

LEGEND

Table with 3 columns: EXISTING, DESCRIPTION, PROPOSED. Lists various engineering symbols and their corresponding descriptions for existing and proposed features.

Table with 3 columns: EXISTING, DESCRIPTION, PROPOSED. Lists symbols for natural features like trees, wetlands, and utility lines.

LEGEND
1. THIS IS A STANDARD SHEET, THEREFORE SOME ABBREVIATIONS MAY APPEAR ON THIS SHEET AND NOT BE USED ON THE PROJECT.
2. ADDITIONAL LEGENDS AND NOTES MAY BE FOUND ON OTHER SHEETS ASSOCIATED WITH THIS PLAN.

ABBREVIATIONS

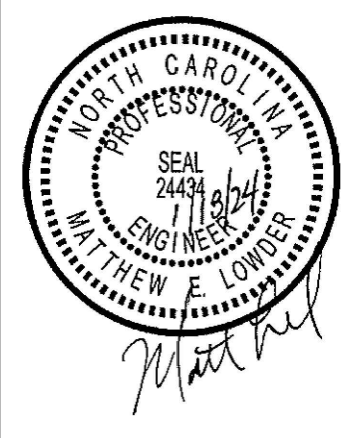
Large table of abbreviations and their full names. Columns include abbreviations (A, AB, AC, etc.), descriptions (AREA OF ARC, AMERICAN ASSOCIATION OF STATE HWY & TRANS. OFFICIALS, etc.), and other abbreviations (K, Ke, L, etc.).

GENERAL NOTES

- 1. UTILITY CONFLICTS: ALL EXISTING UTILITIES SHOWN WERE COMPILED USING THE BEST AVAILABLE INFORMATION AND FIELD OBSERVATION. BOWMAN NORTH CAROLINA LTD DOES NOT GUARANTEE THE LOCATION OF UNDERGROUND UTILITIES SHOWN HEREON.
2. ALL MATERIALS AND WORKMANSHIP SHALL BE IN CONFORMANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS FOR THE APPROPRIATE GOVERNING AGENCY.

GENERAL NOTES (CONT.)

- 42. THE CONTRACTOR SHALL CAREFULLY EXAMINE THE SITE AND MAKE ALL INSPECTIONS NECESSARY IN ORDER TO DETERMINE THE FULL EXTENT OF THE WORK REQUIRED TO MAKE THE PROPOSED WORK CONFORM TO THE DRAWINGS AND SPECIFICATIONS.
43. THE CONTRACTOR WILL BE RESPONSIBLE FOR ANY DAMAGE TO THE EXISTING ROADS AND UTILITIES WHICH OCCURS AS A RESULT OF THE PROJECT CONSTRUCTION WITHIN OR CONTIGUOUS TO THE EXISTING RIGHT-OF-WAY.



Crosland Southeast
7-Eleven Store #42378
Zebulon, NC
WAKE COUNTY

REVISIONS

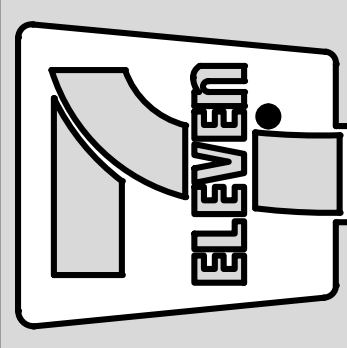


Table with columns: NO., DATE, REVISIONS DESCRIPTION. Lists revision history.

Form with fields: STORE OR BLDG NO., VERSION OR PROJECT ID, DESIGN TEAM, PM/DP, RW/RR, ISSUE DATE, ADDRESS, SHEET TITLE, DRWG. NO.

DEMOLITION NOTES:

- THE CONTRACTOR SHALL FIELD VERIFY AND LOCATE ALL EXISTING UTILITIES ON SITE PRIOR TO DEMOLITION.
- THE CONTRACTOR SHALL PERFORM DEMOLITION ACTIVITIES AS NOTED AND SHOWN ON THESE PLANS AND AS DIRECTED BY THE OWNER.
- IT WILL BE THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN ANY PERMITS AND PAY FEES REQUIRED FOR DEMOLITION AND HAUL-OFF FROM THE APPROPRIATE AUTHORITIES.
- THE CONTRACTOR SHALL PREPARE ALL DOCUMENTS AND ACQUIRE APPROPRIATE PERMITS AS REQUIRED PRIOR TO THE COMMENCEMENT OF DEMOLITION.
- THE DEMOLITION PLAN IS INTENDED TO DEPICT GENERAL DEMOLITION AND UTILITY WORK. IT IS NOT INTENDED TO IDENTIFY EACH ELEMENT OF DEMOLITION OR RELOCATION. CONTRACTOR SHALL COORDINATE WITH THE OWNER AND APPROPRIATE UTILITY COMPANY PRIOR TO WORK.
- CONTRACTOR TO COMPLETELY DEMOLISH AND DISPOSE OF OFFSITE IN A LAWFUL MANNER EXISTING BUILDINGS, INCLUDING FOUNDATIONS AND ALL APPURTENANCES LOCATED ON AND AROUND THE PROPERTY INCLUDING BUT NOT LIMITED TO BOLLARDS, GAS METERS, AIR CONDITIONING UNITS, SIGNS, CURBS, SIDEWALKS, ELECTRIC METERS, FENCING, ETC.
- REMOVE AND DISPOSE OF ANY SIDEWALK, FENCES, STAIRS, WALLS, FOUNDATIONS, CONDUITS, LIGHT POLE BASES, DEBRIS AND RUBBISH REQUIRING REMOVAL FROM THE WORK AREA IN AN APPROVED LANDFILL.
- REMOVE AND/OR PLUG EXISTING UTILITIES SUCH AS SANITARY SEWER, WATER, GAS, ELECTRIC, AND TELEPHONE AS SHOWN. THE CONTRACTOR IS RESPONSIBLE FOR CONTACTING EACH UTILITY COMPANY TO COORDINATE REMOVAL OF ALL UTILITIES AND FOR DETERMINING HORIZONTAL AND VERTICAL LOCATIONS OF UTILITIES PRIOR TO COMMENCING WORK.
- THE CONTRACTOR SHALL CUT AND PLUG, OR ARRANGE FOR THE APPROPRIATE UTILITY COMPANY TO CUT AND PLUG ALL SERVICE PIPING AT THE STREET LINE OR MAIN, AS REQUIRED, OR AS OTHERWISE NOTED. ALL SERVICES MAY NOT BE SHOWN ON THIS PLAN. THE CONTRACTOR SHALL INVESTIGATE THE SITE PRIOR TO BIDDING TO DETERMINE THE EXTENT OF SERVICE PIPING TO BE REMOVED, CUT OR PLUGGED.
- THE CONTRACTOR SHALL ARRANGE FOR RESETTling OF CURB BOXES, VALVE BOXES AND REMOVAL AND/OR RELOCATION OF OVERHEAD UTILITIES AND POLES WITH THE APPROPRIATE UTILITY COMPANY.
- INSTALL ALL EROSION AND SEDIMENT CONTROL DEVICES AND TREE PROTECTION PRIOR TO BEGINNING DEMOLITION WORK.
- THE CONTRACTOR IS RESPONSIBLE FOR THE PROTECTION OF ALL UTILITIES TO REMAIN IN PLACE.
- THE CONTRACTOR SHALL TAKE ALL PRECAUTIONS TO AVOID UNNECESSARY DAMAGE TO EXISTING ROAD SURFACE. FINISH SURFACE TO BE REMOVED OR DEMOLISHED SHALL BE CUT ALONG LINES OF JOINTS WHICH WILL PERMIT A NEAT SURFACE WHEN RESTORED.
- SAW CUT AT INTERFACE OF PAVEMENT OR CURB TO REMAIN. SAW CUT EXISTING PAVEMENT.
- ALL EXISTING ITEMS TO REMAIN WHICH ARE DAMAGED DURING CONSTRUCTION SHALL BE RESTORED TO ITS ORIGINAL CONDITION AT THE SOLE EXPENSE OF THE CONTRACTOR.
- DO NOT INTERRUPT EXISTING UTILITIES SERVING FACILITIES OCCUPIED AND USED BY THE OWNER OR OTHERS DURING OCCUPIED HOURS EXCEPT WHEN SUCH INTERRUPTIONS HAVE BEEN AUTHORIZED IN WRITING BY THE OWNER AND THE LOCAL MUNICIPALITIES. INTERRUPTIONS SHALL ONLY OCCUR AFTER ACCEPTABLE TEMPORARY SERVICE HAS BEEN PROVIDED.
- SHOULD ANY UNCHARTERED OR INCORRECTLY CHARTERED EXISTING PIPING OR OTHER UTILITY BE UNCOVERED DURING EXCAVATION, CONSULT THE ENGINEER IMMEDIATELY FOR DIRECTIONS BEFORE PROCEEDING FURTHER WITH WORK IN THIS AREA.
- ASBESTOS OR HAZARDOUS MATERIAL, IF FOUND ON SITE, SHALL BE REMOVED BY A LICENSED HAZARDOUS MATERIAL CONTRACTOR.
- THE PROPERTY SELLER SHALL PUMP OUT BUILDING FUEL, GREASE TRAPS, AND WASTE OIL TANKS (IF ANY ARE ENCOUNTERED) AND REMOVE FUEL TO AN APPROVED DISPOSAL AREA BY AN APPROPRIATELY LICENSED WASTE OIL HANDLING CONTRACTOR IN STRICT ACCORDANCE WITH FEDERAL AND STATE REQUIREMENTS BEFORE CONSTRUCTION BEGINS.
- THE CONTRACTOR SHALL PROPERLY AND LEGALLY DISPOSE OF ALL DEMOLITION DEBRIS OFF OF THE SITE.

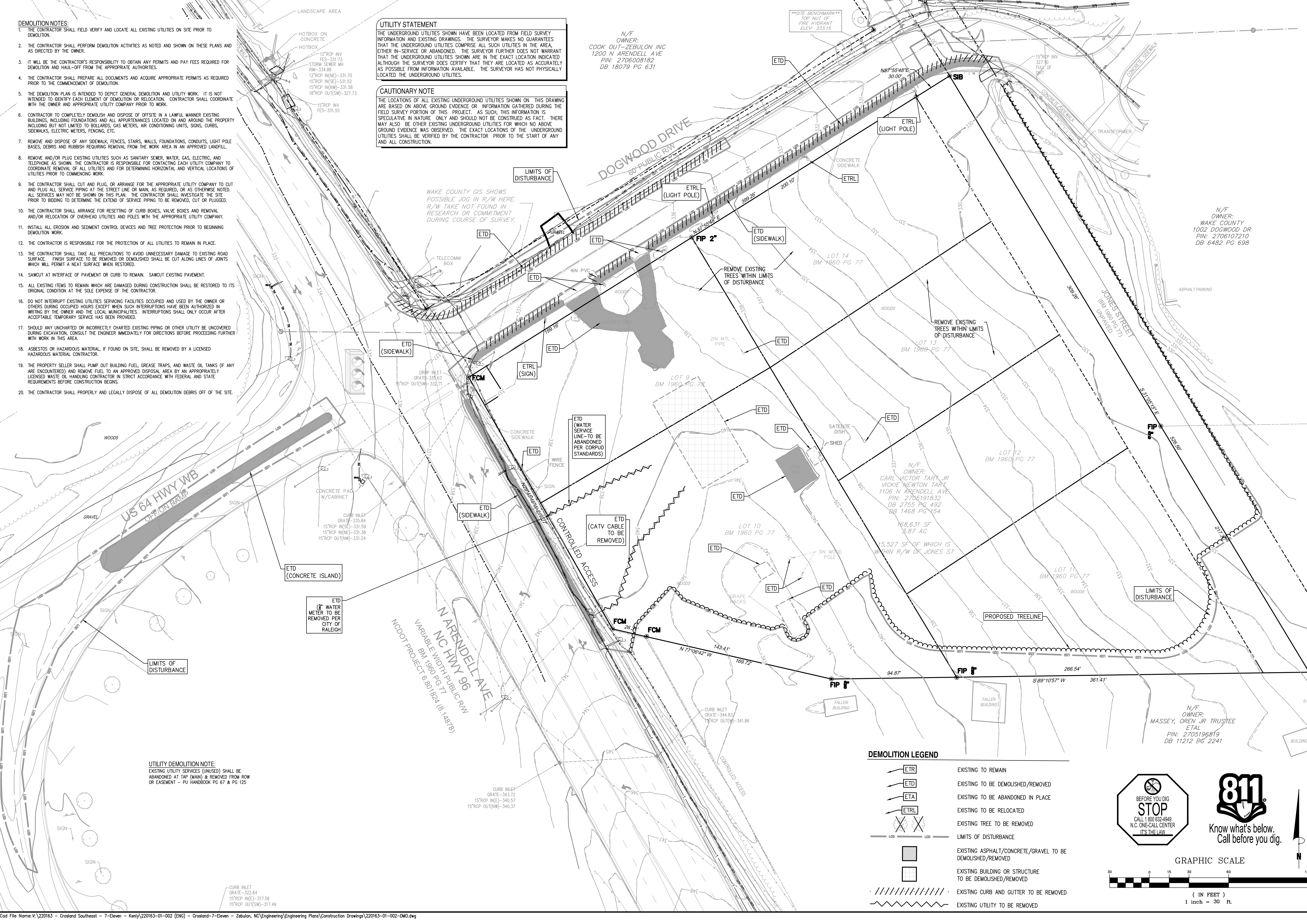
UTILITY STATEMENT

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

CAUTIONARY NOTE

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

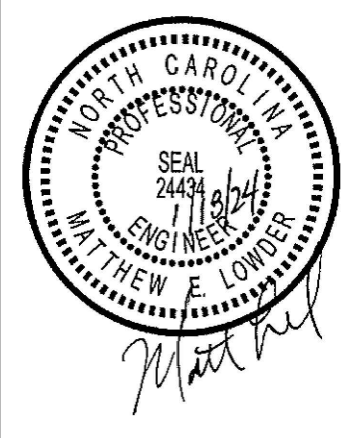
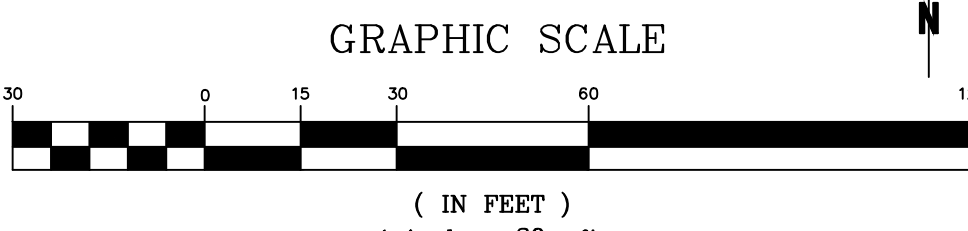
N/F OWNER:
COOK OUT-ZEBULON INC
1200 N ARENDELL AVE
PIN: 2706008192
DB 18079 PG 631



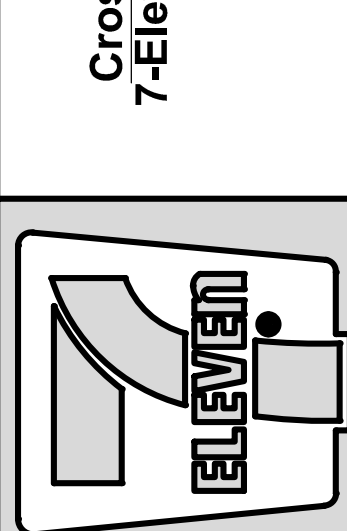
UTILITY DEMOLITION NOTE:
EXISTING UTILITY SERVICES (UNUSED) SHALL BE ABANDONED AT TAP (MAIN) & REMOVED FROM ROW OR EASEMENT - PU HANDBOOK PG 67 & PG 125

DEMOLITION LEGEND

	EXISTING TO REMAIN
	EXISTING TO BE DEMOLISHED/REMOVED
	EXISTING TO BE ABANDONED IN PLACE
	EXISTING TO BE RELOCATED
	EXISTING TREE TO BE REMOVED
	LIMITS OF DISTURBANCE
	EXISTING ASPHALT/CONCRETE/GRAVEL TO BE DEMOLISHED/REMOVED
	EXISTING BUILDING OR STRUCTURE TO BE DEMOLISHED/REMOVED
	EXISTING CURB AND GUTTER TO BE REMOVED
	EXISTING UTILITY TO BE REMOVED



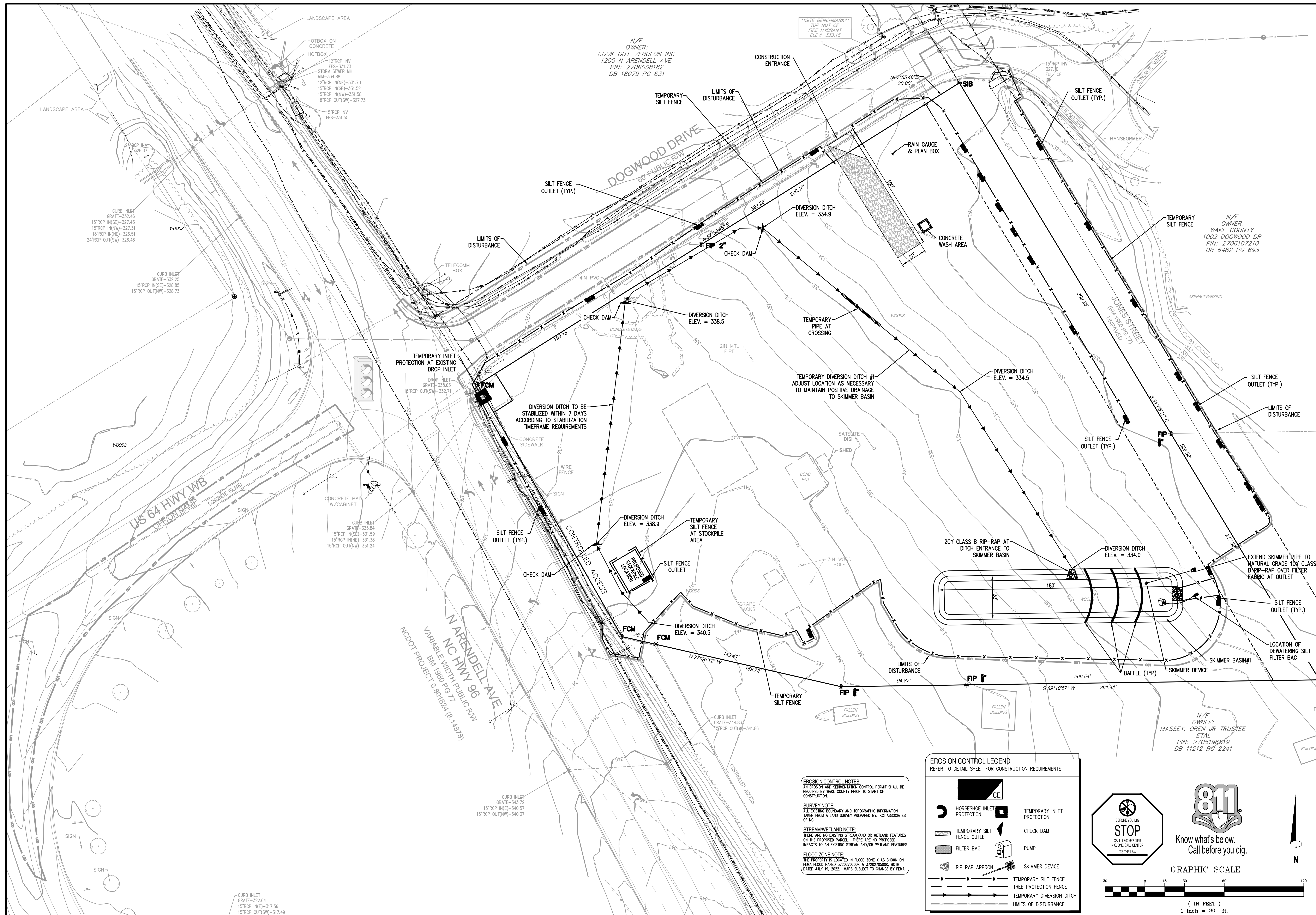
Crosland Southeast
7-Eleven Store #42378
Zebulon, NC
WAKE COUNTY



NO.	DATE	REVISION DESCRIPTION	DATE	REVISION DESCRIPTION
1	02/23	TOWN OF ZEBULON REVIEW		
2	02/23	TOWN OF ZEBULON REVIEW		
3	02/23	WAKE COUNTY REVIEW		
4	02/23	TOWN OF ZEBULON REVIEW		

STORE OR BLDG NO.:	N/A
VERSION OR PROJECT ID:	N/A
DESIGN TEAM	
DGNR. BRM & MCB	
PM/DP. ML	
RVWR. ML	
ISSUE DATE: 1/18/2024	
ADDRESS	1106 N ARENDELL AVE ZEBULON, NC 27587

SHEET TITLE
DEMOLITION PLAN
DRWG. NO. **C2.0**



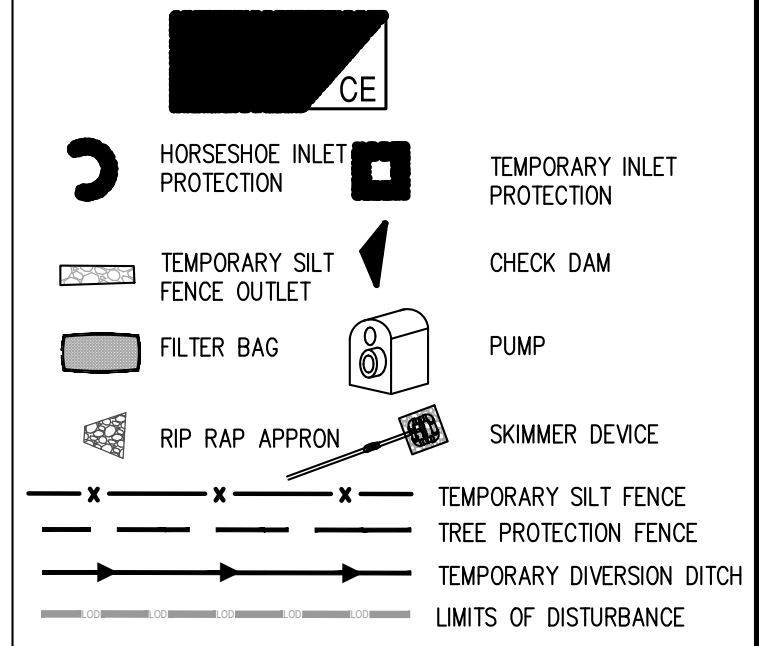
N/F
OWNER:
COOK OUT-ZEBULON INC
1200 N ARENDELL AVE
PIN: 2706008182
DB 18079 PG 631

N/F
OWNER:
WAKE COUNTY
1002 DOGWOOD DR
PIN: 2706107210
DB 6482 PG 698

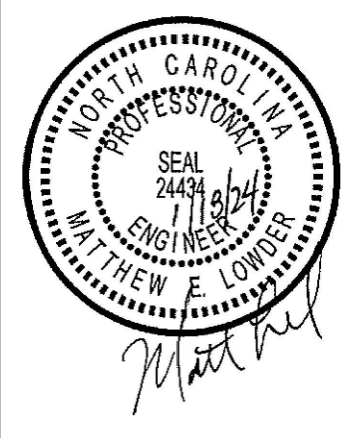
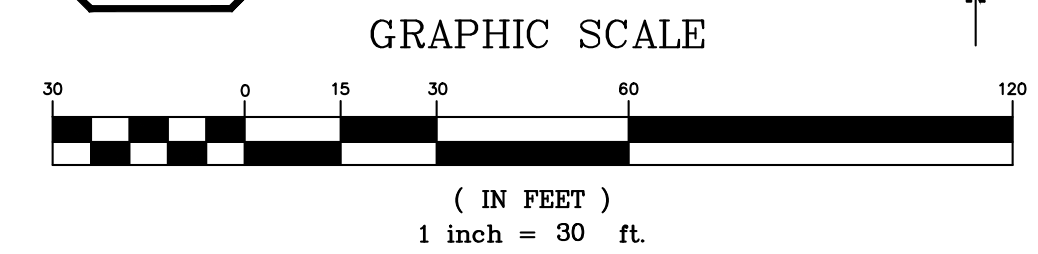
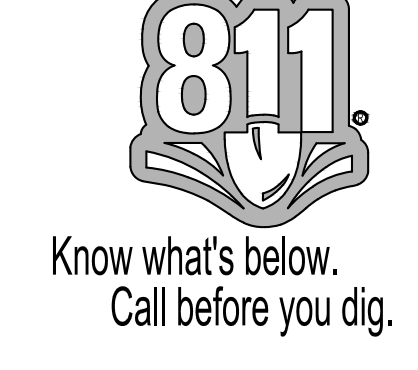
N/F
OWNER:
MASSEY, OREN JR TRUSTEE
ETAL
PIN: 2705196819
DB 11212 PG 2241

N ARENDELL AVE
NC HWY 96
VARIABLE WIDTH PUBLIC RW
BM 1990 PG 77
NCDOT PROJECT 6 801824 (8 14978)

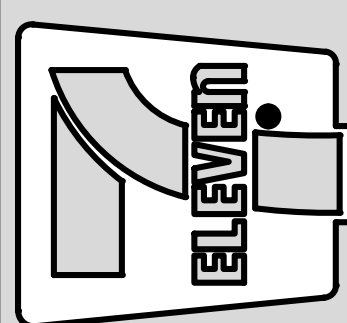
EROSION CONTROL LEGEND
REFER TO DETAIL SHEET FOR CONSTRUCTION REQUIREMENTS



EROSION CONTROL NOTES:
AN EROSION AND SEDIMENTATION CONTROL PERMIT SHALL BE REQUIRED BY WAKE COUNTY PRIOR TO START OF CONSTRUCTION.
SURVEY NOTE:
ALL EXISTING BOUNDARY AND TOPOGRAPHIC INFORMATION TAKEN FROM A LAND SURVEY PREPARED BY KCI ASSOCIATES OF NC
STREAM/WETLAND NOTE:
THERE ARE NO EXISTING STREAM AND/OR WETLAND FEATURES ON THE PROPOSED PARCEL. THESE ARE NO PROPOSED IMPACTS TO AN EXISTING STREAM AND/OR WETLAND FEATURES
FLOOD ZONE NOTE:
THE PROPERTY IS LOCATED IN FLOOD ZONE X AS SHOWN ON FEMA FLOOD PANEL 3720270600K & 3720270500K, BOTH DATED JULY 19, 2022. MAPS SUBJECT TO CHANGE BY FEMA

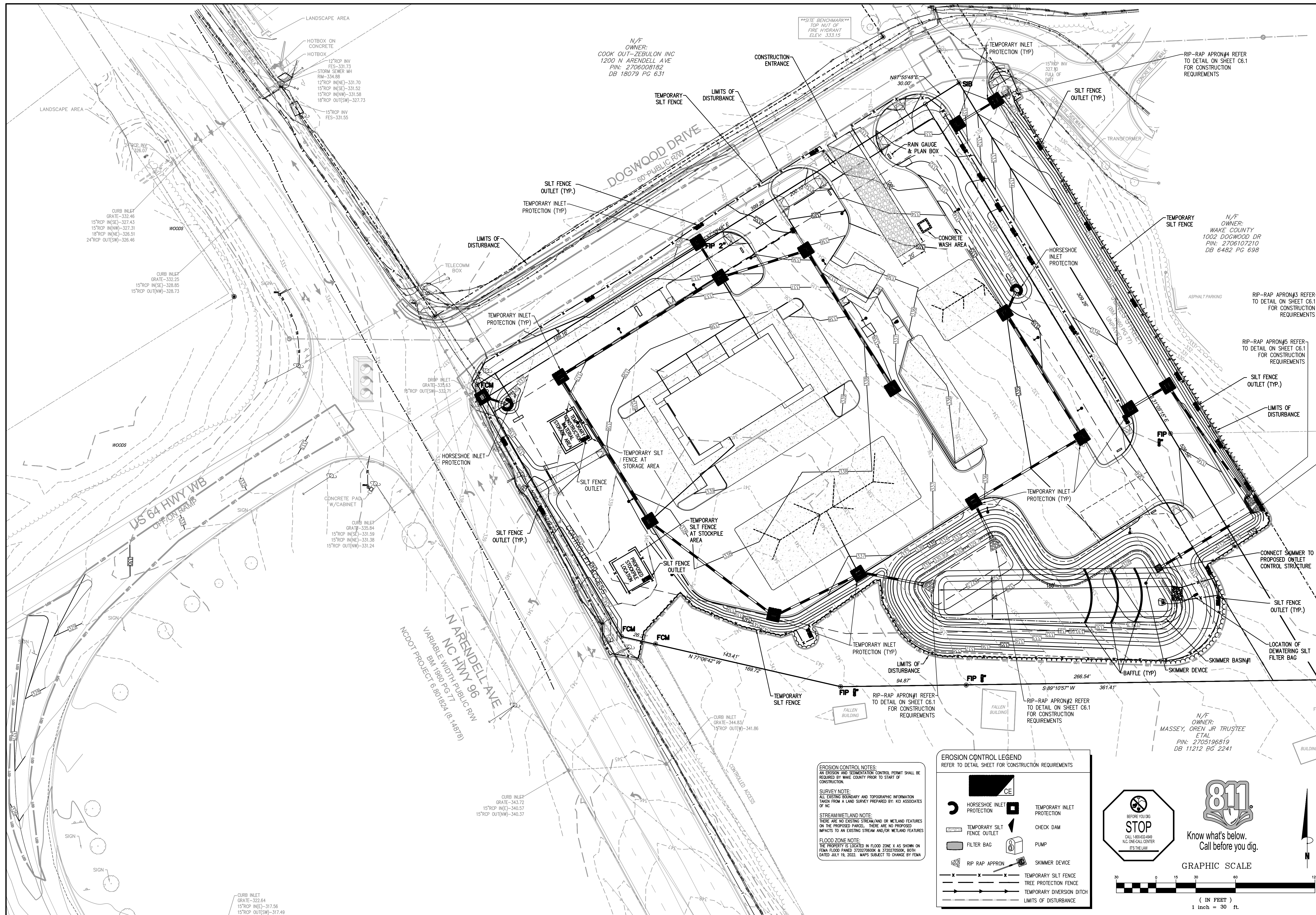


Crosland Southeast
7-Eleven Store #42378
Zebulon, NC
WAKE COUNTY



NO.	REVISION DESCRIPTION	DATE	BY
1	TOWN OF ZEBULON REVIEW	02/23	BRM
2	BRIAN MCBRIDE REVIEW	05/23	MCB
3	WAKE COUNTY REVIEW	02/23	MCB
4	TOWN OF ZEBULON REVIEW	03/24	MCB

STORE OR BLDG NO.:
N/A
VERSION OR PROJECT ID:
N/A
DESIGN TEAM
DGNR: BRM & MCB
PM/DP: ML
RVWR: ML
ISSUE DATE: 1/18/2024
ADDRESS
1106 N ARENDELL AVE
ZEBULON, NC 27587
SHEET TITLE
EROSION CONTROL PLAN - INITIAL
DRWG. NO. **C2.1**



N/F
OWNER:
COOK OUT-ZEBULON INC
1200 N ARENDELL AVE
PIN: 2706008182
DB 18079 PG 631

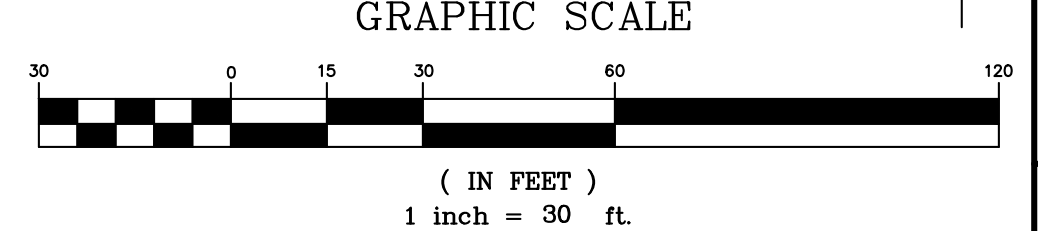
N/F
OWNER:
WAKE COUNTY
1002 DOGWOOD DR
PIN: 2706107210
DB 6482 PG 698

N/F
OWNER:
MASSEY, OREN JR TRUSTEE
ETAL
PIN: 2705196819
DB 11212 PG 2241

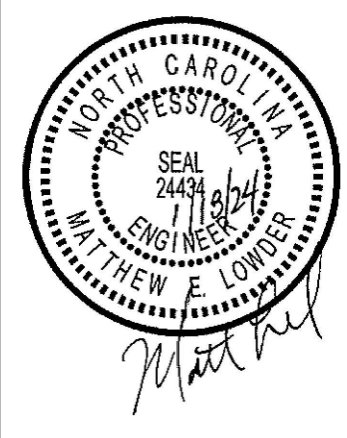
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STREAM/WETLAND NOTE:
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FLOOD ZONE NOTE:
THE PROPERTY IS LOCATED IN FLOOD ZONE X AS SHOWN ON FEMA FLOOD PLANED 3720270600K & 3720270500K. BOTH DATED JULY 19, 2022. MAPS SUBJECT TO CHANGE BY FEMA

EROSION CONTROL LEGEND
REFER TO DETAIL SHEET FOR CONSTRUCTION REQUIREMENTS

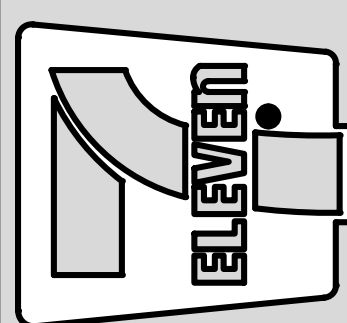
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	HORSESHOE INLET PROTECTION		CHECK DAM
	TEMPORARY SILT FENCE		PUMP
	SILT FENCE OUTLET		SKIMMER DEVICE
	FILTER BAG		TEMPORARY SILT FENCE
	RIP RAP APRON		TREE PROTECTION FENCE
	TEMPORARY INLET PROTECTION		TEMPORARY DIVERSION DITCH
	LIMITS OF DISTURBANCE		



Bowman
Bowman North Carolina Ltd.
4000 SHILOH DR
RALEIGH, NC 27609
Phone: (919) 553-6570
bowman.com
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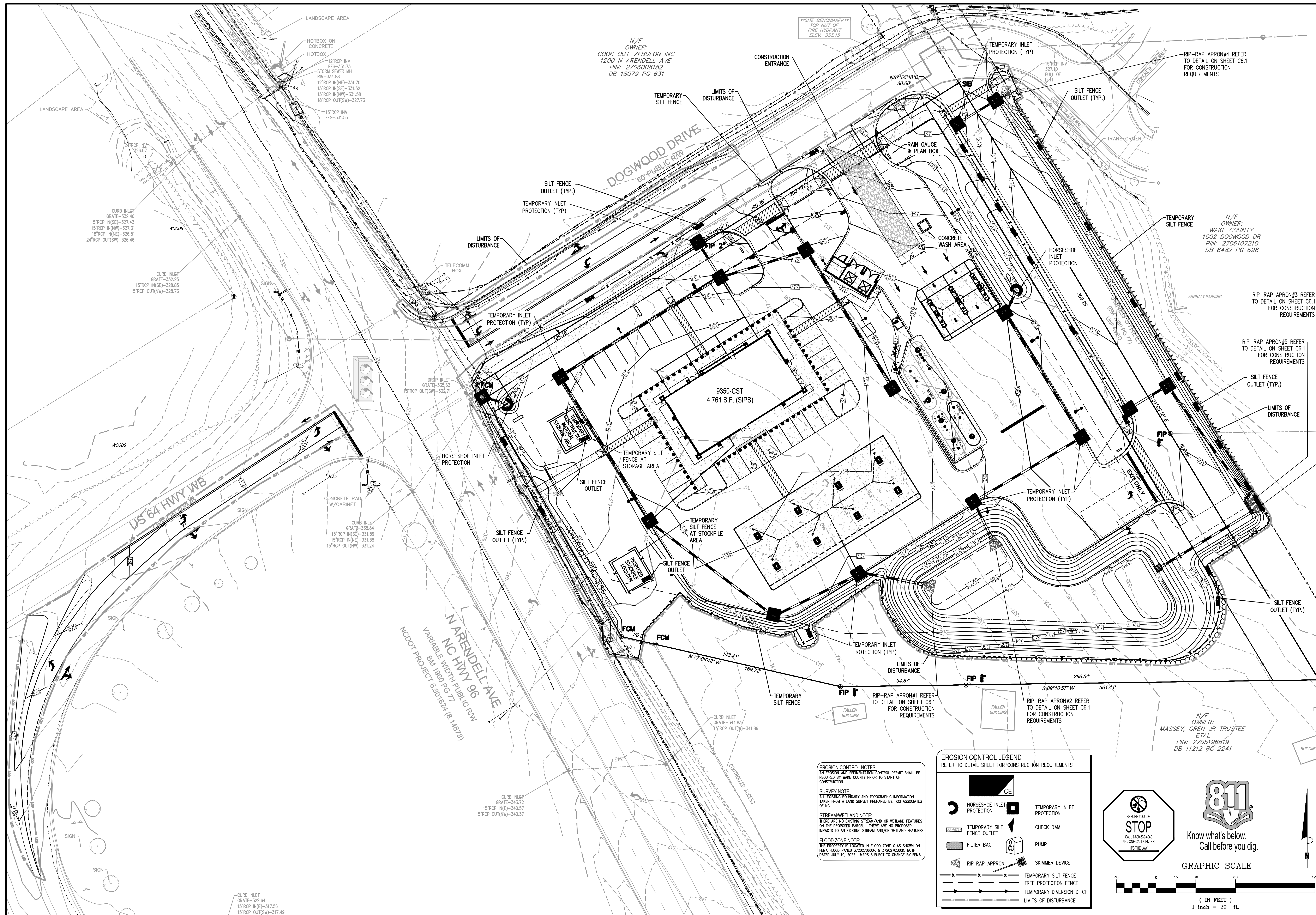
Crosland Southeast
7-Eleven Store #42378
Zebulon, NC
WAKE COUNTY



NO.	DATE	REVISION DESCRIPTION
1	02/23	TOWN OF ZEBULON REVIEW
2	05/23	TOWN OF ZEBULON REVIEW
3	05/23	WAKE COUNTY REVIEW
4	08/24	TOWN OF ZEBULON REVIEW

STORE OR BLDG NO.:
N/A
VERSION OR PROJECT ID:
N/A
DESIGN TEAM
DGNR: BRM & MCB
PM/DP: ML
RVWR: ML
ISSUE DATE: 1/18/2024
ADDRESS
1106 N ARENDELL AVE
ZEBULON, NC 27587

SHEET TITLE
EROSION CONTROL PLAN - INTERMEDIATE
DRWG. NO. **C2.2**



N/F OWNER:
COOK OUT-ZEBULON INC
1200 N ARENDELL AVE
PIN: 2706008182
DB 18079 PG 631

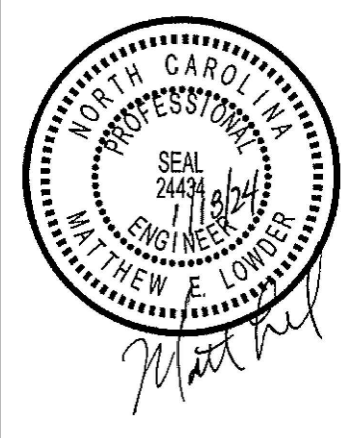
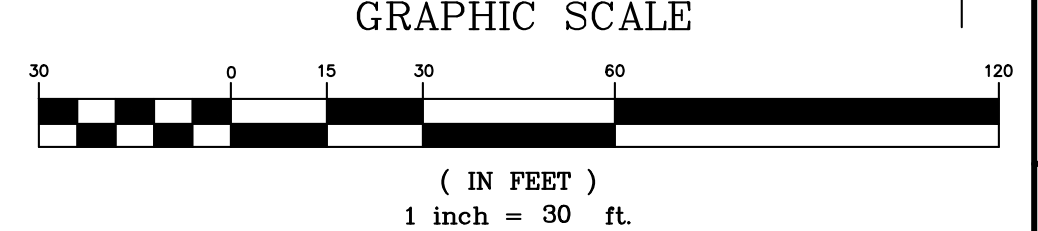
N/F OWNER:
WAKE COUNTY
1002 DOGWOOD DR
PIN: 2706107210
DB 6482 PG 698

N/F OWNER:
MASSEY, OREN JR TRUSTEE
ETAL
PIN: 2705196819
DB 11212 PG 2241

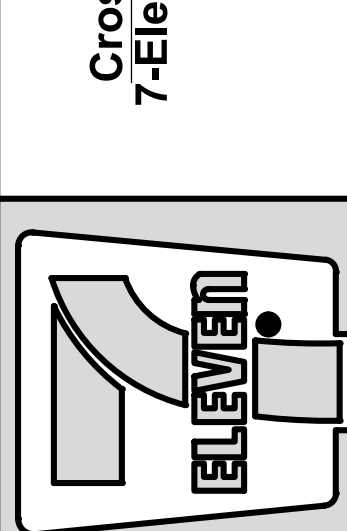
EROSION CONTROL NOTES:
AN EROSION AND SEDIMENTATION CONTROL PERMIT SHALL BE REQUIRED BY WAKE COUNTY PRIOR TO START OF CONSTRUCTION.
SURVEY NOTE:
ALL EXISTING BOUNDARY AND TOPOGRAPHIC INFORMATION TAKEN FROM A LAND SURVEY PREPARED BY: KCI ASSOCIATES OF NC
STREAM/WETLAND NOTE:
THERE ARE NO EXISTING STREAM/AND/OR WETLAND FEATURES ON THE PROPOSED PARCEL. THERE ARE NO PROPOSED IMPACTS TO AN EXISTING STREAM AND/OR WETLAND FEATURES
FLOOD ZONE NOTE:
THE PROPERTY IS LOCATED IN FLOOD ZONE X AS SHOWN ON FEMA FLOOD PLANED 3720270600K & 3720270500K. BOTH DATED JULY 19, 2022. MAPS SUBJECT TO CHANGE BY FEMA

EROSION CONTROL LEGEND
REFER TO DETAIL SHEET FOR CONSTRUCTION REQUIREMENTS

- CE
- HORSESHOE INLET PROTECTION
- TEMPORARY SILT FENCE
- FENCE OUTLET
- RIP RAP APRON
- TEMPORARY SILT FENCE
- TREE PROTECTION FENCE
- TEMPORARY DIVERSION DITCH
- LIMITS OF DISTURBANCE
- TEMPORARY INLET PROTECTION
- CHECK DAM
- PUMP
- SKIMMER DEVICE



Crosland Southeast
7-Eleven Store #42378
Zebulon, NC
WAKE COUNTY

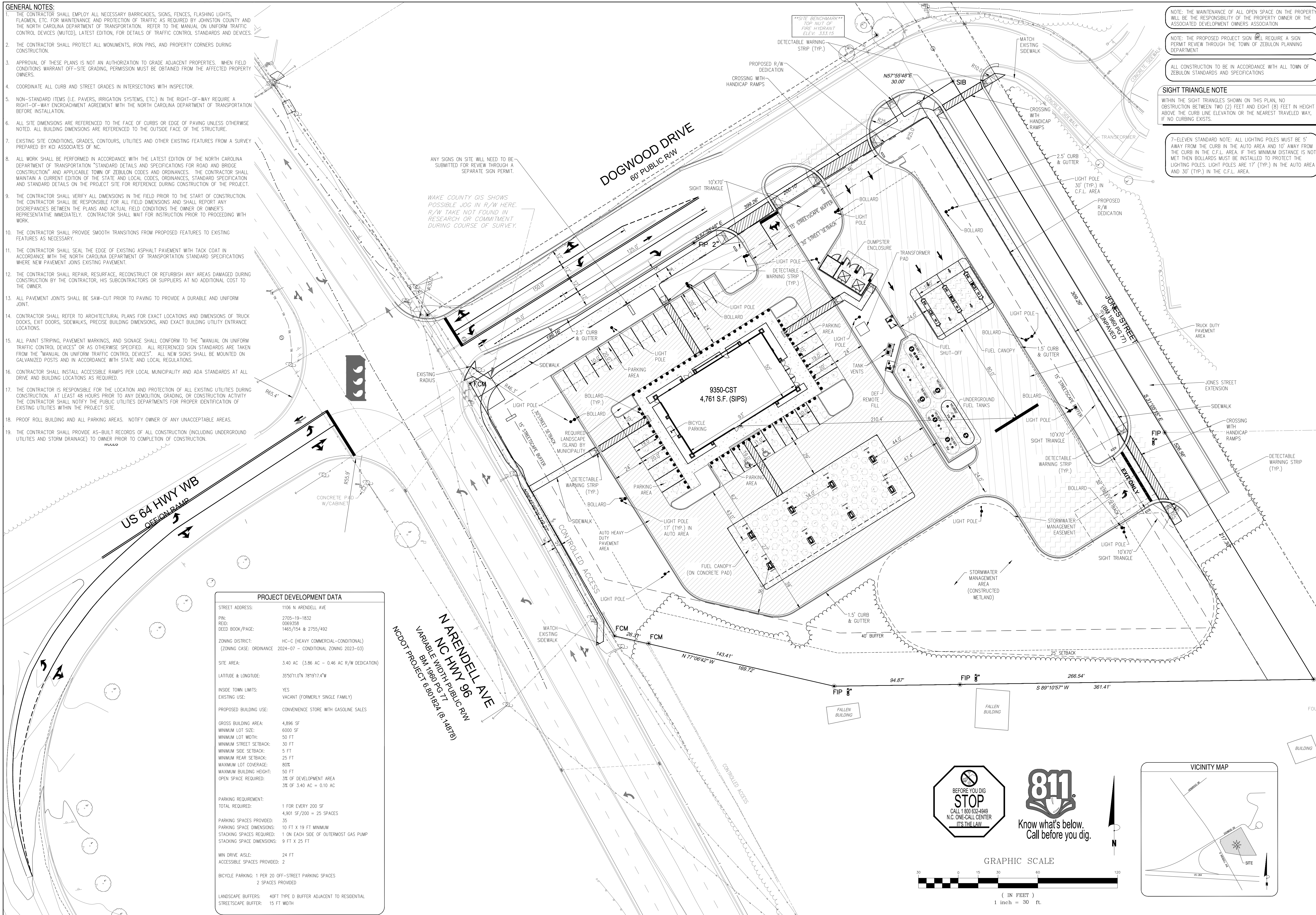


NO.	DATE	REVISION DESCRIPTION	DATE	REVISION DESCRIPTION
1	1/20/23	TOWN OF ZEBULON REVIEW		
2	2/22/23	TOWN OF ZEBULON REVIEW		
3	3/1/23	WAKE COUNTY REVIEW		
4	3/1/23	TOWN OF ZEBULON REVIEW		

