

# 7ELEVEN AT WALLBROOK (LOT 11)

## SITE DEVELOPMENT PLAN - SDP 23-04<sup>▲</sup>

US-401 Business / S. Main Street ~ Town of Rolesville ~ Wake County ~ North Carolina

### V3-SDP-23-04

#### Engineer

Ark Consulting Group, PLLC  
2755 Charles Blvd - Suite B  
Greenville, NC 27858  
(252) 558-0888

Contact: Bryan Fagundus, PE  
bryan@arkconsultinggroup.com

#### Developer

Wallbrook Landco, LLC  
3 Keel St, Ste 2  
Wrightsville Beach, NC 28480  
(704) 621-6430

Contact: Austin Williams  
awilliams@csere.com

#### Owner

Wallbrook CStore, LLC  
801 East Blvd.  
Charlotte, NC 28203  
(704) 561-5200

Contact: Nick Carroll  
ncarroll@csere.com

#### Parking Requirements:

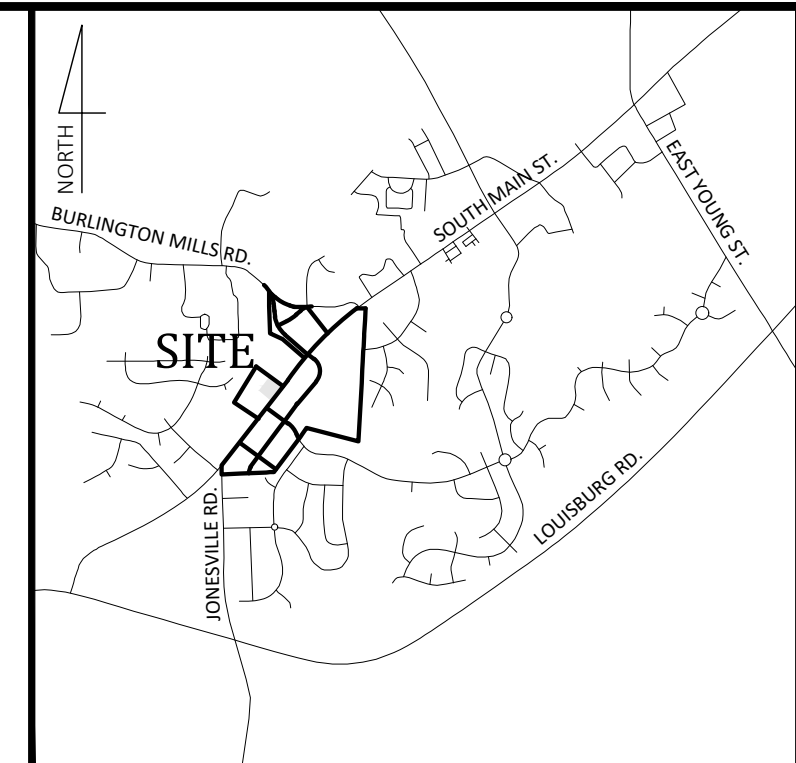
PARKING REQUIRED:		RETAIL SALES AND SERVICES
BICYCLE PARKING:	1 / 5000 SF = 4730 / 5000	1 SPACE
MINIMUM:	2.5 / 1000 SF = 4730 / 1000 * 2.5	12 SPACES
MAXIMUM:	7.5 / 1000 SF = 4730 / 1000 * 7.5	36 SPACES
TOTAL REQUIRED PARKING:		12 SPACES
REQUIRED HANDICAP PARKING:		+ 1 BICYCLE PARKING 1 SPACES
PARKING PROVIDED:		34 SPACES (INCL. 2 H/C) 4 BICYCLE PARKS

#### General Notes:

- CONTACT NORTH CAROLINA ONE-CALL CENTER, INC. (NC ONE-CALL) AT 811 TO HAVE ALL UNDERGROUND UTILITIES LOCATED PRIOR TO EXCAVATING OR TRENCHING.
- ALL REQUIRED IMPROVEMENTS SHALL CONFORM TO THE TOWN OF ROLESVILLE LAND DEVELOPMENT ORDINANCE AND THE TOWN OF ROLESVILLE DEVELOPMENT STANDARDS.
- CONTRACTOR SHALL NOTIFY NCDOT AND TOWN OF ROLESVILLE PUBLIC WORKS, STREET MAINTENANCE DIVISION 48 HOURS PRIOR TO MAKING CONNECTIONS TO EXISTING STORM DRAINS LOCATED WITHIN PUBLIC STORM DRAINAGE EASEMENTS OR RIGHT-OF-WAY.
- THIS PROPERTY IS LOCATED WITHIN ZONE 'X', AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN, AS SHOWN ON NATIONAL FLOOD INSURANCE PROGRAM RATE MAP (FIRM) 3720175800K, EFFECTIVE DATE JULY 19, 2022.
- EXISTING CONDITIONS AS DEPICTED ON THESE PLANS ARE GENERAL AND ILLUSTRATIVE IN NATURE AND MAY NOT INCLUDE ALL MECHANICAL, ELECTRICAL AND MISCELLANEOUS STRUCTURES. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO EXAMINE THE SITE AND BE FAMILIAR WITH EXISTING CONDITIONS PRIOR TO BIDDING ON THE WORK FOR THIS PROJECT. IF CONDITIONS ENCOUNTERED DURING EXAMINATION ARE SIGNIFICANTLY DIFFERENT THAN THOSE SHOWN, THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY.
- ELECTRIC AND TELEPHONE UTILITIES SHALL BE INSTALLED UNDERGROUND.
- REFER TO ARCHITECTURAL PLANS FOR BUILDING DIMENSIONS.
- REFER TO M.E.P. PLANS FOR COORDINATION OF BUILDING UTILITY SERVICES.
- THIS PROJECT DISTURBS MORE THAN 1/2 ACRE FOR PURPOSES OF A COMMERCIAL DEVELOPMENT. PROJECT IS SUBJECT TO THE TOWN OF ROLESVILLE STORMWATER MANAGEMENT ORDINANCE. STORMWATER MANAGEMENT PLAN APPROVAL BY THE TOWN OF ROLESVILLE IS REQUIRED.
- THIS PROJECT DISTURBS MORE THAN 1 ACRE. EROSION & SEDIMENTATION CONTROL PLAN APPROVAL IS REQUIRED.
- NCDOT DRIVEWAY PERMIT APPROVAL IS COMPLETED FOR THIS PROJECT. REFERENCE NCDOT PERMIT NUMBER D051-092-22-00049.
- REFUSE COLLECTION SHALL BE PROVIDED BY PRIVATE SERVICE FOR COMMERCIAL DEVELOPMENT.
- ALL DIMENSIONS ARE TO FACE OF CURB UNLESS OTHERWISE NOTED.
- SITE SHALL MEET ALL RELATED ACCESSIBILITY CODE REQUIREMENTS.
- BOUNDARY AND TOPOGRAPHIC SURVEY INFORMATION SHOWN HEREON WAS PREPARED BY JOHNSON, MIRMIRAN & THOMPSON. REFERENCE IS MADE TO THE SURVEY ENTITLED ALTA/NSPS LAND TITLE SURVEY PREPARED FOR WALLBROOK LANDCO, LLC DATED 3/28/2020, AND ATTACHED TO THIS DRAWING SET FOR REFERENCE.
- UNDERGROUND UTILITIES PLOTTED IN PART FROM ACTUAL FIELD LOCATION OF ABOVE GROUND FEATURES AND IN PART FROM MAPS ON RECORD. ACTUAL LOCATIONS MAY VARY. SURVEYOR AND ENGINEER CANNOT PROVIDE ACCURACY OF INFORMATION TAKEN FROM RECORD DATA. OTHER UTILITIES MAY EXIST. CONTRACTOR SHOULD CONTACT NORTH CAROLINA ONE-CALL CENTER (NC ONE-CALL) BY DIALING 811 TO HAVE UNDERGROUND UTILITIES LOCATED PRIOR TO EXCAVATING OR TRENCHING.
- THE ENGINEER MAKES NO GUARANTEE THAT THE UTILITIES SHOWN ARE COMPRISED OF ALL SUCH UTILITIES IN THE AREA OF SURVEY EITHER IN SERVICE OR ABANDONED. THE ENGINEER FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED. THE ENGINEER DOES HEREBY CERTIFY THAT ALL UTILITIES ARE LOCATED AS ACCURATELY AS POSSIBLE FROM INFORMATION AVAILABLE. THE ENGINEER HAS NOT PHYSICALLY UNCOVERED AND LOCATED ANY UNDERGROUND UTILITIES.
- REFER TO "WALLBROOK PRELIMINARY PLAT" PR 21-04 REV FOR OPEN SPACE CALCULATIONS AND REQUIREMENTS FOR THE WALLBROOK DEVELOPMENT

#### Town of Rolesville Development Applications

ANX 23-03	ANNEXATION
MA 21-09	REZONING
PR 21-04 REV	PRELIMINARY SUBDIVISION PLAT (REVISED)
FSP 23-10	INTERMEDIATE SUBDIVISION PLAT
CID 23-04	WALLBROOK ROADWAY IMPROVEMENTS (VIRGINIA WATER DR EXTENSION - PARIS TRACT)
SDP 23-04	SITE DEVELOPMENT PLAN (CURRENT APPLICATION)



#### Vicinity Map

NOT TO SCALE

WAKE COUNTY PIN:	1758-46-8940
REAL ESTATE ID:	509439
CURRENT ZONING:	GC-CZ
TOTAL ACREAGE IN PROJECT:	1.62 AC
TOTAL ACREAGE IN PROJECT LIMITS:	1.31 AC
DISTURBED ACREAGE:	1.31 AC
WATERSHED:	Lower Neuse
RIVER BASIN:	Neuse
CURRENT USE:	VACANT / WOODED
PROPOSED USE:	NON-RESIDENTIAL / FUEL SALES / RETAIL
REQUIRED BUILDING SETBACKS:	35' (REAR), 25' (CORNER), 20' (FRONT), 15' (SIDE)
BUILDING FLOOR AREA:	4,791 SF
BUILDING LOT COVERAGE:	0% EXIST., 6.80% PROPOSED
BUILDING HEIGHT:	21' 5" (1 STORY)
TOTAL NUMBER OF PARKING SPACES REQUIRED:	12 SPACES (INCL. 1 H/C) + 1 BICYCLE SPACE
TOTAL NUMBER OF PROPOSED PARKING SPACES:	34 SPACES (INCL. 2 H/C) + 4 BICYCLE SPACES
TOTAL SQ. FEET OF EXIST. IMPERVIOUS AREA:	0 SF
TOTAL SQ. FEET OF PROP. IMPERVIOUS AREA:	52,272 SF (74%)
DEVELOPMENT STANDARDS:	LDO
REFERENCES:	DB 19463, PG 2429-2432 BM 2023, PG 1603-1604 BM 1996, PG 187 748 S. MAIN STREET

#### SHEET INDEX

#	TITLE
C0.1	COVER - OVERALL SITE PLAN
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C1.1	EROSION CONTROL PLAN - Ph. 2
C1.2	EROSION CONTROL NOTES
C1.3	EROSION CONTROL DETAILS
C2.0	SITE PLAN
C3.0	UTILITY PLAN
C4.0	GRADING PLAN
C5.0	REQUIRED VEGETATION PLAN
C6.0	DETAILS
C6.1	DETAILS
C6.2	DETAILS
C6.3	DETAILS
REF	SURVEY - JOHNSON, MIRMIRAN, & THOMPSON (1 SHEET)
REF	ARCHITECTURAL BUILDING ELEVATIONS BUFSSTUDIO (5 SHEETS)
REF	SITE LIGHTING PLAN - BUFSSTUDIO (3 SHEETS)
REF	PR 21-04 REVISED - TREE PRESERVATION PLAN (1 SHEET)

#### EROSION CONTROL, STORMWATER AND FLOODPLAIN MANAGEMENT

APPROVED

EROSION CONTROL  S-

STORMWATER MGMT.  S-

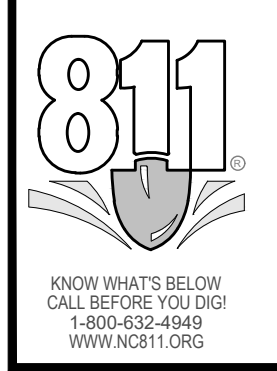
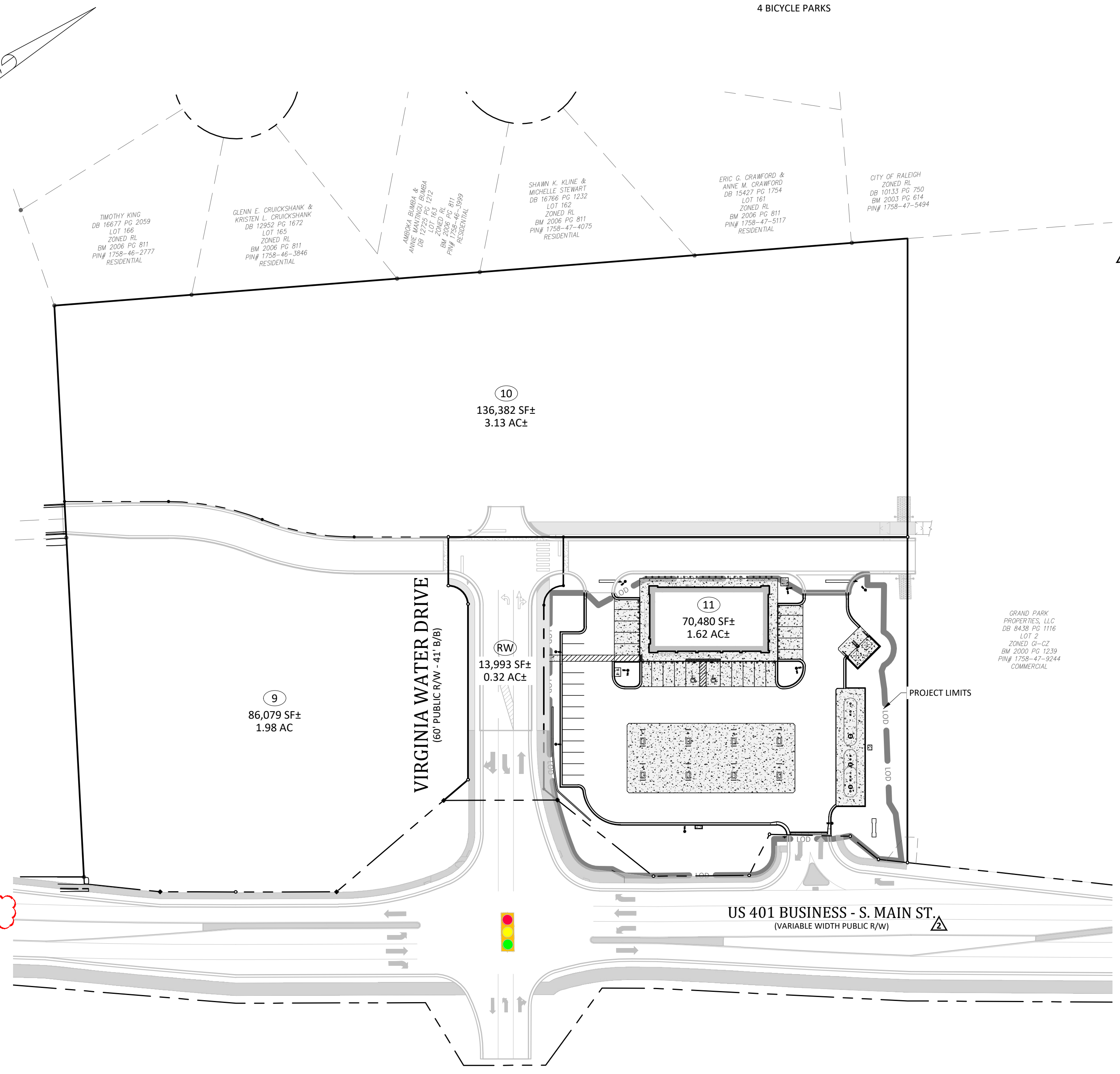
FLOOD STUDY  S-

DATE \_\_\_\_\_

ENVIRONMENTAL CONSULTANT SIGNATURE \_\_\_\_\_

#### Legend

EXISTING	PROPOSED
○	○
△	△
□	□
+	+
■	■
R/W	R/W
C&G	C&G
CAV	CAV
DI	DI
ELEC	ELEC
EM	EM
F/O	F/O
FH	FH
GV	GV
HB	HB
LP	LP
PP	PP
RCP	RCP
S.F.	S.F.
SN	SN
TEL	TEL
TRAF	TRAF
WATER	WATER
WM	WM
WMH	WMH
WW	WW
WELL	WELL
X-WALK	X-WALK
E	E
FD	FD
G	G
ONE	ONE
S	S
T	T
TV	TV
W	W
2"W	2"W
12"W	12"W
SPILL CURB	SPILL CURB
RIPARIAN BUFFER	RIPARIAN BUFFER
TREELINE	TREELINE
MAJOR CONTOUR (5')	MAJOR CONTOUR (5')
MINOR CONTOUR (1')	MINOR CONTOUR (1')
TREE PROTECTION FENCE	TREE PROTECTION FENCE
SILT FENCE	SILT FENCE
CONCRETE SIDEWALK	CONCRETE SIDEWALK
= ACCESS AND UTILITY EASEMENT	



#### - Final Drawing - Issued for Permit Review Purposes Only

#	DATE	DESCRIPTION
1	11/04/23	ISSUED FOR PERMIT REVIEW
2	11/04/23	REVISED PER TOR REVIEW COMMENTS
3	11/04/23	REVISED PER TOR REVIEW COMMENTS



**COVER - OVERALL SITE PLAN**  
**7ELEVEN AT WALLBROOK (LOT 11)**  
 Town of Rolesville Project No. SDP 23-04  
 US 401 Business / S. Main Street & Virginia Water Drive  
 Wake Forest Township, Town of Rolesville, Wake County, North Carolina

NC License: PA 1398

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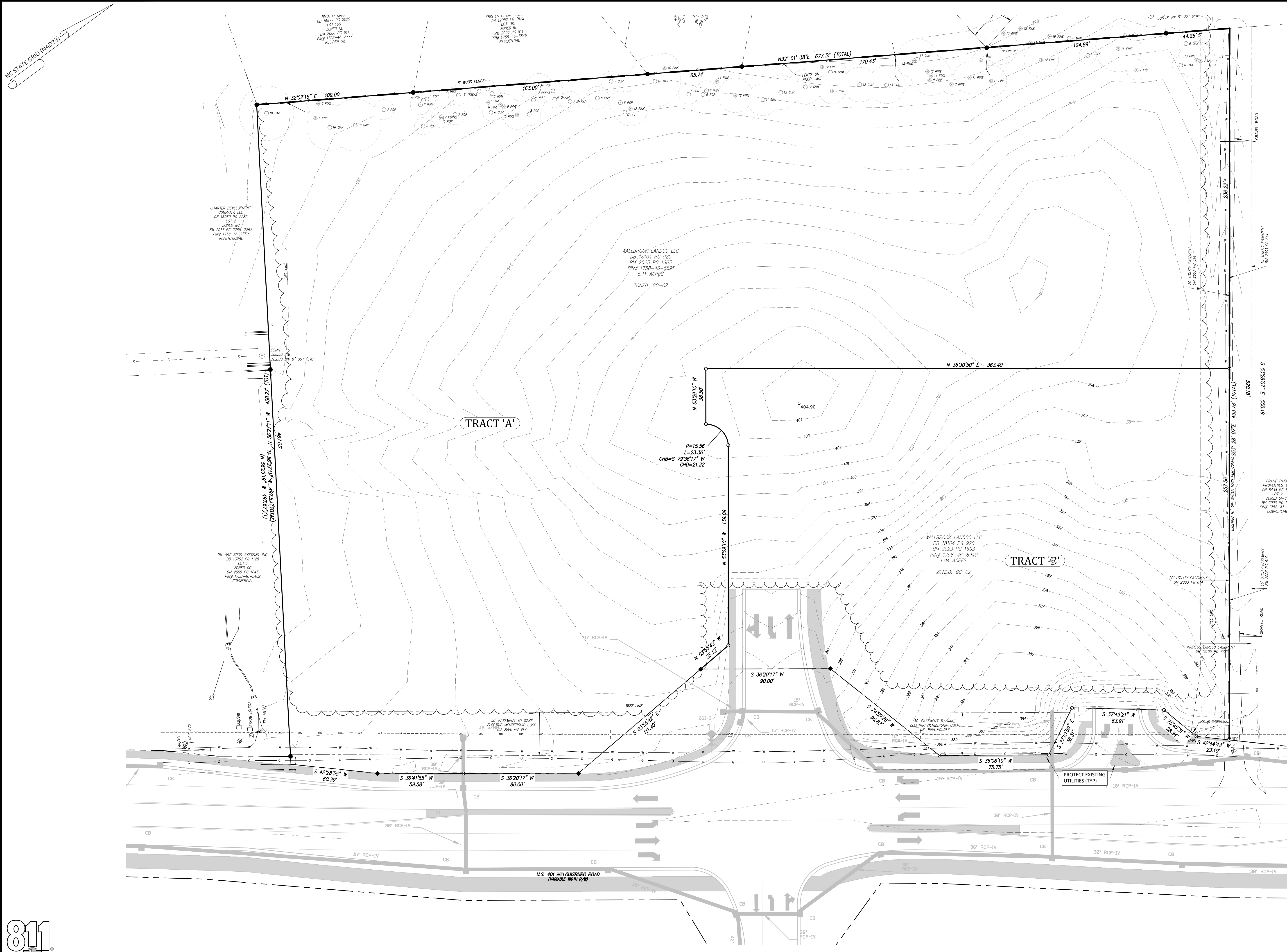
**PAULIN C. FAGUNDUS**  
REGISTERED PROFESSIONAL ENGINEER  
3/1/2024

Project Manager:	BCF
Drawn By:	DLC/TGN
Checked By:	TGN
Project Number:	22049
Drawing Number:	D-1404-SDP

C0.1

Date: May 1, 2023





**- Final Drawing -**  
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 Review Purposes Only

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1	11-MAY-23	ISSUED FOR PERMIT REVIEW
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**EXISTING CONDITIONS**

**7ELEVEN AT WALLBROOK (LOT 11)**

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US 401 Business / S. Main Street & Virginia Water Drive  
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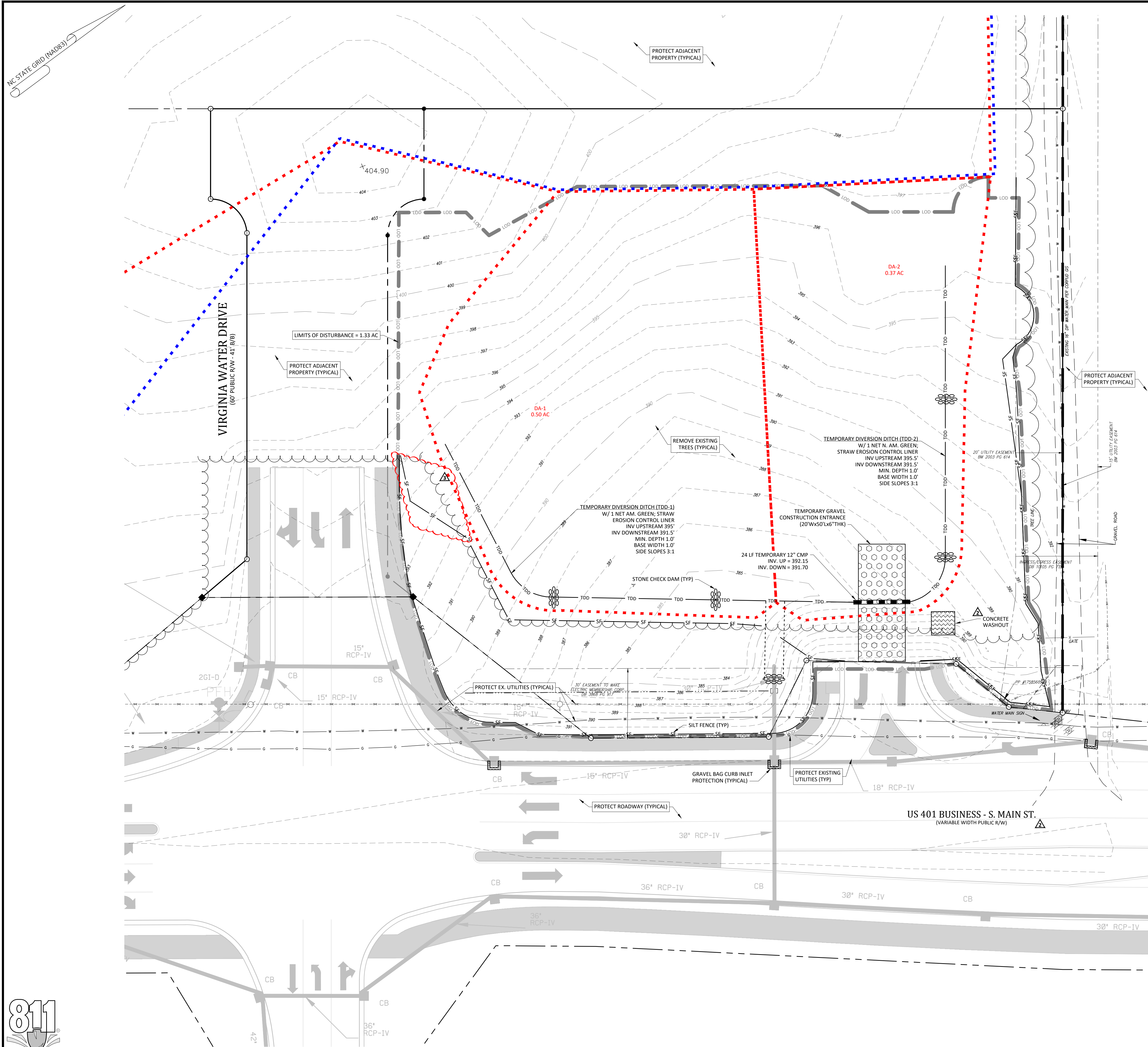
**SEAL**  
 PROFESSIONAL ENGINEER  
 BRUNYIN C. FAGUNDI  
 3/1/2024

Project Manager:	BCF
Drawn By:	DLC/TGN
Checked By:	TGN
Project Number:	22049
Drawing Number:	D-1404-SDP

**C0.2**

Date: May 1, 2023





- ### Demolition Notes:
- CONTRACTOR SHALL CONTACT NORTH CAROLINA ONE-CALL CENTER (NC 811) BY DIALING 811 OR 1-800-632-4949 AT LEAST 72 HOURS IN ADVANCE OF ANY LAND DISTURBING ACTIVITY OR DIGGING AND HAVE ALL UNDERGROUND UTILITIES LOCATED PRIOR TO EXCAVATING OR TRENCHING.
  - THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL LOCAL AND STATE PERMITS REQUIRED FOR DEMOLITION WORK.
  - THE CONTRACTOR SHALL INDEMNIFY AND HOLD HARMLESS THE OWNER AND/OR ENGINEER FOR ANY AND ALL INJURIES AND/OR DAMAGES TO PERSONNEL, EQUIPMENT AND/OR EXISTING FACILITIES IN THE DEMOLITION AND CONSTRUCTION DESCRIBED IN THE PLANS AND SPECIFICATIONS.
  - EXISTING CONDITIONS AS DEPICTED ON THESE PLANS ARE GENERAL AND ILLUSTRATIVE IN NATURE AND DO NOT INCLUDE MECHANICAL, ELECTRICAL AND MISCELLANEOUS STRUCTURES. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO EXAMINE THE SITE AND BE FAMILIAR WITH EXISTING CONDITIONS PRIOR TO BIDDING ON THE DEMOLITION WORK FOR THIS PROJECT. IF CONDITIONS ENCOUNTERED DURING EXAMINATION ARE SIGNIFICANTLY DIFFERENT THAN THOSE SHOWN, THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY.
  - ALL DEMOLITION WASTE AND DEBRIS SHALL BE REMOVED BY THE CONTRACTOR AND DISPOSED OF IN A STATE APPROVED WASTE SITE AND IN ACCORDANCE WITH ALL LOCAL AND STATE CODES AND PERMIT REQUIREMENTS.
  - THE BURNING OF CLEARED MATERIAL AND DEBRIS SHALL NOT BE ALLOWED UNLESS CONTRACTOR GETS WRITTEN AUTHORIZATION FROM THE LOCAL AUTHORITIES.
  - ASBESTOS OR HAZARDOUS MATERIALS, IF FOUND ON SITE, SHALL BE REMOVED BY A LICENSED HAZARDOUS MATERIALS CONTRACTOR. CONTRACTOR SHALL NOTIFY OWNER IMMEDIATELY IF HAZARDOUS MATERIALS ARE ENCOUNTERED.
  - CONTRACTOR SHALL PROTECT ALL CORNER PINS, MONUMENTS, PROPERTY CORNERS, AND BENCHMARKS DURING DEMOLITION ACTIVITIES. IF DISTURBED, CONTRACTOR SHALL HAVE DISTURBED ITEMS RESET BY A LICENSED SURVEYOR AT NO ADDITIONAL COST TO THE OWNER.
  - CONTRACTOR SHALL ADHERE TO ALL LOCAL, STATE, FEDERAL, AND OSHA REGULATIONS WHEN OPERATING DEMOLITION EQUIPMENT AROUND UTILITIES.
  - CONTRACTOR SHALL PROVIDE AND MAINTAIN TRAFFIC CONTROL MEASURES IN ACCORDANCE WITH THE NCDOT STANDARDS, AND AS REQUIRED BY LOCAL AGENCIES WHEN WORKING IN AND/OR ALONG STREETS, ROADS, HIGHWAYS ETC. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN APPROVAL AND COORDINATE WITH THE LOCAL AND/OR STATE AGENCIES REGARDING THE NEED, EXTENT, AND LIMITATIONS ASSOCIATED WITH INSTALLING AND MAINTAINING TRAFFIC CONTROL MEASURES.
  - CONTRACTOR SHALL PROTECT AT ALL TIMES ADJACENT STRUCTURES AND ITEMS FROM DAMAGE DUE TO DEMOLITION OR CONSTRUCTION ACTIVITIES.
  - CONTRACTOR SHALL REMOVE EXISTING VEGETATION AND IMPROVEMENTS WITHIN LIMITS OF DISTURBANCE UNLESS NOTED OTHERWISE.
  - TREES OUTSIDE OF CONSTRUCTION LIMITS OR TREES NOT INDICATED TO BE REMOVED SHALL BE PROTECTED.

- ### Erosion Control Provisions:
- NO PERSON MAY INITIATE A LAND DISTURBING ACTIVITY BEFORE NOTIFYING WAKE COUNTY WATERSHED MANAGEMENT OF THE DATE THAT THE LAND DISTURBING ACTIVITY WILL BEGIN.
  - LAND DISTURBING ACTIVITY BEYOND THAT REQUIRED TO INSTALL APPROPRIATE EROSION CONTROL MAY NOT PROCEED UNTIL EROSION CONTROL MEASURES ARE INSPECTED AND APPROVED BY THE ENGINEER.
  - SCHEDULING OF A PRE-CONSTRUCTION CONFERENCE WITH THE WAKE COUNTY WATERSHED MANAGER, JEEVAN NEUPANE, PE (919-819-8907) PRIOR TO INITIATING LAND DISTURBING ACTIVITIES IS REQUIRED. FOR INSPECTION CALL 919-819-8907. 48 HOUR NOTICE IS REQUIRED.
  - INSTALL TREE PROTECTION FENCING AROUND ALL AREAS OUTSIDE OF THE LIMITS OF DISTURBANCE AS SHOWN ON PLANS.
  - PROVIDE 20' X 50' X 6" STONE CONSTRUCTION ENTRANCES AS SHOWN ON PLAN.
  - SEED OR OTHERWISE PROVIDE GROUND COVER DEVICES OR STRUCTURES SUFFICIENT TO RESTRAIN EROSION FOR ALL EXPOSED SLOPES WITHIN 7 DAYS OF COMPLETION OF ANY PHASE OF GRADING ON PERIMETER AREAS AND SLOPES STEEPER THAN 3:1. ALL OTHER AREAS SHALL BE STABILIZED WITHIN 14 DAYS.
  - CONTRACTOR SHALL INSPECT AND MAINTAIN AS NEEDED ALL EROSION CONTROL DEVICES ON A WEEKLY BASIS AND AFTER EACH MAJOR STORM EVENT. FAILURE TO KEEP ALL EROSION CONTROL DEVICES IN PROPER WORKING ORDER MAY RESULT IN A STOP WORK ORDER OR CIVIL PENALTIES UP TO \$5000.00 PER DAY OF VIOLATION.
  - THE ENGINEER RESERVES THE RIGHT TO REQUIRE ADDITIONAL EROSION CONTROL MEASURES SHOULD THE PLAN OR ITS IMPLEMENTATION PROVE TO BE INADEQUATE.
  - ACCEPTANCE AND APPROVAL OF THIS PLAN IS CONDITIONED UPON YOUR COMPLIANCE WITH FEDERAL AND STATE WATER QUALITY LAWS, REGULATION AND RULES. IN ADDITION LOCAL CITY AND COUNTY ORDINANCES OR RULES MAY ALSO APPLY TO THIS LAND DISTURBING ACTIVITY. APPROVAL BY THE COUNTY DOES NOT SUPERSEDE ANY OTHER PERMIT OR APPROVAL.
  - PLEASE BE ADVISED OF THE RULES TO PROTECT AND MAINTAIN EXISTING BUFFERS ALONG WATERCOURSES IN THE NEUSE AND RIVER BASIN. THESE RULES ARE ENFORCED BY THE DIVISION OF WATER RESOURCES (DWR). DIRECT ANY QUESTIONS ABOUT THE APPLICABILITY OF THESE RULES TO YOUR PROJECT TO THE REGIONAL WATER QUALITY SUPERVISOR, RALEIGH REGIONAL OFFICE AT (919) 791-4200.
  - ALL AREAS DOWNSTREAM OF TEMPORARY BASINS AND DITCHES ARE TO BE STABILIZED IMMEDIATELY UPON CONSTRUCTION.

