTED THICKNESSES.
6. INSTALL ALL PAVEMENT WITH POSITIVE SURFACE DRAINAGE.
7. ALL HANDICAPPED PARKING SPACES, AISLES, RAMP, SIGNAGE, PAVEMENT MARKINGS, CROWSWALKS, AND ACCESSIBLE ROUTES SHALL MEET APPLICABLE REQUIREMENTS OF THE NORTH CAROLINA ACCESSIBILITY CODE.
8. ALL HANDICAP ACCESSIBLE PARKING SPACES SHALL HAVE AN RT-8 AND RT-40 SIGN. ALL SIGNS FOR VAN ACCESSIBLE SPACES SHALL ALSO INCLUDE A "VAN ACCESSIBLE" SIGN.
9. CONTRACTOR SHALL PROVIDE ADEQUATE TRAFFIC CONTROL MEASURES DURING THE COURSE OF PROJECT WORK IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) FOR STREETS AND HIGHWAYS, THE I.C. SUPPLEMENT TO THE MUTCD, ANY REGULATORY AGENCY REQUIREMENTS, AND PROJECT-SPECIFIC SAFETY CONSIDERATIONS.
10. TIE-INS TO EXISTING PAVEMENT, CURBS, WALKS, ETC. SHALL BE MADE WITH NEAT EDGES AND SMOOTH, GRADUAL TRANSITIONS THAT ARE SAFE, FUNCTIONAL, DURABLE, AND VISUALLY ACCEPTABLE TO THE OWNER AND REVIEW AUTHORITIES.
11. BUILDING SIZE, CONFIGURATION, ARCHITECTURAL ELEMENTS, UTILITY STUBS, AND OTHER BUILDING FEATURES SHOWN ON THESE DRAWINGS ARE TAKEN FROM INFORMATION PROVIDED BY OTHERS. BUILDING LINES SHOWN GENERALLY REPRESENT THE EXTERIOR FACE OF THE BUILDING, BUT SHOULD NOT BE USED FOR BUILDING STAGING OR CONSTRUCTION. REFER TO BUILDING PLANS FOR ACTUAL BUILDING DIMENSIONS, DOOR LOCATIONS, COLUMN AND FOOTING LOCATIONS, WALL THICKNESSES, OVERHANGS, ROOF LINES, AND OTHER FEATURES. CONTRACTOR SHALL COORDINATE UTILITY AND DRAINAGE LOCATIONS, ELEVATIONS, MATERIALS, AND SIZES WITH INFORMATION SHOWN ON THE BUILDING DRAWINGS, AND SHALL VERIFY THAT BUILDING ELEMENTS WILL NOT ENCRUSH INTO REQUIRED SETBACKS.

OPEN AREA SUMMARY

ACTIVE OPEN AREA 1 = 2042 SF  
 ACTIVE OPEN AREA 2 = 1172 SF  
 ACTIVE OPEN AREA 3 = 936

NOTES

1. SEE SHEET C1 FOR STANDARD NOTES.

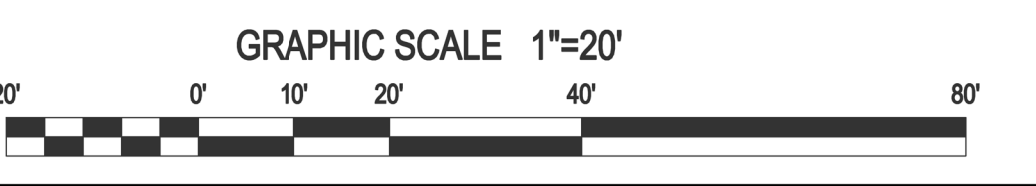
**Gettle Engineering and Design, PLLC**  
 3616 Waxwing Court,  
 Wake Forest, North Carolina 27587  
 (919) 210-3934 Firm License P-2538

NO.	DATE	BY	REVISION/DESCRIPTION
1	07-26-2023	BY	INITIAL SUBMITTAL
2		BY	COMMENT
3		BY	COMMENT
4		BY	COMMENT
5		BY	COMMENT
6		BY	COMMENT
7		BY	COMMENT
8		BY	COMMENT
9		BY	COMMENT
10		BY	COMMENT



**Site Plan**  
 South Main Street  
 503 South Main Street  
 Rolesville, Wake County, North Carolina

Project No. XXXXX  
 Dwg No. **C3**



PRELIMINARY  
 DO NOT USE FOR  
 CONSTRUCTION

PRELIMINARY  
DO NOT USE FOR  
CONSTRUCTION

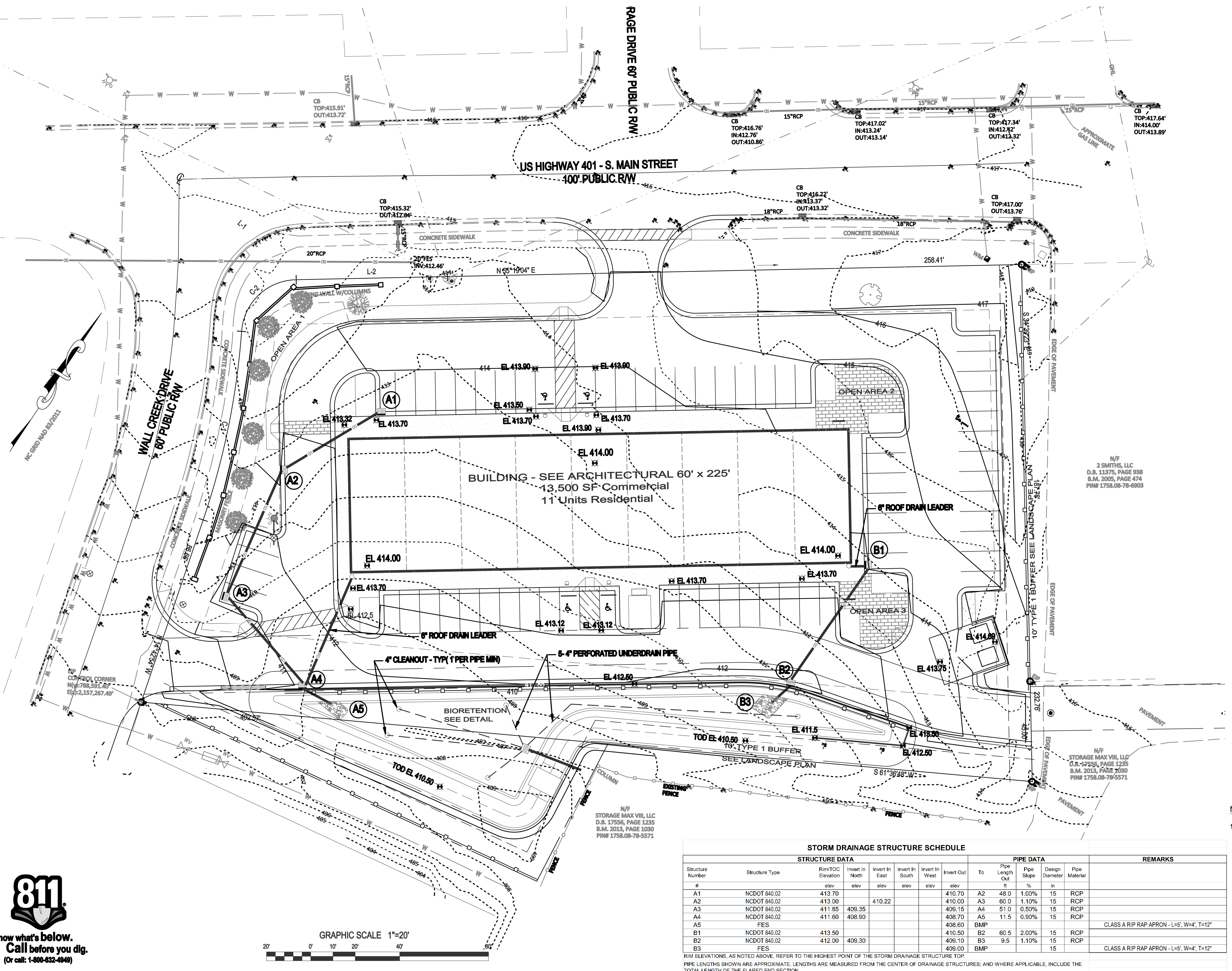
**Gettle Engineering and Design, PLLC**  
 3616 Waxwing Court,  
 Wake Forest, North Carolina 27587  
 (919) 210-3934 Firm License P-2536

NO.	DATE	INITIALS	DESCRIPTION
1	07-26-2022		INITIAL SUBMITTAL
2			COMMENT
3			COMMENT
4			COMMENT
5			COMMENT
6			COMMENT
7			COMMENT
8			COMMENT
9			COMMENT
10			COMMENT



**Grading \ Storm Drainage**  
 South Main  
 503 South Main Street  
 Rolesville, Wake County, North Carolina

Project No. XXXXX  
 Dwg No. **C4**



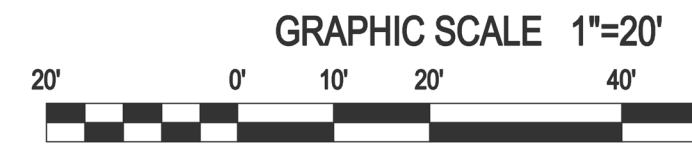
N/F  
 2 SMITHS, LLC  
 D.B. 11375, PAGE 938  
 B.M. 2005, PAGE 474  
 PIN# 1758.08-78-6903

N/F  
 STORAGE MAX VIII, LLC  
 D.B. 17556, PAGE 1235  
 B.M. 2013, PAGE 1030  
 PIN# 1758.08-78-5571

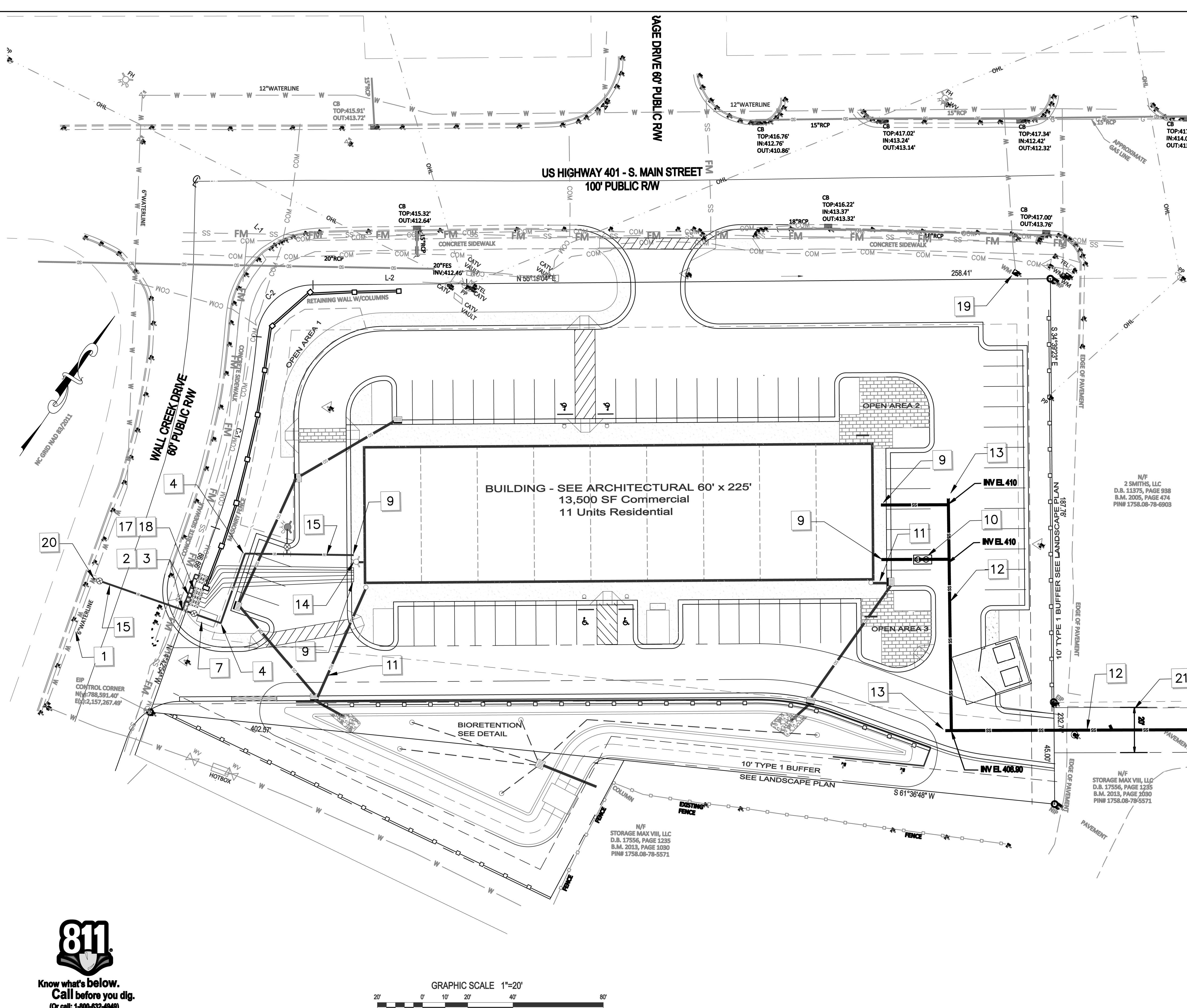
NOTES  
 1. SEE SHEET C1 FOR STANDARD NOTES.

STORM DRAINAGE STRUCTURE SCHEDULE												
Structure Number	Structure Type	STRUCTURE DATA					PIPE DATA					REMARKS
		Rim/Top Elevation	Invert In North	Invert In East	Invert In South	Invert In West	To	Pipe Length	Pipe Slope	Design Diameter	Pipe Material	
A1	NCDOT 840.02	413.70					A2	48.0	1.00%	15	RCP	
A2	NCDOT 840.02	413.00		410.22			A3	60.0	1.10%	15	RCP	
A3	NCDOT 840.02	411.85	409.35				A4	51.0	0.50%	15	RCP	
A4	NCDOT 840.02	411.60	408.50				A5	11.5	0.90%	15	RCP	
A5	FES											CLASS A RIP RAP APRON - L=5', W=4', T=12"
B1	NCDOT 840.02	413.50					B2	60.5	2.00%	15	RCP	
B2	NCDOT 840.02	412.00	409.30				B3	9.5	1.10%	15	RCP	
B3	FES											CLASS A RIP RAP APRON - L=5', W=4', T=12"

RIM ELEVATIONS, AS NOTED ABOVE, REFER TO THE HIGHEST POINT OF THE STORM DRAINAGE STRUCTURE TOP.  
 PIPE LENGTHS SHOWN ARE APPROXIMATE. LENGTHS ARE MEASURED FROM THE CENTER OF DRAINAGE STRUCTURES; AND WHERE APPLICABLE, INCLUDE THE TOTAL LENGTH OF THE FLARED END SECTION.



**811**  
 Know what's below.  
 Call before you dig.  
 (Or call: 1-800-632-4049)



- KEY**
- EXISTING WATER LINE LOCATION SHOWN IS APPROXIMATE. COORDINATE WITH CITY OF RALEIGH PUBLIC UTILITIES DEPARTMENT PRIOR TO STARTING WATERLINE CONSTRUCTION. CONFORM TO ALL WATER AUTHORITY STANDARDS AND REQUIREMENTS, AND TO ALL RIGHT-OF-WAY ENCROACHMENT CONDITIONS. VERIFY EXISTING PIPE SIZE AND MATERIAL, AND NOTIFY THE PROJECT ENGINEER OF ANY DISCREPANCIES.
  - CORPORATION STOP.
  - COPPER SERVICE LINE.
  - 90 DEGREE, OR 45 DEGREE, OR 22.5 DEGREE 90° BEND AND RESTRAINT.
  - UNDERGROUND ELECTRIC SERVICE LINE AND PAD-MOUNTED TRANSFORMER (SHOWN SCHEMATICALLY). CONTRACTOR SHALL HAVE APPLICATION FOR ELECTRIC SERVICE, COORDINATE INSTALLATION, AND PROVIDE ALL MATERIALS AND WORK NOT PROVIDED BY THE ELECTRIC COMPANY. VERIFY ROUTE AND LOCATIONS WITH ARCHITECT AND SERVICE PROVIDER.
  - ELECTRIC METER LOCATION ON BUILDING (SHOWN SCHEMATICALLY). VERIFY EXACT LOCATION WITH ARCHITECT AND SERVICE PROVIDER.
  - BACKFLOW PREVENTER DEVICE (BFD) LOCATED IN AN "ABOVE GROUND" HEATED ENCLOSURE.
  - INSTALL SITE LIGHTING CIRCUIT IN BUILDING ELECTRICAL PANEL AND ROUTE TO SITE LIGHTING FIXTURES. PROVIDE AND INSTALL CONDUIT AS NEEDED. VERIFY DETAILS WITH OWNER AND ARCHITECT, AND SERVICE PROVIDER. EXTEND SITE UTILITIES TO A POINT WITHIN 6 FEET OF THE BUILDING WALLS. BUILDING PLUMBER SHALL MAKE ALL UTILITY CONNECTIONS.
  - OIL/WATER SEPARATOR OF TRAFFIC RATED ACCESS LIDS.
  - DOWNSPOUT PIPE HEADER. TIE INTO STORM DRAIN STRUCTURE. FIELD VERIFY LOCATION / ELEVATION.
  - 4" PVC, 80%-90, PRIVATE SANITARY SEWER MAIN WITH CLEANOUTS AT ALL BENDS AND A MAX SPACING OF 75 FEET-MIN 2% SLOPE.
  - SANITARY SEWER CLEANOUT (SEE DETAIL AND NOTES). USE TRAFFIC BEARING CLEANOUT IN PAVEMENT AREAS.
  - FIRE DEPARTMENT CONNECTION TYPE SHALL BE 6 INCH STOVE, WITH M FITTINGS AS NEEDED.
  - DUCTILE IRON PIPE WATER LINE, 3/4" BELOW FINISH GRADE.
  - FIRE HYDRANT ASSEMBLY WITH 4" VALVE AND BOX. SEE COR DETAIL W4.
  - 1" GWS METER ASSEMBLY - SEE COR DETAIL W28.
  - 1" RP BACKFLOW ASSEMBLY BY WATTS OR APPROVED EQUAL.
  - EXISTING WATER METER TO BE REMOVED / ABANDONED.
  - 6" TAPPING SLEEVE AND 4" GATE VALVE.
  - 2" PRIVATE SANITARY SEWER ASSEMBLY.

**KEYED NOTES UTILITY PLAN**

**Gettle Engineering and Design, PLLC**  
 3616 Waxwing Court,  
 Wake Forest, North Carolina 27587  
 Firm License P-2538  
 (919) 210-3934

NO.	DATE	BY	REVISION/DESCRIPTION
1	07-28-2022	INITIAL SUBMITTAL	
2		DATE	COMMENT
3		DATE	COMMENT
4		DATE	COMMENT
5		DATE	COMMENT
6		DATE	COMMENT
7		DATE	COMMENT

**NOTES**

- SEE SHEET C1 FOR STANDARD AND UTILITY NOTES.

MATCH LINE SEE SHEET C6

**SITE PERMITTING APPROVAL**

Water and Sewer Permits (if applicable)

The City of Raleigh consents to the connection and extension of the City's Public Sewer System as shown on this plan. The material and construction methods used for this project shall conform to the standards and specifications of the City's Public Utilities Handbook, City of Raleigh Public Utilities Department Permit # \_\_\_\_\_

The City of Raleigh consents to the connection and extension of the City's Public Water System as shown on this plan. The material and construction methods used for this project shall conform to the standards and specifications of the City's Public Utilities Handbook, City of Raleigh Public Utilities Department Permit # \_\_\_\_\_

The City of Raleigh consents to the connection to its public sewer system and extension of the private sewer collection system as shown on this plan. The material and construction methods used for this project shall conform to the standards and specifications of the City's Public Utilities Handbook.

City of Raleigh Public Utilities Department Permit # \_\_\_\_\_

**CITY OF RALEIGH - PLANS AUTHORIZED FOR CONSTRUCTION**

Plans for the proposed use have been reviewed for general compliance with applicable codes. This limited review, and authorization for construction is not to be considered to represent total compliance with all legal requirements for development and construction. The property owner, design consultants, and contractors are each responsible for compliance with all applicable City, State and Federal laws. This specific authorization does not constitute a permit, nor shall it be construed to permit any violation of City, State or Federal Law. All construction must be in accordance with all local, state, and Federal laws and regulations.

Electronic Approval: This approval is being issued electronically. This approval is valid only upon the signature of a City of Raleigh Review Officer below. The City will retain a copy of the approved plans. Any work authorized by this approval must proceed in accordance with the plans kept on file with the City. This electronic approval may not be used to obtain any modification to this approval once issued and shall constitute this approval.

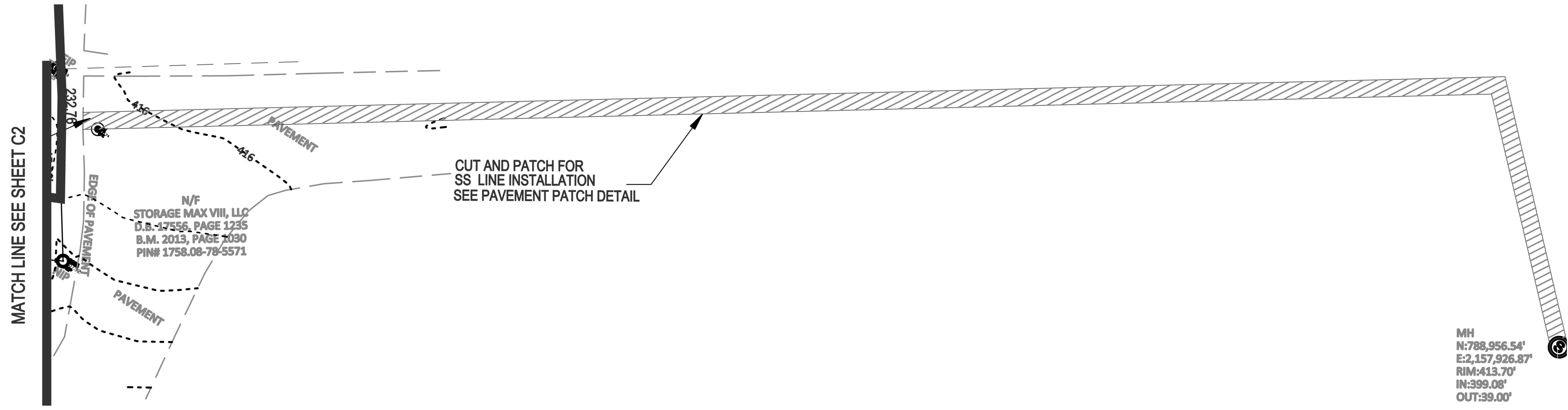
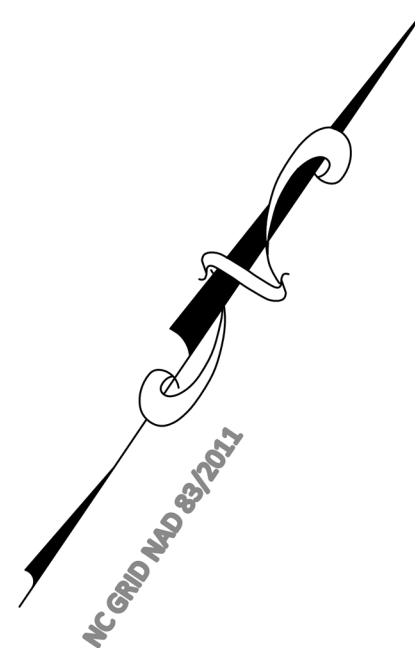
City of Raleigh Development Approval: \_\_\_\_\_  
 City of Raleigh Review Officer: \_\_\_\_\_



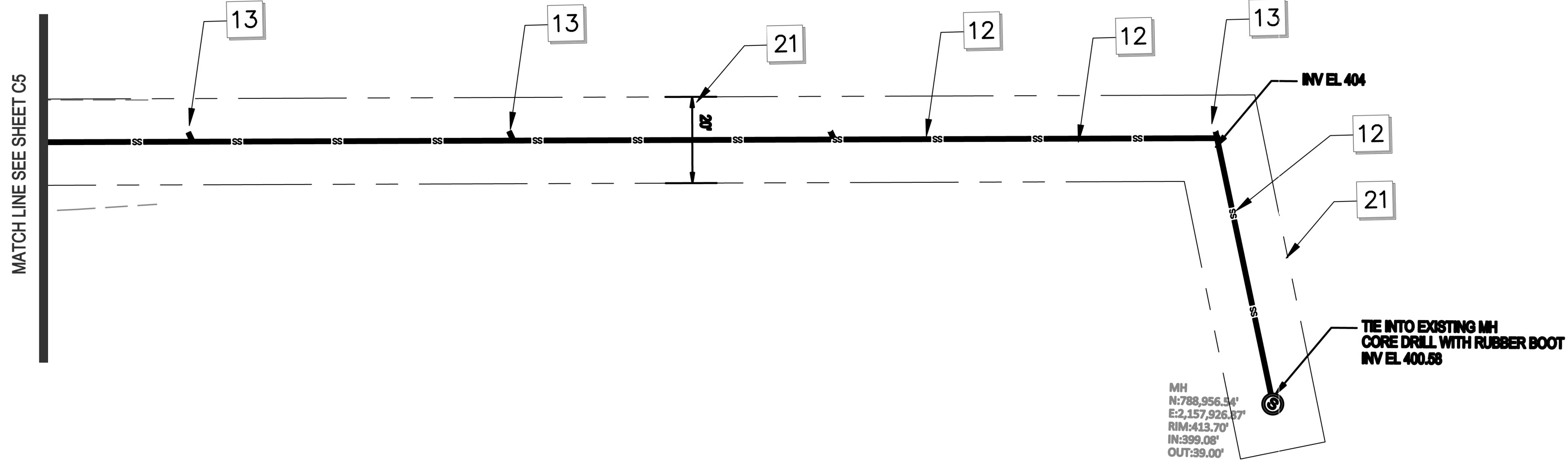
**Utility Plan**  
**South Main Street**  
 503 South Main Street  
 Rolesville, Wake County, North Carolina

Project No. XXXXX  
 Dwg No. **C5**

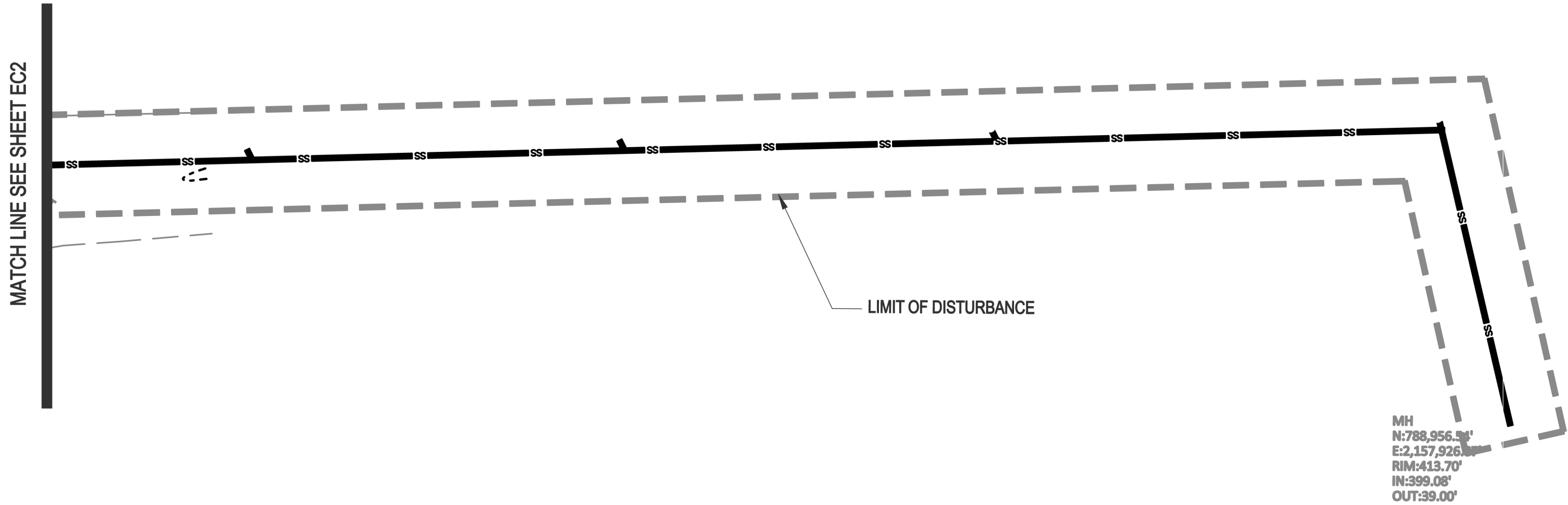
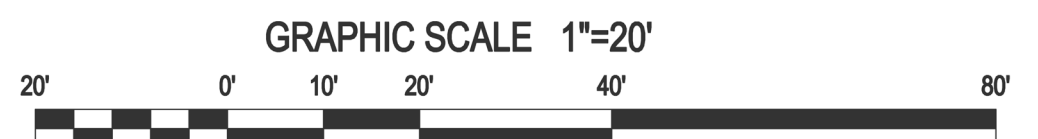