STORE OR BLDG NO.:
N/A
VERSION OR PROJECT ID:
N/A
DESIGN TEAM
DGNR: BRM & MCB
PM/DP: ML
RVWR: ML
ISSUE DATE: 1/18/2024
ADDRESS
1106 N ARENDELL AVE
ZEBULON, NC 27587

SHEET TITLE
EROSION CONTROL PLAN - FINAL
DRWG. NO.
C2.3

- GENERAL NOTES:**
- THE CONTRACTOR SHALL EMPLOY ALL NECESSARY BARRICADES, SIGNS, FENCES, FLASHING LIGHTS, FLAGMEN, ETC. FOR MAINTENANCE AND PROTECTION OF TRAFFIC AS REQUIRED BY JOHNSTON COUNTY AND THE NORTH CAROLINA DEPARTMENT OF TRANSPORTATION. REFER TO THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD), LATEST EDITION, FOR DETAILS OF TRAFFIC CONTROL STANDARDS AND DEVICES.
 - THE CONTRACTOR SHALL PROTECT ALL MONUMENTS, IRON PINS, AND PROPERTY CORNERS DURING CONSTRUCTION.
 - APPROVAL OF THESE PLANS IS NOT AN AUTHORIZATION TO GRADE ADJACENT PROPERTIES. WHEN FIELD CONDITIONS WARRANT OFF-SITE GRADING, PERMISSION MUST BE OBTAINED FROM THE AFFECTED PROPERTY OWNERS.
 - COORDINATE ALL CURB AND STREET GRADES IN INTERSECTIONS WITH INSPECTOR.
 - NON-STANDARD ITEMS (I.E. PAVERS, IRRIGATION SYSTEMS, ETC.) IN THE RIGHT-OF-WAY REQUIRE A RIGHT-OF-WAY ENCROACHMENT AGREEMENT WITH THE NORTH CAROLINA DEPARTMENT OF TRANSPORTATION BEFORE INSTALLATION.
 - ALL SITE DIMENSIONS ARE REFERENCED TO THE FACE OF CURBS OR EDGE OF PAVING UNLESS OTHERWISE NOTED. ALL BUILDING DIMENSIONS ARE REFERENCED TO THE OUTSIDE FACE OF THE STRUCTURE.
 - EXISTING SITE CONDITIONS, GRADES, CONTOURS, UTILITIES AND OTHER EXISTING FEATURES FROM A SURVEY PREPARED BY KCI ASSOCIATES OF NC.
 - ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE LATEST EDITION OF THE NORTH CAROLINA DEPARTMENT OF TRANSPORTATION "STANDARD DETAILS AND SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION" AND APPLICABLE TOWN OF ZEBULON CODES AND ORDINANCES. THE CONTRACTOR SHALL MAINTAIN A CURRENT EDITION OF THE STATE AND LOCAL CODES, ORDINANCES, STANDARD SPECIFICATION AND STANDARD DETAILS ON THE PROJECT SITE FOR REFERENCE DURING CONSTRUCTION OF THE PROJECT.
 - THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS IN THE FIELD PRIOR TO THE START OF CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL FIELD DIMENSIONS AND SHALL REPORT ANY DISCREPANCIES BETWEEN THE PLANS AND ACTUAL FIELD CONDITIONS TO THE OWNER OR OWNER'S REPRESENTATIVE IMMEDIATELY. CONTRACTOR SHALL WAIT FOR INSTRUCTION PRIOR TO PROCEEDING WITH WORK.
 - THE CONTRACTOR SHALL PROVIDE SMOOTH TRANSITIONS FROM PROPOSED FEATURES TO EXISTING FEATURES AS NECESSARY.
 - THE CONTRACTOR SHALL SEAL THE EDGE OF EXISTING ASPHALT PAVEMENT WITH TACK COAT IN ACCORDANCE WITH THE NORTH CAROLINA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS WHERE NEW PAVEMENT JOINS EXISTING PAVEMENT.
 - THE CONTRACTOR SHALL REPAIR, RESURFACE, RECONSTRUCT OR REFINISH ANY AREAS DAMAGED DURING CONSTRUCTION BY THE CONTRACTOR, HIS SUBCONTRACTORS OR SUPPLIERS AT NO ADDITIONAL COST TO THE OWNER.
 - ALL PAVEMENT JOINTS SHALL BE SAW-CUT PRIOR TO PAVING TO PROVIDE A DURABLE AND UNIFORM JOINT.
 - CONTRACTOR SHALL REFER TO ARCHITECTURAL PLANS FOR EXACT LOCATIONS AND DIMENSIONS OF TRUCK DOCKS, EXIT DOORS, SIDEWALKS, PRECISE BUILDING DIMENSIONS, AND EXACT BUILDING UTILITY ENTRANCE LOCATIONS.
 - ALL PAINT STRIPING, PAVEMENT MARKINGS, AND SIGNAGE SHALL CONFORM TO THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" OR AS OTHERWISE SPECIFIED. ALL REFERENCED SIGN STANDARDS ARE TAKEN FROM THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES". ALL NEW SIGNS SHALL BE MOUNTED ON GALVANIZED POSTS AND IN ACCORDANCE WITH STATE AND LOCAL REGULATIONS.
 - CONTRACTOR SHALL INSTALL ACCESSIBLE RAMPS PER LOCAL MUNICIPALITY AND ADA STANDARDS AT ALL DRIVE AND BUILDING LOCATIONS AS REQUIRED.
 - THE CONTRACTOR IS RESPONSIBLE FOR THE LOCATION AND PROTECTION OF ALL EXISTING UTILITIES DURING CONSTRUCTION. AT LEAST 48 HOURS PRIOR TO ANY DEMOLITION, GRADING, OR CONSTRUCTION ACTIVITY THE CONTRACTOR SHALL NOTIFY THE PUBLIC UTILITIES DEPARTMENTS FOR PROPER IDENTIFICATION OF EXISTING UTILITIES WITHIN THE PROJECT SITE.
 - PROOF ROLL BUILDING AND ALL PARKING AREAS. NOTIFY OWNER OF ANY UNACCEPTABLE AREAS.
 - THE CONTRACTOR SHALL PROVIDE AS-BUILT RECORDS OF ALL CONSTRUCTION (INCLUDING UNDERGROUND UTILITIES AND STORM DRAINAGE) TO OWNER PRIOR TO COMPLETION OF CONSTRUCTION.



PROJECT DEVELOPMENT DATA

STREET ADDRESS:	1106 N ARENDELL AVE
PIN:	2705-19-1832
DEED BOOK/PAGE:	0369358
ZONING DISTRICT:	HC-C (HEAVY COMMERCIAL-CONDITIONAL)
(ZONING CASE: ORDINANCE)	2024-07 - CONDITIONAL ZONING 2023-03
SITE AREA:	3.40 AC (3.86 AC - 0.46 AC R/W DEDICATION)
LATITUDE & LONGITUDE:	35°50'11.0"N 78°19'17.4"W
INSIDE TOWN LIMITS:	YES
EXISTING USE:	VACANT (FORMERLY SINGLE FAMILY)
PROPOSED BUILDING USE:	CONVENIENCE STORE WITH GASOLINE SALES
GROSS BUILDING AREA:	4,896 SF
MINIMUM LOT SIZE:	6000 SF
MINIMUM LOT WIDTH:	50 FT
MINIMUM STREET SETBACK:	30 FT
MINIMUM SIDE SETBACK:	5 FT
MINIMUM REAR SETBACK:	25 FT
MAXIMUM LOT COVERAGE:	80%
MAXIMUM BUILDING HEIGHT:	50 FT
OPEN SPACE REQUIRED:	3% OF DEVELOPMENT AREA 3% OF 3.40 AC = 0.10 AC
PARKING REQUIREMENT:	TOTAL REQUIRED: 1 FOR EVERY 200 SF 4,901 SF/200 = 25 SPACES
PARKING SPACES PROVIDED:	35
PARKING SPACE DIMENSIONS:	10 FT X 19 FT MINIMUM
STACKING SPACES REQUIRED:	1 ON EACH SIDE OF OUTERMOST GAS PUMP
STACKING SPACE DIMENSIONS:	9 FT X 25 FT
MIN DRIVE AISLE:	24 FT
ACCESSIBLE SPACES PROVIDED:	2
BICYCLE PARKING:	1 PER 20 OFF-STREET PARKING SPACES 2 SPACES PROVIDED
LANDSCAPE BUFFERS:	40FT TYPE D BUFFER ADJACENT TO RESIDENTIAL
STREETSCAPE BUFFER:	15 FT WIDTH

NOTE: THE MAINTENANCE OF ALL OPEN SPACE ON THE PROPERTY WILL BE THE RESPONSIBILITY OF THE PROPERTY OWNER OR THE ASSOCIATED DEVELOPMENT OWNERS ASSOCIATION.

NOTE: THE PROPOSED PROJECT SIGN WILL REQUIRE A SIGN PERMIT REVIEW THROUGH THE TOWN OF ZEBULON PLANNING DEPARTMENT

ALL CONSTRUCTION TO BE IN ACCORDANCE WITH ALL TOWN OF ZEBULON STANDARDS AND SPECIFICATIONS

SIGHT TRIANGLE NOTE

WITHIN THE SIGHT TRIANGLES SHOWN ON THIS PLAN, NO OBSTRUCTION BETWEEN TWO (2) FEET AND EIGHT (8) FEET IN HEIGHT ABOVE THE CURB LINE ELEVATION OR THE NEAREST TRAVELED WAY, IF NO CURBING EXISTS.

7-ELEVEN STANDARD NOTE: ALL LIGHTING POLES MUST BE 5' AWAY FROM THE CURB IN THE AUTO AREA AND 10' AWAY FROM THE CURB IN THE C.F.L. AREA. IF THIS MINIMUM DISTANCE IS NOT MET THEN BOLLARDS MUST BE INSTALLED TO PROTECT THE LIGHTING POLES. LIGHT POLES ARE 17' (TYP.) IN THE AUTO AREA AND 30' (TYP.) IN THE C.F.L. AREA.

Bowman
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4000 Lake Park Dr
Suite 101
RALEIGH, NC 27609
Phone: (919) 553-6570
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Crosland Southeast
7-Eleven Store #42378
Zebulon, NC
WAKE COUNTY

7-ELEVEN

DATE	REVISION DESCRIPTION	DATE	REVISION DESCRIPTION
1/22/23	TOWN OF ZEBULON REVIEW		
2/25/23	TOWN OF ZEBULON REVIEW		
3/22/23	WAKE COUNTY REVIEW		
4/18/24	TOWN OF ZEBULON REVIEW		

STORE OR BLDG NO.: N/A
VERSION OR PROJECT ID: N/A
DESIGN TEAM: DGNR, BRM & MCB
PM/DP: ML
RVWR: ML
ISSUE DATE: 1/18/2024
ADDRESS: 1106 N ARENDELL AVE, ZEBULON, NC 27587

SHEET TITLE: **SITE PLAN**

DRWG. NO. **C3.0**

PAVEMENT SECTIONS

Asphalt Pavement Section Recommendations

Pavement Type	Material Designation	Light Duty Pavement (in.)
Auto Flexible	Asphalt Surface Course (S9.5B)	2
	Aggregate Base Course	8
Truck Flexible	Asphalt Surface Course (S9.5B)	2
	Asphalt Intermediate Course (I19.0C)	3
	Aggregate Base Course	8

Pavement Type	Material Description	Pavement (in.)
Auto Heavy Duty	Asphalt Surface Course (S9.5B)	1
	Asphalt Intermediate Course (I19.0C)	2.5
	Aggregate Base Course	8

Concrete Pavement Section Recommendations

Pavement Type	Material Designation	Heavy Duty Concrete Pavement, Plain Jointed (in.)
Auto Rigid	Portland Cement Concrete (4,000 psi, air-entrained)	5
	Aggregate Base Course	8
Truck Rigid	Portland Cement Concrete (4,000 psi, air-entrained)	7
	Aggregate Base Course	8

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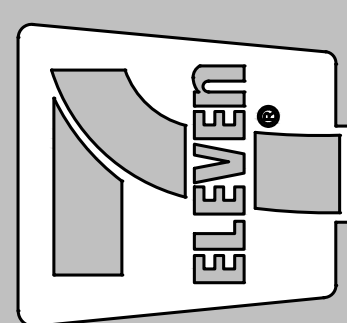
ALL CONSTRUCTION TO BE IN ACCORDANCE WITH ALL TOWN OF ZEBULON STANDARDS AND SPECIFICATIONS.

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 4000 S. I-85
 Raleigh, NC 27609
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 bowman.com



Crosland Southeast
 7-Eleven Store #42378
 Zebulon, NC
 WAKE COUNTY



MARK	REVISION	DATE	DESCRIPTION
1	REVISED	11/22/23	TOWN OF ZEBULON REVIEW
2	REVISED	12/21/23	TOWN OF ZEBULON REVIEW
3	REVISED	12/21/23	WAKE COUNTY REVIEW
4	REVISED	1/18/24	TOWN OF ZEBULON REVIEW

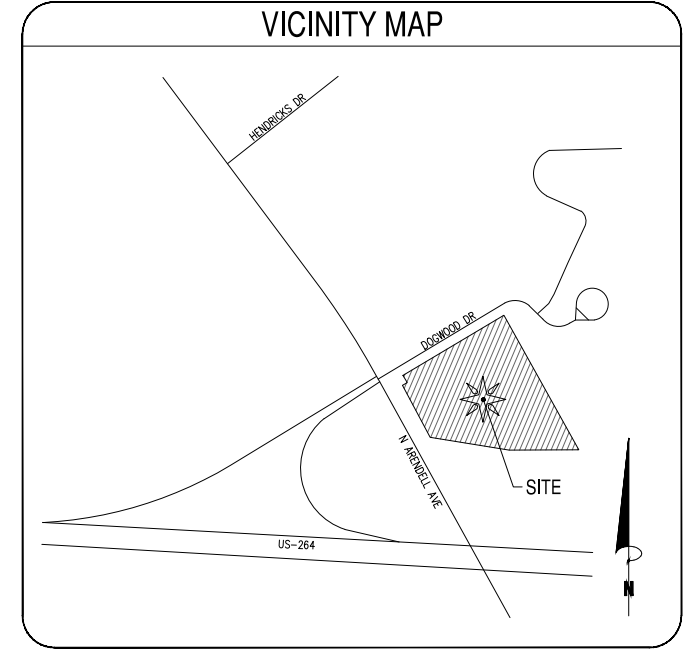
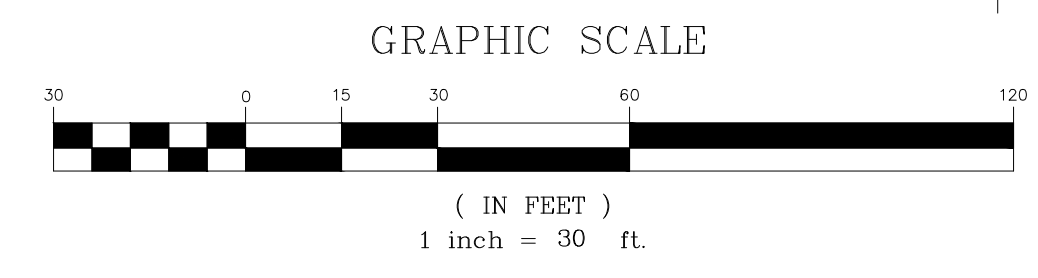
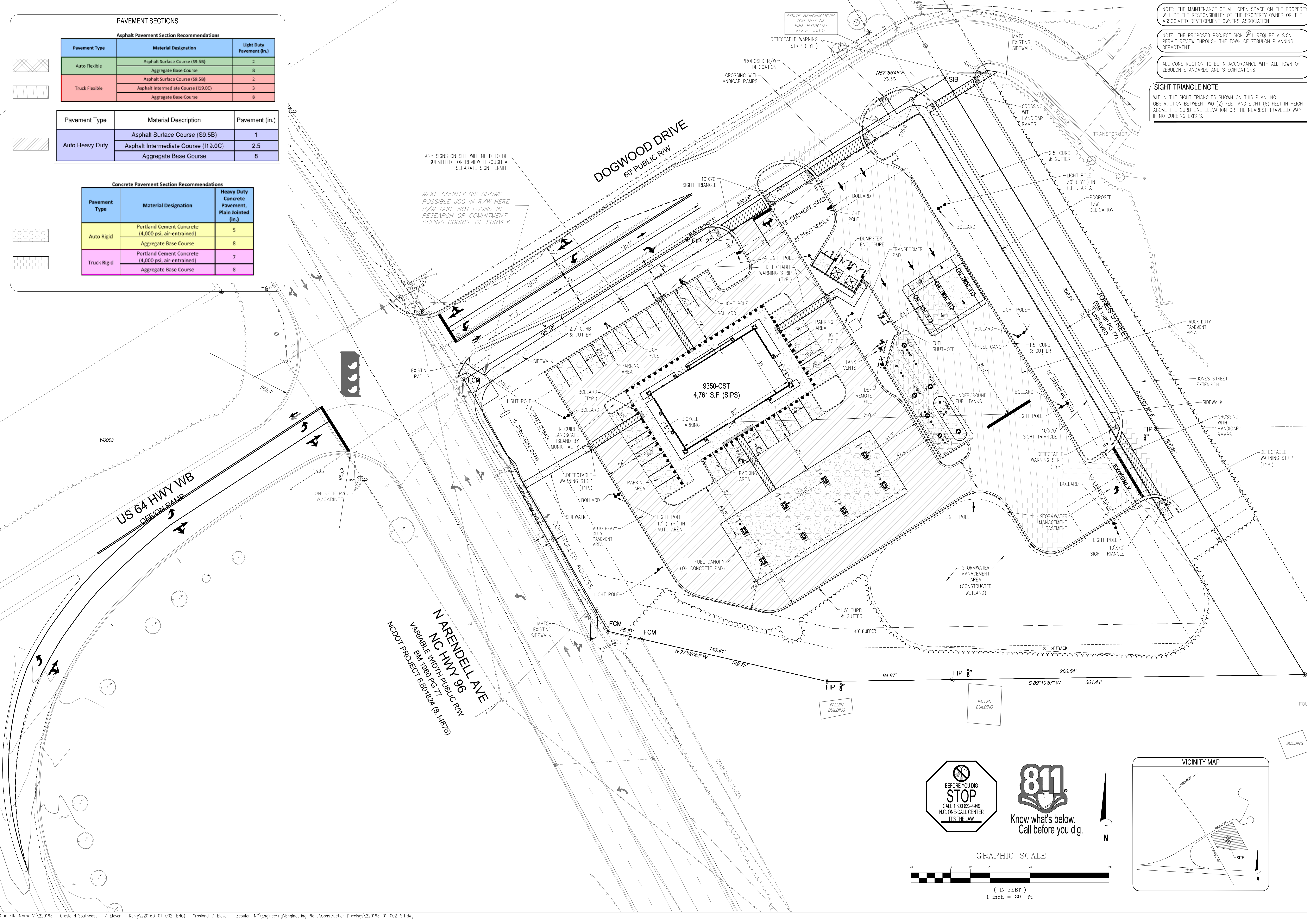
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 VERSION OR PROJECT ID: N/A

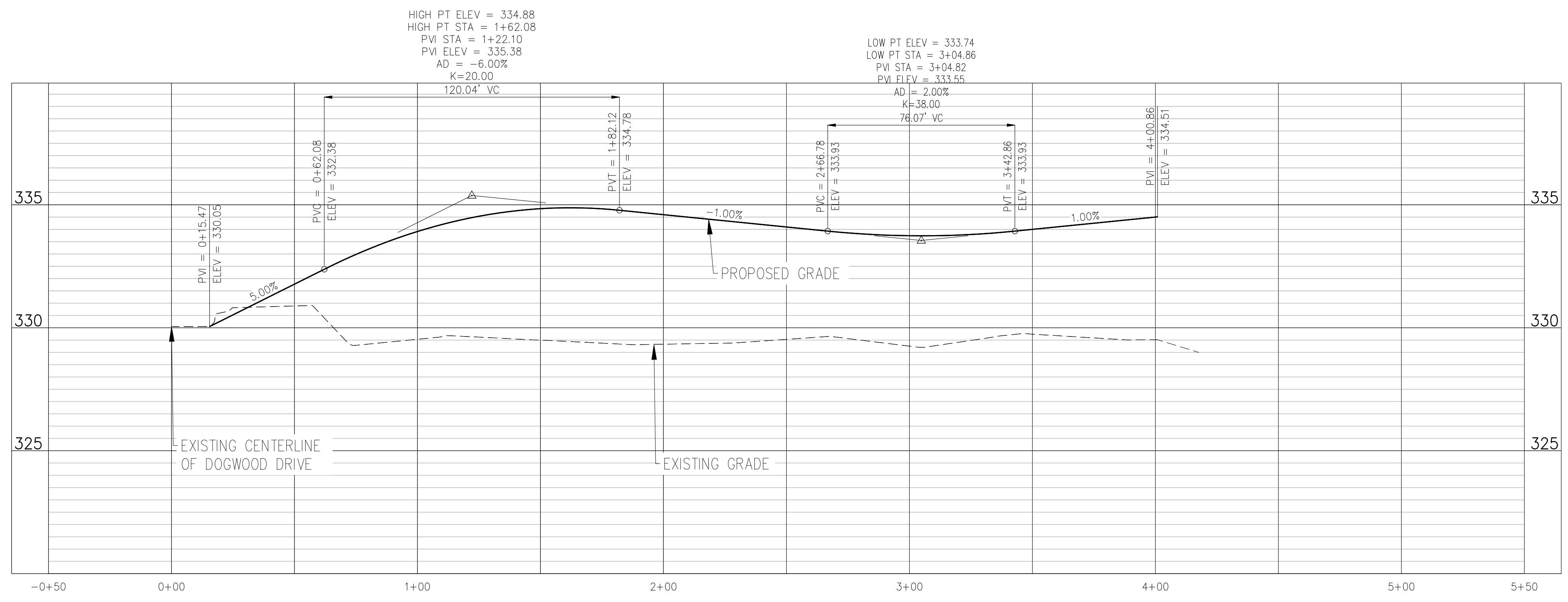
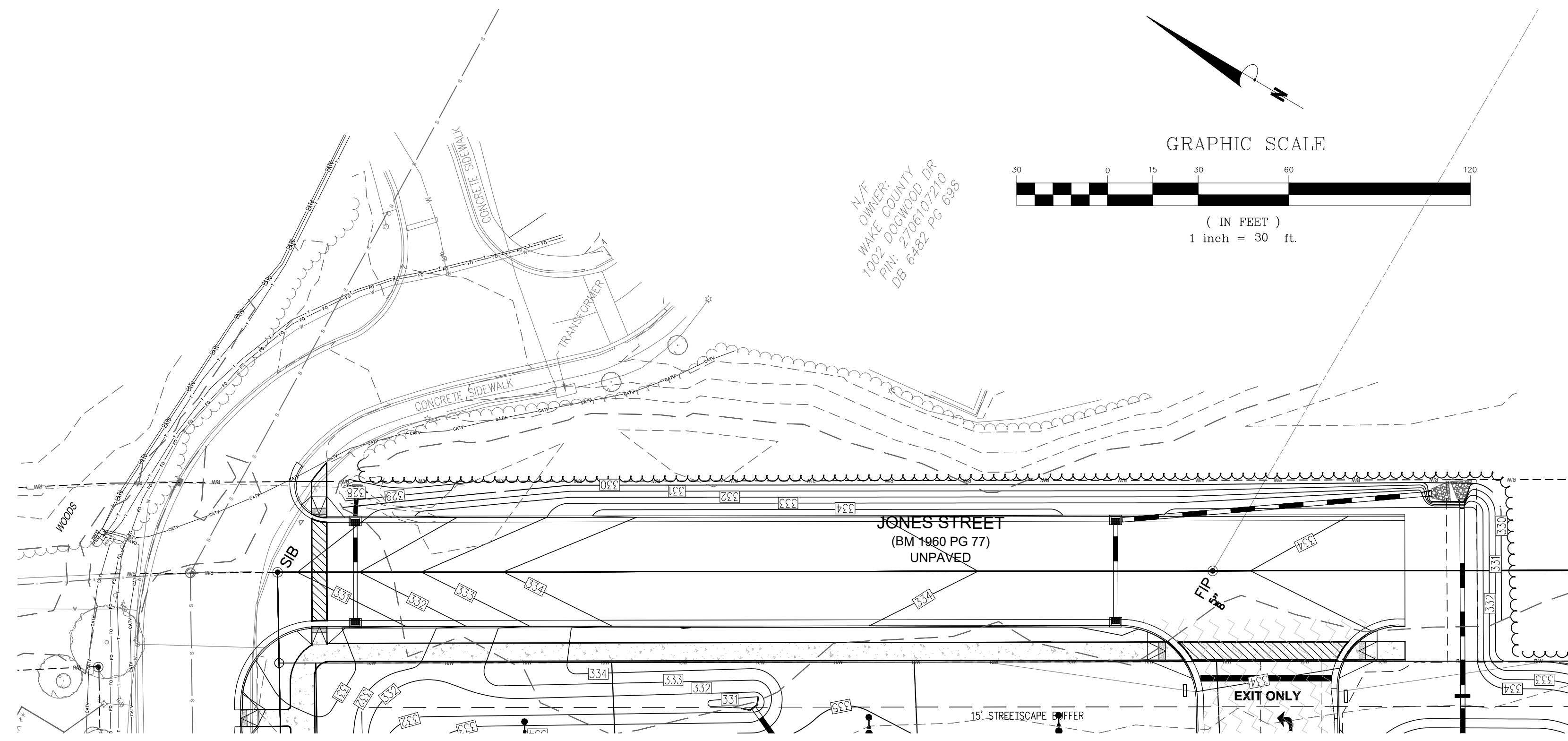
DESIGN TEAM
 DGNR: BRM & MCB
 PM/DP: ML
 RVWR: ML

ISSUE DATE: 1/18/2024
 ADDRESS
 1106 N ARENDELL AVE
 ZEBULON, NC 27587

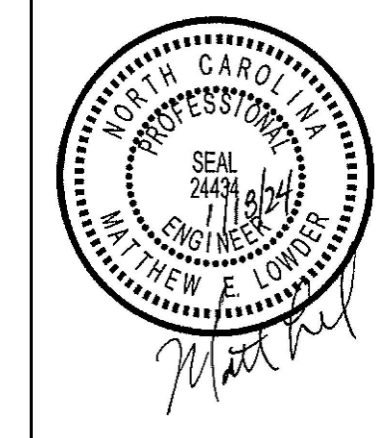
SHEET TITLE
PAVEMENT PLAN

DRWG. NO. **C3.1**

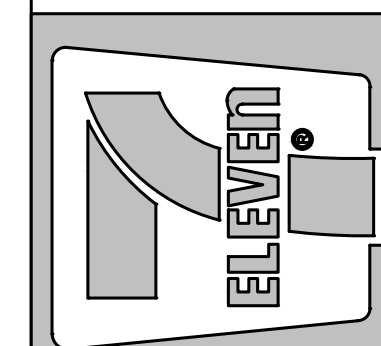




JONES STREET ROAD (1) PROFILE VIEW
 HORIZONTAL SCALE: 1"=30'
 VERTICAL SCALE: 1"=3'



Crosland Southeast
7-Eleven Store #42378
 Zebulon, NC
 WAKE COUNTY



MARK	REVISION BY	DATE	REVISION DESCRIPTION
1	BRM	12/22/23	TOWN OF ZEBULON REVIEW
2	BRM/MCB	12/29/23	TOWN OF ZEBULON REVIEW
3	MCB	1/22/24	WAKE COUNTY REVIEW
4	BRM/MCB	1/18/24	TOWN OF ZEBULON REVIEW

STORE OR BLDG NO.: N/A
 VERSION OR PROJECT ID: N/A
 DESIGN TEAM: DGNR, BRM & MCB
 PM/DP: ML
 RVWR: ML
 ISSUE DATE: 1/18/2024
 ADDRESS: 1106 N ARENDELL AVE, ZEBULON, NC 27587

SHEET TITLE: **ROADWAY PROFILE**
 DRWG. NO.: **C3.2**



SIGHT TRIANGLE NOTE

WITHIN THE SIGHT TRIANGLES SHOWN ON THIS PLAN, NO OBSTRUCTION BETWEEN TWO (2) FEET AND EIGHT (8) FEET IN HEIGHT ABOVE THE CURB LINE ELEVATION OR THE NEAREST TRAVELED WAY, IF NO CURBING EXISTS.

ALL CONSTRUCTION TO BE IN ACCORDANCE WITH ALL TOWN OF ZEBULON STANDARDS AND SPECIFICATIONS

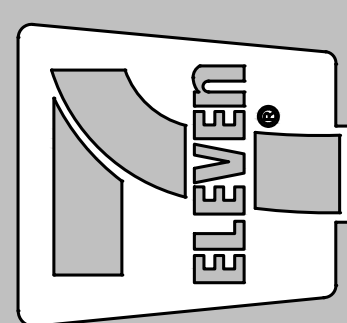
PAVEMENT LEGEND

- 1.5" ASPHALT OVERLAY (21,200± SF)
- NCDOT PAVEMENT AREA (9,000± SF)

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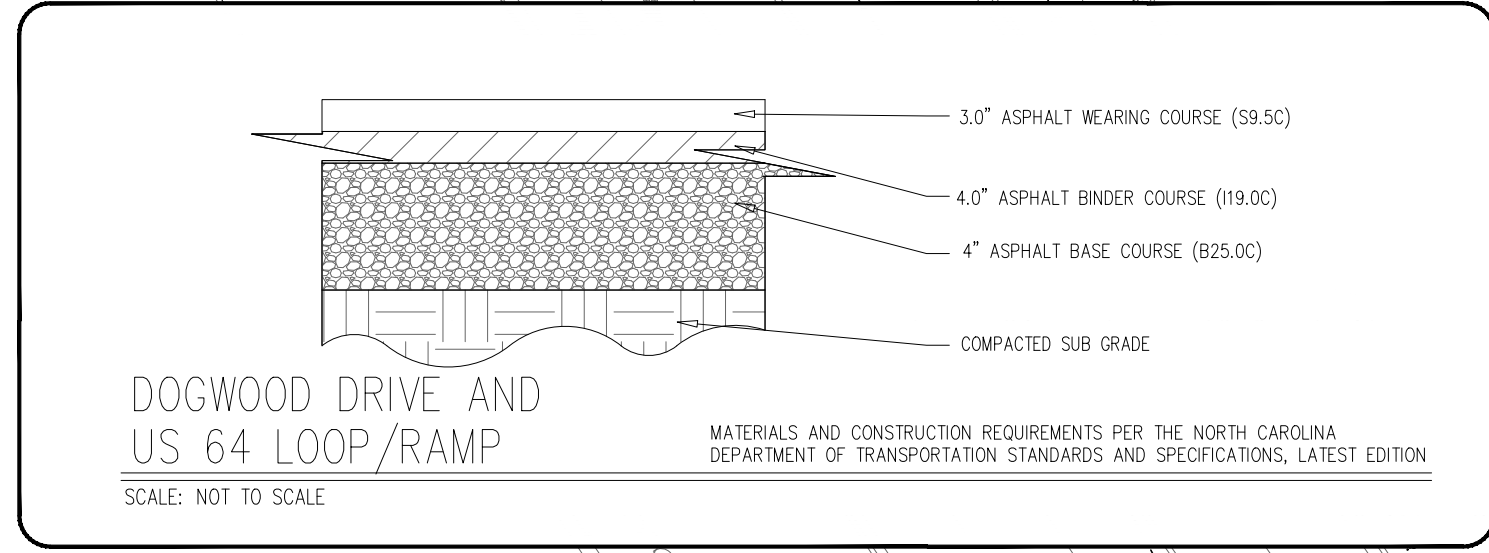
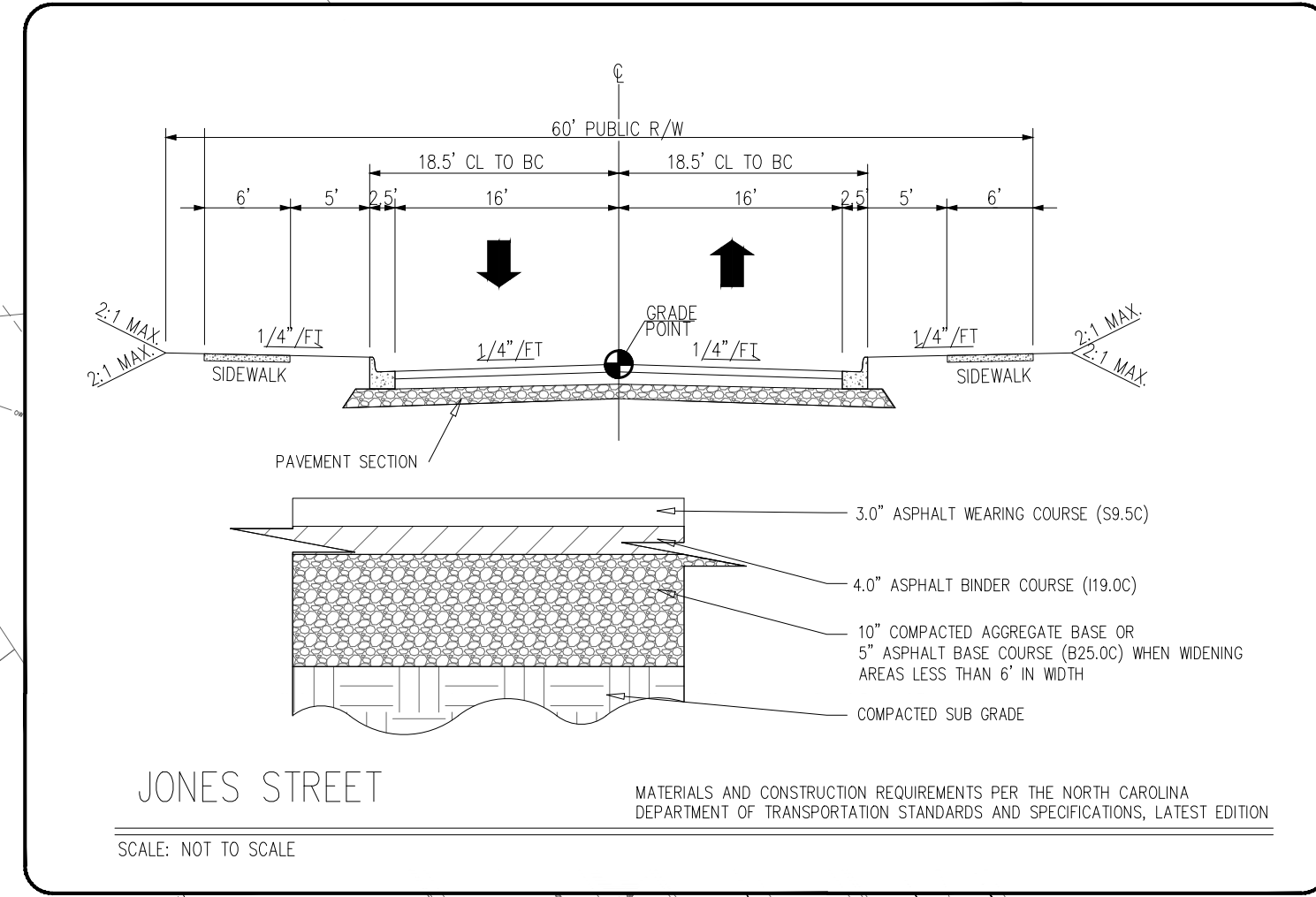
Crosland Southeast
 7-Eleven Store #42378
 Zebulon, NC
 WAKE COUNTY



MARK	REVISION	DATE	DESCRIPTION
1	BRM	02/23	TOWN OF ZEBULON REVIEW
2	BRM/MCB	02/23	TOWN OF ZEBULON REVIEW
3	MCB	02/23	WAKE COUNTY REVIEW
4	BRM/MCB	01/24	TOWN OF ZEBULON REVIEW

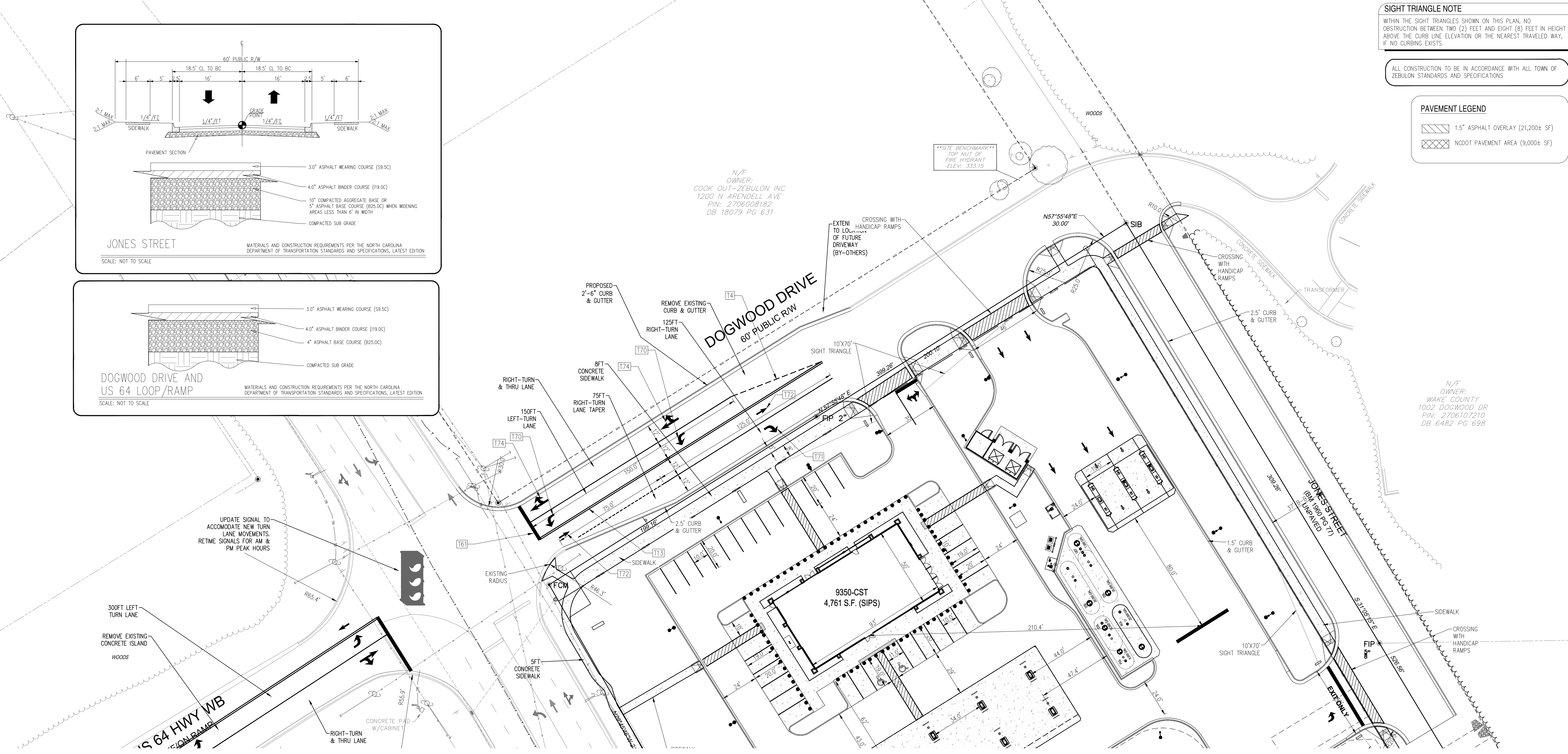
STORE OR BLDG NO.:
 N/A
 VERSION OR PROJECT ID:
 N/A
 DESIGN TEAM:
 DGNR, BRM & MCB
 PM/DP: ML
 RVWR: ML
 ISSUE DATE: 1/18/2024
 ADDRESS:
 1106 N ARENDELL AVE
 ZEBULON, NC 27597

SHEET TITLE:
ROADWAY PLAN (1 OF 2)
 DRWG. NO.:
C3.3



N/F OWNER:
 COOK OUT-ZEBULON INC
 1200 N ARENDELL AVE
 PIN: 2706008182
 DB 18079 PG 6.31

N/F OWNER:
 WAKE COUNTY
 1002 DOGWOOD DR
 PIN: 2706107210
 DB 6482 PG 698



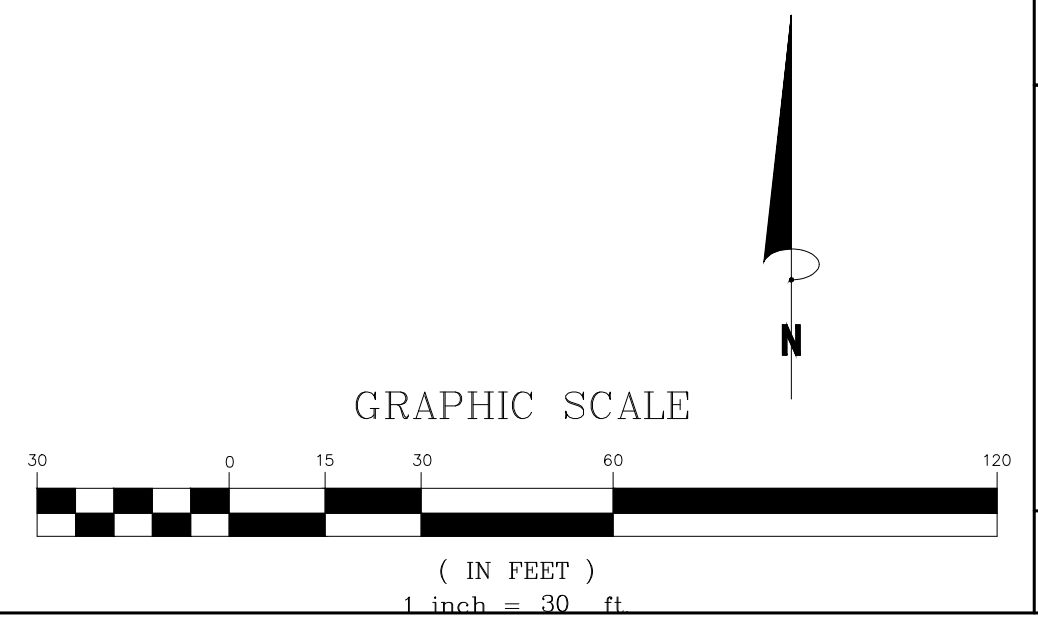
PAVEMENT MARKING SCHEDULE

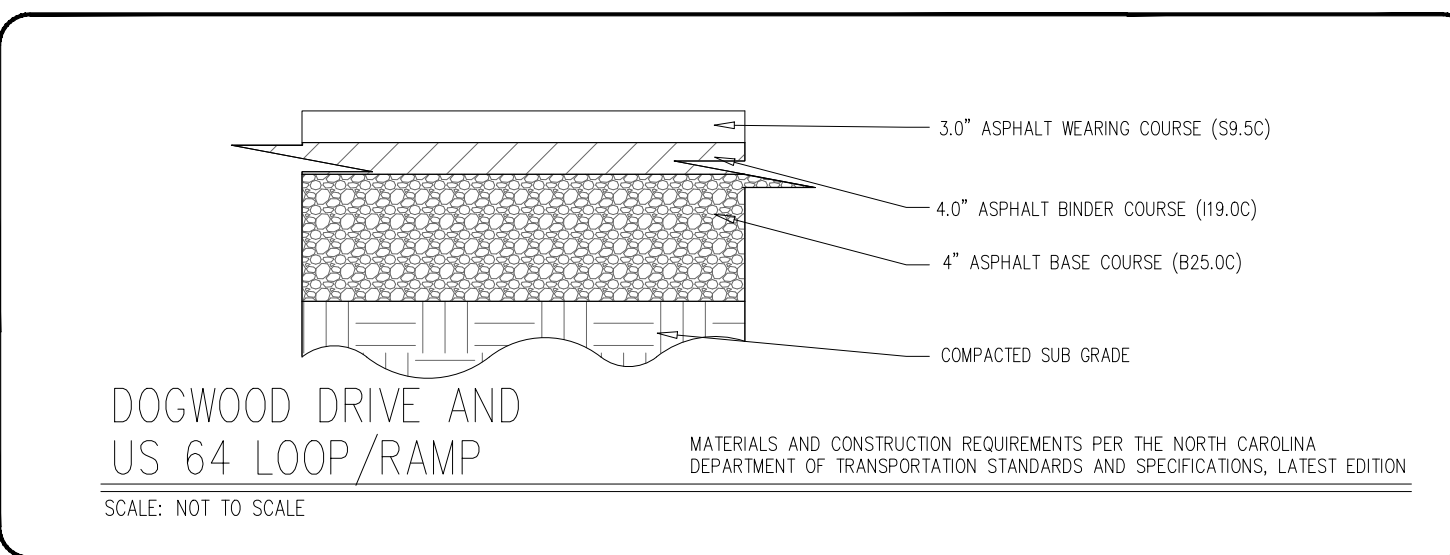
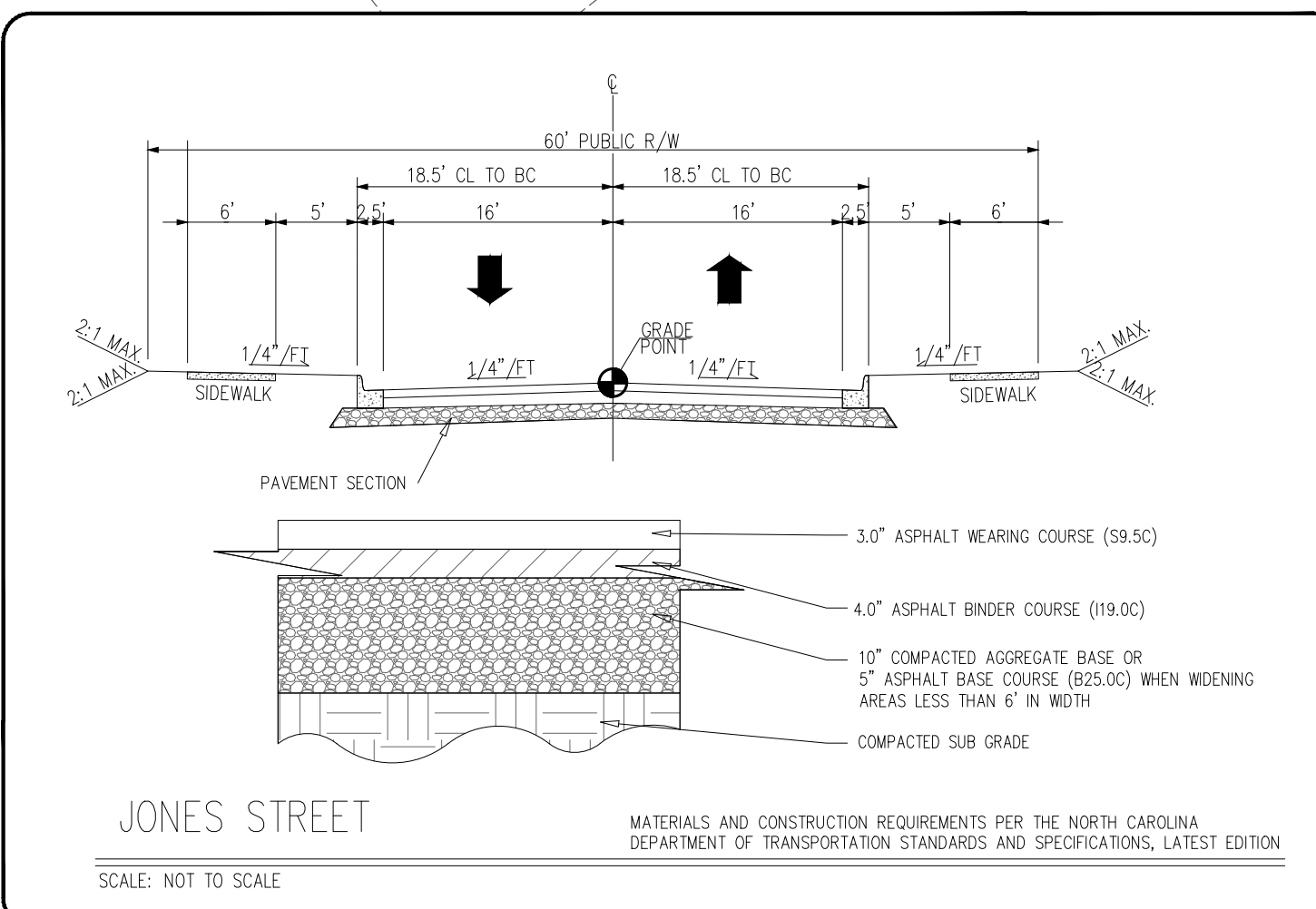
T1	WHITE EDGE LINE (4",90ML)	---
T13	DOUBLE YELLOW CENTERLINE (4",90ML)	====
T14	YELLOW SINGLE CENTER LINE (4",90ML)	----
T11	YELLOW SINGLE CENTER LINE (4",90ML)	----
T11	3" WHITE MIN-SHIP LINE (4",90ML)	----
T13	10" WHITE SHIP LINE (4",90ML)	----
T13	10" WHITE SHIP LINE (4",90ML)	----
T2	WHITE SOLID LANE LINE (4",90ML)	----
T70	LEFT TURN LANE ARROW (90ML)	→
T71	RIGHT TURN LANE ARROW (90ML)	↘
T72	STRAIGHT ARROW (90ML)	→
T73	COMBO LEFT/STRAIGHT TURN LANE ARROW (90ML)	→↘
T74	COMBO RIGHT/STRAIGHT TURN LANE ARROW (90ML)	↘→
T42	YELLOW DIAGONAL LINES (8",30ML)	///
T43	WHITE DIAGONAL LINES (8",30ML)	///
T14	3" YELLOW MIN-SHIP LINES (4",90ML)	----
T12	YELLOW SHIP CENTER LINES (4",90ML)	----
T12	STOP BAR (24",90ML)	—
T102	12" YIELD LINE SYMBOL (90ML)	▽

ALL PERMANENT PAVEMENT MARKINGS SHALL BE THERMOPLASTIC PER NCDOT REQUIREMENTS
 CONTRACTOR TO INSTALL MARKINGS PER NCDOT STANDARD MANUALS AND LOCATIONS TO BE COORDINATED WITH THESE DEPARTMENTS PRIOR TO FINAL INSTALLATION.