- ### Construction Sequence:
- EROSION AND SEDIMENT CONTROL (E&S) PERMIT AND A CERTIFICATE OF COVERAGE (COC) MUST BE OBTAINED BEFORE ANY LAND DISTURBING ACTIVITIES OCCUR.
  - CALL WAKE COUNTY WATERSHED MANAGER JEEVAN NEUPANE AT (919) 819-8907 A MINIMUM OF 48 HOURS IN ADVANCE TO SCHEDULE A PRE-CONSTRUCTION MEETING AND FOR NOTIFICATION OF PROJECT START UP.
  - ANY DEWATERING ON THE SITE SHALL BE DONE THROUGH A SILT BAG THAT IS CONSTANTLY MONITORED.
  - INSTALL GRAVEL CONSTRUCTION PAD, TEMPORARY DIVERSIONS, SILT FENCE, SEDIMENT BASINS OR 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.
  - CALL WATERSHED MANAGER, JEEVAN NEUPANE FOR AN ONSITE INSPECTION TO OBTAIN A CERTIFICATE OF COMPLIANCE.
  - BEGIN CLEARING AND GRUBBING. MAINTAIN DEVICES AS NEEDED. ROUGH GRADE SITE. INSTALL TEMPORARY SKIMMER SEDIMENT BASINS, ALONG WITH TEMPORARY DIVERSION DITCHES THAT SHALL BE INSTALLED TO ENSURE AS MUCH FLOW AS POSSIBLE IS DIRECTED TO THE BASINS.
  - AS ROUGH GRADING CONTINUES, DEVICES SHALL BE MAINTAINED AND CLEANED OF SEDIMENT. SKIMMER SEDIMENT BASINS TO BE ABANDONED SHALL BE REMOVED AS FOLLOWS: DEWATER THROUGH SILT BAG, CLEAN SEDIMENT, REMOVE BAFFLES, BACKFILL BASIN AND STABILIZE IMMEDIATELY. DEWATERING OPERATIONS THROUGH SILT BAGS SHALL BE MONITORED CONTINUOUSLY.
  - STABILIZE SITE AS AREAS ARE BROUGHT UP TO FINISH GRADE WITH VEGETATION, DITCH LININGS, ETC. SEED AND MULCH DENUDED AREAS PER GROUND STABILIZATION TIME FRAME.
  - WHEN ROUGH GRADING IS COMPLETE AND ALL AREAS ARE STABILIZED COMPLETELY, CALL WATERSHED MANAGER JEEVAN NEUPANE FOR INSPECTION.
  - IF SITE IS APPROVED, MAINTAIN TEMPORARY DIVERSIONS, SILT FENCE, SEDIMENT BASINS, ETC., AND SEED OR STABILIZE ANY RESULTING BARE AREAS. ALL REMAINING PERMANENT EROSION CONTROL DEVICES, SUCH AS VELOCITY DISPATERS, SHOULD NOW BE INSTALLED.
  - WHEN VEGETATION HAS BECOME ESTABLISHED, CALL FOR FINAL SITE INSPECTION BY THE WATERSHED MANAGER, JEEVAN NEUPANE. OBTAIN CERTIFICATE OF COMPLETION.

**- Final Drawing -**  
Issued for Permit

Review Purposes Only  
REVISIONS: 3 11-MAY-23 REVISED FOR REVIEW COMMENTS  
2 11-MAY-23 REVISED FOR REVIEW COMMENTS  
1 11-MAY-23 ISSUED FOR PERMIT REVIEW

**EROSION CONTROL PLAN - PH. 1**

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Town of Rolesville Project No. SDP 23-04

US 401 Business / S. Main Street & Virginia Water Drive  
Wake Forest Township, Town of Rolesville, North Carolina

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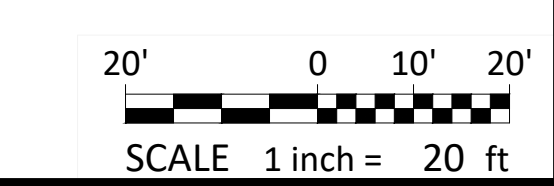
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Project Manager: BCF  
Drawn By: DLC/TGN  
Checked By: TGN  
Project Number: 22049  
Drawing Number: D-1404-SDP

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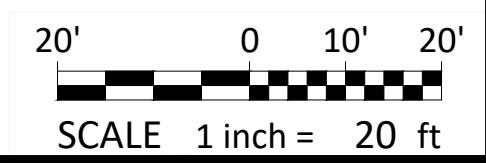
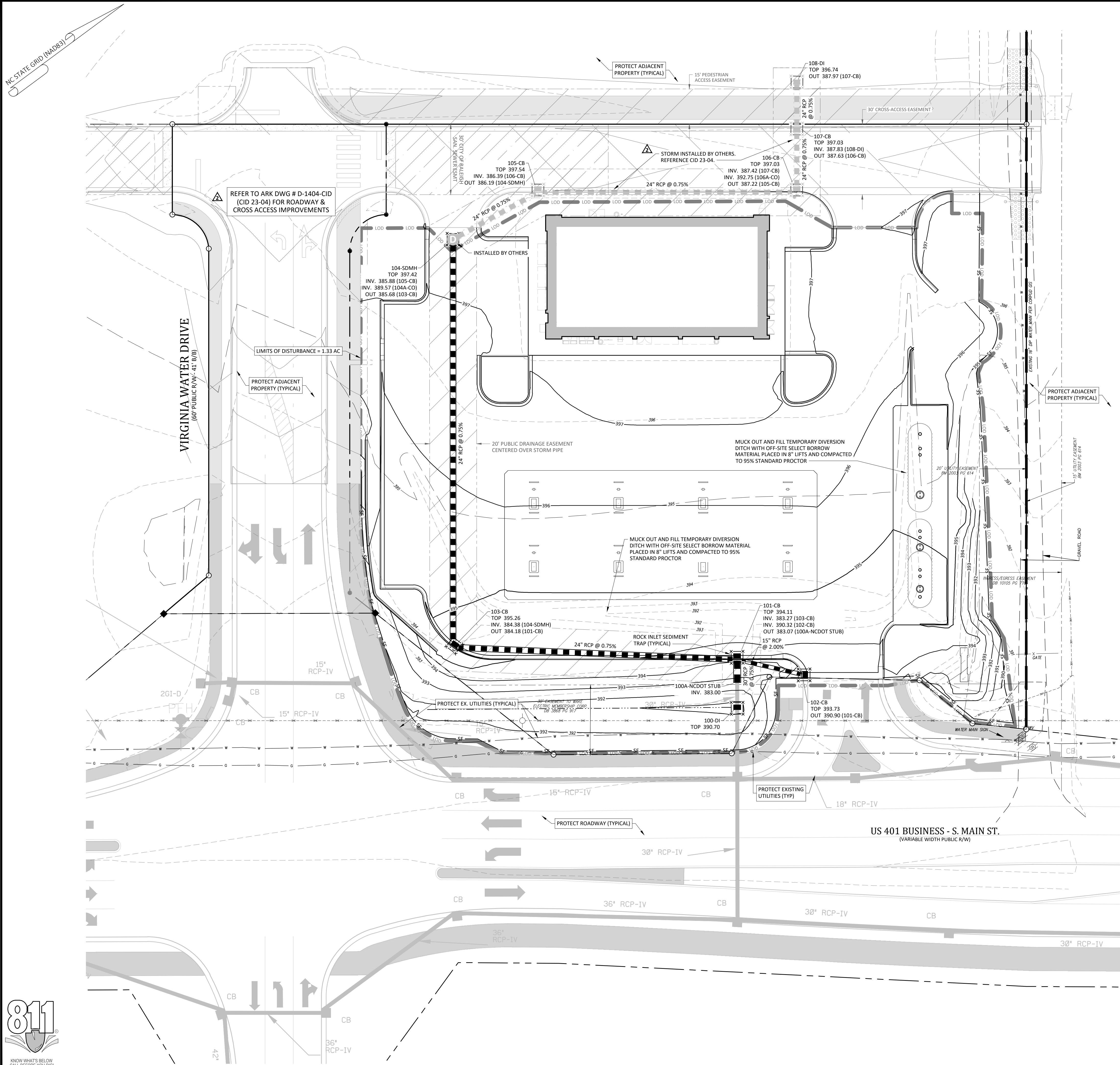
Date: May 1, 2023











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 Review Purposes Only  
 Reviewer: [Signature]

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1	11/04/23	ISSUED FOR PERMIT REVIEW
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**EROSION CONTROL PLAN - PH. 3**  
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 US 401 Business / S. Main Street & Virginia Water Drive  
 Wake Forest Township, Town of Rolesville, Wake County, North Carolina

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Project Manager: BCF  
 Drawn By: DLC/TGN  
 Checked By: TGN  
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**C1.2**  
 Date: May 1, 2023



**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 activities 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**

Required Ground Stabilization Timeframes		
Site Area Description	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 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:

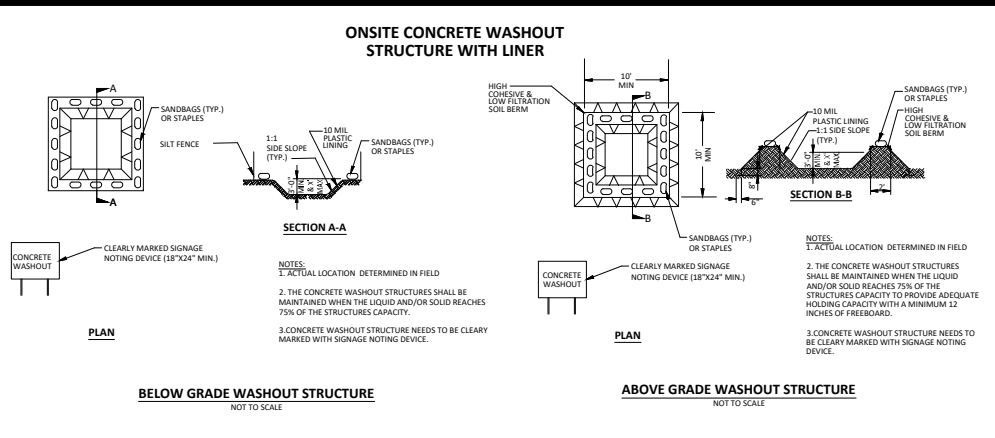
Temporary Stabilization	Permanent Stabilization
<ul style="list-style-type: none"> <li>Temporary grass seed covered with straw or other mulches and tackifiers</li> <li>Hydroseeding</li> <li> Rolled erosion control products with or without temporary grass seed</li> <li> Appropriately applied straw or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

**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 off-site.
- 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.



**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.

**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**

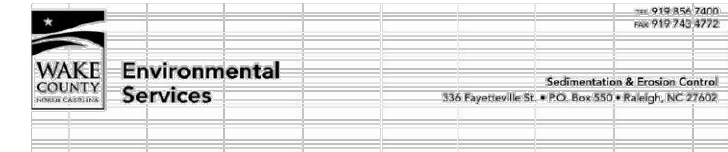
- Show stockpile locations on plans. Locate earth-environmental stockpile areas at least 50 feet away from storm drain inlets, sediment basins, perimeter sediment controls and surface waters unless it can be shown no other alternatives are reasonably available.
- Protect stockpile with silt fence installed 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.

**HERBICIDES, PESTICIDES AND RODENTICIDES**

- Store and apply herbicides, pesticides and rodenticides in accordance with label restrictions.
- Store herbicides, pesticides and rodenticides in their original containers with the label which lists directions for use, ingredients and first aid steps in case of accidental poisoning.
- Do not store herbicides, pesticides and rodenticides in areas where flooding is possible or where they may spill or leak into wells, stormwater drains, ground water or surface water. If a spill occurs, clean area immediately.
- Do not stockpile these materials onsite.

**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.



Effective September 1, 2008  
Soil stockpiles shall be located on the approved plan and shall adhere to the following requirements:

- Design Criteria**
- 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.
  - A note shall be provided on the approved plan that stockpile height shall not exceed 35 feet.
  - Stockpile slopes shall be 2:1 or flatter.
  - Approved BMPs shall be shown on a plan to control any potential sediment loss from a stockpile.
  - Stockpiling materials adjacent to a ditch, drainage-way, watercourse, wetland, stream buffer, or other body of water shall be avoided unless an alternative location is demonstrated to be unavoidable.
  - 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 off-site disposal of soil, prior to disposal. Fill of FEMA Floodways and Non-encroachment Areas are prohibited except as otherwise provided by subsection 14-19-2 of the Wake County Unified Development Ordinance (certifications and permits required).

**Maintenance Requirements to be Noted on the Plan**

- Soiling or covering stockpiles with tarps or mulch is required and will reduce erosion problems. Tarps should be keyed 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 graded 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).

**Seeding Specifications**

NPDES Stormwater Discharge Permit for Construction Activities (NCG01 - 4/1/19)  
NCDQR/Division of Energy, Mineral and Land Resources

Site Area Description	Seeding Rate (lbs/acre)	Seeding Method	Seeding Schedule
Perimeter dikes, swales, ditches, and perimeter slopes	1	Hand	As soon as possible
High Quality Water (HQW) Zones	1	Hand	As soon as possible
Slopes steeper than 3:1	1	Hand	As soon as possible
Slopes 3:1 to 4:1	1	Hand	As soon as possible
Areas with slopes flatter than 4:1	1	Hand	As soon as possible

**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 outcrop after seeding.
- Mulch immediately after seeding and anchor mulch.

- Inspect all seeded 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 Wake County Soil & Water or NC State Cooperative Extension 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 400 gals/acre

**Seeding Schedule**

Date	Type	Planting Rate
<b>For Shoulders, Side Ditches, Slopes (Max 3:1):</b>		
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 (unhulled -unscarified) AND Tall Fescue	70 lbs/acre (Sericea Lespedeza); 120 lbs/acre (Tall Fescue)
Nov 1- Mar 1	AND Abruzzi Rye	25 lbs/acre

Consult Wake County Soil & Water Conservation District or NC State Cooperative Extension for additional information concerning other alternatives for vegetation of denuded areas. The above vegetation rates are those that do well under local conditions; other seeding rate combinations are possible.

\*\*\* TEMPORARY: 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.

**NCG01 GROUND STABILIZATION AND MATERIALS HANDLING EFFECTIVE: 04/01/19**

**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 daily rainfall information is available, record the cumulative rain measurement for those unattended days (and this will determine if a site inspection is needed). Days on which no rainfall occurred shall be recorded as "zero." The permittee may use another rain-monitoring device approved by the Division.
(2) E&S 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 measure, 6. Description, evidence, and date of corrective actions taken.
(3) Stormwater discharge outfalls (SOOs)	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) Perimeter 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 releases.
(5) Streams or wetlands onsite (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 as per Part III, Section C, Item (3)(a) of this permit of this permit.
(6) Ground stabilization measures	After each phase of grading	1. The phase of grading (installation of perimeter E&S 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&S Plan Documentation**  
The approved E&S plan as well as any approved deviation shall be kept on the site. The approved E&S plan must be kept up-to-date throughout the coverage under this permit. The following items pertaining to the E&S plan shall be documented in the manner described:

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

**2. Additional Documentation**  
In addition to the E&S Plan documents above, the following items shall be kept on the site and available for agency 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:

- This general permit as well as the certificate of coverage, after it is received.
- Records of inspections made during the previous 30 days. 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.
- All data used to complete the Notice of Intent and other 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:

- Visible sediment deposition in a stream or wetland.
- 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).

(a) 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.

- Anticipated bypasses and unanticipated bypasses.
- 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 Division's Emergency Response personnel at (800) 662-7956, (800) 858-0368 or (919) 733-3300.

Occurrence	Reporting Timeframes (After Discovery) and Other Requirements
(a) Visible sediment deposition in a stream or wetland	- <b>Within 24 hours</b> , an oral or electronic notification. - <b>Within 7 calendar days</b> , a report that contains 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 resources 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	- <b>Within 24 hours</b> , 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)]	- <b>A report at least ten days before the date of the bypass, if possible.</b> The report shall include an evaluation of the anticipated quality and effect of the bypass.
(d) Unanticipated bypasses [40 CFR 122.41(m)(3)]	- <b>Within 24 hours</b> , an oral or electronic notification. - <b>Within 7 calendar days</b> , 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(i)(7)]	- <b>Within 24 hours</b> , an oral or electronic notification. - <b>Within 7 calendar days</b> , 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(i)(6)]. - Division staff may waive the requirement for a written report on a case-by-case basis.

**NCG01 SELF-INSPECTION, RECORDKEEPING AND REPORTING EFFECTIVE: 04/01/19**

**-Final Drawing - Issued for Permit Review Purposes Only**

3-1-19 MAR 23 11:45 AM  
2-1-19 FEB 23 11:45 AM  
1-1-19 JAN 23 11:45 AM

ISSUED FOR PERMIT REVIEW



**EROSION CONTROL NOTES**

**7ELEVEN AT WALLBROOK (LOT 11)**

Town of Rolesville Project No. SDP 23-04

US 401 Business / S. Main Street & Virginia Water Drive  
Wake Forest Township, Town of Rolesville, Wake County, North Carolina

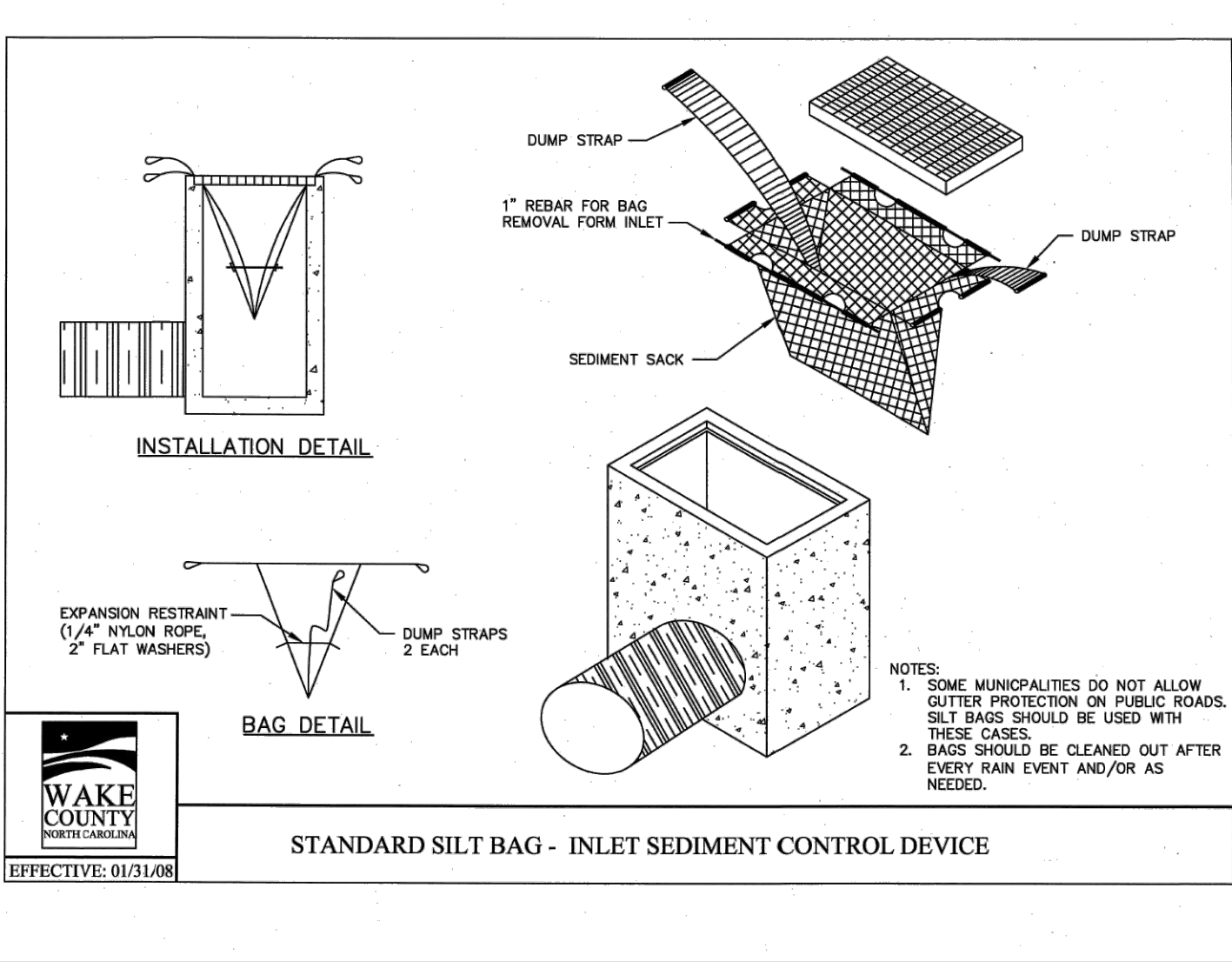
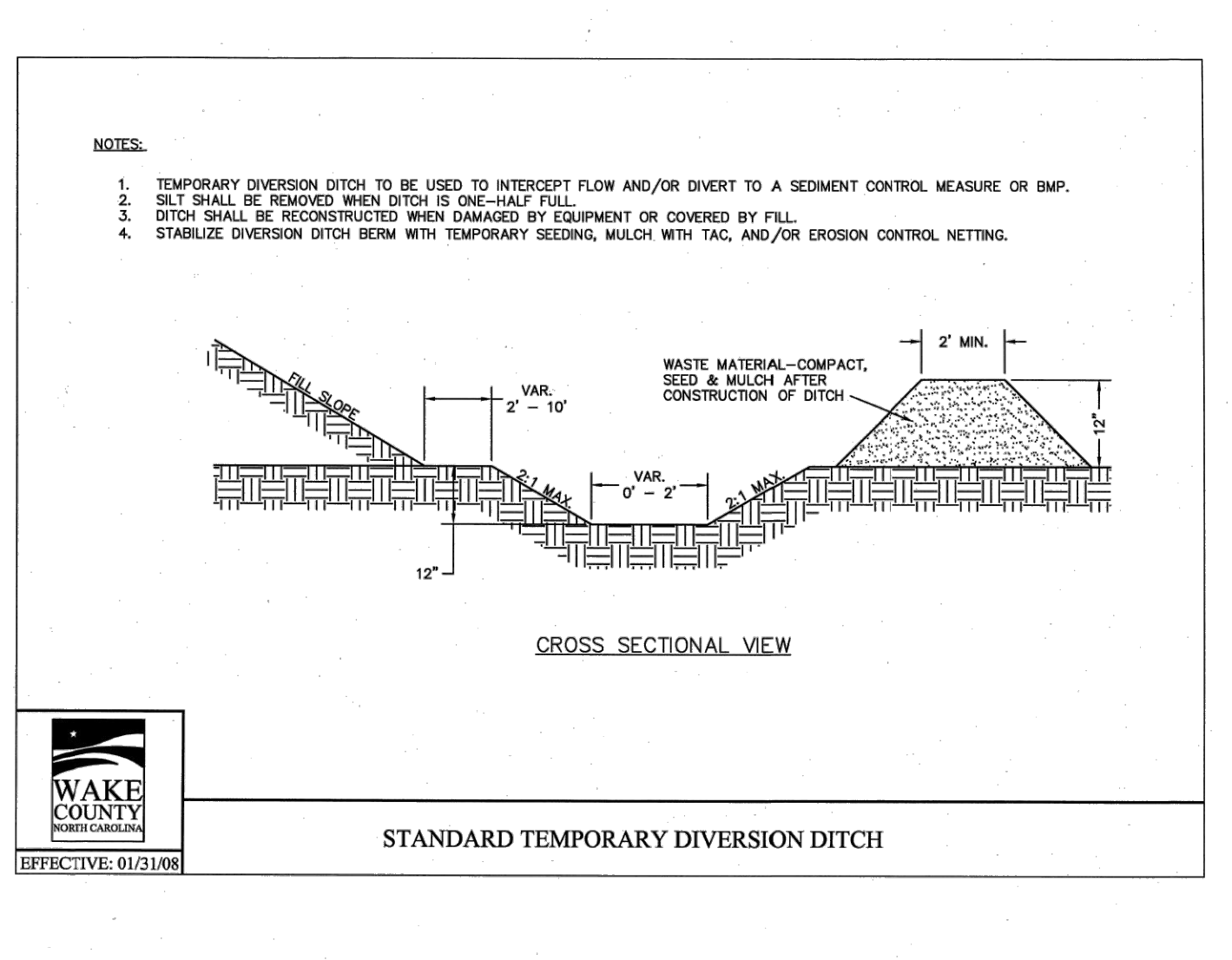
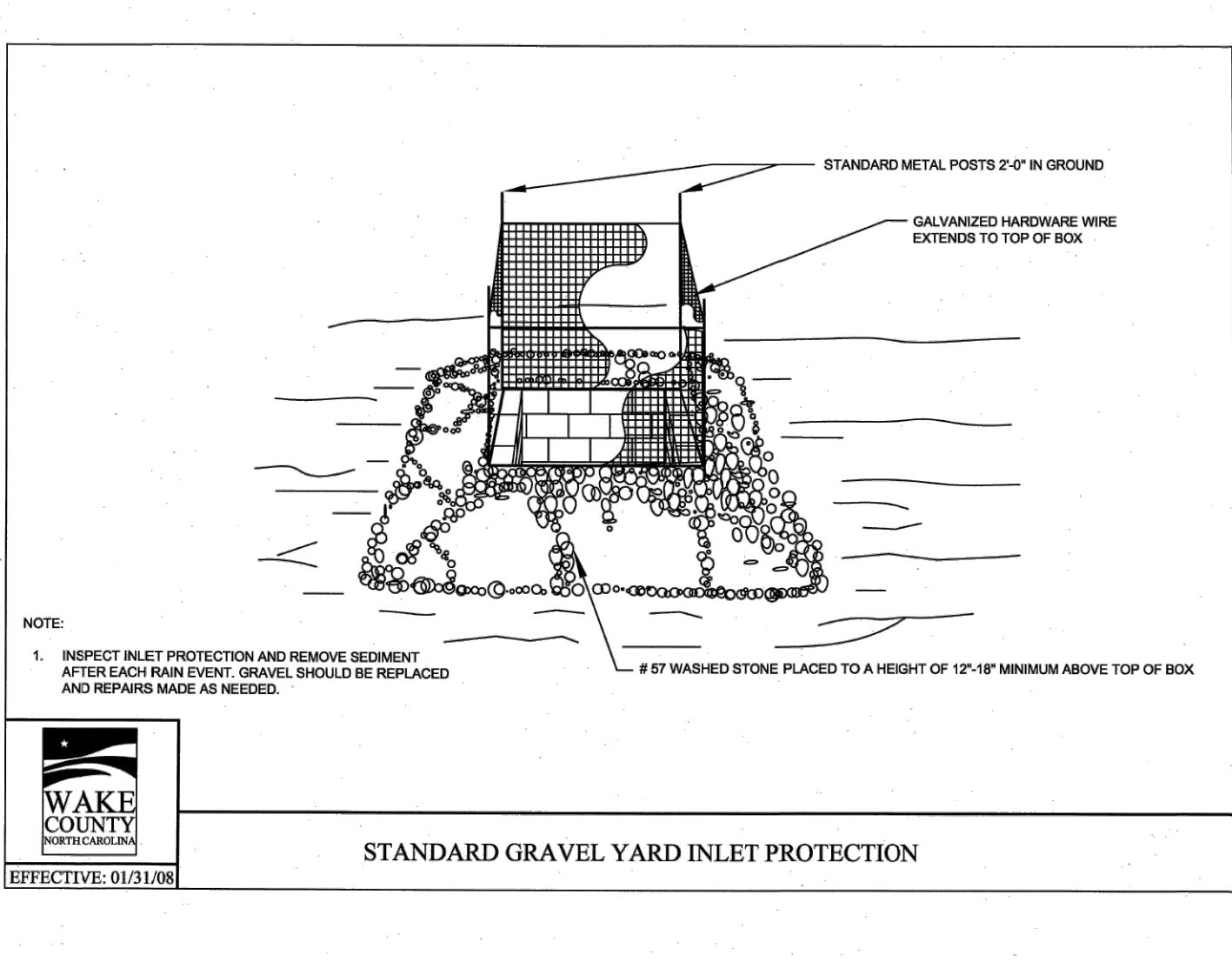
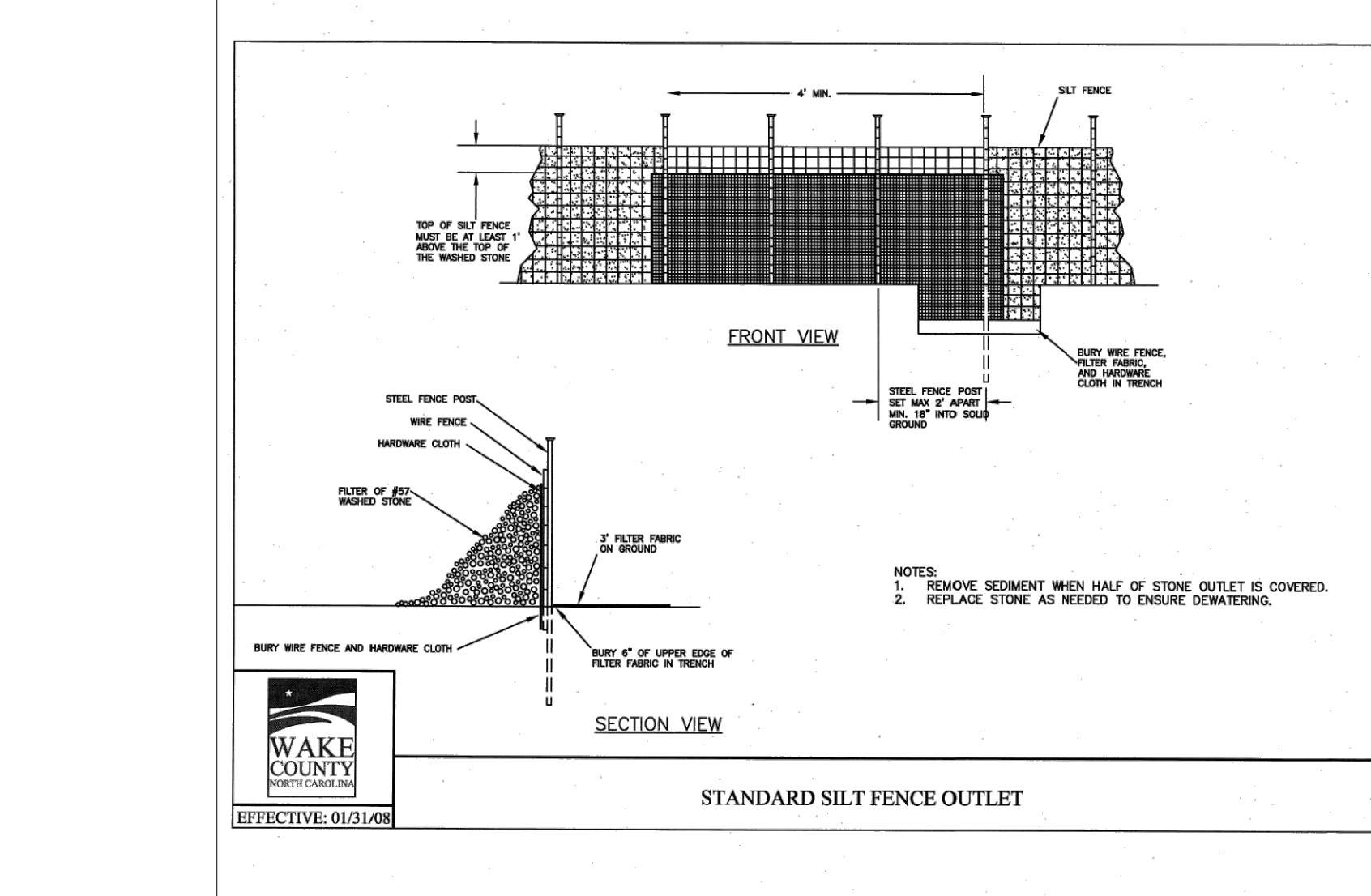
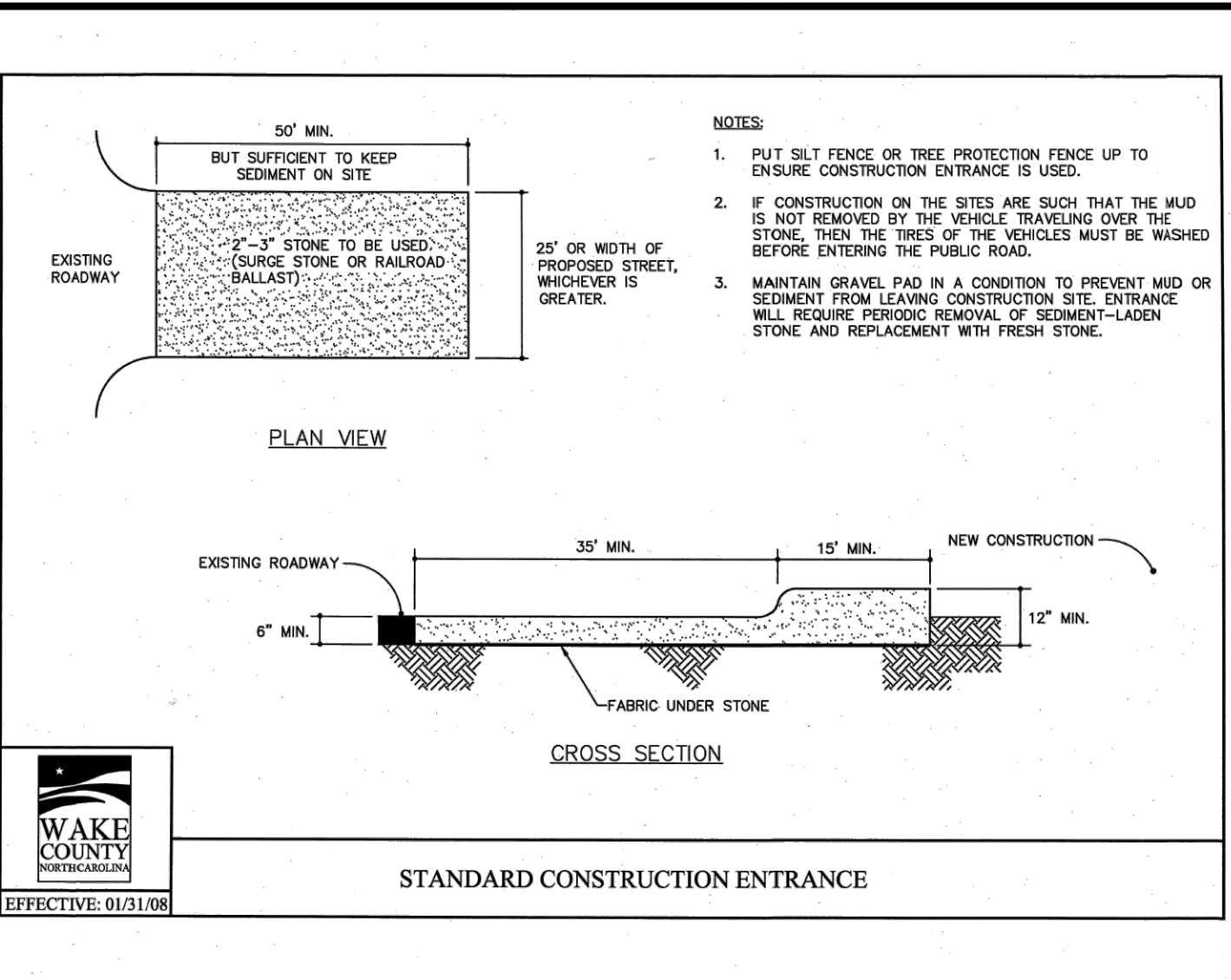
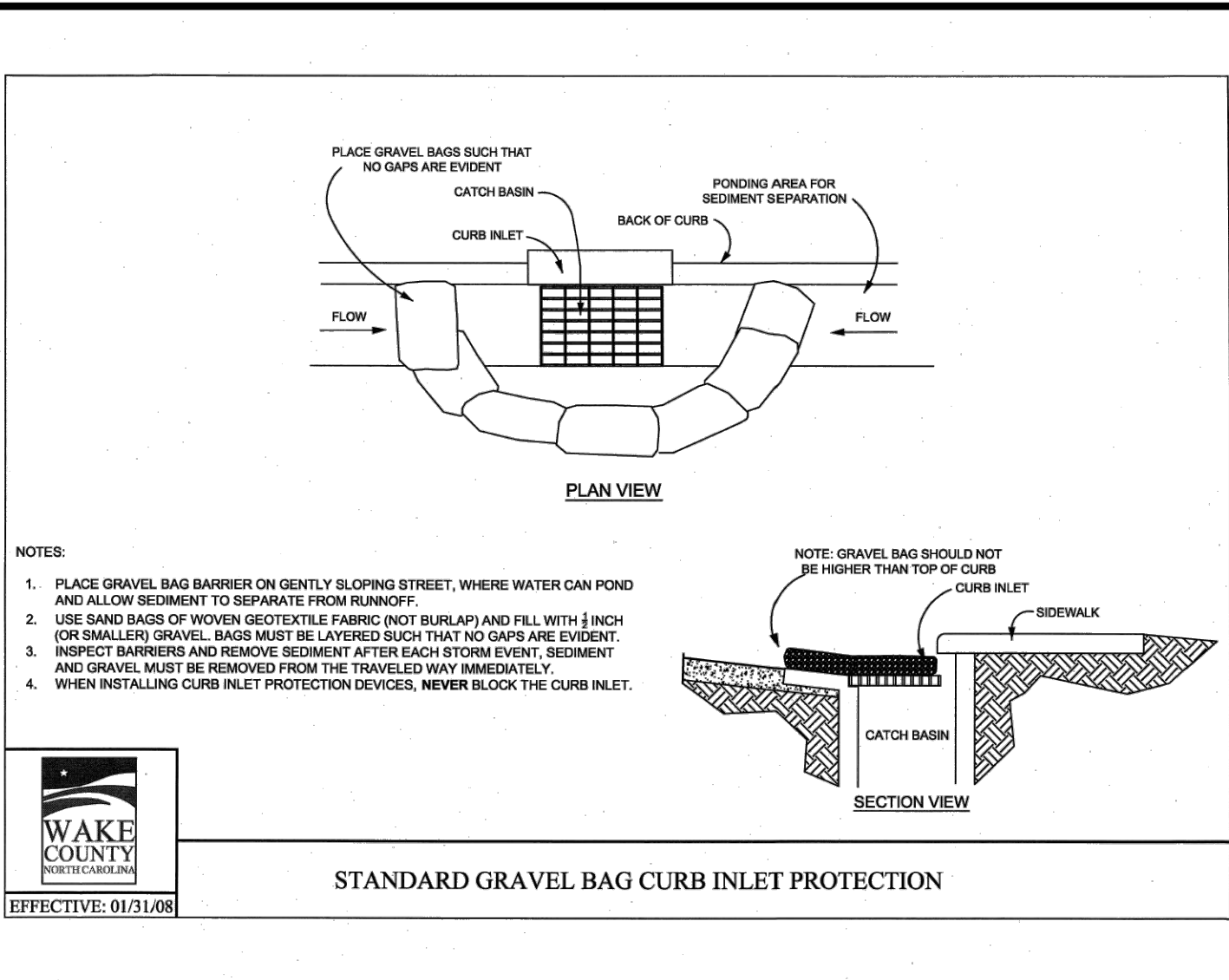
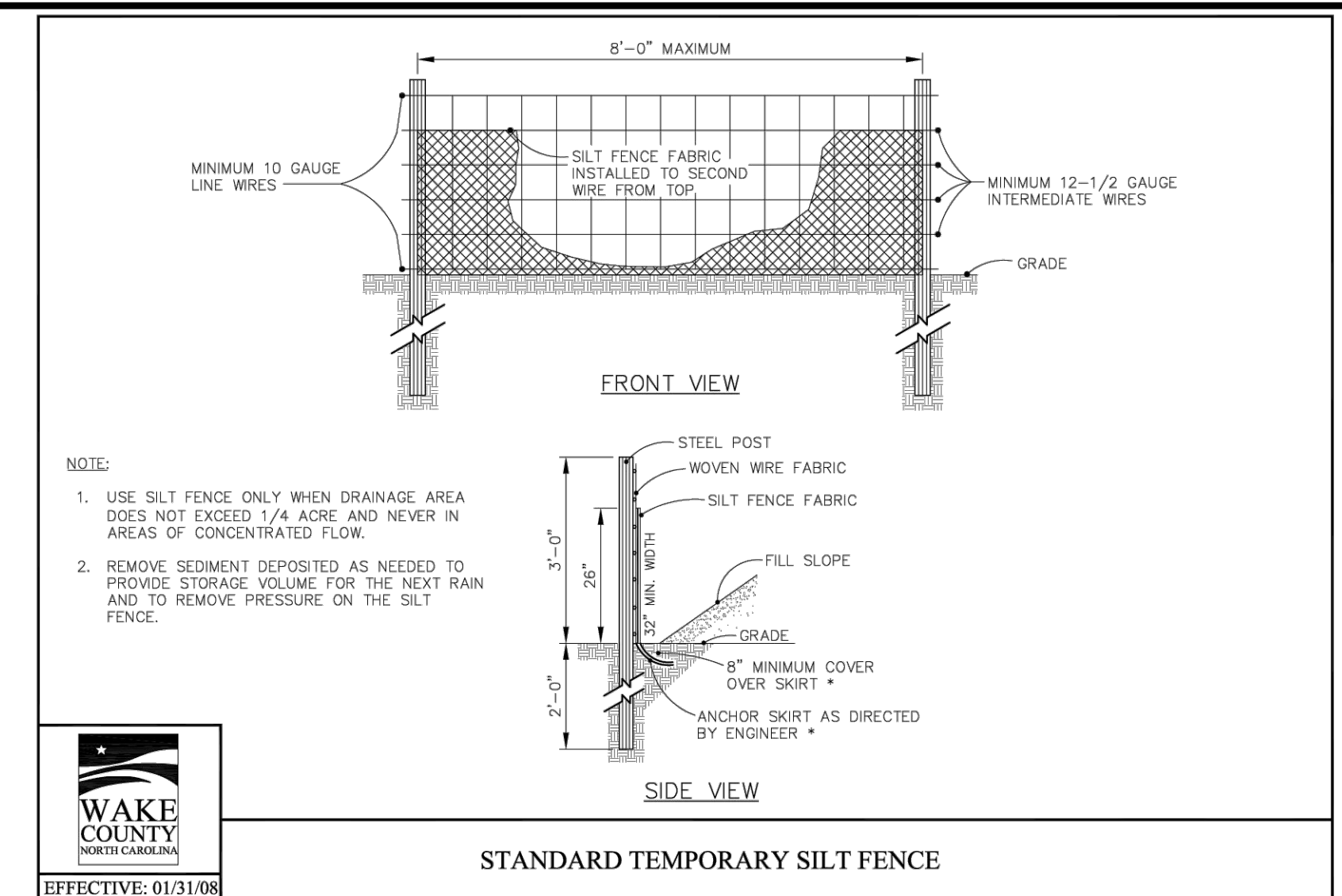