**SS Extension - Existing Conditions**



**SS Extension - Utility Plan**



**SS Extension - Erosion Control**



- KEY**
- KEYED NOTES UTILITY PLAN**
- 1 IF EXISTING WATER LINE LOCATION SHOWN IS APPROXIMATE, COORDINATE WITH CITY OF RALEIGH PUBLIC UTILITIES DEPARTMENT PRIOR TO STARTING WATERLINE CONSTRUCTION. CONFORM TO ALL WATER AUTHORITY STANDARDS AND REQUIREMENTS, AND TO ALL RIGHT-OF-WAY ENCROACHMENT CONDITIONS. VERIFY EXISTING PIPE SIZE AND MATERIAL, AND NOTIFY THE PROJECT ENGINEER OF ANY DISCREPANCIES.
  - 2 CORPORATION STOP.
  - 3 2" COPPER SERVICE LINE
  - 4 90 DEGREE, OR 45 DEGREE, OR 22.5 DEGREE (W/ 90°) AND RESTRAINT.
  - 5 UNDERGROUND ELECTRIC SERVICE LINE AND PAD-MOUNTED TRANSFORMER (SHOWN SCHEMATICALLY), CONTRACTOR SHALL MAKE APPLICATION FOR ELECTRIC SERVICE, COORDINATE INSTALLATION, AND PROVIDE ALL MATERIALS AND WORK NOT PROVIDED BY THE ELECTRIC COMPANY. VERIFY ROUTE AND LOCATIONS WITH ARCHITECT AND SERVICE PROVIDER.
  - 6 ELECTRIC METER LOCATION ON BUILDING (SHOWN SCHEMATICALLY), VERIFY EXACT LOCATION WITH ARCHITECT AND SERVICE PROVIDER.
  - 7 6" BACKFLOW PREVENTER DEVICE (BFD) LOCATED IN AN "ABOVE GROUND" HEATED ENCLOSURE.
  - 8 INSTALL SITE LIGHTING CIRCUIT IN BUILDING ELECTRICAL PANEL AND ROUTE TO SITE LIGHTING FIXTURES. PROVIDE AND INSTALL CONDUIT AS NEEDED. VERIFY DETAILS WITH OWNER AND ARCHITECT, AND SERVICE PROVIDER.
  - 9 EXTEND SITE UTILITIES TO A POINT WITHIN 6 FEET OF THE BUILDING WALLS, BUILDING PLUMBER SHALL MAKE ALL UTILITY CONNECTIONS.
  - 10 OIL/WATER SEPARATOR w/ TRAFFIC RATED ACCESS LIDS
  - 11 DOWNSPOUT PIPE HEADER. TIE INTO STORM DRAIN STRUCTURE. FIELD VERIFY LOCATION / ELEVATION.
  - 12 4" PVC, 80R-SS, PRIVATE SANITARY SEWER MAIN WITH CLEANOUTS AT ALL BENDS AND A MAX SPACING OF 75 FEET-MIN 2% SLOPE.
  - 13 SANITARY SEWER CLEANOUT (SEE DETAIL AND NOTES). USE TRAFFIC BEARING CLEANOUT IN PAVEMENT AREAS.
  - 14 PIPE DEPARTMENT CONNECTION TYPE SHALL BE 8 INCH STONZ, WITH MJ FITTINGS AS NEEDED.
  - 15 4" DUCTILE IRON PIPE WATER LINE, 6" BELOW FINISH GRADE
  - 16 FIRE HYDRANT ASSEMBLY WITH 4" VALVE AND BOX. SEE OUR DETAIL WM.
  - 17 4" GAND METER ASSEMBLY - SEE OUR DETAIL W28
  - 18 4" RP BACKFLOW ASSEMBLY BY WATTS OR APPROVED EQUAL
  - 19 EXISTING WATER METER TO BE REMOVED / ABANDONED
  - 20 6" TAPPING SLEEVE AND 4" GATE VALVE
  - 21 20" PRIVATE SANITARY SEWER BASEMENT

- NOTES**
1. SEE SHEET C1 FOR SITE AND UTILITY NOTES.

**SITE PERMITTING APPROVAL**

*Water and Sewer Permits (if applicable)*

The City of Raleigh consents to the connection and extension of the City's Public Sewer System as shown on this plan. The material and construction methods used for this project shall conform to the standards and specifications of the City's Public Utilities Handbook, City of Raleigh Public Utilities Department Permit # \_\_\_\_\_

The City of Raleigh consents to the connection and extension of the City's Public Water System as shown on this plan. The material and construction methods used for this project shall conform to the standards and specifications of the City's Public Utilities Handbook, City of Raleigh Public Utilities Department Permit # \_\_\_\_\_

The City of Raleigh consents to the connection to its public sewer system and extension of the private sewer collection system as shown on this plan. The material and construction methods used for this project shall conform to the standards and specifications of the City's Public Utilities Handbook.

City of Raleigh Public Utilities Department Permit # \_\_\_\_\_

**CITY OF RALEIGH - PLANS AUTHORIZED FOR CONSTRUCTION**

Plans for the proposed use have been reviewed for general compliance with applicable codes. This limited review, and authorization for construction is not to be considered to represent total compliance with all legal requirements for development and construction. The property owner, design consultants, and contractors are each responsible for compliance with all applicable City, State and Federal laws. This specific authorization does not constitute, nor shall it be construed to permit any violation of City, State or Federal Law. All construction must be in accordance with all local, state, and Federal laws and regulations.

(Electronic Approval) This approval is being issued electronically. This approval is valid upon the signature of a City of Raleigh Review Officer below. The City will retain a copy of the approved plans. Any work authorized by this approval must proceed in accordance with the plans kept on file with the City. This electronic approval may not be used as evidence. Any modification to this approval must be reviewed and approved by the City.

City of Raleigh Development Approval \_\_\_\_\_  
City of Raleigh Review Officer \_\_\_\_\_

**Gettle Engineering and Design, PLLC**  
 3616 Waxwing Court,  
 Wake Forest, North Carolina 27587  
 (919) 210-3334 Firm License P-2538

NO.	DATE	INITIALS	BY	REVISION DESCRIPTION
1	07-28-2022			INITIAL SUBMITTAL
2				COMMENT
3				COMMENT
4				COMMENT
5				COMMENT
6				COMMENT
7				COMMENT
8				COMMENT
9				COMMENT
10				COMMENT
11				COMMENT
12				COMMENT
13				COMMENT
14				COMMENT
15				COMMENT
16				COMMENT
17				COMMENT
18				COMMENT
19				COMMENT
20				COMMENT
21				COMMENT



**Utility Plan - SS Extension**  
 South Main  
 503 South Main Street  
 Rolesville, Wake County, North Carolina

Project No. XXXXX  
 Dwg No. **C6**



PRELIMINARY  
DO NOT USE FOR  
CONSTRUCTION



PRELIMINARY  
DO NOT USE FOR  
CONSTRUCTION

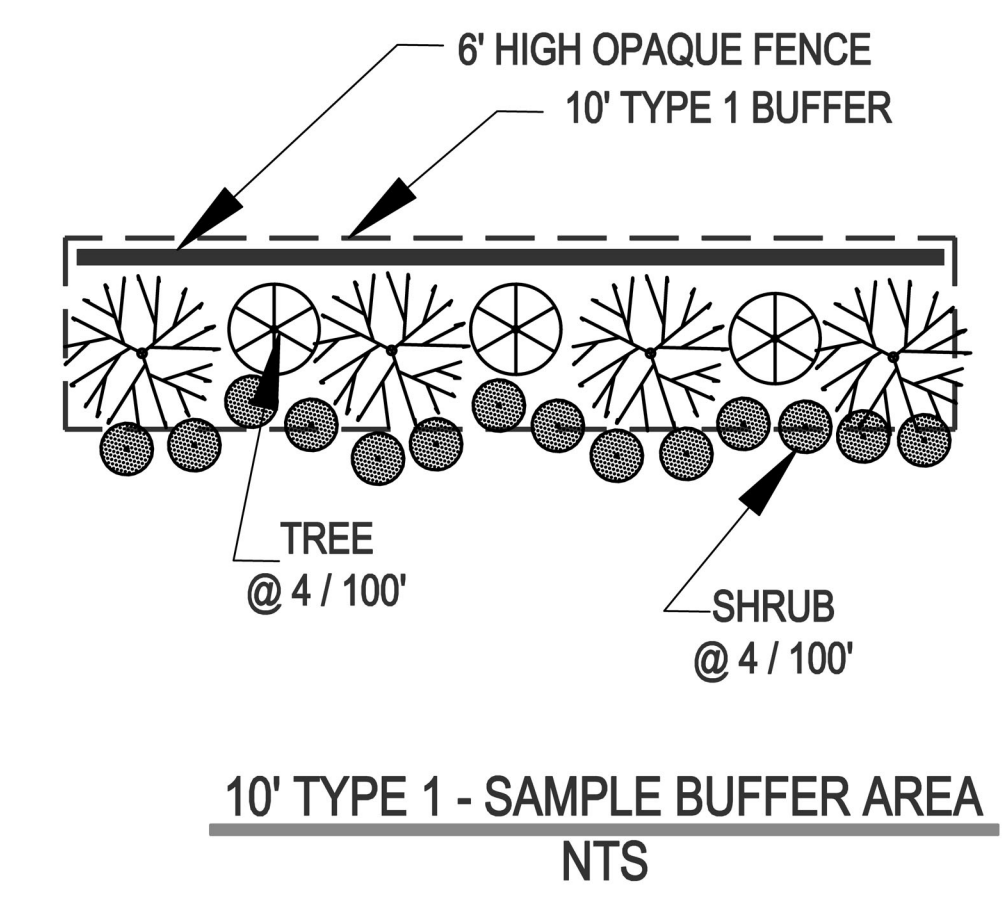
**Gettle Engineering and Design, PLLC**  
3616 Waxwing Court,  
Wake Forest, North Carolina 27587  
(919) 210-3334 Firm License P-2538

- GENERAL PLANTING NOTES**
1. ALL LAWN AREAS TO BE SEEDED WITH "REBEL IV", CONFEDERATE PLUS, OR FESCO TALL TURF TYPE FESCUE.
  2. ALL MULCH TO BE DOUBLE SHREDDED HARDWOOD. NO PINE STRAW MULCH ADJACENT TO STRUCTURES.
  3. PLANT MATERIAL ON THIS SITE MUST BE INSTALLED IN CONFORMANCE WITH THE GENERAL PLANTING NOTES AND DETAILS ON THIS PLAN OR TO THE STANDARDS OF THE TOWN OF ROLESVILLE'S CODE OF ORDINANCES.
  4. ALL PLANTS SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE AMERICAN ASSOCIATION OF NURSERYMEN.
  5. OWNERS SHALL MAINTAIN ALL PLANT BEDS AND PLANT MATERIAL IN GOOD HEALTH, AND ANY DEAD, UNHEALTHY, OR MISSING PLANTS SHALL BE REPLACED WITH LOCALLY ADAPTED VEGETATION WHICH CONFORMS TO THE INITIAL PLANTING STANDARDS OF THE LANDSCAPING ORDINANCE.
  6. THE LANDSCAPE CONTRACTOR IS RESPONSIBLE FOR LOCATING ANY UNDERGROUND UTILITIES PRIOR TO BEGINNING WORK.
  7. THE LANDSCAPE CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE TO UNDERGROUND UTILITIES, SITE FEATURES, OR STRUCTURES.
  8. THE LANDSCAPE CONTRACTOR IS RESPONSIBLE FOR ALL REQUIRED PERMITS AND LICENSES TO PERFORM THE REQUIRED WORK.
  9. ALL PLANT BEDS SHALL BE TREATED WITH PRE-EMERGENT WEED CONTROL (I.E. TRIFLORALIN).
  10. ALL PLANTS SHALL BE VIGOROUS, HEALTHY MATERIAL FREE FROM PESTS AND DISEASE.

**SCOPE OF WORK**  
FURNISH ALL LABOR, MATERIALS, AND EQUIPMENT REQUIRED OR INDICATED BY THE DRAWINGS AND SPECIFICATIONS TO COMPLETE THE WORK INCLUDING INSTALLATION OF ALL TREES, SHRUBS, GROUNDCOVER, ANNUALS, SEED, SOD AND MULCH.

**MATERIALS AND WORK**  
THE SELECTION OF ALL MATERIALS AND THE EXECUTION OF ALL WORK REQUIRED UNDER THE CONTRACT SHALL BE SUBJECT TO APPROVAL BY THE OWNER. THE OWNER SHALL HAVE THE RIGHT TO REJECT AND SUBSTITUTE ALL MATERIALS AND ANY AND ALL WORK, WHICH IN HIS OPINION, DOES NOT MEET THE REQUIREMENTS OF THE CONTRACT.

**RETAINING EXISTING VEGETATION**  
ALL EXISTING HEALTHY VEGETATION (NON INVASIVE TREES, SHRUBS, ETC) THAT EXISTS OUTSIDE THE PROPOSED DISTURBED AREAS OF THIS DEVELOPMENT IS TO BE RETAINED TO THE MOST PRACTICAL EXTENT POSSIBLE.



- NOTES**
1. SEE SHEET C1 FOR SITE STANDARD NOTES.
  2. SEE SHEET D2 FOR LANDSCAPE DETAILS

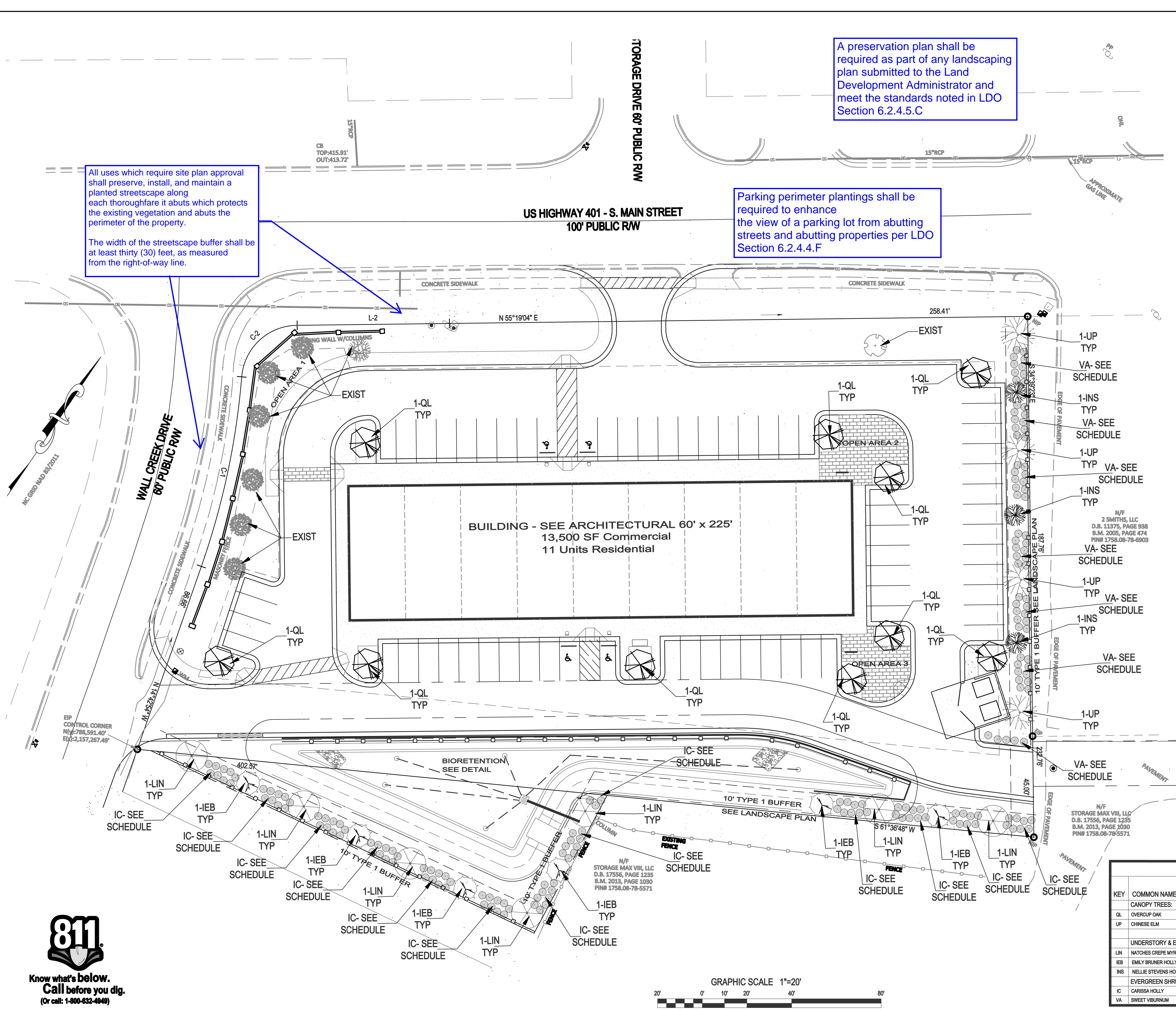
PLANT LIST								
KEY	COMMON NAME	BOTANICAL NAME	CAL	HGT	SPD	ROOT	REMARKS	QUAN
<b>CANOPY TREES:</b>								
OL	OVERCROP OAK	Quercus lyrata	2 1/2"	14'	7'	B&B		10
UP	CHINESE ELM	Ulmus Parvifolia	2 1/2"	14'	7'	B&B		4
<b>UNDERSTORY &amp; EVERGREEN TREES:</b>								
LIN	NATCHES CREPE MYRTLE	Lag. indica 'Natchez'	-	8'	4'	B&B		2
IEB	EMILY BRUNER HOLLY	Ilex x 'Emily Bruner'	-	8'	4'	B&B		2
INS	NELLIE STEVENS HOLLY	Ilex x NR STEVENS	-	2'	B&B			3
<b>EVERGREEN SHRUBS:</b>								
IC	CARISSA HOLLY	Ilex Cornuta 'Carissa'	-	24"	10"	cont.	9' O/C 10' TYPE 1 BUFFER SOUTH	142
VA	SWEET VIBURNUM	Viburnum Awabuki 'Chindo'	-	4'	2'	cont.	FULL 10' O/C 10' TYPE 1 BUFFER EAST	78

Within the plant list, note which planting requirement the tree is fulfilling.

A preservation plan shall be required as part of any landscaping plan submitted to the Land Development Administrator and meet the standards noted in LDO Section 6.2.4.5.C

Parking perimeter plantings shall be required to enhance the view of a parking lot from abutting streets and abutting properties per LDO Section 6.2.4.4.F

All uses which require site plan approval shall preserve, install, and maintain a planted streetscape along each thoroughfare it abuts which protects the existing vegetation and abuts the perimeter of the property.  
The width of the streetscape buffer shall be at least thirty (30) feet, as measured from the right-of-way line.