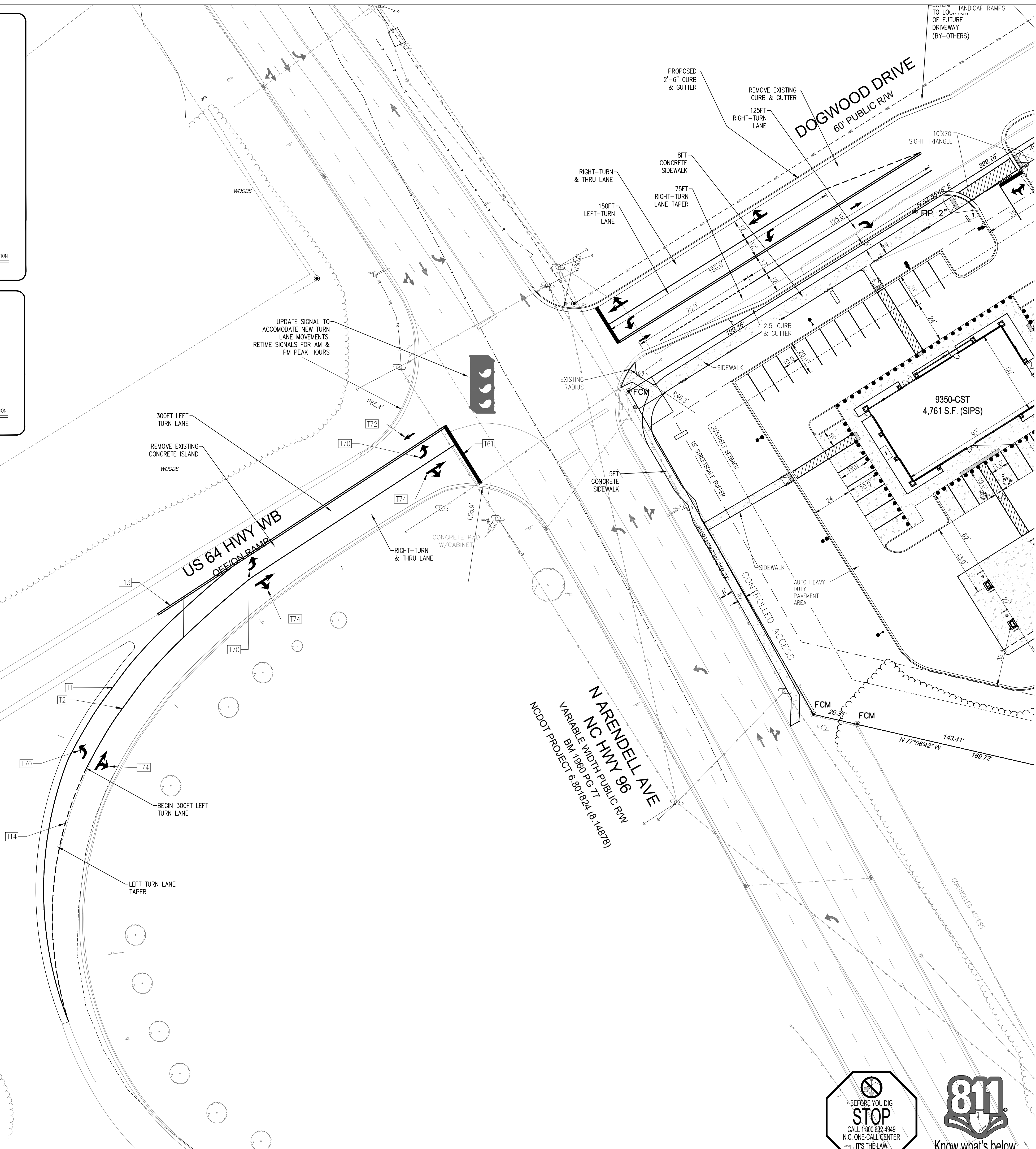
TRAFFIC CONTROL NOTES:
 THE DISTRICT OFFICE OF THE NORTH CAROLINA DEPARTMENT OF TRANSPORTATION (NCDOT) MUST BE NOTIFIED AT LEAST 24 HOURS PRIOR TO CONSTRUCTION.
 TRAFFIC MUST BE MAINTAINED AT ALL TIMES AND TRAFFIC CONTROL MUST COMPLY WITH THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) AND WITH THE CURRENT EDITION OF THE NCDOT STANDARDS AND SPECIFICATIONS.
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 DURING NON-WORKING HOURS, EQUIPMENT IS TO BE PARKED AS CLOSE TO THE RIGHT OF WAY LINE AS POSSIBLE AND BE PROPERLY BARRICADED IN ORDER TO PREVENT ANY EQUIPMENT OBSTRUCTION WITHIN THE TRAVEL LANE.
 ALL CONTRACTORS DOING WORK WITHIN STATE RIGHT OF WAY ARE TO HAVE A COPY OF THESE PLANS ON THE JOB SITE.
 WHEN PERSONNEL AND/OR EQUIPMENT ARE WITHIN 10' OF AN OPEN TRAVEL LANE, THE CONTRACTOR SHALL CLOSE THE OPEN TRAVEL LANE ADJACENT TO THE WORK AREA USING APPROPRIATE TRAFFIC CONTROL MEANS AND METHODS UNLESS WORK IN THAT AREA IS PROTECTED BY BARRIER OR GUARDRAIL.
 THE CONTRACTOR SHALL NOT WORK SIMULTANEOUSLY ON BOTH SIDES OF AN OPEN TRAVEL WAY WITHIN THE SAME LOCATION ON A TWO-LANE, TWO-WAY ROAD.
 THE MAXIMUM LENGTH OF A LANE CLOSURE ON THE PROJECT SHALL BE ONE MILE, MEASURED FROM THE BEGINNING OF THE MERGE TAPER TO THE END OF THE LANE CLOSURE.
 THE CONTRACTOR SHALL BACKFILL AT 6:1 SLOPE UP TO THE EDGE AND ELEVATION OF EXISTING PAVEMENT IN AREAS ADJACENT TO AN OPENED TRAVEL LANE THAT HAS A DROP-OFF OF MORE THAN 3".
 WHEN BACKFILL IS REQUIRED, IT SHALL BE AT NO EXPENSE TO THE OWNER.
 THE MAXIMUM DIFFERENCE IN ELEVATION BETWEEN OPEN LANES OF TRAFFIC SHALL BE 2".
 WHEN LANE CLOSURES ARE NOT IN EFFECT, CHANNELIZING DEVICES IN WORK AREAS SHALL BE SPACED NO GREATER THAN TWICE THE POSTED SPEED LIMIT, EXCEPT 10' ON-CENTER IN RADIUS, AND SHALL BE SET 3' OFF THE EDGE OF AN OPEN TRAVEL WAY.
 DURING INSTALLATION, PROPER TRAFFIC CONTROL DEVICES, SIGNS, ETC. BE INSTALLED TO ENSURE PUBLIC SAFETY IN ACCORDANCE WITH THE NORTH CAROLINA DEPARTMENT OF TRANSPORTATION'S STANDARDS AND SPECIFICATIONS
 ALL DISTURBED AREAS ARE TO BE FULLY RESTORED TO NCDOT MINIMUM ROADWAY STANDARDS.
 MATERIALS AND WORKMANSHIP SHALL CONFORM TO THE NCDOT ROADWAY STANDARDS AND SPECIFICATIONS (LATEST EDITION).

- NCDOT ROADWAY STANDARD DRAWINGS TO REFERENCE**
- 200.02 METHOD OF CLEARING - METHOD II
 - 225.02 GUIDE FOR GRADING SUBGRADE - SECONDARY & LOCAL
 - 300.01 METHOD OF PIPE INSTALLATION - METHOD "A"
 - 840.71 CONCRETE AND BRICK PIPE PLUG
 - 846.01 CONCRETE CURB, GUTTER AND CURB & GUTTER
 - 848.01 CONCRETE SIDEWALK
 - 848.05 WHEELCHAIR RAMP - CURB CUT
 - 852.01 CONCRETE ISLANDS
 - 876.02 GUIDE FOR RIP RAP AT PIPE OUTLETS
 - 1101.01 WORK ZONE ADVANCE WARNING SIGNS
 - 1101.02 TEMPORARY LANE CLOSURES
 - 1101.04 TEMPORARY SHOULDER CLOSURES
 - 1101.05 WORK ZONE VEHICLE ACCESSES
 - 1101.11 TRAFFIC CONTROL DESIGN TABLES
 - 1110.02 PORTABLE WORK ZONE SIGNS - MOUNTING HEIGHT & LATERAL CLEARANCE
 - 1115.01 FLASHING ARROW PANELS
 - 1130.01 DRUMS
 - 1135.01 CONES
 - 1145.01 BARRICADES - TYPES I, II, III AND PERMANENT
 - 1150.01 FLAGGERS
 - 1205.01 PAVEMENT MARKINGS - LINE TYPES & OFFSETS
 - 1205.02 PAVEMENT MARKINGS - DIVIDED & UNDIVIDED ROADWAYS
 - 1205.04 PAVEMENT MARKINGS - INTERSECTIONS
 - 1205.05 PAVEMENT MARKINGS TURN LANES
 - 1205.07 PAVEMENT MARKINGS PEDESTRIAN CROSSWALKS



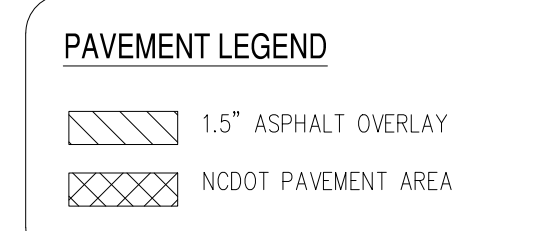


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 - 1205.04 PAVEMENT MARKINGS - INTERSECTIONS
 - 1205.05 PAVEMENT MARKINGS TURN LANES
 - 1205.07 PAVEMENT MARKINGS PEDESTRIAN CROSSWALKS



SIGHT TRIANGLE NOTE
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ALL CONSTRUCTION TO BE IN ACCORDANCE WITH ALL TOWN OF ZEBULON STANDARDS AND SPECIFICATIONS



PAVEMENT MARKING SCHEDULE

MARKING	DESCRIPTION	DATE REVISION	REVISION DESCRIPTION
T1	WHITE EDGE LINE (4",90ML) NCDOT STD DETAIL 1205.01		
T13	DOUBLE YELLOW CENTERLINE (4",90ML) NCDOT STD DETAIL 1205.01		
T11	YELLOW SINGLE CENTER LINE (4",90ML) NCDOT STD DETAIL 1205.01		
T4	3" WHITE MINI-SKIP LINE (4",90ML) NCDOT STD DETAIL 1205.01		
T3	10" WHITE SKIP LINE (4",90ML) NCDOT STD DETAIL 1205.01		
T2	WHITE SOLID LANE LINE (4",90ML) NCDOT STD DETAIL 1205.01		
T70	LEFT TURN LANE ARROW (90ML) NCDOT STD DETAIL 1205.08		
T71	RIGHT TURN LANE ARROW (90ML) NCDOT STD DETAIL 1205.08		
T72	STRAIGHT ARROW (90ML) NCDOT STD DETAIL 1205.08		
T73	COMBO LEFT/STRAIGHT TURN LANE ARROW (90ML) NCDOT STD DETAIL 1205.08		
T74	COMBO RIGHT/STRAIGHT TURN LANE ARROW (90ML) NCDOT STD DETAIL 1205.08		
T42	YELLOW DIAGONAL LINES (8",90ML) NCDOT STD DETAIL 1205.09		
T41	WHITE DIAGONAL LINES (8",90ML) NCDOT STD DETAIL 1205.09		
T14	3" YELLOW MINI-SKIP LINES (4",90ML) NCDOT STD DETAIL 1205.01		
T12	YELLOW SKIP CENTER LINES (4",90ML) NCDOT STD DETAIL 1205.01		
T6	STOP BAR (24",90ML) NCDOT STD DETAIL 1205.01		
T102	12" YIELD LINE SYMBOL (90ML) NCDOT STD DETAIL 1205.08 (THIS SHEET)		

ALL PERMANENT PAVEMENT MARKINGS SHALL BE THERMOPLASTIC PER NCDOT REQUIREMENTS

CONTRACTOR TO INSTALL MARKINGS PER NCDOT STANDARD MANUALS AND LOCATIONS TO BE COORDINATED WITH THESE DEPARTMENTS PRIOR TO FINAL INSTALLATION.

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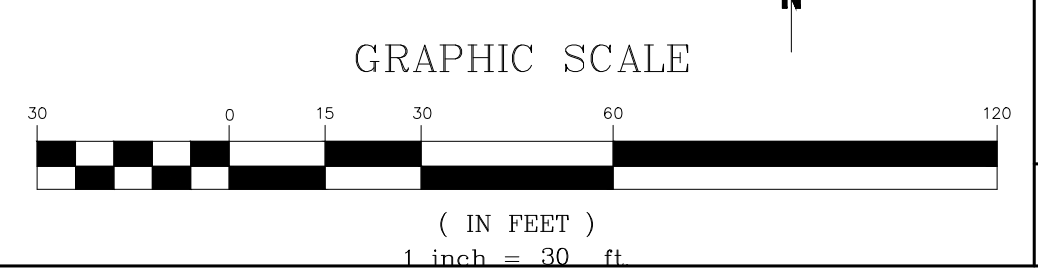
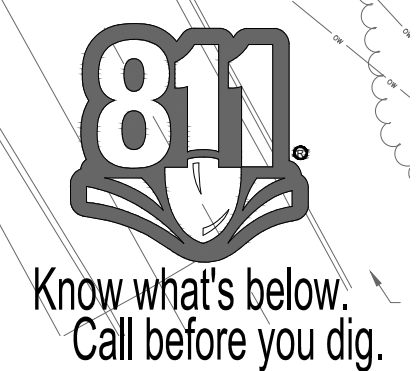
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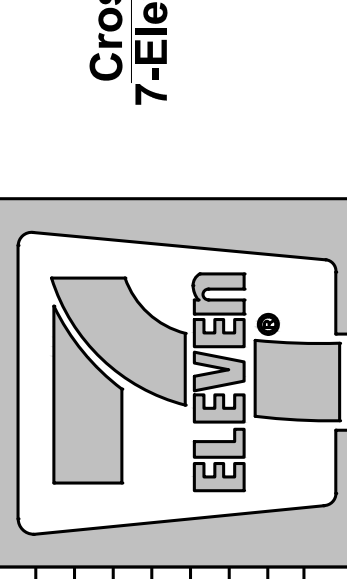
MATERIALS AND WORKMANSHIP SHALL CONFORM TO THE NCDOT ROADWAY STANDARDS AND SPECIFICATIONS (LATEST EDITION).



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 RALEIGH, NC 27609
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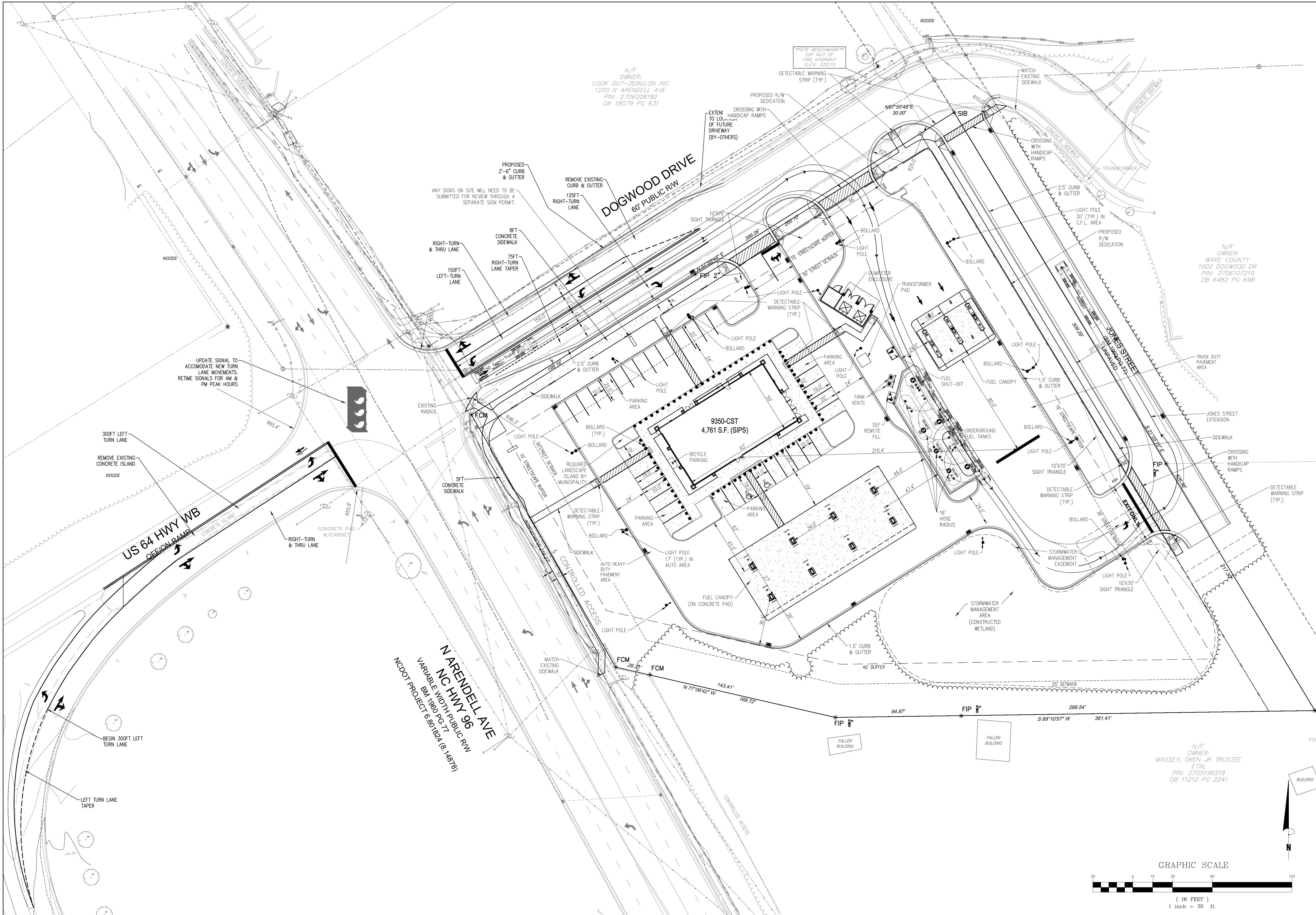
Crosland Southeast
 7-Eleven Store #42378
 Zebulon, NC
 WAKE COUNTY



MARK	REVISION	DATE	DESCRIPTION
1	BRM	12/22/23	TOWN OF ZEBULON REVIEW
2	BRM/MCB	12/25/23	TOWN OF ZEBULON REVIEW
3	MCB	12/21/23	WAKE COUNTY REVIEW
4	BRM/MCB	1/18/24	TOWN OF ZEBULON REVIEW

STORE OR BLDG NO.:
 N/A
 VERSION OR PROJECT ID:
 N/A
 DESIGN TEAM
 DGNR, BRM & MCB
 PM/DP: ML
 RWVR: ML
 ISSUE DATE: 1/18/2024
 ADDRESS
 1106 N ARENDELL AVE
 ZEBULON, NC 27587

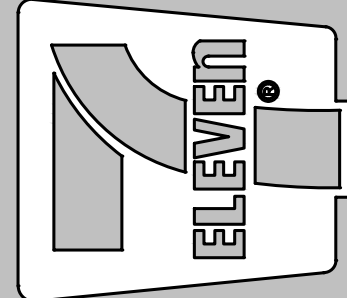
SHEET TITLE
ROADWAY PLAN (2 OF 2)
 DRWG. NO.
C3.4



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WAKE COUNTY



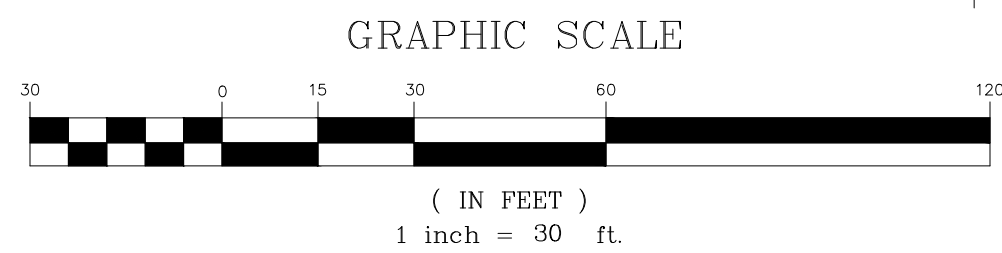
MARK	REVISION	DATE	REVISION DESCRIPTION
1	BRM	12/22/23	TOWN OF ZEBULON REVIEW
2	BRM/MCB	12/29/23	TOWN OF ZEBULON REVIEW
3	MCB	12/21/23	WAKE COUNTY REVIEW
4	BRM/MCB	11/8/24	TOWN OF ZEBULON REVIEW

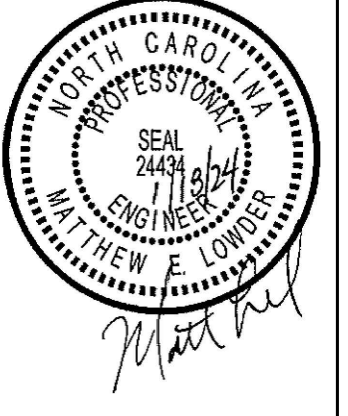
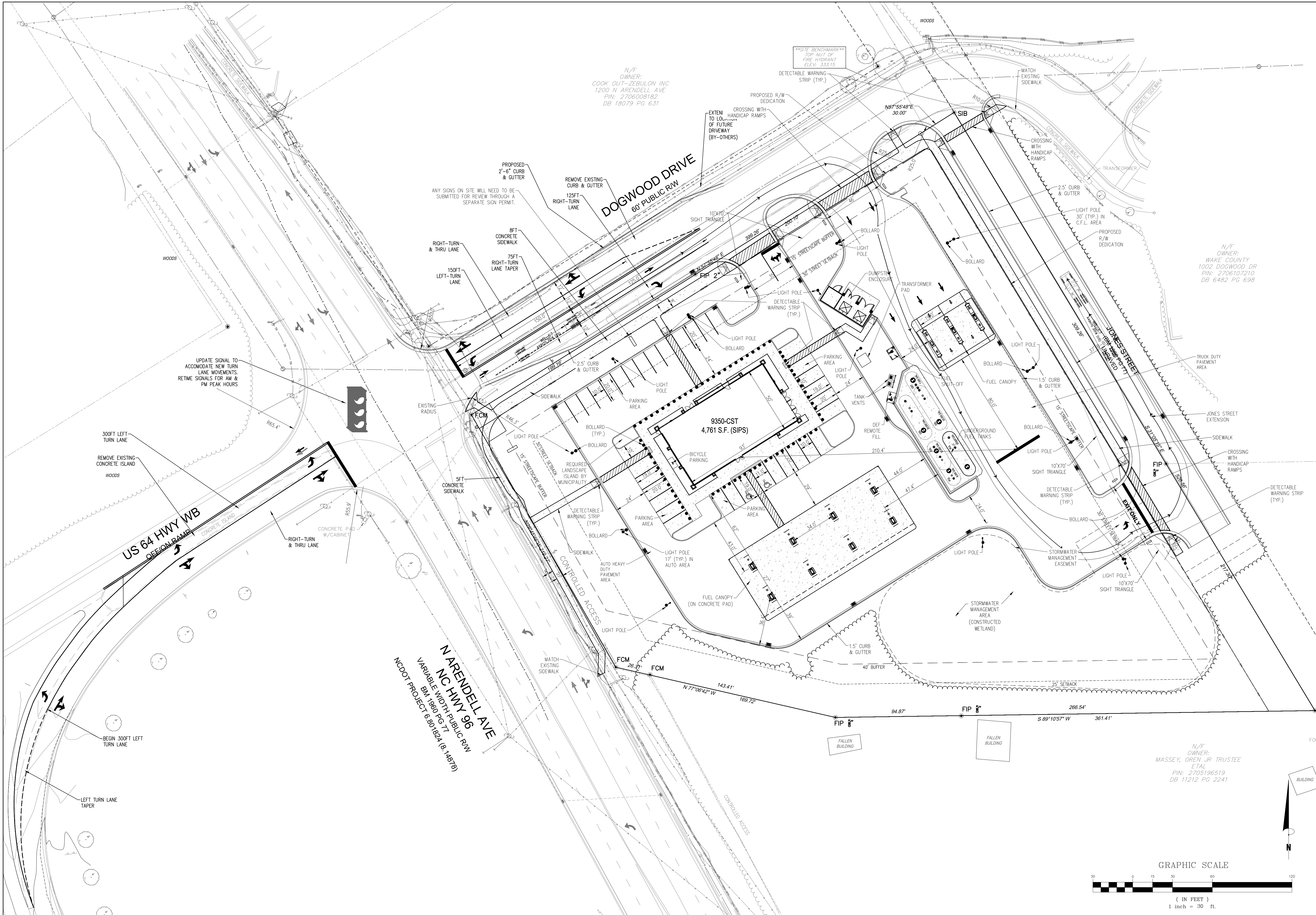
STORE OR BLDG NO.:
N/A
VERSION OR PROJECT ID:
N/A
DESIGN TEAM
DGNR, BRM & MCB
P.M./D.P. ML
R.V.V.R. ML
ISSUE DATE: 1/18/2024
ADDRESS

1106 N ARENDELL AVE
ZEBULON, NC 27587

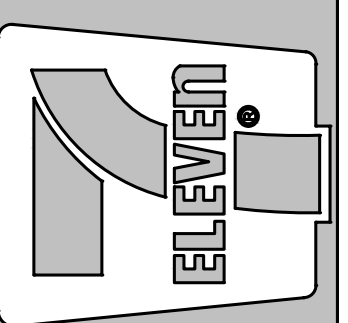
SHEET TITLE
TRUCK TURN PLAN (WB-50)

DRWG. NO.
C3.5





Crosland Southeast
7-Eleven Store #42378
Zebulon, NC
WAKE COUNTY



MARK	REVISION	DATE	REVISION DESCRIPTION
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2	BRM/MCB	12/29/23	TOWN OF ZEBULON REVIEW
3	MCB	1/22/24	WAKE COUNTY REVIEW
4	BRM/MCB	1/18/24	TOWN OF ZEBULON REVIEW

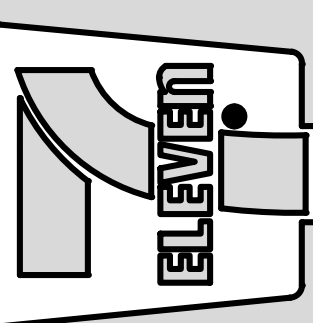
STORE OR BLDG NO.:	N/A
VERSION OR PROJECT ID:	N/A
DESIGN TEAM:	DGNR, BRM & MCB
PM/DP:	ML
RVWR:	ML
ISSUE DATE:	1/18/2024
ADDRESS:	1106 N ARENDELL AVE ZEBULON, NC 27587

SHEET TITLE
TRUCK TURN
PLAN (WB-67)

DRWG. NO.
C3.6



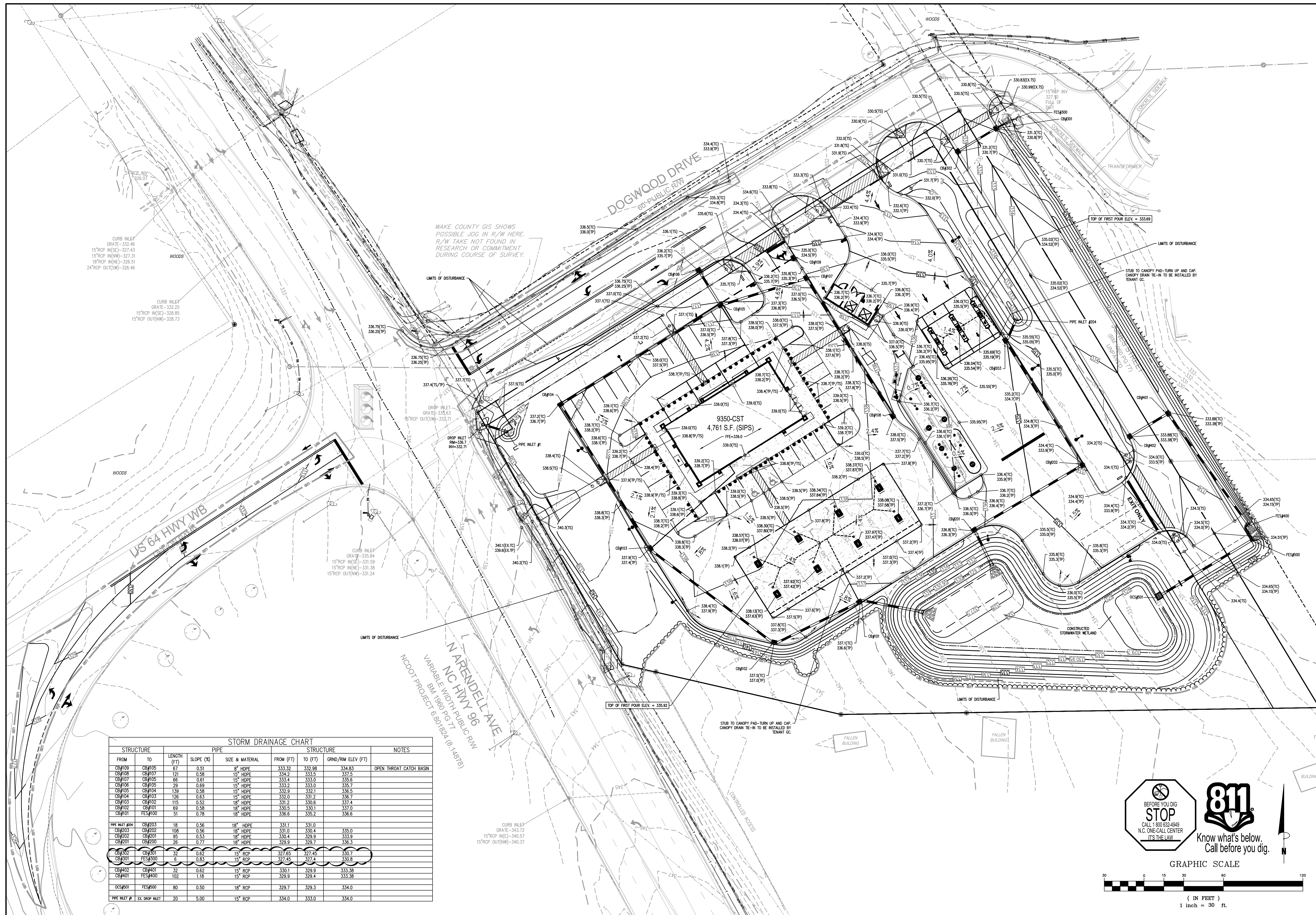
Crosland Southeast
7-Eleven Store #42378
Zebulon, NC
WAKE COUNTY



NO.	DATE	REVISION DESCRIPTION	DATE	REVISION DESCRIPTION
1	BRM	TOWN OF ZEBULON REVIEW		
2	BRM	TOWN OF ZEBULON REVIEW		
3	BRM	WAKE COUNTY REVIEW		
4	BRM	TOWN OF ZEBULON REVIEW		

STORE OR BLDG NO.: N/A
VERSION OR PROJECT ID: N/A
DESIGN TEAM: DGNR, BRM & MCB
PM/DP: ML
RVWR: ML
ISSUE DATE: 1/18/2024
ADDRESS: 1106 N ARENDELL AVE, ZEBULON, NC 27597

SHEET TITLE: **GRADING & DRAINAGE PLAN**
DRWG. NO.: **C4.0**



WAKE COUNTY GIS SHOWS POSSIBLE JOG IN R/W HERE. R/W TAKE NOT FOUND IN RESEARCH OR COMMITMENT DURING COURSE OF SURVEY.

US 64 HWY WB
CURB INLET GRATE=336.94
15" RCP IN(SE)=331.59
15" RCP IN(NW)=331.38
15" RCP OUT(NW)=331.24

N ARENDELL AVE
NC HWY 96
VARIABLE WIDTH PUBLIC R/W
BM 1990 PG 77
NCDOT PROJECT 801024 (S 14878)

STORM DRAINAGE CHART									
FROM	TO	LENGTH (FT)	SLOPE (%)	PIPE SIZE & MATERIAL	FROM (FT)	TO (FT)	GRND/RIM ELEV (FT)	NOTES	
CB#109	CB#105	67	0.51	8" HDPE	333.32	332.98	334.83	OPEN THROAT CATCH BASIN	
CB#108	CB#107	121	0.58	15" HDPE	334.2	333.5	337.5		
CB#107	CB#105	66	0.61	15" HDPE	333.4	333.0	335.6		
CB#106	CB#105	29	0.69	15" HDPE	333.2	333.0	335.7		
CB#105	CB#104	139	0.58	15" HDPE	332.9	332.1	336.5		
CB#104	CB#103	126	0.63	15" HDPE	332.0	331.2	336.7		
CB#103	CB#102	115	0.52	18" HDPE	331.2	330.6	337.4		
CB#102	CB#101	69	0.58	18" HDPE	330.5	330.1	337.0		
CB#101	FES#100	51	0.78	18" HDPE	330.6	330.2	336.6		
PIPE INLET #204	CB#203	18	0.56	18" HDPE	331.1	331.0			
CB#203	CB#202	108	0.56	18" HDPE	331.0	330.4	335.0		
CB#202	CB#201	95	0.53	18" HDPE	330.4	329.9	333.9		
CB#201	CB#200	26	0.77	18" HDPE	329.9	329.3	336.3		
CB#200	CB#101	32	0.62	15" RCP	327.65	327.45	330.7		
CB#201	FES#300	6	0.83	15" RCP	327.45	327.4	330.8		
CB#102	CB#401	32	0.62	15" RCP	330.1	329.9	333.38		
CB#401	FES#400	102	1.18	15" RCP	329.9	329.4	333.38		
OC#501	FES#500	80	0.50	18" RCP	329.7	329.3	334.0		
PIPE INLET #1	EX. DROP INLET	20	5.00	15" RCP	334.0	333.0	334.0		

811
BEFORE YOU DIG STOP
CALL 1 800 632-4949
N.C. ONE-CALL CENTER
IT'S THE LAW

Know what's below.
Call before you dig.

GRAPHIC SCALE
0 15 30 60 90 120
(IN FEET)
1 inch = 30 ft.

GRADING NOTES:

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

DRAINAGE NOTES:

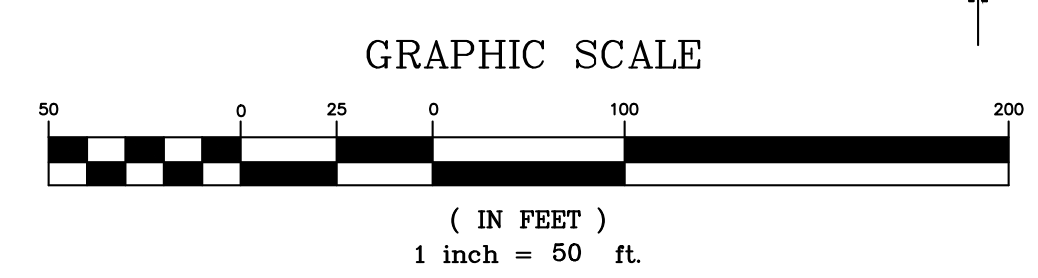
- A MINIMUM GRADE OF 0.50 % SHALL BE MAINTAINED ON ALL PIPES, UNLESS OTHERWISE NOTED.
- PIPE LENGTHS AND SLOPES INDICATED ON THE PLANS ARE APPROXIMATE ONLY.
- UNDERGROUND UTILITY LINES SHALL BE INSTALLED IN ACCORDANCE WITH THE FOLLOWING STANDARDS IN ADDITION TO OTHER APPLICABLE CRITERIA:
 - A. NO MORE THAN 500 LF OF TRENCH MAY BE OPENED AT ONE TIME.
 - B. EXCAVATED MATERIAL SHALL BE PLACED ON THE UPHILL SIDE OF TRENCHES.
 - C. EFFLUENT FROM DEWATERING OPERATIONS SHALL BE FILTERED OR PASSED THROUGH AN APPROVED SEDIMENT TRAPPING DEVICE, OR BOTH, AND DISCHARGED IN A MANNER THAT DOES NOT ADVERSELY AFFECT FLOWING STREAMS OR OFF-SITE PROPERTY.
 - D. MATERIAL USED FOR BACK-FILLING TRENCHES SHALL BE PROPERLY COMPACTED IN ORDER TO MINIMIZE EROSION AND PROMOTE STABILIZATION.
 - E. RESTABILIZATION SHALL BE ACCOMPLISHED IN ACCORDANCE WITH THE EROSION AND SEDIMENT CONTROL REGULATIONS.
 - F. APPLICABLE SAFETY REGULATIONS SHALL BE COMPLIED WITH.
- CATCH BASINS, MANHOLES, FRAMES, GRATES, ETC. SHALL MEET THE REQUIREMENTS OF THE LATEST EDITION OF THE TOWN OF ZEBULON STANDARD DRAWINGS AND SPECIFICATIONS.
- ALL PIPES SHALL BE LAID ON STRAIGHT ALIGNMENTS AND EVEN GRADES USING A PIPE LASER OR OTHER ACCURATE METHOD.
- STORM PIPE SHALL BE AS FOLLOW UNLESS OTHERWISE NOTED:
 - TYPE 1: RCP, CLASS III PER ASTM C-76, WITH FLEXIBLE PLASTIC BITUMEN GASKETS AT JOINTS.
 - TYPE 2: HIGH DENSITY POLYETHYLENE PIPE (HDPE) – AASHTO DESIGNATION M252 TYPE S, M294 TYPE S AND MP7-97 TYPE S, SMOOTH INTERIOR/ANNULAR EXTERIOR. ONLY PERMITTED WHEN SPECIFICALLY INDICATED ON THE CONSTRUCTION DRAWINGS. PIPE SHALL BE INSTALLED IN ACCORDANCE WITH PIPE MANUFACTURER'S INSTALLATION GUIDELINES. PIPE JOINTS AND FITTINGS SHALL BE WATERTIGHT.
- ALL STORM DRAINAGE WITHIN THE PUBLIC ROADS SHALL BE CLASS III REINFORCED CONCRETE PIPE UNLESS OTHERWISE NOTED.
- EXISTING DRAINAGE STRUCTURES TO BE INSPECTED AND REPAIRED AS NEEDED, AND EXISTING PIPES TO BE CLEANED OUT TO REMOVE SILT AND DEBRIS.
- IF ANY EXISTING STRUCTURES TO REMAIN ARE DAMAGED DURING CONSTRUCTION IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO REPAIR AND/OR REPLACE THE EXISTING STRUCTURE AS NECESSARY TO RETURN IT TO EXISTING CONDITIONS OR BETTER.
- ALL STORM PIPE ENTERING STRUCTURES SHALL BE GROUTED TO ASSURE CONNECTION AT STRUCTURE IS WATERTIGHT.
- PRECAST STRUCTURES MAYBE USED AT CONTRACTORS OPTION.
- ALL STORM SEWER MANHOLES IN PAVED AREAS SHALL BE FLUSH WITH PAVEMENT, AND SHALL HAVE TRAFFIC BEARING RING & COVERS. MANHOLES IN UNPAVED AREAS SHALL BE 6" ABOVE FINISH GRADE. LIDS SHALL BE LABELED "STORM SEWER".
- STRUCTURE TOP ELEVATIONS SHOWN HERE ARE APPROXIMATE. CONTRACTOR SHALL ADJUST AS NECESSARY.
- RIM ELEVATIONS AS NOTED ARE TO THE GUTTER FLOW LINE.