Project Manager: BCF  
Drawn By: DLCTGN  
Checked By: TGN  
Project Number: 22049  
Drawing Number: D-1404-SDP

**C1.3**

Date: May 1, 2023





**Vegetated Swale Design**  
Project: Wallbrook  
Location: Rolesville, Wake County, NC

Device ID	Device Type	Add'l Flow (cfs)	Disturbed Area (AC)	Tc (min)	Intensity ((in/hr)* c)	Qreq (cfs)	Up Invert	Down Invert	Length (ft)	Base Width (ft)	Left Slope (x:1)	Right Slope (x:1)	Flow Slope Depth (ft)	Manning's n	Slope (ft/ft)	Wetted Area (sf)	Wetted Perimeter (ft)	Hydraulic Radius (ft)	Velocity (ft/s)	Qa (cfs)	Qa>Qreq?	τ ((lbs/ft <sup>2</sup> ))	Liner Type	Allowable Shear Stress, τ ((lbs/ft <sup>2</sup> ))
TDD-1	Temporary Diversion	0	0.50	5	7.18	0.5	1.80	395	391.5	176	1	3	3	0.97	0.020	3.77	7.30	0.52	0.48	1.80	Yes	1.199097027	N. Am. Green; Straw; 1 nets	1.55
TDD-2	Temporary Diversion	0	0.37	5	7.18	0.5	1.33	395.5	391.5	205	1	3	3	0.87	0.020	3.17	7.25	0.44	0.42	1.33	Yes	1.065303643	N. Am. Green; Straw; 1 nets	1.55

\*NOAA Atlas 14, NEUSE 2 NE Station, 10-yr 5-min duration intensity

**- Final Drawing -**  
Issued for Permit Review Purposes Only

REVISIONS:

#	DATE	DESCRIPTION
1	11-MAY-23	ISSUED FOR PERMIT REVIEW
2	11-JUNE-23	REVISED PER FOR REVIEW COMMENTS
3	11-MAY-23	REVISED PER FOR REVIEW COMMENTS

**CROSLAND SOUTHEAST**  
**ELEVEN**

**EROSION CONTROL DETAILS**  
**7ELEVEN AT WALLBROOK (LOT 11)**  
Town of Rolesville Project No. SDP 23-04  
US 401 Business / S. Main Street & Virginia Water Drive  
Wake Forest Township, Town of Rolesville, Wake County, North Carolina

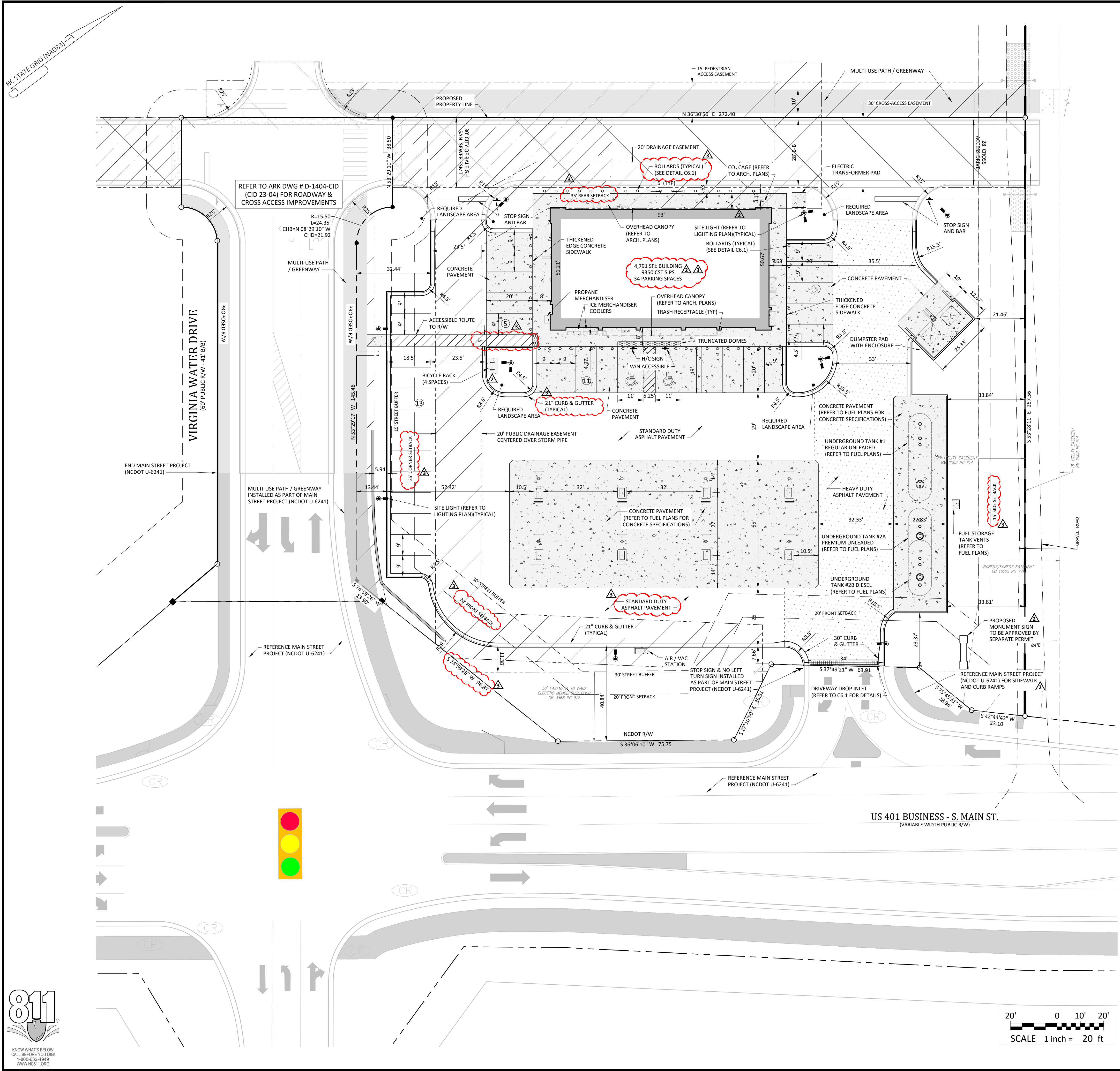
**ARK CONSULTING GROUP PLLC**  
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Raleigh, NC 27608  
(252) 558-9888  
www.arkconsultinggroup.com

**Professional Engineer**  
BRYAN C. FAGUNDI  
3/11/2024

Project Manager: BCF  
Drawn By: DLC/TGN  
Checked By: TGN  
Project Number: 22049  
Drawing Number: D-1404-SDP

**C1.3**  
Date: May 1, 2023





- ### General Notes:
- THE FOLLOWING DOCUMENTS ARE INCORPORATED BY REFERENCE AS PART OF THIS SITE PLAN:
    - ALTA/NSPS LAND TITLE SURVEY, PREPARED BY JOHNSON, MIRMIRAN & THOMPSON FOR WALLBROOK LANDCO, LLC, DATED REVISED MARCH 28, 2020
    - "REPORT OF SUBSURFACE EXPLORATION AND GEOTECHNICAL ENGINEERING EVALUATION - 7 ELEVEN AT WALLBROOK" PREPARED BY NV5 ENGINEERS AND CONSULTANTS, INC., DATED JULY 11, 2022
    - "REVISED WALLBROOK DEVELOPMENT TRAFFIC IMPACT ANALYSIS" PREPARED BY STANTEC CONSULTING SERVICES, INC., DATED AUGUST 11, 2020
  - ALL ACCESSIBLE PARKING SPACES SHALL BE CONSTRUCTED TO MEET, AT A MINIMUM, THE MORE STRINGENT OF THE REQUIREMENTS OF THE "AMERICANS WITH DISABILITIES ACT" (ADA) CODE OR THE REQUIREMENTS OF THE JURISDICTION WHERE THIS PROJECT IS TO BE CONSTRUCTED.
  - THIS PROPERTY IS LOCATED IN FLOOD ZONE "X", AREA DETERMINED TO BE OUTSIDE OF THE 0.2% ANNUAL CHANCE FLOODPLAIN, AS SHOWN ON NATIONAL FLOOD INSURANCE RATE MAP (FIRM) 3720175800K, EFFECTIVE DATE: JULY 19, 2022.
  - PRIOR TO STARTING CONSTRUCTION, THE CONTRACTOR SHALL BE RESPONSIBLE TO ENSURE THAT ALL REQUIRED PERMITS AND APPROVALS HAVE BEEN OBTAINED. NO CONSTRUCTION OR FABRICATION SHALL BEGIN UNTIL THE CONTRACTOR HAS RECEIVED AND THOROUGHLY REVIEWED THE COMMENTS TO ALL PLANS AND OTHER DOCUMENTS REVIEWED AND APPROVED BY THE PERMITTING AUTHORITIES. CONTRACTOR SHALL HAVE COPIES OF ALL PERMITS AND APPROVALS ON SITE AT ALL TIMES.
  - THE OWNER / CONTRACTOR SHALL BE FAMILIAR WITH AND RESPONSIBLE FOR THE PROCUREMENT OF ANY AND ALL CERTIFICATIONS REQUIRED FOR THE ISSUANCE OF A CERTIFICATE OF OCCUPANCY.
  - ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THESE PLANS AND SPECIFICATIONS AND ALL APPLICABLE REQUIREMENTS AND STANDARDS OF ALL GOVERNMENTAL ENTITIES HAVING JURISDICTION OVER THIS PROJECT.
  - THE GEOTECHNICAL REPORT AND RECOMMENDATIONS SET FORTH HEREIN ARE PART OF THE REQUIRED CONSTRUCTION DOCUMENTS, AND, IN CASE OF CONFLICT, SHALL TAKE PRECEDENCE UNLESS SPECIFICALLY NOTED OTHERWISE ON THE PLANS. THE CONTRACTOR SHALL NOTIFY THE ENGINEER IN WRITING OF ANY SUCH DISCREPANCY BETWEEN THE GEOTECHNICAL REPORTS AND PLANS AND SPECIFICATIONS PRIOR TO PROCEEDING WITH ANY FURTHER WORK.
  - THESE PLANS ARE BASED ON INFORMATION PROVIDED TO ARK CONSULTING GROUP, PLLC BY THE OWNER AND OTHERS PRIOR TO THE TIME OF PLAN PREPARATION. CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS AND NOTIFY ARK CONSULTING GROUP, PLLC IF ACTUAL SITE CONDITIONS DIFFER FROM THOSE SHOWN ON THE PLAN, OR IF THE PROPOSED WORK CONFLICTS WITH ANY OTHER ON-SITE FEATURES.
  - ALL DIMENSIONS SHOWN ON THE PLANS SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO THE START OF CONSTRUCTION. CONTRACTOR SHALL NOTIFY ENGINEER IN WRITING IF ANY DISCREPANCIES EXIST PRIOR TO PROCEEDING WITH CONSTRUCTION. NO EXTRA COMPENSATION SHALL BE PAID TO THE CONTRACTOR FOR WORK HAVING TO BE REDONE DUE TO DIMENSIONS AND GRADES SHOWN INCORRECTLY ON THESE PLANS PRIOR TO THE GIVING OF SUCH NOTIFICATION AND THE ENGINEER'S WRITTEN AUTHORIZATION OF SUCH ADDITIONAL WORK.
  - CONTRACTOR SHALL REFER TO THE ARCHITECTURAL / BUILDING PLANS FOR EXACT LOCATIONS AND DIMENSIONS OF ENTRY / EXIT POINTS, ELEVATIONS, PRECISE BUILDING DIMENSIONS, AND EXACT BUILDING UTILITY LOCATIONS.
  - PRIOR TO THE START OF CONSTRUCTION, THE CONTRACTOR SHALL COORDINATE THE BUILDING LAYOUT BY CAREFUL REVIEW OF THE SITE PLAN AND LATEST ARCHITECTURAL PLANS (INCLUDING, BUT NOT LIMITED TO, STRUCTURAL, MECHANICAL, ELECTRICAL, PLUMBING AND FIRE SUPPRESSION PLAN, WHERE APPLICABLE). CONTRACTOR SHALL IMMEDIATELY NOTIFY OWNER, ARCHITECT AND SITE ENGINEER OF ANY DISCREPANCIES.
  - THE CONTRACTOR IS RESPONSIBLE FOR REPAIRING ANY DAMAGE DONE TO ANY NEW OR EXISTING CONSTRUCTION OR PROPERTY DURING THE COURSE OF CONSTRUCTION, INCLUDING, BUT NOT LIMITED TO, DRAINAGE, UTILITIES, PAVEMENT, STRIPING, CURB & GUTTER. CONTRACTOR SHALL BE RESPONSIBLE FOR AND SHALL REPLACE ALL SIGNAL INTERCONNECTION CABLE, WIRING CONDUITS, AND ANY UNDERGROUND ACCESSORY EQUIPMENT DAMAGED DURING CONSTRUCTION. THE REPAIR OF ANY SUCH NEW OR EXISTING CONSTRUCTION OR PROPERTY SHALL RESTORE SUCH CONNECTION OR PROPERTY TO A CONDITION EQUIVALENT TO OR BETTER THAN THE EXISTING CONDITIONS, AND IN CONFORMANCE WITH APPLICABLE CODES. CONTRACTOR IS RESPONSIBLE TO DOCUMENT ALL EXISTING DAMAGE AND NOTIFY THE OWNER'S REPRESENTATIVE PRIOR TO THE START OF CONSTRUCTION.
  - THE ENGINEER IS NOT RESPONSIBLE FOR CONSTRUCTION MEANS AND METHODS, NOR IS THE ENGINEER RESPONSIBLE FOR ANY CONFLICTS OR SCOPE REVISIONS WHICH RESULT FROM THE SAME. THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING THE MEANS AND METHODS FOR COMPLETION OF THE WORK PRIOR TO THE COMMENCEMENT OF CONSTRUCTION.

### Impervious Area Calculations

SITE LIMITED TO 85% IMPERVIOUS AREA AS ACCOUNTED FOR IN THE WALLBROOK STORMWATER MASTER PLAN

PROPOSED BUILDING IMPERVIOUS AREA:	4730 SF
PROPOSED TRANSPORTATION IMPERVIOUS AREA:	47542 SF
PROPOSED TOTAL IMPERVIOUS AREA:	52272 SF
TOTAL SITE AREA:	70567 SF
ALLOWABLE IMPERVIOUS AREA (85%):	59882 SF
PROPOSED IMPERVIOUS PERCENTAGE:	74.0% $\Delta$

### Legend

EXISTING	PROPOSED
$\bullet$ FOUND MONUMENT AS NOTED	
$\circ$ SET IRON PIN	
$\Delta$ NCCS MONUMENT	
$\oplus$ DIMENSION POINT (NOTHING SET)	
$\square$ PROPERTY LINE	
R/W RIGHT OF WAY	
C&G CURB AND GUTTER	
DI CABLE TV PEDESTAL	
EM ELECTRIC METER	
F/O FIBER OPTIC	
FH FIRE HYDRANT	
GV GAS VALVE	
HP HAND BOX	
LP LIGHT POLE	
PP POWER POLE	
GUY WIRE	
RCP REINFORCED CONCRETE PIPE	
S.F. SQUARE FEET (AREA)	
SIGN	
TRAFFIC SIGNAL POLE	
SANITARY SEWER MANHOLE	
SANITARY SEWER FORCE MAIN VALVE	
STORM DRAIN MANHOLE	
STORM DRAIN CATCH BASIN	
TELEPHONE PEDESTAL	
TRAFFIC BOX	
WATER BOX	
WATER METER	
WMH WATER MANHOLE	
WV WATER VALVE	
WELL	
PEDESTRIAN X-WALK POLE	
ELECTRIC LINE	
SANITARY SEWER FORCE MAIN	
FIBER OPTIC LINE	
GAS LINE	
OVERHEAD ELECTRIC LINE	
SANITARY SEWER LINE	
TELEPHONE LINE	
CABLE TV LINE	
WATER LINE	
FIRE LINE	
8" WATER LINE	
12" WATER LINE	
SPILL CURB	
FENCE	
RIPARIAN BUFFER	
TREELINE	
MAJOR CONTOUR (5')	
MINOR CONTOUR (1')	
TREE PROTECTION FENCE	
SILT FENCE	
CONCRETE SIDEWALK	
ACCESS AND UTILITY EASEMENT	
$\Delta$ HEAVY DUTY ASPHALT PAVEMENT	
$\Delta$ TDD DRAINAGE AREA	
$\Delta$ SKIMMER BASIN DRAINAGE AREA	

- Final Drawing -  
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Review Purposes Only

3/11/2024 REVISED FOR PERMIT COMMENTS  
 2/11/2024 REVISED FOR PERMIT COMMENTS  
 1/11/2024 REVISED FOR PERMIT REVIEW  
 # DATE DESCRIPTION

REVISIONS:

SITE PLAN

7ELEVEN AT WALLBROOK (LOT 11)

Town of Rolesville Project No. SDP 23-04

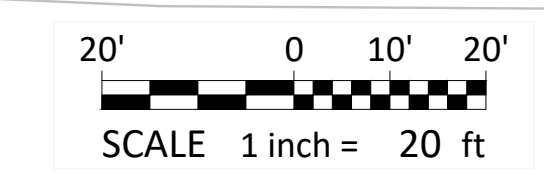
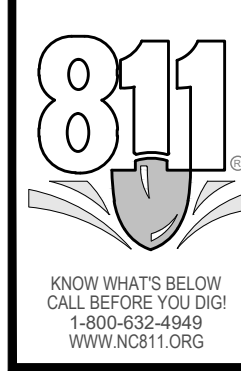
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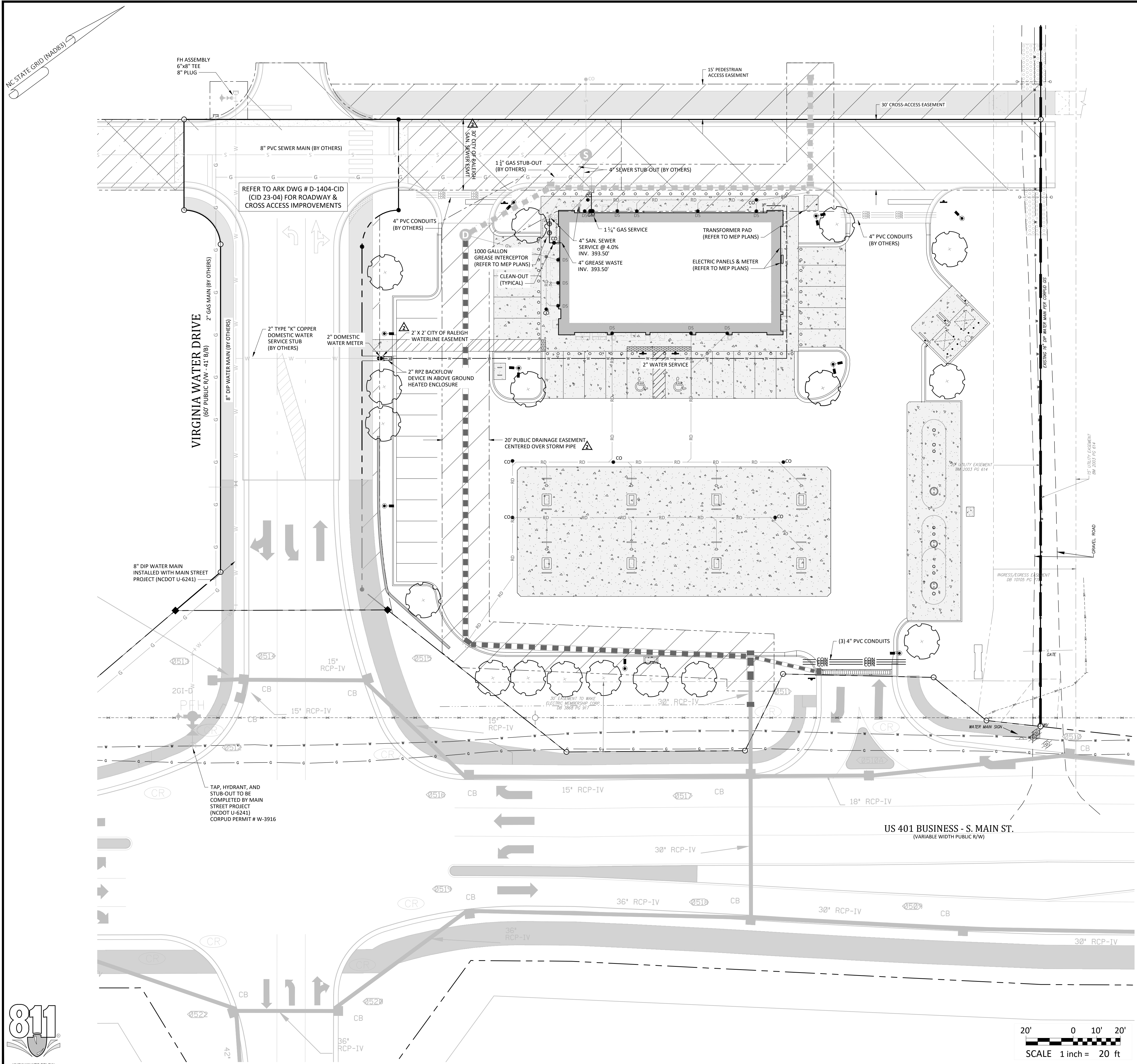
Project Manager: BCF  
 Drawn By: DLC/TGN  
 Checked By: TGN  
 Project Number: 22049  
 Drawing Number: D-1404-SDP

C2.0

Date: May 1, 2023







**CORPUD Standard Utility Notes:**

- ALL MATERIALS & CONSTRUCTION METHODS SHALL BE IN ACCORDANCE WITH CITY OF RALEIGH DESIGN STANDARDS, DETAILS & SPECIFICATIONS (REFERENCE: CORPUD HANDBOOK)
- UTILITY SEPARATION REQUIREMENTS:
  - A DISTANCE OF 10' 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. IF ADEQUATE LATER SEPARATION CANNOT BE ACHIEVED, FERROUS SANITARY SEWER PIPE SHALL BE SPECIFIED & INSTALLED TO WATERLINE SPECIFICATIONS. HOWEVER, THE MINIMUM SEPARATION SHALL NOT BE LESS THAN 25' FROM A PRIVATE WELL OR 50' FROM A PUBLIC WELL.
  - WHEN INSTALLING WATER &/OR SEWER MAINS, THE HORIZONTAL SEPARATION BETWEEN UTILITIES SHALL BE 10'. IF THIS SEPARATION CANNOT BE MAINTAINED DUE TO EXISTING CONDITIONS, THE VARIATION ALLOWED IS THE WATER MAIN IN A SEPARATE TRENCH WITH THE ELEVATION OF THE WATER MAIN AT LEAST 18" ABOVE THE TOP OF THE SEWER & MUST BE APPROVED BY THE PUBLIC UTILITIES DIRECTOR.
  - WHERE IT IS IMPOSSIBLE TO OBTAIN PROPER SEPARATION, OR ANYTIME A SANITARY SEWER PASSES OVER A WATER MAIN, DIP MATERIALS OR STEEL ENCASEMENT EXTENDED 10' ON EACH SIDE OF CROSSING MUST BE SPECIFIED & INSTALLED TO WATERLINE SPECIFICATIONS.
  - 5.0' MINIMUM HORIZONTAL SEPARATION IS REQUIRED BETWEEN ALL SANITARY SEWER & STORM SEWER FACILITIES, UNLESS DIP MATERIAL IS SPECIFIED FOR SANITARY SEWER.
  - MAINTAIN 18" MIN. VERTICAL SEPARATION AT ALL WATER MAIN & RCP STORM DRAIN CROSSINGS; MAINTAIN 24" MIN. VERTICAL SEPARATION AT ALL SANITARY SEWER & RCP STORM DRAIN CROSSINGS. WHERE ADEQUATE SEPARATIONS CANNOT BE ACHIEVED, SPECIFY DIP MATERIALS & A CONCRETE CRADLE HAVING 6" MIN. CLEARANCE (PER CORPUD DETAILS W-41 & S-49).
  - ALL OTHER UNDERGROUND UTILITIES SHALL CROSS WATER & SEWER FACILITIES WITH 18" MIN. VERTICAL SEPARATION REQUIRED.
- ANY NECESSARY FIELD REVISIONS ARE SUBJECT TO REVIEW & APPROVAL OF AN AMENDED PLAN &/OR PROFILE BY CORPUD PRIOR TO CONSTRUCTION.
- CONTRACTOR SHALL MAINTAIN CONTINUOUS WATER & SEWER SERVICE TO EXISTING RESIDENCES & BUSINESSES THROUGHOUT CONSTRUCTION OF PROJECT. ANY NECESSARY SERVICE INTERRUPTIONS SHALL BE PRECEDED BY A 24 HOUR ADVANCE NOTICE TO CORPUD.
- 3.0' MINIMUM COVER IS REQUIRED ON ALL WATER MAINS & SEWER FORCEMANS. 4.0' MINIMUM COVER IS REQUIRED ON ALL REUSE MAINS.
- IT IS THE DEVELOPER'S RESPONSIBILITY TO ABANDON OR REMOVE EXISTING WATER & SEWER SERVICES NOT BEING USED IN REDEVELOPMENT OF A SITE UNLESS OTHERWISE DIRECTED BY CORPUD. THIS INCLUDES ABANDONING TAP AT MAIN & REMOVAL OF SERVIC FROM ROW OR EASEMENT PER CORPUD HANDBOOK PROCEDURE.
- INSTALL PVC WATER SERVICES WITH METERS LOCATED AT ROW OR WITHIN A 2' X 2' WATERLINE EASEMENT IMMEDIATELY ADJACENT.
- INSTALL PVC SEWER SERVICES @ 1.0% MINIMUM GRADE WITH CLEANOUTS LOCATED AT ROW OR EASEMENT LINE & SPACED EVERY 75' LINEAR FEET MAXIMUM.
- PRESSURE REDUCING VALVES ARE REQUIRED ON ALL WATER SERVICES EXCEEDING 80 PSI; BACKWATER VALVES ARE REQUIRED ON ALL SANITARY SEWER SERVICES HAVING BUILDING DRAINS LOWER THAN 1.0' ABOVE THE NEXT UPSTREAM MANHOLE.
- ALL ENVIRONMENTAL PERMITS APPLICABLE TO THE PROJECT MUST BE OBTAINED FROM NCDWQ, USACE &/OR FEMA FOR ANY RIPARIAN BUFFER, WETLAND &/OR FLOODPLAIN IMPACTS PRIOR TO CONSTRUCTION.
- NCDOT / RAILROAD ENCROACHMENT AGREEMENTS ARE REQUIRED FOR ANY UTILITY WORK (INCLUDING MAIN EXTENSIONS & SERVICE TAPS) WITHIN STATE OR RAILROAD ROW PRIOR TO CONSTRUCTION.
- GREASE INTERCEPTOR / OIL WATER SEPARATOR SIZING CALCULATIONS & INSTALLATION SPECIFICATIONS SHALL BE APPROVED BY THE CORPUD FOG PROGRAM COORDINATOR PRIOR TO ISSUANCE OF A BUILDING PERMIT. CONTACT TIM BEASLEY AT (919) 996-2334 OR TIMOTHY.BEASLEY@RALEIGHNC.GOV FOR MORE INFORMATION.
- CROSS-CONNECTION CONTROL PROTECTION DEVICES ARE REQUIRED BASED ON DEGREE OF HEALTH HAZARD INVOLVED AS LISTED IN APPENDIX-B OF THE RULES GOVERNING PUBLIC WATER SYSTEMS IN NC. THESE GUIDELINES ARE THE MINIMUM REQUIREMENTS. THE DEVICES SHALL MEET AMERICAN SOCIETY SANITARY ENGINEERING (ASSE) STANDARDS OR BE ON THE UNIVERSITY OF SOUTHERN CALIFORNIA APPROVAL LIST. THE DEVICES SHALL BE INSTALLED AND TESTED (BOTH INITIAL AND PERIODIC TESTING THEREAFTER) IN ACCORDANCE WITH THE MANUFACTURERS RECOMMENDATIONS OR THE LOCAL CROSS-CONNECTION CONTROL PROGRAM, WHICHEVER IS MORE STRINGENT. CONTACT JOANIE HARTLEY AT (919) 996-5923 OR JOANIE.HARTLEY@RALEIGHNC.GOV FOR MORE INFORMATION.
- THE PROPOSED 2" RPZ SHALL BE APPROVED BY CROSS.CONNECTION@RALEIGHNC.GOV PRIOR TO ISSUANCE OF THE UTILITY CONNECTION PERMIT.
- THE PROPOSED GREASE INTERCEPTOR SHALL BE APPROVED BY FOG@RALEIGHNC.GOV PRIOR TO ISSUANCE OF THE UTILITY CONNECTION PERMIT.