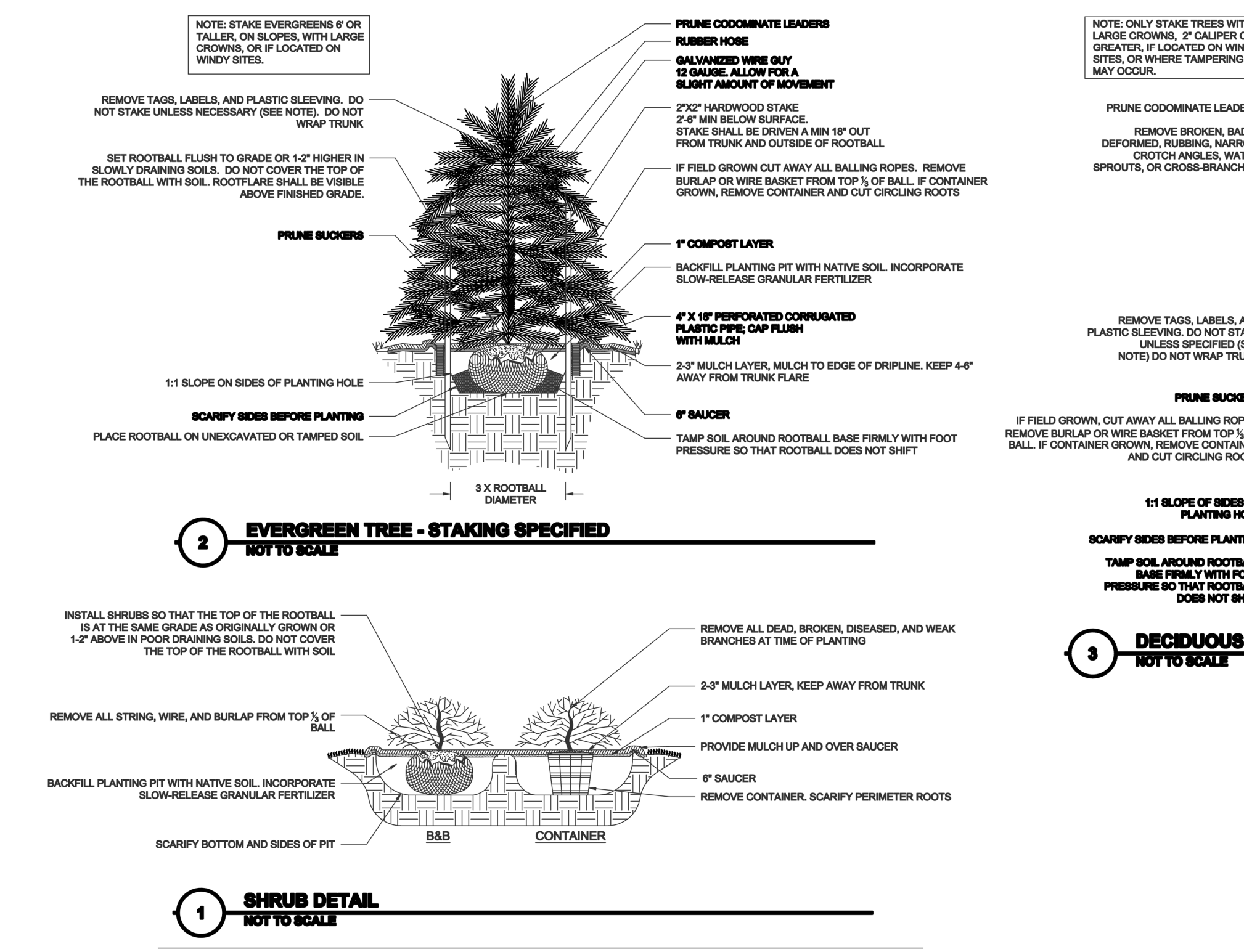
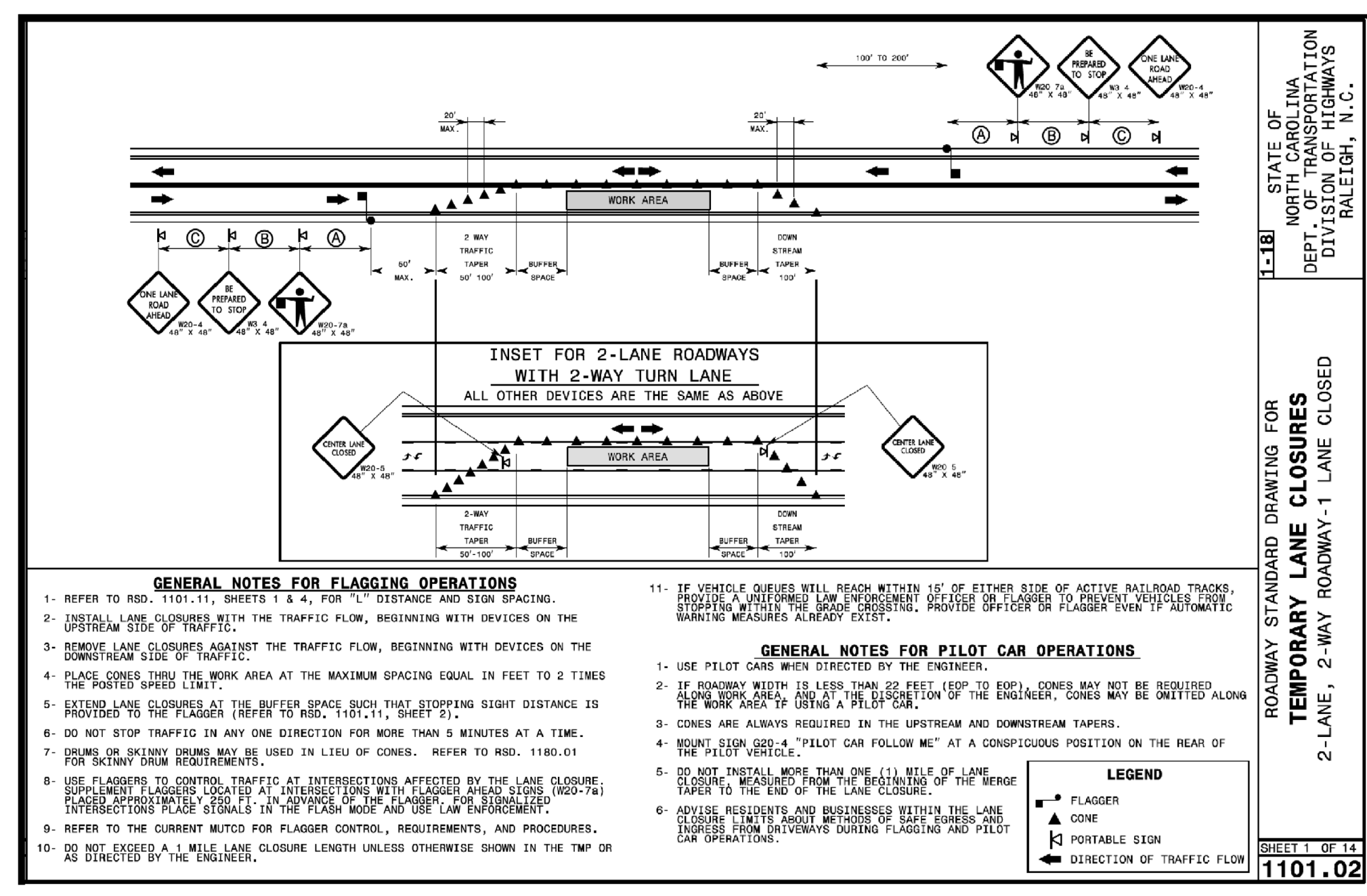
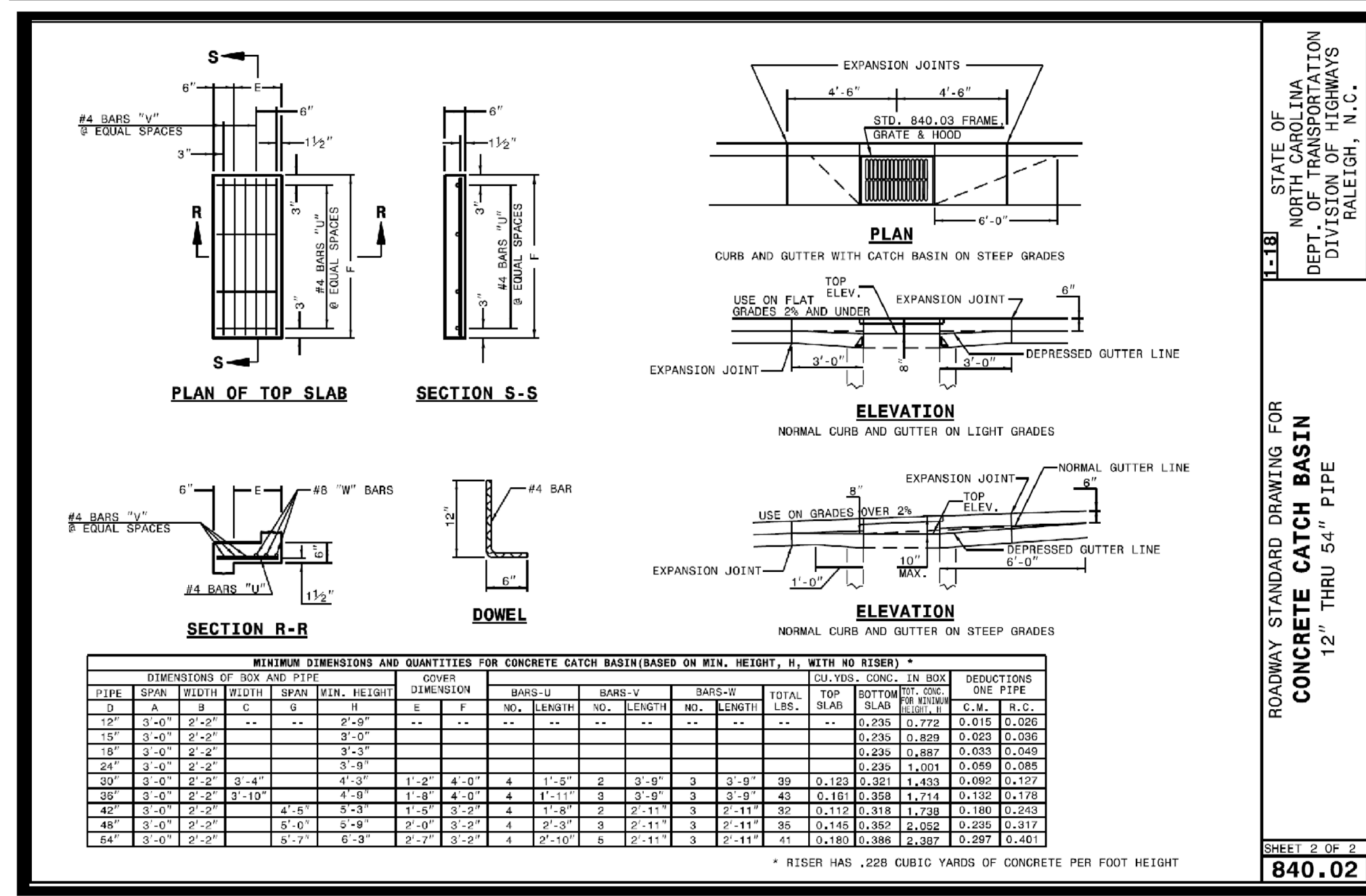
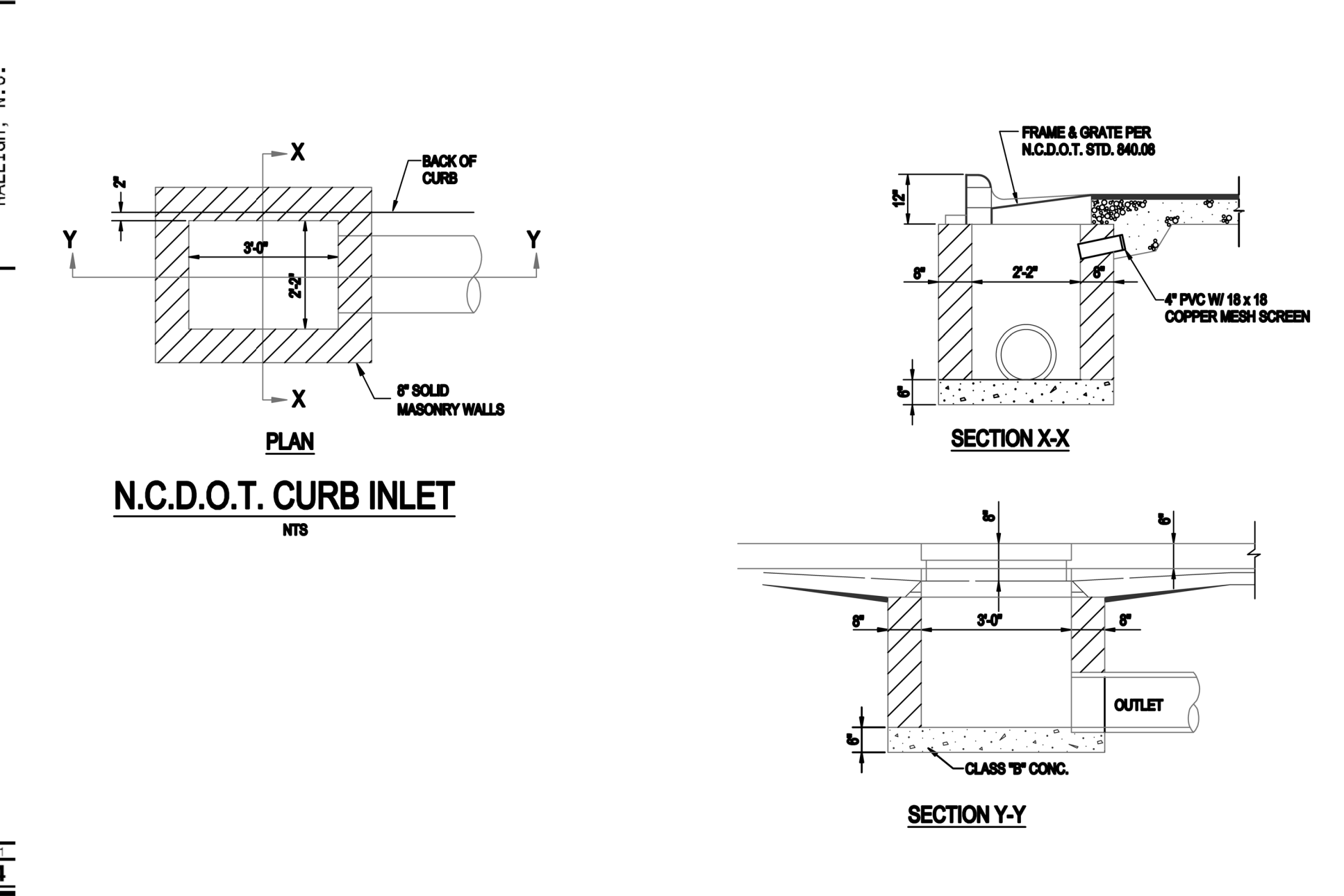
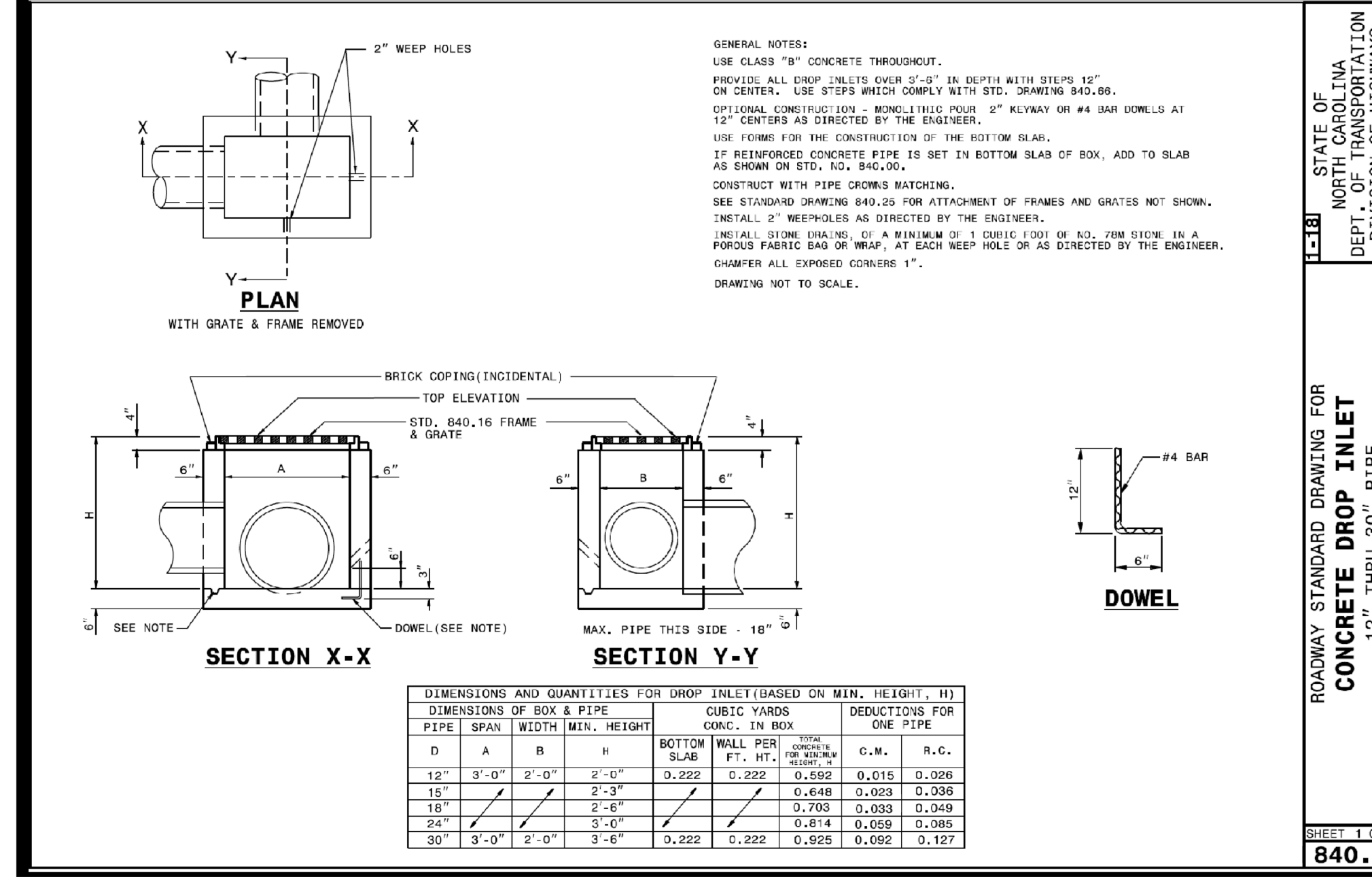
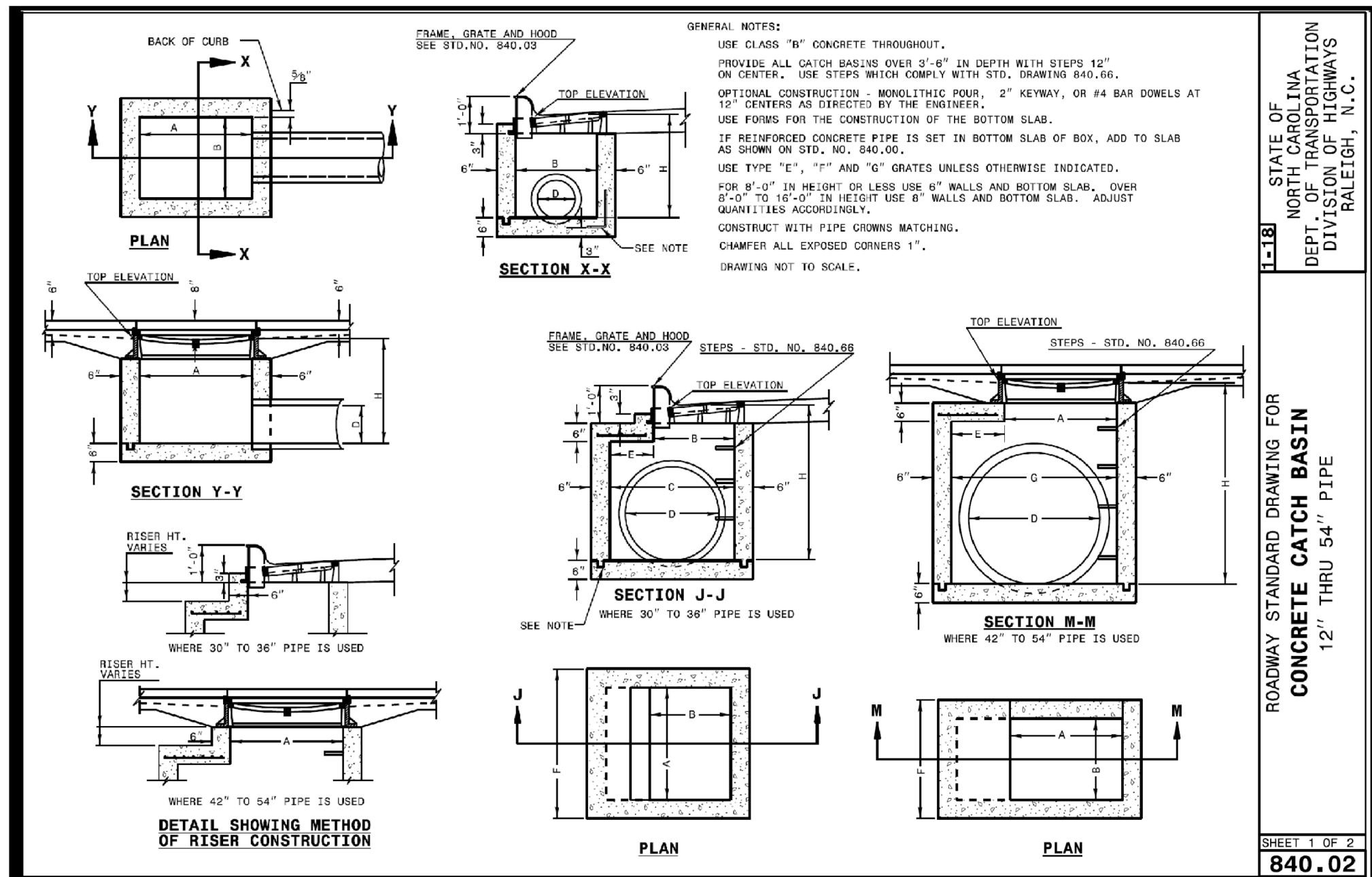


**Landscape Plan**  
South Main  
503 South Main Street  
Rolesville, Wake County, North Carolina

Project No. XXXXX  
Dwg No. **C7**







**Gettle Engineering and Design, PLLC**  
 3616 Waxwing Court,  
 Wake Forest, North Carolina 27587  
 (919) 210-3934 Firm License P-2538

**PRELIMINARY  
DO NOT USE FOR  
CONSTRUCTION**

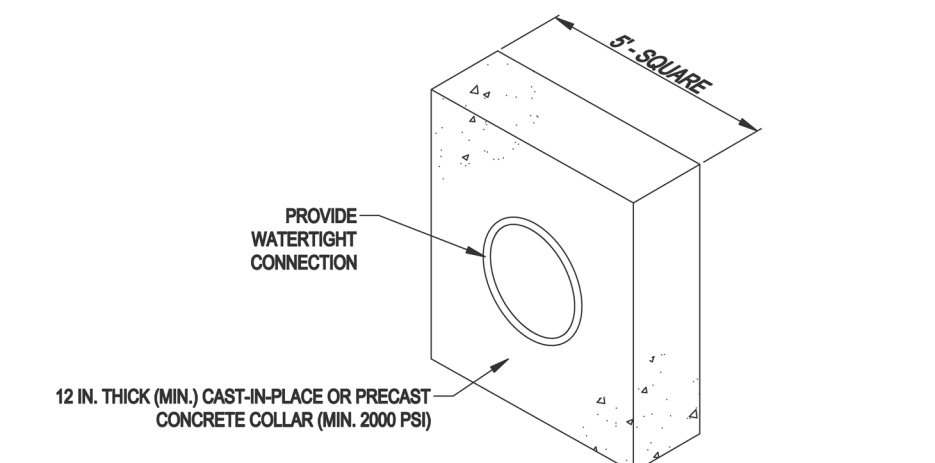
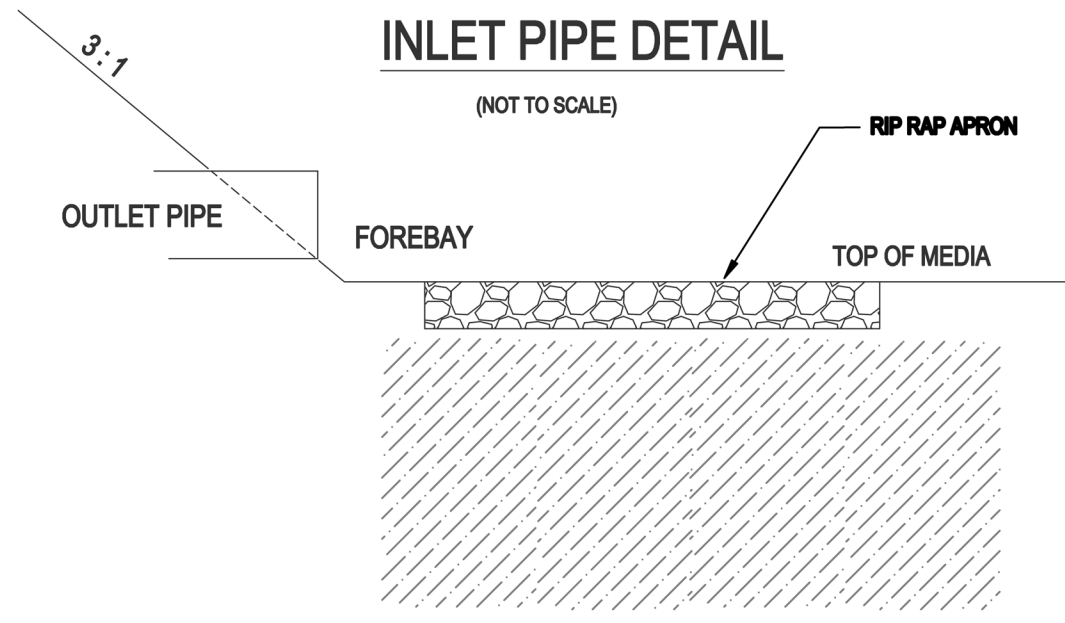
NO.	DATE	REVISION/DESCRIPTION	BY	CHK.
1	07/26/2022	INITIAL SUBMITTAL	BY	BY
2	DATE	COMMENT	BY	BY
3	DATE	COMMENT	BY	BY
4	DATE	COMMENT	BY	BY
5	DATE	COMMENT	BY	BY
6	DATE	COMMENT	BY	BY
7	DATE	COMMENT	BY	BY
8	DATE	COMMENT	BY	BY

**Site and Stormwater Details**  
**South Main**  
 503 South Main Street  
 Rolesville, Wake County, North Carolina

**NOTES**

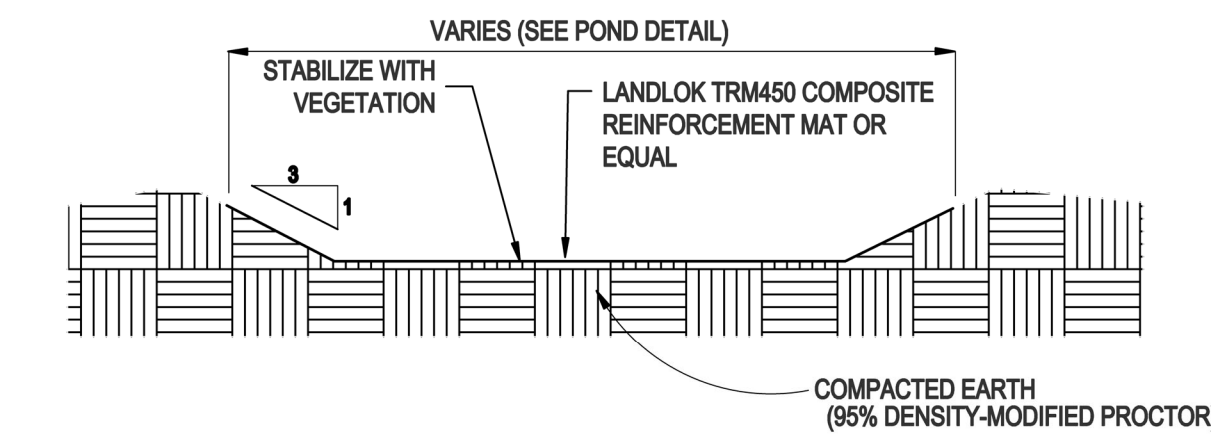
- SEE SHEET C1 FOR STANDARD NOTES.
- SEE SHEET C4 FOR STORM DRAIN SCHEDULE.
- SEE SHEET C7 FOR LANDSCAPE PLAN.

**Project No. XXXXX**  
**Dwg No. D2**



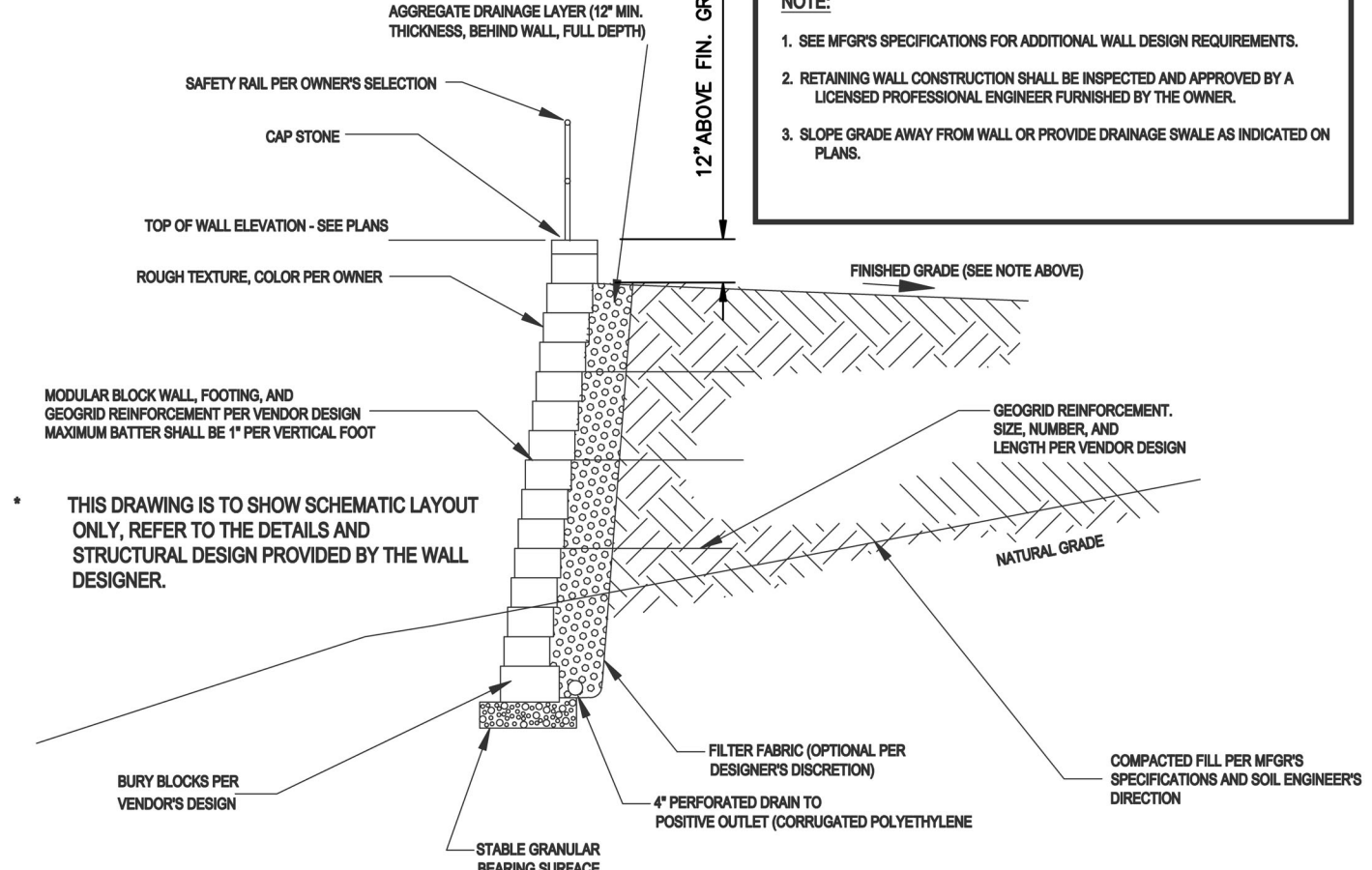
NOTES:  
 1. ALL COLLARS SHALL BE INSTALLED SO AS TO BE WATERTIGHT.  
 2. COLLAR SIZE AND SPACING SHALL BE AS INDICATED.

CONCRETE ANTI-SEEP COLLAR DETAIL (NOT TO SCALE)

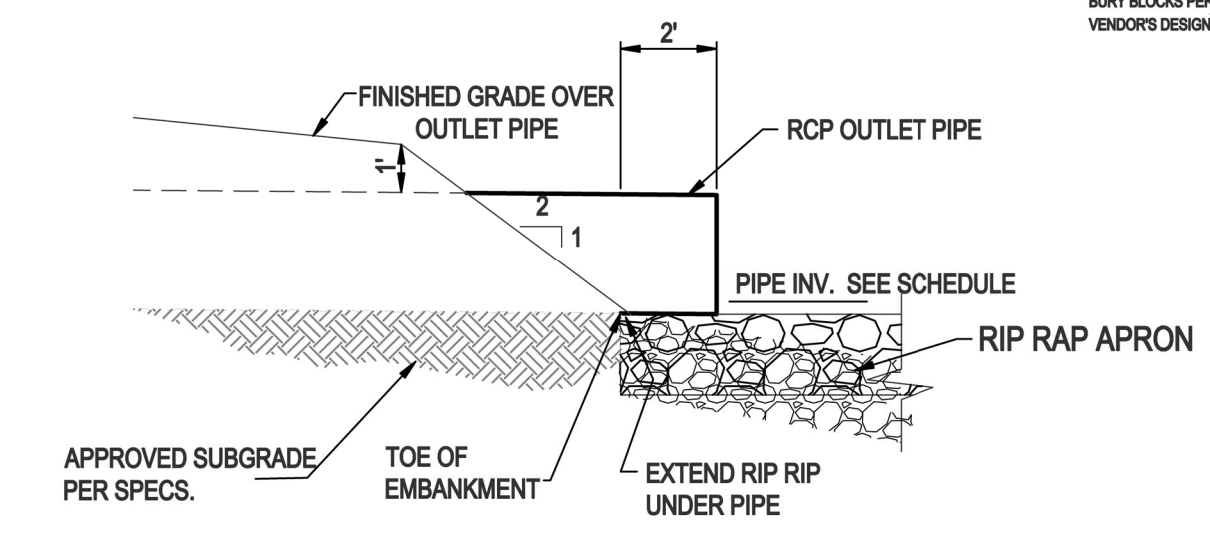


EMERGENCY SPILLWAY CROSS SECTION (NOT TO SCALE)

RETAINING OR MECHANICALLY STABILIZED EARTH WALLS EXCEEDING 6 FEET IN HEIGHT ON A SITE REQUIRE PERMITS AND SPECIAL INSPECTIONS BY THE ENGINEER OF RECORD, AND THE OWNER SHALL RESERVE FUNDS FOR SAME IN THE PROJECT BUDGET OR ENGAGE AN INDEPENDENT FIRM AT THEIR EXPENSE.



MODULAR BLOCK RETAINING WALL - SCHEMATIC (NTS)

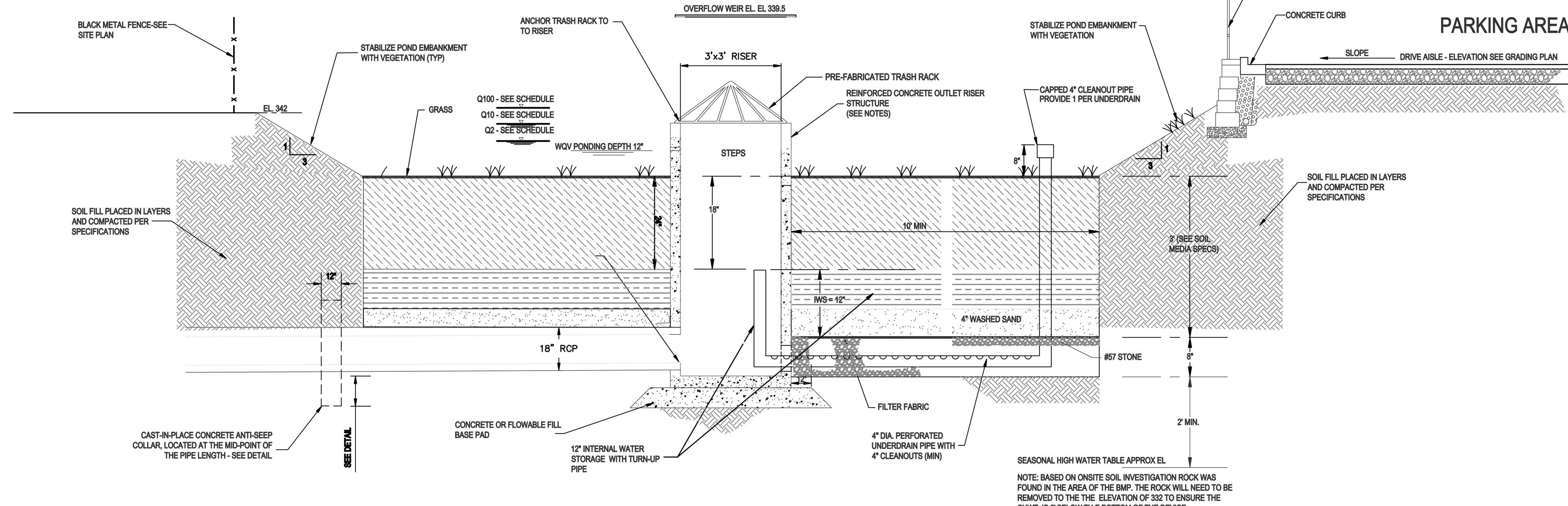


OUTLET PIPE DETAIL (NOT TO SCALE)

BMP Schedule

BMP (Elevations)	Bio
Top of Dam	410.50
Spillway	410.30
Top of Riser	410.00
Bottom Riser (invert)	407.20
Drawdown Orifice	n/a
Orifice Invert	n/a
Perm Pool or Media Surface	409.00
Forebay Bottom	n/a
Main Pond Bottom	n/a
Discharge Pipe (Dia)	18"
8" Drain Pipe	n/a
Discharge Pipe Length (feet)	25.00
FES Invert Out	407.00
Q2 Elevation	409.48
Q10 Elevation	409.61
Q100 Elevation	409.82

NOTES  
 1. SEE SHEET C1 FOR STANDARD NOTES.