MARK	REVISION	DATE	REVISION DESCRIPTION
1	BRM	02/23	TOWN OF ZEBULON REVIEW
2	BRM/MCB	02/23	TOWN OF ZEBULON REVIEW
3	MCB	02/23	WAKE COUNTY REVIEW
4	BRM/MCB	01/24	TOWN OF ZEBULON REVIEW

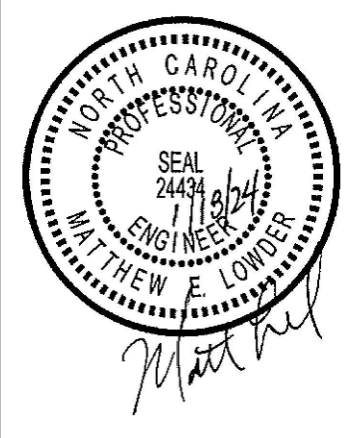
ALL CONSTRUCTION TO BE IN ACCORDANCE WITH ALL TOWN OF ZEBULON STANDARDS AND SPECIFICATIONS



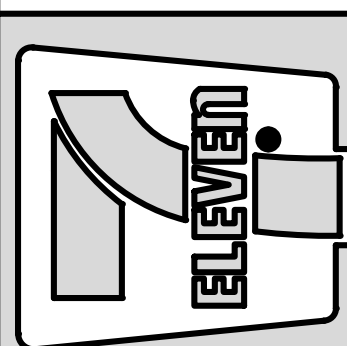
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7-Eleven Store #42378
Zebulon, NC
WAKE COUNTY



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STORE OR BLDG NO.:
N/A
VERSION OR PROJECT ID:
N/A
DESIGN TEAM
DGNR, BRM & MCB
PM, DP: ML
RVWR: ML
ISSUE DATE: 1/18/2024
ADDRESS
1106 N ARENDELL AVE
ZEBULON, NC 27587

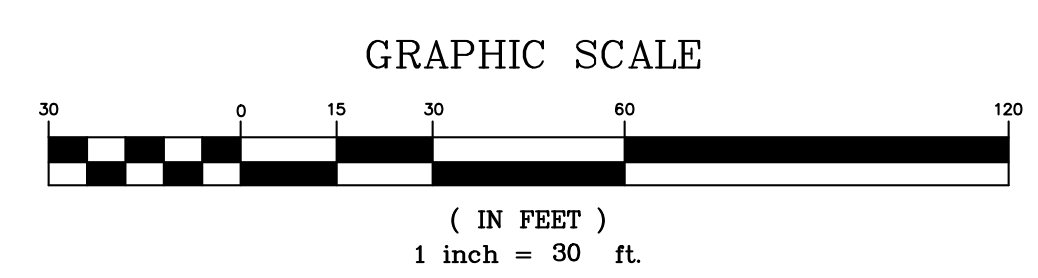
SHEET TITLE
GRADING & DRAINAGE NOTES
DRWG. NO.
C4.1



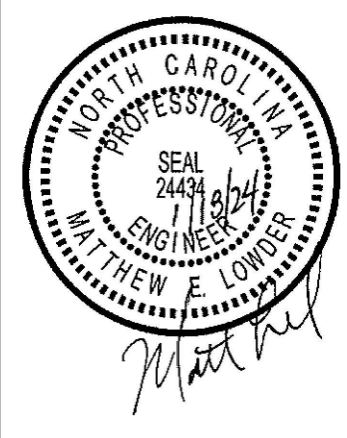
CUT/FILL REPORT

Volume Summary							
Name	Type	Cut Factor	Fill Factor	2d Area (Sq. Ft.)	Cut (Cu. Yd.)	Fill (Cu. Yd.)	Net (Cu. Yd.)
CUT-FILL	full	1.00	1.15	168845.47	6104.29	9645.98*	3541.68*
Totals				2d Area (Sq. Ft.)	Cut (Cu. Yd.)	Fill (Cu. Yd.)	Net (Cu. Yd.)
Total				168845.47	6104.29	9645.98*	3541.68*

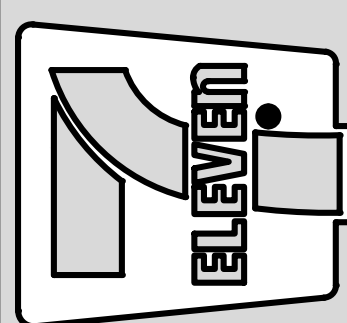
* Value adjusted by cut or fill factor other than 1.0



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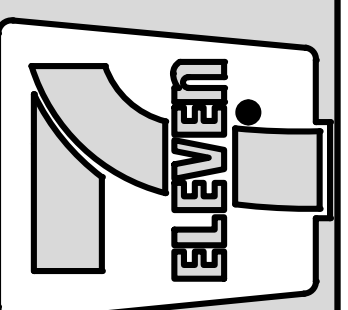


NO.	DATE	REVISION DESCRIPTION	DATE	REVISION DESCRIPTION
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2	BRN/MB	TOWN OF ZEBULON REVIEW		
3	MB	WAKE COUNTY REVIEW		
4	BRN/MB	TOWN OF ZEBULON REVIEW		

STORE OR BLDG NO.:
N/A
VERSION OR PROJECT ID:
N/A
DESIGN TEAM:
DGNR, BRM & MCB
PM/DP, ML
RVWR, ML
ISSUE DATE: 1/18/2024
ADDRESS:
1106 N ARENDELL AVE
ZEBULON, NC 27587

SHEET TITLE
CUT/FILL ANALYSIS PLAN

DRWG. NO.
C4.2



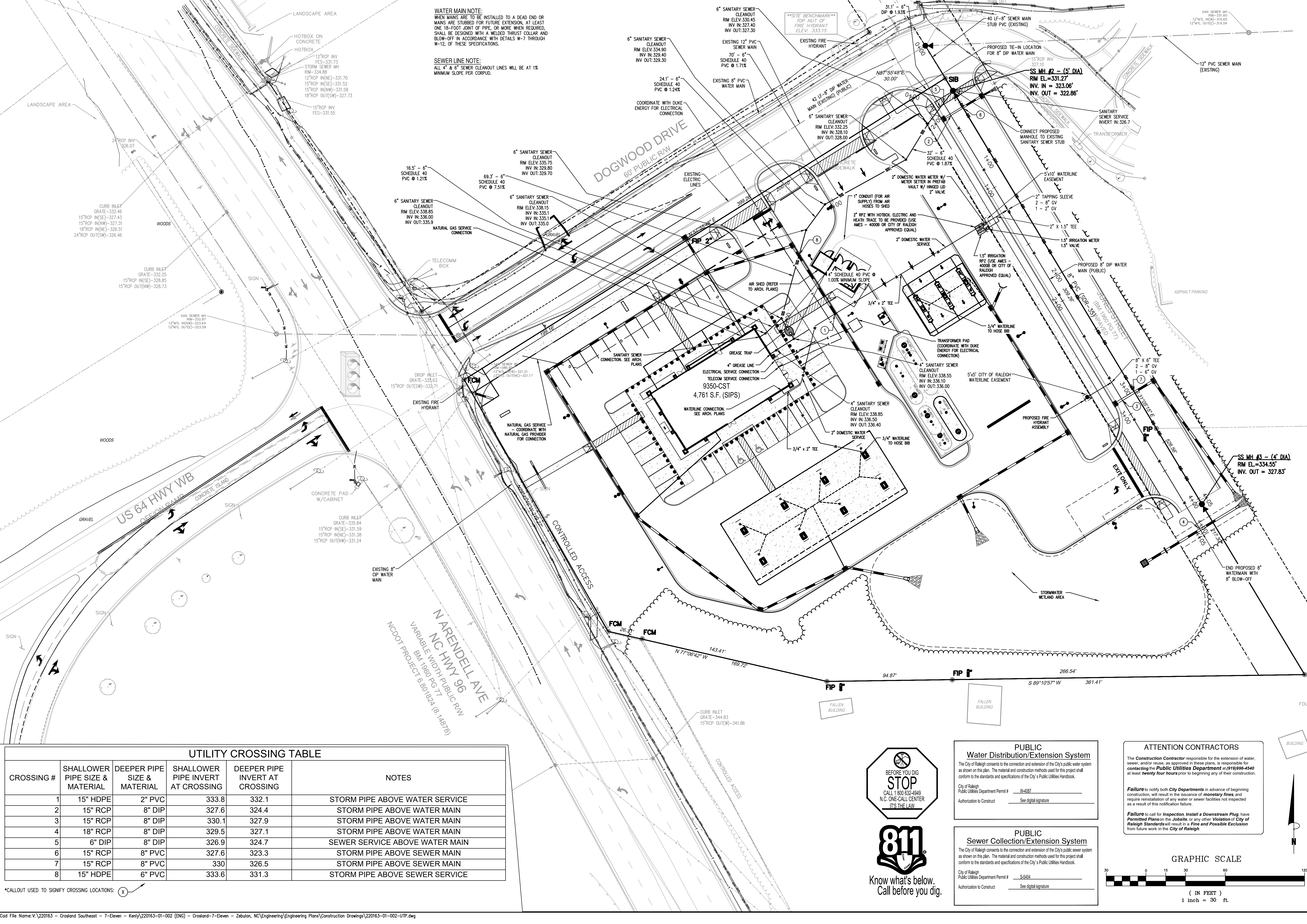
NO.	DATE	REVISION DESCRIPTION	DATE	REVISION DESCRIPTION
1	02/23/2023	TOWN OF ZEBULON REVIEW		
2	02/23/2023	TOWN OF ZEBULON REVIEW		
3	02/23/2023	WAKE COUNTY REVIEW		
4	02/23/2023	TOWN OF ZEBULON REVIEW		

STORE OR BLDG NO.: N/A
VERSION OR PROJECT ID: N/A

DESIGN TEAM
DGNR: BRM & MCB
PM/DP: ML
RVWR: ML
ISSUE DATE: 1/18/2024
ADDRESS
1106 N ARENDELL AVE
ZEBULON, NC 27587

SHEET TITLE
UTILITY PLAN

DRWG. NO.
C5.0

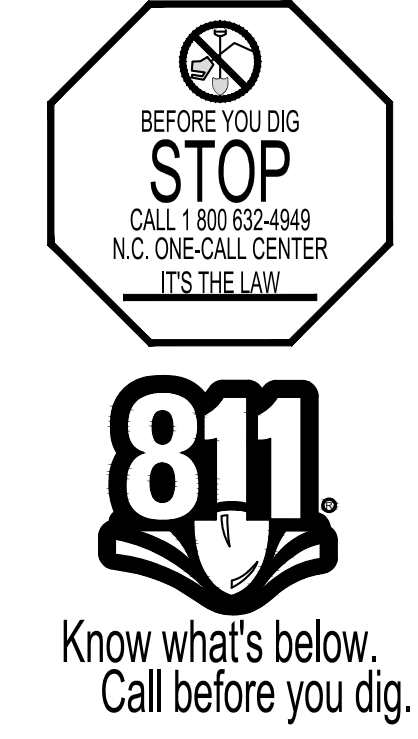


WATER MAIN NOTE:
WHEN MAINS ARE TO BE INSTALLED TO A DEAD END OR MAINS ARE STUBBED FOR FUTURE EXTENSION, AT LEAST ONE 18-FOOT JOINT OF PIPE, OR MORE WHEN REQUIRED, SHALL BE DESIGNED WITH A WELDED THRUST COLLAR AND BLOW-OFF IN ACCORDANCE WITH DETAILS W-7 THROUGH W-12, OF THESE SPECIFICATIONS.

SEWER LINE NOTE:
ALL 4" & 6" SEWER CLEANOUT LINES WILL BE AT 1% MINIMUM SLOPE PER CORPUS.

CROSSING #	SHALLOWER PIPE SIZE & MATERIAL	DEEPER PIPE SIZE & MATERIAL	SHALLOWER PIPE INVERT AT CROSSING	DEEPER PIPE INVERT AT CROSSING	NOTES
1	15" HDPE	2" PVC	333.8	332.1	STORM PIPE ABOVE WATER SERVICE
2	15" RCP	8" DIP	327.6	324.4	STORM PIPE ABOVE WATER MAIN
3	15" RCP	8" DIP	330.1	327.9	STORM PIPE ABOVE WATER MAIN
4	18" RCP	8" DIP	329.5	327.1	STORM PIPE ABOVE WATER MAIN
5	6" DIP	8" DIP	326.9	324.7	SEWER SERVICE ABOVE WATER MAIN
6	15" RCP	8" PVC	327.6	323.3	STORM PIPE ABOVE SEWER MAIN
7	15" RCP	8" PVC	330	326.5	STORM PIPE ABOVE SEWER MAIN
8	15" HDPE	6" PVC	333.6	331.3	STORM PIPE ABOVE SEWER SERVICE

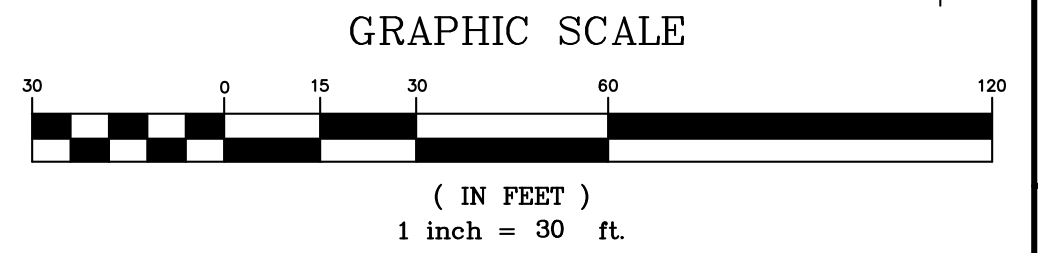
*CALLOUT USED TO SIGNIFY CROSSING LOCATIONS: (X)



PUBLIC Water Distribution/Extension System
The City of Raleigh consents to the connection and extension of the City's public water system as shown on this plan. The material and construction methods used for this project shall conform to the standards and specifications of the City's Public Utilities Handbook.
City of Raleigh Public Utilities Department Permit # W-4987
Authorization to Construct See digital signature

PUBLIC Sewer Collection/Extension System
The City of Raleigh consents to the connection and extension of the City's public sewer system as shown on this plan. The material and construction methods used for this project shall conform to the standards and specifications of the City's Public Utilities Handbook.
City of Raleigh Public Utilities Department Permit # S-5404
Authorization to Construct See digital signature

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 reinstatement 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.



Project Water System Data:

- 1. Are the total # domestic water services ≥ 15, OR the total # people served ≥ 25? Yes/No
2. Type of development? (select one)
- Commercial property
- Residential Condominiums/ Townhomes
- Residential Apartments
3. NOTE: permitting by City of Raleigh on projects having ≥ 15 domestic water services, OR serving ≥ 25 people, requires Developer NOT to re-sell water (or must have a WR designation from NCUC for Apartment projects only)

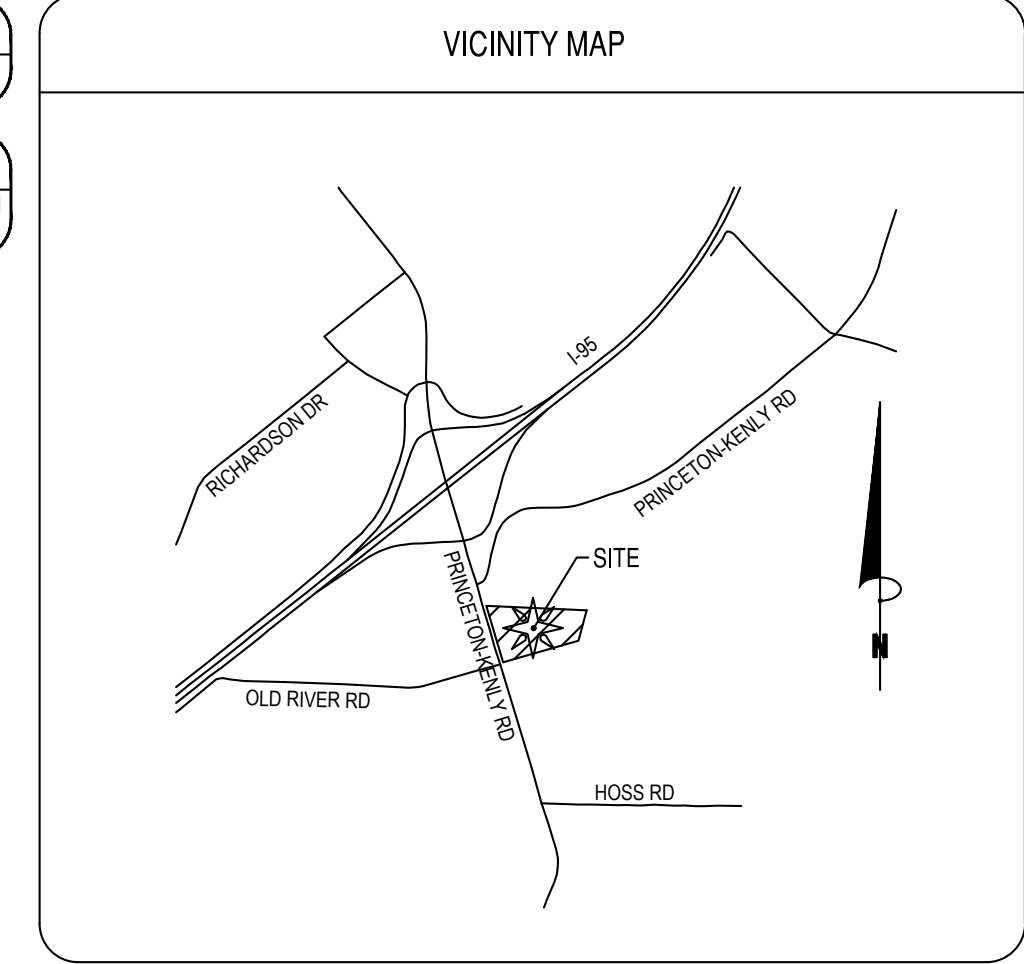
FIRE PROTECTION NOTE
THE PROPOSED BUILDING WILL NOT HAVE A FIRE SPRINKLER SYSTEM
UTILITY NOTE
THE ESTIMATED WATER USAGE FOR THIS SITE IS ____ GPD BASED ON

METER NOTE:
CONTRACTOR TO CONTACT CITY OF RALEIGH METERS DIVISION FOR METER LAYOUT AND ADDRESSING.

HYDRANT NOTE:
ALL NEW FIRE HYDRANTS SHALL BE EQUIPPED WITH NST THREADS AND SHALL BE EQUIPPED WITH A 5 INCH STORZ CONNECTION.

FIRE NOTE:
ELECTRICAL CIRCUIT AND FIRE ALARM CIRCUIT REQUIRED FOR FIRE LINE HOT BOX

UTILITY NOTE:
THERE SHALL BE NO CONSTRUCTION OF ANY FIRE MAINS AND NO SLAB PLACED IN THE FIRE PUMP ROOM OR SPRINKLER RISER ROOM UNTIL HYDRAULIC CALCULATIONS, FOR THE BUILDING(S) ARE SUBMITTED FOR REVIEW AND SUBSEQUENT APPROVAL



- UTILITY NOTES:
1. ALL WORK SHALL BE DONE IN STRICT ACCORDANCE WITH CITY OF RALEIGH STANDARD DRAWINGS AND SPECIFICATIONS.
2. IN THE EVENT THAT A UTILITY ITEM IS NOT COVERED BY THESE PLANS, THEN THE STANDARDS AND SPECIFICATIONS CONTAINED IN THE CITY OF RALEIGH PUBLIC UTILITIES DEPARTMENT HANDBOOK COVERING SUCH ITEMS SHALL APPLY.
3. WATER SERVICES 3/4-INCH TO 2-INCH SHALL BE TYPE "C" SOFT COPPER. ALL OTHER WATER MAINS, SERVICES, AND FITTINGS SHALL BE CEMENT-LINED DUCTILE IRON PIPE PER CITY OF RALEIGH STANDARDS AND SPECIFICATIONS.
4. GRAVITY SANITARY SEWER MAINS SHALL BE DUCTILE IRON PIPE OR PVC PIPE, AS SPECIFIED IN THESE PLANS AND CITY OF RALEIGH STANDARDS AND SPECIFICATIONS. SANITARY SEWER SERVICES SHALL BE SCHEDULE 40 PVC.
5. CLEAN-OUT SYMBOLS SHOWN ON THESE PLANS REPRESENT LOCATION OF SURFACE ACCESS POINT. CONTRACTOR SHALL LOCATE WYE APPROPRIATELY BASED ON PIPE DIAMETER.
6. ALL MANHOLES SHALL BE CONSTRUCTED IN ACCORDANCE WITH CITY OF RALEIGH STANDARDS. MANHOLE DIAMETER SHALL VARY DEPENDING ON PIPE DIAMETER AND DEPTH, PER CITY OF RALEIGH STANDARDS.
7. LOCATIONS AND SIZES OF EXISTING UTILITIES SHOWN ON THESE PLANS WERE TAKEN FROM MAPS PREPARED BY OTHERS. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR FIELD LOCATING ALL UTILITIES AND FOR DAMAGES RESULTING FROM FAILURE TO DO SO.
8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING RECORD DRAWINGS TO THE ENGINEER SHOWING THE LOCATION OF WATER AND SEWER SERVICES AND ANY DEVIATIONS FROM PLANS MADE DURING CONSTRUCTION. THE ENGINEER WILL PROVIDE THESE RECORD DRAWINGS TO THE OWNER.
9. WATER MAINS SHALL HAVE A MINIMUM COVER OF 36" BELOW PROPOSED GRADE.
10. ALL UNDERGROUND UTILITIES AND FIRE HYDRANTS MUST BE FUNCTIONALLY APPROVED PRIOR TO STRUCTURAL CONSTRUCTION.
11. THRUST BLOCKS SHALL BE PROVIDED AT ALL BENDS, TEES, AND FIRE HYDRANTS.
12. DIMENSIONS SHOWN ARE TO CENTERLINE OF PIPE OR FITTING.
13. ALL WATER AND SANITARY LEADS TO BUILDING SHALL END 5' OUTSIDE THE BUILDING LIMITS AS SHOWN ON PLAN AND SHALL BE PROVIDED WITH A TEMPORARY PLUG AT END.
14. ALL TRENCHING, PIPE LAYING, AND BACKFILLING SHALL BE IN ACCORDANCE WITH FEDERAL OSHA REGULATIONS. MINIMUM TRENCH WIDTH SHALL BE 2 FEET.
15. GENERAL CONTRACTOR SHALL HAVE APPROVAL OF ALL GOVERNING AGENCIES HAVING JURISDICTION OVER THIS SYSTEM PRIOR TO INSTALLATION.
16. ALL FILL MATERIAL IS TO BE IN PLACE, AND COMPACTED BEFORE INSTALLATION OF PROPOSED UTILITIES.
17. CONTRACTOR SHALL NOTIFY THE WATER AUTHORITY INSPECTORS 72 HOURS BEFORE CONNECTING TO ANY EXISTING LINE.
18. ALL UTILITIES SHOULD BE KEPT TEN (10') APART (PARALLEL) OR WHEN CROSSING 24" VERTICAL CLEARANCE (OUTSIDE EDGE OF PIPE TO OUTSIDE EDGE OF PIPE).
19. PRESSURE REDUCING VALVES WILL BE REQUIRED ON THE DOMESTIC WATER MAINS IF THE STATIC PRESSURE AT THE BUILDING EXCEEDS 80PSI.
20. IN THE EVENT OF A VERTICAL CONFLICT BETWEEN WATERLINES, SANITARY LINES, STORM LINES AND GAS LINES (EXISTING AND PROPOSED), THE SANITARY LINE SHALL BE DUCTILE IRON PIPE WITH MECHANICAL JOINTS AT LEAST 10 FEET ON BOTH SIDES OF CROSSING. THE WATERLINE SHALL HAVE MECHANICAL JOINTS WITH APPROPRIATE THRUST BLOCINGS AS REQUIRED TO PROVIDE A MINIMUM OF 24" CLEARANCE. MEETING REQUIREMENTS OF ANSI A21.10 OR ANSI 21.11 (AWWA C-151) (CLASS 50).
21. DRAWINGS DO NOT PURPORT TO SHOW ALL EXISTING UTILITIES. EXISTING UTILITIES SHALL BE VERIFIED IN FIELD PRIOR TO INSTALLATION OF ANY NEW LINES.
22. CONTRACTOR IS RESPONSIBLE FOR COMPLYING TO THE STANDARDS AND SPECIFICATIONS OF THE CITY OF RALEIGH WITH REGARDS TO MATERIALS AND INSTALLATION OF THE WATER AND SEWER LINES.
23. THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES OR UTILITIES BY OTHERS AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES, AND WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE APPROPRIATE UTILITY COMPANIES AT LEAST 72 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION OF UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS.
24. ALL CONSTRUCTION METHODS & MATERIALS SHALL CONFORM WITH THE CURRENT SPECIFICATIONS AND STANDARDS OF THE AMERICAN WATER WORKS ASSOCIATION (AWWA). THE AWWA CONSTRUCTION STANDARDS ARE SET FORTH IN THEIR CONSTRUCTION SPECIFICATIONS AND STANDARD FOR WATER AND SANITARY SEWERAGE FACILITIES, A COPY OF WHICH MUST BE PURCHASED FROM THE AWWA BY THE CONTRACTOR AND KEPT AT THE JOB SITE AT ALL TIMES. REFERENCE TO NCDOT SHALL MEAN THE CURRENT STANDARDS AND/OR SPECIFICATIONS OF THE NORTH CAROLINA DEPARTMENT OF TRANSPORTATION.
25. THE CONTRACTOR SHALL BE REQUIRED TO EXCAVATE BELOW PLAN GRADE ANY MATERIALS WHICH ARE UNSUITABLE FOR FOUNDATIONS, SUB GRADES, PIPE TRENCH BOTTOMS OR OTHER PURPOSES AND BACKFILL THESE AREAS WITH AN APPROVED MATERIAL. THE EXTENT OF UNDERCUTTING AND BACKFILLING SHALL BE DETERMINED BY THE CITY OF RALEIGH AS TO AREAS WITHIN STREET RIGHT-OF-WAY AND THE ENGINEER IN OTHER AREAS. COMPENSATION SHALL BE AS SET FORTH IN THE CONTRACT DOCUMENTS.
26. A MINIMUM VERTICAL SEPARATION OF 24" SHALL BE MAINTAINED BETWEEN SANITARY SEWER & WATER LINES AND A FULL JOINT OF WATER LINE PIPE SHALL BE CENTERED WHERE WATER LINE CROSSES OVER SANITARY SEWER. WHERE CLEARANCE IS LESS THAN 18" BUT GREATER THAN 12", SANITARY SEWER SHALL BE PRESSURE TESTED DUCTILE IRON PIPE 10' FROM WATER-MAN. WHEN WATER LINE CROSSES UNDER SANITARY SEWER, 18" MINIMUM CLEARANCE MUST BE MAINTAINED, AND SANITARY SEWER SHALL BE PRESSURE TESTED DUCTILE IRON PIPE 10' FROM WATER-MAN.
27. ALL WATERLINES SHALL HAVE BURIED WITH THE PIPE # 12 COATED ELECTRIC WIRE AND BROUGHT UP INTO THE METER BOXES.
28. THE CONTRACTOR SHALL PROVIDE A SURVEY AS-BUILT RECORD DRAWING OF THE SANITARY SEWER SYSTEM AND THE WATER DISTRIBUTION SYSTEM IN ACCORDANCE WITH THE REQUIREMENTS OF THE CITY OF RALEIGH UTILITY DEPARTMENT.

PUBLIC Water Distribution/Extension System
The City of Raleigh consents to the connection and extension of the City's public water system as shown on this plan. The material and construction methods used for this project shall conform to the standards and specifications of the City's Public Utilities Handbook.
City of Raleigh Public Utilities Department Permit # W-4987
Authorization to Construct See digital signature

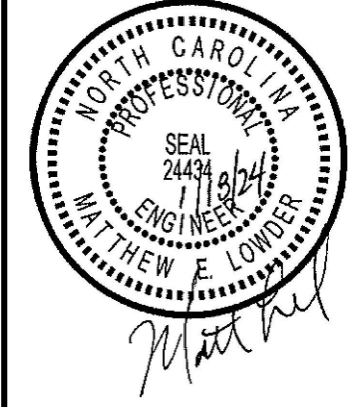
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City of Raleigh Public Utilities Department Permit # S-6404
Authorization to Construct See digital signature

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.
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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.

UTILITY SERVICE NOTES
WATER SERVICE
GENERAL CONTRACTOR TO PROVIDE AND INSTALL A 2" WATER SERVICE LINE FROM MAIN TO BUILDING PER MUNICIPAL REQUIREMENTS. CONTACT: CITY OF RALEIGH UTILITY DEPARTMENT TELEPHONE: 919-857-4540
ELECTRIC SERVICE
"POWER CO." TO PROVIDE UNDERGROUND 120/208/3 PHASE SERVICE. GENERAL CONTRACTOR TO PROVIDE AND INSTALL TWO 4" DIA. CONDUIT W/ PULL WIRE TO UTILITY COMPANY POINT OF CONNECTION. CONTACT: PROGRESS ENERGY TELEPHONE: 800-636-0581
TELEPHONE SERVICE
"TELEPHONE CO." TO PROVIDE NEW UNDERGROUND SERVICE. GENERAL CONTRACTOR TO PROVIDE AND INSTALL A 4" DIA. PVC CONDUIT W/ PULL WIRE FROM PHONE PANEL BOARD TO UTILITY COMPANY POINT OF CONNECTION. CONTACT: TELEPHONE:
SANITARY SEWER
GENERAL CONTRACTOR TO PROVIDE AND INSTALL A 6" SCHEDULE 40 PVC FROM EXISTING SANITARY SEWER SYSTEM TO LAST CLEAN OUT OUTSIDE OF BUILDING. (MIN. 1% SLOPE). PROVIDE CLEAN OUTS EVERY 75' (TYPICAL). CONTACT: CITY OF RALEIGH UTILITY DEPARTMENT TELEPHONE: 919-857-4540
NATURAL GAS
GENERAL CONTRACTOR TO COORDINATE WITH NATURAL GAS UTILITY FOR SERVICE LINE TO PROPOSED BUILDING. CONTACT: TELEPHONE:

CONDITION OF APPROVAL
A PLAT WILL NEED TO BE RECORDED WITH THE REGISTER OF DEEDS FOR ALL EASEMENT DEDICATIONS

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Bowman North Carolina Ltd.
4000 State 14 DR
RALEIGH, NC 27609
Phone: (919) 553-6570
bowman.com
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Crosland Southeast
7-Eleven Store #42378
Zebulon, NC
WAKE COUNTY

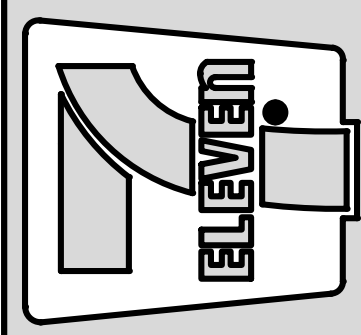


Table with 4 columns: MARK, REVISION, DATE, REVISION DESCRIPTION. Contains 4 rows of revision information.

STORE OR BLDG NO.: N/A
VERSION OR PROJECT ID: N/A
DESIGN TEAM: DGNR, BRM & MCB
PM/DP: ML
RW/R: ML
ISSUE DATE: 1/18/2024
ADDRESS: 1106 N ARENDELL AVE, ZEBULON, NC 27587

SHEET TITLE
UTILITY NOTES
DRWG. NO. C5.1

UTILITY SERVICE NOTES

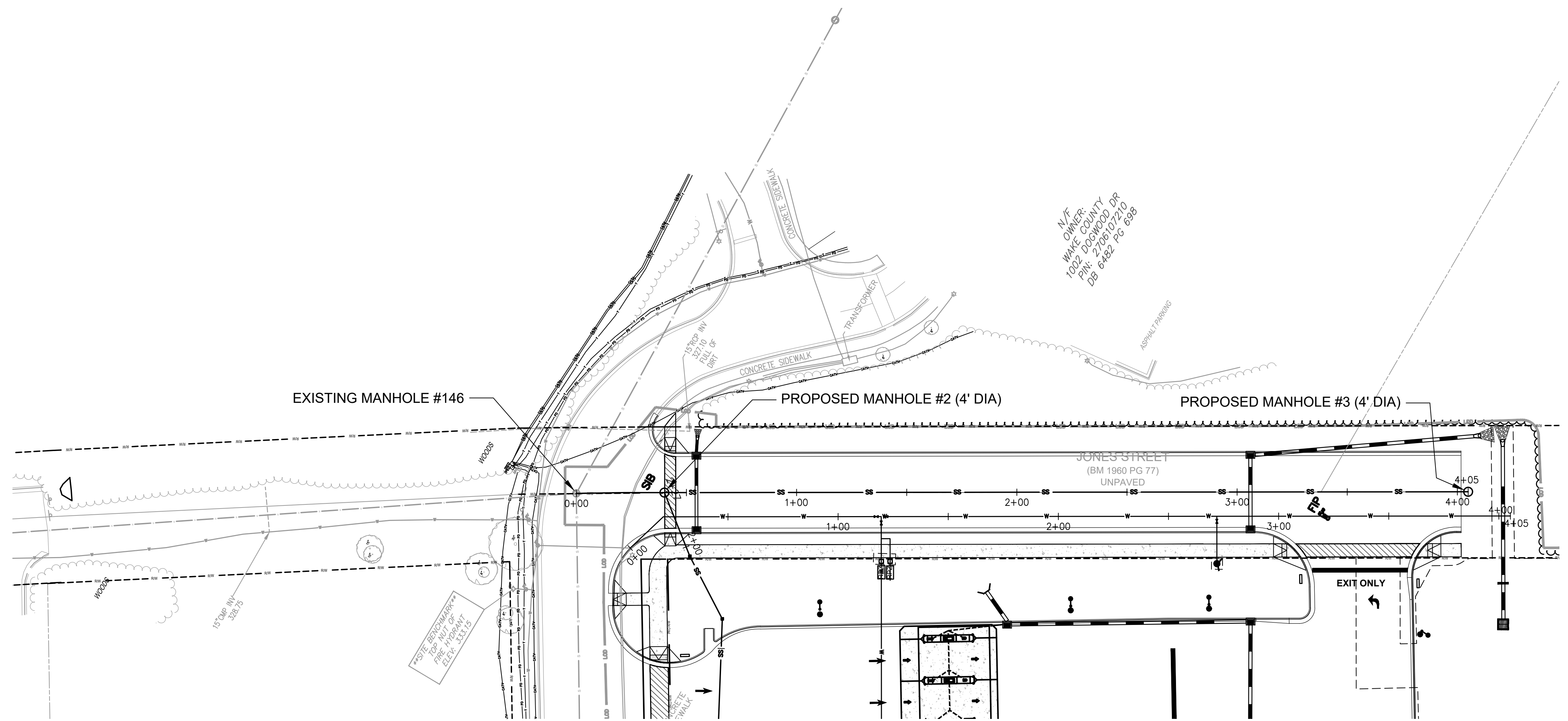
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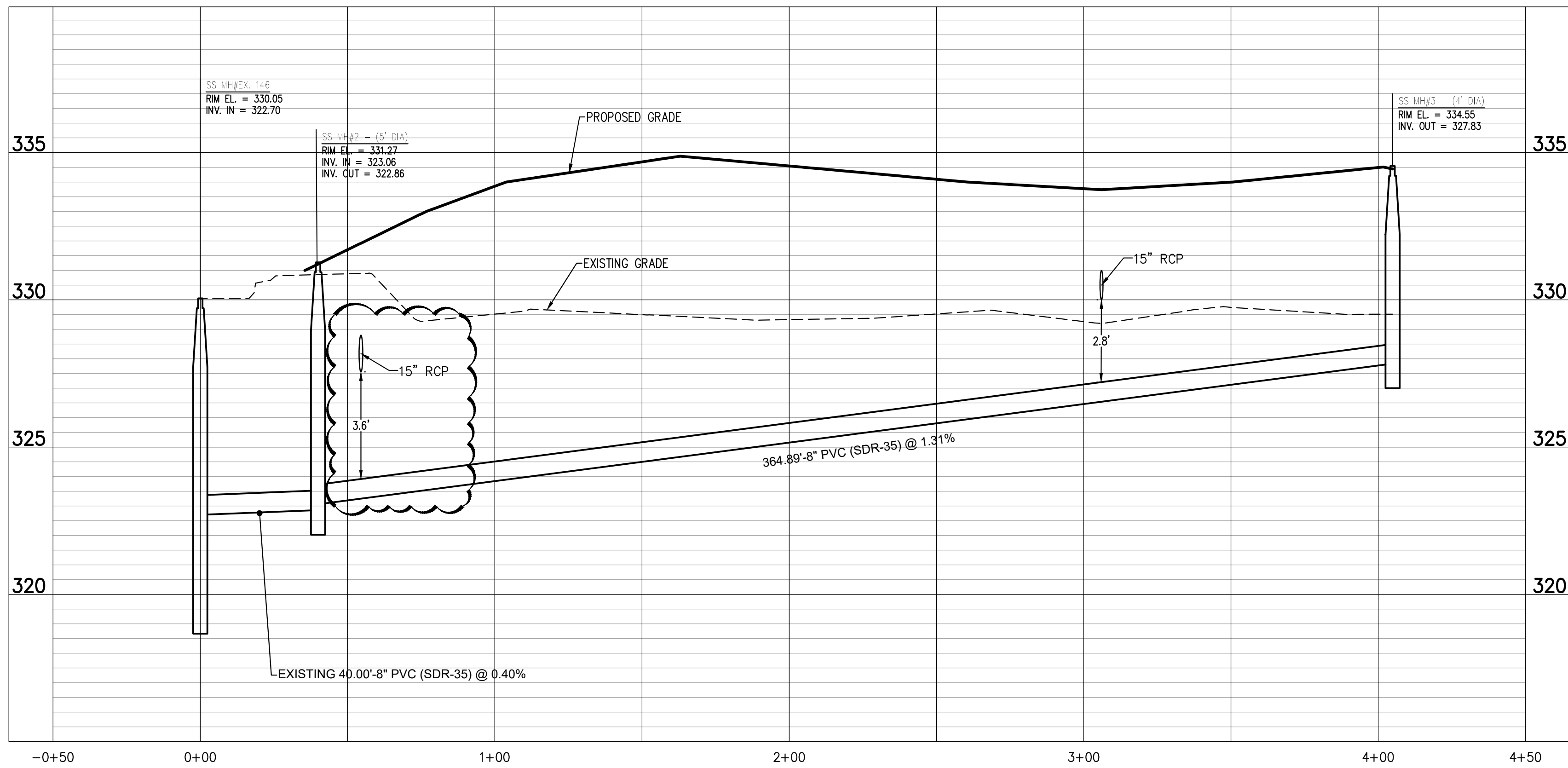
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TELEPHONE: 919-857-4540

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GENERAL CONTRACTOR TO COORDINATE WITH NATURAL GAS UTILITY FOR SERVICE LINE TO PROPOSED BUILDING.
CONTACT:
TELEPHONE:



STANDARD UTILITY NOTES:

- All materials & construction methods shall be in accordance with City of Raleigh design standards, details & specifications (reference: CORPUS Handbook, current edition)
- Utility separation requirements:
 - A distance of 100' shall be maintained between sanitary sewer & any private or public water supply source such as an impounded reservoir used as a source of drinking water. If adequate lateral separation cannot be achieved, ferrous sanitary sewer pipe shall be specified & installed to waterline specifications. However, the minimum separation shall not be less than 20' 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. All distances are measured from outside diameter to outside diameter.
 - Where it is impossible to obtain proper separation, or anytime a sanitary sewer crosses over a watermain, DIP materials or steel encasement installed 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 watermain & RCP storm drain crossings; maintain 18" min. vertical separation at all sanitary sewer & RCP storm drain crossings. Where adequate separations cannot be achieved, specify DIP materials & a concrete grade having 6" min. clearance (per CORPUS 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 the City of Raleigh Public Utilities Department prior to construction.
- Developer shall provide 30 days advance written notice to owner for any work required within an existing City of Raleigh Utility Easement traversing private property.
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- Install 2" copper water services with meters located at ROW or within a 2'x2' Waterline Easement immediately adjacent. NOTE: It is the applicant's responsibility to properly size the water service for each connection to provide adequate flow & pressure.
- Install 6" PVC sewer services @ 1.0% minimum grade with cleanouts located at ROW or easement line & spaced every 75' linear feet maximum.
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- Grease Interceptor / Oil Water Separator sizing calculations & installation specifications shall be approved by the RW FOG Program Coordinator prior to issuance of a UC / Blag Permit. Contact (919) 996-4516 or fo@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 North Carolina. These guidelines are the minimum requirements. The devices shall meet American Society of 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 manufacturer's recommendations or the local cross-connection control program, whichever is more stringent. A Certificate of Compliance shall also be obtained from the RW Cross Connection Coordinator for each device prior to issuance of a UC / Blag Permit. Contact (919) 996-5923 or crossconnection@raleighnc.gov for more information.
- NOTICE for projects with replaced or oversized mains: If the City's reimbursement for an oversized main or urban main replacement project is \$250,000 or greater - the project must be publicly bid.



SEWER PROFILE VIEW
HORIZONTAL SCALE: 1"=30'
VERTICAL SCALE: 1"=3'

CONDITION OF APPROVAL
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City of Raleigh Public Utilities Department Permit # W-4087
Authorization to Construct See digital signature

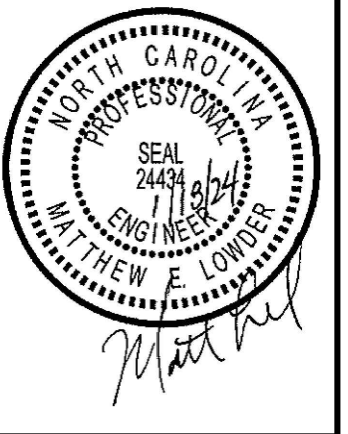
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City of Raleigh Public Utilities Department Permit # S-5404
Authorization to Construct See digital signature

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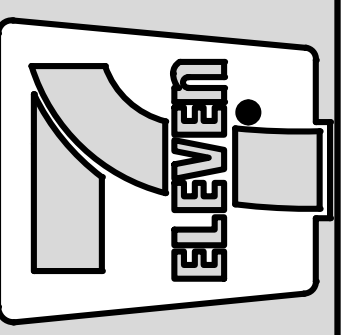
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N.C. ONE-CALL CENTER
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GRAPHIC SCALE
50 0 25 100 200
(IN FEET)
1 inch = 50 ft.