**- Final Drawing -**  
**Issued for Permit**  
 Review Purposes Only  
 Reviewer: [Name]  
 Date: [Date]

**REVISIONS:**

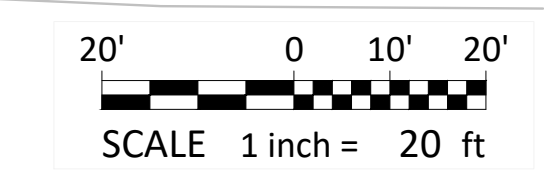
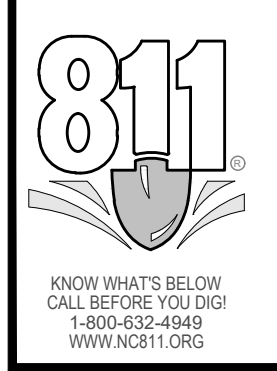
#	DATE	DESCRIPTION
1	11-MAY-23	ISSUED FOR PERMIT REVIEW
2	11-MAY-23	REVISED PER REVIEW COMMENTS
3	11-MAY-23	REVISED PER REVIEW COMMENTS

**UTILITY PLAN**  
**7ELEVEN AT WALLBROOK (LOT 11)**  
 Town of Rolesville Project No. SDP 23-04  
 US 401 Business / S. Main Street & Virginia Water Drive  
 Wake Forest Township, Town of Rolesville, Wake County, North Carolina

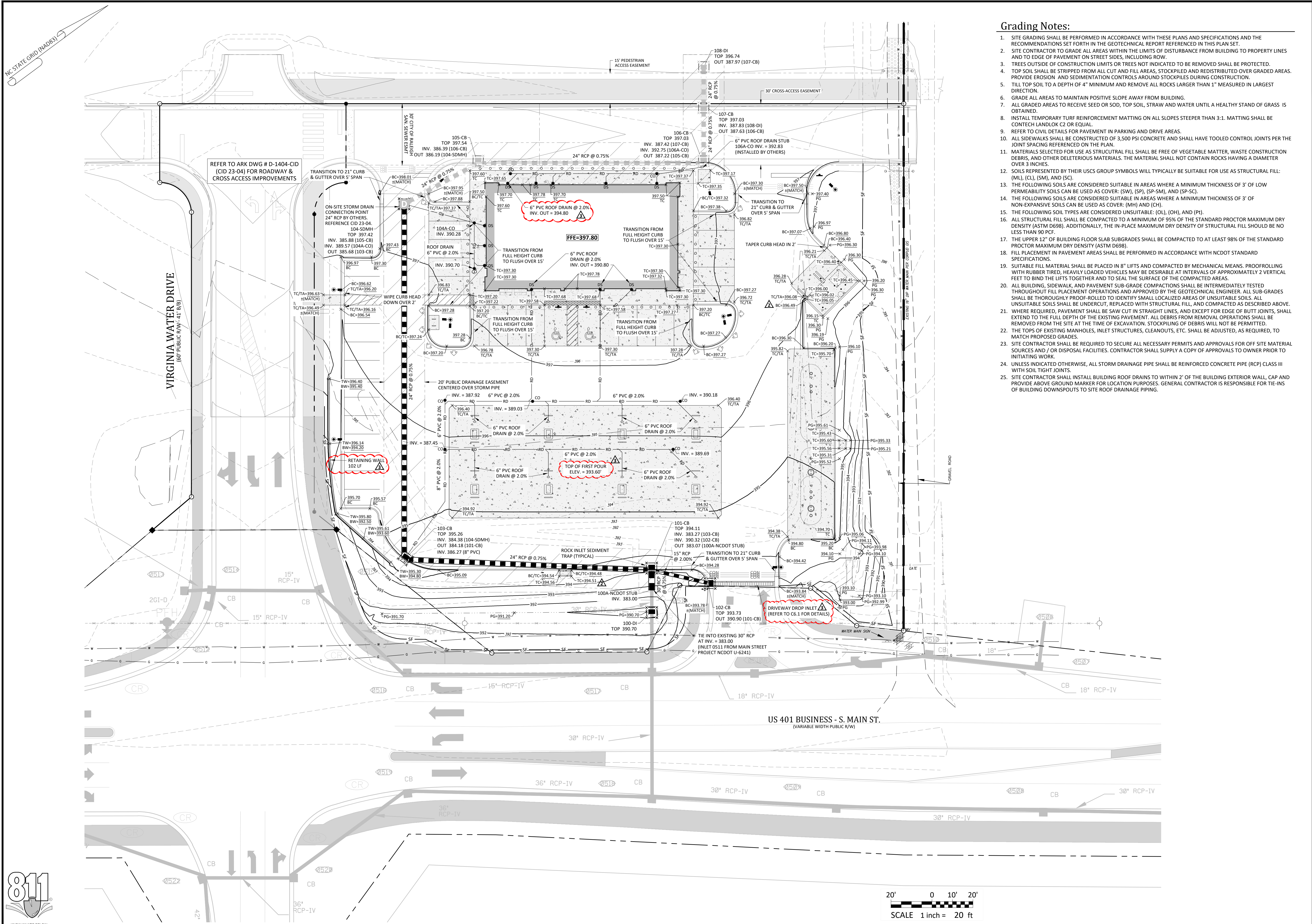
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**ARK CONSULTING GROUP PLLC**  
 ENGINEERS & PLANNERS  
 2755-B Chimney Bluff  
 Raleigh, NC 27608  
 (919) 558-0888  
 www.arkconsultinggroup.com

**ATTENTION CONTRACTORS**  
 The Construction Contractor responsible for the extension of water, sewer, and/or reuse, as approved in these plans, is responsible for contacting the Public Utilities Department at (919) 996-4540 at least twenty four hours prior to beginning any of their construction.  
 Failure to notify both City Departments in advance of beginning construction, will result in the issuance of monetary fines, and require reinstallation of any water or sewer facilities not inspected as a result of this notification failure.  
 Failure to call for inspection, install a Downstream Plug, have Permitted Plans on the Jobsite, or any other Violation of City of Raleigh Standards will result in a Fine and Possible Exclusion from future work in the City of Raleigh.

**C3.0**  
 Date: May 1, 2023







**Grading Notes:**

- SITE GRADING SHALL BE PERFORMED IN ACCORDANCE WITH THESE PLANS AND SPECIFICATIONS AND THE RECOMMENDATIONS SET FORTH IN THE GEOTECHNICAL REPORT REFERENCED IN THIS PLAN SET.
- SITE CONTRACTOR TO GRADE ALL AREAS WITHIN THE LIMITS OF DISTURBANCE FROM BUILDING TO PROPERTY LINES AND TO EDGE OF PAVEMENT ON STREET SIDES, INCLUDING ROW.
- TREES OUTSIDE OF CONSTRUCTION LIMITS OR TREES NOT INDICATED TO BE REMOVED SHALL BE PROTECTED.
- TOP SOIL SHALL BE STRIPPED FROM ALL CUT AND FILL AREAS, STOCKPILED AND REDISTRIBUTED OVER GRADED AREAS, PROVIDE EROSION AND SEDIMENTATION CONTROLS AROUND STOCKPILES DURING CONSTRUCTION.
- TILL TOP SOIL TO A DEPTH OF 4" MINIMUM AND REMOVE ALL ROCKS LARGER THAN 1" MEASURED IN LARGEST DIRECTION.
- GRADE ALL AREAS TO MAINTAIN POSITIVE SLOPE AWAY FROM BUILDING.
- ALL GRADED AREAS TO RECEIVE SEED OR SOIL, STRAW AND WATER UNTIL A HEALTHY STAND OF GRASS IS OBTAINED.
- INSTALL TEMPORARY TURF REINFORCEMENT MATTING ON ALL SLOPES STEEPER THAN 3:1. MATTING SHALL BE CONTECH LANDLOK C2 OR EQUAL.
- REFER TO CIVIL DETAILS FOR PAVEMENT IN PARKING AND DRIVE AREAS.
- ALL SIDEWALKS SHALL BE CONSTRUCTED OF 3,500 PSI CONCRETE AND SHALL HAVE TOOLED CONTROL JOINTS PER THE JOINT SPACING REFERENCED ON THE PLAN.
- MATERIALS SELECTED FOR USE AS STRUCTURAL FILL SHALL BE FREE OF VEGETABLE MATTER, WASTE CONSTRUCTION DEBRIS, AND OTHER DELETERIOUS MATERIALS. THE MATERIAL SHALL NOT CONTAIN ROCKS HAVING A DIAMETER OVER 3 INCHES.
- SOILS REPRESENTED BY THEIR USCS GROUP SYMBOLS WILL TYPICALLY BE SUITABLE FOR USE AS STRUCTURAL FILL: (ML), (CL), (SM), AND (SC).
- THE FOLLOWING SOILS ARE CONSIDERED SUITABLE IN AREAS WHERE A MINIMUM THICKNESS OF 3' OF LOW PERMEABILITY SOILS CAN BE USED AS COVER: (SW), (SP), (SP-SM), AND (SP-SC).
- THE FOLLOWING SOILS ARE CONSIDERED SUITABLE IN AREAS WHERE A MINIMUM THICKNESS OF 3' OF NON-EXPANSIVE SOILS CAN BE USED AS COVER: (MH) AND (CH).
- THE FOLLOWING SOIL TYPES ARE CONSIDERED UNSUITABLE: (OL), (OH), AND (PI).
- ALL STRUCTURAL FILL SHALL BE COMPACTED TO A MINIMUM OF 95% OF THE STANDARD PROCTOR MAXIMUM DRY DENSITY (ASTM D698). ADDITIONALLY, THE IN-PLACE MAXIMUM DRY DENSITY OF STRUCTURAL FILL SHOULD BE NO LESS THAN 90 PCF.
- THE UPPER 12" OF BUILDING FLOOR SLAB SUBGRADES SHALL BE COMPACTED TO AT LEAST 98% OF THE STANDARD PROCTOR MAXIMUM DRY DENSITY (ASTM D698).
- FILL PLACEMENT IN PAVEMENT AREAS SHALL BE PERFORMED IN ACCORDANCE WITH NCDOT STANDARD SPECIFICATIONS.
- SUITABLE FILL MATERIAL SHALL BE PLACED IN 8" LIFTS AND COMPACTED BY MECHANICAL MEANS. PROOFROLLING WITH RUBBER TIED, HEAVILY LOADED VEHICLES MAY BE DESIRABLE AT INTERVALS OF APPROXIMATELY 2 VERTICAL FEET TO BIND THE LIFTS TOGETHER AND TO SEAL THE SURFACE OF THE COMPACTED AREAS.
- ALL BUILDING, SIDEWALK, AND PAVEMENT SUB-GRADE COMPACTIONS SHALL BE INTERMEDIATELY TESTED THROUGHOUT FILL PLACEMENT OPERATIONS AND APPROVED BY THE GEOTECHNICAL ENGINEER. ALL SUB-GRADES SHALL BE THOROUGHLY PROOF-ROLLED TO IDENTIFY SMALL LOCALIZED AREAS OF UNSUITABLE SOILS. ALL UNSUITABLE SOILS SHALL BE UNDERCUT, REPLACED WITH STRUCTURAL FILL, AND COMPACTED AS DESCRIBED ABOVE.
- WHERE REQUIRED, PAVEMENT SHALL BE SAW CUT IN STRAIGHT LINES, AND EXCEPT FOR EDGE OF BUTT JOINTS, SHALL EXTEND TO THE FULL DEPTH OF THE EXISTING PAVEMENT. ALL DEBRIS FROM REMOVAL OPERATIONS SHALL BE REMOVED FROM THE SITE AT THE TIME OF EXCAVATION. STOCKPILING OF DEBRIS WILL NOT BE PERMITTED.
- THE TOPS OF EXISTING MANHOLES, INLET STRUCTURES, CLEANOUTS, ETC. SHALL BE ADJUSTED, AS REQUIRED, TO MATCH PROPOSED GRADES.
- SITE CONTRACTOR SHALL BE REQUIRED TO SECURE ALL NECESSARY PERMITS AND APPROVALS FOR OFF SITE MATERIAL SOURCES AND / OR DISPOSAL FACILITIES. CONTRACTOR SHALL SUPPLY A COPY OF APPROVALS TO OWNER PRIOR TO INITIATING WORK.
- UNLESS INDICATED OTHERWISE, ALL STORM DRAINAGE PIPE SHALL BE REINFORCED CONCRETE PIPE (RCP) CLASS III WITH SOIL TIGHT JOINTS.
- SITE CONTRACTOR SHALL INSTALL BUILDING ROOF DRAINS TO WITHIN 2' OF THE BUILDING EXTERIOR WALL, CAP AND PROVIDE ABOVE GROUND MARKER FOR LOCATION PURPOSES. GENERAL CONTRACTOR IS RESPONSIBLE FOR TIE-INS OF BUILDING DOWNSPOUTS TO SITE ROOF DRAINAGE PIPING.

**- Final Drawing -**  
**Issued for Permit**  
 Review Purposes Only  
 3/1/2024 REVISED FOR PERMIT COMMENTS  
 2/11/2024 REVISED FOR REVIEW COMMENTS  
 1/11/2024 ISSUED FOR PERMIT REVIEW

REVISIONS:

#	DATE	DESCRIPTION
1	1/11/2024	ISSUED FOR PERMIT REVIEW
2	2/11/2024	REVISED FOR REVIEW COMMENTS
3	3/1/2024	REVISED FOR PERMIT COMMENTS

CROSLAND SOUTHEAST  
 ELEVEN

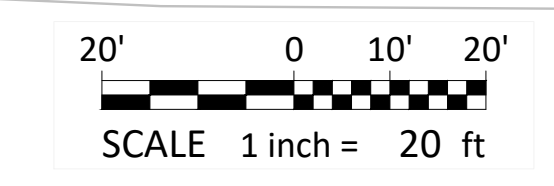
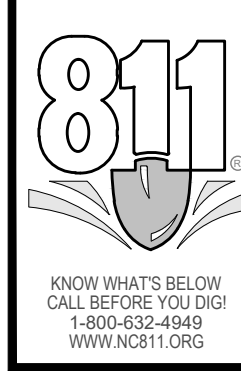
**GRADING PLAN**  
**7ELEVEN AT WALLBROOK (LOT 11)**  
 Town of Rolesville Project No. SDP 23-04  
 US 401 Business / S. Main Street & Virginia Water Drive  
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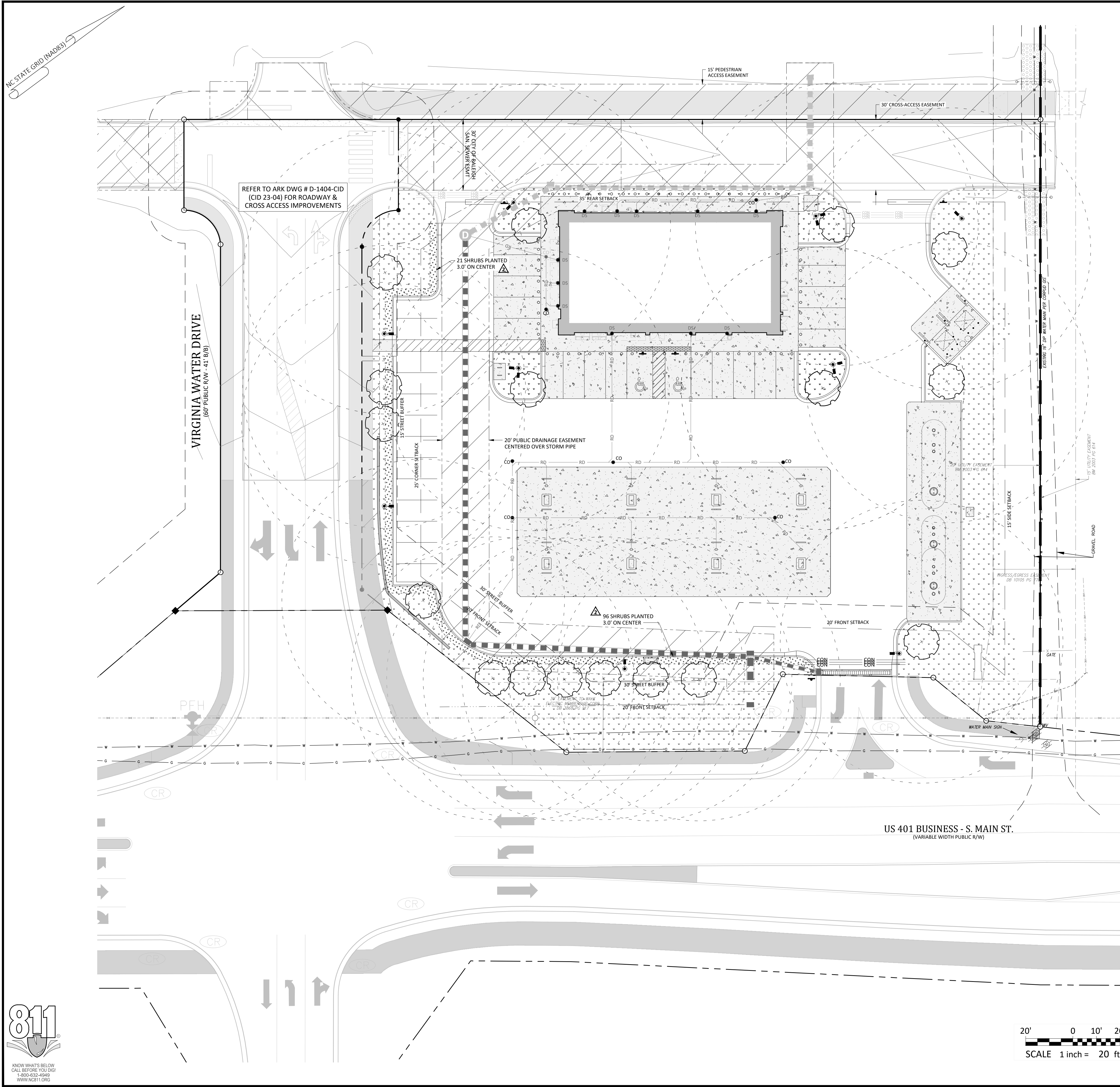
Professional Engineer  
 BRAYN C. FAGUNDY  
 3/1/2024

Project Manager: BCF  
 Drawn By: DLC/TGN  
 Checked By: TGN  
 Project Number: 22049  
 Drawing Number: D-1404-SDP

**C4.0**  
 Date: May 1, 2023

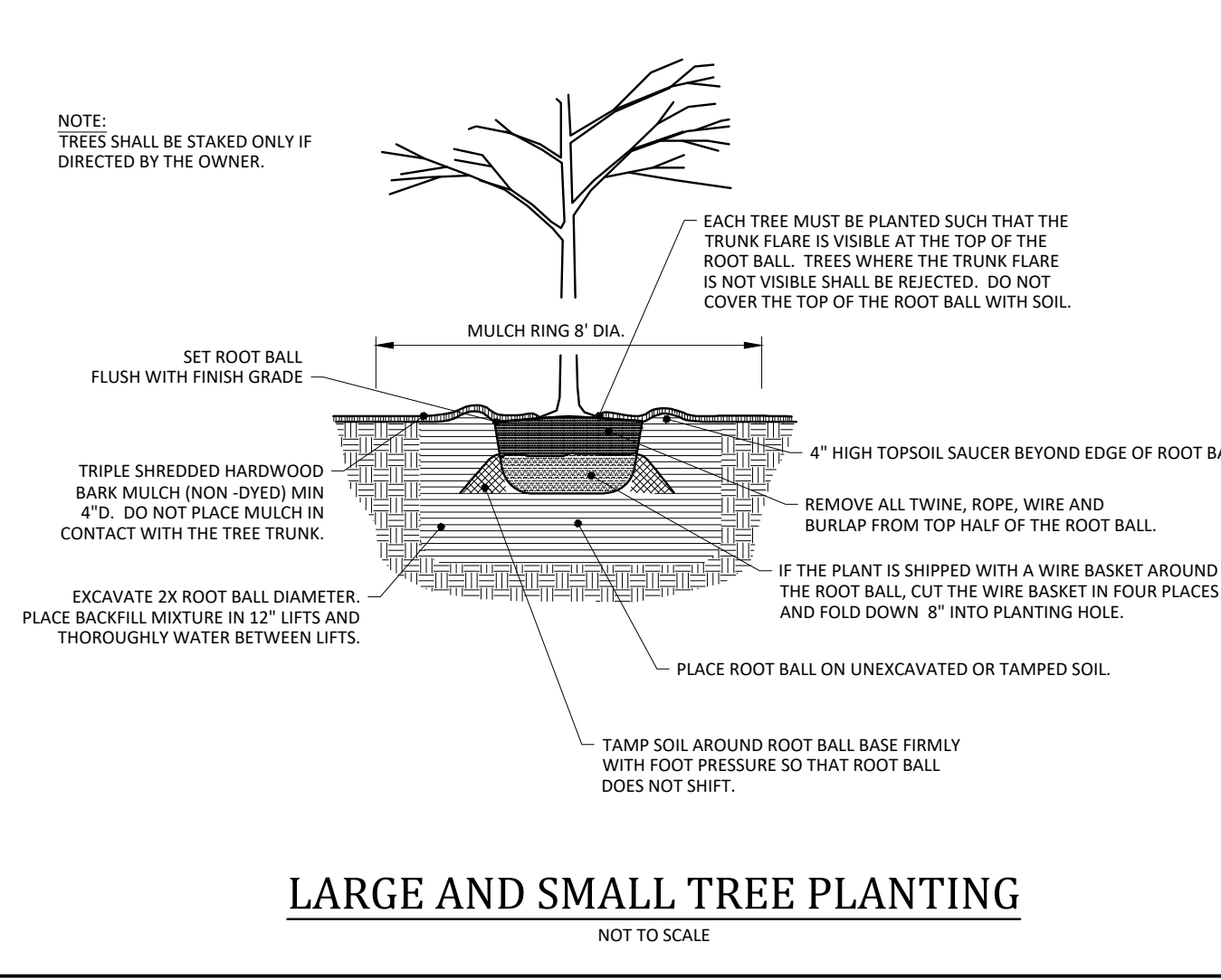
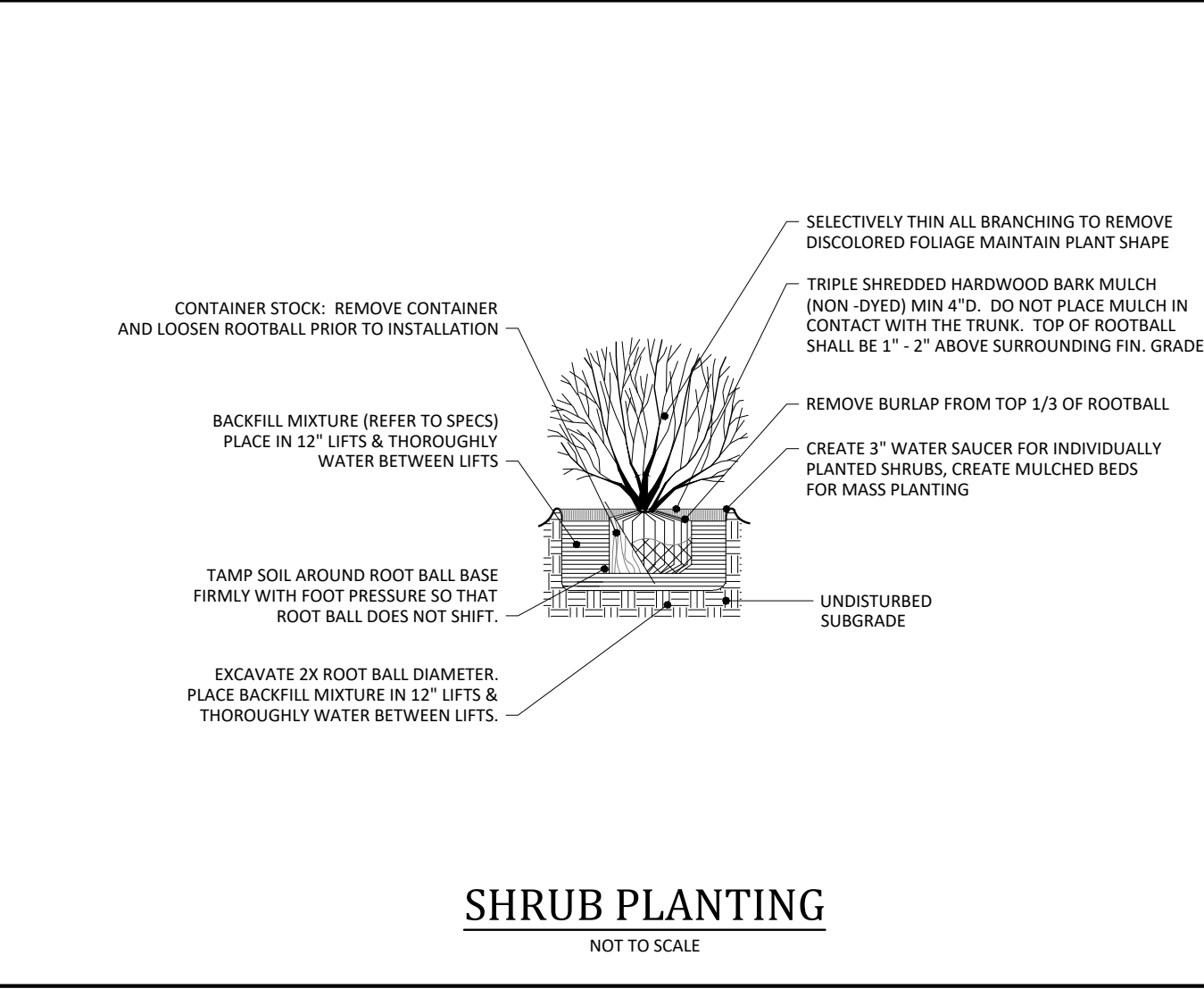






- ### Bufferyard Notes:
- SITE DATA:
    - PROVIDED VEGETATION FOR LOT:
      - LARGE TREES: 17 PROVIDED
    - REQUIRED STREET VEGETATION:
      - LARGE TREES: 5. MAIN STREET = 260 LF / 40 \* 1 TREE = 6.5 TREES (7 PROVIDED)
      - VIRGINIA WATER DRIVE = 170 LF / 40 \* 1 TREE = 4.25 TREES (4 PROVIDED)
    - REQUIRED SCREENING VEGETATION: NONE
    - REQUIRED VEGETATION LOCATED IN EASEMENTS: NONE
  - NOTES:
    - MINIMUM PLANT SIZES SHALL BE IN ACCORDANCE WITH THE SECTION 6.2.4.3 OF THE LDO AS FOLLOWS:
 

PLANTING MATERIAL TYPE	MINIMUM PLANTING SIZE
1. LARGE (CANOPY) TREE	8" (HEIGHT AND 2" CALIPER
2. SMALL/MEDIUM (UNDERSTORY) TREE	8" (HEIGHT) AND 1" CALIPER
3. SHRUB	24" (HEIGHT) - EVERGREEN 18" (HEIGHT) - DECIDUOUS
    - NO PORTION OF ANY PARKING SPACE SHALL BE LOCATED MORE THAN SIXTY (60) FEET FROM AN ON-SITE LARGE (CANOPY) TREE. FOR PURPOSES OF THIS SECTION, THE MEASUREMENT SHALL BE FROM THE CLOSEST EDGE OF THE SUBJECT AREA TO THE CENTER OF THE BASE OF THE CLOSEST QUALIFYING TREE IN ACCORDANCE WITH SECTION 6.2.4.4 OF THE LDO.
    - DUMPSTER/COMPACTOR SHALL BE SCREENED ON 3 SIDES IN ACCORDANCE WITH SECTION 6.2.4.6 OF THE LDO.
    - NO TREES OR SHRUBS SHALL BE PLANTED WITHIN SANITARY SEWER, WATERLINE OR ELECTRIC EASEMENTS WITHOUT THE TOWN AND EASEMENT HOLDER APPROVAL.
    - ALL MULTI-STEM TREES SHALL HAVE AT LEAST THREE STALKS WITH A MINIMUM CALIPER OF 2.5" IN ACCORDANCE WITH SECTION 6.2.4.7 OF THE LDO.
    - LANDSCAPING SHALL BE COMPLIANT WITH LDO SECTION 6.2.4
    - MINIMUM OF 3 FEET CLEARANCE MUST BE MAINTAINED AROUND ALL FIRE HYDRANTS IN ACCORDANCE WITH STATE BUILDING CODE.
    - PLANTINGS WITHIN THE R/W ARE TO BE INSTALLED AS PART OF THE MAIN STREET PROJECT (NCDOT U-6241). SEE STANTEC PLAN SHEET L-4.
    - REFER TO WALLBROOK PRELIMINARY PLAT (PR 21-04 REV) FOR VEGETATION PRESERVATION IN THIS AREA.
    - CONTRACTOR SHALL PLACE WEED MATTING AND METAL EDGING LOCATED AT THE BACK OF CURB AROUND ALL MULCH BEDS



### Vegetation Legend:

	PROPOSED LARGE TREE (CANOPY) TOTAL QUANTITY = 17 CALIPER = 3" HEIGHT = 12" MATURE HEIGHT = 50' - 80' COMMON NAME = RED MAPLE BOTANICAL NAME = ACER RUBRUM
	PROPOSED SHRUB(S) TOTAL QUANTITY = 117 HEIGHT = 24" MATURE HEIGHT = 24" - 36" COMMON NAME = GREY OWL EASTERN RED CEDAR BOTANICAL NAME = JUNIPERUS VIRGINIANA 'GREY OWL'
	PROPOSED SOD TOTAL QUANTITY = 11,060 SF (CONTRACTOR RESPONSIBLE FOR VERIFYING AREA)

**- Final Drawing -**  
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Review Purposes Only

REVISIONS:

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1	11/04/23	ISSUED FOR PERMIT REVIEW
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3	11/04/23	REVISED PER REVIEW COMMENTS

**REQUIRED VEGETATION PLAN**

**7ELEVEN AT WALLBROOK (LOT 11)**

Town of Rolesville Project No. SDP 23-04

US 401 Business / S. Main Street & Virginia Water Drive  
Wake Forest Township, Town of Rolesville, Wake County, North Carolina

NC License: PA 1139

**ARK CONSULTING GROUP PLLC**  
ENGINEERS & PLANNERS

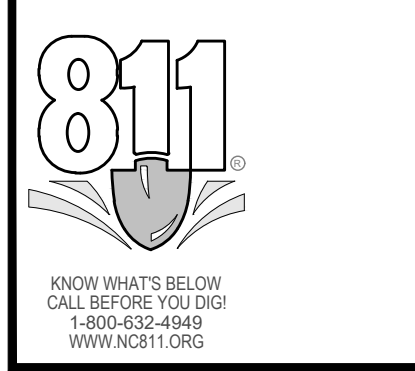
2755-B Charles Blvd  
Raleigh, NC 27608  
(919) 558-8888  
www.arkconsultinggroup.com

3/1/2024

Project Manager: BCF  
Drawn By: DLC/TGN  
Checked By: TGN  
Project Number: 22049  
Drawing Number: D-1404-SDP

**C5.0**

Date: May 1, 2023



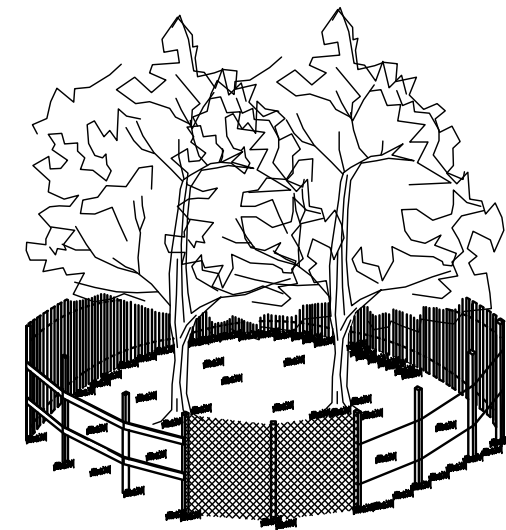




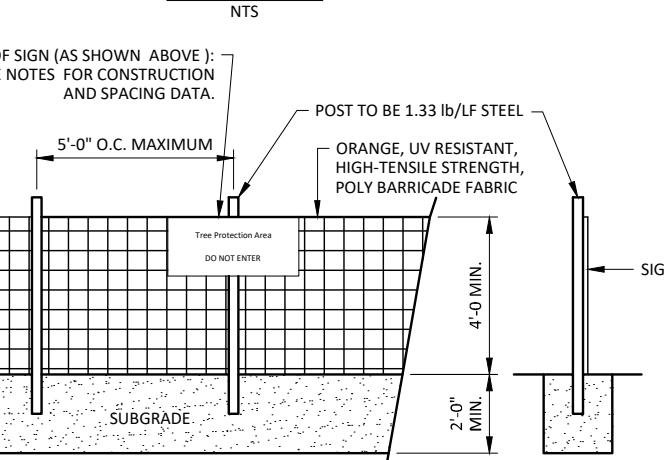
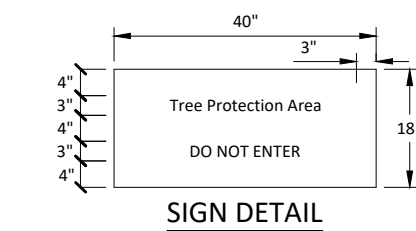




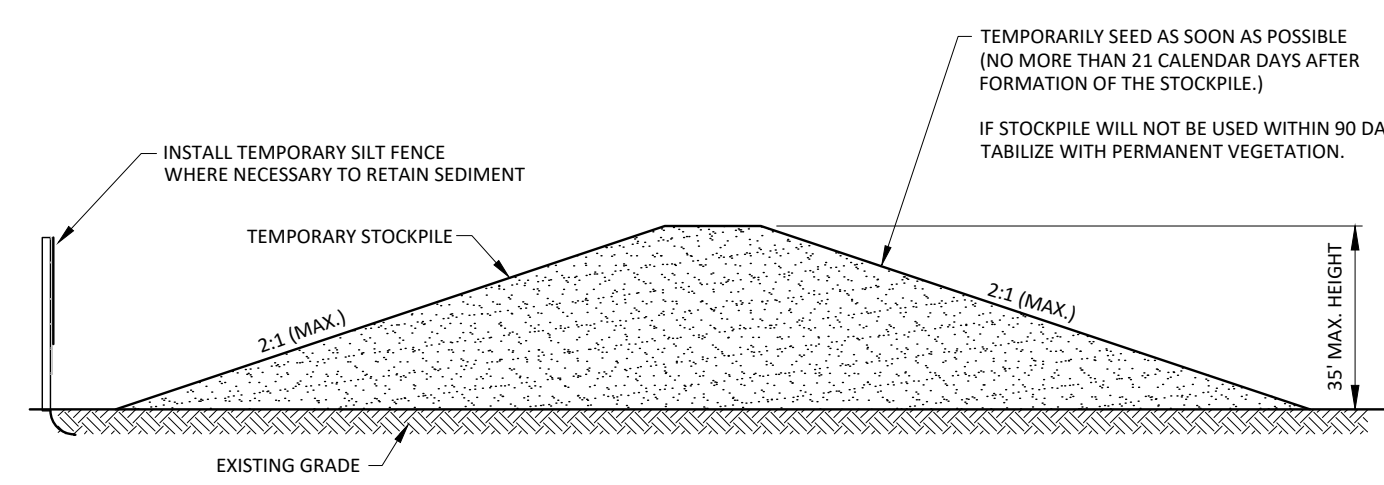




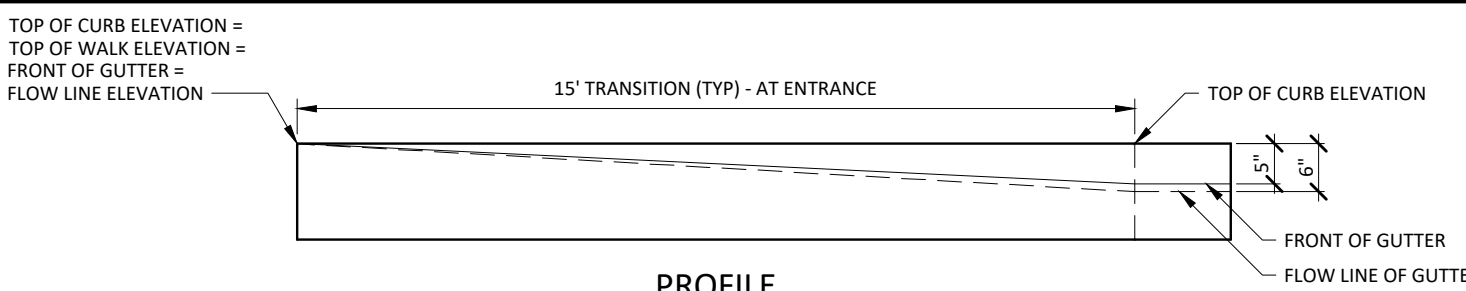
- NOTES:**
- SIGNS ARE TO BE PLACED NO GREATER THAN 200' ON CENTER. PLACE SIGN AT EACH END OF LINEAR TREE PROTECTION AREA AND 200' ON CENTER THEREAFTER.
  - FOR TREE PROTECTION AREAS LESS THAN 200' IN PERIMETER, PROVIDE NO LESS THAN ONE SIGN PER PROTECTION AREA.
  - ATTACH SIGNS SECURELY TO FENCE POSTS AND FABRIC.
  - WARNING SIGNS TO BE MADE OF DURABLE, WEATHERPROOF MATERIAL.
  - LETTERS ARE TO BE 2" HIGH MINIMUM, CLEARLY VISIBLE, AND SPACED AS DETAILED.
  - INSTALL TREE PROTECTION FENCE & SIGNAGE PRIOR TO CALLING FOR THE INITIAL ON-SITE INSPECTION BY A NCDENR INSPECTOR. MAINTAIN TREE PROTECTION FENCE THROUGHOUT DURATION OF PROJECT. ADDITIONAL SIGNS MAY BE REQUIRED BY NCDENR BASED ON ACTUAL FIELD CONDITIONS.