BIORETENTION SECTION (NTS)

BIORETENTION FACILITY OPERATION AND MAINTENANCE:

- \* WATERING: WATERING SHOULD NOT BE REQUIRED AFTER GRASS IS ESTABLISHED. HOWEVER, WATERING MAY BE REQUIRED DURING PROLONGED DRY PERIODS.
- \* EROSION CONTROL: INSPECT FLOW ENTRANCES, PONDING AREA, AND SURFACE OVERFLOW AREAS PERIODICALLY. REPLACE MATERIAL WHERE EROSION HAS OCCURRED. IF SEDIMENT IS DEPOSITED, DETERMINE THE SOURCE, REMOVE EXCESS DEPOSITS, AND CORRECT THE PROBLEM.
- \* VEGETATION: ROUTINE MAINTENANCE WILL BE NECESSARY TO ENSURE THAT THE GRASS IS HEALTHY AND TO REMOVE ANY WEEDS.
- \* NUTRIENTS AND PESTICIDES: NUTRIENTS AND PESTICIDES SHOULD NOT BE REQUIRED. IF NECESSARY, USE SPARINGLY.
- \* SOIL MEDIA: THE SOIL MEDIA SHOULD NOT NEED REPLACING. IF PROBLEMS OCCUR IN THE SOIL MEDIA, CONSULT A SOIL SPECIALIST.

BIORETENTION FACILITY NOTES:

- \* A 2.5 -FOOT DEEP, HOMOGENOUS SOIL MIXTURE OF 85 TO 88 PERCENT CONSTRUCTION SAND, 8 TO 12 PERCENT FINES (SILT AND CLAY), AND 3 TO 5 PERCENT ORGANIC MATTER SHALL BE USED. SOIL MEDIA SHOULD BE SENT TO THE NCDA LABS TO BE ANALYZED. P-INDEX FOR THESE SOIL MEDIA SHOULD RANGE BETWEEN 10 AND 30. THE INFILTRATION RATE OF THE SOIL SHALL BE BETWEEN 3.85 AND 6 IN/HR. SOIL CHARACTERISTICS SHALL BE VERIFIED BY A GEOTECHNICAL ENGINEER.
- \* THE BIORETENTION FACILITY SHALL BE PLANTED WITH GRASS. GRASS SHALL BE SODDED AND SHALL NOT BE GROWN IN AN IMPERMEABLE LAYER SUCH AS CLAY. HYBRID BERMUDA, CENTIPEDE, OR FESCUE/BLUEGRASS ARE RECOMMENDED.
- \* ALL CONSTRUCTION, MONITORING, AND MAINTENANCE GUIDELINES IN THE NCDWQ STORM WATER BMP MANUAL SHALL BE FOLLOWED.

BIORETENTION GENERAL NOTES:

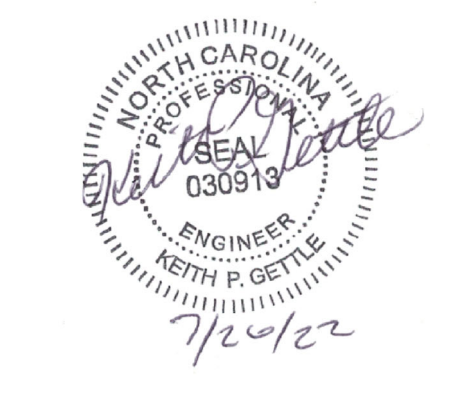
- OUTLET STRUCTURE AND PIPING
  - THE RISER STRUCTURE SHALL CONSIST OF PRECAST CONCRETE BASE AND RISER SECTIONS OF THE TYPE AND DIMENSIONS SHOWN. SQUARE OR RECTANGULAR SECTIONS SHALL BE SOLID-WALL CATCH BASIN TYPE STRUCTURES, AND APPROVED FOR USE BY NCDOT. ALL RISER JOINTS SHALL BE SEALED WATERTIGHT USING FLEXIBLE BUTYL RUBBER JOINT MATERIAL, RUBBER GASKETS, OR OTHER SUITABLE MATERIAL. ALL PIPE CONNECTIONS TO THE RISER SHALL BE MADE WITH A WATER TIGHT FLEXIBLE CONNECTOR BOOT PER ASTM C923.
- CONCRETE
  - CONCRETE WORK SHALL CONFORM TO PROJECT CONCRETE SPECIFICATIONS.
- FLOWABLE FILL
  - FLOWABLE FILL SHALL CONSIST OF A MIXTURE OF PORTLAND CEMENT, AGGREGATE NOT GREATER THAN 3/8 INCH DIAMETER, WATER, AND OTHER APPROVED COMPONENTS, WITH A MINIMUM PH OF 4.0, AND A 28-DAY COMPRESSIVE STRENGTH OF AT LEAST 150 PSI. THE MIXTURE SHALL BE SUFFICIENTLY FLOWABLE TO BE SELF-LEVELING, FILLING ALL VOIDS UNDER THE PIPE AND PIPE HAUNCHES WITHOUT REQUIRING VIBRATION.
- FINAL SURFACE STABILIZATION
  - STABILIZE ALL SURFACES OF THE EMBANKMENT, SPILLWAY, SLOPES, SPOIL AND BORROW AREAS THAT ARE NOT COVERED BY OTHER SPECIFIED MATERIALS WITH GRASS IN ACCORDANCE WITH PROJECT SPECIFICATIONS.

BIORETENTION NOTES (CONT):

- ALL DRAINAGE AREAS TO A BIORETENTION FACILITY ARE TO BE STABILIZED PRIOR TO INSTALLATION OF AMENDED SOILS, MULCH OR PLANTINGS.
- BIORETENTION PLANTING SOIL MEDIA SPECIFICATIONS:
  - THE PLANTING SOIL SHALL BE A UNIFORM MIX, FREE OF STONES, STUMPS, ROOTS OR OTHER SIMILAR OBJECTS LARGER THAN ONE-HALF INCH IN DIAMETER. NO OTHER MATERIALS OR SUBSTANCES SHALL BE MIXED OR DUMPED WITHIN THE BIORETENTION AREA THAT MAY BE HARMFUL TO PLANT GROWTH, OR PROVE A HINDRANCE TO THE PLANTING OR MAINTENANCE OPERATIONS. THE PLANTING SOIL SHALL BE FREE OF BERMUDA GRASS, JOHNSON GRASS, QUACK GRASS, MUGWORT, NUTSEDGE, POISON IVY, CANADA THISTLE, OR OTHER NOXIOUS WEEDS.
  - PLANTING MIX FOR BIORETENTION CELL - UNIFORM SOIL MIXTURE FREE OF STUMPS, STONES, OR LARGE ROOTS, CONTAINING THE FOLLOWING TYPES AND RATIOS (BY WEIGHT) OF COMPONENTS:
    - 85-88% SAND (ASTM C-33)
    - 8%-10% FINE SOIL MATERIAL (INCLUDES BOTH SILT OR CLAY)
    - 3%-5% ORGANICS / PINE BARK MULCH
  - SOIL SHALL HAVE A HYDRAULIC CONDUCTIVITY OF BETWEEN 1 IN/HR AND 6 IN/HR, WITH A 2 IN/HR RATE BEING OPTIMAL. PHOSPHOROUS INDEX SHALL BE BETWEEN 10 AND 30
  - GRADING - CLEARING, STRIPPING, EXCAVATION, FILLING, TRENCHING, BACKFILLING, COMPACTION AND FINE-GRADING WORK SHALL BE IN ACCORDANCE WITH APPLICABLE SECTIONS OF PROJECT SPECIFICATIONS.
  - UNDERDRAIN GRAVEL - CLEAN, HARD, ANGULAR GRAVEL CONFORMING TO NCDOT DESIGNATION # 57 OR # 8 AS APPROPRIATE.
  - GEOFILTER FABRIC - NON-WOVEN, NEEDLE-PUNCHED GEOTEXTILE WITH 135 LBS. PUNCTURE STRENGTH (ASTM D-4833); 220 LBS. TENSILE STRENGTH (ASTM D-4632); AND APPARENT OPENING SIZE OF U.S. STD. #80 SIEVE (ASTM D-4751).
  - UNDERDRAIN PIPING - NOMINAL 6" DIAMETER SCHEDULE 40 PVC, WITH 3/8" DIAMETER PERFORATIONS SPACED EQUALLY AROUND THE FULL PIPE PERIMETER. CLEANOUT PIPE AND FITTINGS SHALL BE SOLVENT-WELDED SCHEDULE 40 PVC PER THE DETAIL SHOWN AND EXTEND AT LEAST 8" ABOVE THE MULCH LAYER. MINIMUM 1 CLEANOUT PER 1000 SQUARE FEET OF SURFACE AREA OF THE DEVICE.

**Gettle Engineering and Design, PLLC**  
 3616 Waxing Court,  
 Wake Forest, North Carolina 27587  
 (919) 210-3934 Firm License P-2538

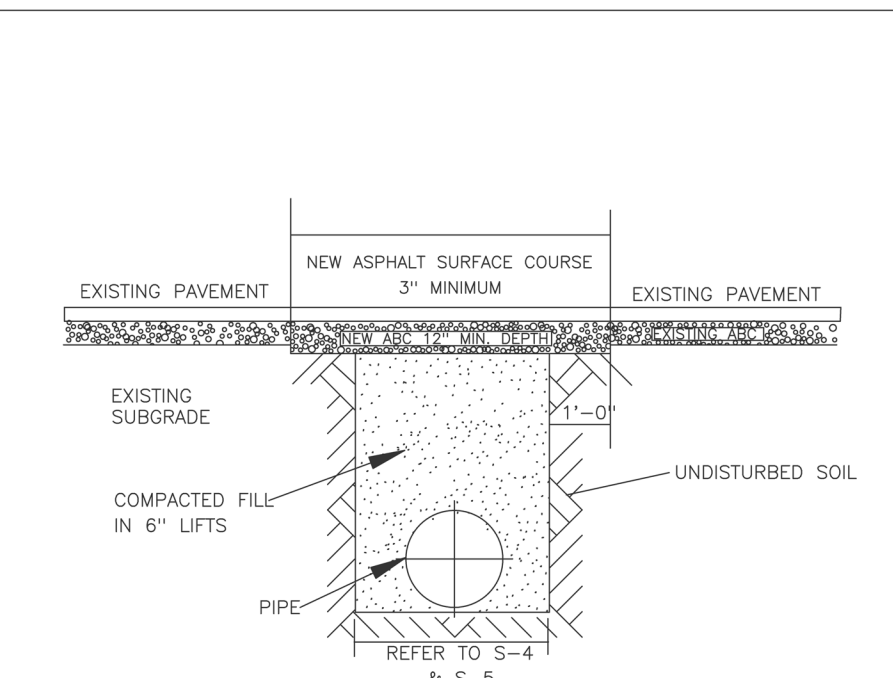
NO.	DATE	BY	REVISION/DESCRIPTION
1	07/26/2022	INTIAL SUBMITTAL	
2	DATE	COMMENT	
3	DATE	COMMENT	
4	DATE	COMMENT	
5	DATE	COMMENT	
6	DATE	COMMENT	
8	DATE	COMMENT	
NO.	DATE	COMMENT	REVISION/DESCRIPTION



**BMP Device Detail**  
 South Main  
 503 South Main Street  
 Rolesville, Wake County, North Carolina

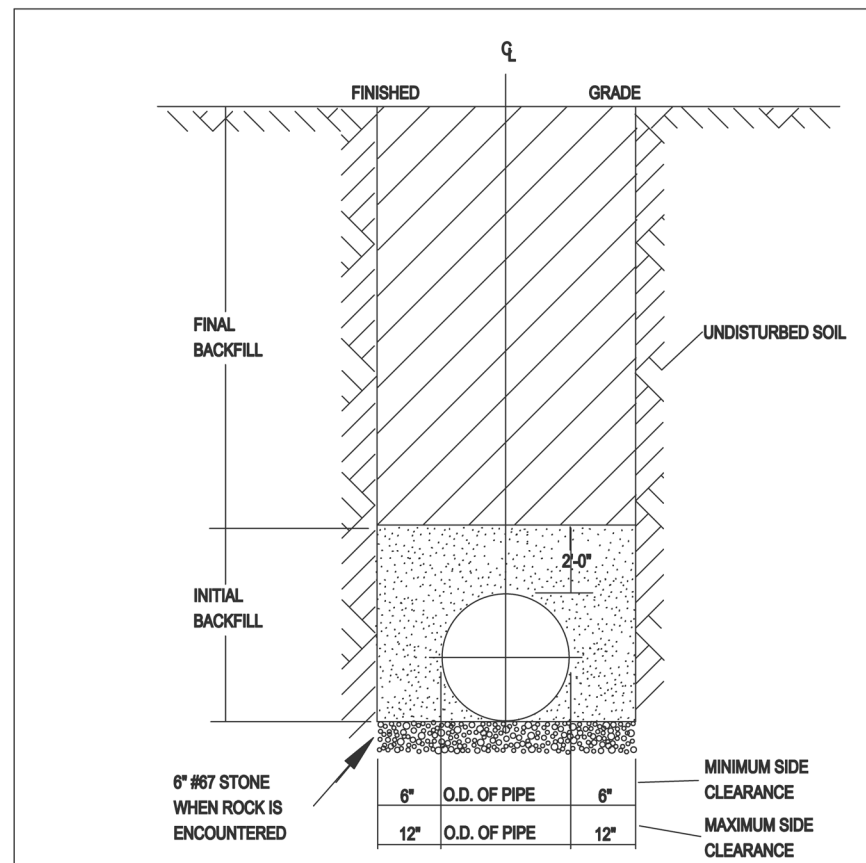
Project No. XXXXX  
 Dwg No. **D3**

PRELIMINARY  
 DO NOT USE FOR  
 CONSTRUCTION



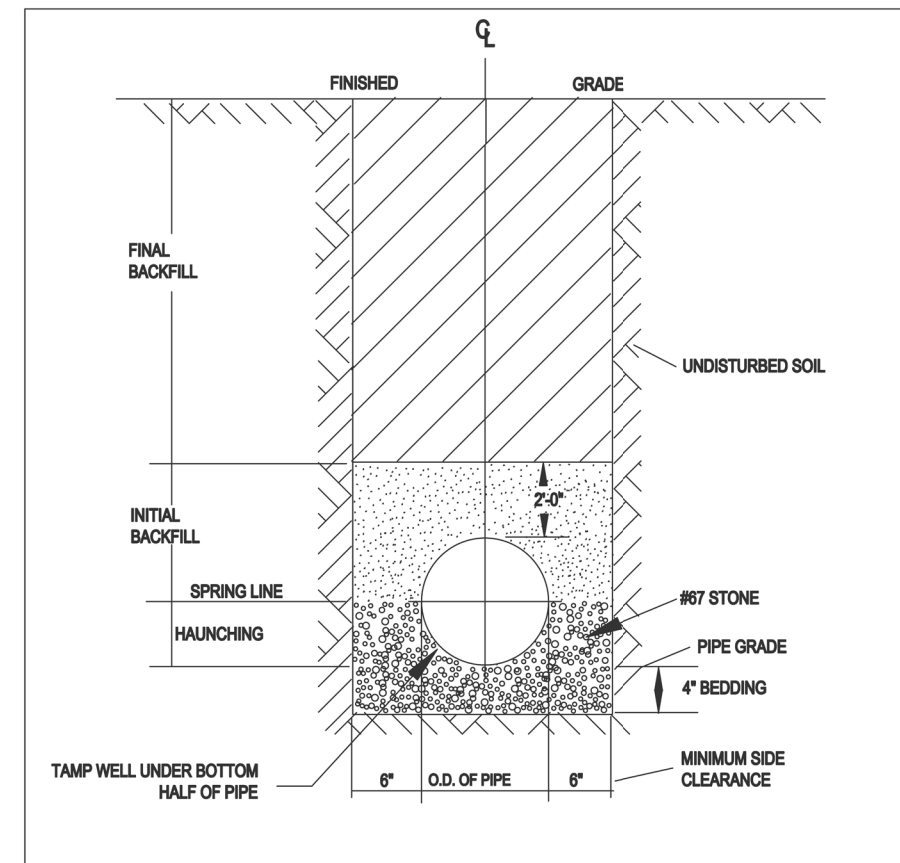
NOTES:  
 1. IN NCDOT MAINTAINED ROADWAYS ENCROACHMENT PAVEMENT PATCH REQUIREMENTS SHALL TAKE PRECEDENCE.  
 2. THE PAVEMENT CUT SHALL BE DEFINED BY A STRAIGHT EDGE AND CUT WITH AN APPROPRIATE SANICUT MACHINE.  
 3. THE TRENCH SUBGRADE MATERIAL SHALL BE BACKFILLED WITH SUITABLE MATERIAL AND COMPACTED TO A DENSITY OF AT LEAST 95% OF THAT OBTAINED BY COMPACTING A SAMPLE OF THE MATERIAL IN ACCORDANCE WITH ASHTO T-99 AS MODIFIED BY NCDOT.  
 4. THE FINAL 1\"/>

CITY OF RALEIGH DEPARTMENT OF PUBLIC UTILITIES STANDARD ASPHALT PAVEMENT PATCH DETAIL					
DWG. NO.	REVISIONS	DATE	REVISIONS	DATE	
S-3					
	D.W.C.	1-1-99	A.B.S.	1-19-03	
	RRH	1-30-03	J.P.S.	10-8-10	



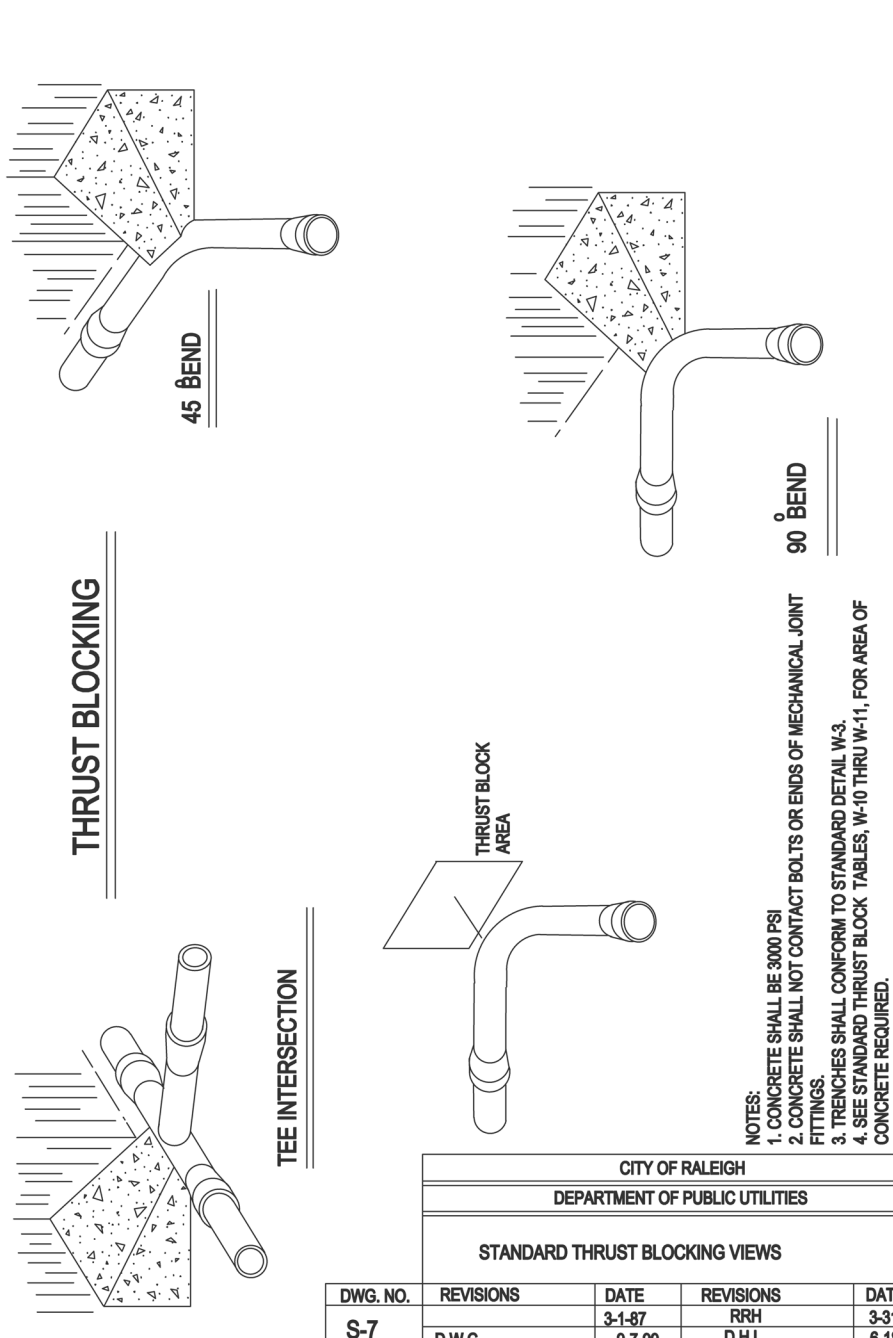
NOTES:  
 1. TRENCHES REQUIRING SHORING AND BRACING, DIMENSIONS SHALL BE TAKEN FROM THE INSIDE FACE OF THE SHORING AND BRACING.  
 2. NO ROCKS OR BOULDERS 4\"/>

CITY OF RALEIGH DEPARTMENT OF PUBLIC UTILITIES TRENCH BOTTOM DIMENSIONS & BACKFILLING REQUIREMENTS FOR DUCTILE IRON					
DWG. NO.	REVISIONS	DATE	REVISIONS	DATE	
S-4					
	RRH	3-30-00			

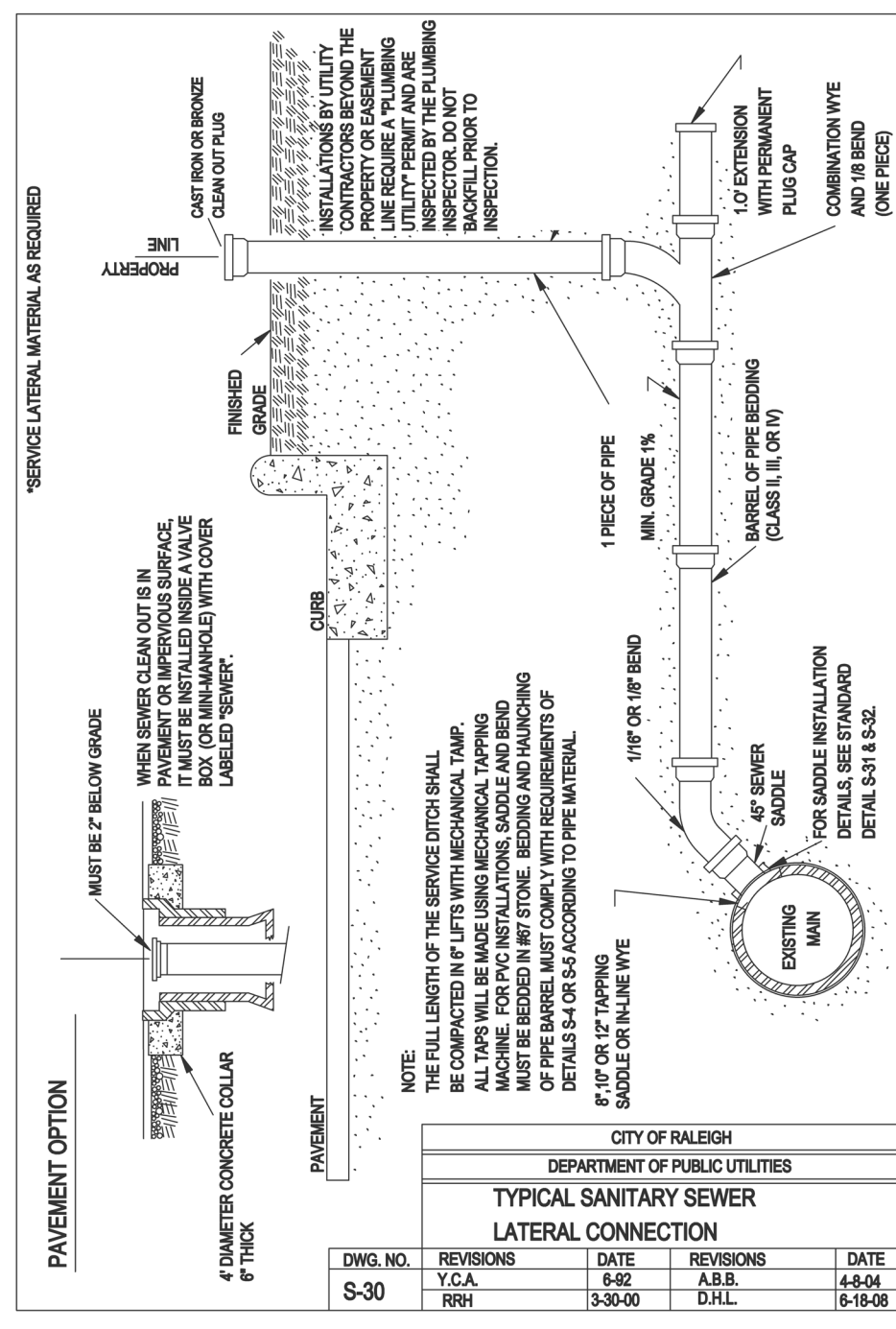


NOTES:  
 1. FOR TRENCHES REQUIRING SHORING AND BRACING, DIMENSIONS SHALL BE TAKEN FROM THE INSIDE FACE OF THE SHORING AND BRACING.  
 2. NO ROCKS OR BOULDERS 4\"/>

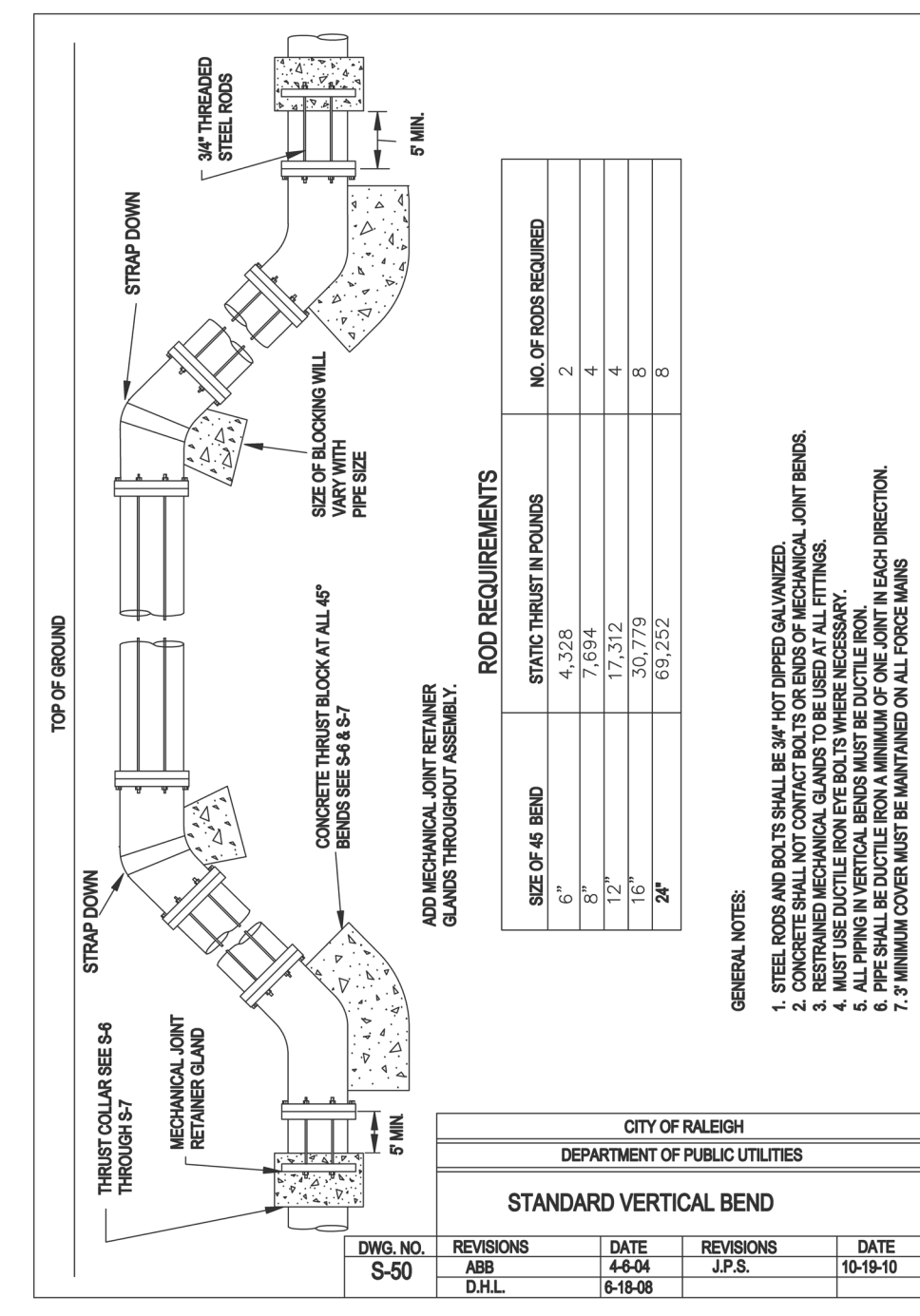
CITY OF RALEIGH DEPARTMENT OF PUBLIC UTILITIES TRENCH BOTTOM DIMENSIONS & BACKFILLING REQUIREMENTS FOR PVC GRAVITY SEWER MAIN					
DWG. NO.	REVISIONS	DATE	REVISIONS	DATE	
S-5					
	RRH	1-2-82	D.W.C.	3-3-98	



CITY OF RALEIGH DEPARTMENT OF PUBLIC UTILITIES STANDARD THRUST BLOCKING VIEWS					
DWG. NO.	REVISIONS	DATE	REVISIONS	DATE	
S-7					
	D.W.C.	9-7-99	D.H.L.	6-18-06	



CITY OF RALEIGH DEPARTMENT OF PUBLIC UTILITIES TYPICAL SANITARY SEWER LATERAL CONNECTION					
DWG. NO.	REVISIONS	DATE	REVISIONS	DATE	
S-30					
	Y.C.A.	1-26-04	A.B.S.	4-24-04	
	RRH	3-30-00	D.H.L.	6-18-06	



ROD REQUIREMENTS		NO. OF RODS REQUIRED	
SIZE OF 45 BEND	STATIC THRUST IN POUNDS	4\"/>	
6\"/>			
8\"/>			
10\"/>			
12\"/>			
14\"/>			

GENERAL NOTES:  
 1. STEEL RODS AND NUTS SHALL BE 3/8\"/>

CITY OF RALEIGH DEPARTMENT OF PUBLIC UTILITIES STANDARD VERTICAL BEND					
DWG. NO.	REVISIONS	DATE	REVISIONS	DATE	
S-50					
	D.H.L.	4-24-04	J.P.S.	10-18-10	

**SITES**

- 1. SEE SHEET C1 FOR STANDARD NOTES.