Crosland Southeast
7-Eleven Store #42378
Zebulon, NC
WAKE COUNTY



MARK	REVISION	DATE	REVISION DESCRIPTION
1	ISSUE	02/23/23	TOWN OF ZEBULON REVIEW
2	REVISED	02/23/23	TOWN OF ZEBULON REVIEW
3	REVISED	02/23/23	WAKE COUNTY REVIEW
4	REVISED	02/23/23	TOWN OF ZEBULON REVIEW

STORE OR BLDG NO.: N/A
VERSION OR PROJECT ID: N/A
DESIGN TEAM: DGNR, BRM & MCB
PM/DP: ML
RW/R: ML
ISSUE DATE: 1/18/2024
ADDRESS: 1106 N ARENDELL AVE, ZEBULON, NC 27587
SHEET TITLE: SEWER PLAN AND PROFILE
DRWG. NO.: C5.2

UTILITY SERVICE NOTES

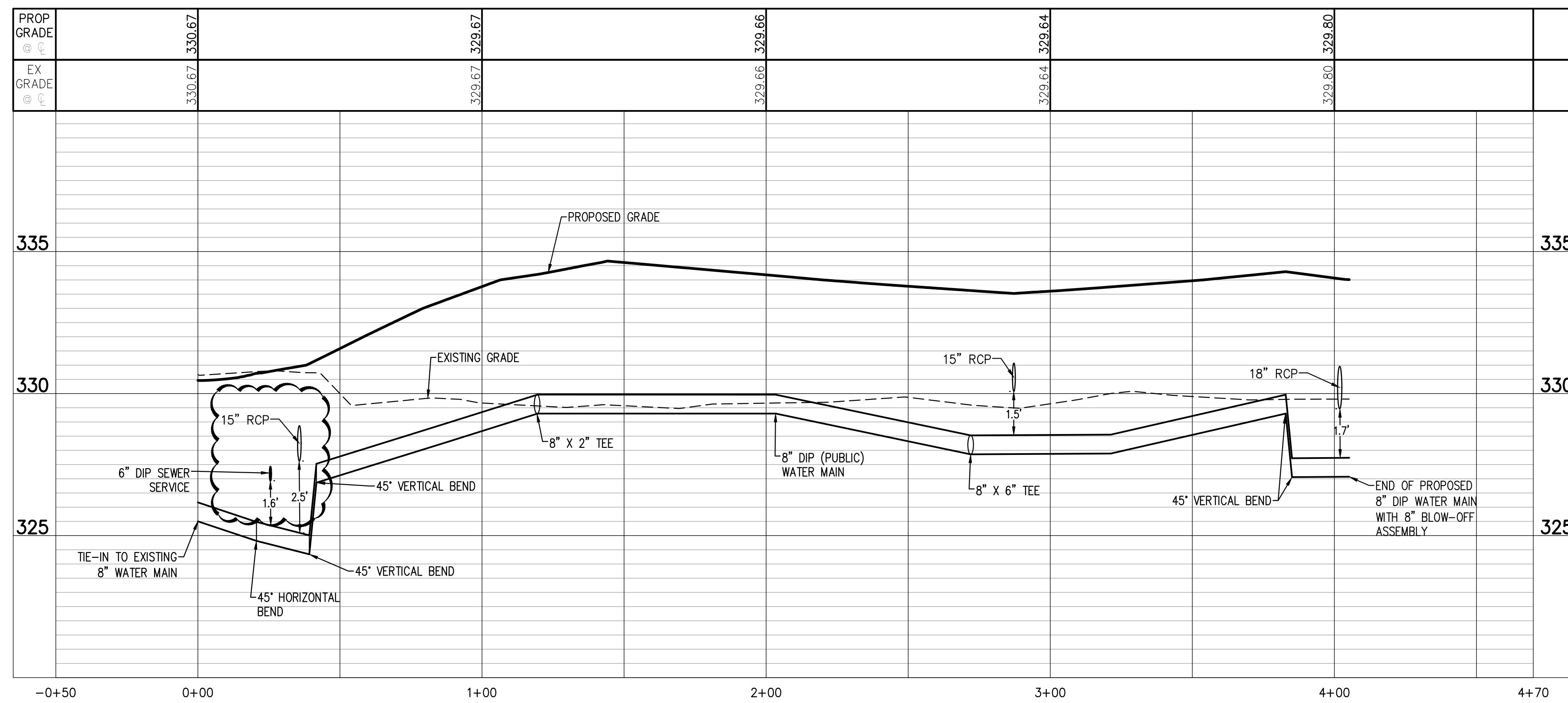
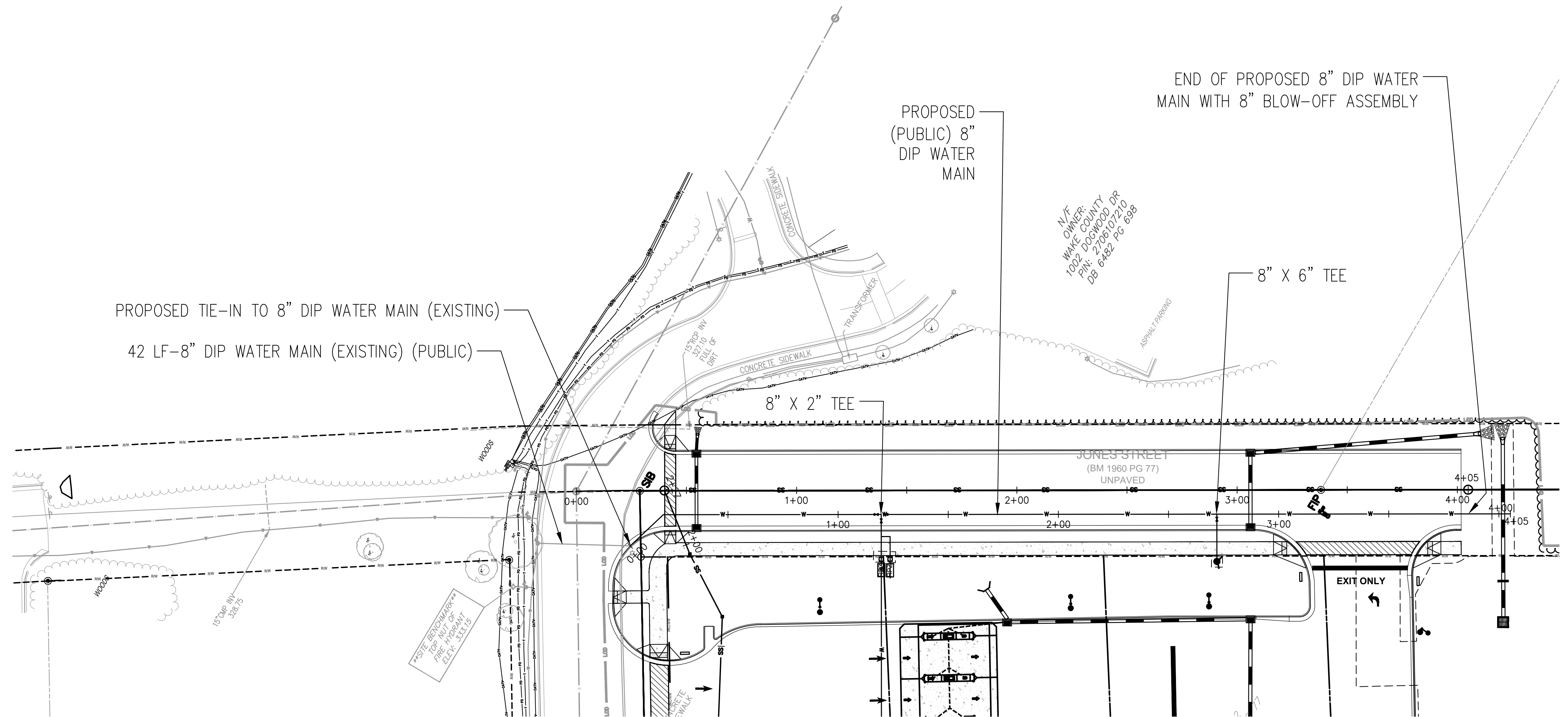
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City of Raleigh
Public Utilities Department Permit # W-1087
Authorization to Construct See digital signature

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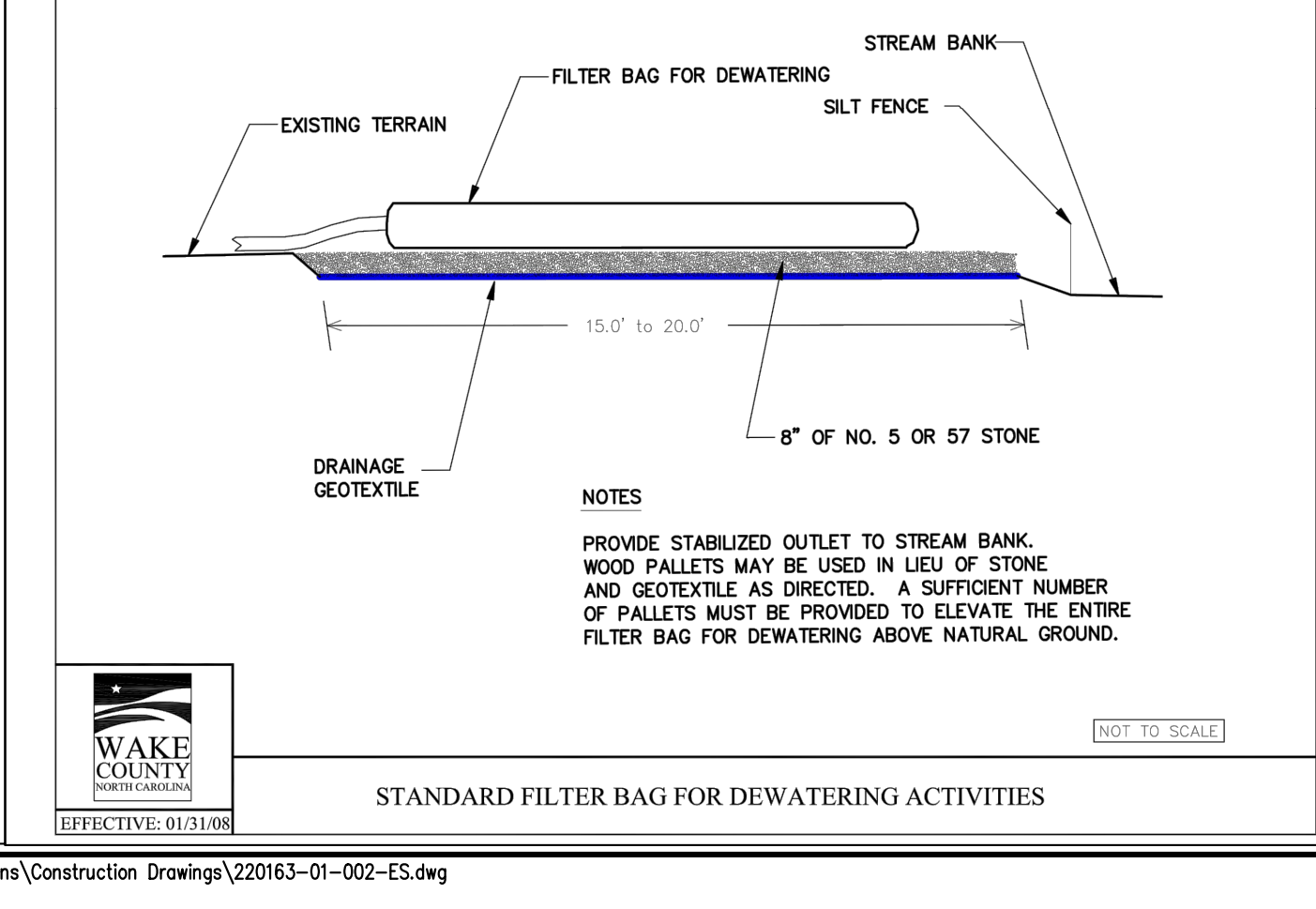
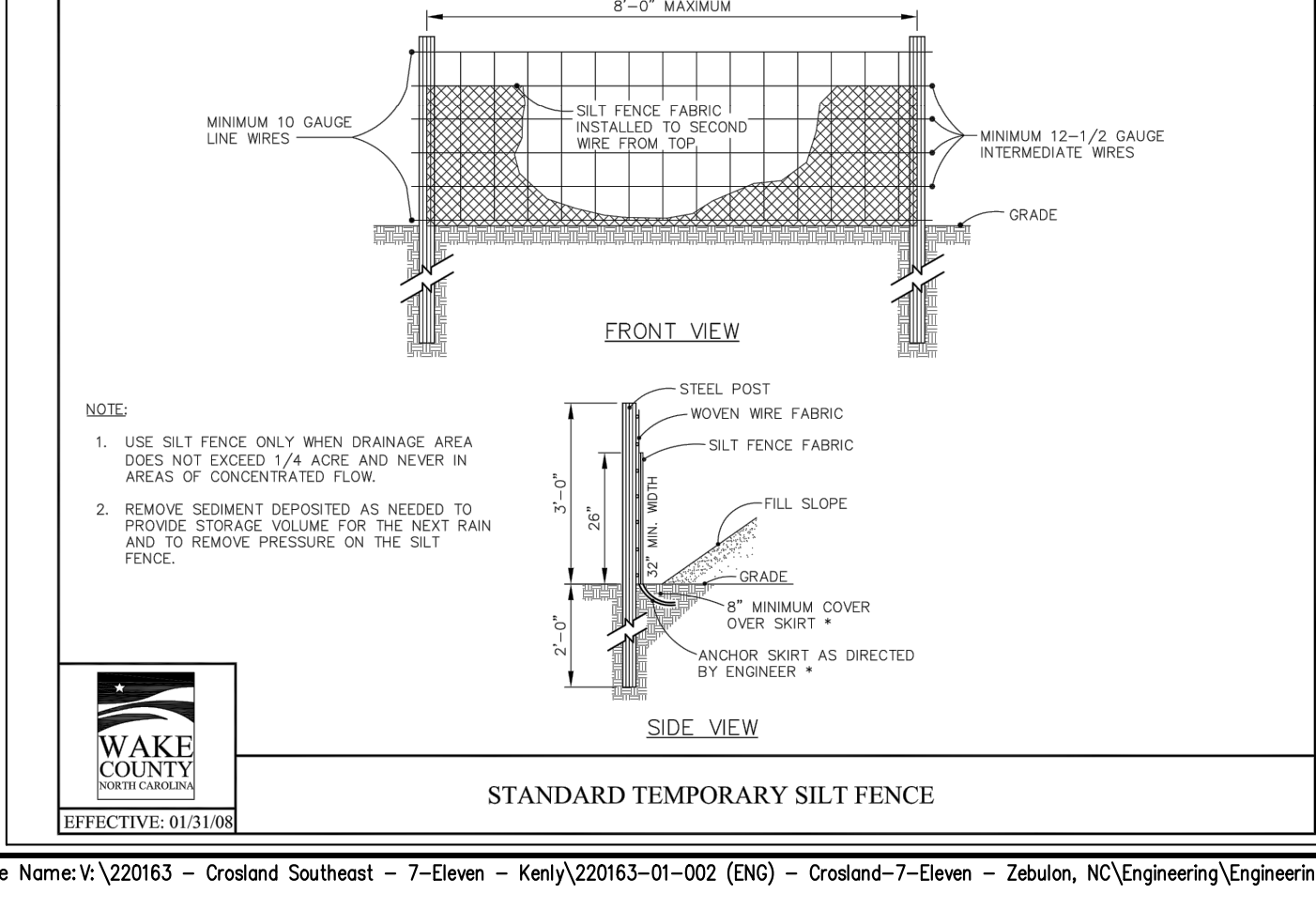
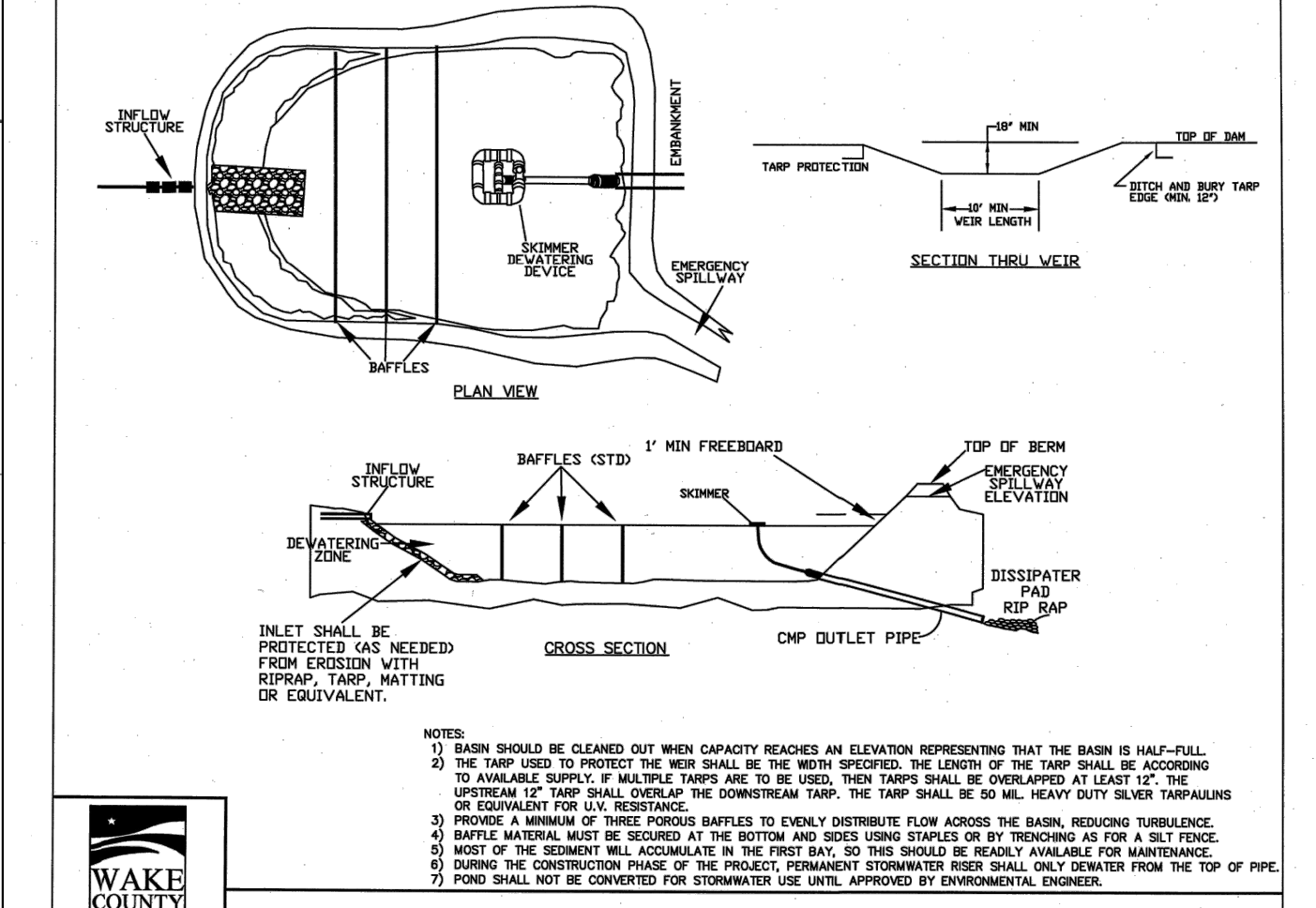
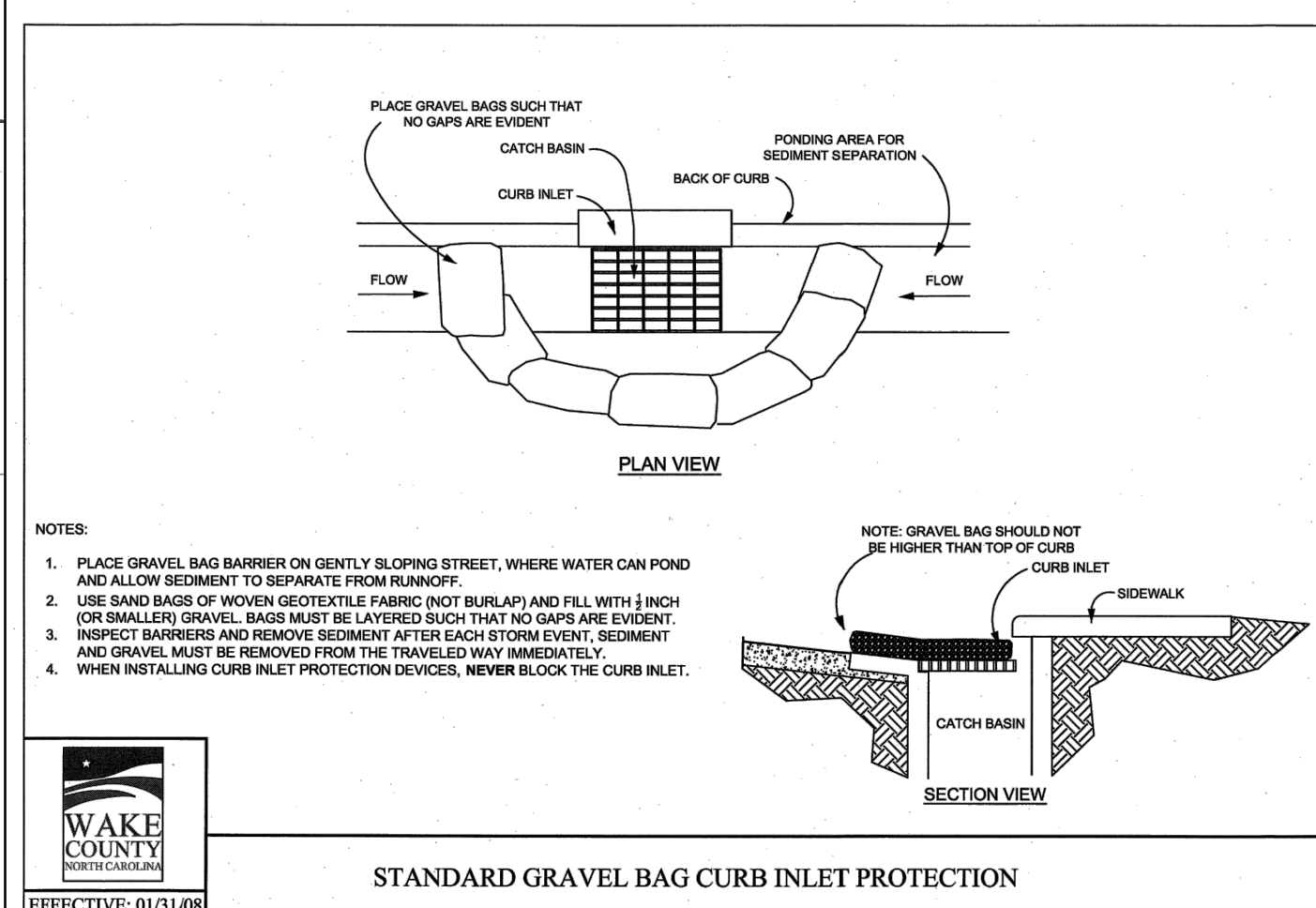
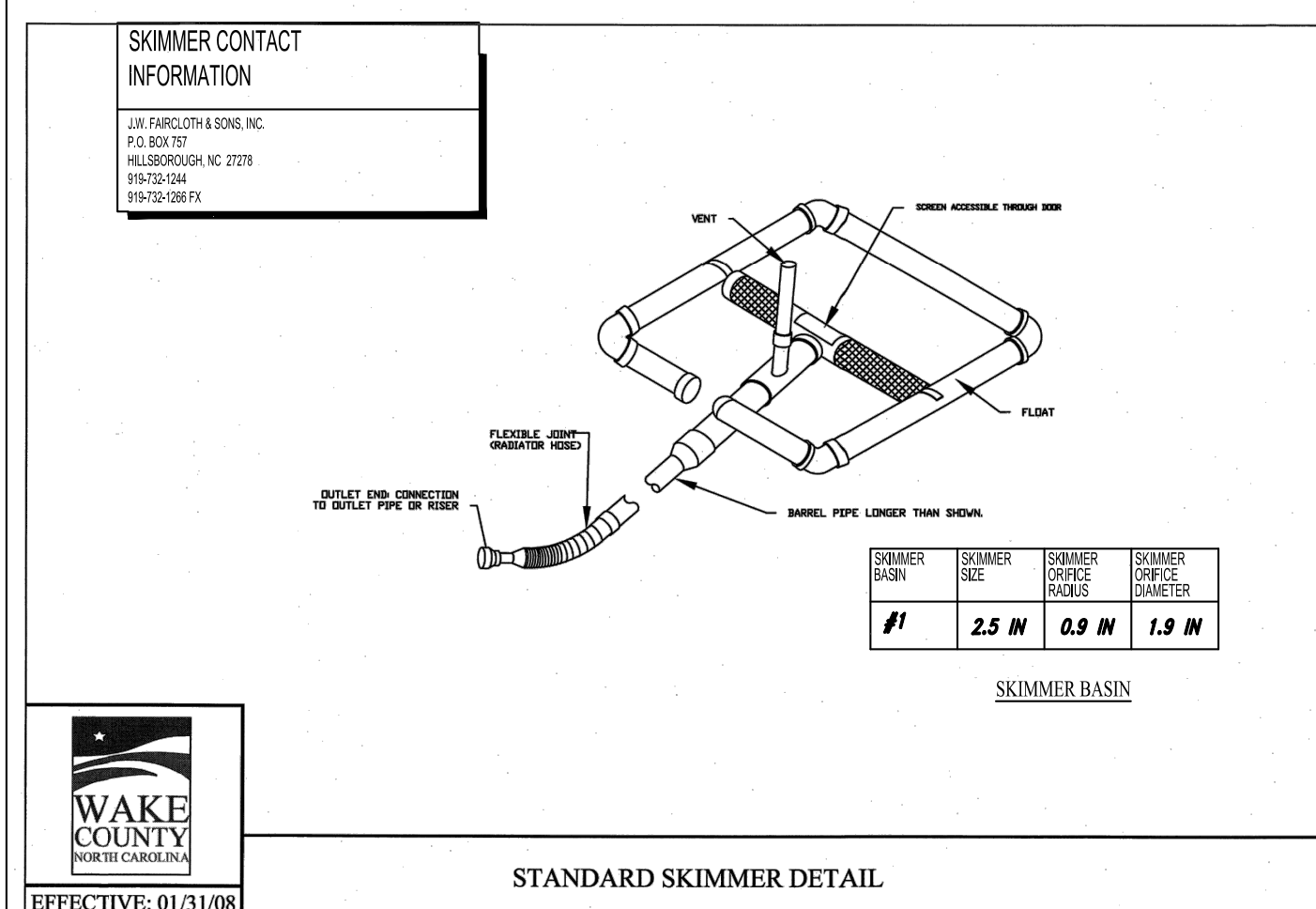
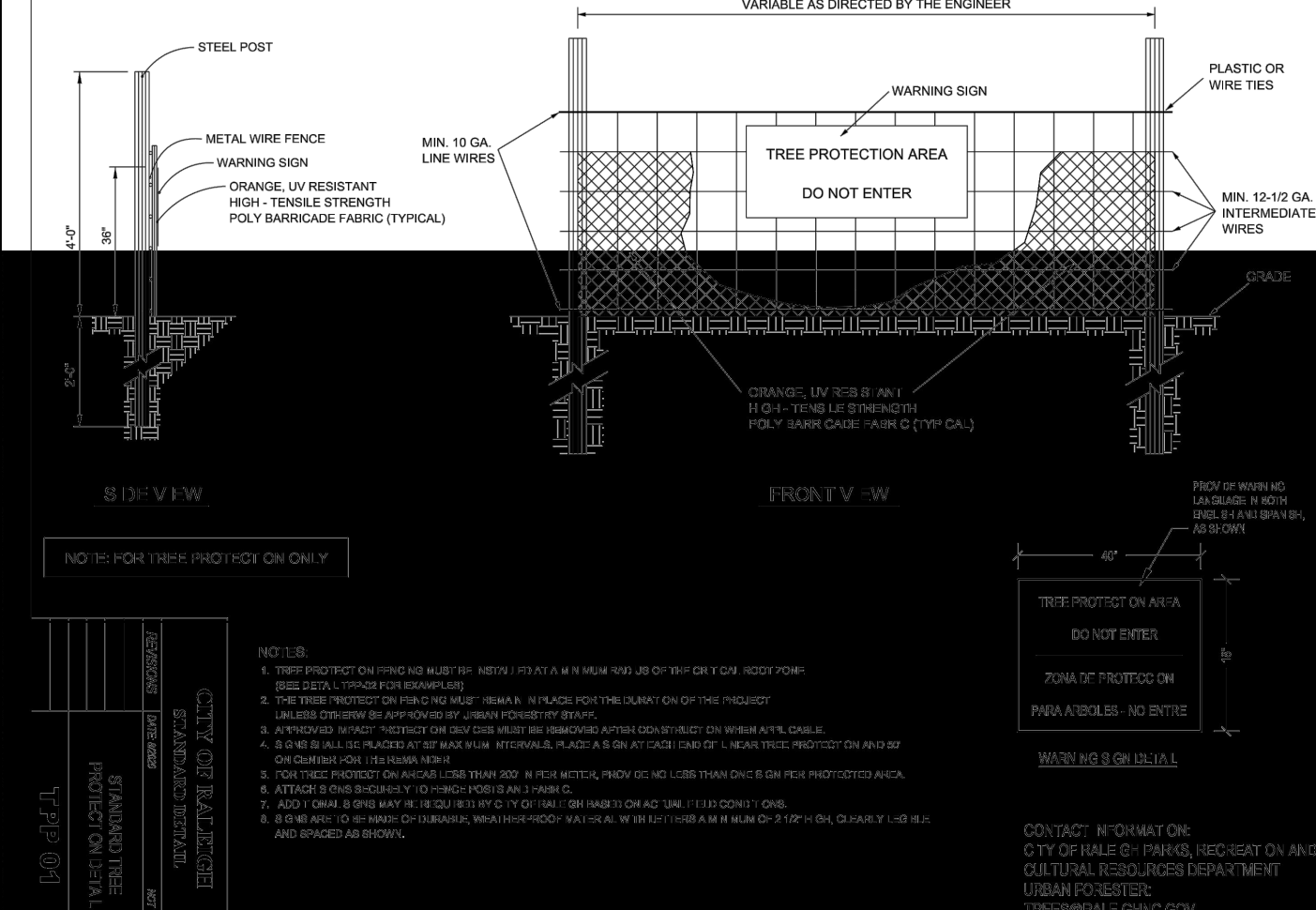
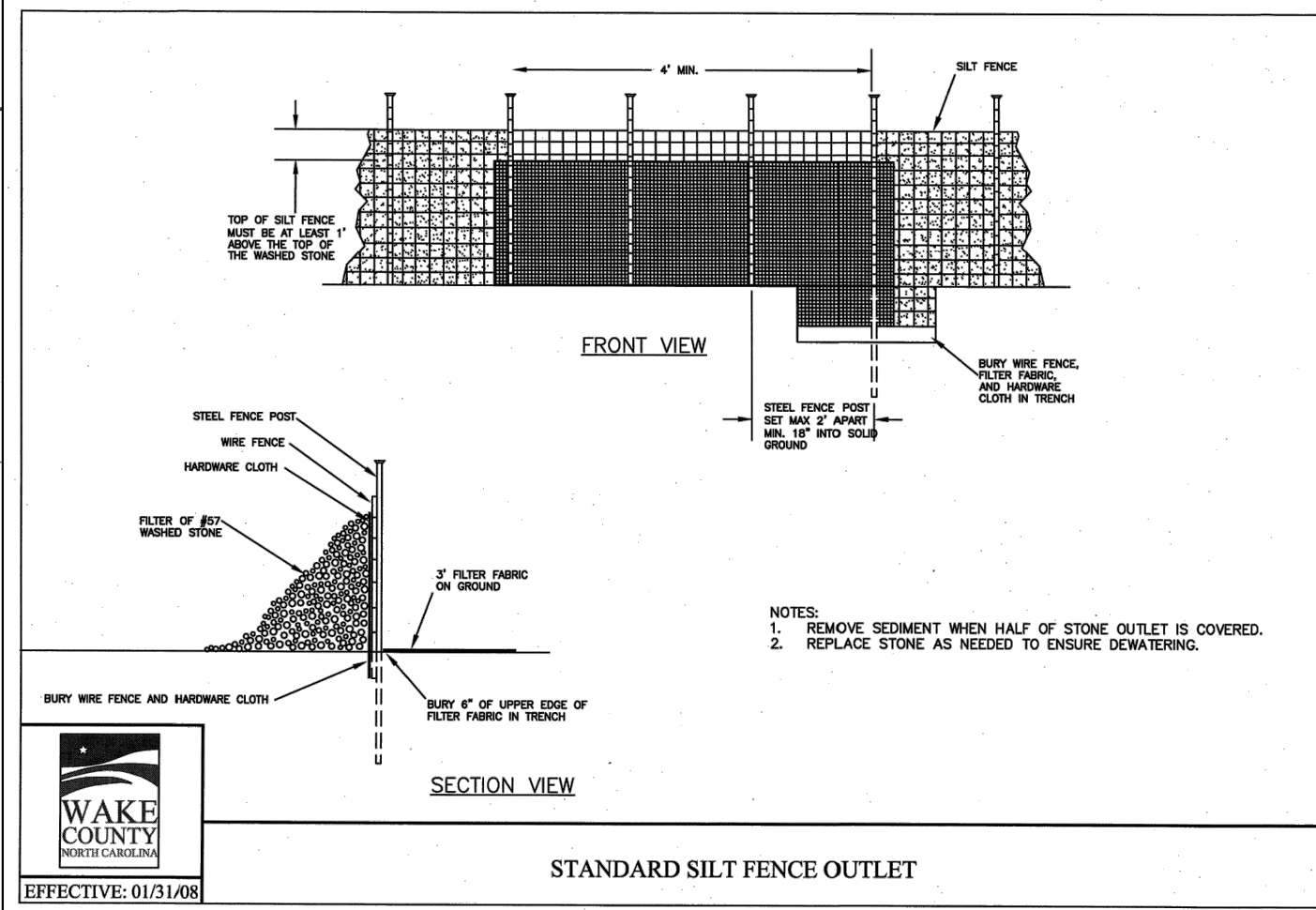
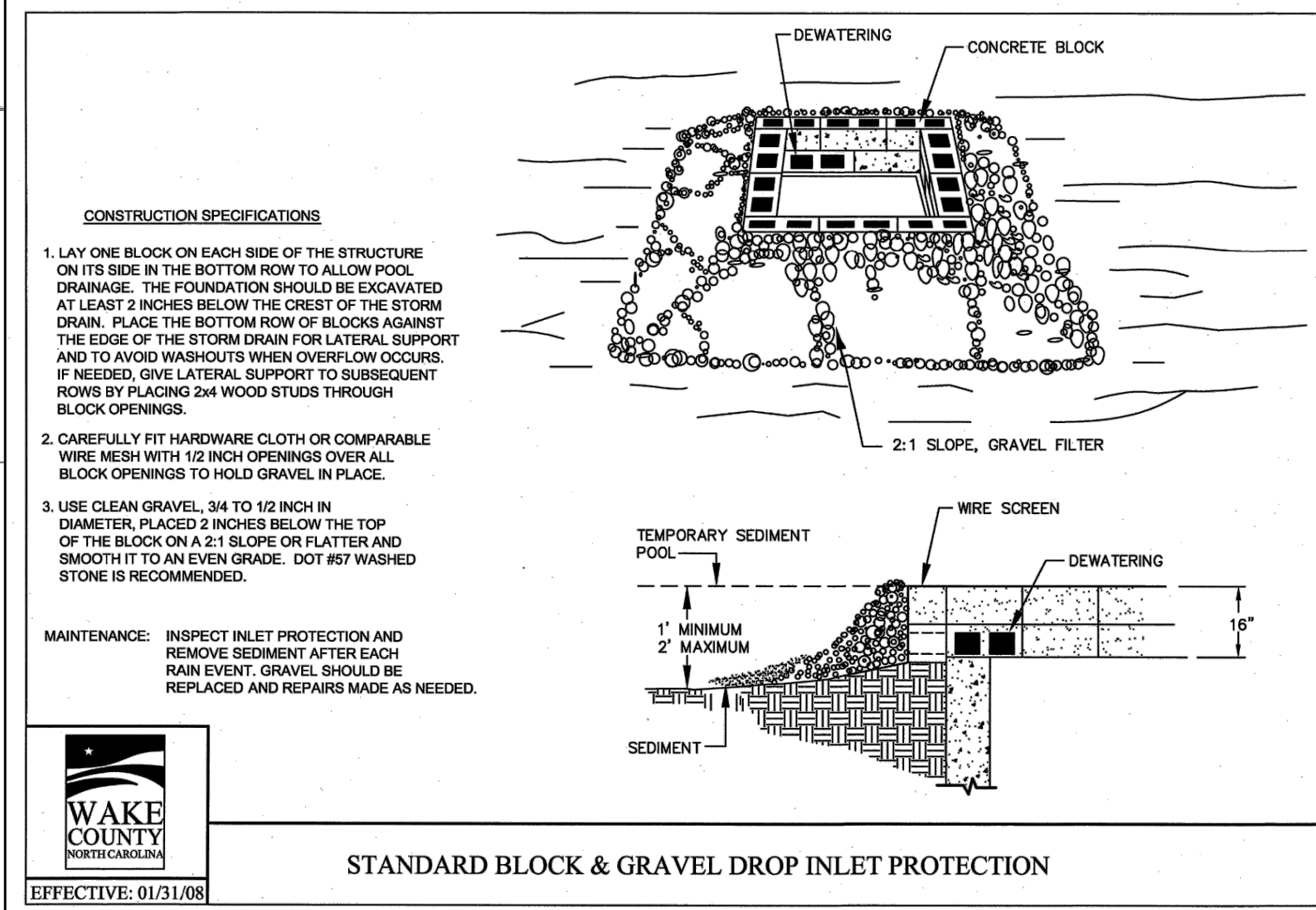
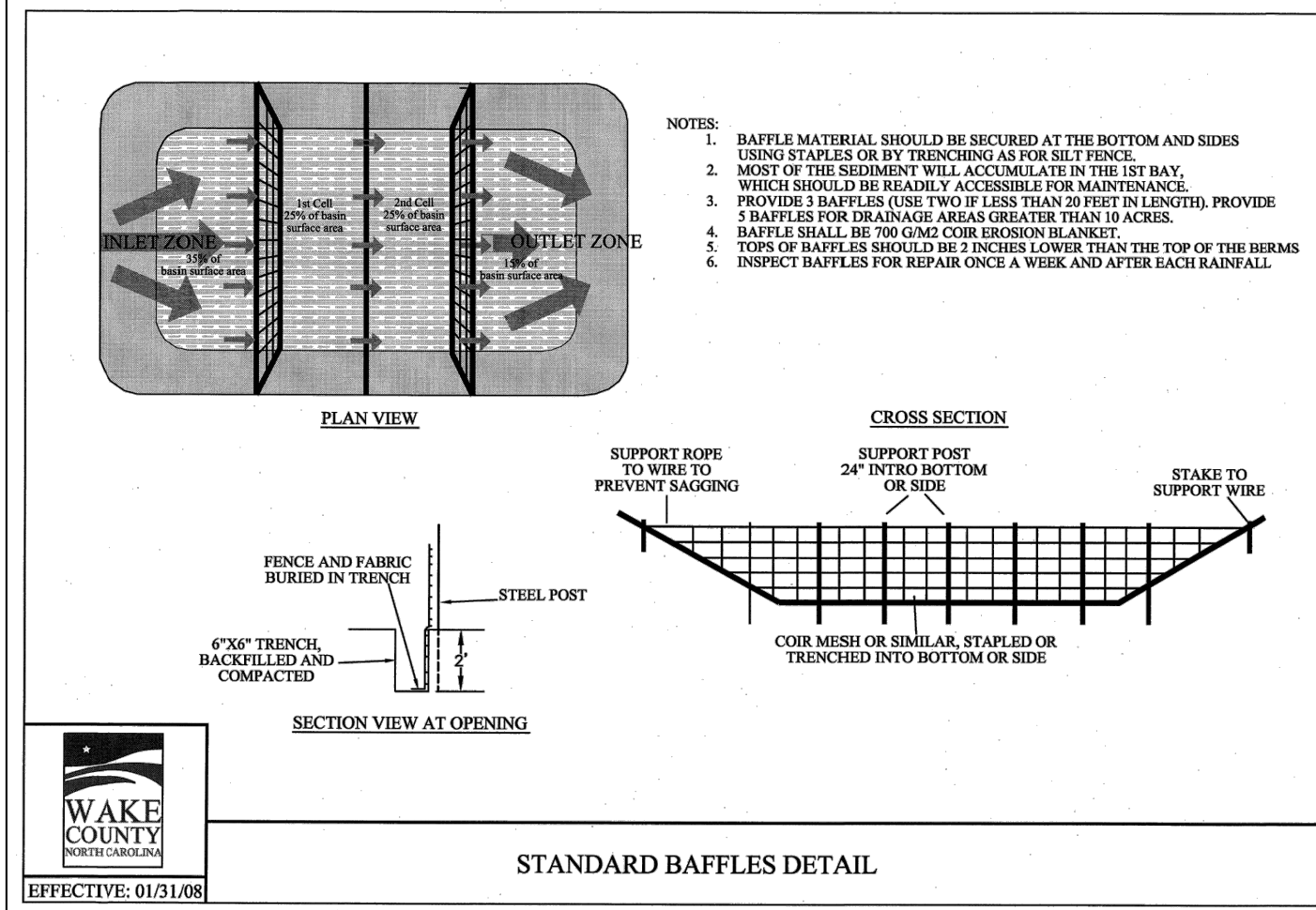
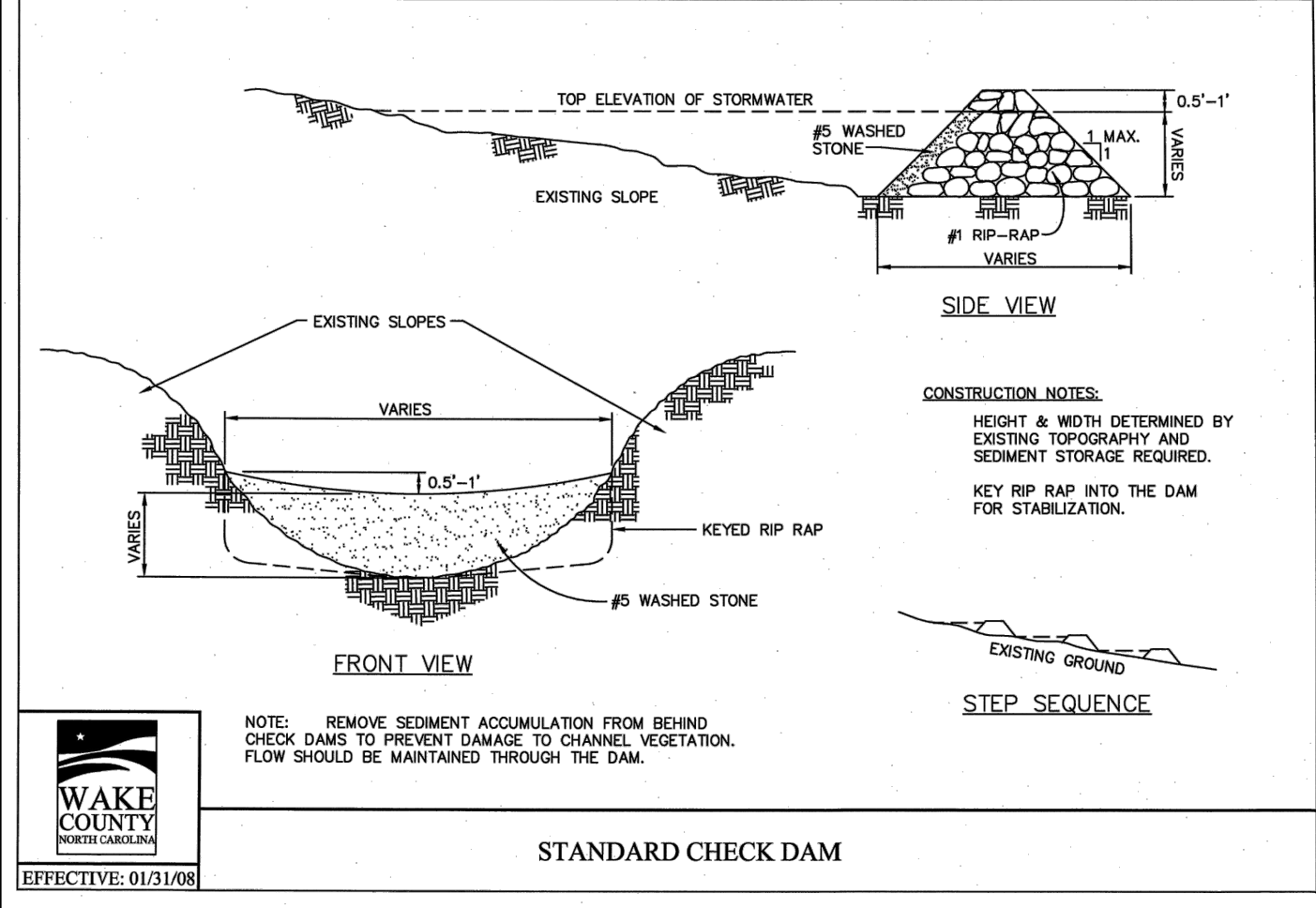
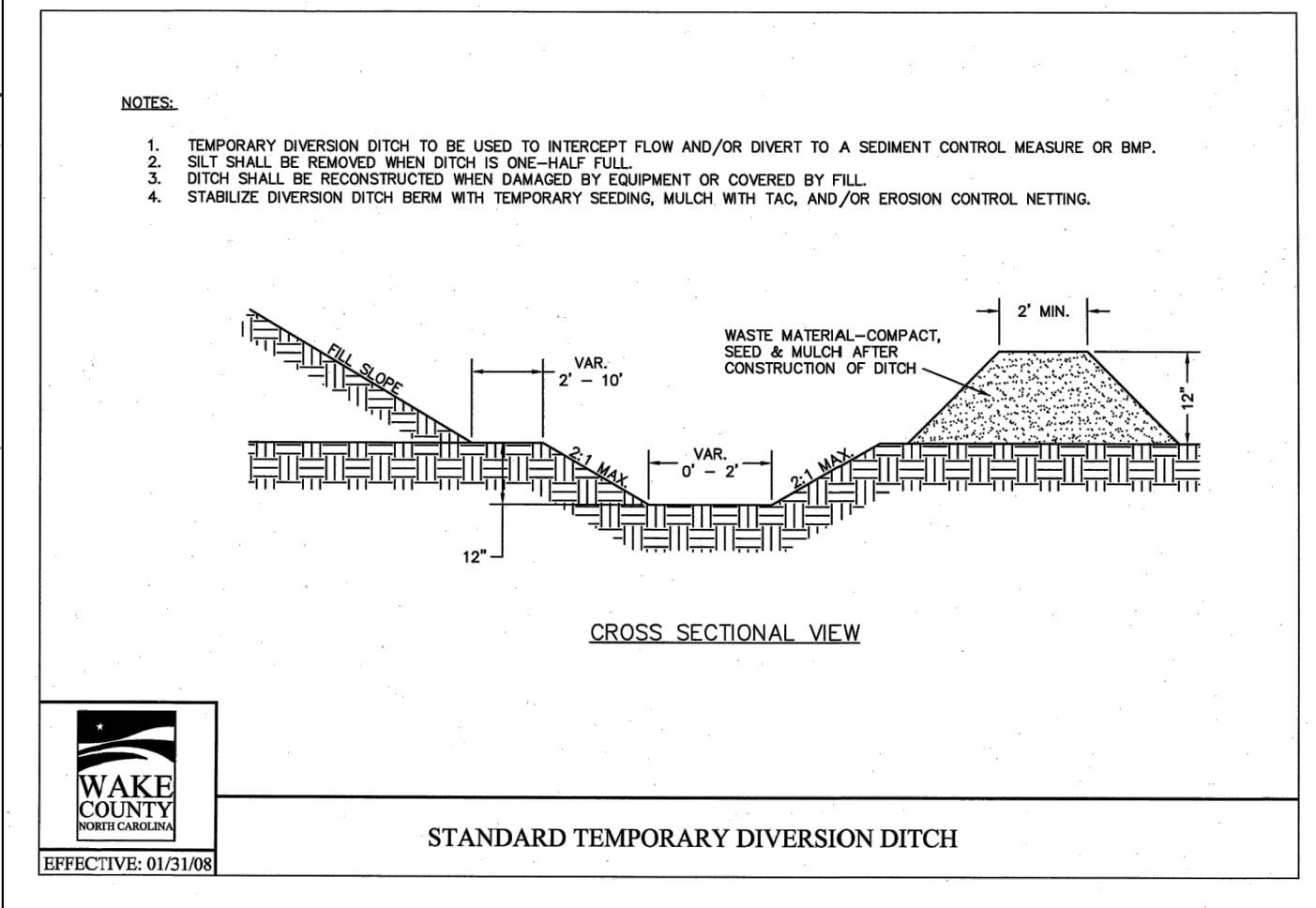
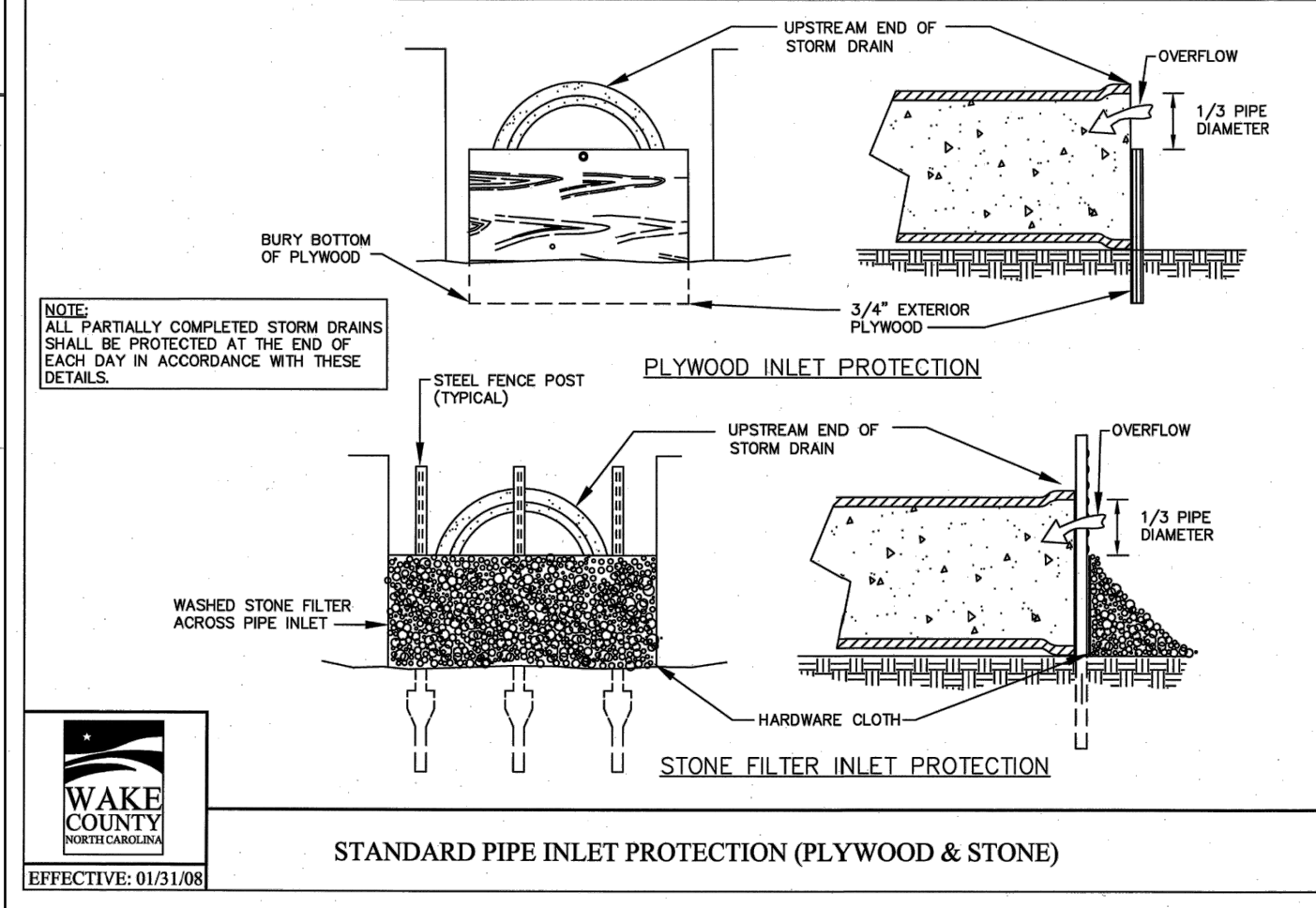
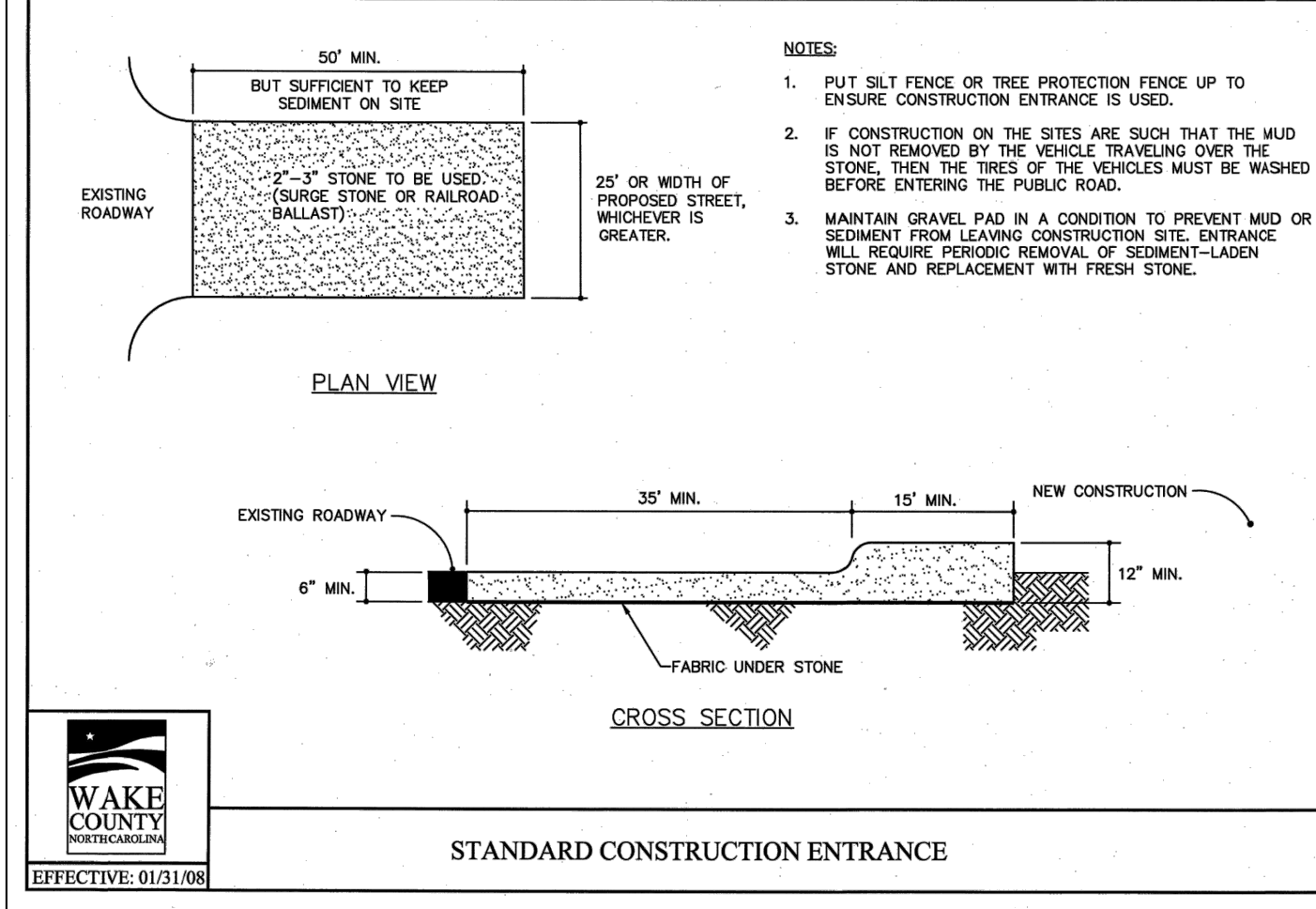
Crosland Southeast
7-Eleven Store #42378
Zebulon, NC
WAKE COUNTY