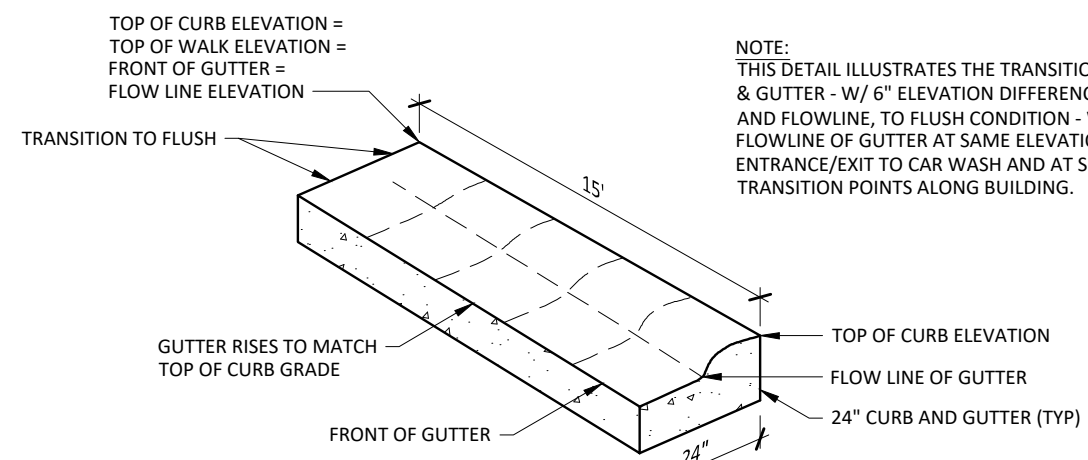
**TREE PROTECTION FENCE**  
NOT TO SCALE



**TEMPORARY STOCKPILE**  
NOT TO SCALE

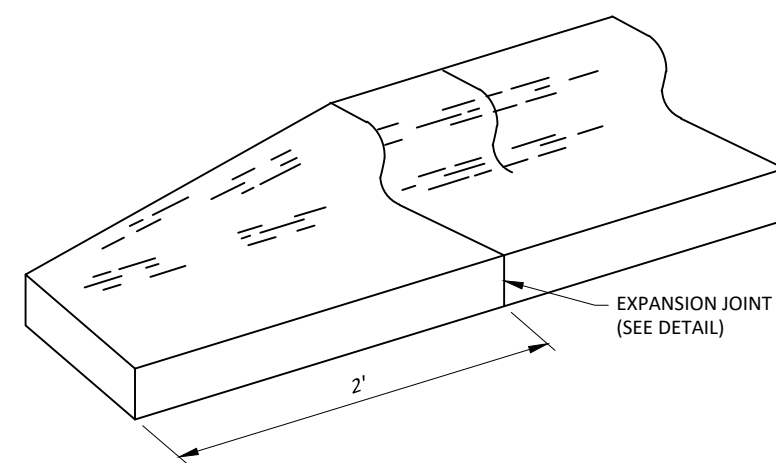


**PROFILE**

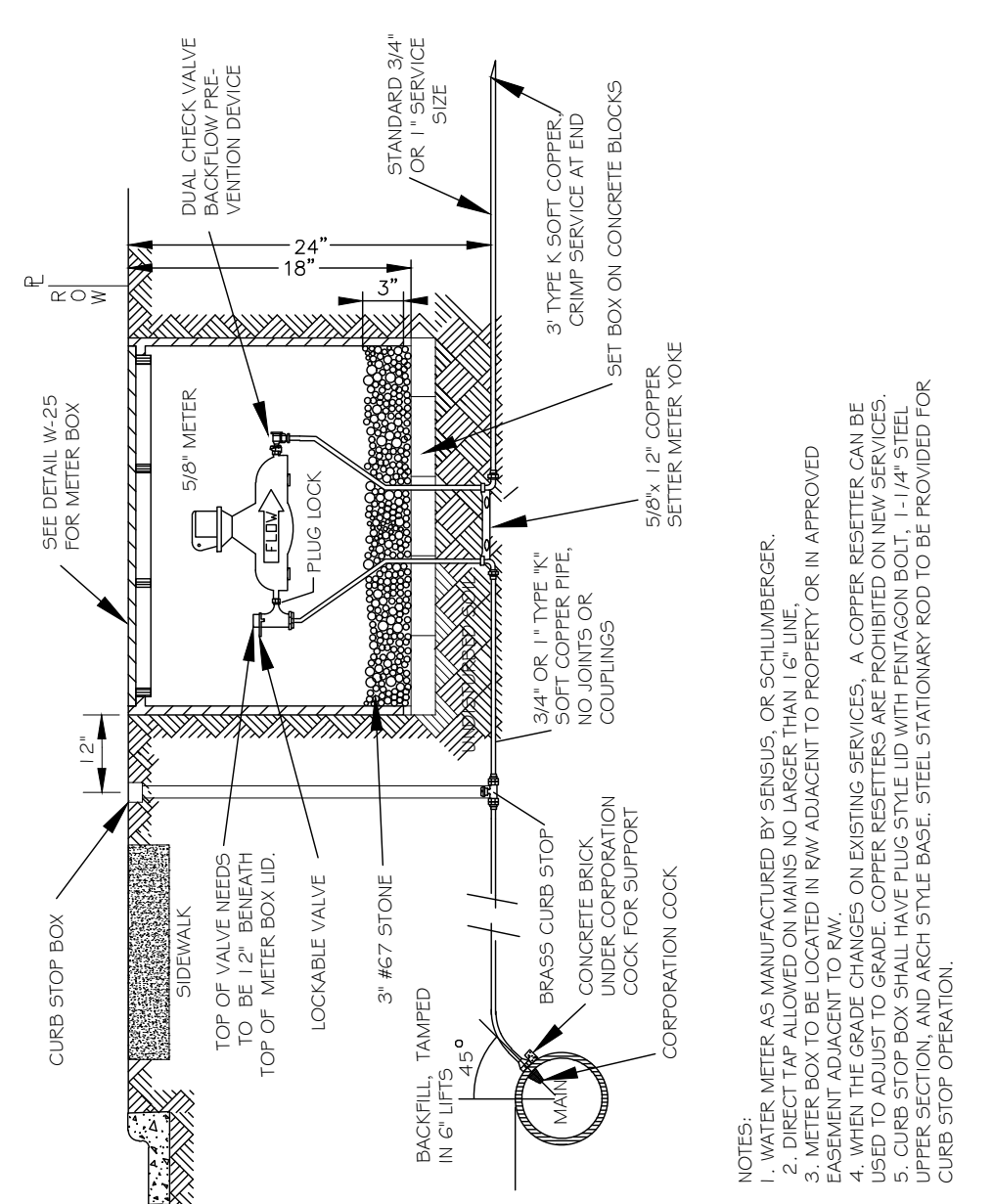


**ISOMETRIC VIEW**

**CURB AND GUTTER TO FLUSH PAVING TRANSITION**  
NOT TO SCALE



**CURB TAPER DETAIL**  
NOT TO SCALE

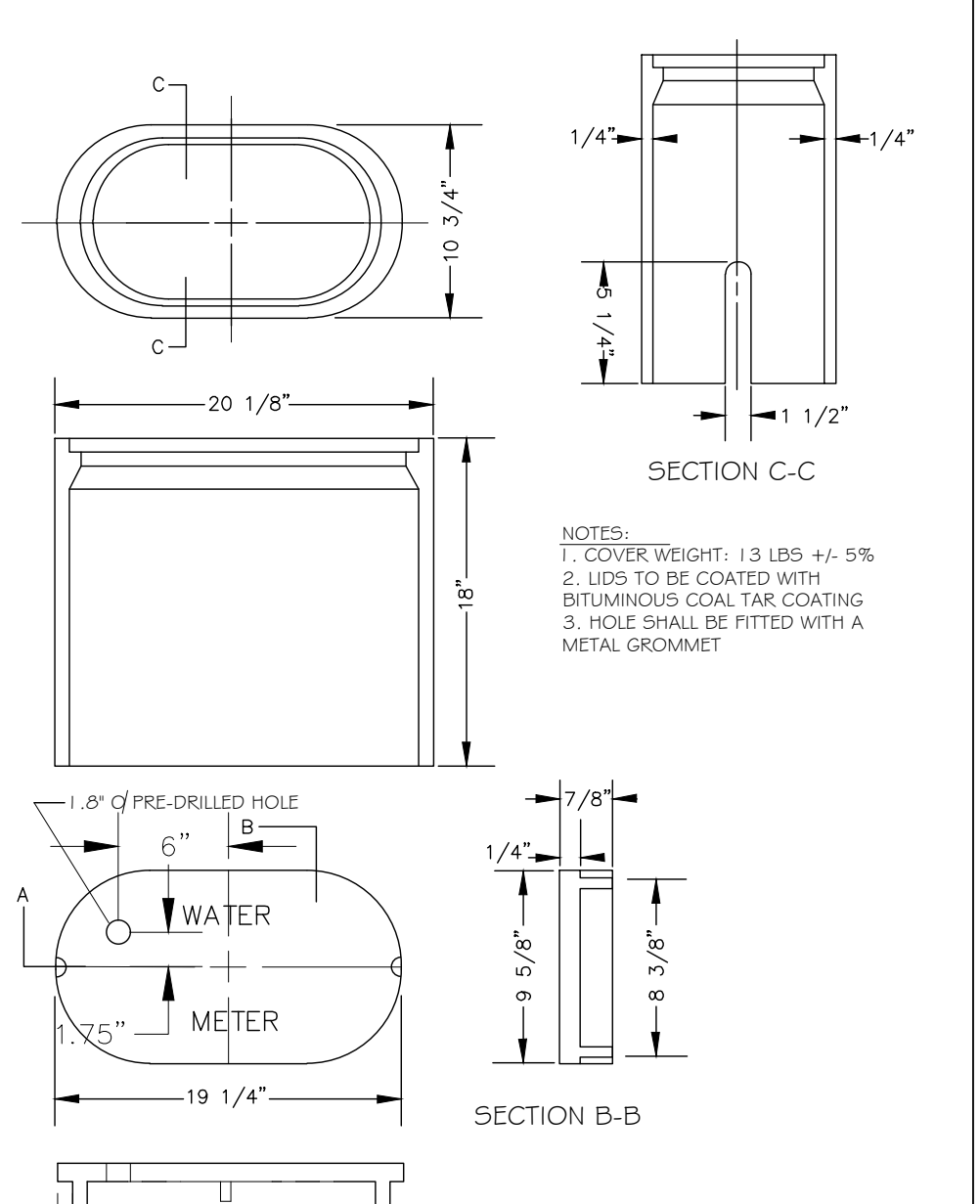


- NOTES:**
- WATER METER AS MANUFACTURED BY DENISON, OR SCHLUMBERGER.
  - WATER METER SHALL BE LOCATED IN RW ADJACENT TO PROPERTY OR IN APPROVED EASEMENT ADJACENT TO RW.
  - METER BOX TO BE LOCATED IN RW ADJACENT TO PROPERTY OR IN APPROVED EASEMENT ADJACENT TO RW.
  - FOR ANY EXISTING SERVICES, A COPPER RESISTER CAN BE USED TO ADJUST TO GRADE. COPPER RESISTERS ARE PROHIBITED ON NEW SERVICES.
  - IF THE METER BOX IS TO BE INSTALLED AT AN ELEVATION DIFFERENT FROM THE GRADE OF THE PAVEMENT, THE METER BOX AND ITS FLANGE SHALL BE SET AT THE GRADE OF THE PAVEMENT AND A STEEL STATIONARY ROD TO BE PROVIDED FOR CURB STOP CREATION.

CITY OF RALEIGH  
DEPARTMENT OF PUBLIC UTILITIES

**STANDARD 3/4" x 1" WATER SERVICE INSTALLATION**

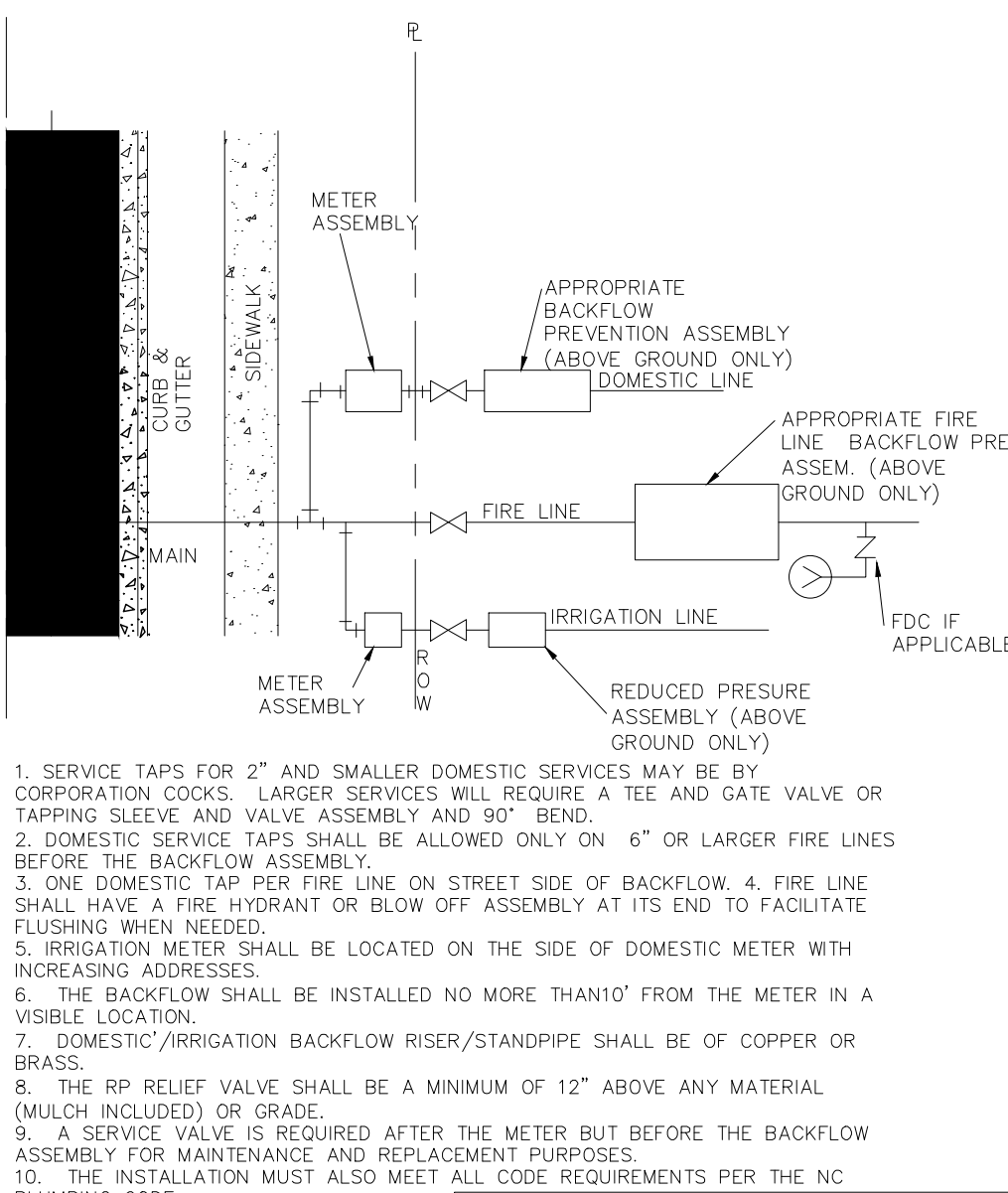
DWG. NO.	REVISIONS	DATE	REVISIONS	DATE
W-23	ABB	4-6-04	4-B	3-9-09
	D.J.L.	8/7/08		



CITY OF RALEIGH  
DEPARTMENT OF PUBLIC UTILITIES

**WATER METER BOX DETAIL**

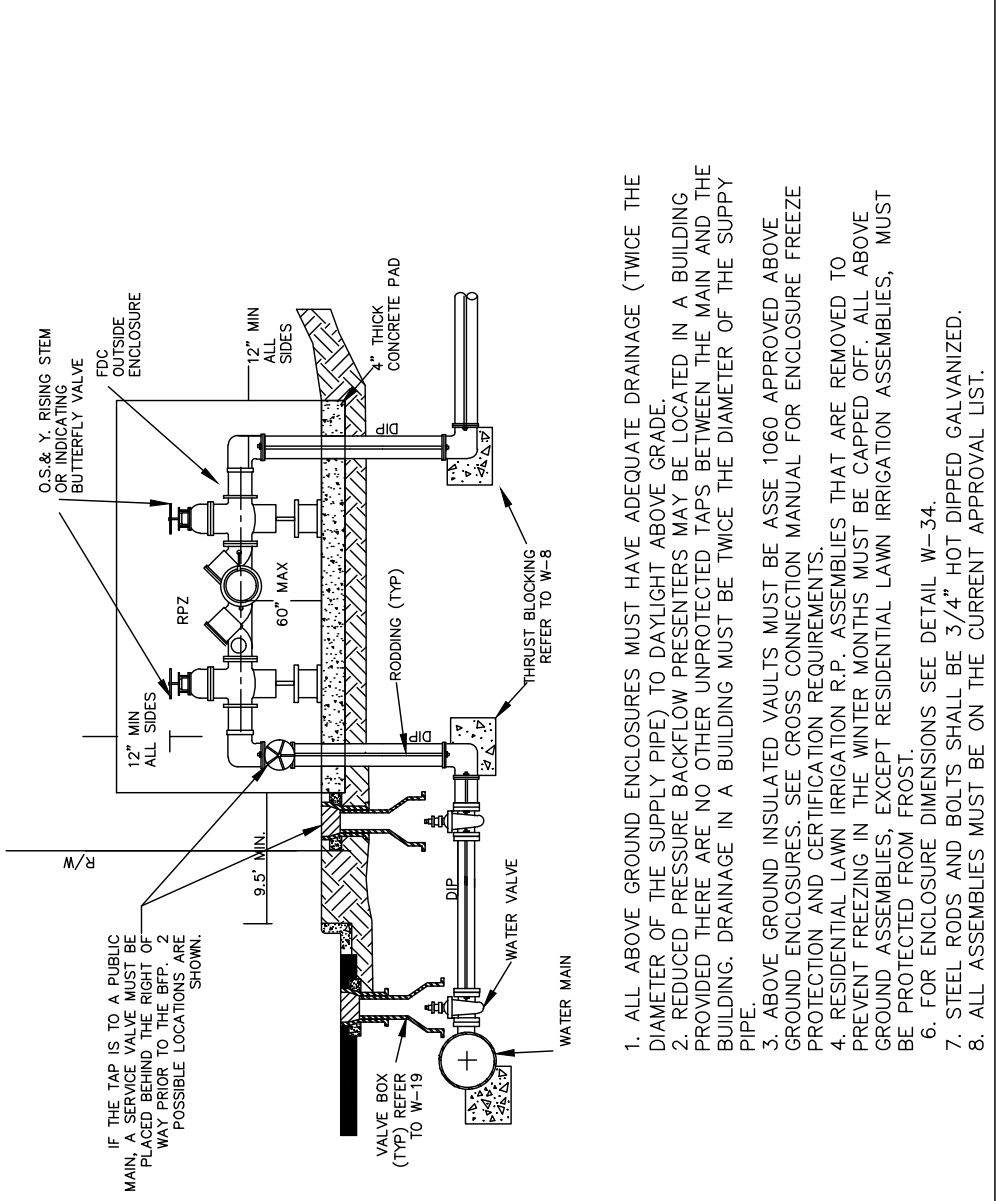
DWG. NO.	REVISIONS	DATE	REVISIONS	DATE
W-25	D.W.C.	11-3-99	ABB	3-20-05
	RRH	3-31-05	J.P.S.	11-4-10



CITY OF RALEIGH  
DEPARTMENT OF PUBLIC UTILITIES

**FIRE, DOMESTIC & IRRIGATION OPTIONS SCHEMATIC**

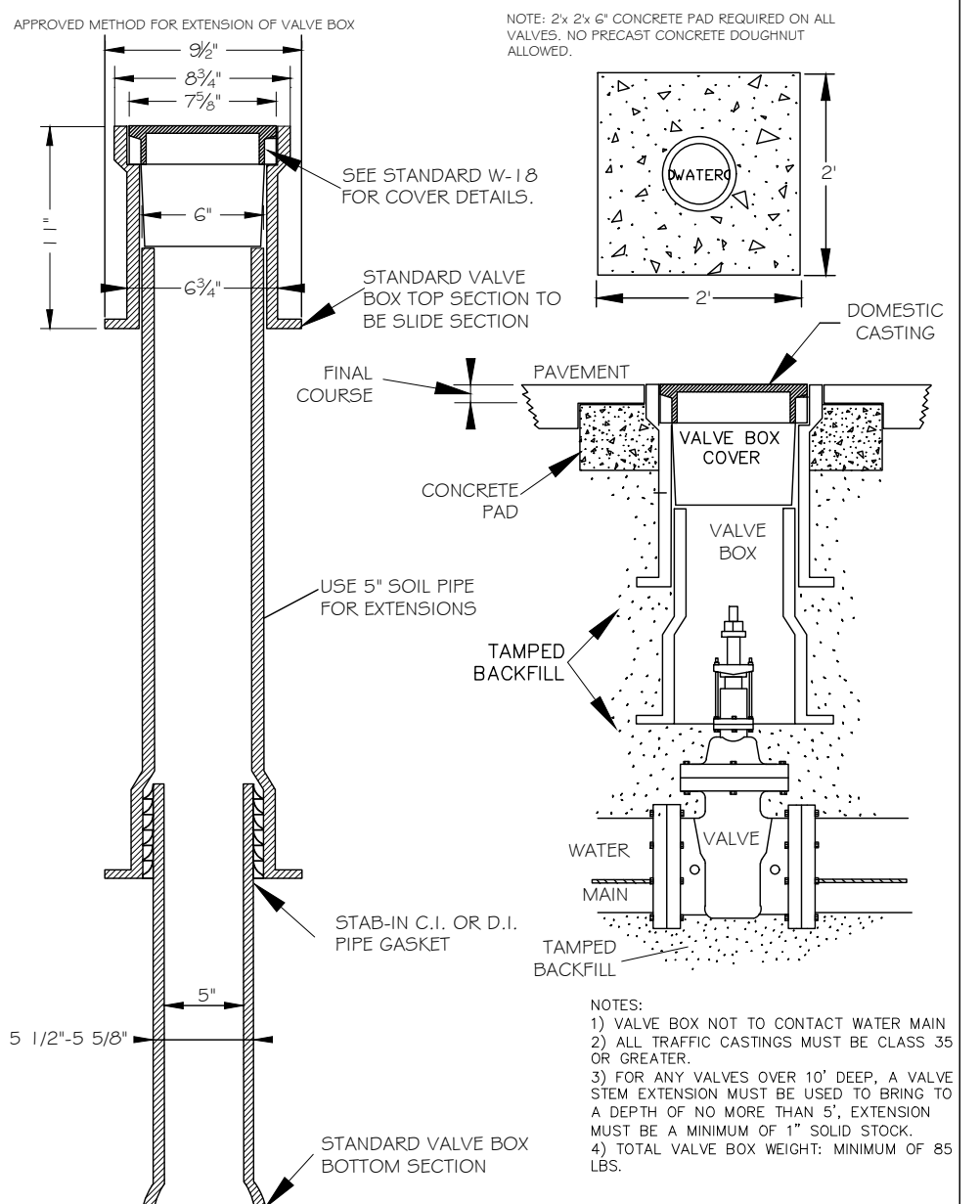
DWG. NO.	REVISIONS	DATE	REVISIONS	DATE
W-34	D.W.C.	11-18-99	A.B.B.	7-10-04
	RRH	3-31-05	D.J.L.	6/18/08



CITY OF RALEIGH  
DEPARTMENT OF PUBLIC UTILITIES

**TYPICAL REDUCED PRESSURE ZONE BACKFLOW PREVENTER ASSEMBLY**

DWG. NO.	REVISIONS	DATE	REVISIONS	DATE
W-36	Y.C.A.	12-31-91	A.B.B.	7-10-04
	D.W.C.	11-8-99	D.J.L.	6/18/08



CITY OF RALEIGH  
DEPARTMENT OF PUBLIC UTILITIES

**VALVE BOX INSTALLATION AND EXTENSION DETAIL**

DWG. NO.	REVISIONS	DATE	REVISIONS	DATE
W-17	D.W.C.	9-7-99	A.B.B.	4-15-04
	RRH	8-31-00	D.J.L.	8-16-07



CITY OF RALEIGH  
DEPARTMENT OF PUBLIC UTILITIES

**STANDARD VERTICAL BEND**

DWG. NO.	REVISIONS	DATE	REVISIONS	DATE
W-12	ABB	4-6-04	J.P.S.	11-1-10
	D.J.L.	6-10-05		

ROD REQUIREMENTS	NO. OF RODS REQUIRED
6"	2
8"	4
10"	6
12"	8
14"	8
16"	8
18"	8
20"	8

GENERAL NOTES:  
 1. ALL RODS SHALL BE 1/4" UNF UNFINISHED STEEL RODS WITH 6" LAPS OF MECHANICAL JOINT BENDS.  
 2. RESTRAINED MECHANICAL JOINTS TO BE USED AT ALL FITTINGS.  
 3. ALL MECHANICAL JOINTS SHALL BE MAINTAINED ON ALL WATER MAINS.  
 4. MINIMUM COVER MUST BE MAINTAINED ON ALL WATER MAINS.

**- Final Drawing -**  
**Issued for Permit**  
 Review Purposes Only  
 3/11/2024 REVISED FOR REVIEW COMMENTS  
 1/11/2023 REVISED FOR REVIEW COMMENTS  
 1/11/2023 ISSUED FOR PERMIT REVIEW



**7ELEVEN AT WALLBROOK (LOT 11)**  
 Town of Rolesville Project No. SDP 23-04  
 US 401 Business / S. Main Street & Virginia Water Drive  
 Wake Forest Township, Town of Rolesville, Wake County, North Carolina

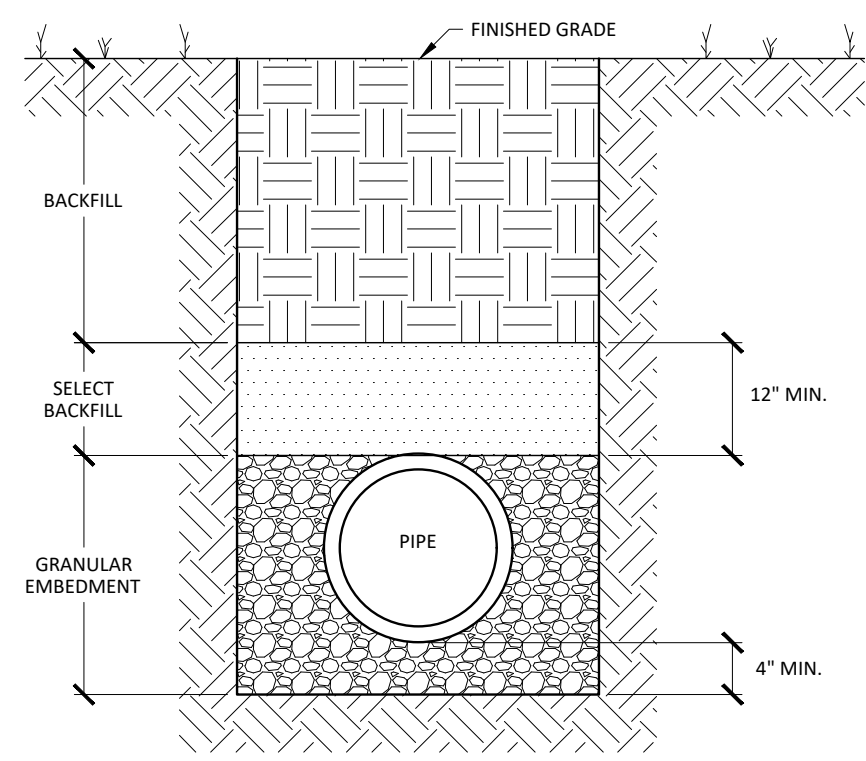
NC License P-1139  
**ARK CONSULTING GROUP PLLC**  
 ENGINEERS & PLANNERS  
 2755-B Charles Blvd.  
 Cary, NC 27513  
 (252) 558-8888  
 www.arkconsultinggroup.com

**Professional Engineer**  
 BRYAN C. FAGUNDI  
 3/11/2024

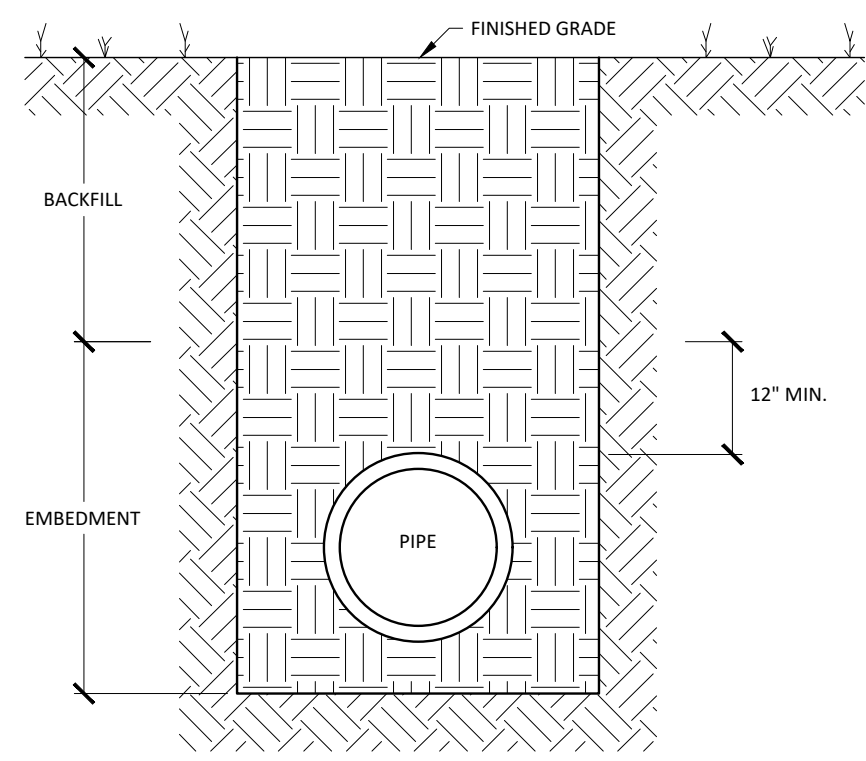
Project Manager: BCF  
 Drawn By: DLC/TGN  
 Checked By: TGN  
 Project Number: 22049  
 Drawing Number: D-1404-SDP