**SITE PERMITTING APPROVAL**

*Water and Sewer Permits (if applicable)*  
 The City of Raleigh consents to the connection and extension of the City's Public Sewer System as shown on this plan. The material and construction methods used for this project shall conform to the standards and specifications of the City's Public Utilities Handbook, City of Raleigh Public Utilities Department Permit # \_\_\_\_\_  
 The City of Raleigh consents to the connection and extension of the City's Public Water System as shown on this plan. The material and construction methods used for this project shall conform to the standards and specifications of the City's Public Utilities Handbook, City of Raleigh Public Utilities Department Permit # \_\_\_\_\_  
 The City of Raleigh consents to the connection to its public sewer system and extension of the private sewer collection system as shown on this plan. The material and construction methods used for this project shall conform to the standards and specifications of the City's Public Utilities Handbook.

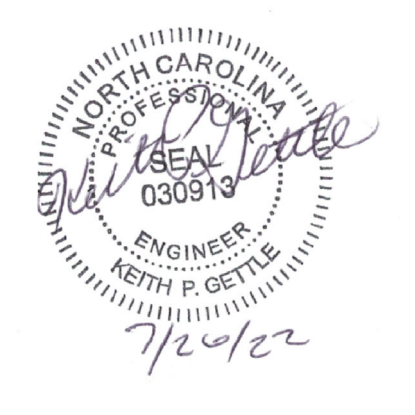
CITY OF RALEIGH - PLANS AUTHORIZED FOR CONSTRUCTION  
 Plans for the proposed use have been reviewed for general compliance with applicable codes. This limited review, and authorization for construction is not to be construed to represent total compliance with all legal requirements for development and construction. The property owner, design consultants, and contractors are each responsible for compliance with all applicable City, State and Federal laws. This specific authorization does not constitute an approval or endorsement by the City of Raleigh of any product, material or service. No construction shall be undertaken until all applicable laws, rules and regulations are fully complied with.  
 Electronic Approval: This approval is being issued electronically. This approval is valid only upon the signature of a City of Raleigh Review Officer below. The City will retain a copy of the approved plans. Any work authorized by this approval must proceed in accordance with the plans kept on file with the City. This electronic approval may not be relied upon for any modification to this approval once issued and shall constitute this approval.

City of Raleigh Development Approval \_\_\_\_\_  
 City of Raleigh Review Officer \_\_\_\_\_

**Gettle Engineering and Design, PLLC**  
 3616 Waxwing Court,  
 Wake Forest, North Carolina 27667  
 (919) 210-3934 Firm License P-2538

PRELIMINARY  
DO NOT USE FOR  
CONSTRUCTION

NO.	DATE	REVISION/DESCRIPTION	BY
1	07-26-2022	INITIAL SUBMITTAL	
2		DATE	BY
3		DATE	BY
4		DATE	BY
5		DATE	BY
6		DATE	BY
7		DATE	BY
8		DATE	BY



**Sanitary Sewer Details**  
 South Main  
 503 South Main Street  
 Rolesville, Wake County, North Carolina

Project No. XXXXX  
 Dwg No. **D4**



BASIN NUMBER	DRAIN AREA(ACRES)	BASIN SIZE	Q10 FLOW(CFS)	BASIN SURFACE AREA(SF)	REQUIRED SURFACE AREA(SF)	BASIN VOLUME (CF)	REQUIRED BASIN VOLUME (CF)	SPILLWAY LENGTH (FT)	SKIMMER / ORIFICE DIAMETER (IN.)	TOP OF BERM ELEV.	EMERGENCY SPILLWAY ELEV.	BOTTOM OF BASIN
1	1.53	44' x 74'	5.06	4264	2201	7499	2754	10	1.5 / 1	408.5	408	406

SEE SHEET EC6 FOR DESIGN CALCULATIONS

**LINE AND SYMBOL LEGEND**

- SILT FENCE OUTLET
- LIMITS OF DISTURBANCE
- SILT FENCE
- TEMPORARY DIVERSION PERIMETER FENCE
- CLEAR WATER DIVERSION DITCH
- CHECK DAM

**EROSION CONTROL CONSTRUCTION SEQUENCE - PHASE 1**

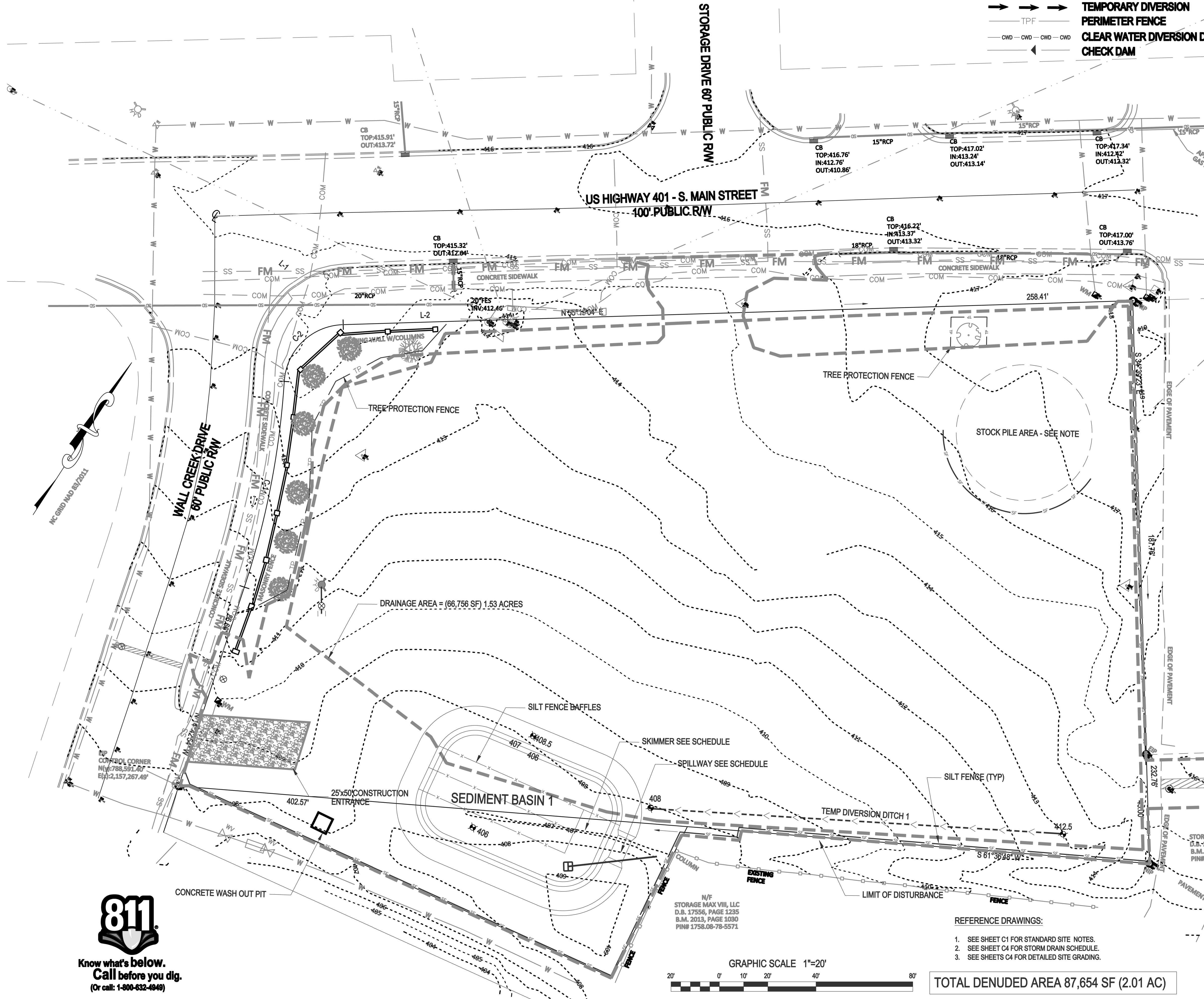
- SCHEDULE A PRECONSTRUCTION CONFERENCE WITH THE ENVIRONMENTAL WATERSHED MANAGER. OBTAIN A LAND DISTURBING PERMIT.
- INSTALL EROSION CONTROL MEASURES INCLUDING GRAVEL CONSTRUCTION ENTRANCE/EXIT, SEDIMENT TRAPPING MEASURES, STABILIZATION AT PIPE OUTLETS, AND OTHER MEASURES AS SHOWN ON THE APPROVED PLAN. CLEAR ONLY AS NECESSARY TO INSTALL THESE DEVICES. SEED TEMPORARY DIVERSIONS, BERMS AND BASINS IMMEDIATELY AFTER CONSTRUCTION.
- CONTACT THE WATERSHED MANAGER FOR AN ONSITE INSPECTION TO OBTAIN A CERTIFICATE OF COMPLIANCE.
- BEGIN CLEARING AND GRUBBING. PERFORM ROUGH GRADING, INSTALLING AND MAINTAINING TEMPORARY DIVERSIONS AS NECESSARY. SEED AND MULCH PERIMETER SLOPES AS SOON AS POSSIBLE.
- STABILIZE DISTURBED AREAS WITHIN 14 WORKING DAYS AFTER COMPLETION OF ANY PHASE OF GRADING. STABILIZATION CONSISTS OF EITHER TEMPORARY MULCHING OR PERMANENT VEGETATION ON AREAS THAT ARE NOT PAVED.
- REGULARLY INSPECT AND MAINTAIN THE EROSION CONTROL DEVICES SO THEY CONTINUE TO FUNCTION PROPERLY.
- KEEP MUD AND DEBRIS OFF THE PUBLIC STREETS AT ALL TIMES. IF MUD OR DEBRIS IS TRACKED FROM THE SITE, USE A SHOVEL AND BROOM TO REMOVE IT IMMEDIATELY. IF MUD AND DEBRIS ARE NOT KEPT OFF THE STREET, ENFORCEMENT ACTION (REVOKING THE GRADING PERMIT AND/OR STOP WORK ORDER) MAY BE TAKEN.
- IF IT IS DETERMINED DURING THE COURSE OF CONSTRUCTION THAT SIGNIFICANT SEDIMENT IS LEAVING THE SITE DESPITE PROPER IMPLEMENTATION AND MAINTENANCE OF THE APPROVED EROSION CONTROL PLAN, THE PERSON RESPONSIBLE FOR THE LAND-DISTURBING ACTIVITY IS OBLIGATED TO TAKE ADDITIONAL PROTECTIVE ACTION.
- CONTINUE TO PHASE 2 EROSION CONTROL ACTIVITIES.

**STOCKPILE DESIGN CRITERIA**

- STOCKPILING MATERIALS ADJACENT TO A DITCH, DRAINAGEWAY, WATERCOURSE, WETLAND, STREAM BUFFER, OR OTHER BODY OF WATER SHALL BE AVOIDED UNLESS AN ALTERNATIVE LOCATION IS DEMONSTRATED TO BE UNAVAILABLE.
- A 25-FOOT TEMPORARY MAINTENANCE AND ACCESS EASEMENT SHALL BE SHOWN AROUND ALL PROPOSED STOCKPILES (EROSION CONTROL MEASURES SURROUNDING THE STOCKPILE SHALL BE SHOWN AT THE OUTER LIMIT OF THIS EASEMENT).
- STOCKPILE FOOTPRINTS SHALL BE SETBACK A MINIMUM OF 25' FROM ADJACENT PROPERTY LINES.
- STOCKPILE HEIGHT SHALL NOT EXCEED 35 FEET.
- STOCKPILE SLOPES SHALL BE 2:1 OR FLATTER.
- STOCKPILING MATERIALS ADJACENT TO A DITCH, DRAINAGEWAY, WATERCOURSE, WETLAND, STREAM BUFFER, OR OTHER BODY OF WATER SHALL BE AVOIDED UNLESS AN ALTERNATIVE LOCATION IS DEMONSTRATED TO BE UNAVAILABLE.
- ANY CONCENTRATED FLOW LIKELY TO AFFECT THE STOCKPILE SHALL BE DIVERTED TO AN APPROVED BMP.
- OFF-SITE SPOIL OR BORROW AREAS MUST BE IN COMPLIANCE WITH WAKE COUNTY UDO AND STATE REGULATIONS. ALL SPOIL AREAS OVER AN ACRE ARE REQUIRED TO HAVE AN APPROVED SEDIMENT CONTROL PLAN. DEVELOPER/CONTRACTOR SHALL NOTIFY WAKE COUNTY OF ANY OFFSITE DISPOSAL OF SOIL, PRIOR TO DISPOSAL. FILL OF FEMA FLOODWAYS AND ON-ENCROACHMENT AREAS ARE PROHIBITED EXCEPT AS OTHERWISE PROVIDED BY SUBSECTION 14-19-2 OF THE WAKE COUNTY UNIFIED DEVELOPMENT ORDINANCE (CERTIFICATIONS AND PERMITS REQUIRED).
- SEEDING OR COVERING STOCKPILES WITH TARPS OR MULCH IS REQUIRED AND WILL REDUCE EROSION PROBLEMS. TARPS SHOULD BE KEPT IN AT THE TOP OF THE SLOPE TO KEEP WATER FROM RUNNING UNDERNEATH THE PLASTIC.
- IF A STOCKPILE IS TO REMAIN FOR FUTURE USE AFTER THE PROJECT IS COMPLETE (BUILDERS, ETC.), THE FINANCIAL RESPONSIBLE PARTY MUST NOTIFY WAKE COUNTY OF A NEW RESPONSIBLE PARTY FOR THAT STOCKPILE.
- THE APPROVED PLAN SHALL PROVIDE FOR THE USE OF STAGED SEEDING AND MULCHING ON A CONTINUAL BASIS WHILE THE STOCKPILE IS IN USE.
- ESTABLISH AND MAINTAIN A VEGETATIVE BUFFER AT THE TOE OF THE SLOPE (WHERE PRACTICAL).

**GENERAL NOTES:**

- INSTALL POLYACRYLAMIDE IMPREGNATED STRAW WATTLES (ie. TERRA TUBES) DIRECTLY BELOW STORM WATER OUTFALL. PLACE EROSION CONTROL LINER UNDERNEATH A SERIES OF WATTLES (SEE DETAIL).
- SURROUND THE SKIMMER WITH A BAFFLE AND "KEY" BOTH ENDS INTO THE SIDE OF THE BASIN. INSTALL A TARP UNDERNEATH THE SKIMMER, COVERING THE ENTIRE AREA AROUND THE SKIMMER. PROVIDE A 6'-8" BLOCK TO BE PLACED UNDER THE SKIMMER ALLOWING THE DEVICE TO REST ON AFTER DEWATERING.
- INSTALL STANDARD GRAVEL YARD INLET PROTECTION UNTIL CURB IS INSTALLED. INSTALL STANDARD GRAVEL BAG CURB INLET PROTECTION AT ALL CURB INLETS.
- SEE SHEET C1 FOR SITE SPECIFIC NOTES.



**REFERENCE DRAWINGS:**

- SEE SHEET C1 FOR STANDARD SITE NOTES.
- SEE SHEET C4 FOR STORM DRAIN SCHEDULE.
- SEE SHEETS C4 FOR DETAILED SITE GRADING.

GRAPHIC SCALE 1"=20'



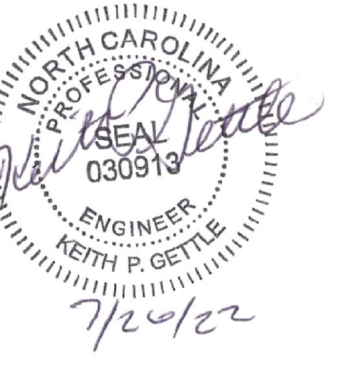
TOTAL DENUDED AREA 87,654 SF (2.01 AC)

**Gettle Engineering and Design, PLLC**

3616 Waxwing Court,  
Wake Forest, North Carolina 27587  
(919) 210-3334 Firm License P-2538

PRELIMINARY  
DO NOT USE FOR  
CONSTRUCTION

NO.	DATE	BY	REVISION/DESCRIPTION
1	07-26-2022	BY	INITIAL SUBMITTAL
2		BY	COMMENT
3		BY	COMMENT
4		BY	COMMENT
5		BY	COMMENT
6		BY	COMMENT
7		BY	COMMENT



**Phase 1 - Erosion Control Plan**

**South Main**

503 South Main Street  
Rolesville, Wake County, North Carolina

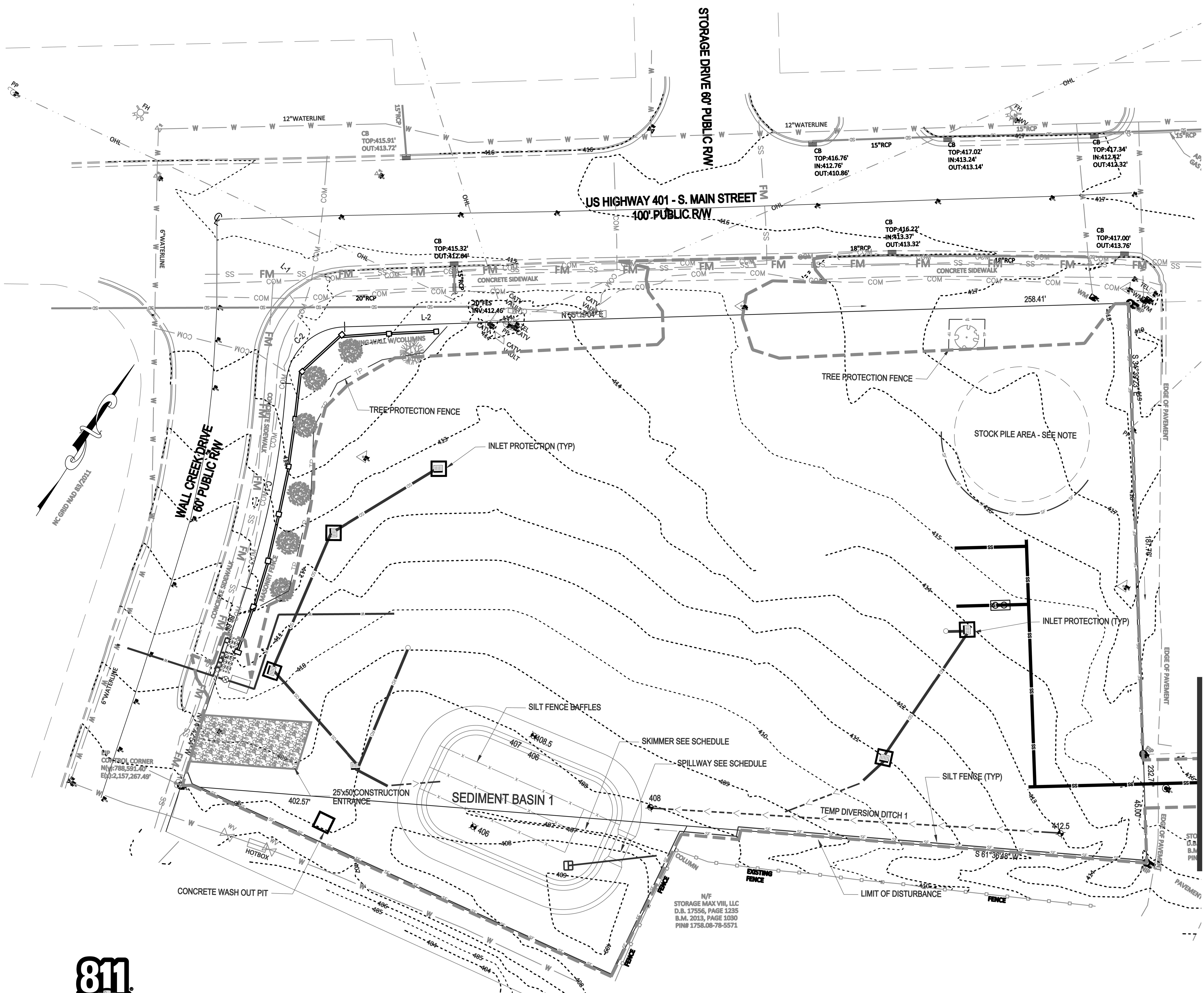
Project No. XXXXX

Dwg No.

**EC1**

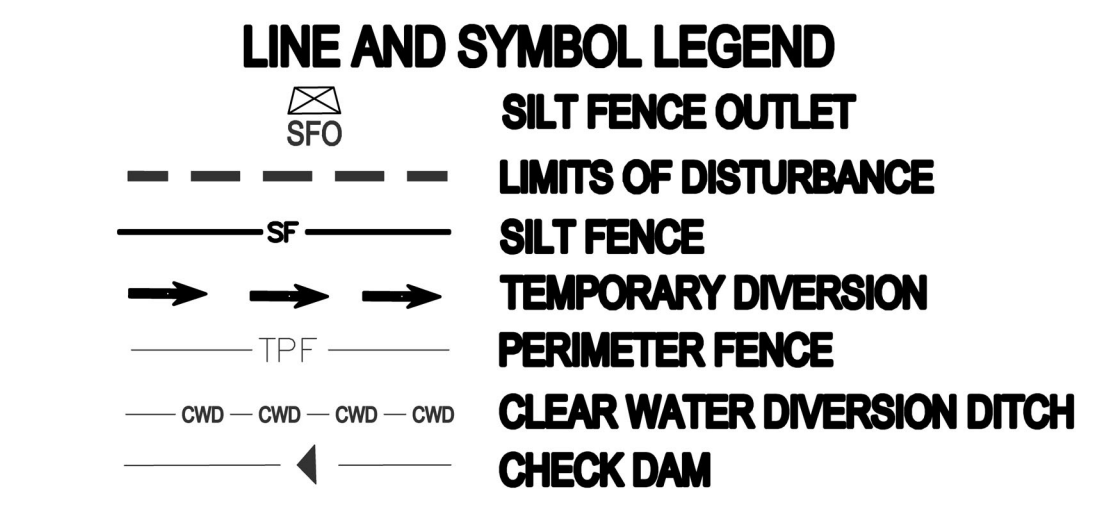


Know what's below.  
Call before you dig.  
(Or call: 1-800-632-4848)



**EROSION CONTROL CONSTRUCTION SEQUENCE - PHASE 2**

1. INSTALL THE STORM DRAINAGE SYSTEM AND INLET PROTECTION, PROTECTING PIPE OPENINGS AND UNCOVERED STRUCTURES AS SHOWN.
2. INSTALL SANITARY SEWER SYSTEM AND WATER LINE PIPING PER UTILITY PLAN. ENSURE EXISTING UTILITIES ARE PROTECTED DURING CONSTRUCTION ACTIVITIES.
3. STABILIZE DISTURBED AREAS WITHIN 14 WORKING DAYS AFTER COMPLETION OF ANY PHASE OF GRADING. STABILIZATION CONSISTS OF EITHER TEMPORARY MULCHING OR PERMANENT VEGETATION ON AREAS THAT ARE NOT PAVED.
4. REGULARLY INSPECT AND MAINTAIN THE EROSION CONTROL DEVICES SO THEY CONTINUE TO FUNCTION PROPERLY.
5. KEEP MUD AND DEBRIS OFF THE PUBLIC STREETS AT ALL TIMES. IF MUD OR DEBRIS IS TRACKED FROM THE SITE, USE A SHOVEL AND BROOM TO REMOVE IT IMMEDIATELY. IF MUD AND DEBRIS ARE NOT KEPT OFF THE STREET, ENFORCEMENT ACTION (REVOKING THE GRADING PERMIT AND/OR STOP WORK ORDER) MAY BE TAKEN.
6. IF IT IS DETERMINED DURING THE COURSE OF CONSTRUCTION THAT SIGNIFICANT SEDIMENT IS LEAVING THE SITE DESPITE PROPER IMPLEMENTATION AND MAINTENANCE OF THE APPROVED EROSION CONTROL PLAN, THE PERSON RESPONSIBLE FOR THE LAND-DISTURBING ACTIVITY IS OBLIGATED TO TAKE ADDITIONAL PROTECTIVE ACTION.
7. CONTINUE TO PHASE 3 ACTIVITIES.



- REFERENCE DRAWINGS:
1. SEE SHEET C1 FOR STANDARD SITE NOTES.
  2. SEE SHEET C4 FOR STORM DRAIN SCHEDULE.
  3. SEE SHEETS C4 FOR DETAILED SITE GRADING.