7-ELEVEN

NO.	REVISION DESCRIPTION	DATE	BY
1	TOWN OF ZEBULON REVIEW	02/23	WJW
2	TOWN OF ZEBULON REVIEW	02/23	WJW
3	WAKE COUNTY REVIEW	02/23	WJW
4	TOWN OF ZEBULON REVIEW	02/23	WJW

STORE OR BLDG NO.: N/A
VERSION OR PROJECT ID: N/A
DESIGN TEAM: DGNR, BRM & MCB
PM/DP: ML
RW/R: ML
ISSUE DATE: 1/18/2024
ADDRESS: 1106 N ARENDELL AVE, ZEBULON, NC 27587

SHEET TITLE: **WATER PLAN AND PROFILE**
DRWG. NO.: **C5.3**



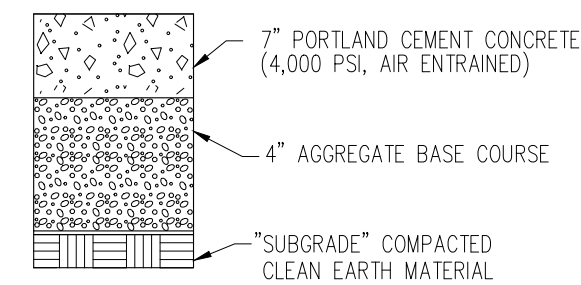
NO.	REVISION DESCRIPTION	DATE	REVISION
1	ISSUE FOR REVIEW	01/31/08	ISSUE FOR REVIEW
2	TOWN OF ZEBULON REVIEW	02/22/08	TOWN OF ZEBULON REVIEW
3	WAKE COUNTY REVIEW	02/22/08	WAKE COUNTY REVIEW
4	TOWN OF ZEBULON REVIEW	02/22/08	TOWN OF ZEBULON REVIEW

STORE OR BLDG NO.:	N/A
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DESIGN TEAM:	DGMR, BRM & MCB
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CONCRETE PAVEMENT INSTALLATION

HIGH STRENGTH PAVEMENT DETAIL

HEAVY LOAD TRAFFIC AREAS



PAVING EXECUTION NOTES:

1. LOCATE AND INSTALL CONSTRUCTION, ISOLATION, AND EXPANSION JOINTS AS INDICATED OR REQUIRED.
2. PLACE CONCRETE IN A CONTINUOUS OPERATION WITHIN PLANNED JOINTS OR SECTIONS. DO NOT ADD WATER TO ADJUST SLUMP.
3. FLOAT SURFACES TO TRUE PLANES WITHIN A TOLERANCE OF 1/4 INCH IN 10 FEET.
4. TOOL EDGES AND JOINTS TO A RADIUS OF 1/4 INCH FOR SIDEWALKS.
5. ALLOW CONCRETE PAVING TO CURE FOR A MINIMUM OF 28 DAYS AND DRY BEFORE STARTING PAVEMENT MARKING.
6. APPLY TRAFFIC PAINT WITH MECHANICAL EQUIPMENT TO A MINIMUM WET FILM THICKNESS OF 15 MILS.
7. PROTECT CONCRETE PAVING FROM DAMAGE, EXCLUDE TRAFFIC FROM PAVING FOR AT LEAST 14 DAYS.

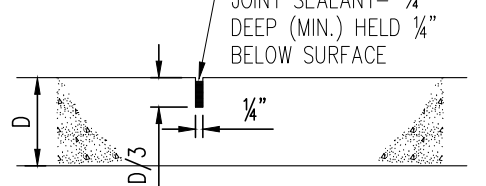
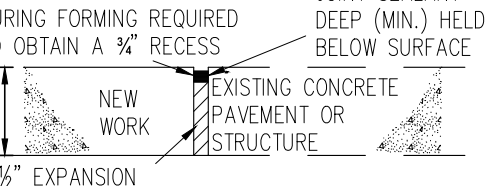
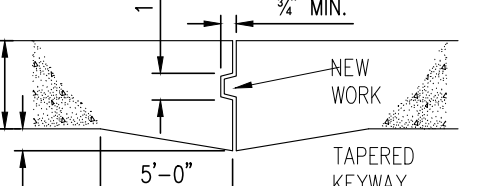
CONCRETE PAVING GENERAL NOTES:

1. SEE FUEL PROTOTYPE FOR ADDITIONAL REQUIREMENTS FOR TANK SLABS.
2. SEE FUEL PROTOTYPE FOR ADDITIONAL REQUIREMENTS FOR DISPENSER ISLAND SLABS.
3. A GEOTEXTILE FABRIC OR GEORID IS ONLY NEEDED WHEN THE GEOTECHNICAL REPORT AND/OR A GEOTECH EXPERT REQUIRES IT FOR THE SPECIFIC SITE'S SOIL CONDITIONS.
4. UNDISTURBED SOIL OR COMPACTED BACK FILL NOT LESS THAN 95% OF MODIFIED PROCTOR DENSITY (AASHTO-T-180)

REVISED LOCATION PER CR ADMIN 2022-3000

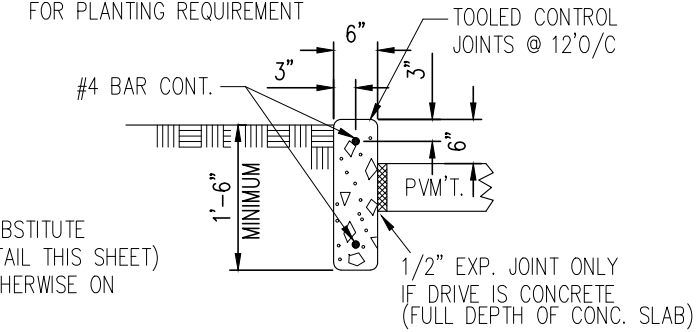
- * CONTRACTOR MUST REFER TO THE GEOTECH REPORT FOR PAVEMENT AND FOUNDATION DESIGN AND CONSTRUCTION RECOMMENDATIONS
- ** COMPACTION IS NOT REQUIRED OVER THE TANK PIT(S)

CONCRETE PAVEMENT JOINT DETAILS

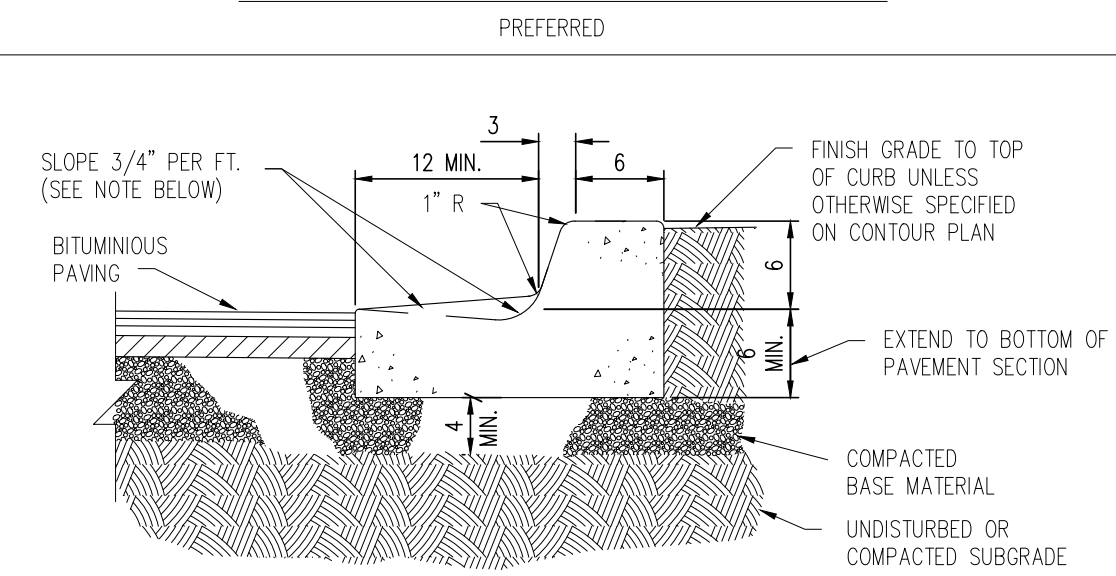
TYPE OF JOINT	USE DESCRIPTION	DETAIL
A. CONTROL JOINT 1. SAWN 2. PREMOLD STRIP 3. HAND FORMED AND SAWN AT CRITICAL JOINTS	USE SPECIFICATION ACI 309R-06 TO PLACE CONTROL JOINTS SO AS TO UNIFORMLY DIVIDE SLABS INTO NOMINAL 12' x 12' (NORMAL STRENGTH) OR 16' x 16' (HIGH STRENGTH) SECTIONS. (SEAL CONTROL JOINTS ONLY IF SPECIFIED ON DRAWINGS OR BY OWNER'S REPRESENTATIVE.)	 <p>JOINT SEALANT - 1/2" DEEP (MIN.) HELD 1/4" BELOW SURFACE</p>
B. EXPANSION JOINT (ISOLATION JOINT)	PLACE AGAINST CONCRETE TANK SLAB, ABUTTING ROADWAY PAVEMENTS AND STRUCTURES (BUILDINGS, CANOPY COLUMNS, CATCH BASINS, ETC.)	 <p>JOINT SEALANT - 1/2" DEEP (MIN.) HELD 1/4" BELOW SURFACE</p> <p>NEW WORK CONCRETE PAVEMENT OR STRUCTURE</p> <p>1/2" EXPANSION JOINT MATERIAL</p> <p>3/8" MIN. TAPERED KEYWAY</p>
C. CONSTRUCTION JOINT	CONSTRUCTION JOINTS MUST BE APPROVED BY OWNER'S REPRESENTATIVE. PLACE WHEN CONTINUOUS POUR OPERATIONS ARE SUSPENDED FOR MORE THAN 30 MINUTES.	 <p>NEW WORK CONCRETE PAVEMENT OR STRUCTURE</p> <p>1/2" EXPANSION JOINT MATERIAL</p> <p>3/8" MIN. TAPERED KEYWAY</p>

CONCRETE CURBS

SEE PLOT OR LANDSCAPING PLAN FOR PLANTING REQUIREMENT

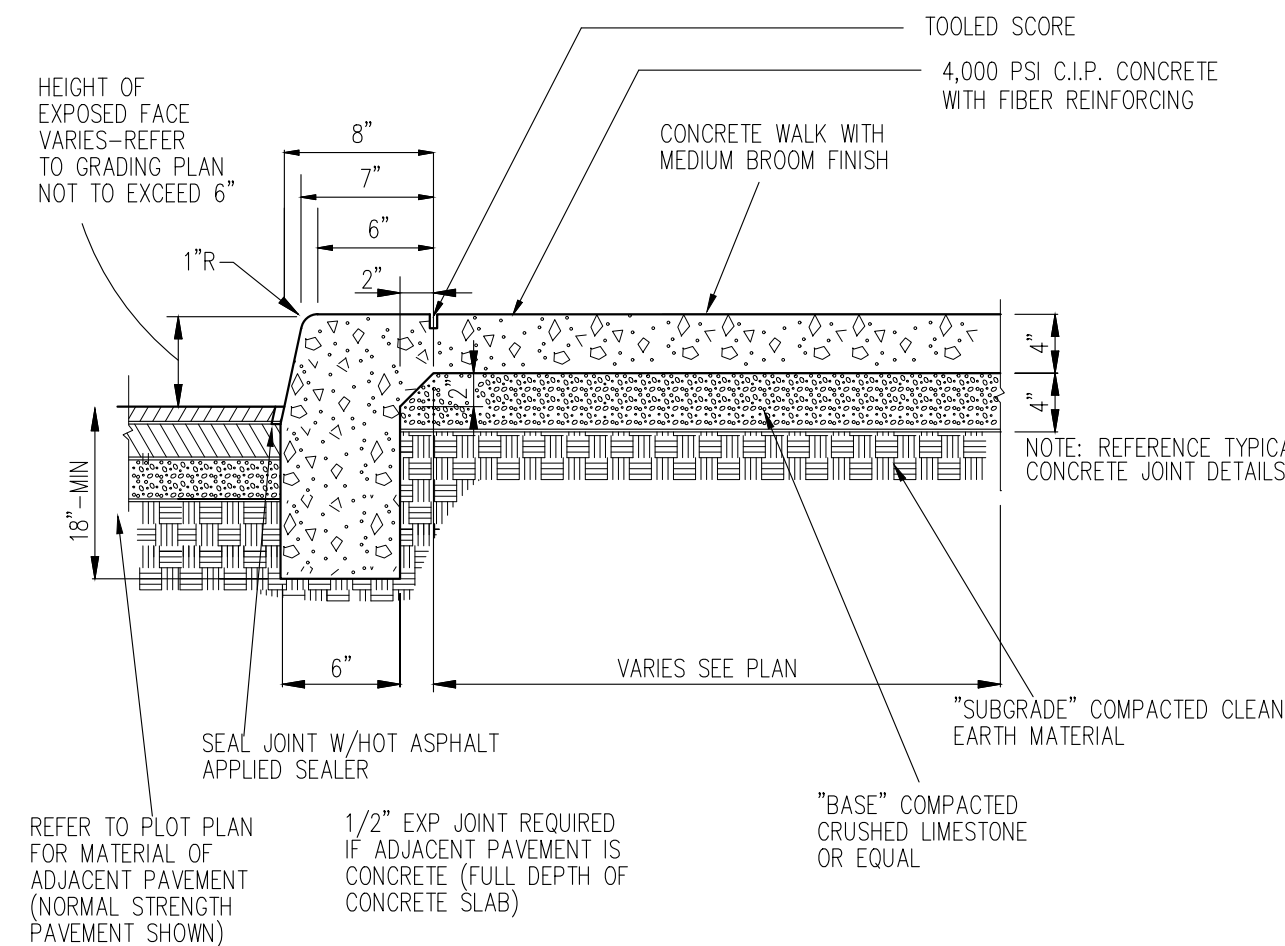


CAST-IN-PLACE CONCRETE CURB



NOTE: GUTTER TO BE SLOPED DOWN GRADIENT TOWARDS CURB WHEN SITE GRADE IS TOWARDS CURB. GUTTER TO BE SLOPED DOWN GRADIENT AWAY FROM CURB WHEN SITE GRADE IS AWAY FROM CURB. MAY BE MACHINE FORMED.

STRAIGHT CONCRETE CURB & GUTTER



NOTE: 1. TYPICALLY THERE IS 0" CURBING AROUND THE BUILDING
2. EXCEPTION: CA REQUIRES SIDEWALK CURBING AROUND THE BUILDING

ON- SITE: ASPHALT PAVEMENT INSTALLATION

ASPHALT SEALING

1. SURFACE CLEANING: THE SURFACE TO BE SEALED SHALL BE FREE FROM DIRT AND OTHER FOREIGN MATTER. ANY ACCUMULATIONS OF OIL OR GREASE SHALL BE CLEANED OFF THE PAVEMENT WITH DETERGENT SOLUTION, THE RESIDUE OF WHICH SHALL BE THOROUGHLY WASHED AWAY WITH CLEAN WATER BEFORE SEALANT IS APPLIED.
2. SEALING: THE SEAL COATING MATERIAL SHALL BE COMPRISED OF A RUBBERIZED COAL-TAR PITCH EMULSION AND SHALL MEET OR EXCEED FEDERAL SPECIFICATION R-P-355e. SUPPLIED IN CONCENTRATED FORM, IT SHALL BE DILUTED A MINIMUM OF 15% AND A MAXIMUM OF 25% WITH FRESH, CLEAN WATER. THE SEALANT MATERIAL SHALL CONTAIN 5-6 LBS. PER GALLON OF FINE, CLEAN, DRY SILICA SAND MEETING THE FOLLOWING GRADATION:

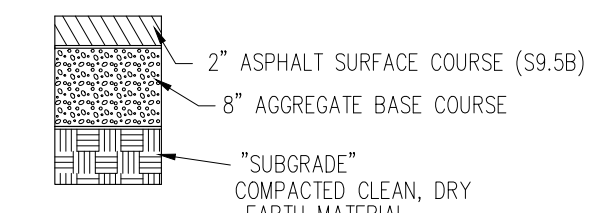
SIEVE SIZE	% PASSING
#16	100
#30	80-100
#50	10-60
#100	0-5

THE SEALANT SHALL BE APPLIED TO THE PAVEMENT IN TWO COATS AT THE RATE OF 0.08 TO 0.12 GALLONS PER SQUARE YARD. A LATEX ADDITIVE MAY ALSO BE ADDED TO THE SEALANT TO ALLOW FOR QUICKER DRYING TIME IN THOSE AREAS SPECIFIED BY OWNER'S REPRESENTATIVE.

LIGHT DUTY PAVEMENT

PARKING AREAS, AND OTHER LIMITED SERVICE TRAFFIC AREAS

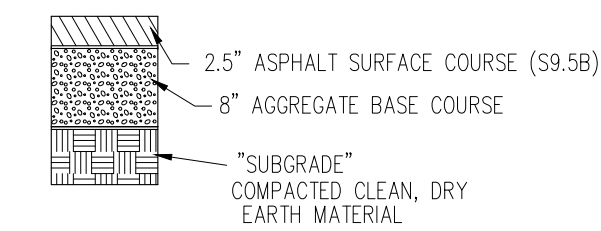
GRANULAR BASE (PREFERRED)



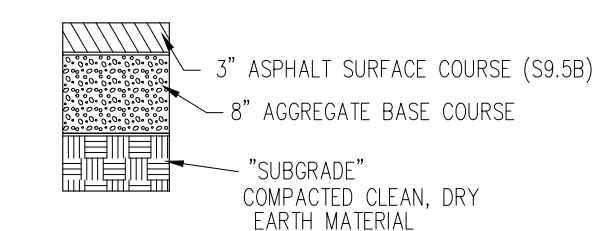
ASPHALT PAVEMENT GENERAL NOTES:

1. ALL WORK SHALL BE IN CONFORMANCE WITH OWNER'S SPECIFICATIONS FOR ASPHALTIC CONCRETE PAVING.
2. A GEOTEXTILE FABRIC OR GEORID IS ONLY NEEDED WHEN THE GEOTECHNICAL REPORT AND/OR A GEOTECH EXPERT REQUIRES IT FOR THE SPECIFIC SITE'S SOIL CONDITIONS.
3. FOR SUBSURFACE DRAINAGE OR STABILITY ISSUES DURING CONSTRUCTION (UNDER DIRECTION BY GEOTECH EXPERT):
 - A. SUBSURFACE DRAINAGE ISSUE - REFER TO GUIDELINES FOR DEWATERING ISSUES TO DERIVE ACCEPTABLE OPTIONS.
 - B. SUBSURFACE STABILITY ISSUE - INSTALL GEORID PER GEOTECH EXPERT RECOMMENDATION.

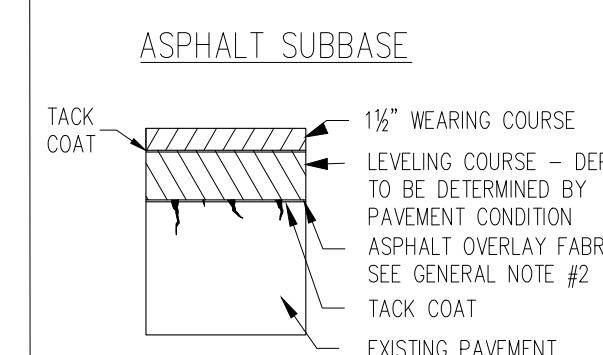
MEDIUM DUTY PAVEMENT



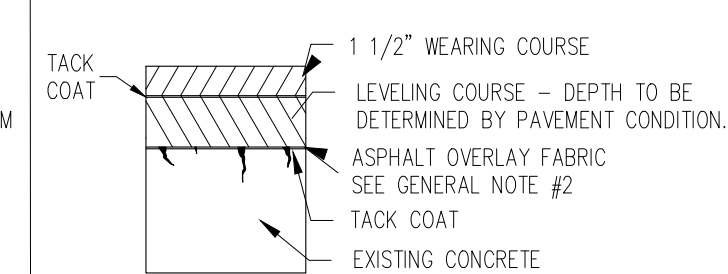
HEAVY DUTY PAVEMENT



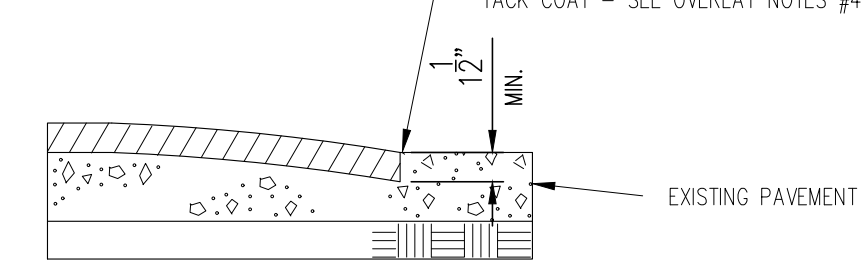
ASPHALT OVERLAY DETAIL



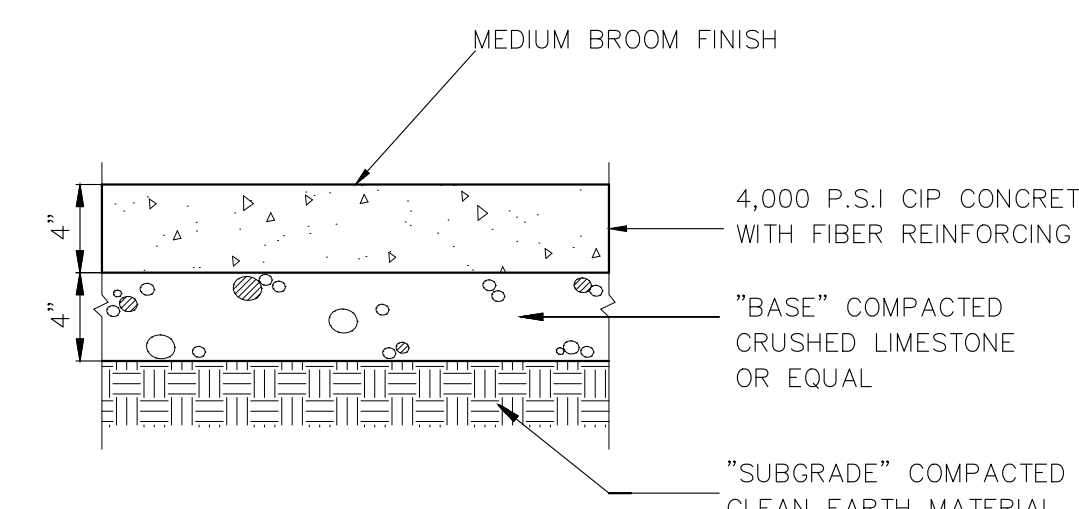
CONCRETE SUBBASE



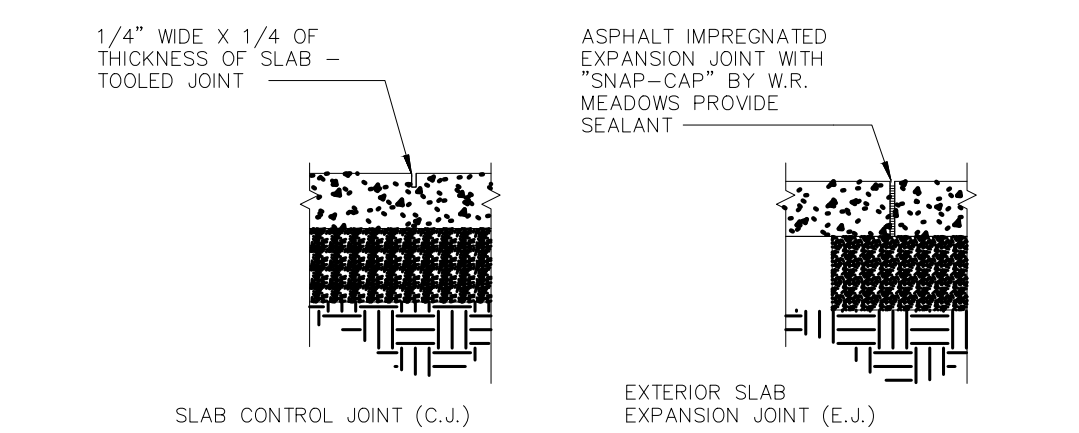
EDGE DETAIL



WHERE OVERLAY IS NOT SPECIFIED FOR ENTIRE EXISTING SURFACE, THE INTERFACE BETWEEN THE NEW OVERLAY AND THE OLD PAVEMENT SURFACE SHALL BE PER THE ABOVE DETAIL. FEATHERING OF THE ASPHALT TO MEET THE EXISTING PAVEMENT WILL NOT BE ACCEPTABLE.



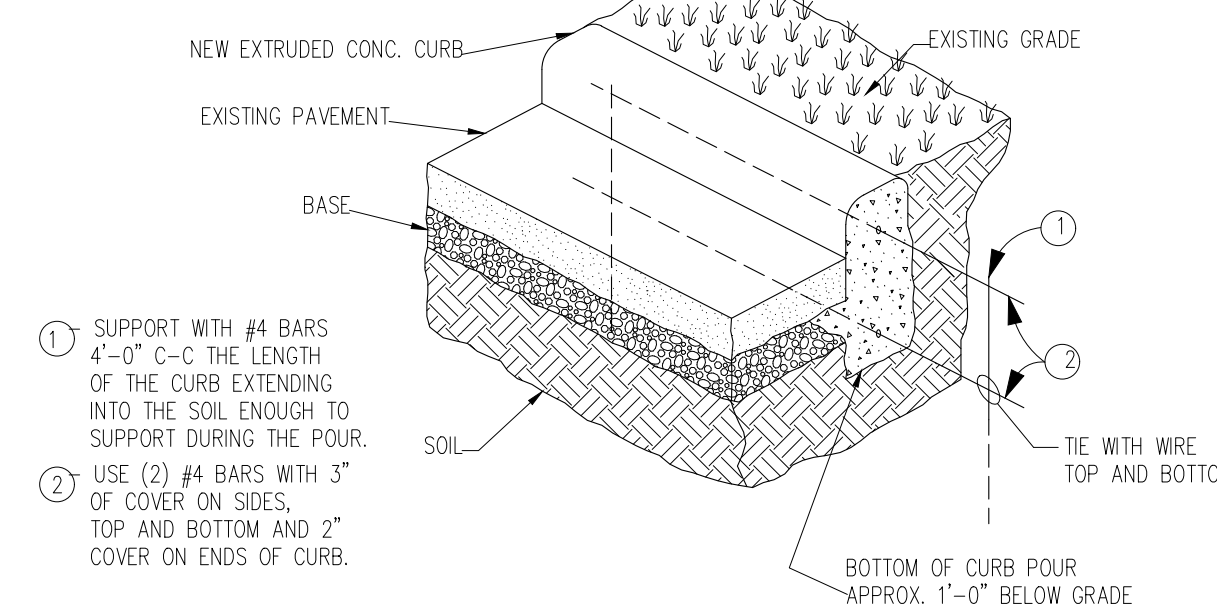
CONCRETE SIDEWALK PAVEMENT



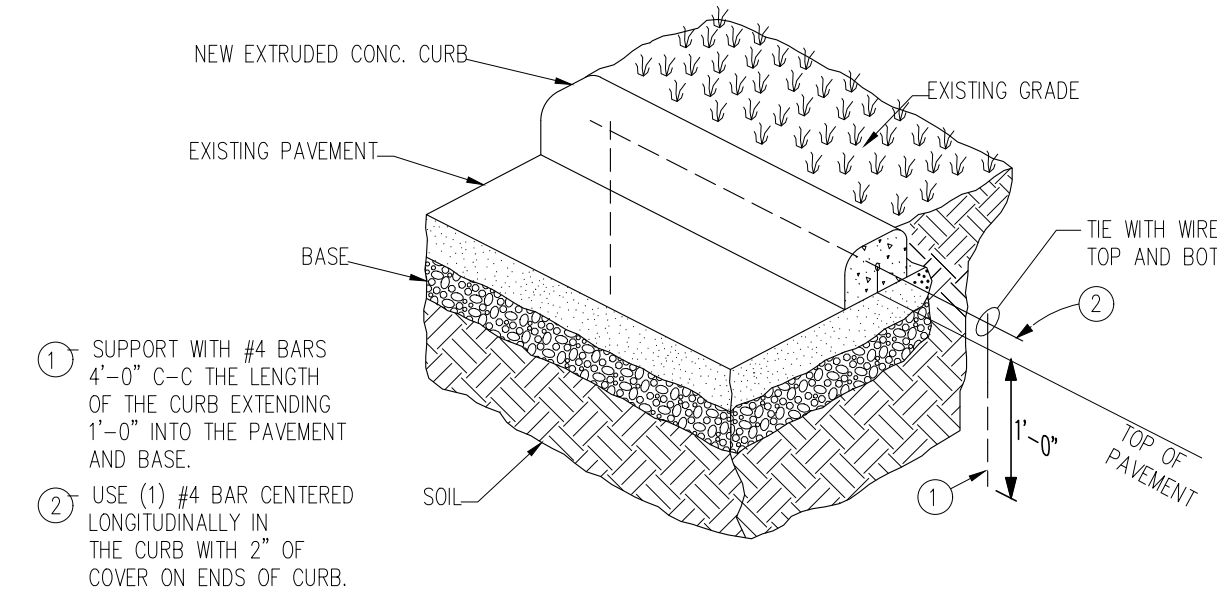
FOR 5' OR 8' WALKS, INSTALL A CONTROL JOINT EVERY 5'. IN 10' WALKS, INSTALL A CONTROL JOINT EVERY 5' AND ONE IN THE CENTER (5' FROM THE BACK OF THE BUILDING FOR EXAMPLE)

SIDEWALK JOINTS

PREFERRED METHOD



ALTERNATE METHOD



COLD WEATHER CURB INSTALLATION

FOR USE WHEN COLD WEATHER CONDITIONS CAUSE ASPHALT PAVEMENT TO BE PLACED BEFORE THE CONCRETE CURB.

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Crosland Southeast
7-Eleven Store #42378
Zebulon, NC
WAKE COUNTY

DATE REVISION	DESCRIPTION
1/11/23	TOWN OF ZEBULON REVIEW
1/25/23	TOWN OF ZEBULON REVIEW
1/27/23	WAKE COUNTY REVIEW
1/28/24	TOWN OF ZEBULON REVIEW

DATE REVISION	DESCRIPTION
1/11/23	TOWN OF ZEBULON REVIEW
1/25/23	TOWN OF ZEBULON REVIEW
1/27/23	WAKE COUNTY REVIEW
1/28/24	TOWN OF ZEBULON REVIEW

STORY OR BLDG NO.: N/A
VERSION OR PROJECT ID: N/A
DESIGN TEAM: DGNR, BRM & MCB
PM/DP: ML
RVWR: ML
ISSUE DATE: 1/18/2024
ADDRESS: 1106 N ARENDELL AVE, ZEBULON, NC 27597

SHEET TITLE: CONSTRUCTION DETAILS
DRWG. NO.: C6.2

AREA YARD SIGN DETAILS



R7-1

TYPICAL NO PARKING SIGN DETAIL
N.T.S.

REVISED DETAIL PER CR 2022-3004

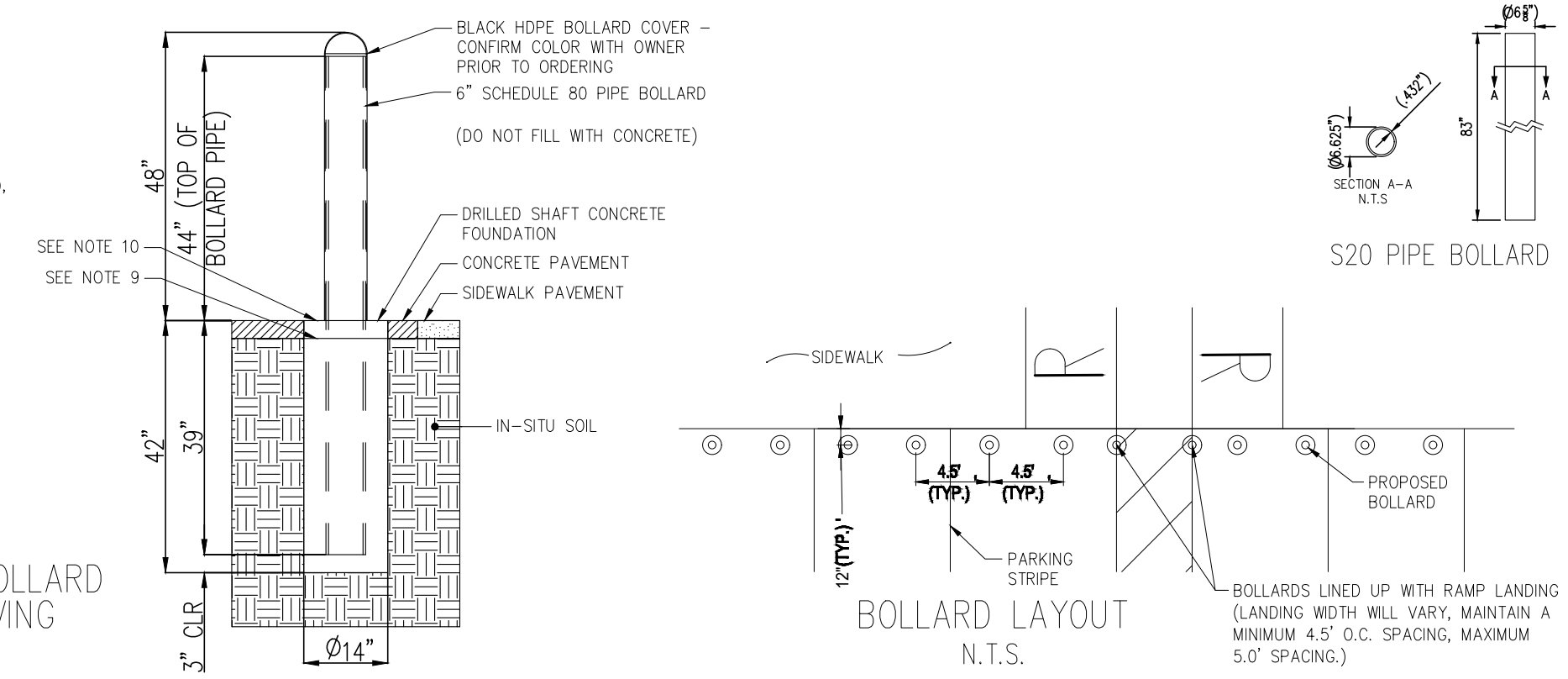
GENERAL NOTES:

1. MAXIMUM BOLLARD SPACING IS 5' ON CENTER
2. CONCRETE TO BE 4,000 PSI MIN. UNCOMPRESSED COMPRESSIVE STRENGTH.
3. REINFORCING STEEL CONFORMS TO ASTM A615 GRADE 60.
4. BOLLARD PIPE IS ASTM A53, TYPE E, GRADE B OR A500 GRADE B/C.
5. PROVIDE HIGH-DENSITY POLYETHYLENE (HDPE) BOLLARD COVER. COVER TO BE IDEALSHIELD (OR APPROVED EQUAL) 1/8" THICK, BROWN (PO-4400).
6. PIPE FIT, DOME TOP, 48" TALL.
7. DO NOT FILL BOLLARD PIPE WITH CONCRETE. TEMPORARILY SEAL BOTTOM AS NECESSARY TO PREVENT CONCRETE INTRUSION WHILE POURING.
8. USE SONOTUBE IN SANDY OR OTHER SOILS THAT MIGHT CAVE IN. DIMENSIONS IN PARENTHESES ARE NOMINAL.
9. COLD JOINT ACCEPTABLE THIS LINE FOR NEW INSTALLATIONS IN MONOLITHIC POUR CONCRETE PAVEMENT.
10. SLOPE TOP OF CONCRETE AWAY FROM BOLLARD 1/4" FROM PIPE TO EDGE OF DRILLED SHAFT OR CAP.
11. INCREASE DEPTH OF GASSON AND BOLLARD PIPE TO MEET LOCAL JURISDICTION MIN. FROST DEPTH REQUIREMENT.
12. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY NO UTILITY CONFLICTS EXIST WHERE BOLLARDS ARE TO BE INSTALLED, PRIOR TO INSTALLATION.

DESIGN SPECIFICATIONS: ASTM F3016-19 CONDITION DESIGNATION S20

DEEP MOUNT S20 BOLLARD IN CONCRETE PAVING
N.T.S.