**C6.2**  
 Date: May 1, 2023

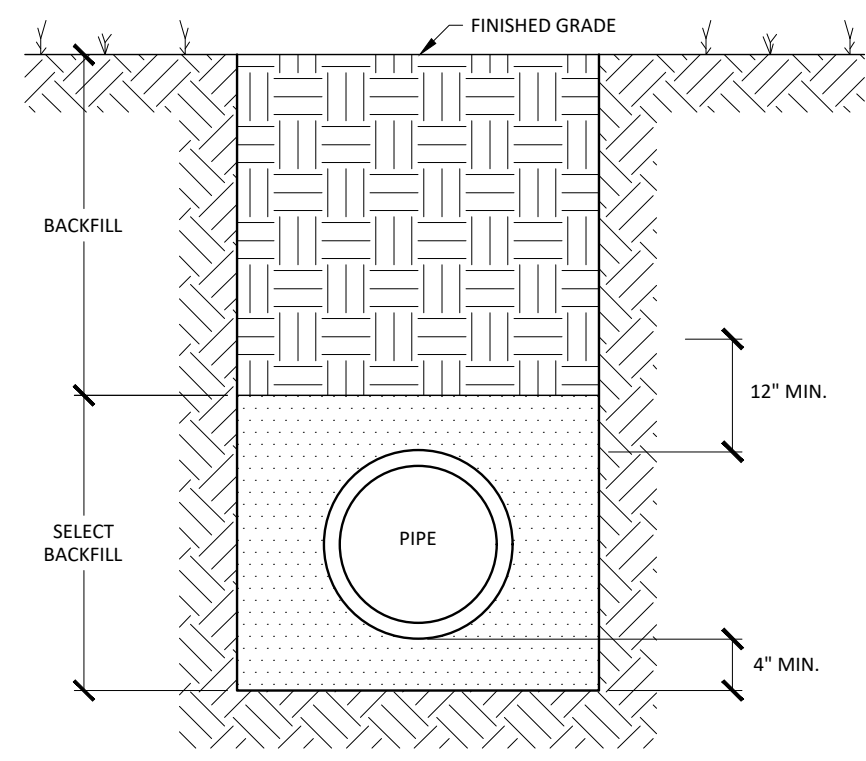




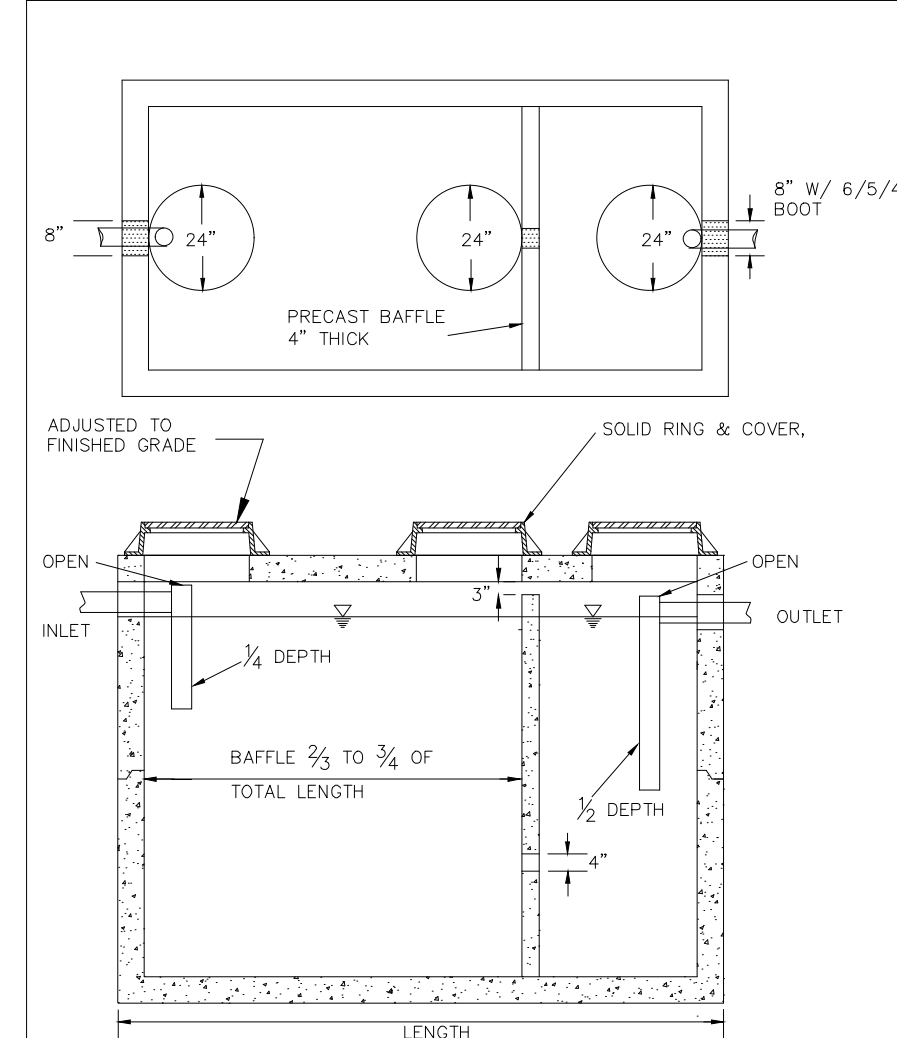
**TRENCH SECTION DETAIL FOR THE INSTALLATION OF PVC GRAVITY STORM DRAIN & SANITARY SEWER PIPING**  
CLASS 'D'  
NOT TO SCALE



**TRENCH SECTION FOR THE INSTALLATION OF REINFORCED CONCRETE PIPE**  
CLASS 'F'  
NOT TO SCALE



**TRENCH SECTION DETAIL FOR THE INSTALLATION OF PVC PRESSURE PIPE**  
CLASS 'E'  
NOT TO SCALE



**TYPICAL TRENCH BOTTOM DIMENSIONS FOR SDR 35 PVC GRAVITY PIPE**

NOTES:

1. REINFORCEMENT: H-20 BRIDGE LOADING (TRAFFIC GRADES)
2. CONCRETE: 4000 PSI 90Z DAYS
3. EARTH COVER: 0' TO 5' MAX.

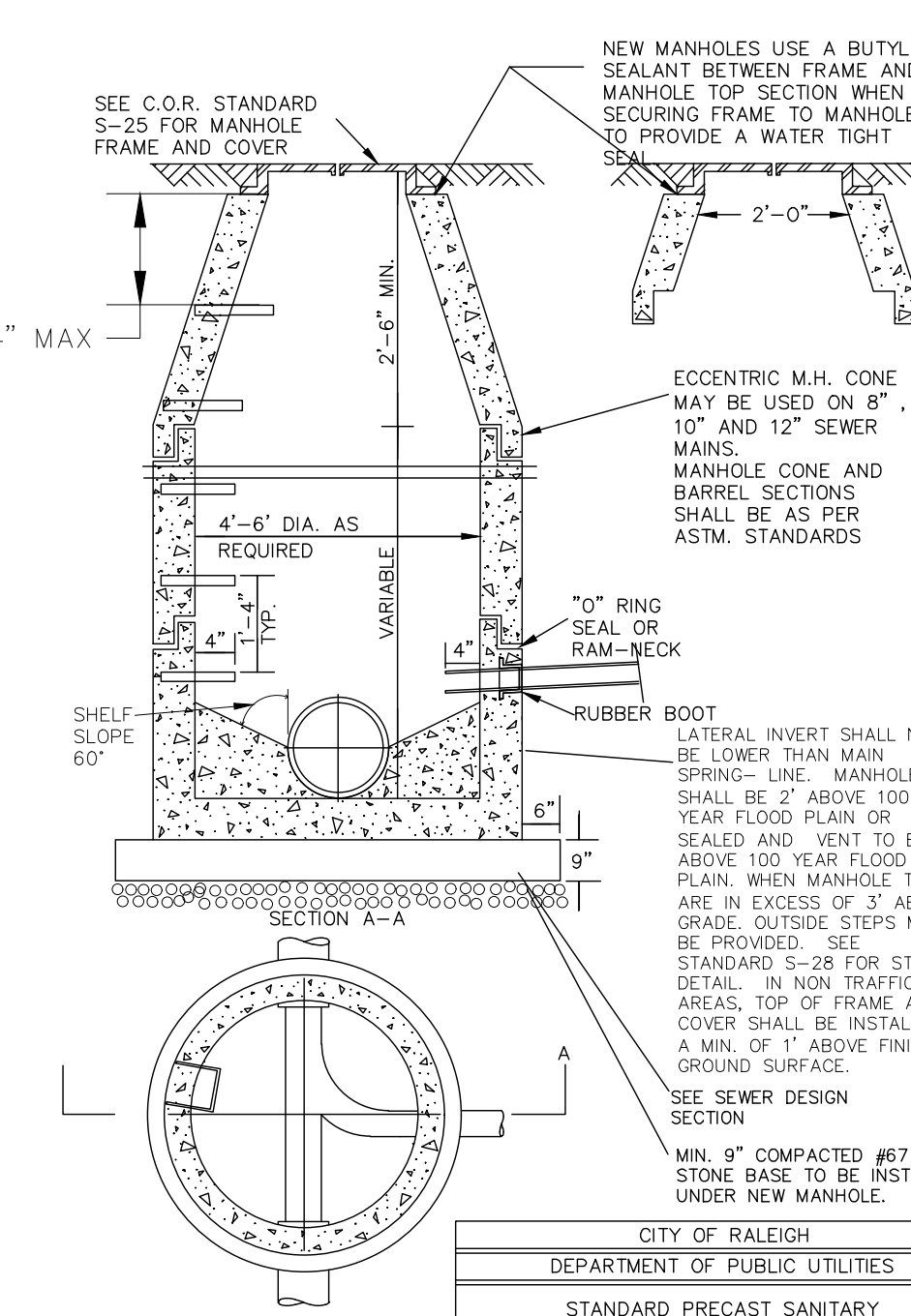
DWG. NO.	REVISIONS	DATE	REVISIONS	DATE
S-40	RRH	3/27/04	D.H.L.	6/19/08

LOCALLY AVAILABLE SIZES	
INTERCEPTOR CAPACITY (GAL.)	SEPARATORS CAPACITY (GAL.)
500	1000
550	1200
750	1600
1000	
1500	
2000	
2500	
3000	
4000	
5000	
6000	
8000	

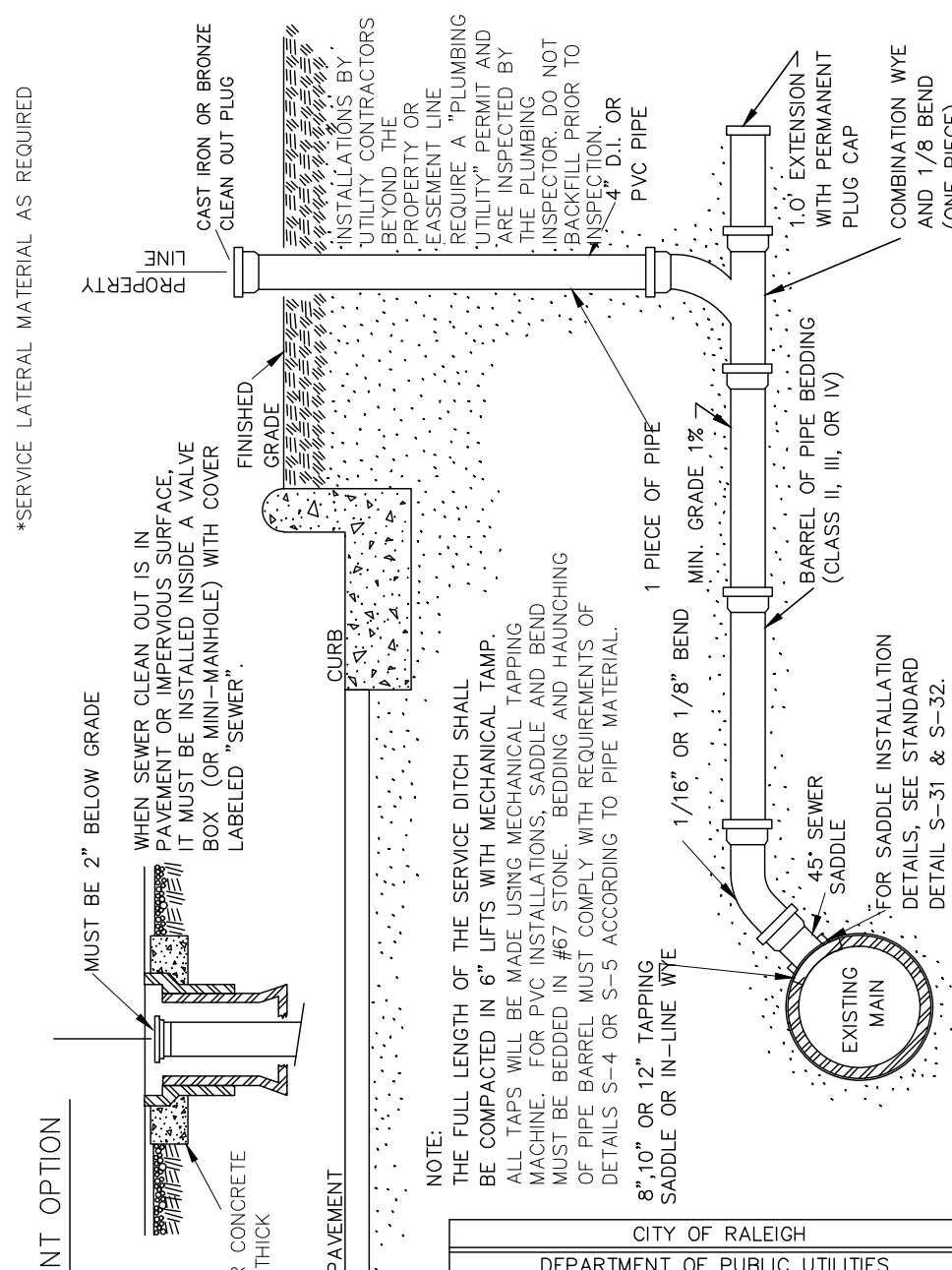
- NOTES:
1. BAFFLE WALL LOCATED AT A DISTANCE FROM INLET WALL 2/3 TO 3/4 OF THE TOTAL LENGTH OF THE INTERCEPTOR OR SEPARATOR AS SHOWN ON DETAIL S-40.
  2. EACH INTERCEPTOR OR SEPARATOR SHALL HAVE INLET AND OUTLET TEES. THE OUTLET TEE SHALL EXTEND 50% INTO THE LIQUID DEPTH. THE INLET TEE SHALL EXTEND 20% INTO THE LIQUID DEPTH. INLET AND OUTLET TEES MUST BE OPEN TO ALLOW THE COLLECTION OF F.L.O.G. SAMPLE.
  3. ACCESS OPENINGS OVER EACH COMPARTMENT WITHIN THE INTERCEPTOR OR SEPARATOR SHALL BE 24 INCHES IN DIAMETER AND CONTAIN PROX. HOLES. ALL COVERS SHALL BE CONSTRUCTED OF CAST IRON OR EQUIVALENT TRAFFIC BEARING MATERIAL. COVERS MUST EXTEND TO FINISH GRADE AND BE INSTALLED TO EXCLUDE THE ENTRANCE OF STORMWATER INTO THE INTERCEPTOR OR SEPARATOR.
  4. FULL SIZE 20# SHEEP CLEANOUTS SHALL BE INSTALLED ON THE INLET AND OUTLET SIDES OF THE INTERCEPTOR OR SEPARATOR.
  5. INTERCEPTORS AND SEPARATORS MUST BE VENTED IN ACCORDANCE WITH THE NC STATE PLUMBING CODE.
  6. CONCRETE: 4000 PSI @ 28 DAYS.
  7. DESIGN: NO. 218 BUILDING CODE.
  8. DESIGN: NO. 218 BUILDING CODE.
  9. INTERCEPTORS AND SEPARATORS SHALL BE DESIGNED TO WITHSTAND AN H-20 WHEEL LOAD.
  10. ALL INTERCEPTORS AND SEPARATORS SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS.

DIMENSIONS: GREASE INTERCEPTORS OIL-WATER-SAND SEPARATORS				
DWG. NO.	REVISIONS	DATE	REVISIONS	DATE
S-41	RRH	3/27/04	D.H.L.	6/19/08

**TYPICAL SANITARY SEWER LATERAL CONNECTION**

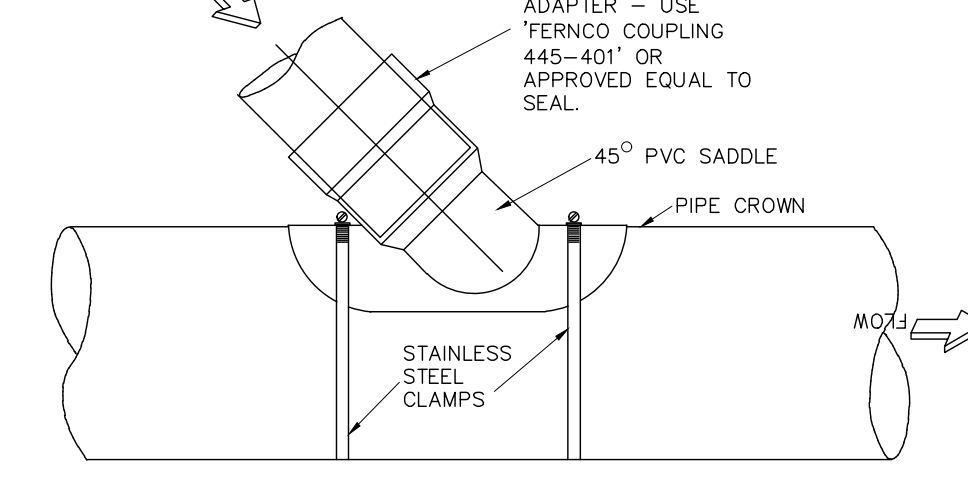


DWG. NO.	REVISIONS	DATE	REVISIONS	DATE
S-5	RRH	3-1-87	D.H.L.	6-8-08
		12-2-82	RRH	3-30-00



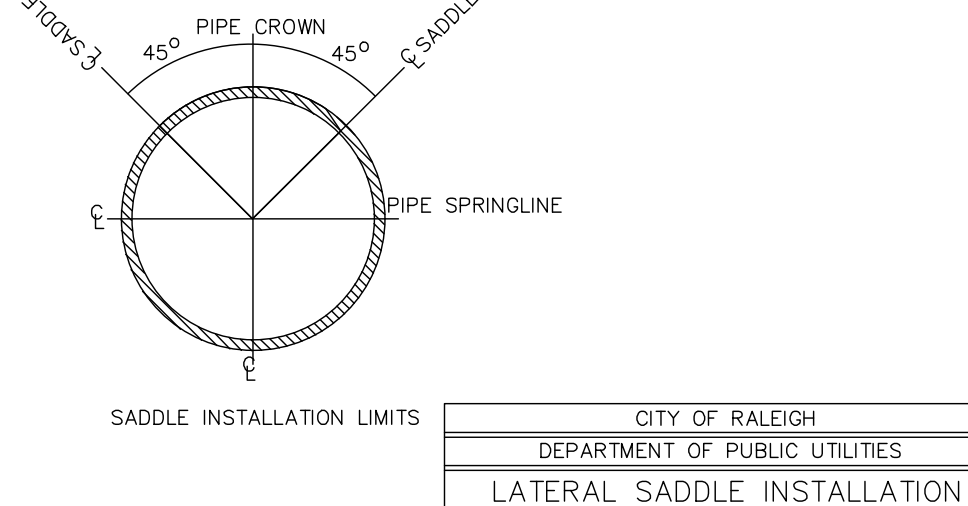
**TYPICAL LIFTING DEVICE**

DWG. NO.	REVISIONS	DATE	REVISIONS	DATE
S-26	RRH	3-1-87	D.H.L.	6/19/08
		3-1-87	RRH	3-30-00



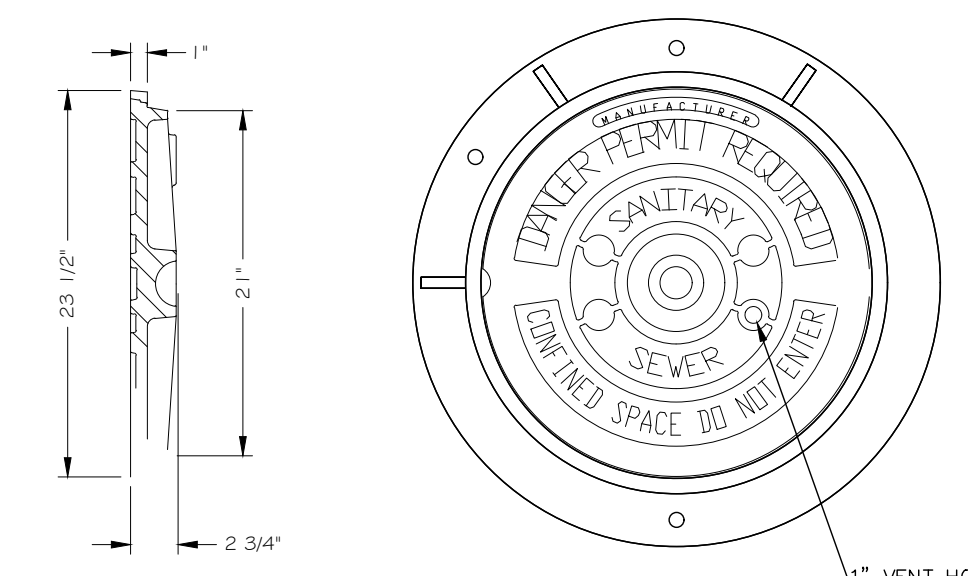
**LATERAL SADDLE INSTALLATION DETAIL FOR PVC PIPE**

DWG. NO.	REVISIONS	DATE	REVISIONS	DATE
S-30	RRH	3-30-00	D.H.L.	6-8-08



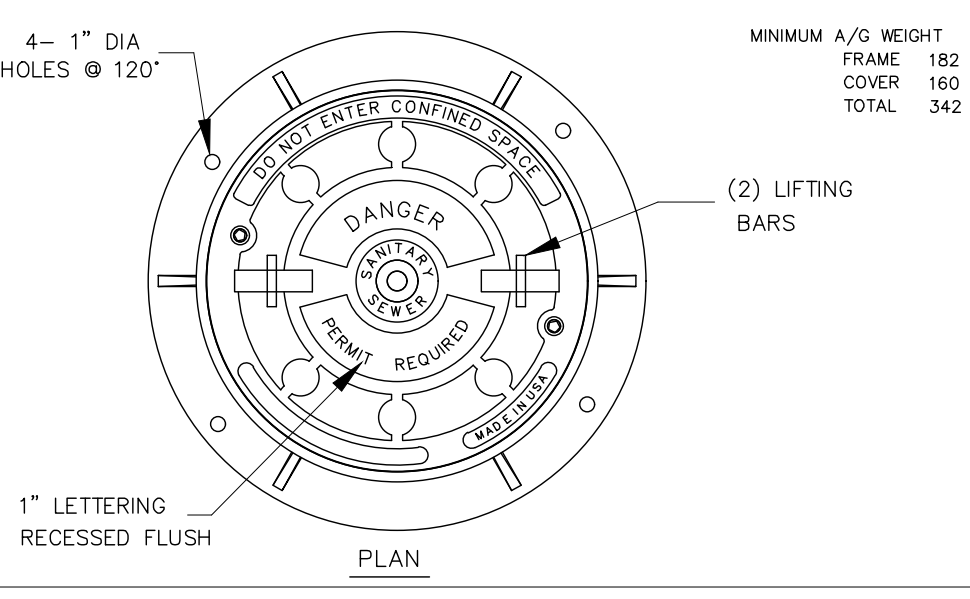
**STANDARD PRECAST SANITARY SEWER MANHOLE**

DWG. NO.	REVISIONS	DATE	REVISIONS	DATE
S-20	RRH	3-30-00	D.H.L.	6-8-08



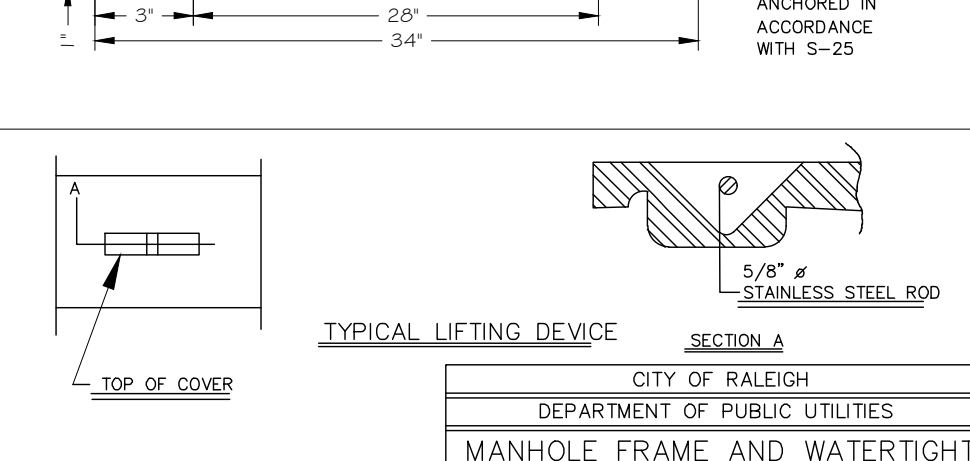
**STANDARD ASPHALT PAVEMENT PATCH DETAIL**

DWG. NO.	REVISIONS	DATE	REVISIONS	DATE
S-3	RRH	11-1-99	A.B.B.	4-13-03
		5-30-00	J.F.S.	10-8-10



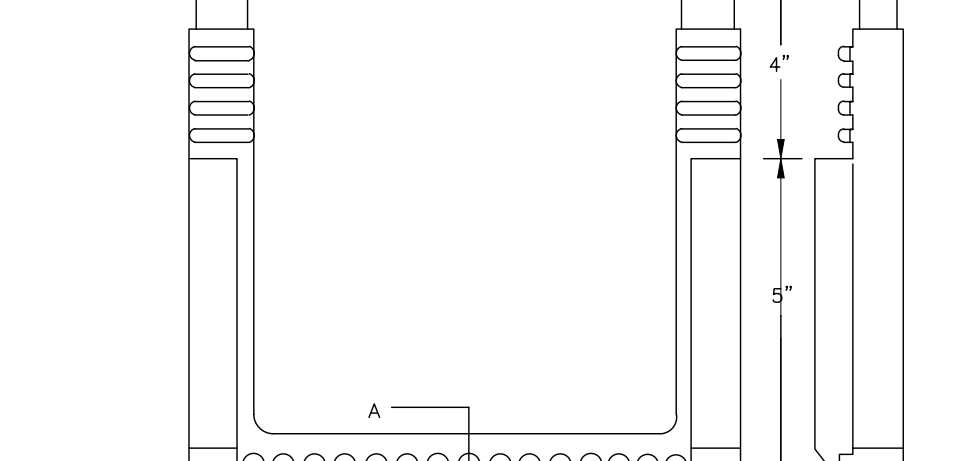
**MANHOLE FRAME AND WATERTIGHT COVER**

DWG. NO.	REVISIONS	DATE	REVISIONS	DATE
S-28	RRH	3-30-00	D.H.L.	6/19/08



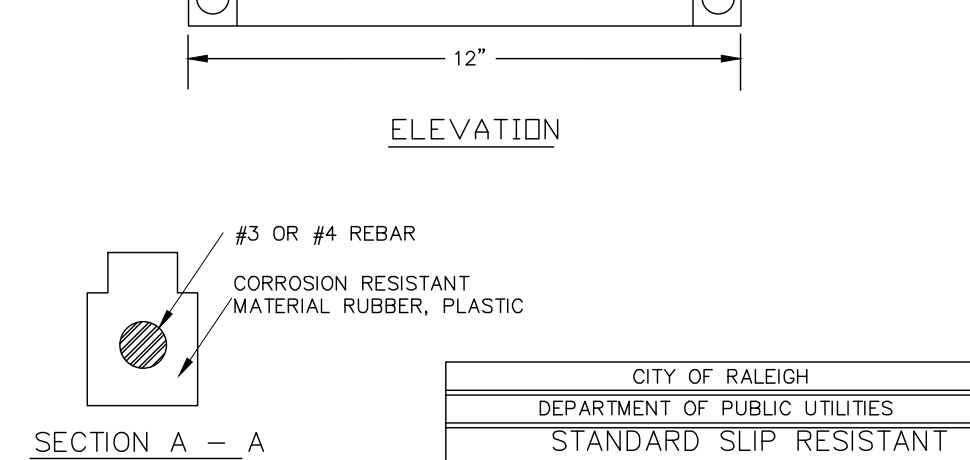
**COVER 120 LBS. MINIMUM. MANHOLE FRAME AND COVER**

DWG. NO.	REVISIONS	DATE	REVISIONS	DATE
S-25	RRH	3-1-87	D.H.L.	6-8-08
		3-30-00	D.H.L.	6-18-08



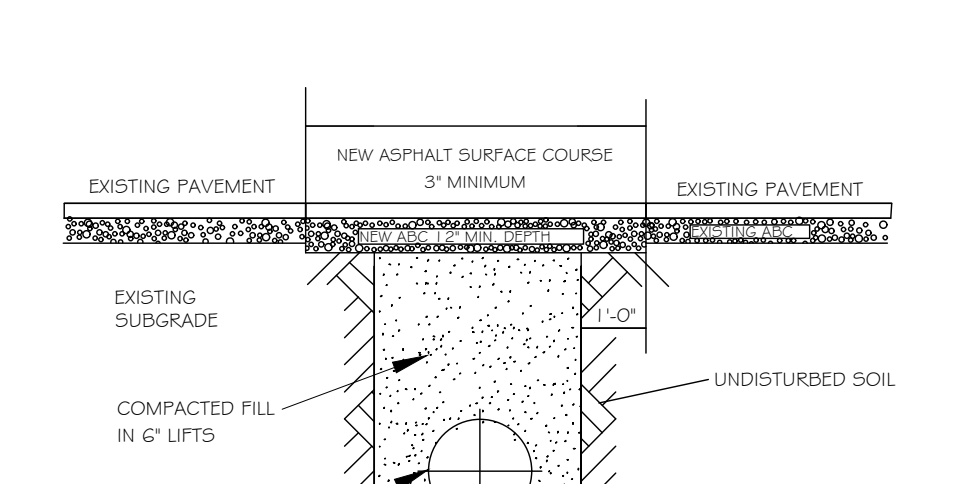
**CLEANOUT FERRULE WITH FLUG**

DWG. NO.	REVISIONS	DATE	REVISIONS	DATE
S-34	D.W.C.	3-27-98	RRH	3-30-00



**4\"/>**

DWG. NO.	REVISIONS	DATE	REVISIONS	DATE
S-25	RRH	3-1-87	D.H.L.	6-8-08
		3-30-00	D.H.L.	6-18-08



**STANDARD ASPHALT PAVEMENT PATCH DETAIL**

DWG. NO.	REVISIONS	DATE	REVISIONS	DATE
S-3	RRH	11-1-99	A.B.B.	4-13-03
		5-30-00	J.F.S.	10-8-10

- NOTES:
1. IN NC DOT 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 SAWCUT 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 AASHTO T-99 AS MODIFIED BY NC DOT.
  4. THE FINAL 1\"/>

**- Final Drawing -**  
Issued for Permit  
Review Purposes Only  
REVIEW PERMIT REVIEW COMMENTS

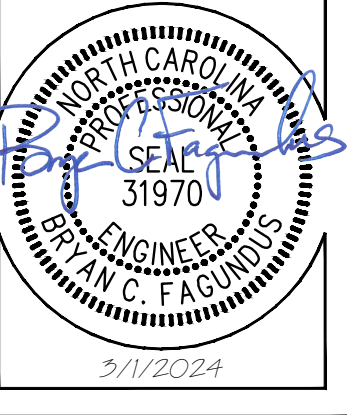
#	DATE	DESCRIPTION
1	11-MAY-23	ISSUED FOR PERMIT REVIEW
2	11-JUNE-23	REVISED PER PERMIT REVIEW COMMENTS
3	11-MAY-23	REVISED PER PERMIT REVIEW COMMENTS

REVISIONS:



**7ELEVEN AT WALLBROOK (LOT 11)**  
Town of Rolesville Project No. SDP 23-04  
US 401 Business / S. Main Street & Virginia Water Drive  
Wake Forest Township, Town of Rolesville, Wake County, North Carolina

NC License: P-1129  
**ARK CONSULTING GROUP PLLC**  
ENGINEERS & PLANNERS  
2755-B Chatham Blvd  
Raleigh, NC 27608  
(252) 558-8888  
www.arkconsultinggroup.com



Project Manager: BCF  
Drawn By: DLCTGN  
Checked By: TGN  
Project Number: 22049  
Drawing Number: D-1404-SDP

**C6.3**

Date: May 1, 2023



**GENERAL NOTES:**

- THIS ALTA/NSPS LAND TITLE SURVEY WAS PREPARED FOR THE BENEFIT OF WALLBROOK LANDCO, LLC, ITS SUCCESSORS AND/OR ASSIGNS AS THEIR INTERESTS MAY APPEAR, AND INVESTORS TITLE INSURANCE COMPANY.
- THE PROPERTY AS SHOWN HEREON IS BASED ON A FIELD-RUN BOUNDARY SURVEY WITH A RAW CLOSURE OF 1:35,900.
- THE IMPROVEMENTS SHOWN HEREON ARE BASED ON A FIELD-RUN PLANIMETRIC SURVEY PERFORMED BY JOHNSON, MIRMIRAN & THOMPSON FROM MARCH 16 THROUGH MARCH 19, 2020 AND REFLECTS SITE CONDITIONS AS OF THAT DATE.
- ELEVATIONS ARE BASED ON NAVD88 DATUM.
- THE SURVEY IS REFERENCED TO THE NORTH CAROLINA STATE PLANE COORDINATE SYSTEM (NCSPCS), NORTH AMERICAN DATUM, 1983, 2001 ADJUSTMENT, NAD83(2001).
- THE USE OF THE WORD CERTIFY OR CERTIFICATION CONSTITUTES AN EXPRESSION OF PROFESSIONAL OPINION REGARDING THOSE FACTS OR FINDINGS WHICH ARE THE SUBJECT OF THE UNDERSIGNED PROFESSIONAL'S KNOWLEDGE, INFORMATION AND BELIEF, AND IN ACCORDANCE WITH THE COMMONLY ACCEPTED PROCEDURE CONSISTENT WITH THE APPLICABLE STANDARDS OF PRACTICE AND DOES NOT CONSTITUTE A WARRANTY OR GUARANTEE EITHER EXPRESSED OR IMPLIED.
- THE SUBJECT PROPERTY IS LOCATED IN FLOOD ZONE X, AREA OF MINIMAL FLOODING, AS SHOWN ON NATIONAL FLOOD INSURANCE RATE MAP (FIRM), WAKE COUNTY, NORTH CAROLINA, PANEL 1758, MAP NO. 3720175800J, EFFECTIVE DATE: MAY 2, 2006.
- AT THE TIME OF THE SURVEY, THERE WERE NO PARKING SPACES.
- AT THE TIME OF THE SURVEY, THERE WAS NO OBSERVABLE EVIDENCE OF THE SITE BEING USED AS A SOLID WASTE DUMP, SUMP OR LANDFILL.
- AT THE TIME OF THE SURVEY, THERE WAS NO OBSERVABLE EVIDENCE OF A CEMETERY.
- AT THE TIME OF THE SURVEY, THERE WAS NO OBSERVABLE EVIDENCE OF BUILDING CONSTRUCTION OR BUILDING ADDITIONS.