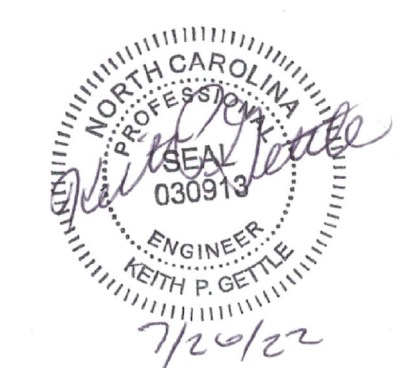
Channel Design Calculations														
Channel	Drain Area, ac	Channel Length, ft	Channel Drop, ft	C	Q2		Flow cfs	Channel Slope, ft/ft	n	Side Slope:1	Bottom Width, ft	Depth of Flow, ft	Velocity fps	Liner
					I, in/hr	S								
1	1.53	170	5	0.55	3.46	2.9	0.0265	0.024	3.00	2.0	0.28	3.60	Jute Mesh	



**811**  
Know what's below.  
Call before you dig.  
(Or call: 1-800-632-4848)

**Gettle Engineering and Design, PLLC**  
3616 Waxwing Court,  
Wake Forest, North Carolina 27587  
(919) 210-3934 Firm License P-2538

NO.	DATE	BY	REVISION DESCRIPTION
1	07-28-2023	INITIAL SUBMITTAL	
2		DATE	COMMENT
3		DATE	COMMENT
4		DATE	COMMENT
5		DATE	COMMENT
6		DATE	COMMENT
7		DATE	COMMENT



**Phase 2 - Erosion Control Plan**  
South Main  
503 South Main Street  
Rolesville, Wake County, North Carolina

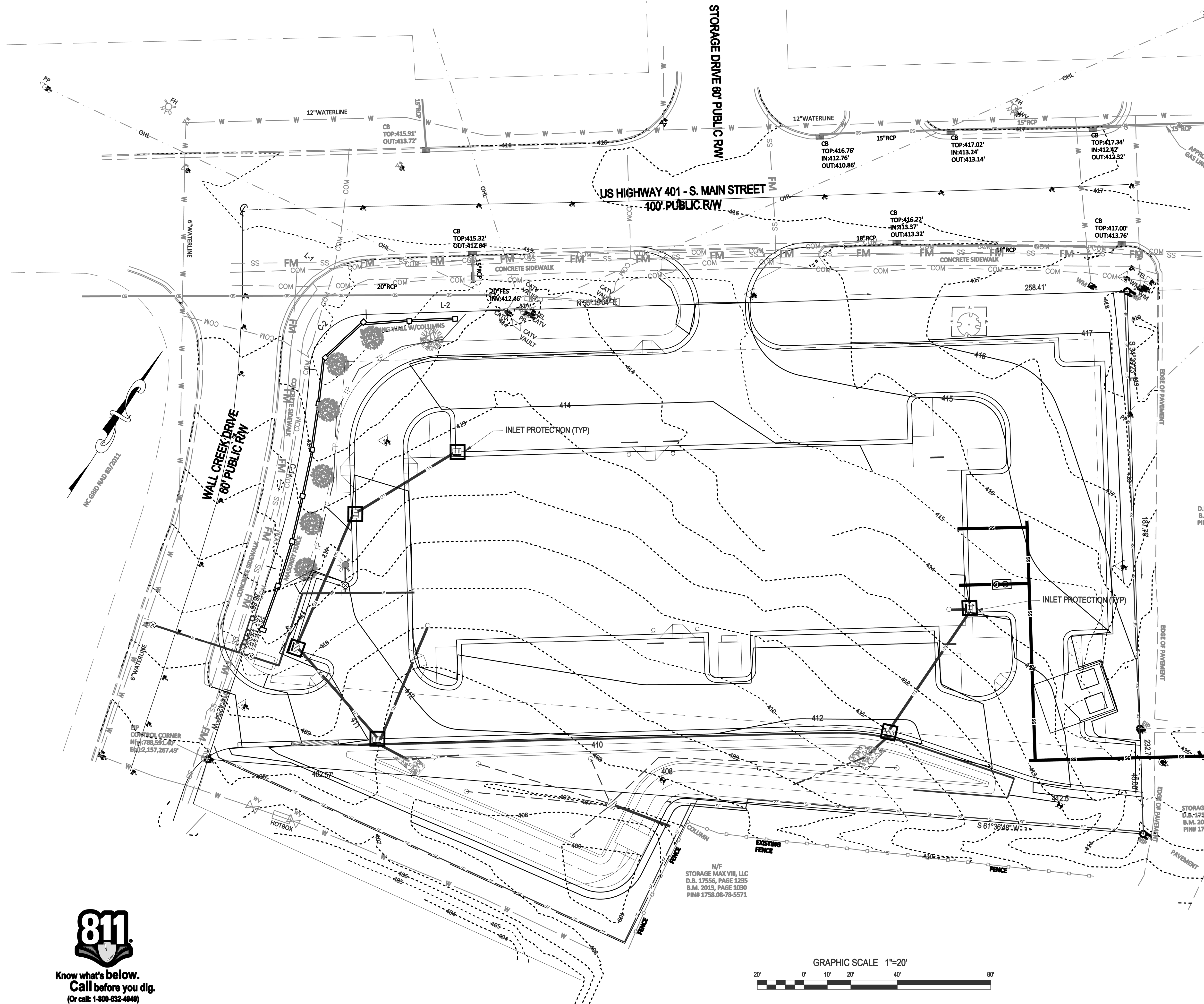
Project No. XXXXX  
Dwg No. **EC2**

PRELIMINARY  
DO NOT USE FOR  
CONSTRUCTION





Know what's below.  
Call before you dig.  
(Or call: 1-800-632-4848)



N/F  
STORAGE MAX VIII, LLC  
D.B. 17556, PAGE 1235  
B.M. 2013, PAGE 1030  
PIN# 1758.08-79-5571



CONSTRUCTION SEQUENCE - PHASE 3

1. CONSTRUCT CONCRETE CURB IN ROADWAYS AND PARKING LOT. PLACE AND COMPACT STONE IN THE ROADWAYS AND PARKING LOT. REMOVE THE GRAVEL ENTRANCE.
2. COMPLETE FINE GRADING AND STABILIZE DISTURBED AREAS AS SOON AS POSSIBLE.
3. ONCE THE SITE IS STABILIZED AND APPROVAL FROM STORMWATER INSPECTIONS TO SCHEDULE THE REMOVAL OF THE SEDIMENT BASIN (SEE NOTES BELOW), DEWATER SEDIMENT BASIN USING A SILT BAG AND MUCK OUT REMAINING SEDIMENT.
2. BEGIN INSTALLATION OF THE BMP AND ASSOCIATED STRUCTURES. CONTACT PROJECT ENGINEER TO INSPECT DURING INSTALLATION PROCESS. SURVEY INVERT ELEVATIONS FOR AS-BUILT INFORMATION REQUIRED BY THE TOWN OF ROLESVILLE AND WAKE COUNTY.
3. GRADE ANY REMAINING AREAS TO FINAL GRADE. UPON COMPLETION OF THE GROUND COVER SHALL BE PROVIDED AS FOLLOWS:
  - A. STABILIZE BASINS WITH GROUND COVER IMMEDIATELY AFTER INSTALLATION.
  - B. STABILIZE DIVERSION DITCHES INTENDED TO BE IN SERVICE FOR 30 DAYS OR MORE WITH TEMPORARY SEEDING AND EROSION CONTROL NETTING.
  - C. FOR ALL AREAS OF MODERATE AND/OR STEEP SLOPES, PROVIDE TEMPORARY GROUND COVER IF THE SLOPE HAS NOT BEEN DISTURBED FOR A PERIOD OF FOURTEEN (14) DAYS.
  - D. PROVIDE GROUND COVER SUFFICIENT TO RESTRAIN EROSION ON ANY PORTION OF THE SITE UPON WHICH FURTHER LAND-DISTURBING ACTIVITY IS NOT BEING UNDERTAKEN WITHIN FOURTEEN (14) CALENDAR DAYS OF TEMPORARILY OR PERMANENTLY SUSPENDING LAND DISTURBING ACTIVITY.
  - E. ESTABLISH PERMANENT GROUND COVER SUFFICIENT TO RESTRAIN EROSION WITHIN FOURTEEN (14) CALENDAR DAYS FOLLOWING COMPLETION OF CONSTRUCTION OR DEVELOPMENT AND/OR PRIOR TO FINAL INSPECTION.
4. ONCE THE BMP INSTALLATION IS COMPLETE, TEMPORARY MEASURES ARE REMOVED, THE SITE IS STABILIZED, CONTACT THE WATERSHED MANAGER TO SCHEDULE A STORMWATER INSPECTION.

REQUIRED WAKE COUNTY BASIN REMOVAL SEQUENCE

1. SCHEDULE A SITE MEETING WITH THE ENVIRONMENTAL CONSULTANT TO DETERMINE IF A BASIN CAN BE REMOVED. INSTALL SILT FENCING OR OTHER TEMPORARY EROSION CONTROL MEASURES AS NEEDED PRIOR TO REMOVAL OF THE BASIN.
2. CONTACT NDEQ - RALEIGH REGIONAL OFFICE (919) 791-4200 TO DETERMINE THE DIVISION OF ENERGY, MINERAL AND LAND RESOURCES CONTACT PERSON TO RECEIVE DEWATERING NOTIFICATIONS. AT LEAST 10 DAYS PRIOR TO BEGINNING DEWATERING ACTIVITY, SEND EMAIL TO NDEQ-DEMLR CONTACT PERSON AND COPY ENVIRONMENTAL CONSULTANT THAT MET YOU ON SITE. THE EMAIL SHOULD INCLUDE:
  - EASC JURISDICTION: WAKE COUNTY, WAKE COUNTY PROJECT: NAME, NUMBER, AND LOCATION (CITY/TOWN), ENVIRONMENTAL CONSULTANT NAME, AND ADDRESS
  - THE FOLLOWING: A) REASON FOR CONVERSION, B) BASIN #, C) DEWATERING METHOD, AND D) ALL OTHER NECESSARY INFO FROM PART II, SECTION G, ITEM 4 OF THE NCGS1. (KEEP EMAIL FOR YOUR NPDES MONITORING DOCUMENTATION)
3. AFTER RECEIVING POSITIVE CONFIRMATION FROM NDEQ-DEMLR THAT YOU MAY REMOVE THE BASIN OR ON > DAY 11, WHICHEVER IS SOONER, REMOVE BASIN(S) AND ASSOCIATED TEMPORARY DIVERSION DITCHES. IF PIPES NEED TO BE EXTENDED, PERFORM THIS OPERATION AT THIS TIME. FINE GRADE AREA IN PREPARATION FOR SEEDING.
4. PERFORM SEEDBED PREPARATION, SEED, MULCH AND ANCHOR ANY RESULTING BARE AREAS IMMEDIATELY.
5. INSTALL VELOCITY DISSIPATORS AND/OR LEVEL SPREADERS AS REQUIRED ON THE EROSION CONTROL PLAN.
6. WHEN SITE IS FULLY STABILIZED, CALL ENVIRONMENTAL CONSULTANT FOR APPROVAL OF REMOVING REMAINING TEMPORARY EROSION CONTROL MEASURES AND ADVICE ON WHEN SITE CAN BE ISSUED A CERTIFICATE OF COMPLETION. NOTE: A MEETING SHOULD ALSO BE SCHEDULED WITH THE ENVIRONMENTAL CONSULTANT TO DETERMINE WHEN A BASIN MAY BE CONVERTED FOR STORMWATER USE.

LINE AND SYMBOL LEGEND

- SFO SILT FENCE OUTLET
- LIMITS OF DISTURBANCE
- SF SILT FENCE
- TD TEMPORARY DIVERSION
- PF PERIMETER FENCE
- CWD CLEAR WATER DIVERSION DITCH
- CD CHECK DAM

REFERENCE DRAWINGS:

1. SEE SHEET C1 FOR STANDARD SITE NOTES.
2. SEE SHEET C4 FOR STORM DRAIN SCHEDULE.
3. SEE SHEETS C4 FOR DETAILED SITE GRADING.

Phase 3 - Erosion Control Plan  
South Main  
503 South Main Street  
Rolesville, Wake County, North Carolina

Gettle Engineering and Design, PLLC

3616 Waxwing Court,  
Wake Forest, North Carolina 27587  
(919) 210-3334 Firm License P-2538

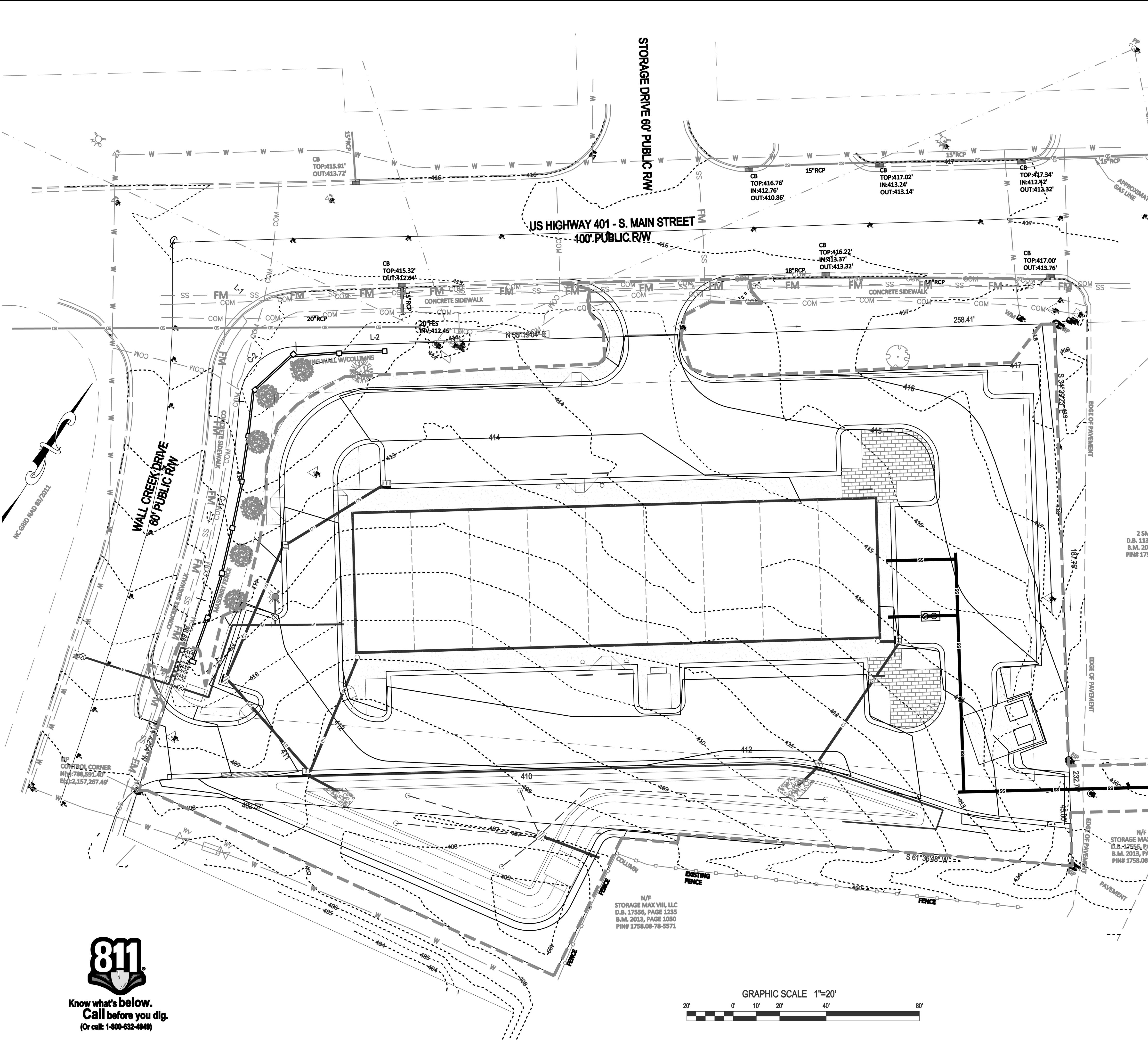
NO.	DATE	BY	COMMENT	NO.	DATE	BY	COMMENT
1	07-28-2022	INITIAL SUBMITTAL		1			
2				2			
3				3			
4				4			
5				5			
6				6			



Project No. XXXXX  
Dwg No.

EC3

PRELIMINARY  
DO NOT USE FOR  
CONSTRUCTION



- CONSTRUCTION SEQUENCE - PHASE 4**
1. ENSURE THE SITE IS COMPLIANT WITH THE NCG01 SELF INSPECTION AND GROUND STABILIZATION AND MATERIAL HANDLING.
  2. FOR ALL AREAS OF MODERATE AND / OR STEEP SLOPES, PROVIDE TEMPORARY GROUND COVER IF THE SLOPE HAS NOT BEEN DISTURBED FOR A PERIOD OF FOURTEEN (14) DAYS.
  3. PROVIDE GROUND COVER SUFFICIENT TO RESTRAIN EROSION ON ANY PORTION OF THE SITE UPON WHICH FURTHER LAND-DISTURBING ACTIVITY IS NOT BEING UNDERTAKEN WITHIN FOURTEEN (14) CALENDAR DAYS OF TEMPORARILY OR PERMANENTLY SUSPENDING LAND DISTURBING ACTIVITY.
  4. REMOVE SILT FENCE AND TREE PROTECTION FENCING WHEN GRADING ACTIVITIES ARE COMPLETE AND THE PROJECT SITE IS STABILIZED.
  5. ONCE THE BMP INSTALLATION IS COMPLETE, TEMPORARY MEASURES ARE REMOVED, THE SITE IS STABILIZED, CONTACT THE WATERSHED MANAGER TO SCHEDULE A STORMWATER FINAL INSPECTION. BMP CERTIFICATIONS AND AS-BUILT PLANS MUST BE PROVIDED TO WAKE COUNTY / TOWN OF ROLESVILLE PRIOR TO FINAL PLATTING.
  6. ONCE THE STORMWATER FINAL INSPECTION IS APPROVED, CLOSE THE GRADING PERMIT AND OBTAIN A CERTIFICATE OF COMPLETION.

- NPDES NOTES**
1. THIS PAGE IS SUBMITTED TO COMPLY WITH NPDES GENERAL STORMWATER PERMIT NCG010000.
  2. THIS PAGE CAN BE APPROVED BY THE CITY PURSUANT TO NPDES GENERAL STORMWATER PERMIT NCG010000 ONLY.
  3. THIS PAGE OF THE APPROVED PLANS IS ENFORCEABLE EXCLUSIVELY PURSUANT TO NPDES GENERAL STORMWATER PERMIT NCG010000.
  4. THE CITY / COUNTY IS NOT AUTHORIZED TO ENFORCE THIS PAGE OF THE PLANS AND IT IS NOT A PART OF THE APPROVED PLANS FOR PURPOSES OF ENFORCEMENT ACTION UNDER THE CITY / COUNTY CODE.
  5. DOCUMENTATION REQUIRED UNDER THE SITE NPDES STORMWATER PERMIT FOR CONSTRUCTION ACTIVITY SHALL BE SUBMITTED TO WAKE COUNTY.

**NPDES GROUND STABILIZATION SCHEDULE**

SITE AREA DESCRIPTION	STABILIZATION TIME FRAME	STABILIZATION TIME FRAME EXCEPTIONS	APPLICABLE AREA ON THIS SITE
PERIMETER DIKES, SWALES, DITCHES AND SLOPES	7 DAYS	NONE	NONE
HIGH QUALITY WATER (HQW) ZONES	7 DAYS	NONE	NONE
SLOPES STEEPER THAN 3:1	7 DAYS	IF SLOPES ARE 10' OR LESS IN LENGTH AND ARE NOT STEEPER THAN 2:1, 14 DAYS ARE ALLOWED	NONE
SLOPES 3:1 OR FLATTER	14 DAYS	7-DAYS FOR SLOPES GREATER THAN 60 FEET IN LENGTH	AS SHOWN
ALL OTHER AREAS WITH SLOPES FLATTER THAN 4:1	14 DAYS	NONE (EXCEPT FOR PERIMETERS AND HQW ZONES)	REMAINDER OF SITE

- LINE AND SYMBOL LEGEND**
- SFO SILT FENCE OUTLET
  - L.D. LIMITS OF DISTURBANCE
  - SF SILT FENCE
  - T.D. TEMPORARY DIVERSION
  - P.F. PERIMETER FENCE
  - C.W.D. CLEAR WATER DIVERSION DITCH
  - C.D. CHECK DAM

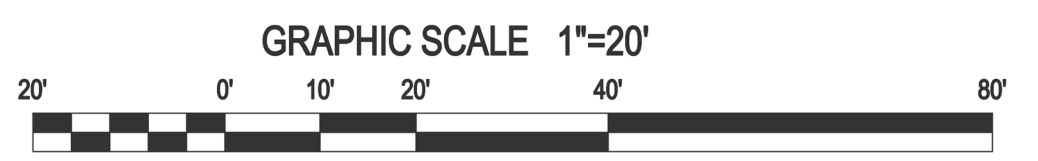
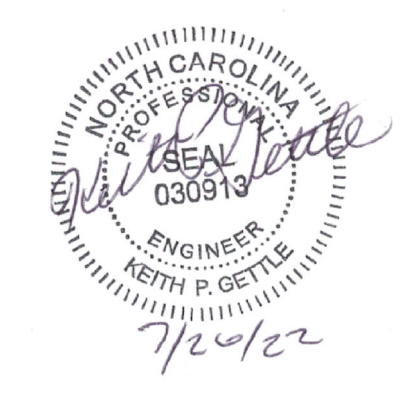
- REFERENCE DRAWINGS:**
1. SEE SHEET C1 FOR SITE STANDARD NOTES.
  2. SEE SHEET C4 FOR STORM DRAIN SCHEDULE.
  3. SEE SHEETS C4 FOR DETAILED SITE GRADING.

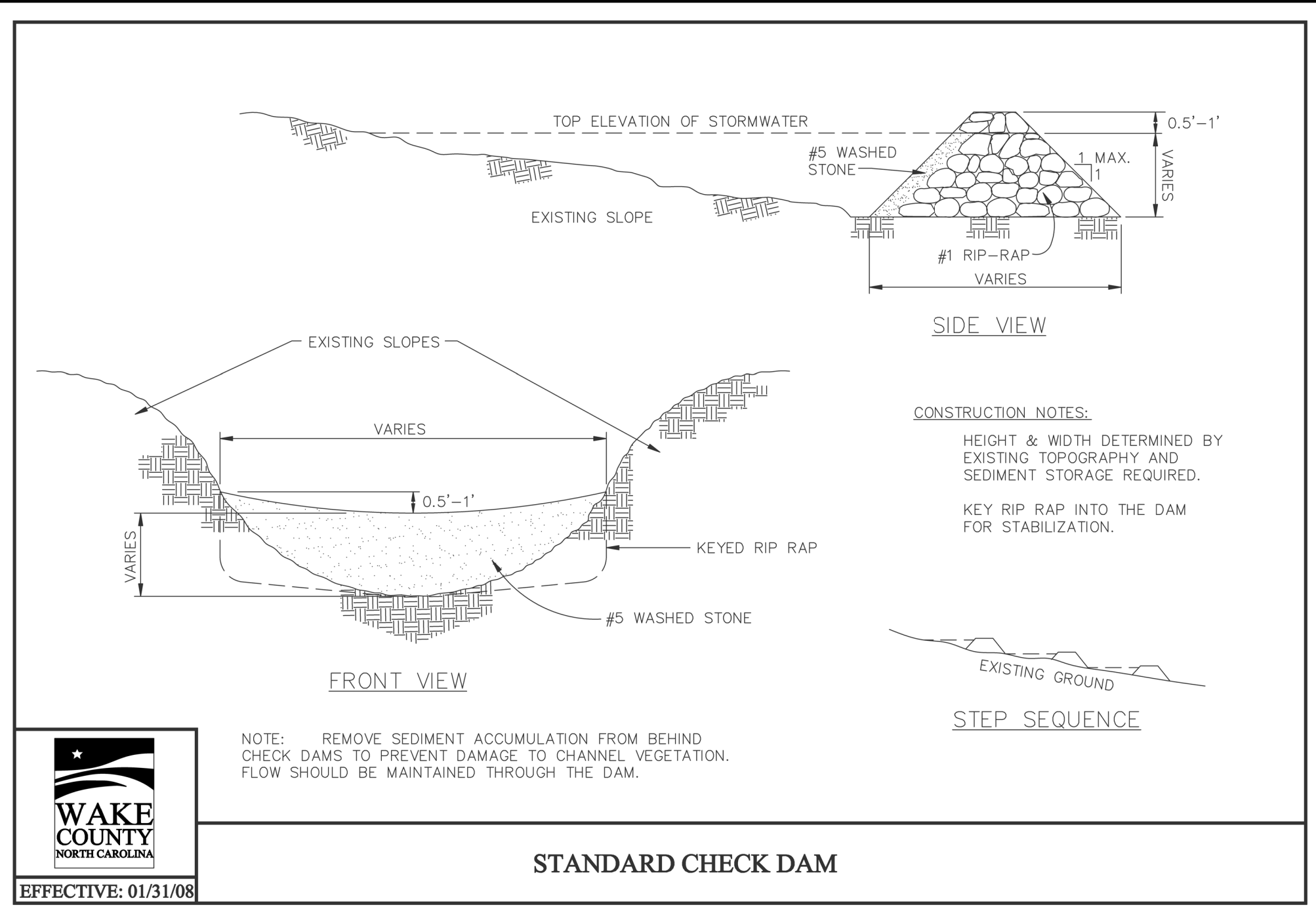
**Gettle Engineering and Design, PLLC**  
 3616 Waxwing Court,  
 Wake Forest, North Carolina 27587  
 Firm License P-2538  
 (919) 210-3334

**Phase 4 - Erosion Control Plan**  
**South Main**  
 503 South Main Street  
 Rolesville, Wake County, North Carolina

Project No. XXXXX  
 Dwg No. **EC4**

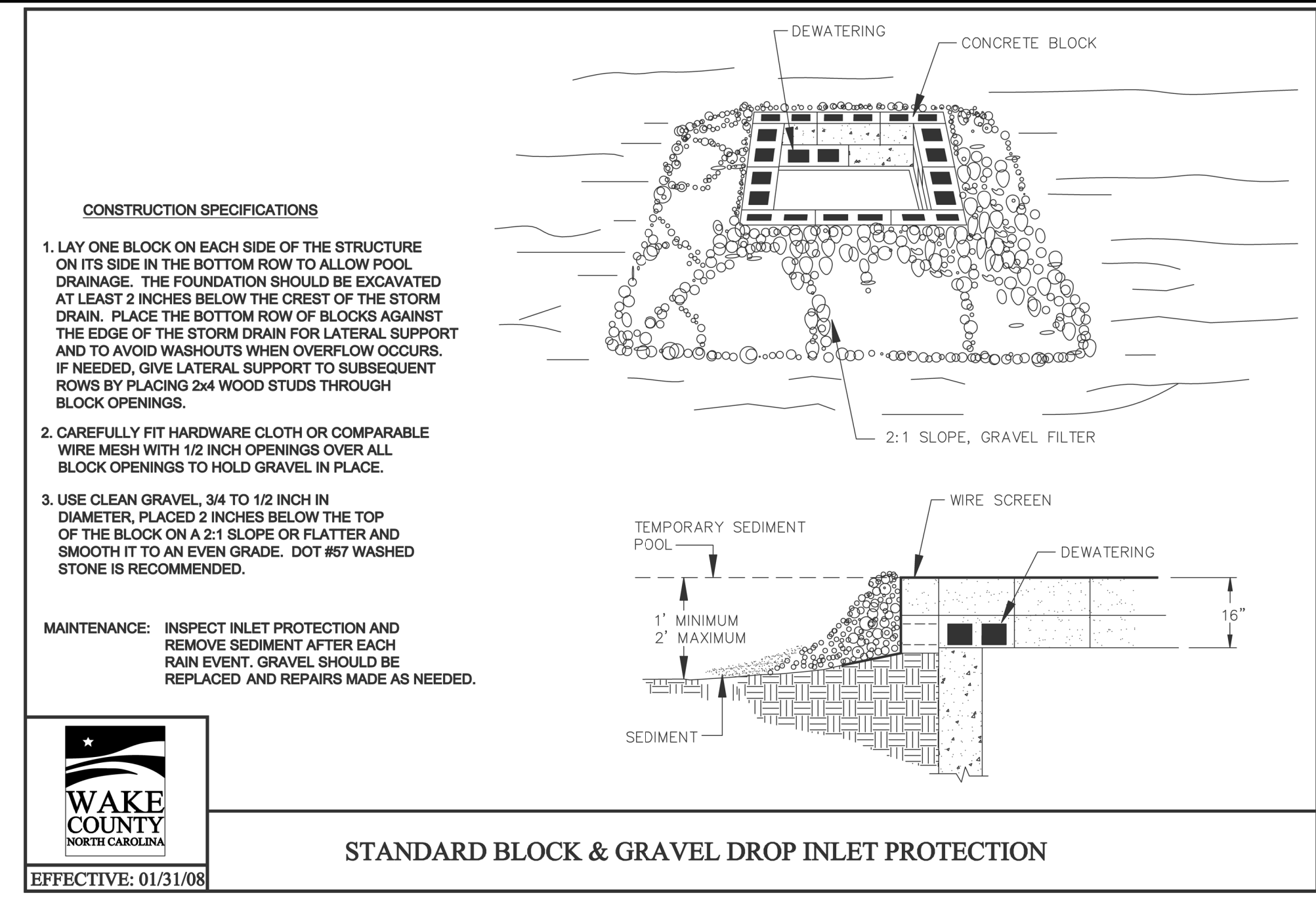
NO.	DATE	BY	REVISION DESCRIPTION
1	07-26-2022	BY	INITIAL SUBMITTAL
2		BY	COMMENT
3		BY	COMMENT
4		BY	COMMENT
5		BY	COMMENT
6		BY	COMMENT