STORE FRONT GUARDS



TYPICAL BIKE RACK DETAIL

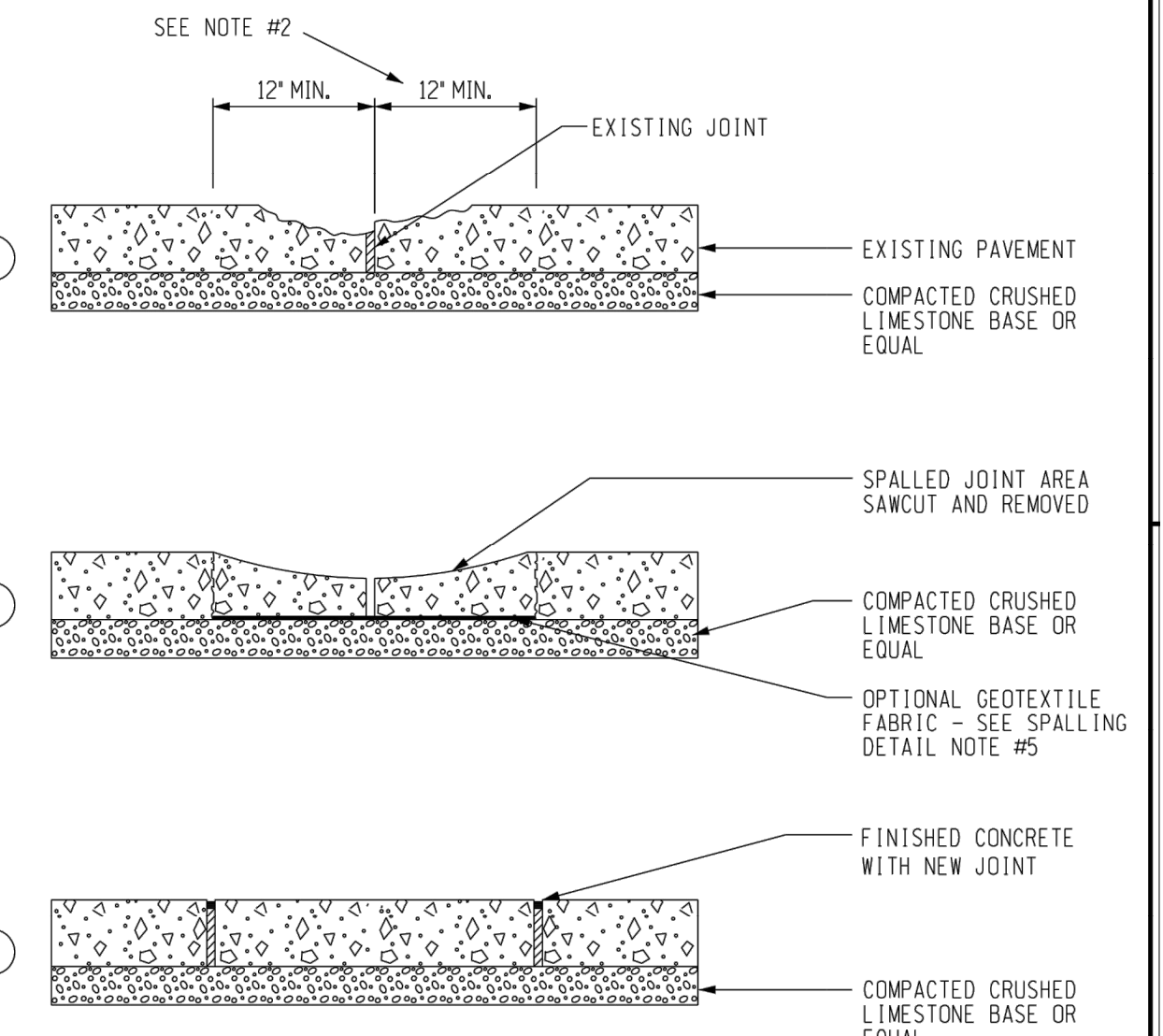
CONCRETE & ASPHALT PAVEMENT MAINTENANCE

- CONCRETE PAVING MAINTENANCE NOTES:**
1. CONTRACTOR SHALL REMOVE CONCRETE FROM FAILED AREA BY SAWCUTTING TO FULL DEPTH THE ORIGINAL SLAB AND REMOVING THE EXISTING CONCRETE. THE PATCH SHALL BE A MINIMUM OF 3' WIDE AND RECTANGULAR IN SHAPE. IT SHALL EXTEND TO THE NEXT JOINT IF WITHIN 3'.
 2. ANY JOINTS WHICH ARE REMOVED SHALL BE REPLACED IN THE SAME LOCATION AS THE OLD JOINTS - SEE JOINT DETAILS.
 3. CONTRACTOR IS RESPONSIBLE FOR DISPOSAL OF ALL DEBRIS PER LOCAL, STATE, AND FEDERAL REGULATIONS.
 4. SEE NORMAL STRENGTH PAVEMENT, HIGH STRENGTH PAVEMENT DETAILS FOR FULL DEPTH PATCH REQUIREMENTS.
- ASPHALT PAVEMENT MAINTENANCE NOTES:**
1. CONTRACTOR SHALL REMOVE ASPHALT FROM FAILED AREA BY SAWCUTTING A RECTANGULAR SHAPE AT LEAST 3' BEYOND THE DAMAGED AREA. TWO OF THE EDGES MUST BE AT RIGHT ANGLES TO THE DIRECTION OF TRAFFIC.
 2. SUBGRADE MUST BE REMOVED TO SOLID GROUND AND REPLACED IN ACCORDANCE WITH THE FULL DEPTH PATCH DETAIL AND OWNER'S SPECIFICATIONS.
 3. CONTRACTOR IS RESPONSIBLE FOR DISPOSAL OF ALL DEBRIS PER LOCAL, STATE, AND FEDERAL REGULATIONS.
 4. TACK COAT REQUIRED IF INSTALLING SEPARATE PLACEMENTS. SEE SPEEDWAY SPECIFICATIONS FOR TIMING AND TEMPERATURE GUIDELINES.

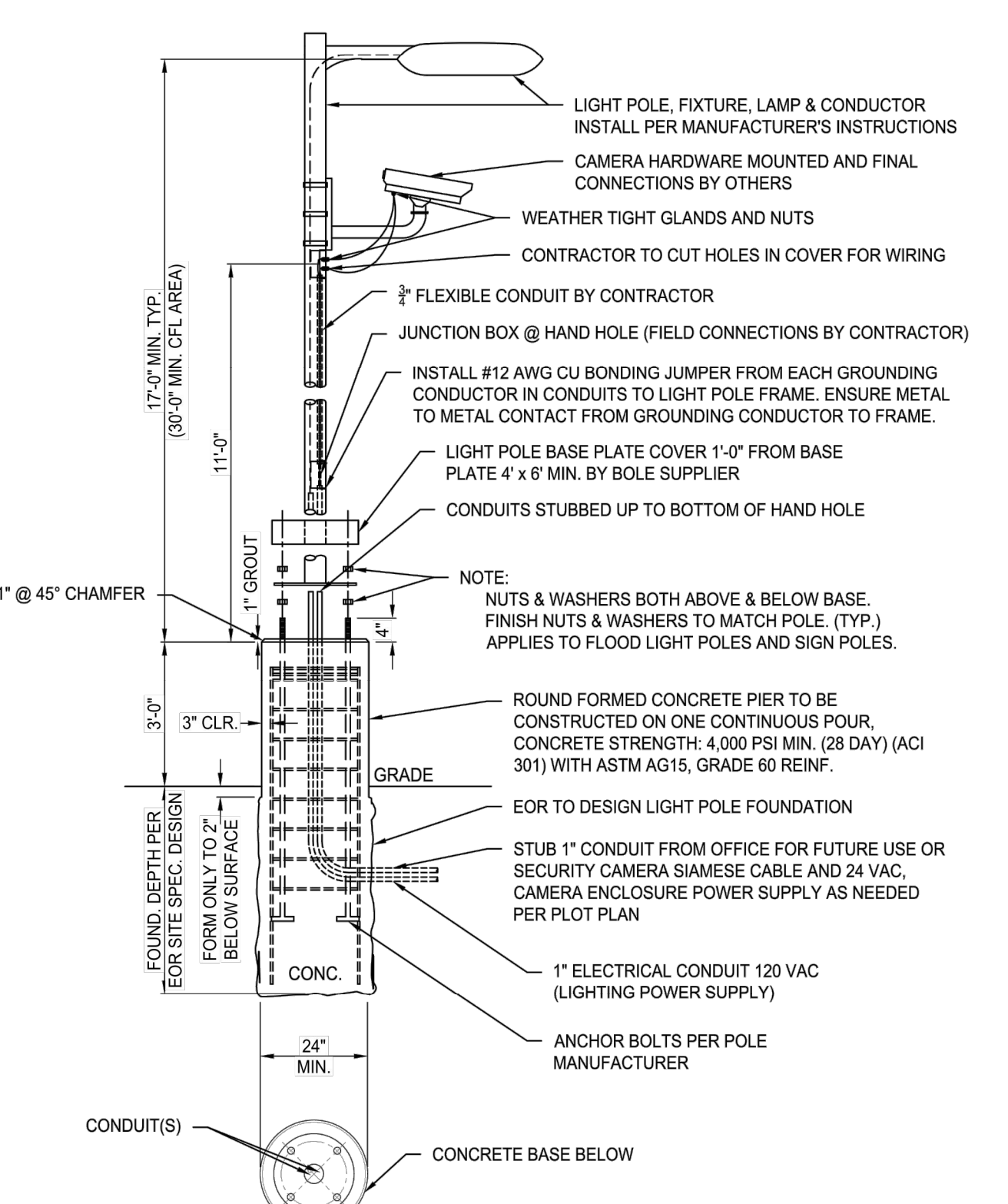
SPALLING DETAIL

SPALLING DETAIL NOTES:

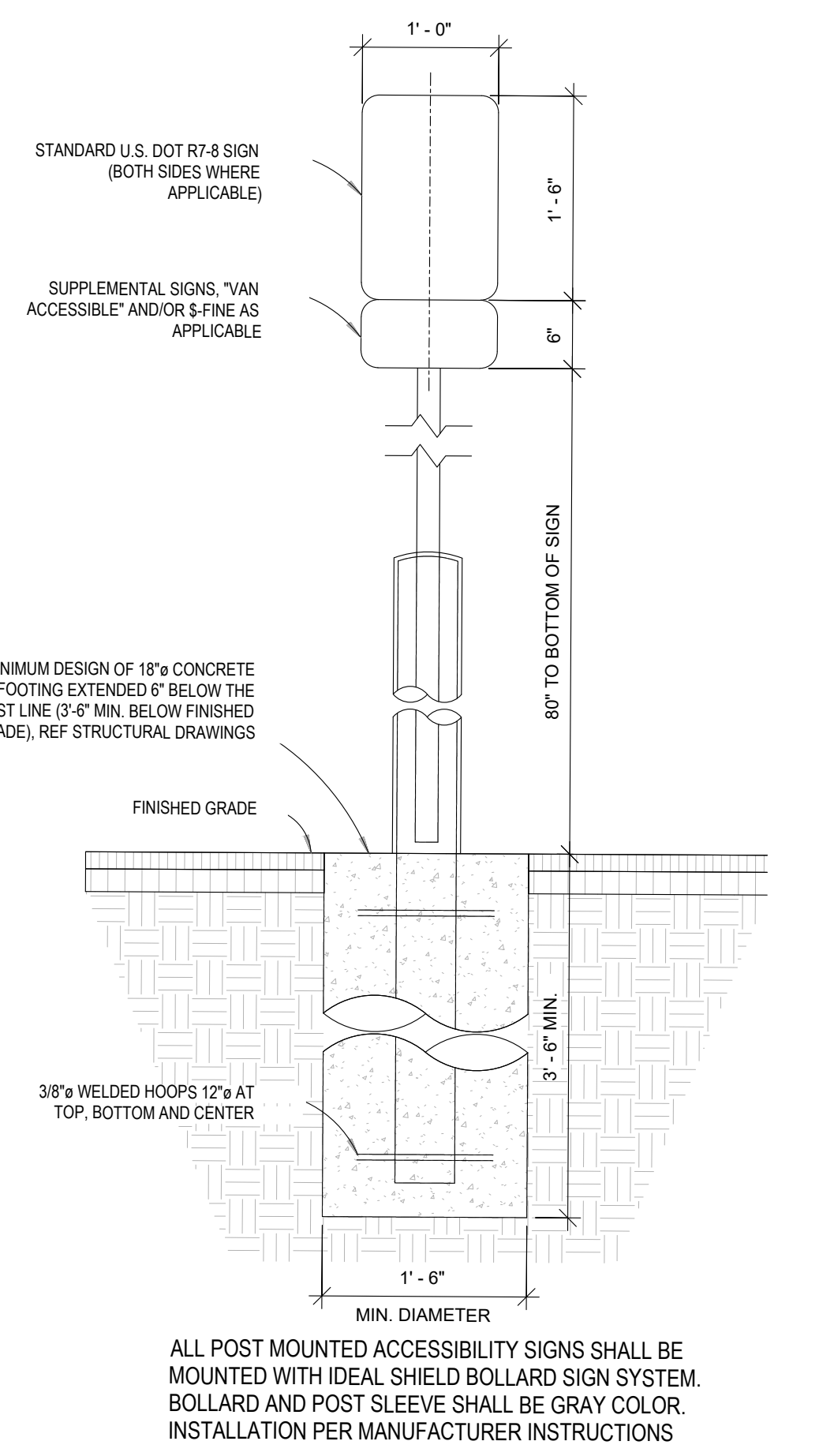
1. SPALLING ALONG JOINTS SHALL BE TREATED WITH REPAIR SIMILAR TO THAT OF A FULL DEPTH PATCH.
2. SPALLED CONCRETE SHALL BE REMOVED IN AN AREA NO LESS THAN ONE FOOT FROM THE JOINT BUT LARGE ENOUGH TO REMOVE ALL UNSOUND CONCRETE AND REMOVED TO A DEPTH GREAT ENOUGH TO REACH SUITABLE SUBGRADE.
3. THE CONCRETE SHALL BE REPLACED PER THE FULL DEPTH PATCH DETAIL AND LOCAL AGENCY HAVING JURISDICTION.
4. THE JOINT SHALL BE REPLACED PER THE JOINT DETAIL TO COINCIDE WITH THE LOCATION OF THE OLD JOINT. THE JOINT SHALL EXTEND THE FULL DEPTH OF THE NEW PATCH.
5. GEOTEXTILE FABRIC (NEEDS TO BE DETERMINED BY OWNER'S REPRESENTATIVE) 8 OZ/50 YD NEEDLE PUNCHED NON WOVEN, NEEDLE PUNCHED FABRIC



AREA LIGHT POLE FOUNDATION DETAIL



- GENERAL NOTES:**
1. RUB CONCRETE TO REMOVE SONOTUBE FORM LINES AND FILL ALL HOLES FOR SMOOTH FINISH. WEATHERSEAL ALL EXPOSED CONCRETE.
 2. VERIFY ANCHOR ROD LAYOUT AND EMBEDMENT REQUIREMENTS WITH POLE SUPPLIER.
 3. COORDINATE LOCATIONS WITH CIVIL.
 4. LIGHT POLE FOUNDATIONS LOCATED IN CFL TRAFFIC AREAS OR PARKING AREAS ARE RECOMMENDED TO EXTEND 5'-0" ABOVE GRADE AND BE A MIN. Ø3'-0".

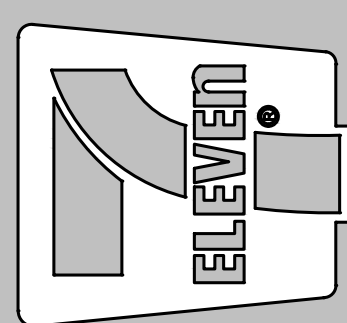


Post Mounted Accessibility Sign
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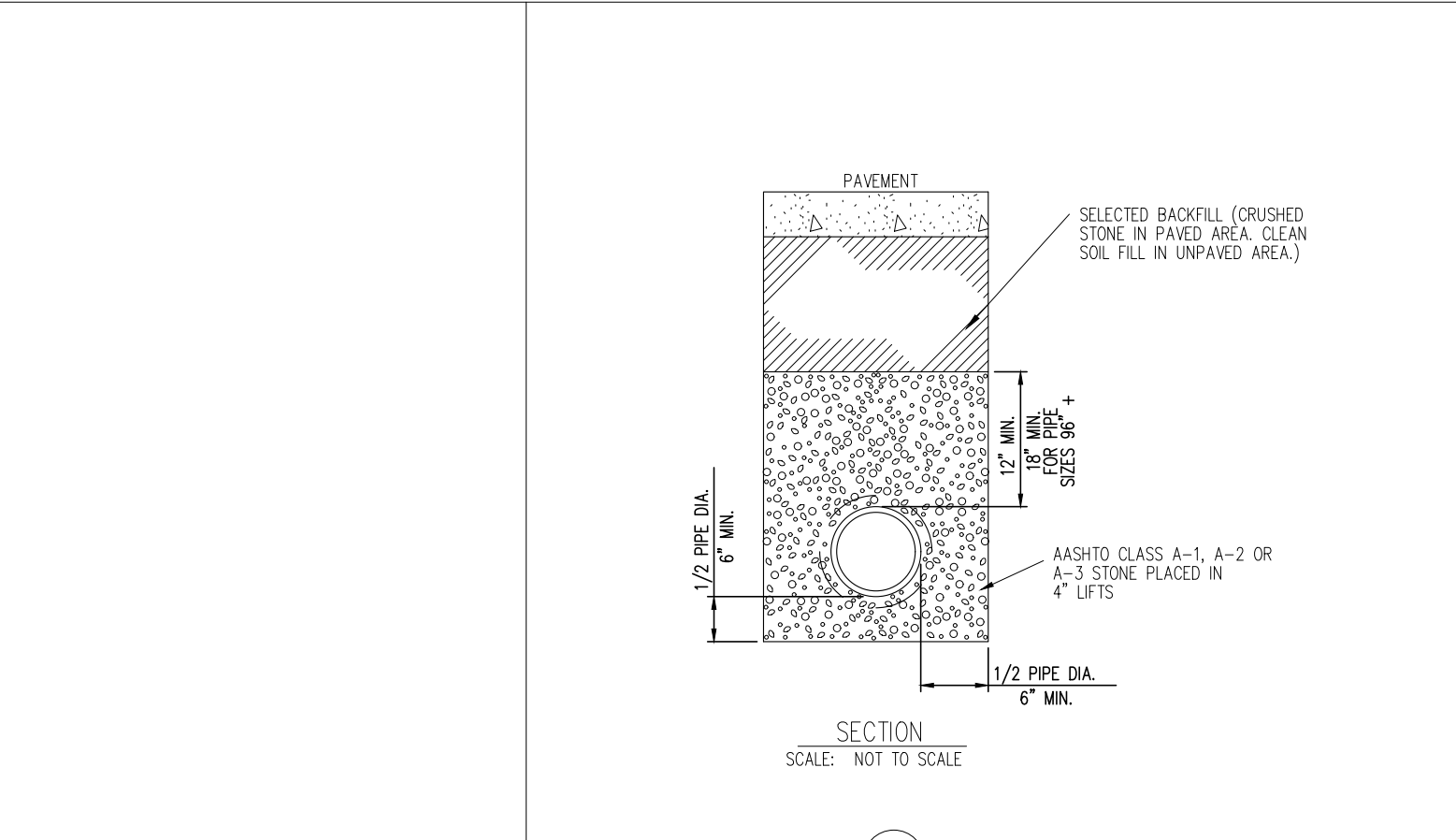
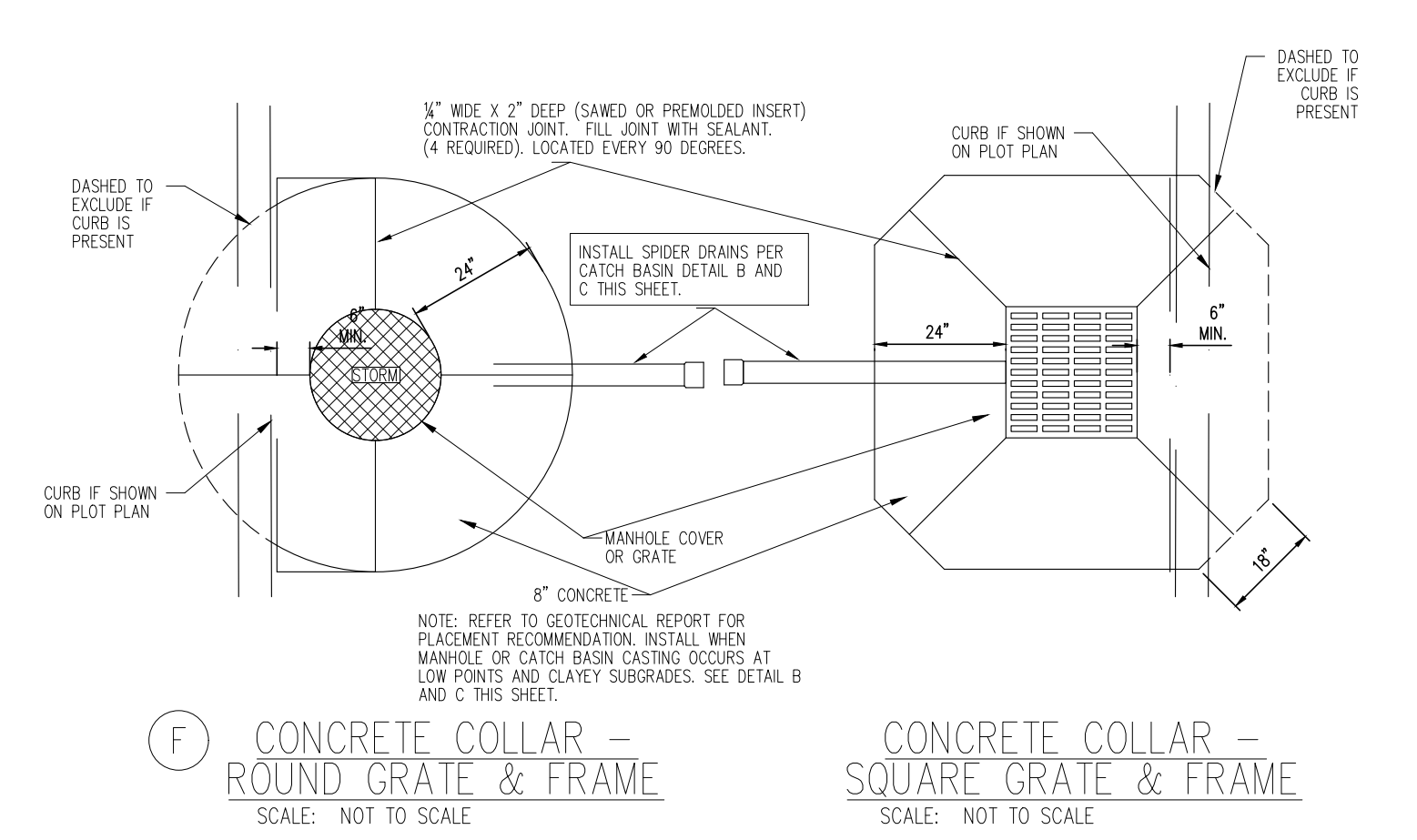
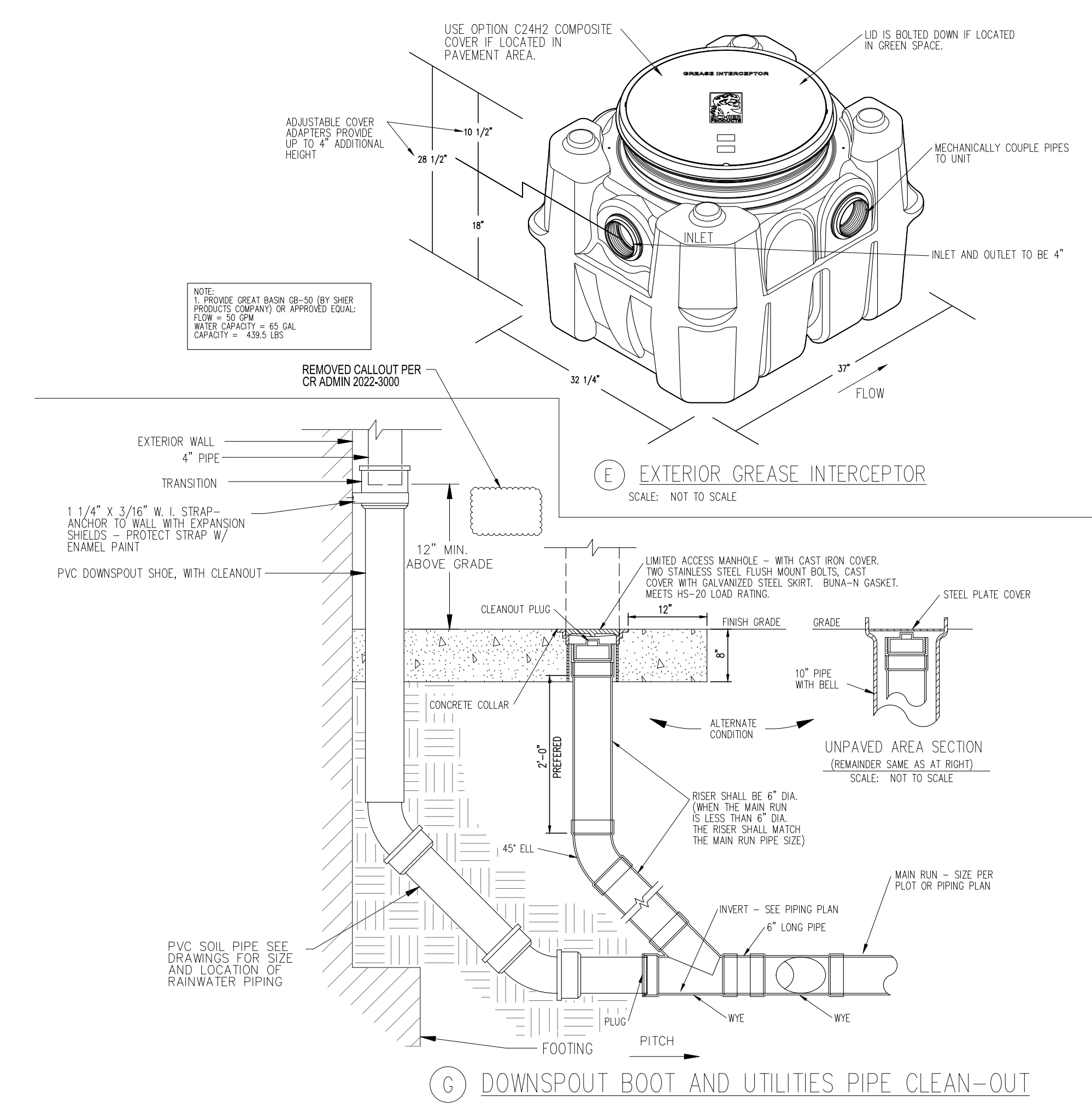
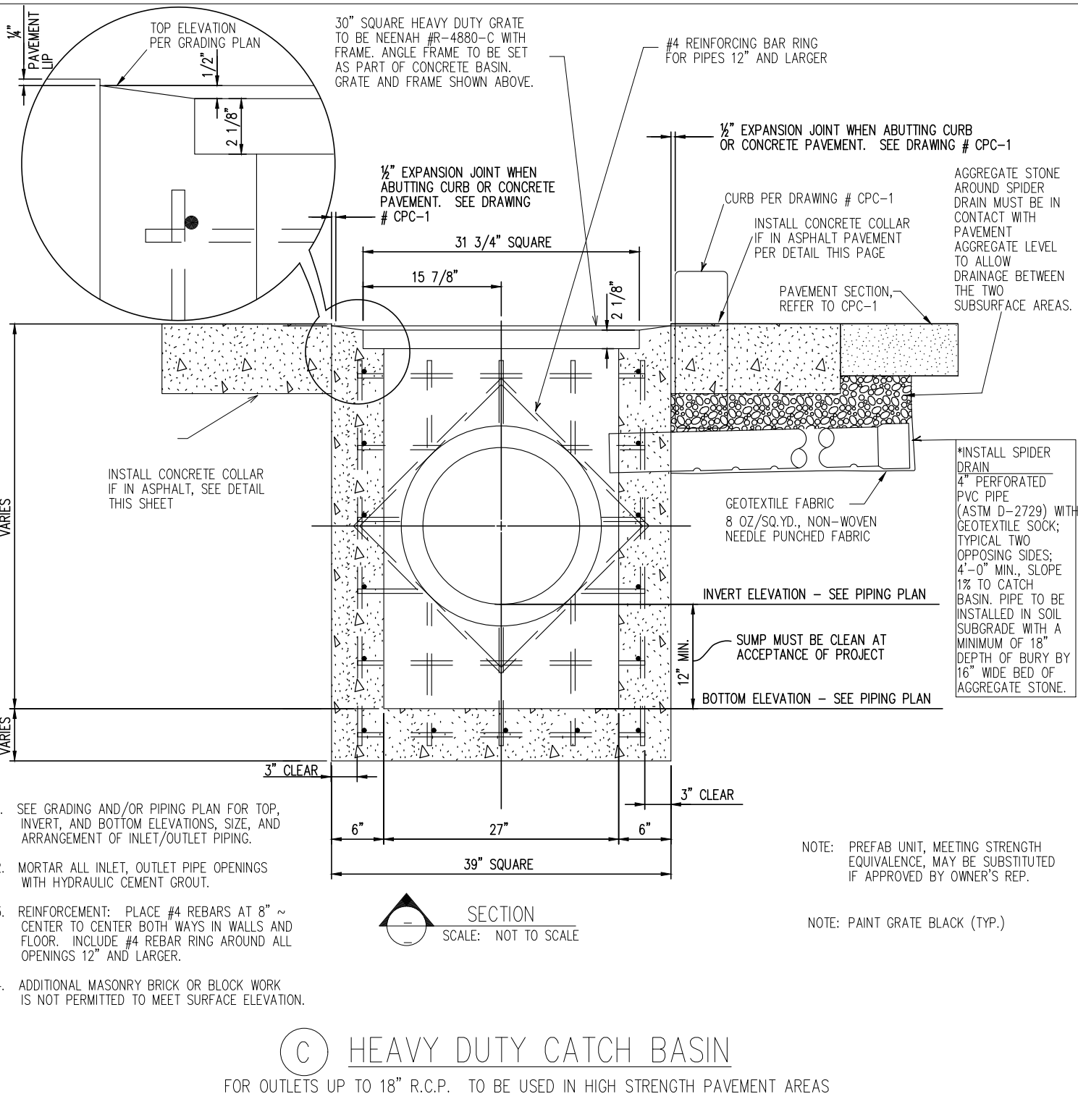
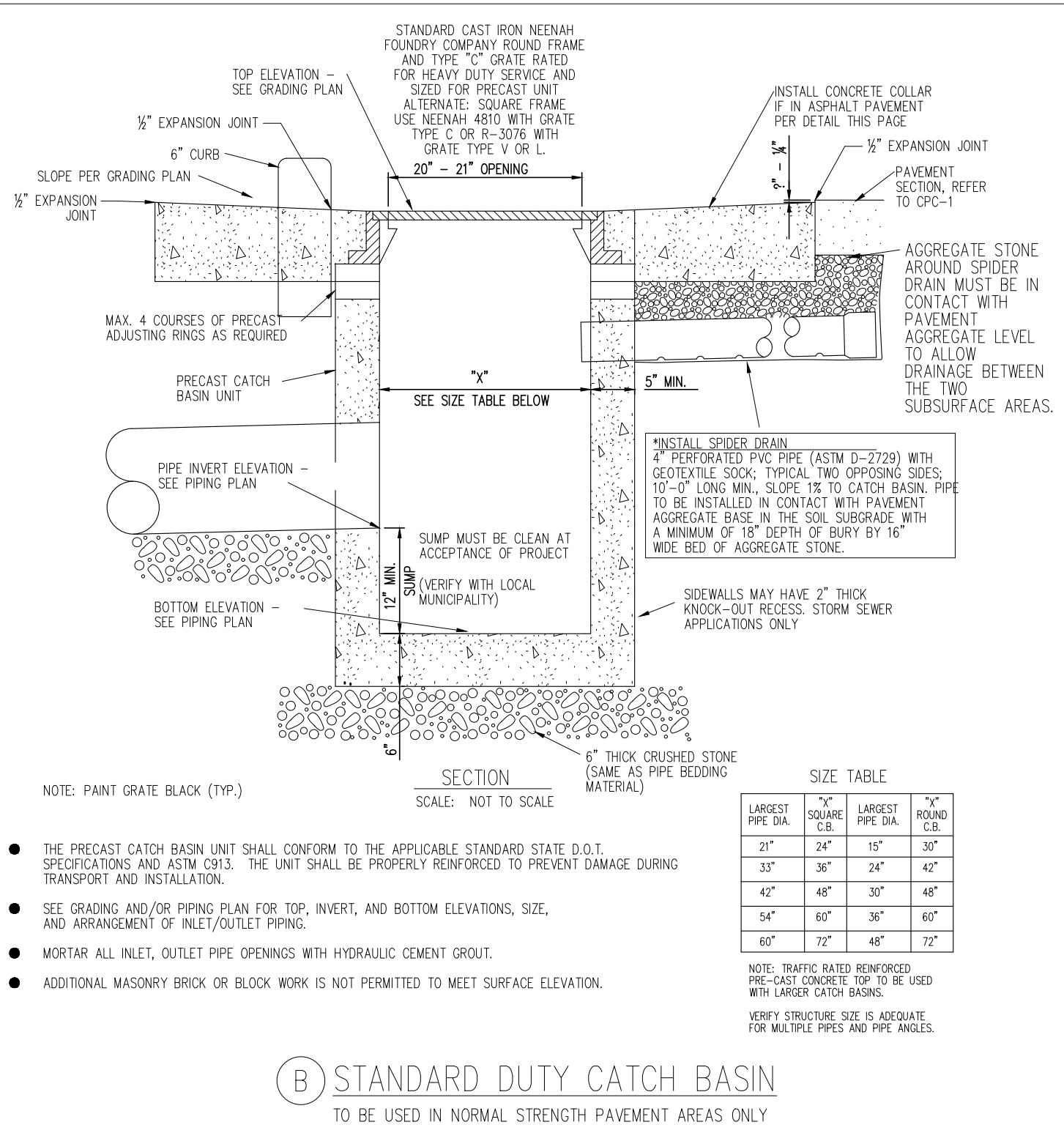
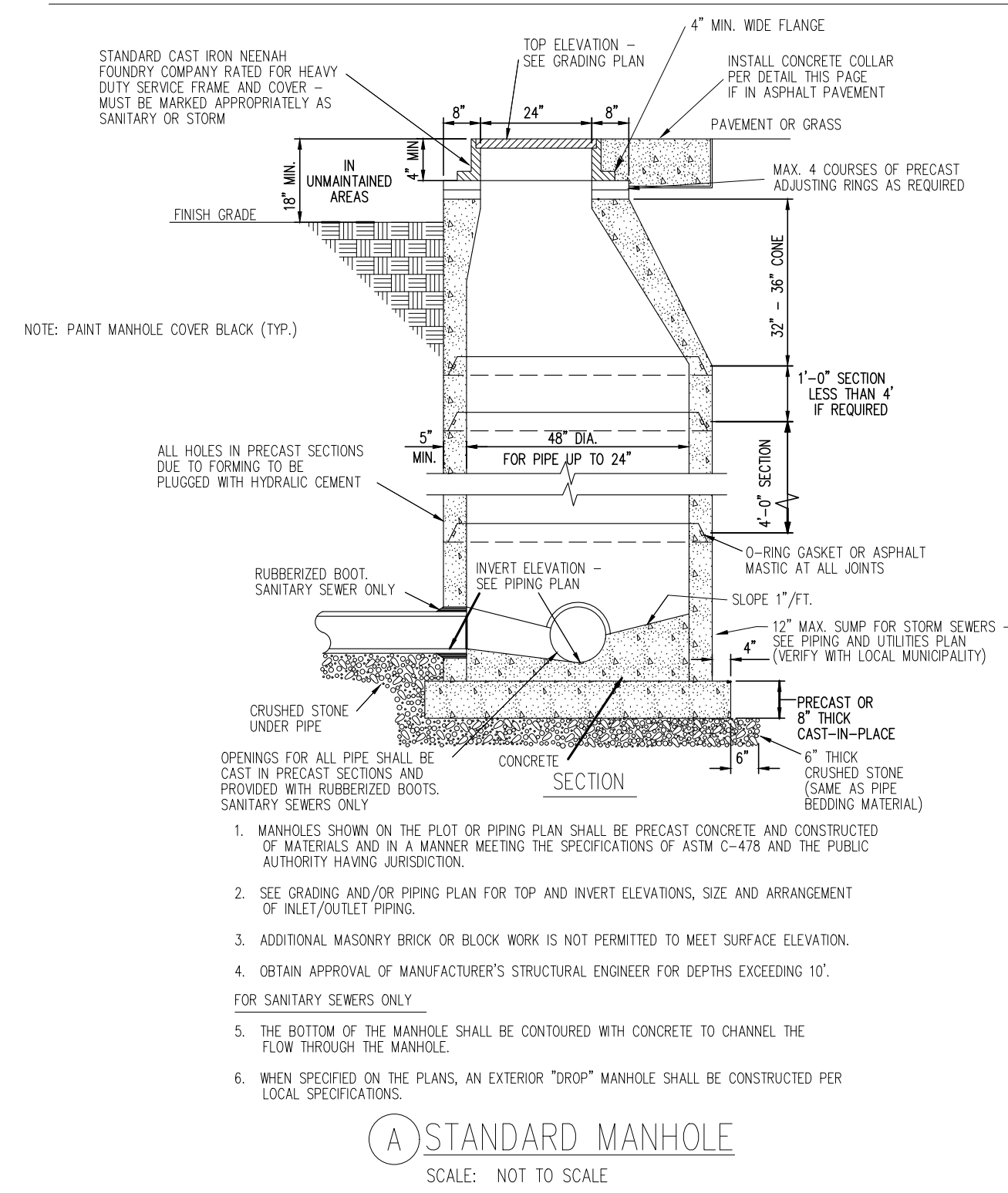


MARK	REVISION	DATE	DESCRIPTION
1	BRM	02/23	TOWN OF ZEBULON REVIEW
2	BRM/MCB	02/23	TOWN OF ZEBULON REVIEW
3	MCB	02/23	WAKE COUNTY REVIEW
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RVV/R:	ML
ISSUE DATE:	1/18/2024
ADDRESS:	1106 N ARENDELL AVE ZEBULON, NC 27587

SHEET TITLE
CONSTRUCTION DETAILS
DRWG. NO. **C6.3**

DRAINAGE & UTILITY DETAILS & SPECIFICATIONS



PIPE SPECIFICATIONS							
TYPE OF PIPE	"+" VALUES	SIZES PERMITTED	SENSE AND USE	PIPE SPECIFICATION	INSTALLATION SPECIFICATION	JOINT SPECIFICATION	PREMIUM JOINTS
POLY-VINYL CHLORIDE (PVC)	0.01	6"	SANITARY SEWER	ASTM D-3034 SDR 35	ASTM D-2321 STANDARD PRACTICE FOR INSTALLATION OF FLEXIBLE THERMOPLASTIC SEWER PIPE	ASTM D-3212 STANDARD SPECIFICATION FOR JOINTS FOR DRAIN AND SEWER PLASTIC PIPES USING FLEXIBLE ELASTOMERIC SEALS	ASTM F-477 ELASTOMERIC SEALS FOR JOINING PLASTIC PIPE (OIL RESISTANT) HIGH NITRILE (NBR), EPIDIOXYMER (EPO), NEOPRENE (CR), POLYSULFIDE (PS), OR FLUORO ELASTOMER (FPM)
		8" - 12"	STORM DRAINAGE	STANDARD SPECIFICATION FOR TYPE FPM PVC SEWER PIPE AND FITTINGS	PIPE BEDDING PER DETAIL	ASTM C-443 STANDARD SPECIFICATION FOR JOINTS FOR CIRCULAR CONCRETE SEWER AND CULVERT PIPE USING RUBBER GASKETS (OIL RESISTANT)	
REINFORCED CONCRETE (RCP)	0.013	12" DIA. AND LARGER	STORM DRAINAGE	ASTM C-76, ASTM C1479 CLASS 3, WALL B-TONGUE AND GROOVE	PIPE BEDDING PER DETAIL	BUTYROUS MASTIC	ASTM C-443 STANDARD SPECIFICATION FOR JOINTS FOR CIRCULAR CONCRETE SEWER AND CULVERT PIPE USING RUBBER GASKETS (OIL RESISTANT)
SMOOTH LINED CORRUGATED HDPE N-12 BY ADVANCED DRAINAGE SYSTEMS (800) 733-9554 SURE-LOK BY HANCOCK (800) 537-9520	0.012	8" AND LARGER	STORM DRAINAGE	AASHTO M294-S	ASTM D-2321 PIPE BEDDING PER DETAIL	STANDARD COUPLERS (PRO LINK)	PVC DOUBLE BELL COUPLER WITH GASKET (PRO LINK 10.8)
		12" AND LARGER	STORM DRAINAGE	AASHTO M294-S	ASTM D-2321 PIPE BEDDING PER DETAIL	USE GASKET IN FINE SOILS BELL & SPIGOT WITH GASKET (SURE-LOK 10.8)	AVAILABLE THROUGH 24" BELL & SPIGOT WITH GASKET (SURE-LOK 10.8) AVAILABLE THROUGH 30"
DUCTILE IRON (DI)	0.012	4" - 12"	SPECIAL	ASTM A-746 CLASS 50 STANDARD SPECIFICATION FOR DUCTILE IRON GRAVITY SEWER PIPE	PIPE BEDDING PER DETAIL	RUBBER GASKET COMPRESSION TYPE JOINT	GASKET TO BE OIL RESISTANT NITRILE-BUTADIENE (NBR)
POLYETHYLENE (PE)	0.010	4" - 6"	UNDERDRAINS AND SEPTIC DISPOSAL FIELDS ONLY	ASTM F-405 STANDARD SPECIFICATION FOR CORRUGATED POLYETHYLENE TUBING AND FITTINGS	SEE UNDERDRAN DETAIL	STANDARD COUPLINGS	N/A
CORRUGATED METAL PIPE (CMP)	0.022	12" DIA. AND LARGER	STORM DRAINAGE	ASTM A-760 STANDARD SPECIFICATION FOR CORRUGATED METAL PIPE - METALLIC-COATED FOR SEWERS AND DRAINS	ASTM A-807 STANDARD SPECIFICATION FOR INSTALLING CORRUGATED METAL STRUCTURAL PLATE PIPE FOR SEWERS	STANDARD COUPLINGS	N/A
HIGH PERFORMANCE (HP) PIPING	0.012	12" - 60"	STORM DRAINAGE	AASHTO M330 ASTM F2881	ASTM D2321	WATER TIGHT ASTM D-3212	EXTENDED REINFORCED INTEGRAL BELL AND GASKETED SPIGOT

Bowman
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Crosland Southeast
7-Eleven Store #42378
Zebulon, NC
WAKE COUNTY

NO.	DATE	REVISION DESCRIPTION	DATE REVISION	REVISION DESCRIPTION
1	02/23	TOWN OF ZEBULON REVIEW		
2	02/23	TOWN OF ZEBULON REVIEW		
3	02/23	WAKE COUNTY REVIEW		
4	02/23	WAKE COUNTY REVIEW		

STORE OR BLDG NO.:
N/A

VERSION OR PROJECT ID:
N/A

DESIGN TEAM
DGNR, BRM & MCB

PM/DP: ML

RVWR: ML

ISSUE DATE: 1/18/2024

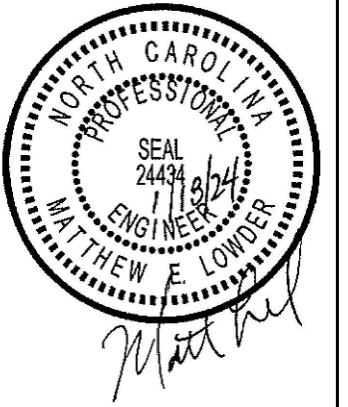
ADDRESS
1106 N ARENDELL AVE
ZEBULON, NC 27587

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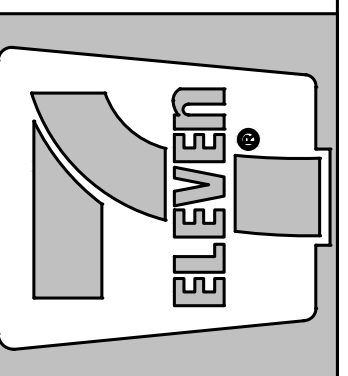
DRWG. NO.

C6.4

59.5B)



Crosland Southeast
7-Eleven Store #42378
Zebulon, NC
WAKE COUNTY



30° VALLEY - STANDARD

30° VALLEY - SPILL

STANDARD

SPILL

NOTES:
1. SCORE CURB / VALLEY GUTTER AT 15' O.C.
2. PROVIDE 1/2" EXPANSION JOINTS AT 90' O.C.
3. FOR TRANSITION OF CURB TO CURB OPENING INLET, SEE STANDARD DETAIL 33.

TOWN OF ZEBULON
STD. CURB & GUTTER & VALLEY GUTTER DETAIL
SCALE: NOT TO SCALE
DATE: JULY 2010
SHEET # 3
1 OF 1

SECTIONAL VIEW

NOTES:
1. PAVEMENT REPAIRS SHALL HAVE 6" COMPACTED H-BINDER AND 2" TOPPING OF SP9.5B.
2. TRENCH IS TO BE BACK FILLED IN 6" LIFTS AND COMPACTED TO 98% STANDARD DENSITY AS DETERMINED BY AASHTO TEST METHOD T-99 OR ASTM D-698 BEFORE PAVEMENT REPAIRS ARE MADE.
3. COMPACTION TEST MAY BE REQUIRED AT REQUEST OF INSPECTOR.
4. ALL EXISTING PAVED STREETS AND SECONDARY ROADS WHICH ARE OPEN CUT TO INSTALL SEWER OR WATER PIPE, MUST BE REPAIRED ACCORDING TO THIS DETAIL. CABG BACKFILL IS NOT ALLOWED IN ANY PART OF TRENCH WITHIN PAVEMENT.
5. FIBER OPTIC & GAS: #57 STONE OR FLOWABLE FILL CONCRETE (MINIMUM 50 PSI) BUT MIN. 6" COMPACTED CLASS II OR III (DEFINITION IN SECTION 02210 - PARAGRAPH 3B OF SPECS) FILL OVER TOP OF FIBER OPTIC CABLE OR GAS PIPE.
6. SIDEWALK TRANSVERSE SLOPE MAY INCREASE TO 1/2 IN 12 WITH TOWN'S ENGINEER APPROVAL.