**SETBACK REQUIREMENTS:**

FRONT: 30'  
SIDE: 15'  
CORNER: 25'  
REAR: 35'

(ZONING INFORMATION BASED ON INFORMATION AS SUPPLIED BY CURRENT COUNTY ZONING DEPARTMENT, NO ZONING REPORT OR LETTER WAS PROVIDED TO SURVEYOR AT TIME OF SURVEY.)

**RECORD LEGAL DESCRIPTION**

PER INVESTORS TITLE INSURANCE COMPANY, TITLE COMMITMENT NO. 202000244CA2, WITH AN EFFECTIVE DATE OF MARCH 6, 2020 AT 5:00 P.M.:

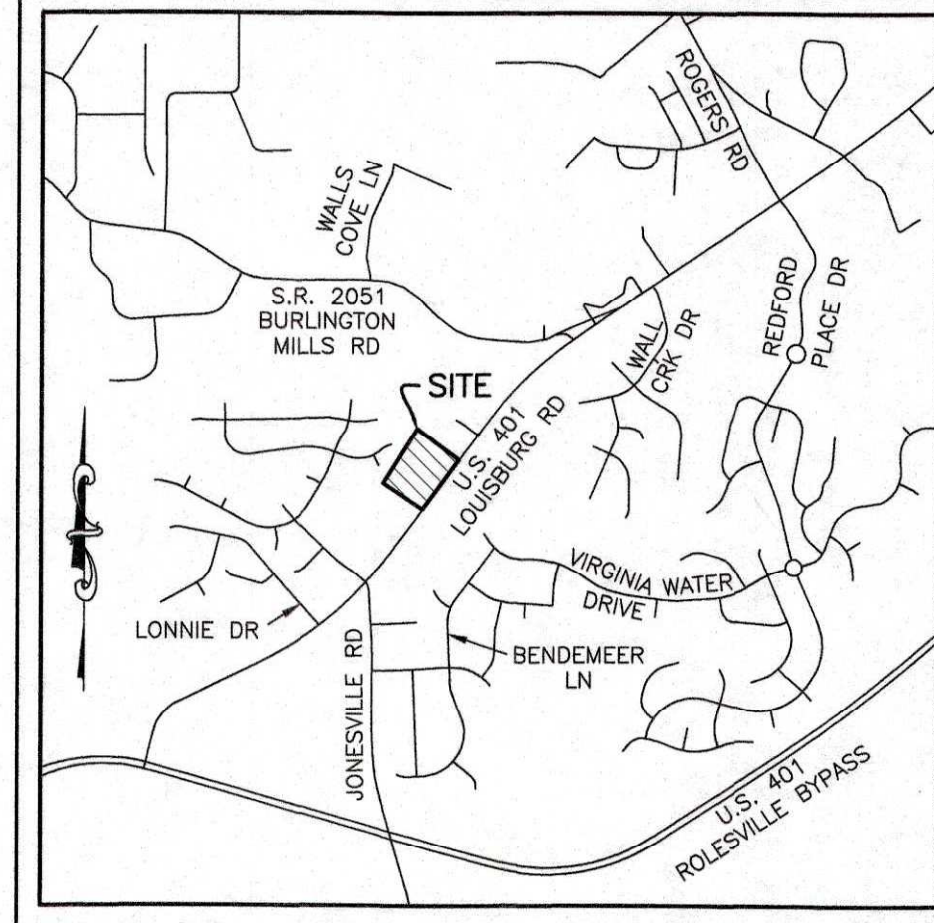
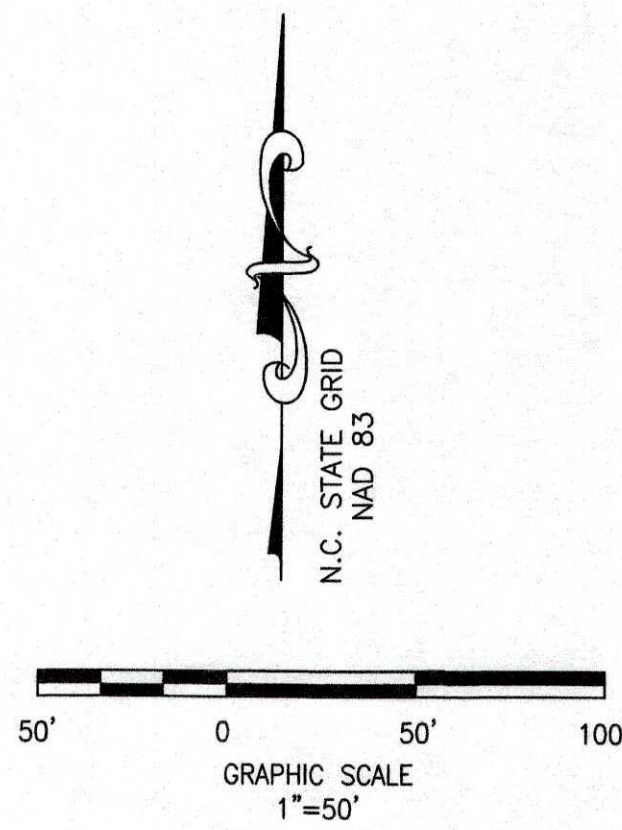
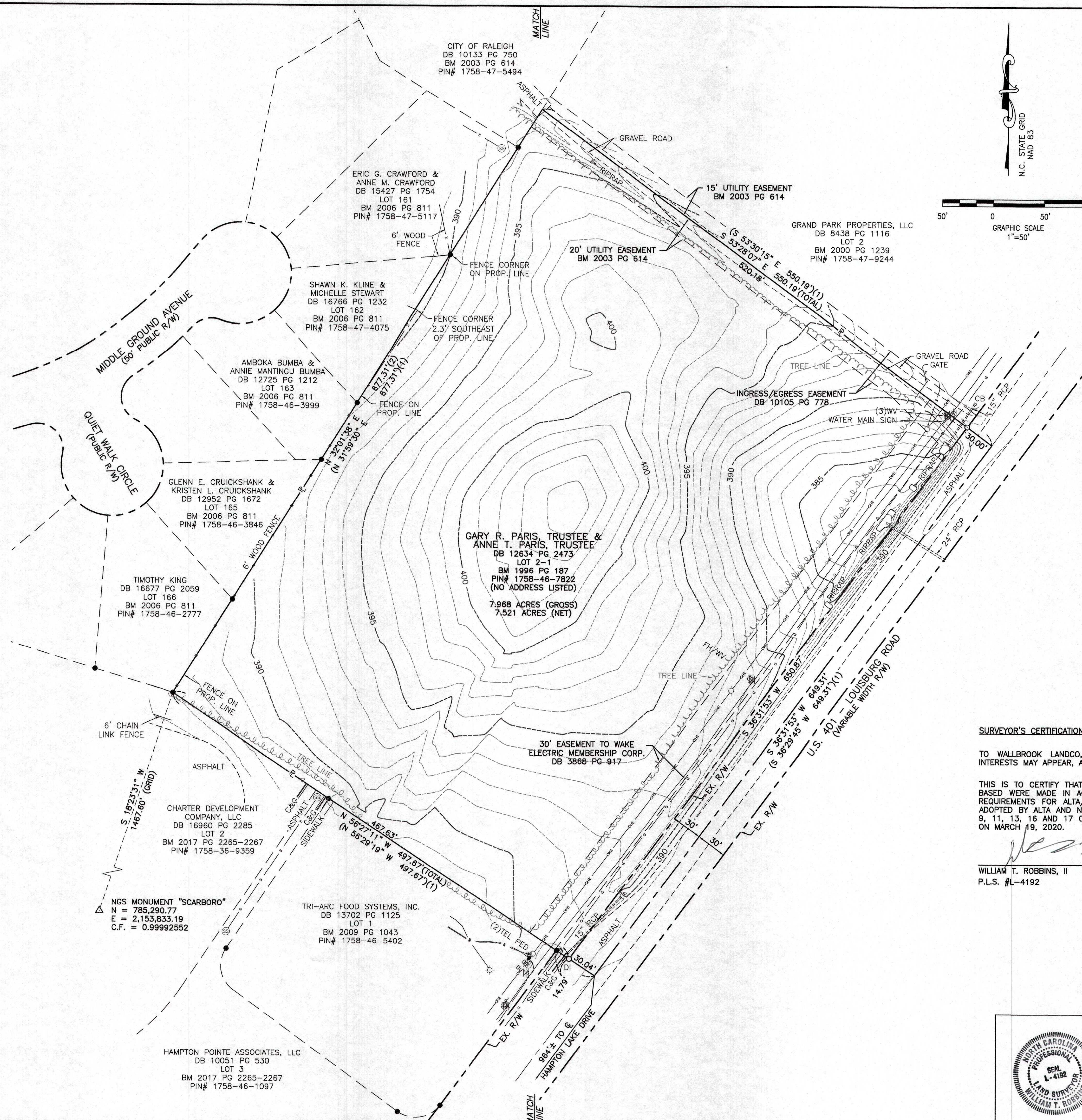
IN THE STATE OF NC, COUNTY OF WAKE,

BEING ALL OF LOT 2-1 OF THAT PLAT ENTITLED "PRELIMINARY SUBDIVISION PLAT AND RECOMBINATION SURVEY FOR TOMMY TWITTY," A COPY OF WHICH IS RECORDED IN BOOK OF MAPS 1996, PAGE 187, WAKE COUNTY REGISTRY.

**SCHEDULE B, PART II EXCEPTIONS:**

PER INVESTORS TITLE INSURANCE COMPANY, TITLE COMMITMENT NO. 202000244CA2, WITH AN EFFECTIVE DATE OF MARCH 6, 2020 AT 5:00 P.M.:

- (ITEM 3) EASEMENT(S) AND/OR RIGHT(S) OF WAY TO CITY OF RALEIGH RECORDED IN BOOK 10105 AT PAGE 778. [PLOTTED HEREON]
- (ITEM 4) EASEMENT(S) AND/OR RIGHT(S) OF WAY TO WAKE ELECTRIC MEMBERSHIP CORPORATION RECORDED IN BOOK 3868 AT PAGE 917. [PLOTTED HEREON]
- (ITEM 5) TITLE TO THAT PORTION OF THE LAND WITHIN THE RIGHT-OF-WAY OF U.S. HIGHWAY 401 (LOUISBURG ROAD). [PLOTTED HEREON]
- (ITEM 6) MATTERS SHOWN ON RECORDED BOOK OF MAPS 1996 AT PAGE 187 SHOWS THE FOLLOWING LOCATED ON THE LAND:
  - OVERHEAD LINE [PLOTTED HEREON]
  - POWER POLE [PLOTTED HEREON]
  - RIGHT OF WAY FOR U.S. HIGHWAY 401 (LOUISBURG ROAD) [PLOTTED HEREON]



VICINITY MAP  
SCALE: 1"=2000'

**LEGEND**

- (1) = RECORD DATA PER BM 1996 PG 187
- (2) = RECORD DATA PER BM 2006 PG 811
- = FOUND IRON PIPE
- = SET IRON PIN
- △ = NGS MONUMENT
- = PROPERTY LINE
- R/W = RIGHT OF WAY
- CB = CATCH BASIN
- C&G = CURB AND GUTTER
- ⊕ = CENTERLINE
- DI = DROP INLET
- FH = FIRE HYDRANT
- LP = LIGHT POLE
- PP = POWER POLE
- RCP = REINFORCED CONCRETE PIPE
- = SIGN
- = SANITARY SEWER MANHOLE
- = TELEPHONE PEDESTAL
- WM = WATER METER
- WV = WATER VALVE
- = ELECTRIC LINE
- = GAS LINE
- = OVERHEAD ELECTRIC LINE
- = SANITARY SEWER LINE
- = TELEPHONE LINE
- = WATER LINE

**SURVEYOR'S CERTIFICATION:**

TO WALLBROOK LANDCO, LLC, ITS SUCCESSORS AND/OR ASSIGNS AS THEIR INTERESTS MAY APPEAR, AND INVESTORS TITLE INSURANCE COMPANY:

THIS IS TO CERTIFY THAT THIS MAP OR PLAT AND THE SURVEY ON WHICH IT IS BASED WERE MADE IN ACCORDANCE WITH THE 2016 MINIMUM STANDARD DETAIL REQUIREMENTS FOR ALTA/NSPS LAND TITLE SURVEYS, JOINTLY ESTABLISHED AND ADOPTED BY ALTA AND NSPS, AND INCLUDES ITEMS 1, 2, 3, 4, 6A, 7A, 7B1, 8, 9, 11, 13, 16 AND 17 OF TABLE "A" THEREOF. THE FIELDWORK WAS COMPLETED ON MARCH 19, 2020.

*William T. Robbins, II*  
WILLIAM T. ROBBINS, II  
P.L.S. #L-4192  
DATE: 2/28/2020

**JMT JOHNSON, MIRMIRAN & THOMPSON**  
Engineering A Brighter Future®  
9201 Arbutum Parkway Suite 310 Richmond, Virginia 23236  
PHONE: (804)-323-9900 FAX: (804)-323-0596  
EMAIL: jmtva@jmt-engineering.com

REVISION #	DATE	REASON FOR REVISION



**ALTA/NSPS LAND TITLE SURVEY**  
PREPARED FOR  
WALLBROOK LANDCO, LLC  
WAKE FOREST TOWNSHIP  
TOWN OF ROLESVILLE, WAKE COUNTY, NORTH CAROLINA  
DRAWN BY: JSZ PROJECT#: JMT#: 20-00915-001  
CHECKED BY: WTR CONTRACT#: DATE: 03/28/2020 SCALE: 1"=50' SHEET 1 OF 1







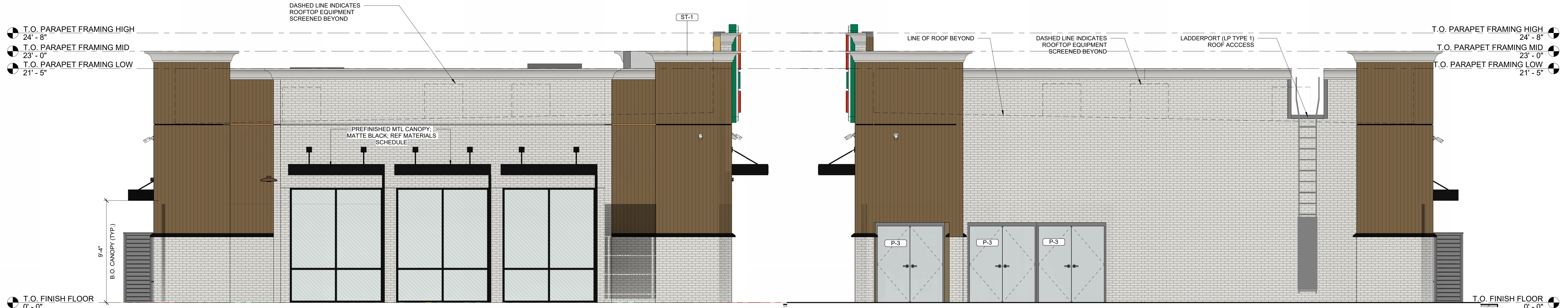
**REVISIONS**

NO. DATE DESCRIPTION

EXTERIOR MATERIALS SCHEDULE					
CODE	DESCRIPTION	COLOR	MANUFACTURER	MODEL	COMMENTS
FIBER CEMENT PANEL					
FC-2	FIBER CEMENT PANELS - VINTAGE BRICK		NICHHA	SHALE BROWN	PAINTED SW7005
N-1	FIBER CEMENT PANELS - VINTAGE BRICK		NICHHA	AWP 3030	PAINTED P-1
METAL					
MT-3	PRE-FINISHED ALUMINUM CANOPY	MATTE BLACK	MAPES ARCHITECTURAL CANOPIES	MAPES LUMINSHADE CANOPY	MATTE BLACK BAKED ENAMEL WITH REAR GUTTER CONNECTIONS
PAINT					
P-1	EXTERIOR UTILITIES	PURE WHITE	SHERWIN WILLIAMS	SW7005	SEE PAINT SCHEDULE FOR ADDITIONAL INFORMATION
P-3			SHERWIN WILLIAMS		SEE PAINT SCHEDULE FOR ADDITIONAL INFORMATION
ROOFING					
MR-1	MEMBRANE ROOFING SYSTEM	WHITE	DURO-LAST	WHITE 40MIL SINGLE-PLY PVC ROOFING MEMBRANE	
STOREFRONT					
S-1	ALUMINUM STOREFRONT FRAMING	#29 BLACK	KAWNEER	451T VG	

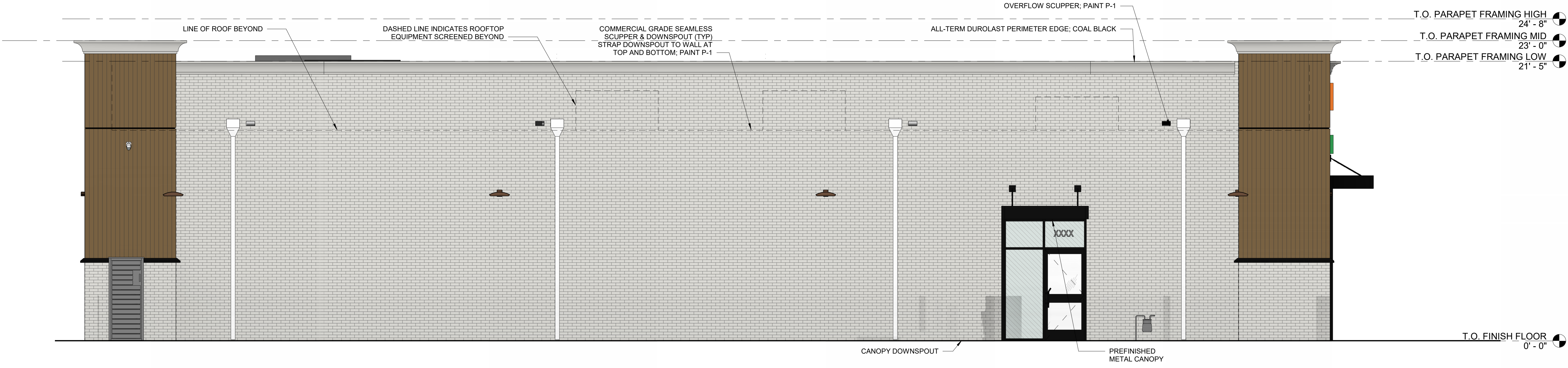


**4 EXTERIOR BUILDING - SOUTH COLOR**  
1/4" = 1'-0"



**3 ELEVATION - FACING EAST**  
1/4" = 1'-0"

**2 ELEVATION - FACING WEST**  
1/4" = 1'-0"



**1 EXTERIOR BUILDING - NORTH COLOR**  
1/4" = 1'-0"

7- ELEVEN 9350 CST

748 SOUTH MAIN STREET  
ROLESVILLE, NC 27571



Architect Name - RYAN M. FAUST  
Architect Number - 14521

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Drawing Size: 30 x 42  
Project #: 22050  
Drawn By: JAM  
Checked By: CCMB

Title:  
EXTERIOR COLORED ELEVATIONS

Sheet Number:  
**R1.00**

Date: 01/26/2024



EXTERIOR MATERIALS SCHEDULE					
CODE	DESCRIPTION	COLOR	MANUFACTURER	MODEL	COMMENTS
FIBER CEMENT PANEL					
FC-2	FIBER CEMENT PANELS - VINTAGE BRICK		NICHIHA	SHALE BROWN	PAINTED SW7005
N-1	FIBER CEMENT PANELS - VINTAGE BRICK		NICHIHA	AWP 3030	PAINTED P-1
METAL					
MT-3	PRE-FINISHED ALUMINUM CANOPY	MATTE BLACK	MAPES ARCHITECTURAL CANOPIES	MAPES LUMINSHADE CANOPY	MATTE BLACK BAKED ENAMEL WITH REAR GUTTER CONNECTIONS
PAINT					
P-1	EXTERIOR UTILITIES	PURE WHITE	SHERWIN WILLIAMS	SW7005	SEE PAINT SCHEDULE FOR ADDITIONAL INFORMATION
P-3			SHERWIN WILLIAMS		SEE PAINT SCHEDULE FOR ADDITIONAL INFORMATION
ROOFING					
MR-1	MEMBRANE ROOFING SYSTEM	WHITE	DURO-LAST	WHITE 40MIL SINGLE-PLY PVC ROOFING MEMBRANE	
STOREFRONT					
S-1	ALUMINUM STOREFRONT FRAMING	#29 BLACK	KAWNEER	451T VG	

**buf**  
STUDIO

702 SE 5TH ST, SUITE 50  
BENTONVILLE, AR 72712  
TEL: 479.579.9999

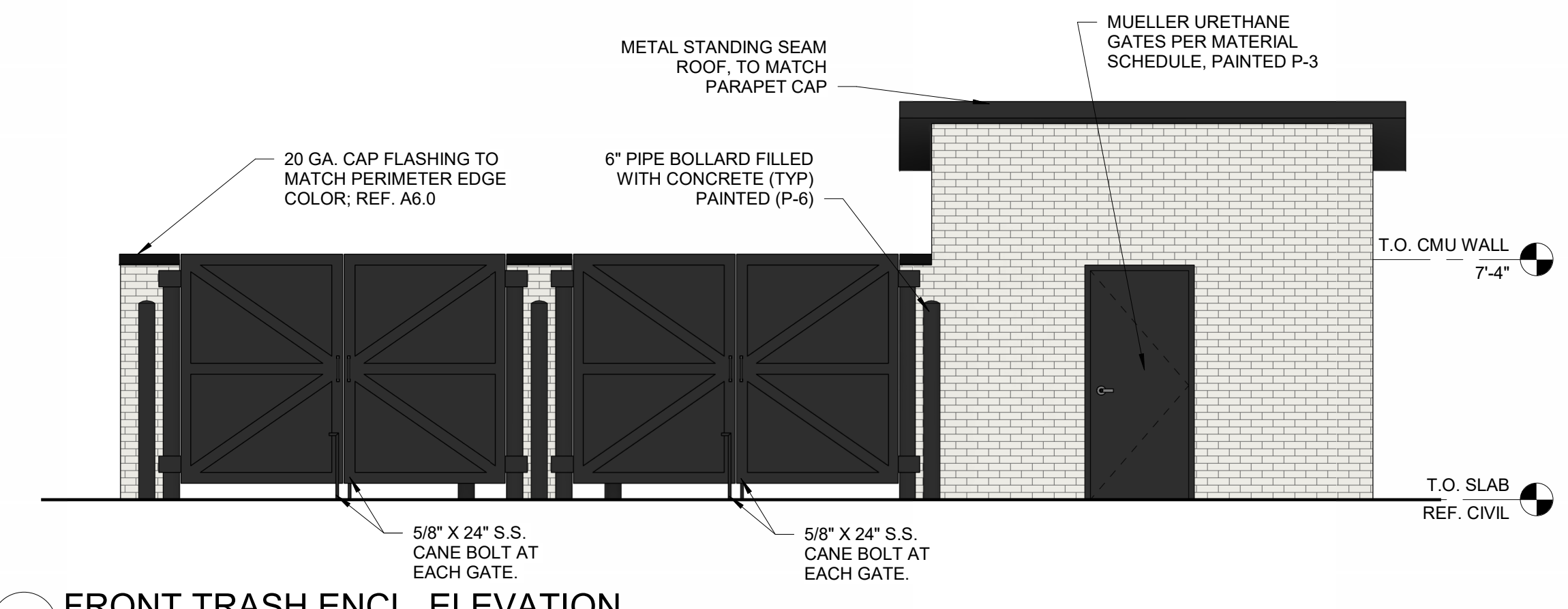
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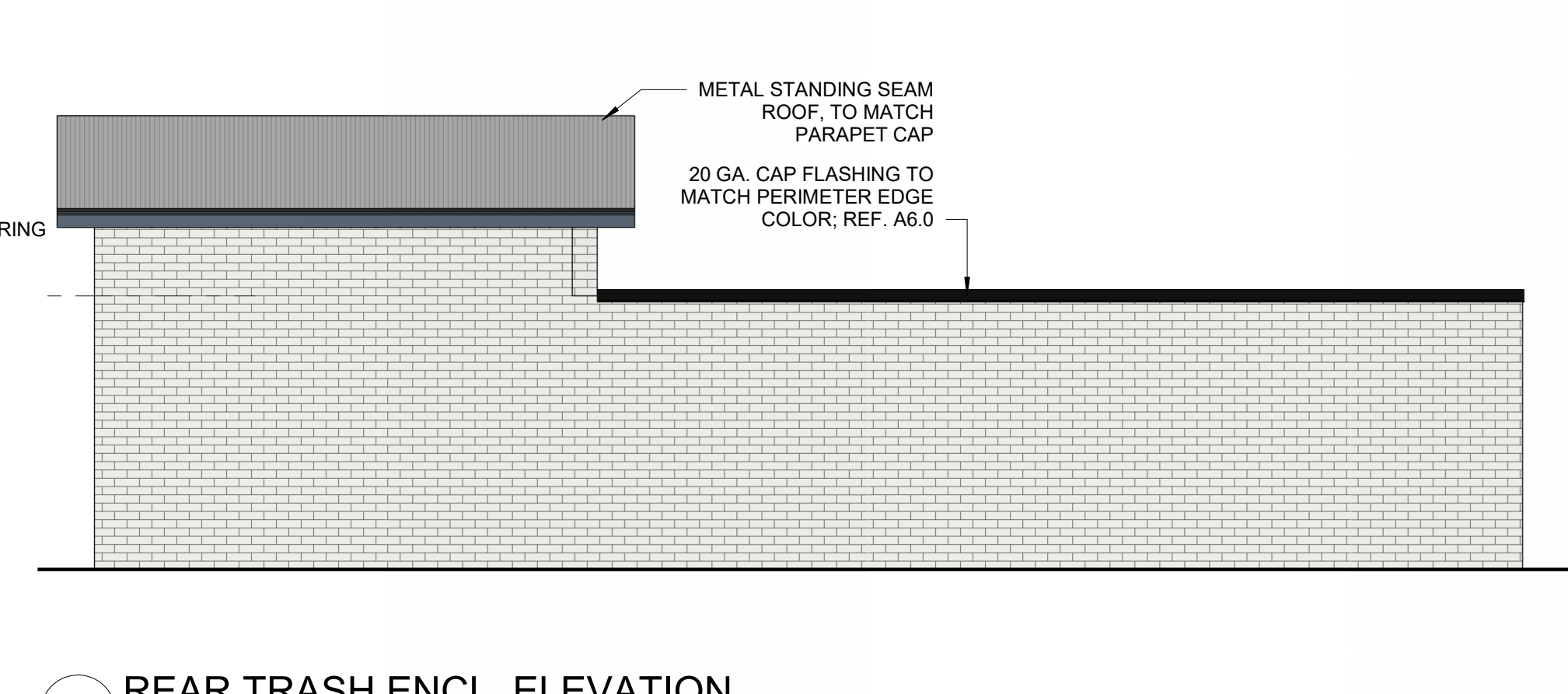
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**REVISIONS**

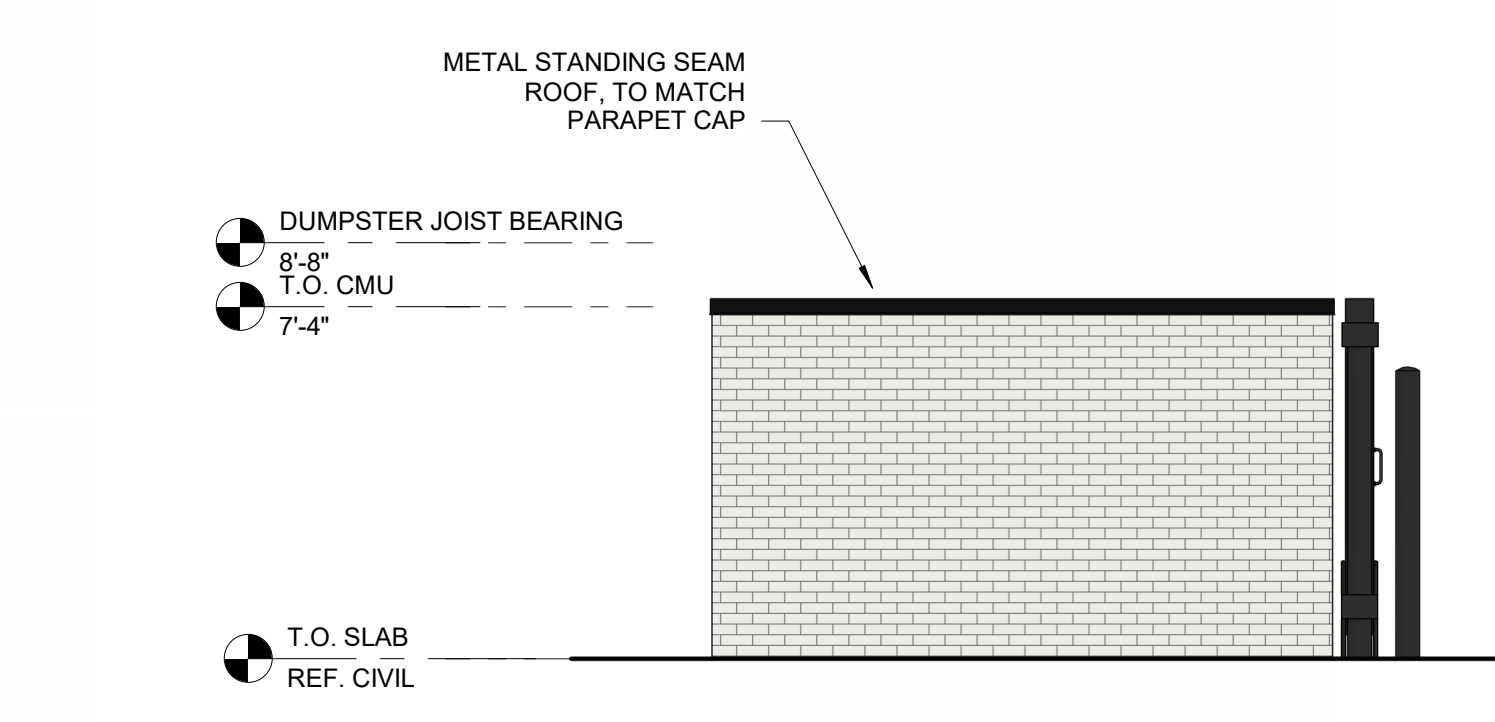
NO.	DATE	DESCRIPTION



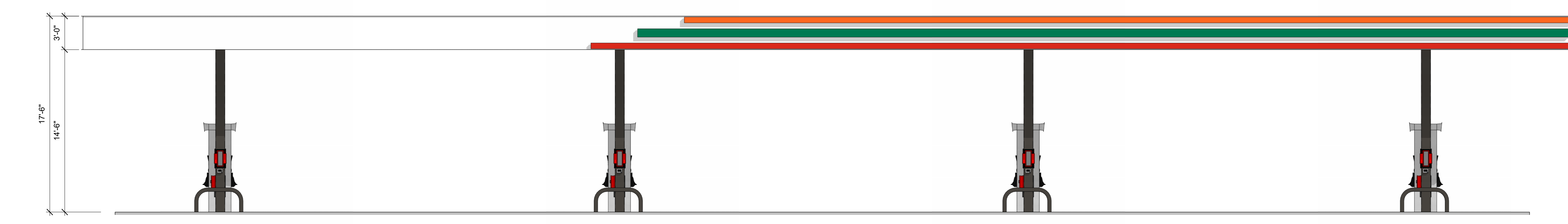
**7 FRONT TRASH ENCL. ELEVATION**  
1/4" = 1'-0"



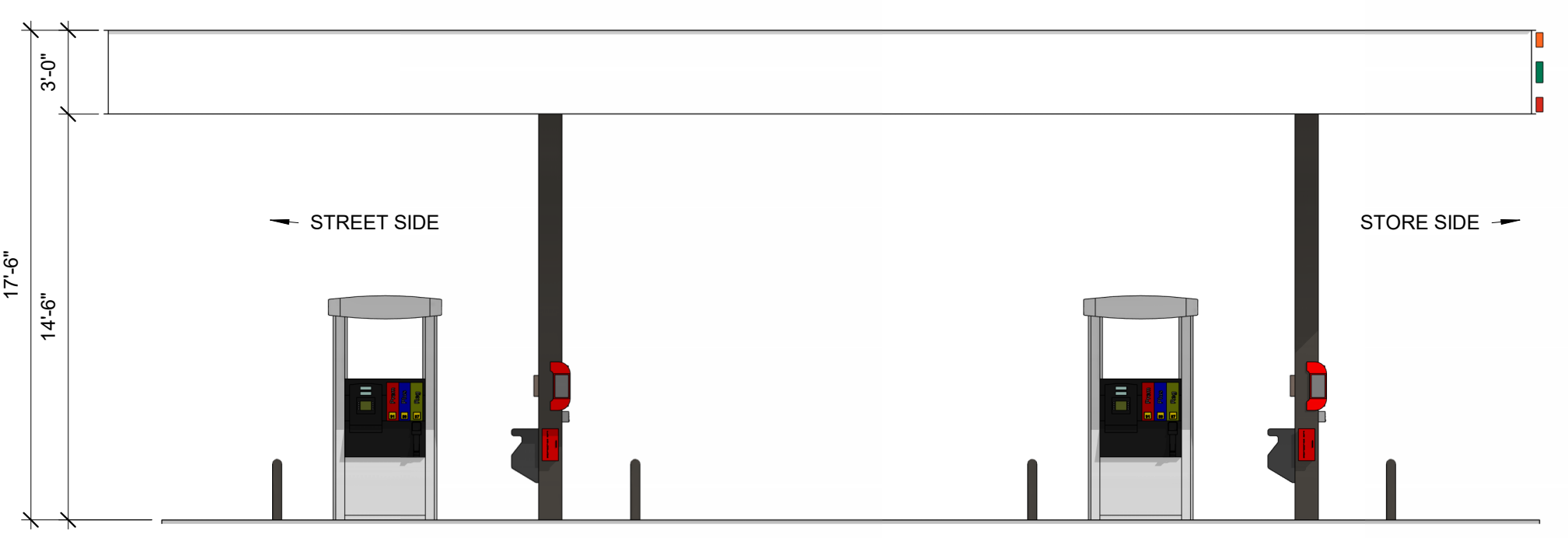
**6 REAR TRASH ENCL. ELEVATION**  
1/4" = 1'-0"