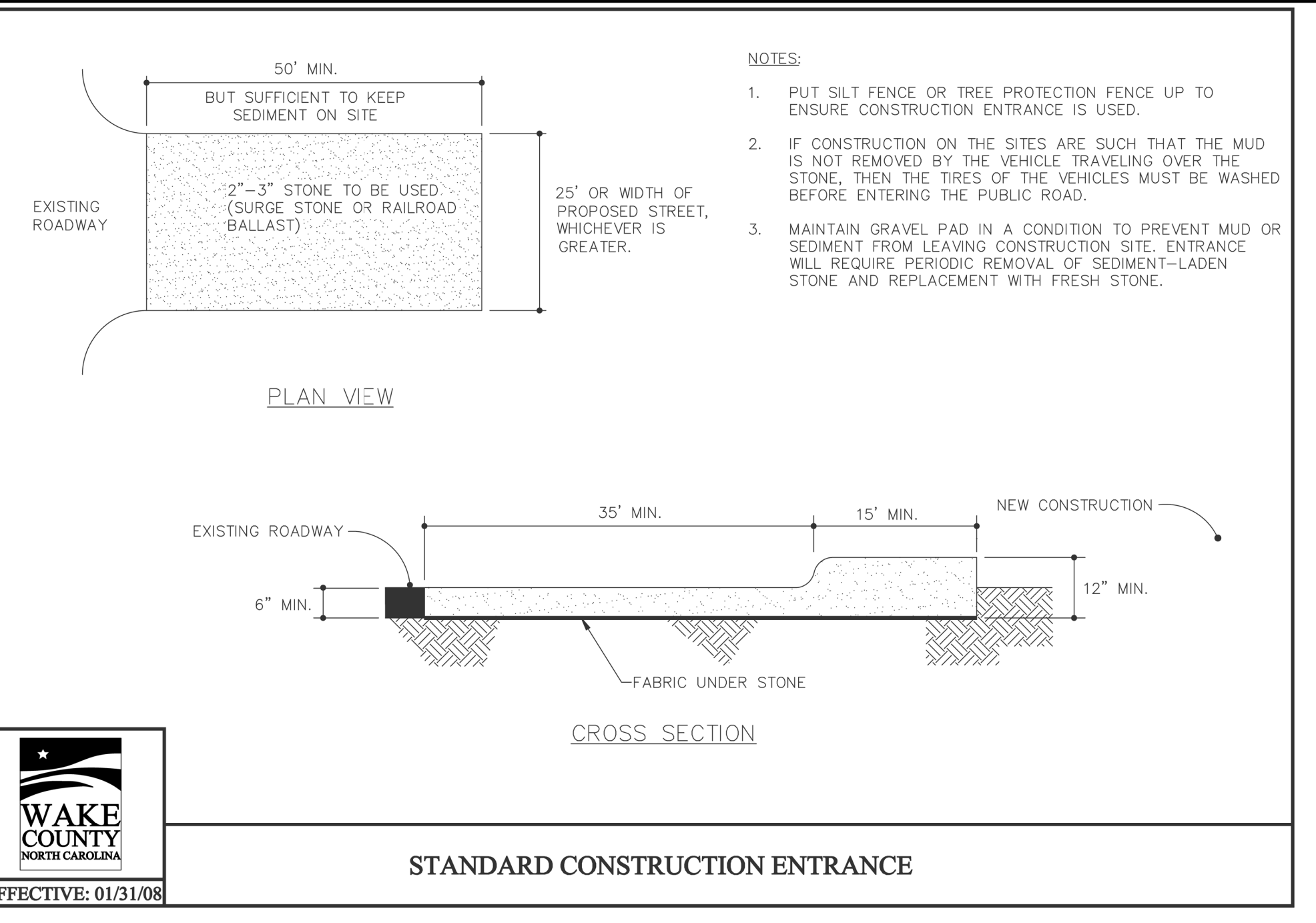
**WAKE COUNTY**  
NORTH CAROLINA  
EFFECTIVE: 01/31/08

**STANDARD CHECK DAM**



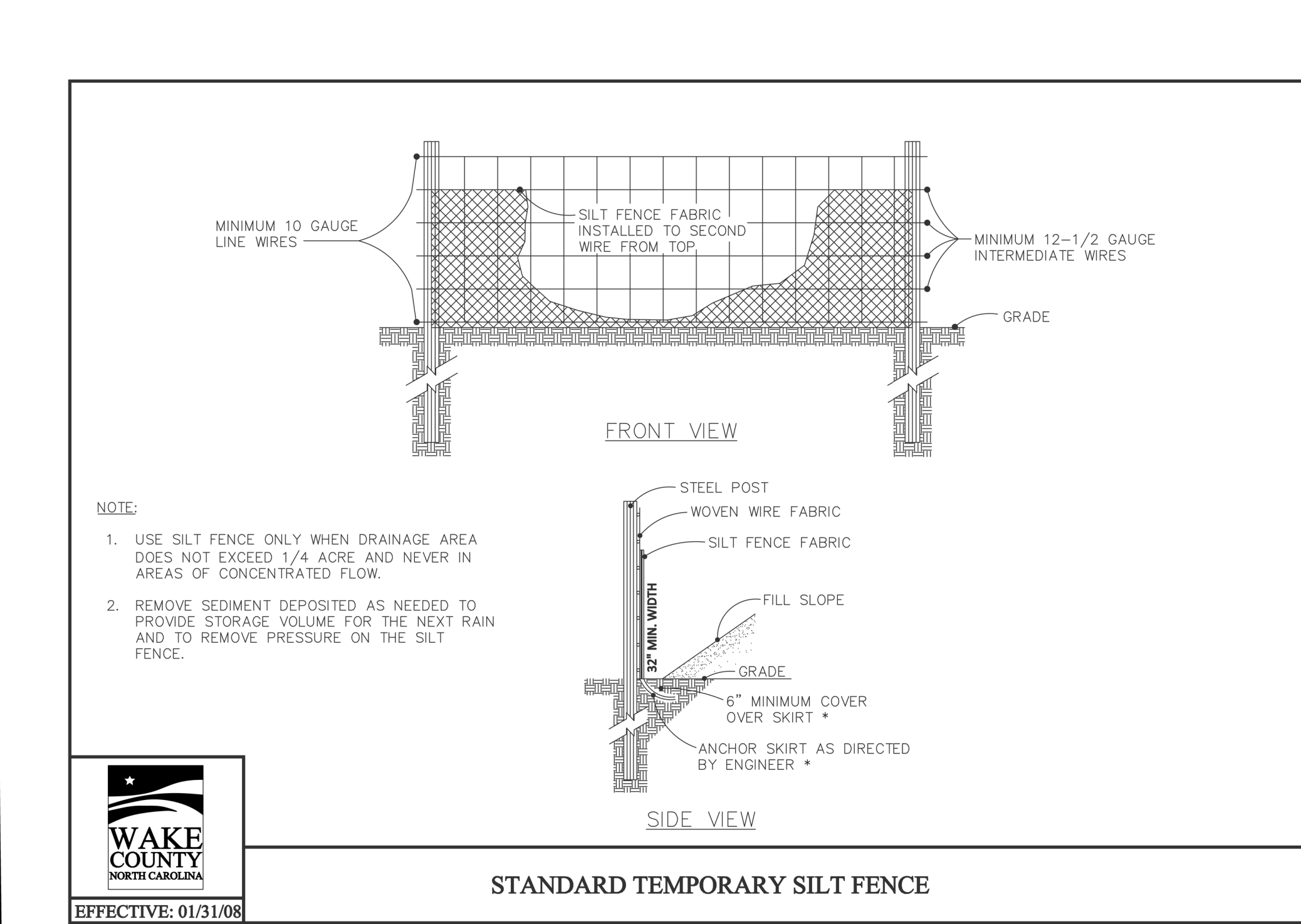
**WAKE COUNTY**  
NORTH CAROLINA  
EFFECTIVE: 01/31/08

**STANDARD BLOCK & GRAVEL DROP INLET PROTECTION**



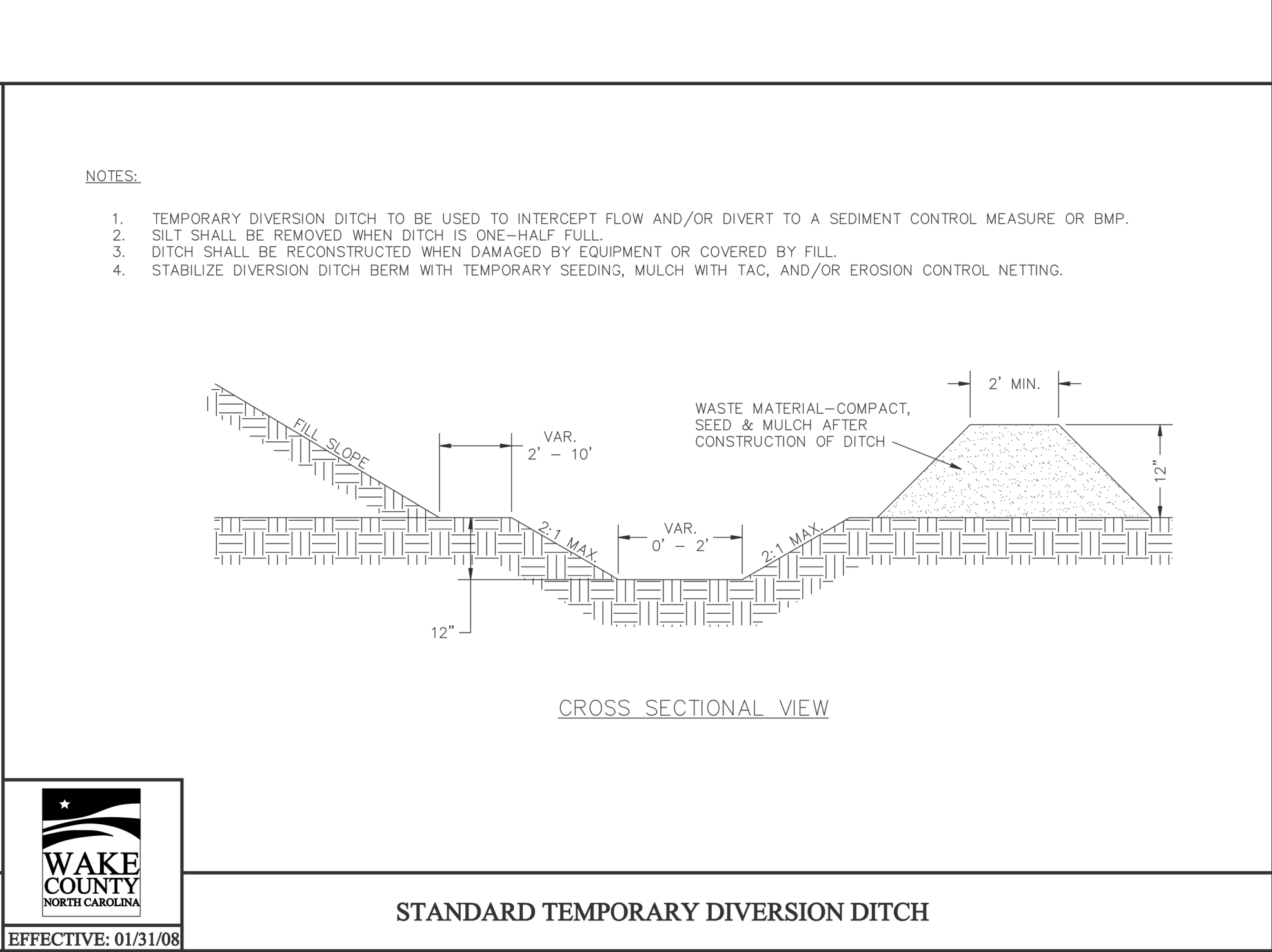
**WAKE COUNTY**  
NORTH CAROLINA  
EFFECTIVE: 01/31/08

**STANDARD CONSTRUCTION ENTRANCE**



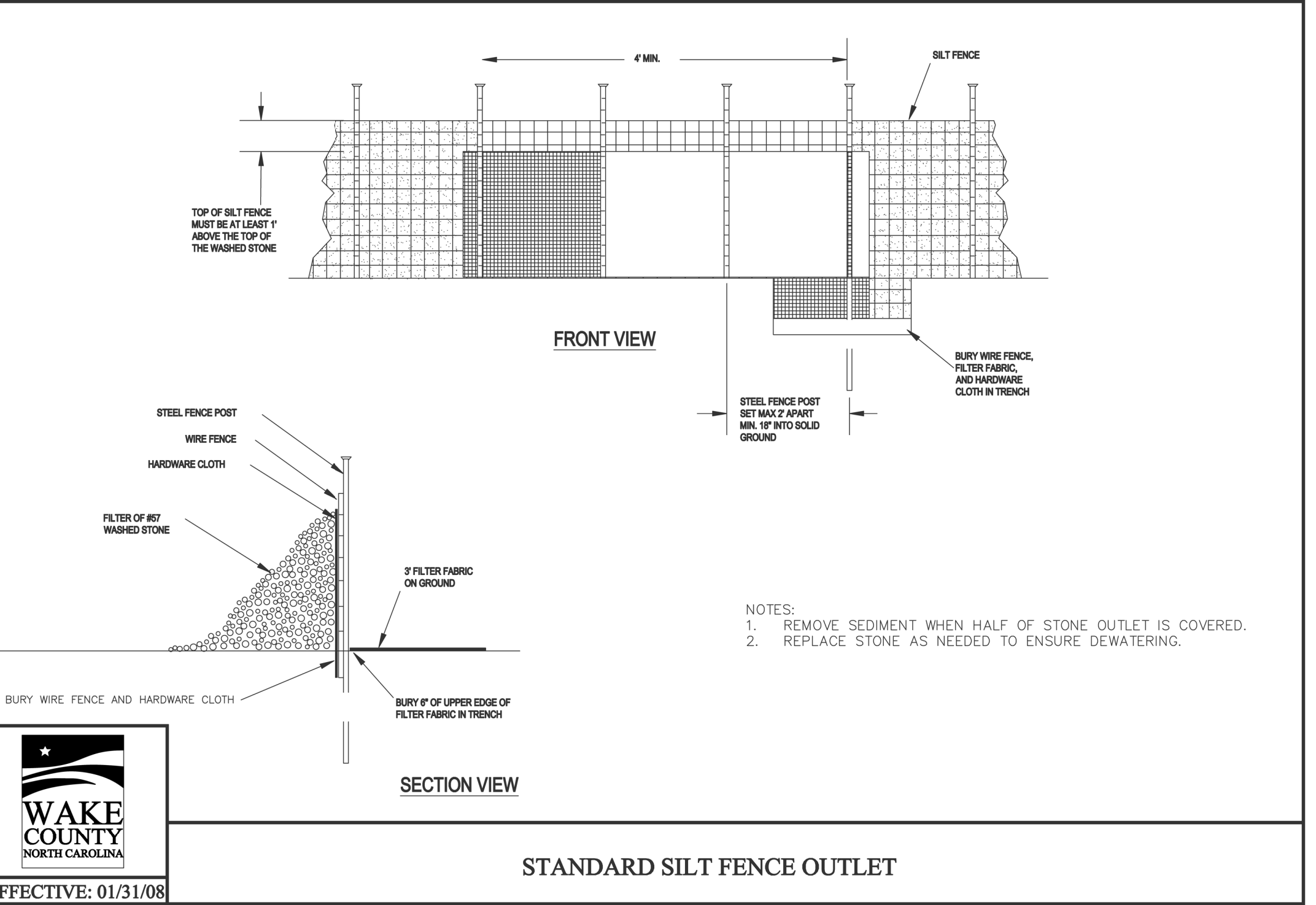
**WAKE COUNTY**  
NORTH CAROLINA  
EFFECTIVE: 01/31/08

**STANDARD TEMPORARY SILT FENCE**



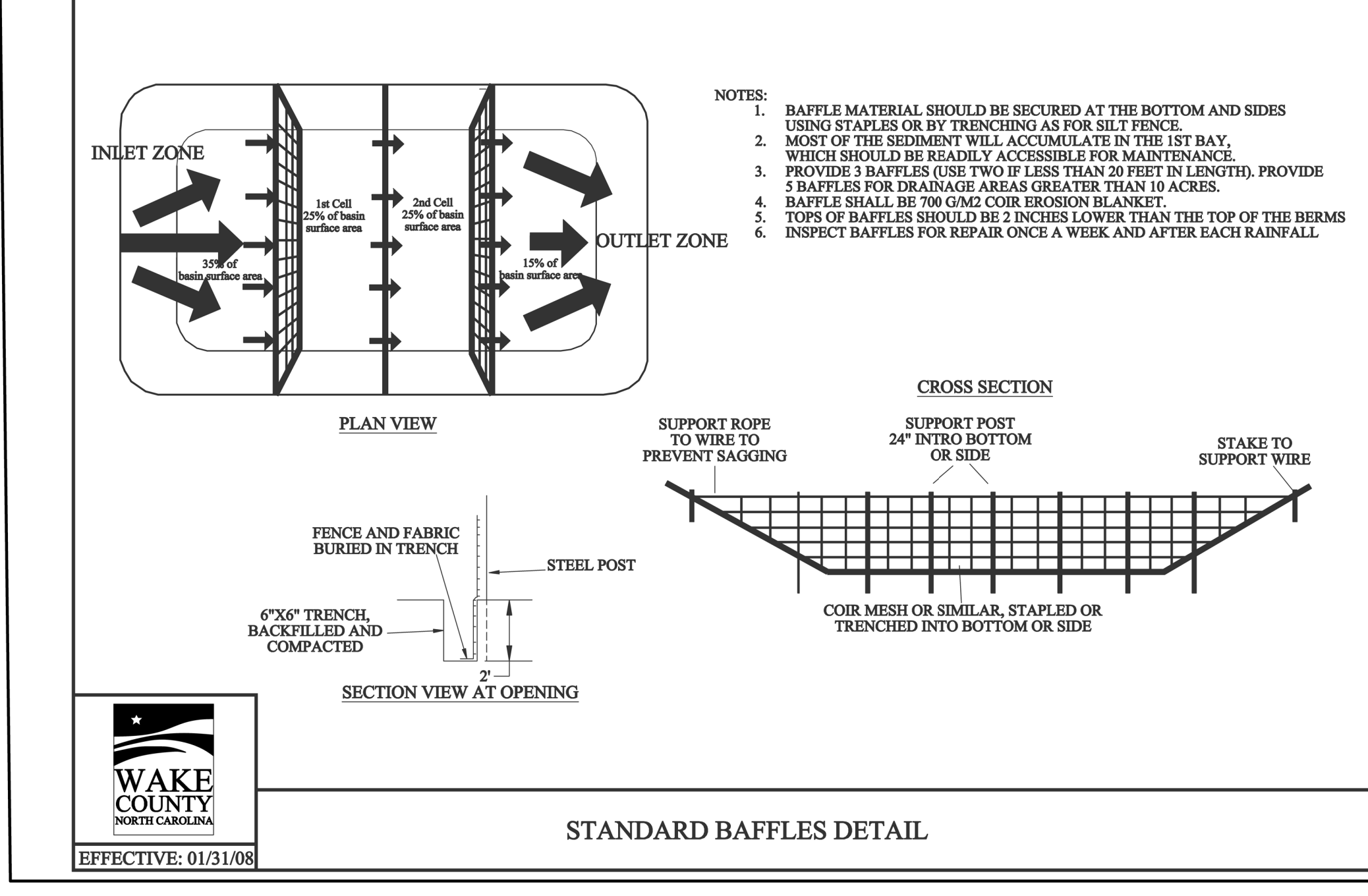
**WAKE COUNTY**  
NORTH CAROLINA  
EFFECTIVE: 01/31/08

**STANDARD TEMPORARY DIVERSION DITCH**



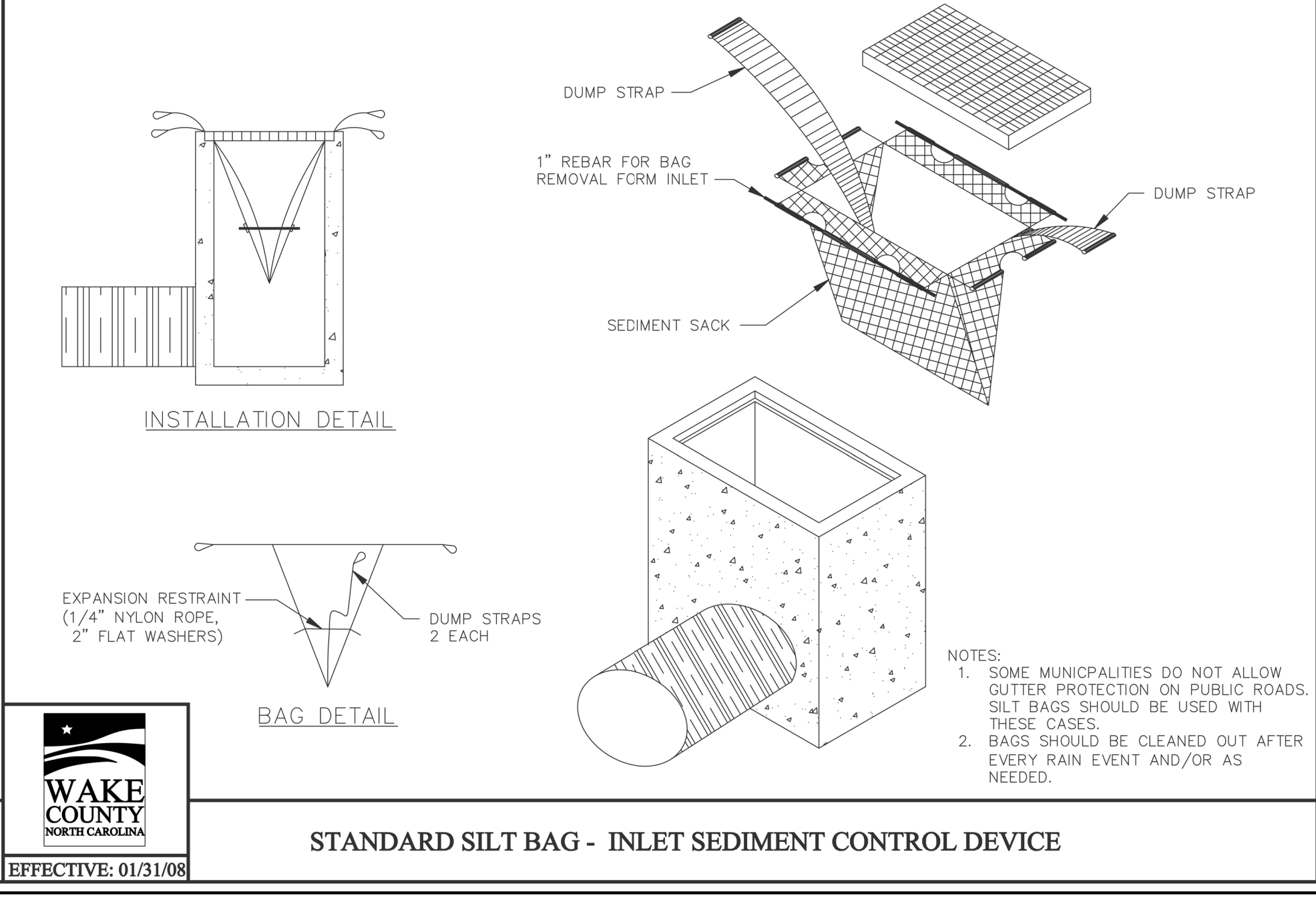
**WAKE COUNTY**  
NORTH CAROLINA  
EFFECTIVE: 01/31/08

**STANDARD SILT FENCE OUTLET**



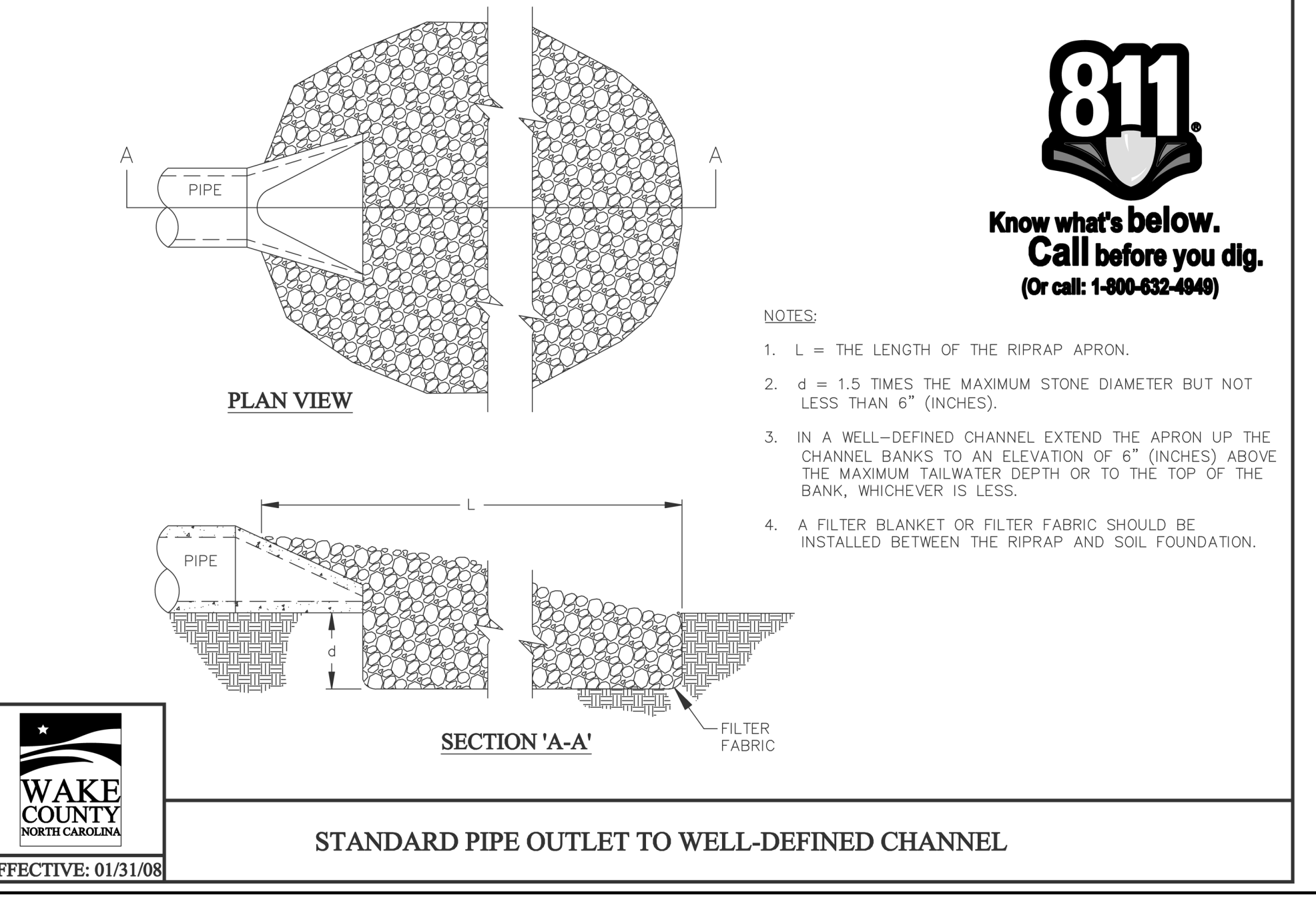
**WAKE COUNTY**  
NORTH CAROLINA  
EFFECTIVE: 01/31/08

**STANDARD BAFFLES DETAIL**



**WAKE COUNTY**  
NORTH CAROLINA  
EFFECTIVE: 01/31/08

**STANDARD SILT BAG - INLET SEDIMENT CONTROL DEVICE**



**WAKE COUNTY**  
NORTH CAROLINA  
EFFECTIVE: 01/31/08

**STANDARD PIPE OUTLET TO WELL-DEFINED CHANNEL**

**Gettle Engineering and Design, PLLC**  
3616 Waxwing Court,  
Wake Forest, North Carolina 27587  
(919) 210-3934 Firm License P-2638

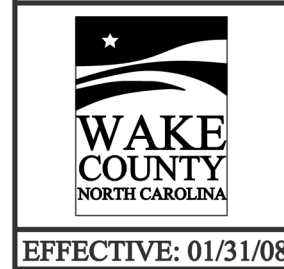
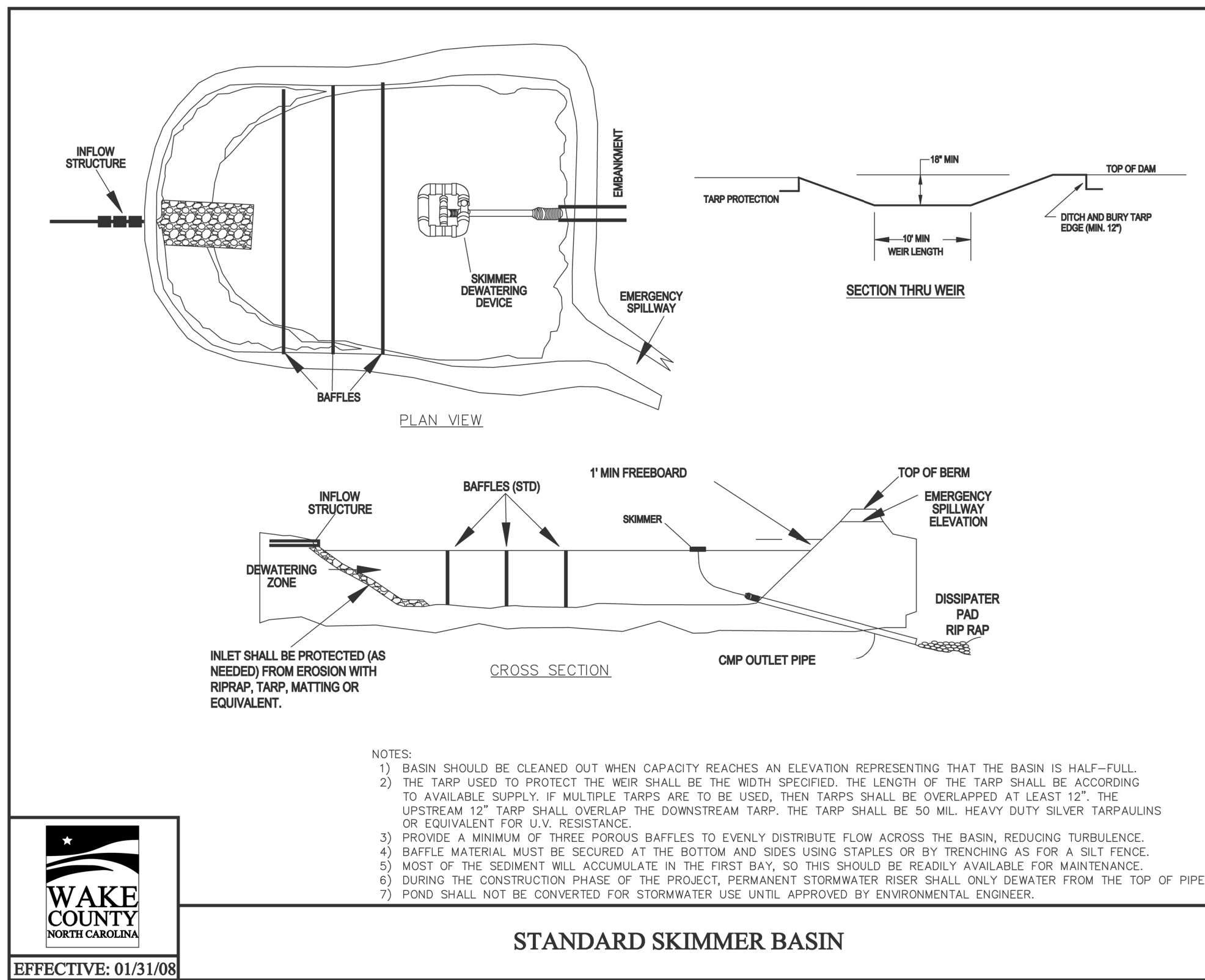
**PRELIMINARY  
DO NOT USE FOR  
CONSTRUCTION**

NO.	DATE	BY	REVISION/DESCRIPTION
1	07-26-2022	INITIAL SUBMITTAL	
2	DATE	BY	COMMENT
3	DATE	BY	COMMENT
4	DATE	BY	COMMENT
5	DATE	BY	COMMENT
6	DATE	BY	COMMENT
7	DATE	BY	COMMENT
8	DATE	BY	COMMENT

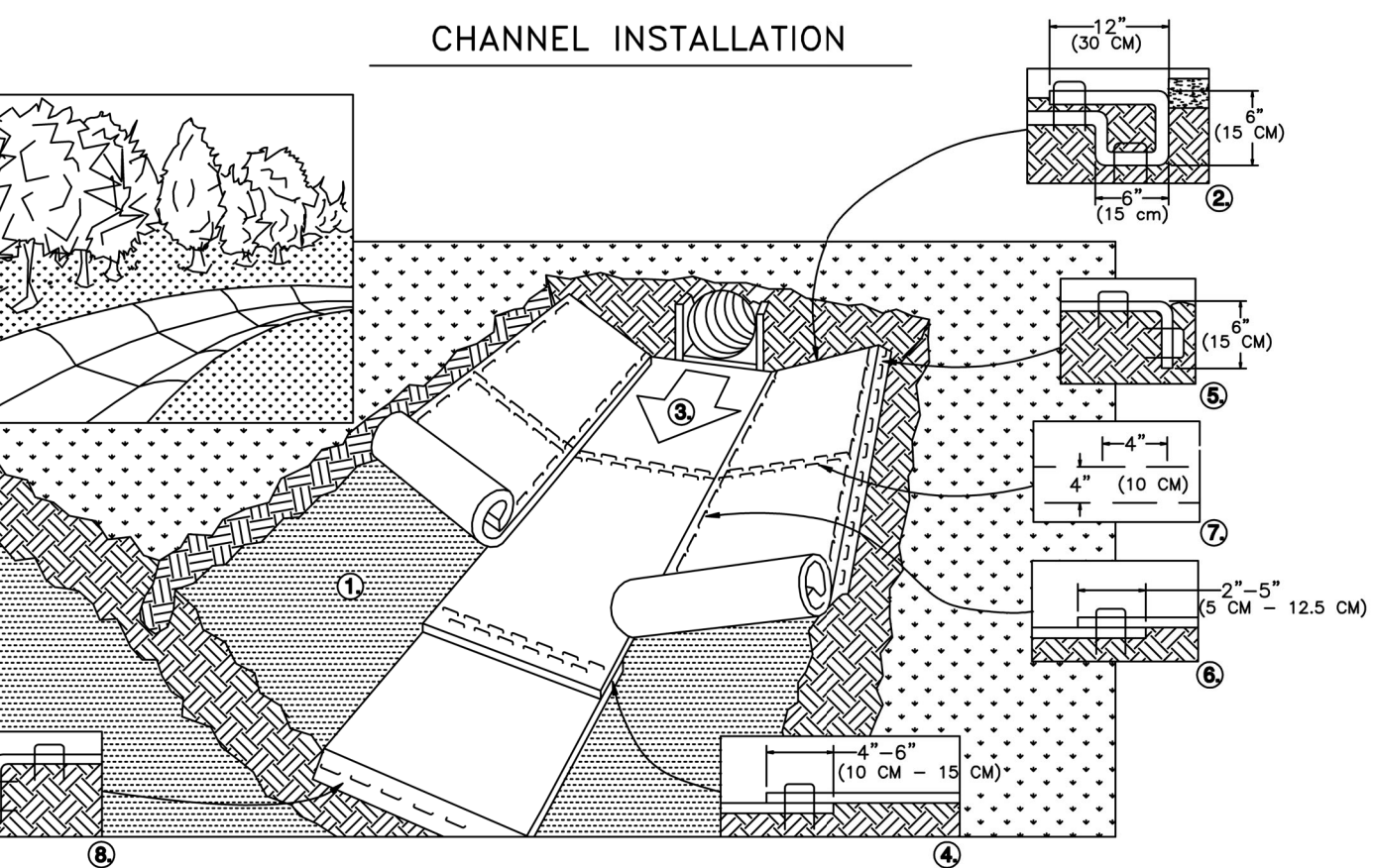
**WAKE COUNTY**  
NORTH CAROLINA  
Professional Seal  
1/26/22

**Erosion Control Details**  
South Main  
503 South Main Street  
Rolesville, Wake County, North Carolina

Project No. XXXXX  
Dwg No. **EC5**

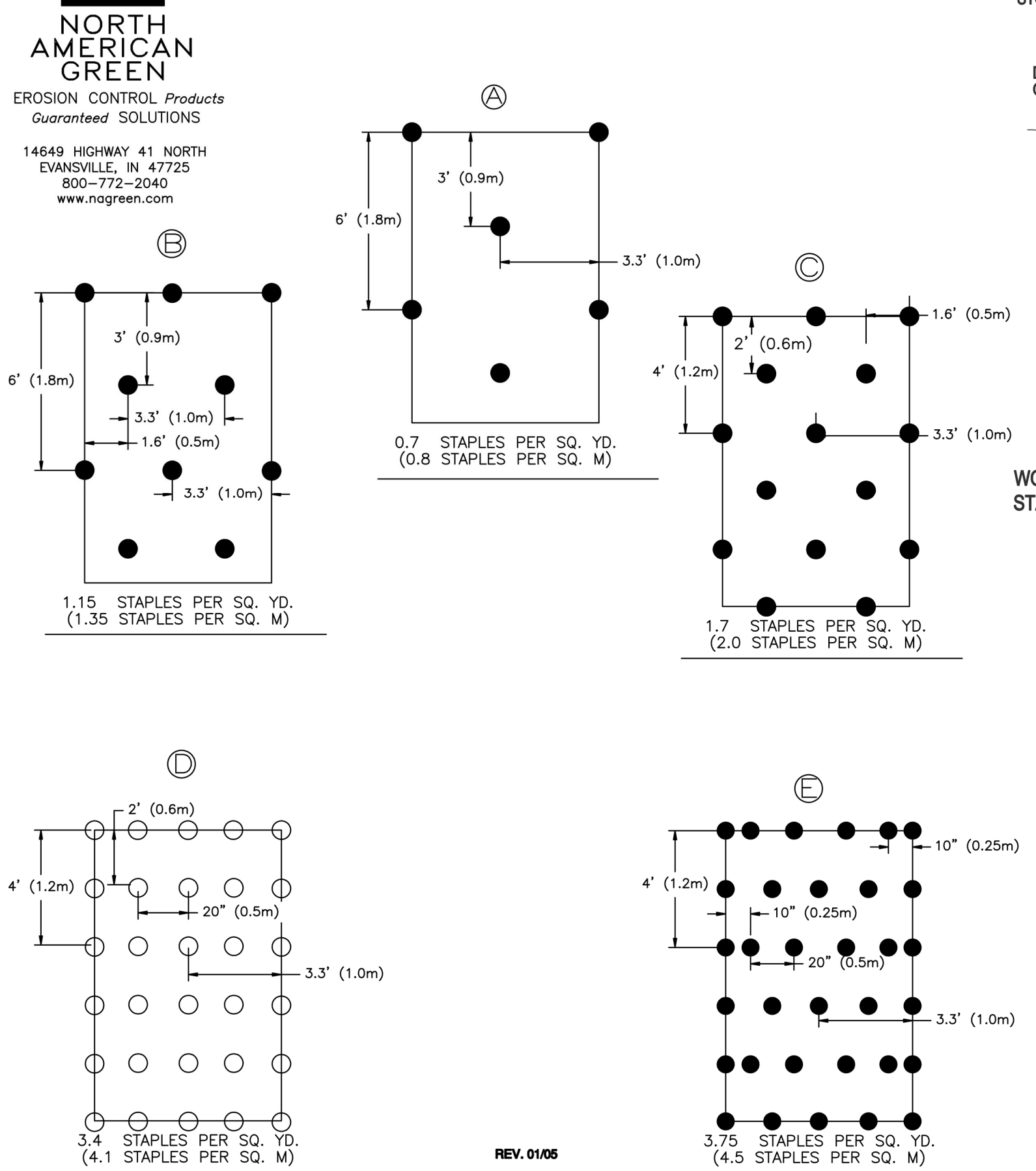


STANDARD SKIMMER BASIN



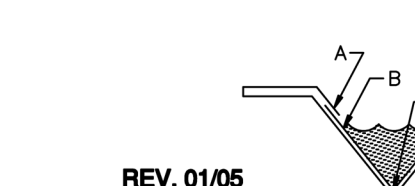
**NORTH AMERICAN GREEN**  
 EROSION CONTROL PRODUCTS  
*Guaranteed SOLUTIONS*  
 14649 HIGHWAY 41 NORTH  
 EVANSVILLE, IN 47725  
 800-772-2040  
 www.nagreen.com

**STAPLE PATTERN GUIDE**  
 6.67' (2.03 M) WIDE ROLLS

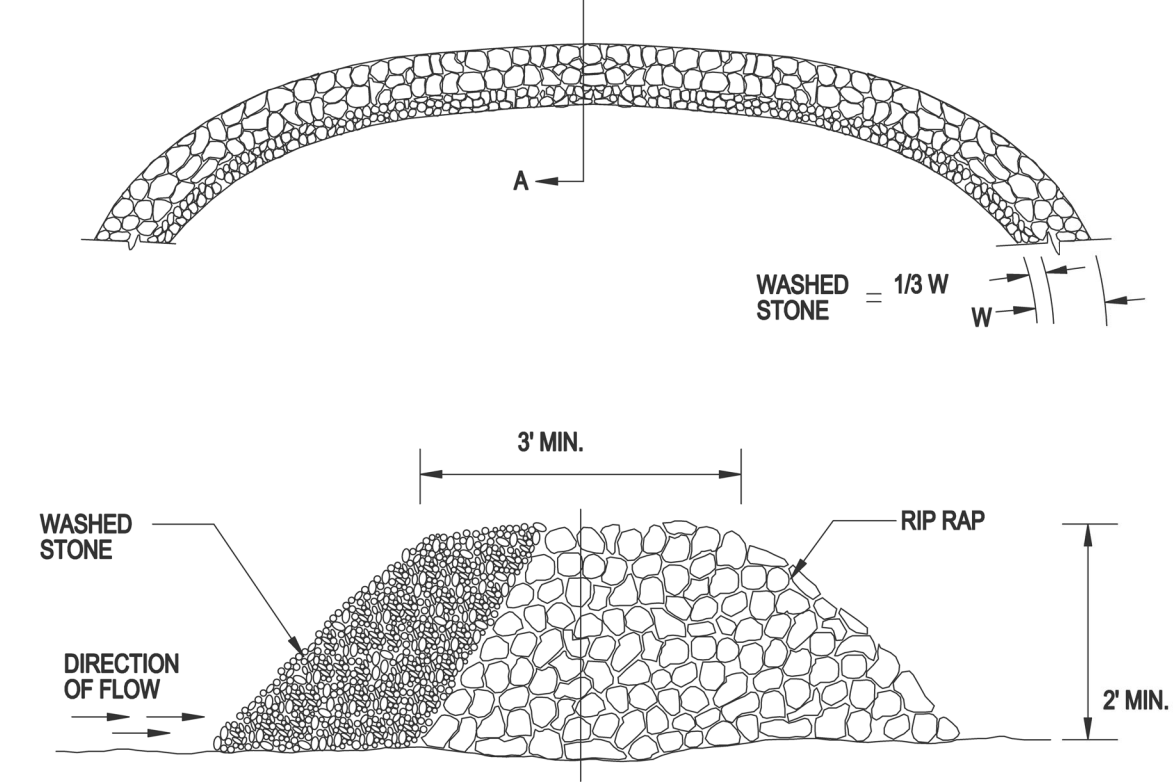


**NORTH AMERICAN GREEN**  
 EROSION CONTROL PRODUCTS  
*Guaranteed SOLUTIONS*  
 14649 HIGHWAY 41 NORTH  
 EVANSVILLE, IN 47725  
 800-772-2040  
 www.nagreen.com

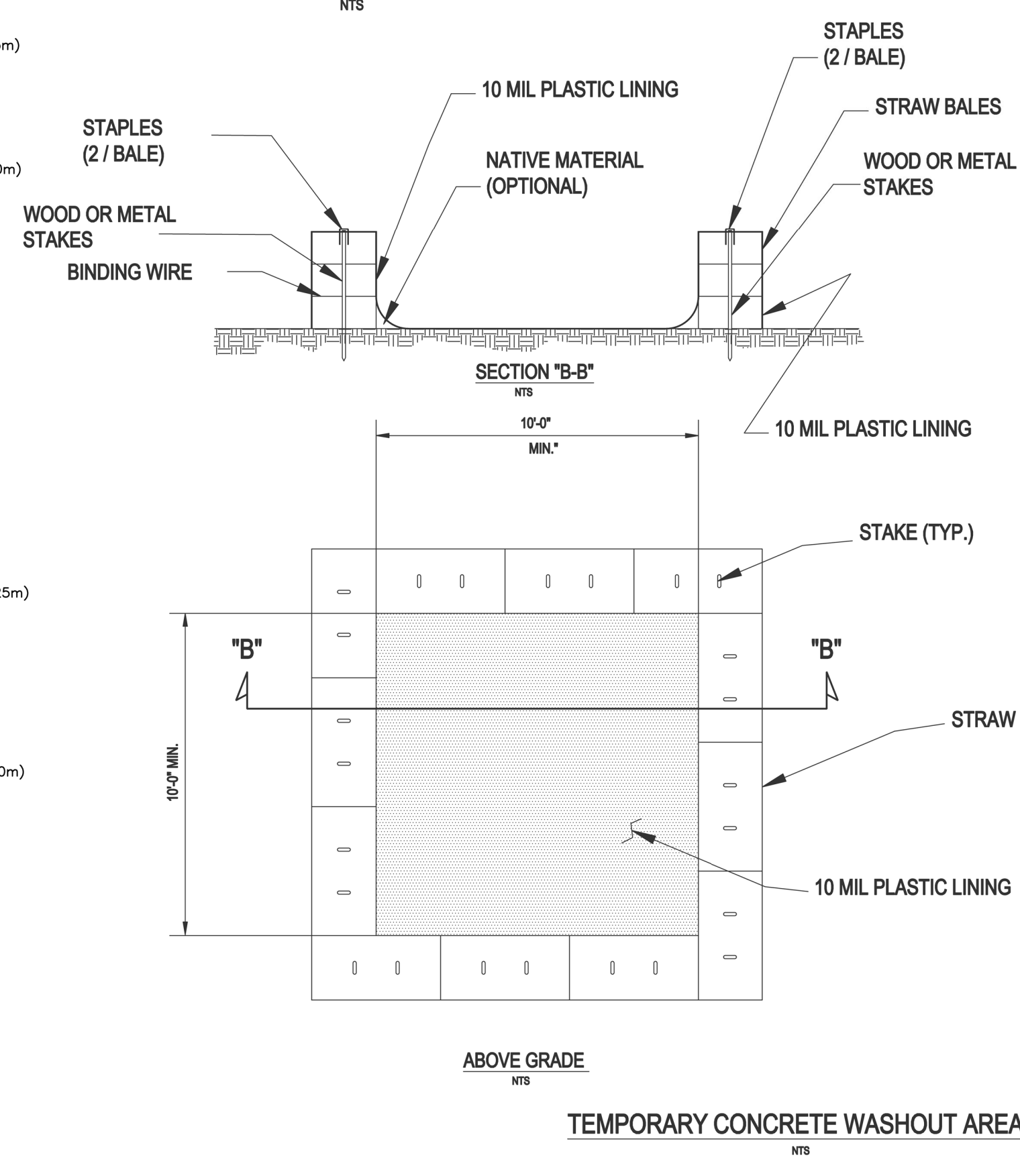
- PREPARE SOIL BEFORE INSTALLING ROLLED EROSION CONTROL PRODUCTS (RECP'S), INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER, AND SEED. NOTE: WHEN USING CELL-0-SEED DO NOT SEED PREPARED AREA. CELL-0-SEED MUST BE INSTALLED WITH PAPER SIDE DOWN.
- BEGIN AT THE TOP OF THE CHANNEL BY ANCHORING THE RECP'S IN A 6" (15 CM) DEEP X 6" (15 CM) WIDE TRENCH WITH APPROXIMATELY 12" (30 CM) OF RECP'S EXTENDED BEYOND THE UP-SLOPE PORTION OF THE TRENCH. ANCHOR THE RECP'S WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" (30 CM) APART IN THE BOTTOM OF THE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING. APPLY SEED TO COMPACTED SOIL AND FOLD REMAINING 12" (30 CM) PORTION OF RECP'S BACK OVER SEED AND COMPACTED SOIL. SECURE RECP'S OVER COMPACTED SOIL WITH A ROW OF STAPLES/STAKES SPACED APPROXIMATELY 12" (30 CM) ACROSS THE WIDTH OF THE RECP'S.
- ROLL CENTER RECP'S IN DIRECTION OF WATER FLOW IN BOTTOM OF CHANNEL. RECP'S WILL UNROLL WITH APPROPRIATE SIDE AGAINST THE SOIL SURFACE. ALL RECP'S MUST BE SECURELY FASTENED TO SOIL SURFACE BY PLACING STAPLES/STAKES IN APPROPRIATE LOCATIONS AS SHOWN IN THE STAPLE PATTERN GUIDE. WHEN USING THE DOT SYSTEM, STAPLES/STAKES SHOULD BE PLACED THROUGH EACH OF THE COLORED DOTS CORRESPONDING TO THE APPROPRIATE STAPLE PATTERN.
- PLACE CONSECUTIVE RECP'S END OVER END (SHINGLE STYLE) WITH A 4" - 6" (10 CM - 15 CM) OVERLAP. USE A DOUBLE ROW OF STAPLES STAGGERED 4" (10 CM) APART AND 4" (10 CM) ON CENTER TO SECURE RECP'S.
- FULL LENGTH EDGE OF RECP'S AT TOP OF SIDE SLOPES MUST BE ANCHORED WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" (30 CM) APART IN A 6" (15 CM) DEEP X 6" (15 CM) WIDE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING.
- ADJACENT RECP'S MUST BE OVERLAPPED APPROXIMATELY 2" - 5" (5 CM - 12.5 CM) (DEPENDENT ON RECP'S TYPE) AND STAPLED.
- IN HIGH FLOW CHANNEL APPLICATIONS, A STAPLE CHECK SLOT IS RECOMMENDED AT 30 TO 40 FOOT (9 M - 12 M) INTERVALS. USE A DOUBLE ROW OF STAPLES STAGGERED 4" (10 CM) APART AND 4" (10 CM) ON CENTER OVER ENTIRE WIDTH OF THE CHANNEL.
- THE TERMINAL END OF THE RECP'S MUST BE ANCHORED WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" (30 CM) APART IN A 6" (15 CM) DEEP X 6" (15 CM) WIDE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING.



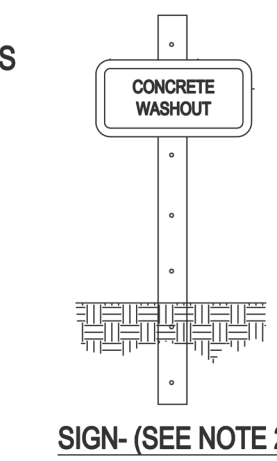
**NOTE:**  
 \* HORIZONTAL STAPLE SPACING SHOULD BE ALTERED IF NECESSARY TO ALLOW STAPLES TO SECURE THE CRITICAL POINTS ALONG THE CHANNEL SURFACE.  
 \*\* IN LOOSE SOIL CONDITIONS, THE USE OF STAPLE OR STAKE LENGTHS GREATER THAN 6" (15 CM) MAY BE NECESSARY TO PROPERLY ANCHOR THE RECP'S.



**STONE FILTER BERM**



- NOTES:**
- ACTUAL LAYOUT DETERMINED IN THE FIELD - SEE PLANS FOR LOCATION.
  - THE CONCRETE WASHOUT SIGN SHALL BE INSTALLED WITHIN 30 FEET OF THE FACILITY.
  - LOCATE THE WASHOUT AREA AT LEAST 50-FOET FROM SENSITIVE AREAS SUCH AS STORM DRAINS, OPEN DITCHES OR WATER BODIES, INCLUDING WETLANDS.
  - THE PLASTIC LINING MATERIAL SHOULD BE A MIN OF 10 MIL POLYETHYLENE MATERIAL AND FREE OF HOLES, TEARS, OR OTHER DEFECTS THAT MAY COMPROMISE THE IMPERMEABILITY OF THE MATERIAL.
  - WHEN THE FACILITY IS NO LONGER REQUIRED THE HARDENED CONCRETE, SLURRIES AND LIQUIDS SHALL BE PROPERLY DISPOSED OF OFF-SITE. MATERIAL USED TO CONSTRUCT THE FACILITY SHALL BE PROPERLY DISPOSED OF OFF-SITE. HOLES, DEPRESSIONS OR OTHER GROUND DISTURBANCE CAUSED BY THE REMOVAL OF THE TEMPORARY FACILITY SHALL BE BACKFILLED, REPAIRED, AND STABILIZED TO PREVENT EROSION.



SIGN- (SEE NOTE 2)

**SEEDING**

**SEEDBED PREPARATION:**

- CHISEL COMPACTED AREAS AND SPREAD TOPSOIL THREE INCHES DEEP OVER ADVERSE SOIL CONDITIONS, IF AVAILABLE.
- RIP THE ENTIRE AREA TO SIX INCHES DEEP.
- REMOVE ALL LOOSE ROCK, ROOTS AND OTHER OBSTRUCTIONS, LEAVING SURFACE REASONABLY SMOOTH AND UNIFORM.
- APPLY AGRICULTURAL LIME, FERTILIZER AND SUPERPHOSPHATE UNIFORMLY AND MIX WITH SOIL. (SEE MIXTURE BELOW).
- CONTINUE TILLAGE UNTIL A WELL-PULVERIZED, FIRM, REASONABLY UNIFORM SEEDBED IS PREPARED FOUR TO SIX INCHES DEEP.
- SEED ON A FRESHLY PREPARED SEEDBED AND COVER SEED LIGHTLY WITH SEEDING EQUIPMENT OR CULTIPACK AFTER SEEDING.
- MULCH IMMEDIATELY AFTER SEEDING AND ANCHOR MULCH.
- INSPECT ALL SEEDBED AREAS AND MAKE NECESSARY REPAIRS OR RESEEDINGS WITHIN THE PLANTING SEASON. IF POSSIBLE, IF STAND SHOULD BE MORE THAN 80% DAMAGED, RE-ESTABLISH FOLLOWING THE ORIGINAL LIME, FERTILIZER AND SEEDING RATES.
- CONSULT ENGINEER OR LANDSCAPE ARCHITECT ON MAINTENANCE TREATMENT AND FERTILIZATION AFTER PERMANENT COVER IS ESTABLISHED.

**MIXTURE:**

AGRICULTURAL LIMESTONE: 2 TONS/ACRE (3 TONS/ACRE IN CLAY SOILS)  
 FERTILIZER: 1,000 LBS/ACRE - 10-10-10  
 SUPERPHOSPHATE: 500 LBS/ACRE - 20% ANALYSIS  
 MULCH: 2 TONS/ACRE - SMALL GRAIN STRAW  
 ANCHOR: ASPHALT EMULSION AT 300 GAL/ACRE

**SEEDING SCHEDULE**

FOR SHOULDERS, SIDE DITCHES, SLOPES (MAX 3:1):

DATE	TYPE	PLANTING RATE
AUG 15 - NOV 1	TALL FESCUE	300 LBS/ACRE
NOV 1 - MAR 1	TALL FESCUE & ABRUZZI RYE	300 LBS/ACRE
MAR 1 - APR 15	TALL FESCUE	300 LBS/ACRE
APR 15 - JUN 30	HULLED COMMON BERMUDAGRASS	25 LBS/ACRE
JUL 1 - AUG 15	TALL FESCUE AND BROWNTOP MILLET OR SORGHUM-SUDAN HYBRIDS***	125 LBS/ACRE (TALL FESCUE); 35 LBS/ACRE (BROWNTOP MILLET); 30 LBS/ACRE (SORGHUM-SUDAN HYBRIDS)

FOR SHOULDERS, SIDE DITCHES, SLOPES (3:1 TO 2:1):

DATE	TYPE	PLANTING RATE
MAR 1 - JUN 1	SERICEA LESPEDEZA (SCARIFIED) AND USE THE FOLLOWING COMBINATIONS:	50 LBS/ACRE (SERICEA LESPEDEZA);
MAR 1 - APR 15	ADD TALL FESCUE	120 LBS/ACRE
MAR 1 - JUN 30	OR ADD WEEPING LOVE GRASS	10 LBS/ACRE
MAR 1 - JUN 30	OR ADD HULLED COMMON BERMUDAGRASS	25 LBS/ACRE
JUN 1 - SEPT 1	TALL FESCUE AND BROWNTOP MILLET OR SORGHUM-SUDAN HYBRIDS***	120 LBS/ACRE (TALL FESCUE); 35 LBS/ACRE (BROWNTOP MILLET); 30 LBS/ACRE (SORGHUM-SUDAN HYBRIDS)
SEPT 1 - MAR 1	SERICEA LESPEDEZA (UNSCARIFIED) - 70 LBS/ACRE (SERICEA LESPEDEZA); UNSCARIFIED AND TALL FESCUE	50 LBS/ACRE (TALL FESCUE)
NOV 1 - MAR 1	AND ABRUZZI RYE	25 LBS/ACRE

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

\*\*\* TEMPORARILY RESEED ACCORDING TO OPTIMUM SEASON FOR DESIRED PERMANENT VEGETATION. DO NOT ALLOW TEMPORARY COVER TO GROW MORE THAN 12" IN HEIGHT BEFORE MOWING; OTHERWISE, FESCUE MAY BE SHADED OUT.

**Gettle Engineering and Design, PLLC**  
 3616 Waxwing Court,  
 Wake Forest, North Carolina 27587  
 (919) 210-3334 Firm License P-2538

NO.	DATE	BY	REVISION DESCRIPTION
1	07-26-2022	BY	INITIAL SUBMITTAL
2		BY	COMMENT
3		BY	COMMENT
4		BY	COMMENT
5		BY	COMMENT
6		BY	COMMENT
7		BY	COMMENT



**Erosion Control Details**  
 South Main  
 503 South Main Street  
 Rolesville, Wake County, North Carolina

Project No. XXXXX  
 Dwg No. **EC6**

PRELIMINARY  
 DO NOT USE FOR  
 CONSTRUCTION