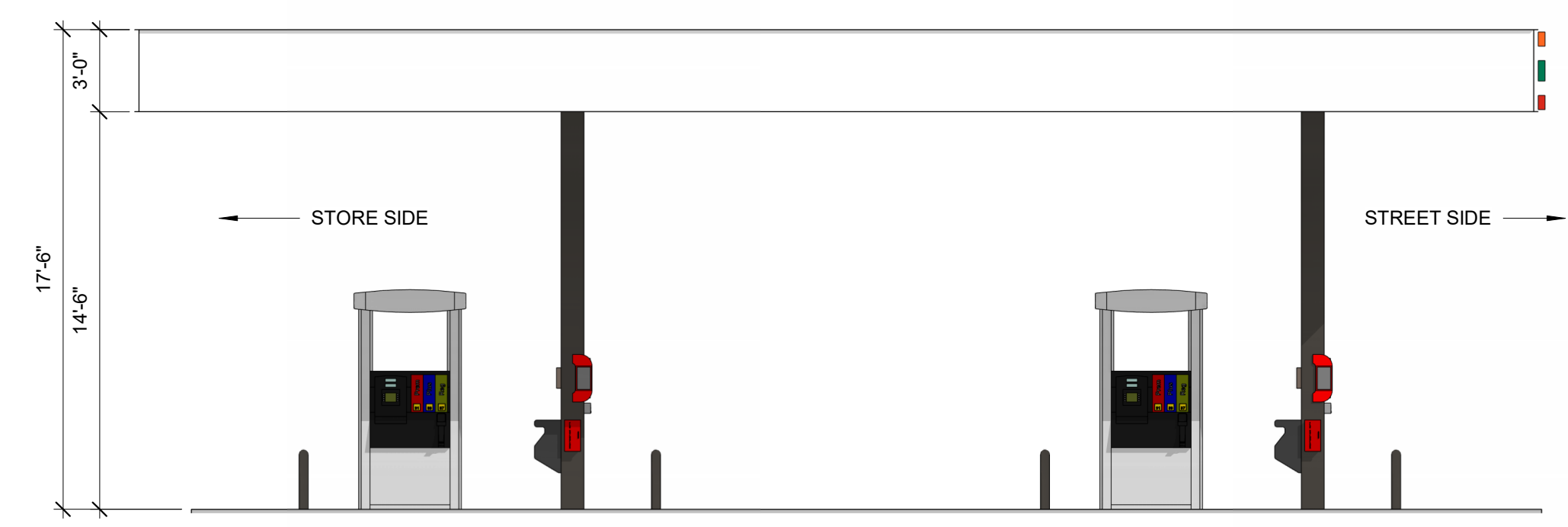
**5 SIDE TRASH ENCL. ELEVATION**  
1/4" = 1'-0"



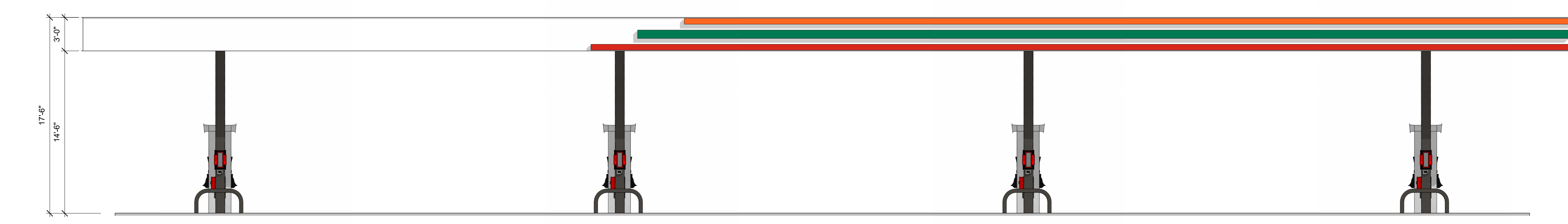
**4 FUEL CANOPY LONG ELEVATION - 8 DISPENSERS**  
Copy 1  
3/16" = 1'-0"



**2 FUEL CANOPY SHORT ELEVATION**  
3/16" = 1'-0"



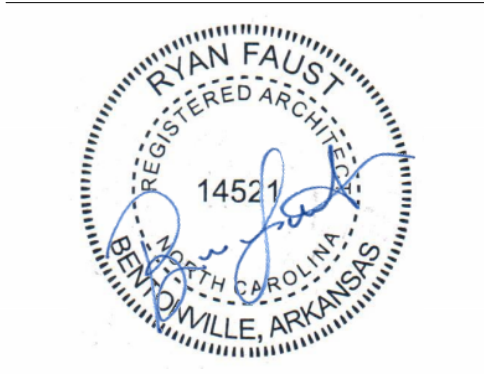
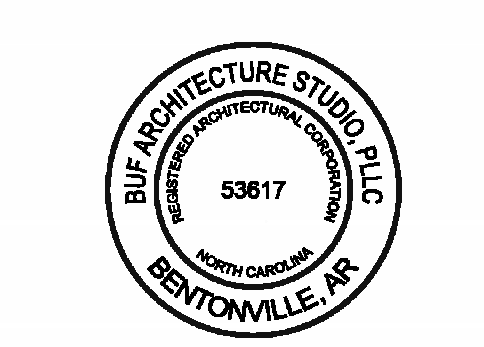
**3 FUEL CANOPY SHORT ELEVATION Copy 1**  
3/16" = 1'-0"



**1 FUEL CANOPY LONG ELEVATION - 8 DISPENSERS**  
3/16" = 1'-0"

7- ELEVEN 9350 CST

748 SOUTH MAIN STREET  
ROLESVILLE, NC 27571



Architect Name - RYAN M. FAUST  
Architect Number - 14521

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Drawing Size: 30 x 42  
Project #: 22050  
Drawn By: JAM  
Checked By: CCMB

Title:  
EXTERIOR COLORED ELEVATIONS

Sheet Number:  
**R1.01**

Date: 01/26/2024







GENERAL NOTES	
A.	SIGNAGE UNDER SEPARATE PERMIT AND SHOWN FOR GENERAL REFERENCE AND COORDINATION PURPOSES ONLY. REFER TO APPROVED SIGNAGE DRAWINGS BY SIGNAGE COMPANY.
B.	CONTRACTOR TO SUPPLY REQUIRED POWER AND CONNECTION TO ALL SIGNAGE. COORDINATE WITH SIGNAGE COMPANY.

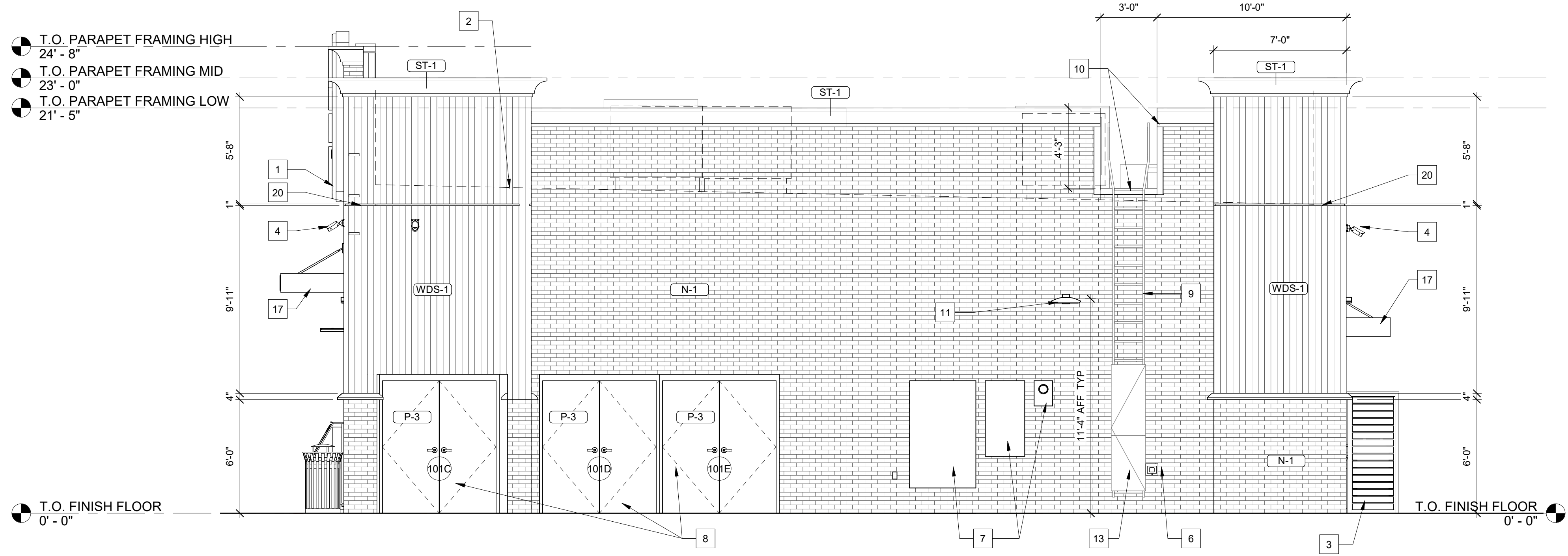
KEYNOTES	
1	INTERNALLY ILLUMINATED SIGNAGE BY SIGNAGE VENDOR. PROVIDE BLOCKING AS REQUIRED FOR THRU-BOLT CONNECTIONS. REF. ELECTRICAL FOR POWER REQUIREMENTS.
2	ROOF LINE BEYOND, TYP.
3	CO2 TANK/CAGE
4	SECURITY CAMERA, REF. ELECTRICAL LOW VOLTAGE PLAN FOR ADDITIONAL INFORMATION.
5	GAS METER.
6	HOSE BIB, REF. PLUMBING.
7	PAINT ALL EXPOSED UTILITIES P-1
8	EXTERIOR HM DOOR AND FRAME, TYP. REF. SHEET A6.0.
9	ROOF ACCESS LADDER, REF. EXTERIOR ELEVATIONS AND DETAILS ON A7.1 & A7.2
10	WRAP EDGES OF PARAPET WALL IN BRAKE METAL, REF. DETAILS ON A7.2.
11	WALL PACK, SEE ELECTRICAL.
12	OVERFLOW SCUPPER, TO BE 2" ABOVE PRIMARY DRAIN SYSTEM, TYP.
13	LOCKING SECURITY DOOR. REFER MANUF. SPECS.
14	6" WHITE VINYL STREET ADDRESS, REF. SHEET EQ1.0
15	PRE-FINISHED METAL SCUPPER AND DOWNSPOUT - REF. TO EXTERIOR FINISH SCHEDULE.
16	EXTERIOR ALUMINUM STOREFRONT DOOR & FRAME, TYP., REF. SHEET A6.0.
17	PRE-FAB METAL CANOPY; REF TO EXTERIOR FINISH SCHEDULE.
18	20 GA. PRE-FINISHED METAL COPING, REF. TO EXTERIOR FINISH SCHEDULE
19	CANOPY DOWNSPOUT, PAINT TO MATCH CANOPY FINISH (MATTE BLACK), TYP.
20	NICHIIA HORIZONTAL COMPRESSION JOINT

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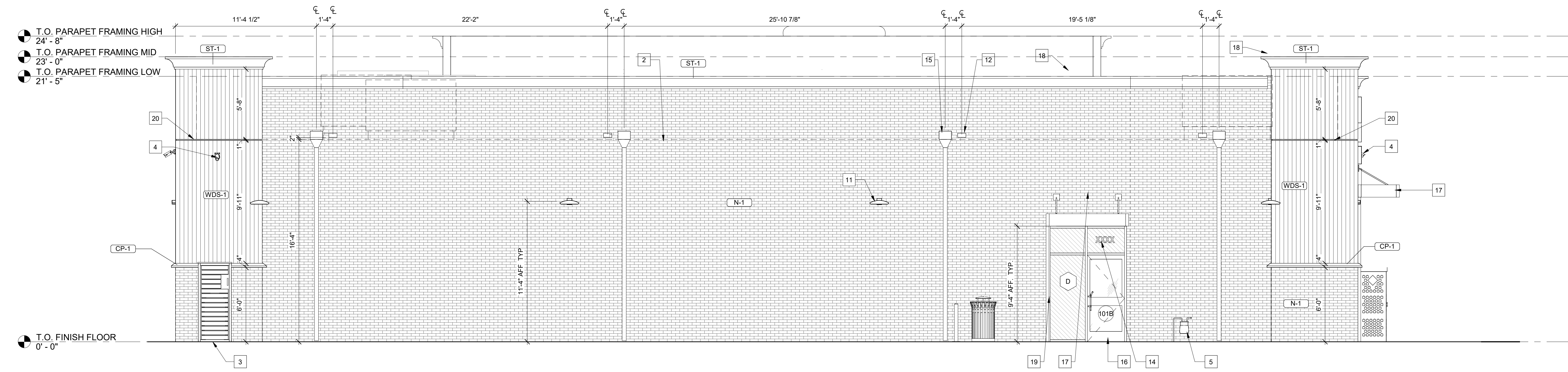
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REVISIONS		
NO.	DATE	DESCRIPTION



**2** EXTERIOR BUILDING - EAST  
A3.1 1/4" = 1'-0"



**1** EXTERIOR BUILDING - NORTH  
A3.1 1/4" = 1'-0"

7- ELEVEN 9350 CST

748 SOUTH MAIN STREET  
ROLESVILLE, NC 27571



Architect Name - RYAN M. FAUST  
Architect Number - 14521

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Drawing Size: 30 x 42	Project #: 22050
Drawn By: JAM	Checked By: CCMB

Title:  
EXTERIOR ELEVATIONS

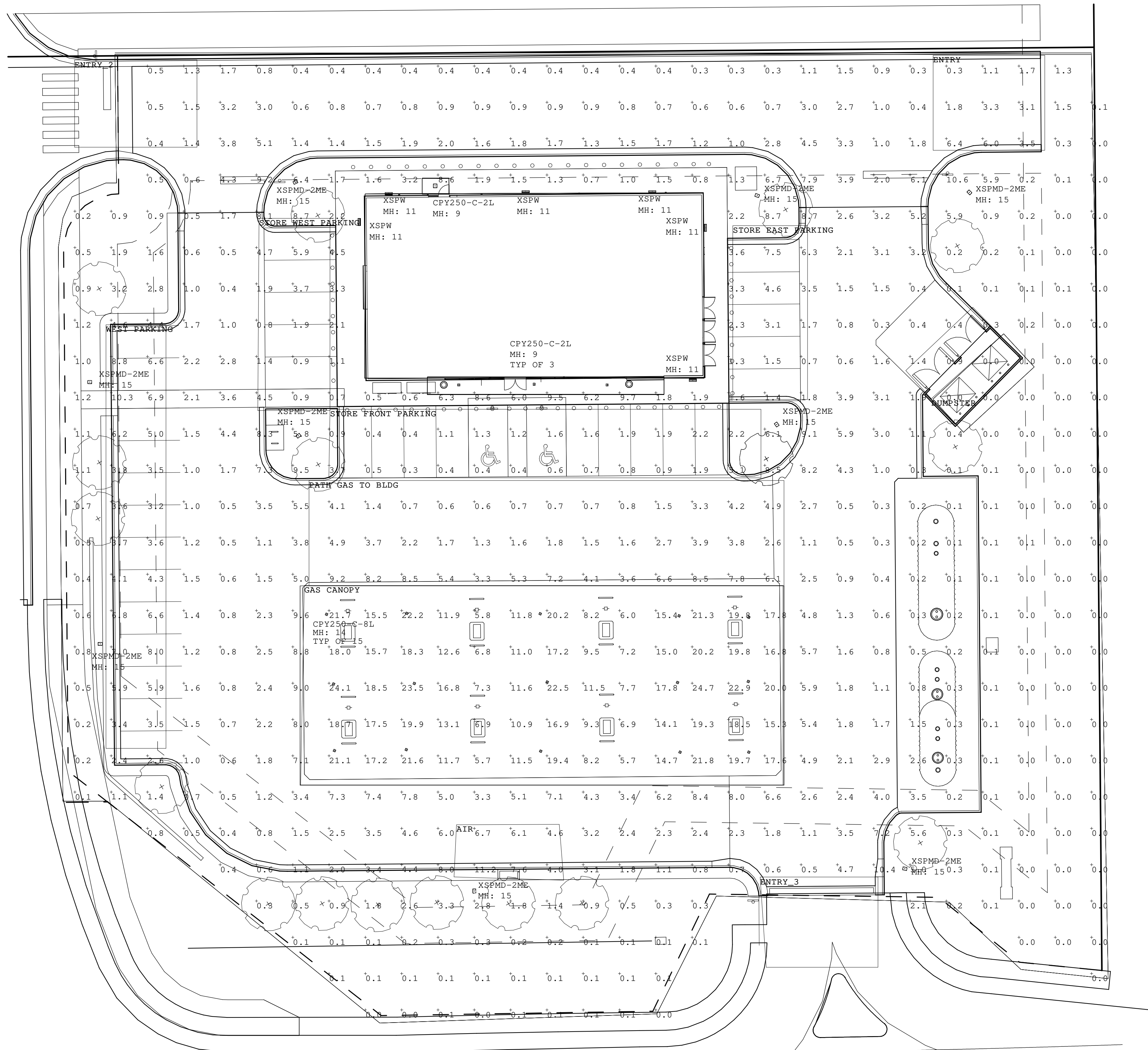
Sheet Number:  
**A3.1**

Date: 01/26/2024



Symbol	Qty	Label	Arrangement	Description	LLF	Luminaire Lumens	Luminaire Watts	Total Watts
☐	15	CPY250-C-8L	Single	CPY250-C-8L-57K7-F-UL-DM-WH-HZ	1.000	8475	53	795
☐	3	CPY250-C-2L	SINGLE	CPY250-C-2L-57K7-F-UL-DM-BK-HZ	1.000	2326	13.5	40.5
☐	1	CPY250-C-2L	SINGLE	CPY250-C-2L-50K9-F-UL-DM-BK-HZ	1.000	1730	14	14
☐	6	XSPW	SINGLE	XSPW-B-WM-3ME-4L-57K-UL-BK	1.000	4270	31	186
☐	9	XSPMD-2ME	SINGLE	XSPMD-D-HT-2ME-12L-57K7-UL-BK-N w_XA-SF1BL5	1.000	9150	95	855

Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min
AIR	Illuminance	Fc	6.7	11.2	4.0	1.7	2.8
DUMPSTER	Illuminance	Fc	0.6	0.9	0.3	2.0	3.0
ENTRY	Illuminance	Fc	3.0	6.4	0.3	10.1	21.3
ENTRY_2	Illuminance	Fc	0.9	1.5	0.4	2.3	3.8
ENTRY_3	Illuminance	Fc	0.0	0.0	0.0	N.A.	N.A.
GAS CANOPY	Illuminance	Fc	15.4	24.7	5.7	2.7	4.3
PATH GAS TO BLDG	Illuminance	Fc	3.5	9.2	0.5	6.0	15.3
STORE EAST PARKING	Illuminance	Fc	3.2	7.5	0.7	4.6	10.7
STORE FRONT PARKING	Illuminance	Fc	1.4	5.1	0.3	4.6	17.0
STORE WEST PARKING	Illuminance	Fc	2.5	5.9	0.7	3.6	8.4
WEST PARKING	Illuminance	Fc	5.5	10.3	3.2	1.7	3.2



1 SITE PHOTOMETRICS  
E0.2 N.T.S.

Robert B. Pinkerton  
5500 W Pinnacle Pointe Drive, Suite 200  
Rogers, Arkansas 72758

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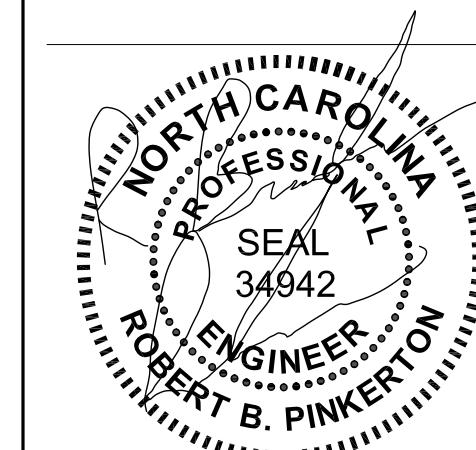
CLIENT NAME  
CROSLAND SOUTHEAST  
801 EAST BLVD.  
CHARLOTTE, NC 28203

TENANT  
7-ELEVEN  
3200 HACKBERRY RD, IRVING, TX 75063

STRUCTURAL CONSULTANT  
JUSTIN BILLODEAU, P.E.  
2579 WESTERN TRAILS BLVD, SUITE 230  
AUSTIN, TX 78745  
CONTACT: JUSTIN BILLODEAU, P.E.

PROTO-8350-CST-2022-01

7- ELEVEN 9350 CST  
US 401 BUSINESS / S. MAIN STREET &  
VIRGINIA WATER DRIVE  
ROLESVILLE, NC



Engineer Name - ROBERT B. PINKERTON  
Engineer Number - 34942

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REVISIONS

NO.	DATE	DESCRIPTION

Drawing Size: 30 x 42  
Project #: 22050  
Drawn By: ADF  
Checked By: ADF

Title:  
SITE PHOTOMETRICS

Sheet Number:  
E0.2

Date: 02/13/2024 Store #: 42337



7/10/2023 10:31:04 AM  
F  
E  
D  
C  
B  
A

### XSP Series

XSPMD LED Street/Area Luminaire - Medium

#### Product Description

Designed from the ground up as a fully optimized LED street and area lighting system, the XSP Series delivers incredible efficiency without sacrificing application performance. Beyond substantial energy savings and reduced maintenance, Cree Lighting achieves greater optical control with our NanoOptic® Precision Delivery Beam® optics when compared to traditional cobra head luminaires. The XSP Series is the better alternative for traditional street and area lighting with quick payback and improved performance.

**Applications:** Collector roads, major roads, parking lots, and general area spaces

#### Performance Summary

**NanoOptic® Precision Delivery Beam® optic**  
Assembled in the USA by Cree Lighting from US and imported parts

**Initial Delivered Lumens:** Up to 11,875

**Efficiency:** Up to 125 LPW

**CRI:** Minimum 70 CRI

**CEI:** 3000K, 4000K, 5000K, 5700K

**Limited Warranty:** 1 year on luminaires; 10 years on Colorized DeliaGuard® Finish; up to 5 years for Synapse® accessories; 1 year on luminaire accessories

**Accessories:** See accessories page for more information. For Synapse accessories, consult Synapse user guide for details on warranty terms.

#### Accessories

**Field-Installed**  
Requires Control Cable  
Requires 1 mounting height cabinet  
Refer to initial delivered lumens table for luminaire type

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Requires Control Cable  
Requires 1 mounting height cabinet  
Refer to initial delivered lumens table for luminaire type

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Requires Control Cable  
Requires 1 mounting height cabinet  
Refer to initial delivered lumens table for luminaire type

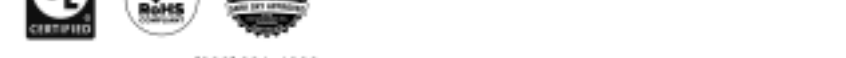
#### Ordering Information

Example: XSPMD-D-41-320-12L-320K-LA-90-N

XSPMD	D	41	320	12L	320K	LA	90	N
Product	Version	Mounting*	Optic	Lumen Package**	CCT/CEI	Voltage	Color Options	System
XSPMD	D	41	320	12L	320K	LA	90	N

\*Referenced to the luminaire and not the mounting height. See page 12 for details.  
\*\*Available with Synapse® accessories. See accessories page for details.  
\*\*\*Lumen Package codes identify approximate light output only. Actual luminaire lumen output may vary depending on CCT and optic selection. Refer to initial delivered lumens table for specific luminaire values.

US: [cree.com](http://cree.com) 800.234.4800  
Canada: [cree.com](http://cree.com) 800.473.1234



### XSPMD LED Street/Area Luminaire - Medium

XSPMD LED Street/Area Luminaire - Medium

#### Product Specifications

##### CONSTRUCTION & MATERIALS

- Die cast aluminum housing
- 100-400V input
- Meets or exceeds 25' (7.62m) IP: 144" (3.66m) O.D. or 2" (51mm) IP: 2.375" (60mm) O.D. horizontal torso (minimum 8" (203mm) in length) and is adjustable to 30° to allow for future leveling. Includes two sets of feet to adjust in leveling.

- Luminaire enclosures with 410 stainless steel mounting bolts, optional four point mounting available
- Exclusive Colorized DeliaGuard® finish features an E-Coat epoxy primer with an ultra-durable black, bronze or silver powder topcoat, providing excellent resistance to corrosion, ultraviolet degradation and abrasion
- Comes standard with Utility Label per ANSI C136.15-2020 and 7-pin NEMA® Photocell Receptacle per ANSI C136.41
- Weight:** 14.2 lbs. (6.4kg)

##### ELECTRICAL SYSTEM

- Input Voltage:** 120-277V or 347-480V, 50/60Hz
- Power Factor:** 0.97 at full load
- Total Harmonic Distortion:** <20% at full load
- Integral 15kV/5kA surge suppression protection standard, 25kV/10kA surge suppression protection optional
- When code dictates fusing, a slow blow fuse or type C/D breaker should be used to address inrush
- Designed with 0-30° dimming capabilities. Controls by others
- 10V Source Current:** 0.15mA
- Luminaires with 0-10V dimming are DALI compatible per IEC 62384
- Operating Temperature Range:** -40°C (-40°F) - +40°F (+104°F)

##### REGULATORY & VOLUNTARY QUALIFICATIONS

- cULus Listed
- UL Type 1 for outdoor use
- Certified to ANSI C136.31-2001, 30' bridge and overpass vibration standards
- ANSI C136.2 15kV/5kA standard and 25kV/10kA optional surge protection, tested in accordance with IEEE/ANSI C62.4.2
- Meets FCC Part 15, Subpart B, Class A limits for conducted and radiated emissions
- Luminaire and finish endurance tested to withstand 0.025 hour of ambient ambient salt fog conditions as defined in ASTM Standard B 117
- Assembled in the USA by Cree Lighting from US and imported parts
- Meets basic American requirements within ABMA
- RoHS compliant. Consult factory for additional details
- Dark Sky Friendly, ICA Approved when ordered with 30K CCT. Please refer to [www.darksky.org](http://www.darksky.org) for more information.
- CA RESIDENTIAL WIRING:** Compliant with California Electrical Code (CEC) for most current applications.
- CA RESIDENTIAL WIRING:** Compliant with California Electrical Code (CEC) for most current applications.

##### Field-Installed

- Meets or exceeds 25' (7.62m) IP: 144" (3.66m) O.D. or 2" (51mm) IP: 2.375" (60mm) O.D. horizontal torso (minimum 8" (203mm) in length) and is adjustable to 30° to allow for future leveling. Includes two sets of feet to adjust in leveling.
- Meets or exceeds 25' (7.62m) IP: 144" (3.66m) O.D. or 2" (51mm) IP: 2.375" (60mm) O.D. horizontal torso (minimum 8" (203mm) in length) and is adjustable to 30° to allow for future leveling. Includes two sets of feet to adjust in leveling.
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##### Label Lumens Data

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##### Weight

14.2 lbs. (6.4kg)

#### Ordering Information

Example: XSPMD-D-41-320-12L-320K-LA-90-N

XSPMD	D	41	320	12L	320K	LA	90	N
Product	Version	Mounting*	Optic	Lumen Package**	CCT/CEI	Voltage	Color Options	System
XSPMD	D	41	320	12L	320K	LA	90	N

\*Referenced to the luminaire and not the mounting height. See page 12 for details.  
\*\*Available with Synapse® accessories. See accessories page for details.  
\*\*\*Lumen Package codes identify approximate light output only. Actual luminaire lumen output may vary depending on CCT and optic selection. Refer to initial delivered lumens table for specific luminaire values.

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Canada: [cree.com](http://cree.com) 800.473.1234



### XSPMD LED Street/Area Luminaire - Medium

XSPMD LED Street/Area Luminaire - Medium

#### Product Specifications

##### CONSTRUCTION & MATERIALS

- Die cast aluminum housing
- 100-400V input
- Meets or exceeds 25' (7.62m) IP: 144" (3.66m) O.D. or 2" (51mm) IP: 2.375" (60mm) O.D. horizontal torso (minimum 8" (203mm) in length) and is adjustable to 30° to allow for future leveling. Includes two sets of feet to adjust in leveling.

- Luminaire enclosures with 410 stainless steel mounting bolts, optional four point mounting available
- Exclusive Colorized DeliaGuard® finish features an E-Coat epoxy primer with an ultra-durable black, bronze or silver powder topcoat, providing excellent resistance to corrosion, ultraviolet degradation and abrasion
- Comes standard with Utility Label per ANSI C136.15-2020 and 7-pin NEMA® Photocell Receptacle per ANSI C136.41
- Weight:** 14.2 lbs. (6.4kg)

##### ELECTRICAL SYSTEM

- Input Voltage:** 120-277V or 347-480V, 50/60Hz
- Power Factor:** 0.97 at full load
- Total Harmonic Distortion:** <20% at full load
- Integral 15kV/5kA surge suppression protection standard, 25kV/10kA surge suppression protection optional
- When code dictates fusing, a slow blow fuse or type C/D breaker should be used to address inrush
- Designed with 0-30° dimming capabilities. Controls by others
- 10V Source Current:** 0.15mA
- Luminaires with 0-10V dimming are DALI compatible per IEC 62384
- Operating Temperature Range:** -40°C (-40°F) - +40°F (+104°F)

##### REGULATORY & VOLUNTARY QUALIFICATIONS

- cULus Listed
- UL Type 1 for outdoor use
- Certified to ANSI C136.31-2001, 30' bridge and overpass vibration standards
- ANSI C136.2 15kV/5kA standard and 25kV/10kA optional surge protection, tested in accordance with IEEE/ANSI C62.4.2
- Meets FCC Part 15, Subpart B, Class A limits for conducted and radiated emissions
- Luminaire and finish endurance tested to withstand 0.025 hour of ambient ambient salt fog conditions as defined in ASTM Standard B 117
- Assembled in the USA by Cree Lighting from US and imported parts
- Meets basic American requirements within ABMA
- RoHS compliant. Consult factory for additional details
- Dark Sky Friendly, ICA Approved when ordered with 30K CCT. Please refer to [www.darksky.org](http://www.darksky.org) for more information.
- CA RESIDENTIAL WIRING:** Compliant with California Electrical Code (CEC) for most current applications.
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##### Field-Installed

- Meets or exceeds 25' (7.62m) IP: 144" (3.66m) O.D. or 2" (51mm) IP: 2.375" (60mm) O.D. horizontal torso (minimum 8" (203mm) in length) and is adjustable to 30° to allow for future leveling. Includes two sets of feet to adjust in leveling.
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##### Weight

14.2 lbs. (6.4kg)

#### Ordering Information

Example: XSPMD-D-41-320-12L-320K-LA-90-N

XSPMD	D	41	320	12L	320K	LA	90	N
Product	Version	Mounting*	Optic	Lumen Package**	CCT/CEI	Voltage	Color Options	System
XSPMD	D	41	320	12L	320K	LA	90	N

\*Referenced to the luminaire and not the mounting height. See page 12 for details.  
\*\*Available with Synapse® accessories. See accessories page for details.  
\*\*\*Lumen Package codes identify approximate light output only. Actual luminaire lumen output may vary depending on CCT and optic selection. Refer to initial delivered lumens table for specific luminaire values.

US: [cree.com](http://cree.com) 800.234.4800  
Canada: [cree.com](http://cree.com) 800.473.1234



### XSPMD LED Street/Area Luminaire - Medium

XSPMD LED Street/Area Luminaire - Medium

#### Product Specifications

##### CONSTRUCTION & MATERIALS

- Die cast aluminum housing
- 100-400V input
- Meets or exceeds 25' (7.62m) IP: 144" (3.66m) O.D. or 2" (51mm) IP: 2.375" (60mm) O.D. horizontal torso (minimum 8" (203mm) in length) and is adjustable to 30° to allow for future leveling. Includes two sets of feet to adjust in leveling.

- Luminaire enclosures with 410 stainless steel mounting bolts, optional four point mounting available
- Exclusive Colorized DeliaGuard® finish features an E-Coat epoxy primer with an ultra-durable black, bronze or silver powder topcoat, providing excellent resistance to corrosion, ultraviolet degradation and abrasion
- Comes standard with Utility Label per ANSI C136.15-2020 and 7-pin NEMA® Photocell Receptacle per ANSI C136.41
- Weight:** 14.2 lbs. (6.4kg)

##### ELECTRICAL SYSTEM

- Input Voltage:** 120-277V or 347-480V, 50/60Hz
- Power Factor:** 0.97 at full load
- Total Harmonic Distortion:** <20% at full load
- Integral 15kV/5kA surge suppression protection standard, 25kV/10kA surge suppression protection optional
- When code dictates fusing, a slow blow fuse or type C/D breaker should be used to address inrush
- Designed with 0-30° dimming capabilities. Controls by others
- 10V Source Current:** 0.15mA
- Luminaires with 0-10V dimming are DALI compatible per IEC 62384
- Operating Temperature Range:** -40°C (-40°F) - +40°F (+104°F)

##### REGULATORY & VOLUNTARY QUALIFICATIONS

- cULus Listed
- UL Type 1 for outdoor use
- Certified to ANSI C136.31-2001, 30' bridge and overpass vibration standards
- ANSI C136.2 15kV/5kA standard and 25kV/10kA optional surge protection, tested in accordance with IEEE/ANSI C62.4.2
- Meets FCC Part 15, Subpart B, Class A limits for conducted and radiated emissions
- Luminaire and finish endurance tested to withstand 0.025 hour of ambient ambient salt fog conditions as defined in ASTM Standard B 117
- Assembled in the USA by Cree Lighting from US and imported parts
- Meets basic American requirements within ABMA
- RoHS compliant. Consult factory for additional details
- Dark Sky Friendly, ICA Approved when ordered with 30K CCT. Please refer to [www.darksky.org](http://www.darksky.org) for more information.
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##### Weight

14.2 lbs. (6.4kg)

#### Ordering Information

Example: XSPMD-D-41-320-12L-320K-LA-90-N

XSPMD	D	41	320	12L	320K	LA	90	N
Product	Version	Mounting*	Optic	Lumen Package**	CCT/CEI	Voltage	Color Options	System
XSPMD	D	41	320	12L	320K	LA	90	N

\*Referenced to the luminaire and not the mounting height. See page 12 for details.  
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### XSPMD LED Street/Area Luminaire - Medium

XSPMD LED Street/Area Luminaire - Medium

#### Product Specifications

##### CONSTRUCTION & MATERIALS

- Die cast aluminum housing
- 100-400V input
- Meets or exceeds 25' (7.62m) IP: 144" (3.66m) O.D. or 2" (51mm) IP: 2.375" (60mm) O.D. horizontal torso (minimum 8" (203mm) in length) and is adjustable to 30° to allow for future leveling. Includes two sets of feet to adjust in leveling.

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- Weight:** 14.2 lbs. (6.4kg)

##### ELECTRICAL SYSTEM

- Input Voltage:** 120-277V or 347-480V, 50/60Hz
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### XSPMD LED Street/Area Luminaire - Medium

XSPMD LED Street/Area