TOWN OF ZEBULON
FULL DEPTH ASPHALT REPAIR DETAIL FOR UTILITY CUTS
SCALE: NOT TO SCALE
DATE: JULY 2010
SHEET # 6
1 OF 1

SECTIONAL VIEW

NOTES:
1. PROVIDE 3/4" DEEP TOOLED SCORE AT 5'-0" O.C.
2. EXPANSION JOINTS TO BE PLACED 30'-0" O.C. LONGITUDINALLY, ADJACENT TO CURBS, AND WHEN BUTTING EXISTING STRUCTURES, CONCRETE, OR BUILDINGS.
3. CONCRETE TO BE 3000 P.S.I. AT 28 DAYS, AIR-ENTRAINED.
4. SUBGRADE SHOULD NOT CONTAIN ORGANIC MATTER OR PLASTIC CLAYS. WHEN FOUND, REFER TO SPECS OR CONTACT ENGINEER FOR DIRECTIONS.
5. AREAS OF FILL ARE TO BE COMPACTED TO 95% STANDARD PROCTOR USING MCDOT CLASS III BORROW OR BETTER. REMOVE TOPSOIL BEFORE PLACING BORROW.
6. SIDEWALK TRANSVERSE SLOPE MAY INCREASE TO 1/2 IN 12 WITH TOWN'S ENGINEER APPROVAL.

TOWN OF ZEBULON
TYP SIDEWALK in CUT or FILL SECTIONS
SCALE: NOT TO SCALE
DATE: JULY 2010
SHEET # 12
1 OF 1

SECTIONAL VIEW

NOTES:
1. PROVIDE 3/4" DEEP TOOLED SCORE AT 5'-0" O.C.
2. EXPANSION JOINTS TO BE PLACED 30'-0" O.C. LONGITUDINALLY, ADJACENT TO CURBS, AND WHEN BUTTING EXISTING STRUCTURES, CONCRETE, OR BUILDINGS.
3. CONCRETE TO BE 3000 P.S.I. AT 28 DAYS, AIR-ENTRAINED.
4. SUBGRADE SHOULD NOT CONTAIN ORGANIC MATTER OR PLASTIC CLAYS. WHEN FOUND, REFER TO SPECS OR CONTACT ENGINEER FOR DIRECTIONS.
5. AREAS OF FILL ARE TO BE COMPACTED TO 95% STANDARD PROCTOR USING MCDOT CLASS III BORROW OR BETTER. REMOVE TOPSOIL BEFORE PLACING BORROW.
6. SIDEWALK TRANSVERSE SLOPE MAY INCREASE TO 1/2 IN 12 WITH TOWN'S ENGINEER APPROVAL.

TOWN OF ZEBULON
TYP SIDEWALK in CUT or FILL SECTIONS
SCALE: NOT TO SCALE
DATE: JULY 2010
SHEET # 13
1 OF 1

PLAN VIEW

NOTES:
1. PROVIDE 3/4" DEEP TOOLED SCORE AT 5'-0" O.C.
2. EXPANSION JOINTS TO BE PLACED 30'-0" O.C. LONGITUDINALLY, ADJACENT TO CURBS, AND WHEN BUTTING EXISTING STRUCTURES, CONCRETE, OR BUILDINGS.
3. CONCRETE TO BE 3000 P.S.I. AT 28 DAYS, AIR-ENTRAINED.
4. SUBGRADE SHOULD NOT CONTAIN ORGANIC MATTER OR PLASTIC CLAYS. WHEN FOUND, REFER TO SPECS OR CONTACT ENGINEER FOR DIRECTIONS.
5. AREAS OF FILL ARE TO BE COMPACTED TO 95% STANDARD PROCTOR USING MCDOT CLASS III BORROW OR BETTER. REMOVE TOPSOIL BEFORE PLACING BORROW.
6. SIDEWALK TRANSVERSE SLOPE MAY INCREASE TO 1/2 IN 12 WITH TOWN'S ENGINEER APPROVAL.

TOWN OF ZEBULON
SIDEWALK DETAIL X-ING EX. DRIVEWAYS
SCALE: NOT TO SCALE
DATE: JULY 2010
SHEET # 14
1 OF 1

LONGITUDINAL SECTION

SECTION A-A

ELEVATION OF SINGLE ACCESS RAMP

NOTES:
1. WHEELCHAIR RAMP SHALL BE PROVIDED AT LOCATIONS AS SHOWN ON THESE PLANS OR AS DIRECTED BY THE ENGINEER. WHEELCHAIR RAMP SHALL BE LOCATED AS INDICATED IN THESE DETAILS. HOWEVER, THE LOCATION MAY BE ADJUSTED AS DIRECTED BY THE ENGINEER WHERE EXISTING LIGHT POLES, FIRE HYDRANTS, DROP INLETS, ETC. AFFECT PLACEMENT. AT THESE LOCATIONS, NOT LESS THAN 2 FEET OF FULL HEIGHT CURB SHALL BE PLACED BETWEEN ADJACENT RAMP.

TOWN OF ZEBULON
SINGLE ACCESS RAMP DETAIL
SCALE: NOT TO SCALE
DATE: JULY 2010
SHEET # 20
1 OF 1

PERSPECTIVE

NOTES:
1. WHEELCHAIR RAMP SHALL BE PROVIDED AT LOCATIONS AS SHOWN ON THESE PLANS OR AS DIRECTED BY THE ENGINEER. WHEELCHAIR RAMP SHALL BE LOCATED AS INDICATED IN THESE DETAILS. HOWEVER, THE LOCATION MAY BE ADJUSTED AS DIRECTED BY THE ENGINEER WHERE EXISTING LIGHT POLES, FIRE HYDRANTS, DROP INLETS, ETC. AFFECT PLACEMENT. AT THESE LOCATIONS, NOT LESS THAN 2 FEET OF FULL HEIGHT CURB SHALL BE PLACED BETWEEN ADJACENT RAMP.

TOWN OF ZEBULON
STANDARD ADA WHEELCHAIR SIDEWALK ACCESS AT CURB RETURNS
SCALE: NOT TO SCALE
DATE: JULY 2010
SHEET # 21
1 OF 2

SECTION A-A

SECTION B-B

DOUBLE HANDICAP RAMP DETAIL

NOTES:
1. WHEELCHAIR RAMP SHALL BE PROVIDED AT LOCATIONS AS SHOWN ON THESE PLANS OR AS DIRECTED BY THE ENGINEER. WHEELCHAIR RAMP SHALL BE LOCATED AS INDICATED IN THESE DETAILS. HOWEVER, THE LOCATION MAY BE ADJUSTED AS DIRECTED BY THE ENGINEER WHERE EXISTING LIGHT POLES, FIRE HYDRANTS, DROP INLETS, ETC. AFFECT PLACEMENT. AT THESE LOCATIONS, NOT LESS THAN 2 FEET OF FULL HEIGHT CURB SHALL BE PLACED BETWEEN ADJACENT RAMP.

TOWN OF ZEBULON
DOUBLE HANDICAP RAMP DETAIL
SCALE: NOT TO SCALE
DATE: JULY 2010
SHEET # 21
2 OF 2

PERSPECTIVE

SECTION A-A

HANDICAP PARKING STALL DETAIL

NOTES:
1. WHEELCHAIR RAMP SHALL BE PROVIDED AT LOCATIONS AS SHOWN ON THESE PLANS OR AS DIRECTED BY THE ENGINEER. WHEELCHAIR RAMP SHALL BE LOCATED AS INDICATED IN THESE DETAILS. HOWEVER, THE LOCATION MAY BE ADJUSTED AS DIRECTED BY THE ENGINEER WHERE EXISTING LIGHT POLES, FIRE HYDRANTS, DROP INLETS, ETC. AFFECT PLACEMENT. AT THESE LOCATIONS, NOT LESS THAN 2 FEET OF FULL HEIGHT CURB SHALL BE PLACED BETWEEN ADJACENT RAMP.

TOWN OF ZEBULON
HANDICAP PARKING STALL DETAIL
SCALE: NOT TO SCALE
DATE: JULY 2010
SHEET # 22
1 OF 1

ELEVATIONAL VIEW

NOTES:
1. STREET NAME SIGNS SHALL BE A MINIMUM OF EXTRUDED ALUMINUM BLADES USING A MINIMUM OF 4" C SERIES LETTERING IN HIGH INTENSITY SILVER & HIGH INTENSITY GREEN BACKGROUND (12" LETTERS FOR BLOCK NUMBERS)
2. ALL REFLECTIVE SIGNS SHALL BE MADE OF HIGH INTENSITY GRADE REFLECTIVE SHEETING OR APPROVED EQUIVALENT.
3. ALL SIGNS PLACED IN RIGHT-OF-WAY WILL BE APPROVED BY TOWN'S PUBLIC WORKS DIRECTOR.
4. ERECT STREET SIGNS PLUMB.
5. DEVELOPER SHALL BE RESPONSIBLE FOR FURNISHING & ERECTING ALL STREET NAME & REGULATORY SIGNS.
6. ALL HARDWARE MUST BE GALVANIZED.

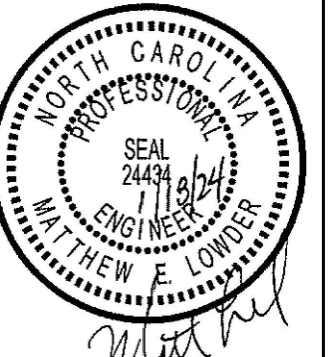
TOWN OF ZEBULON
STANDARD SIGN INSTALLATION DETAIL
SCALE: NOT TO SCALE
DATE: JULY 2010
SHEET # 30
1 OF 1

NO.	REVISION DESCRIPTION	DATE	REVISION
1	TOWN OF ZEBULON REVIEW	07/23/2010	REVISION
2	TOWN OF ZEBULON REVIEW	07/23/2010	REVISION
3	WAKE COUNTY REVIEW	07/23/2010	REVISION
4	WAKE COUNTY REVIEW	07/23/2010	REVISION

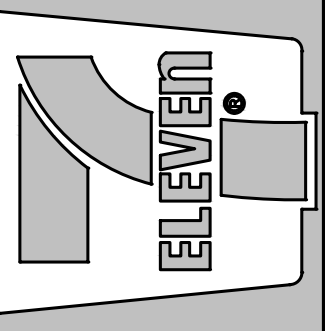
STORE OR BLDG NO.: N/A
VERSION OR PROJECT ID: N/A
DESIGN TEAM: DGNR, BRM & MCB
PM/DP: ML
RVWR: ML
ISSUE DATE: 1/18/2024
ADDRESS: 1106 N ARENDELL AVE, ZEBULON, NC 27587

SHEET TITLE
OFFSITE CONSTRUCTION DETAILS

DRWG. NO. **C6.5**



Crosland Southeast
7-Eleven Store #42378
Zebulon, NC
WAKE COUNTY



TOWN OF ZEBULON
STD. C&G INLET W/HOOD
DETAIL
SCALE: NOT TO SCALE
DATE: JULY 2010
SHEET # 1 OF 4
DETAIL # 33

U.S. FOUNDRY 5181 CURB & GUTTER INLET FRAME (SHOW WITH 6420 GRATE)
HEAVY DUTY FRAME, COVER & HOOD
FRAME COVER & HOOD HEIGHT = 550 LBS.
WEIGHT MAY NOT DEVIATE BY MORE THAN -5.0%

TOWN OF ZEBULON
STD. C&G INLET W/HOOD
DETAIL
SCALE: NOT TO SCALE
DATE: JULY 2010
SHEET # 2 OF 4
DETAIL # 33

DETAIL SHOWING TYPES OF GRATES TO BE USED ACCORDING TO WATER FLOW

TOWN OF ZEBULON
STD. TRANSITION FROM INLET TO STD. C&G / VALLEY GUTTER
SCALE: NOT TO SCALE
DATE: JULY 2010
SHEET # 3 OF 4
DETAIL # 33

TRANSITION FROM STD. 30" CURB and GUTTER
TRANSITION FROM 30" VALLEY GUTTER

TOWN OF ZEBULON
DETAIL FOR STORM DRAIN WITH DRIVEWAY CONFLICT
SCALE: NOT TO SCALE
DATE: JULY 2010
SHEET # 4 OF 4
DETAIL # 33

NOTE: USE EAST JORDAN IRON WORKS V-4520-1 GRATE OR EQUIVALENT BY US FOUNDRY.

TOWN OF ZEBULON
2x3 DROP INLET
SCALE: NOT TO SCALE
DATE: JULY 2010
SHEET # 1 OF 1
DETAIL # 34

TOWN OF ZEBULON
STD. TRENCH INSTALLATION FOR CONCRETE PIPE (FOR CONTRACTOR'S USE)
SCALE: NOT TO SCALE
DATE: JULY 2010
SHEET # 1 OF 3
DETAIL # 36

SECTIONAL VIEW

THIS TABLE ASSUMES TYPE 4 INSTALLATION & NO STONE BEDDING

PIPE CLASS III (0.01 GRACK)	MAX. BURY H	MAX. BURY H	
D _i	B _d	H	
15"	4"	9.5'	14.5'
18"	4"	9.5'	15.0'
24"	4"	12.0'	23.5'
30"	5.5"	10.0'	17.0'
36"	6"	10.5'	18.0'
42"	6.5"	13.0'	19.0'
48"	7"	13.5'	20.0'
54"	8"	13.0'	18.5'
60"	9"	11.0'	18.0'
72"	13.0'	19.0'	19.0'

TOWN OF ZEBULON
STD. TRENCH INSTALLATION FOR CONCRETE PIPE (FOR ENGINEER'S USE)
SCALE: NOT TO SCALE
DATE: JULY 2010
SHEET # 2 OF 3
DETAIL # 36

PERSPECTIVE

THIS TABLE ASSUMES TYPE 4 INSTALLATION & NO STONE BEDDING

PIPE CLASS III (0.01 GRACK)	MAX. BURY H	MAX. BURY H	
D _i	B _d	H	
15"	4"	9.5'	14.5'
18"	4"	9.5'	15.0'
24"	4"	12.0'	23.5'
30"	5.5"	10.0'	17.0'
36"	6"	10.5'	18.0'
42"	6.5"	13.0'	19.0'
48"	7"	13.5'	20.0'
54"	8"	13.0'	18.5'
60"	9"	11.0'	18.0'
72"	13"	12.0'	19.0'

TOWN OF ZEBULON
STD. TRENCH INSTALLATION (TRENCH CONDITION SHOWN)
SCALE: NOT TO SCALE
DATE: JULY 2010
SHEET # 3 OF 3
DETAIL # 36

Table 1 Equivalent USCS and AASHTO Soil Classification for SDD Soil Designations

SDD Soil	USCS	AASHTO		
		Standard Proctor	Modified Proctor	
Gravelly Sand (Category I)	SW, SP, GW, GP	A1.A3	100	95
			95	90
			80	85
			61	59
Sandy Soil (Category II)	GM, SM, ML, AW, AW, AC, SC with less than 20% passing #200 sieve	A2.A4	100	95
			95	90
			80	75
			49	46
Silty Soil (Category III)	CL, MH, OL, SC	A5.A6	100	90
			95	85
			80	70
			45	40
OH		100	90	
		95	85	

TOWN OF ZEBULON
STD. TRENCH INSTALLATION (TRENCH CONDITION SHOWN)
SCALE: NOT TO SCALE
DATE: JULY 2010
SHEET # 4 OF 5
DETAIL # 36

Table 2 Standard EMBANKMENT Installation Soils and Minimum Compaction Requirements

Installation Type	Bedding Thickness	Haunch and Outer Bedding	Lower Side
Type 1	D _i /24 minimum, not less than 75 mm (3"). If rock foundation, use D _i /12 minimum, not less than 150 mm (6").	98% Category I	90% Category I, 95% Category II, or 100% Category III
Type 2	D _i /24 minimum, not less than 75 mm (3"). If rock foundation, use D _i /12 minimum, not less than 150 mm (6").	90% Category I or 95% Category II	85% Category I, 90% Category II, or 95% Category III
Type 3	D _i /24 minimum, not less than 75 mm (3"). If rock foundation, use D _i /12 minimum, not less than 150 mm (6").	85% Category I, 90% Category II, or 95% Category III	80% Category I, 85% Category II, or 90% Category III
Type 4	D _i /24 minimum, not less than 75 mm (3"). If rock foundation, use D _i /12 minimum, not less than 150 mm (6").	No compaction required, except if Category III, use 85% Category III	No compaction required, except if Category III, use 85% Category III

TOWN OF ZEBULON
STD. TRENCH INSTALLATION (TRENCH CONDITION SHOWN)
SCALE: NOT TO SCALE
DATE: JULY 2010
SHEET # 5 OF 5
DETAIL # 36

Table 3 Standard TRENCH Installations Soils and Minimum Compaction Requirements

Installation Type	Bedding Thickness	Haunch Outer Bedding	Lower Side
Type 1	D _i /24 minimum, not less than 75 mm (3"). If rock foundation, use D _i /12 minimum, not less than 150 mm (6").	98% Category I	90% Category I, 95% Category II, or 100% Category III
Type 2	D _i /24 minimum, not less than 75 mm (3"). If rock foundation, use D _i /12 minimum, not less than 150 mm (6").	90% Category I or 95% Category II	85% Category I, 90% Category II, or 95% Category III
Type 3	D _i /24 minimum, not less than 75 mm (3"). If rock foundation, use D _i /12 minimum, not less than 150 mm (6").	85% Category I, 90% Category II, or 95% Category III	80% Category I, 85% Category II, or 90% Category III
Type 4	D _i /24 minimum, not less than 75 mm (3"). If rock foundation, use D _i /12 minimum, not less than 150 mm (6").	No compaction required, except if Category III, use 85% Category III	No compaction required, except if Category III, use 85% Category III

Notes:

1. Compaction and soils symbols - i.e. "98% Category I" refers to Category I soil materials with minimum standard Proctor compaction of 98%. See Table 1 for equivalent modified Proctor values.
2. The trench top elevation shall be no lower than 0.1 H below finished grade or, for roadways, its top shall be no lower than an elevation of 0.3 m (1') below the bottom of the pavement base material.
3. Soil in the outer bedding, haunch, and lower side zones, except within D₀/3 from the pipe springline, shall be compacted to at least the same compaction as the majority of the soil in the overfill zone.
3. Subtrenches
 - 3.1 A subtrench is defined as a trench with its top below finished grade by more than 0.1 H or, for roadways, its top is at an elevation lower than 0.3 m (1') below the bottom of the pavement base material.
 - 3.2 The minimum width of a subtrench shall be 1.33 D_o or wider if required for adequate space to attain the specified compaction in the haunch and bedding zones.
 - 3.3 For subtrenches with wall of natural soil, any portion of the lower side zone in the subtrench wall shall be at least as firm as an equivalent soil placed to the compaction requirements specified for the lower side zone and as firm as the majority of soil in the overfill zone, or shall be removed and replaced with soil compacted to the specified level.
 - 3.4 Type 1 installation = relatively high quality material & high compaction effort. Type 4 installation = little or no control over material and compaction.

MARK	REVISION BY	REVISION DATE	REVISION DESCRIPTION
1	BRM	05/23	TOWN OF ZEBULON REVIEW
2	BRM/MCB	05/23	TOWN OF ZEBULON REVIEW
3	MCB	05/23	WAKE COUNTY REVIEW
4	BRM/MCB	07/24	TOWN OF ZEBULON REVIEW

STORE OR BLDG NO.: N/A
VERSION OR PROJECT ID: N/A
DESIGN TEAM: DGNR, BRM & MCB
FM/DP: ML
RW/R: ML
ISSUE DATE: 1/18/2024
ADDRESS: 1106 N ARENDEL AVE, ZEBULON, NC 27597

SHEET TITLE
OFFSITE CONSTRUCTION DETAILS

DRWG. NO. **C6.6**

END SECTION DIMENSIONS					
DIA.	A	B	C	D	E
15"	7"	2'-3 1/4"	3'-11 1/2"	6'-2 3/4"	2'-6"
18"	9"	2'-3"	3'-11 3/4"	6'-2 3/4"	3'-0"
24"	9"	3'-7"	3'-1"	6'-8"	3'-11 3/4"
30"	1'-0"	4'-6 1/2"	1'-10 1/2"	6'-5"	5'-0"
36"	1'-4"	5'-0"	3'-1 1/2"	8'-1 1/2"	5'-11"
42"	1'-10 1/4"	5'-1 3/8"	3'-1"	8'-2 3/8"	6'-5 1/4"

NOTES:
 1. DESIGN OF END-SECTION SHALL CONFORM TO STANDARD REINFORCED SECTIONAL CONCRETE CULVERT PIPE.
 2. ANY TWIN BARREL SYSTEM GREATER THAN 42" RCP REQUIRES A HEADWALL.
 3. ANY SYSTEM OF MORE THAN 2 PIPES REQUIRES A HEADWALL.
 4. SEE NCDOT "ROADWAY STANDARD DRAWINGS" FOR HEADWALL CONSTRUCTION DETAILS.

TOWN OF ZEBULON
 STD. FLARED END SECTIONS
 DESIGN AID DETAIL
 SCALE: NOT TO SCALE
 DATE: JULY 2010
 SHEET # 1 OF 1
 DETAIL # 35

TOWN OF ZEBULON
 STD. M.H. J.B.
 VARIABLE LENGTH
 SCALE: NOT TO SCALE
 DATE: JULY 2010
 SHEET # 1 OF 3
 DETAIL # 37

TOWN OF ZEBULON
 STANDARD MANHOLE COVER & RING
 ADJUSTABLE - EAST JORDAN IRON WORKS V-1984
 SCALE: NOT TO SCALE
 DATE: JULY 2010
 SHEET # 2 OF 3
 DETAIL # 37

TOWN OF ZEBULON
 STANDARD MANHOLE & RING
 US FOUNDRY 700 KL
 SCALE: NOT TO SCALE
 DATE: JULY 2010
 SHEET # 3 OF 3
 DETAIL # 37

TOWN OF ZEBULON
 STD. MULTIPLE 2' x 3'
 CATCH BASIN DETAIL
 SCALE: NOT TO SCALE
 DATE: JULY 2010
 SHEET # 1 OF 1
 DETAIL # 38

TOWN OF ZEBULON
 STD. 3' x VARIABLE LENGTH
 BOX WITH 2' x 3' C.B.
 SCALE: NOT TO SCALE
 DATE: JULY 2010
 SHEET # 1 OF 2
 DETAIL # 39

TOWN OF ZEBULON
 STD. 3' x VARIABLE LENGTH
 PRECAST BOX WITH 2' x 3' C.B.
 SCALE: NOT TO SCALE
 DATE: JULY 2010
 SHEET # 2 OF 2
 DETAIL # 39

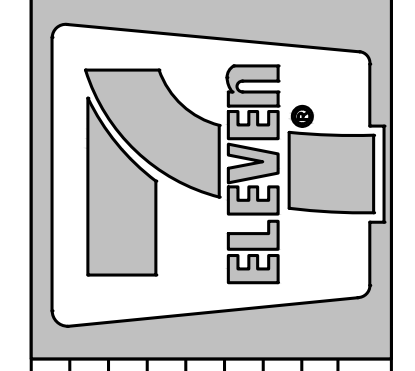
TOWN OF ZEBULON
 TYPICAL SHRUB
 PLANTING DETAIL
 SCALE: NOT TO SCALE
 DATE: JULY 2010
 SHEET # 1 OF 1
 DETAIL # 43

TOWN OF ZEBULON
 TYPICAL TREE STAKING
 and PLANTING DETAIL
 SCALE: NOT TO SCALE
 DATE: JULY 2010
 SHEET # 1 OF 1
 DETAIL # 44

TOWN OF ZEBULON
 CATCH BASIN - SEDIMENT
 CONTROL DEVICES
 SCALE: NOT TO SCALE
 DATE: JULY 2010
 SHEET # 1 OF 1
 DETAIL # 60



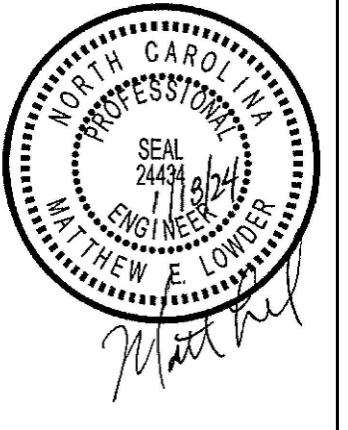
Crosland Southeast
 7-Eleven Store #42378
 Zebulon, NC
 WAKE COUNTY



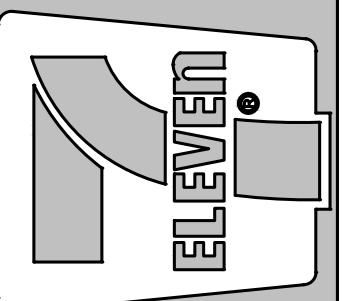
MARK	REVISION	DATE	REVISION DESCRIPTION
1	BRM	02/23	TOWN OF ZEBULON REVIEW
2	BRM/MCB	02/23	TOWN OF ZEBULON REVIEW
3	MCB	02/23	WAKE COUNTY REVIEW
4	BRM/MCB	01/24	TOWN OF ZEBULON REVIEW

STORE OR BLDG NO.:
 N/A
 VERSION OR PROJECT ID:
 N/A
 DESIGN TEAM
 DGNR, BRM & MCB
 PM/DP, ML
 RW/R, ML
 ISSUE DATE: 1/18/2024
 ADDRESS
 1106 N ARENDELL AVE
 ZEBULON, NC 27587

SHEET TITLE
**OFFSITE
 CONSTRUCTION
 DETAILS**



Crosland Southeast
7-Eleven Store #42378
Zebulon, NC
WAKE COUNTY



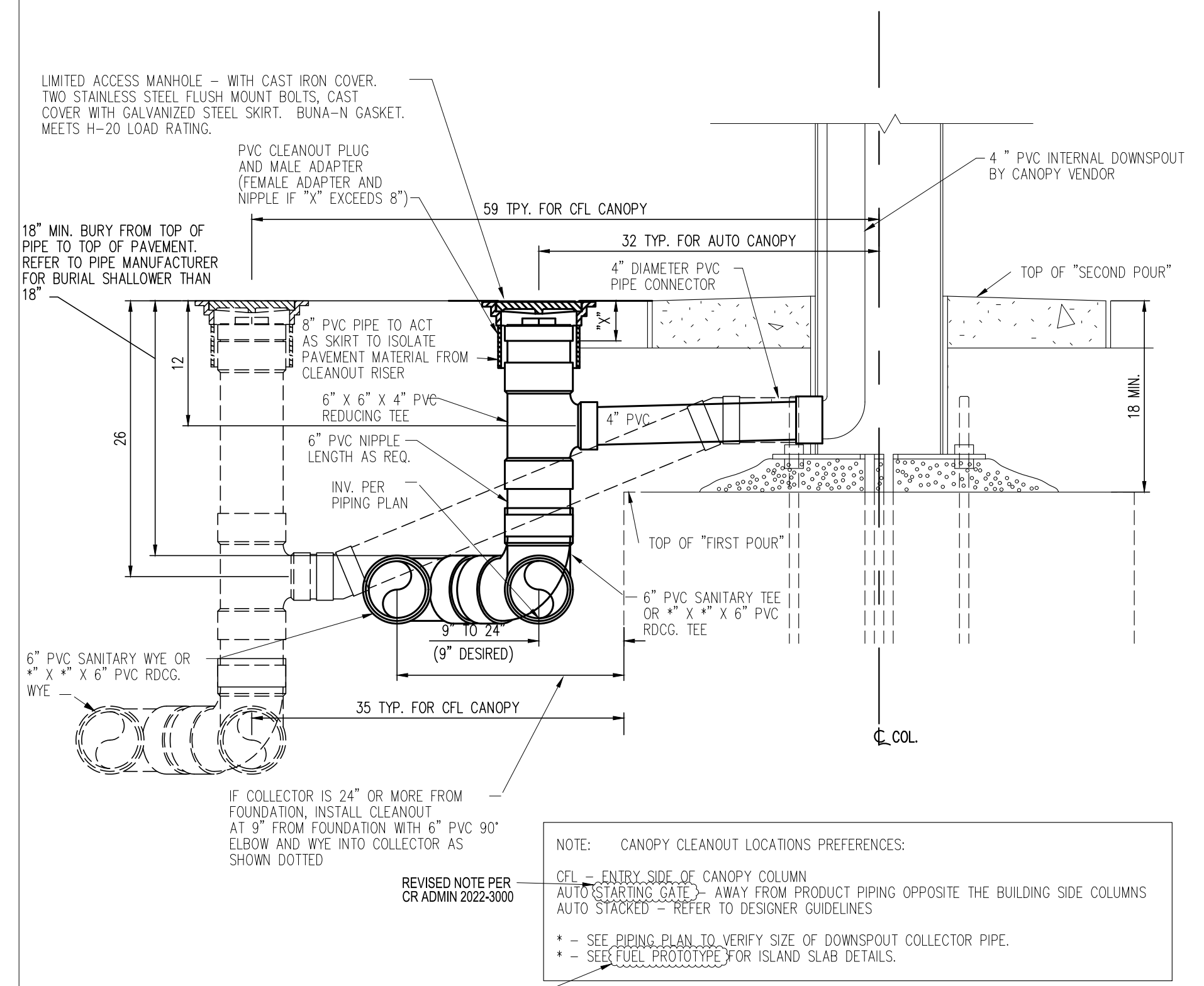
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1	BRM	11/22/23	TOWN OF ZEBULON REVIEW	
2	BRM/MS	12/29/23	TOWN OF ZEBULON REVIEW	
3	MCB	1/22/24	WAKE COUNTY REVIEW	
4	BRM/MS	1/18/24	TOWN OF ZEBULON REVIEW	

STORE OR BLDG NO.:
N/A
VERSION OR PROJECT ID:
N/A
DESIGN TEAM
DGNR, BRM & MCB
PM/DP, ML
RVWR, ML
ISSUE DATE: 1/18/2024
ADDRESS
1106 N ARENDELL AVE
ZEBULON, NC 27587

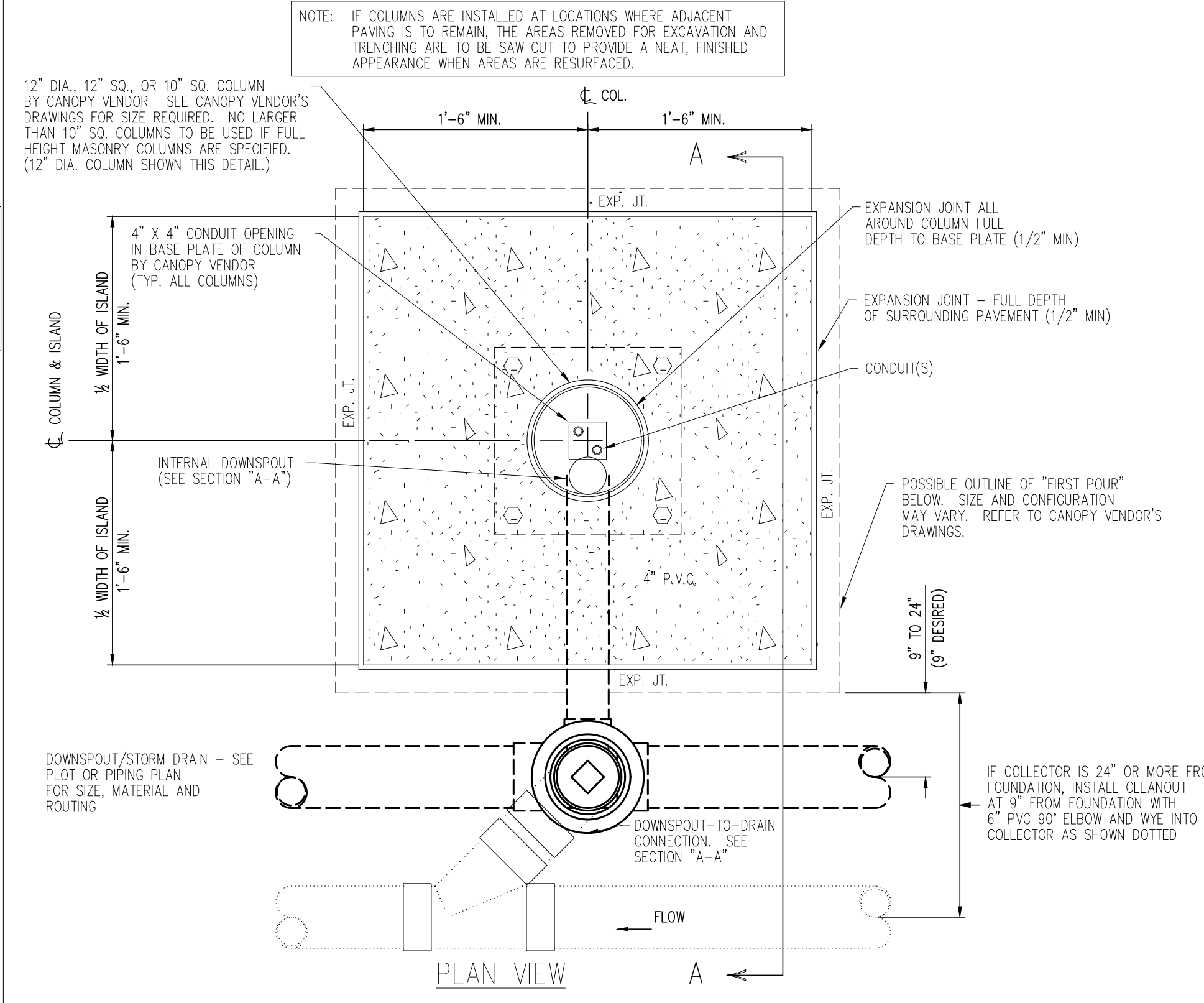
SHEET TITLE
GRADING & DRAINAGE DETAILS

DRWG. NO. **C6.8**

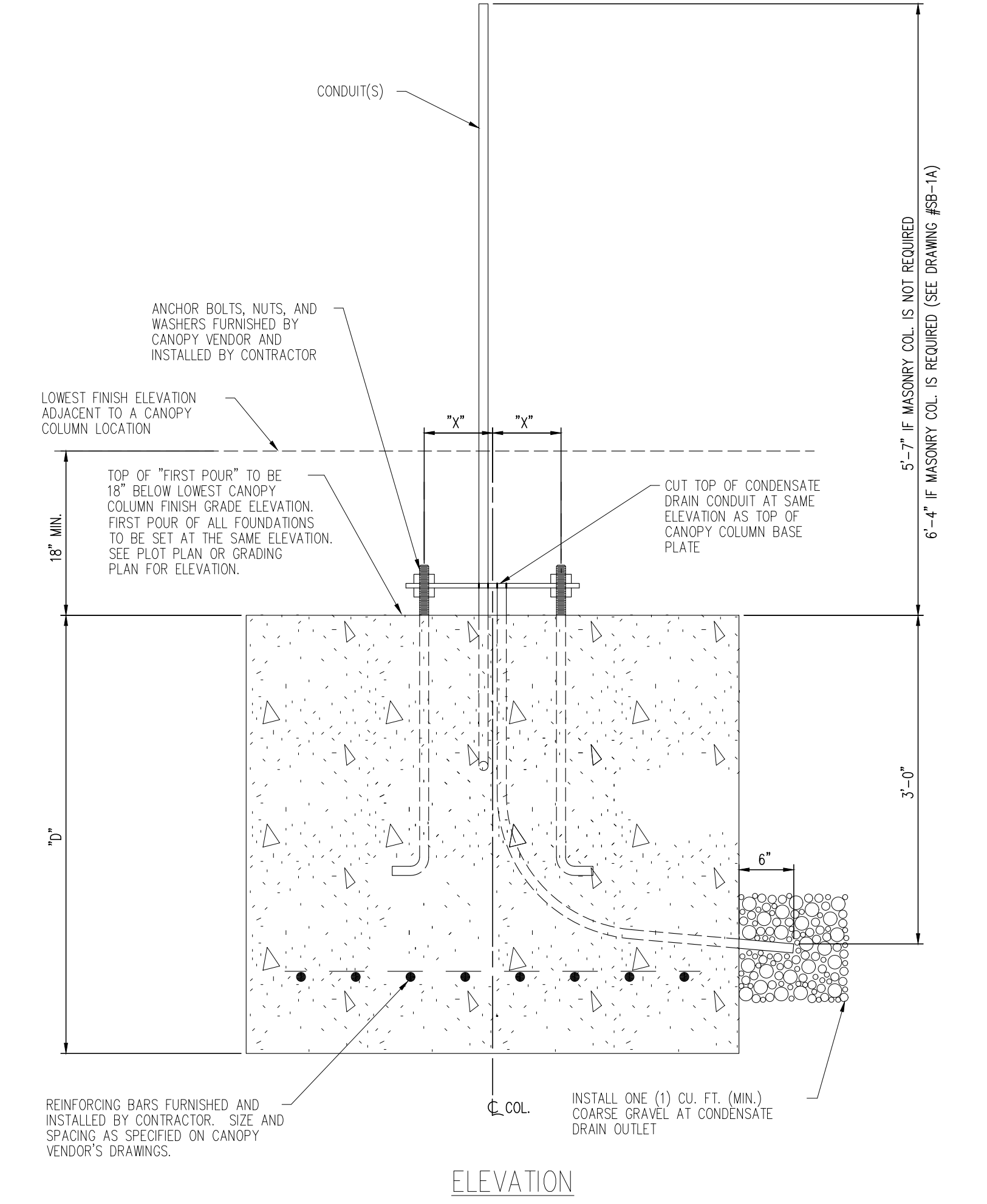
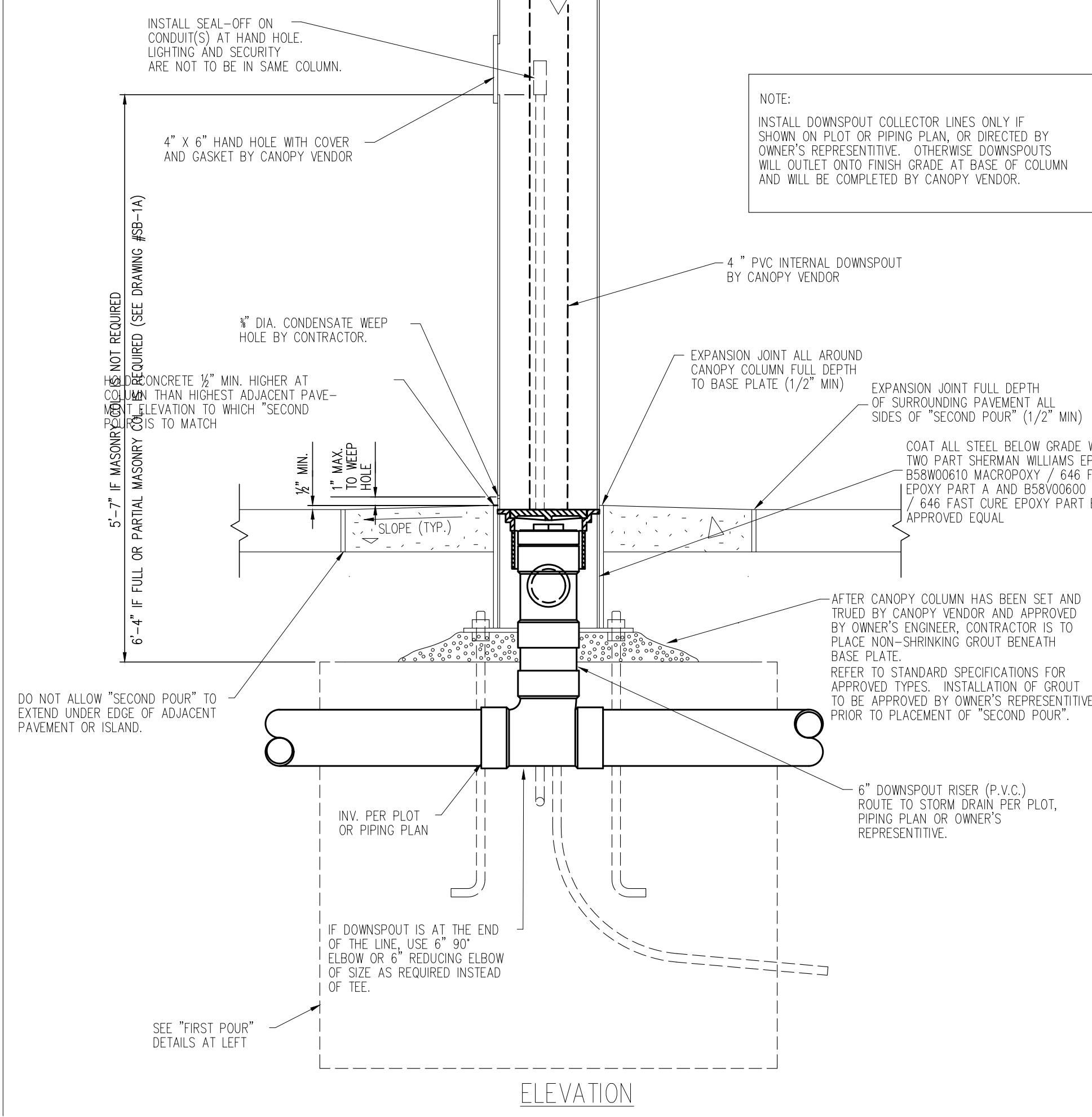
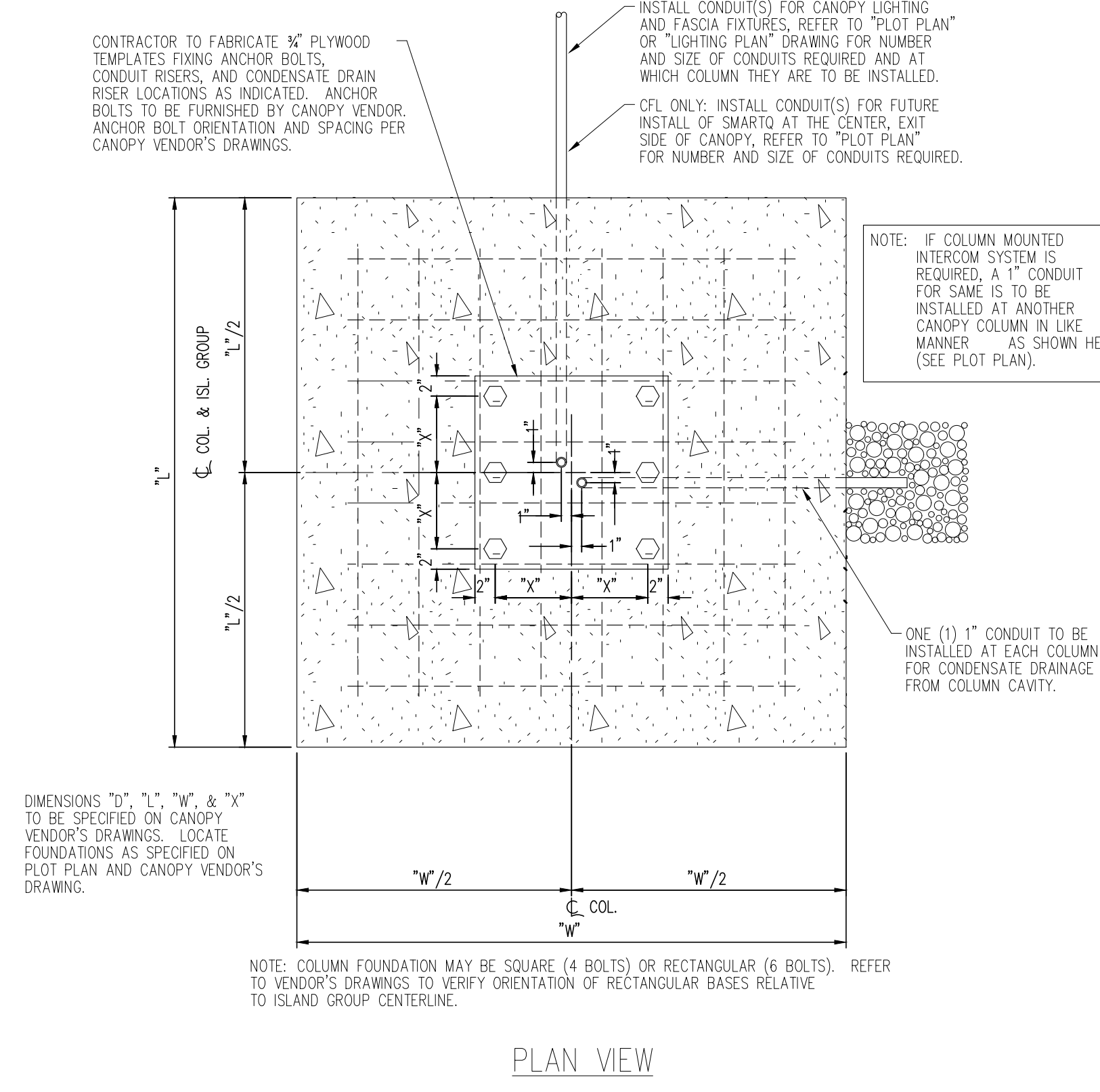
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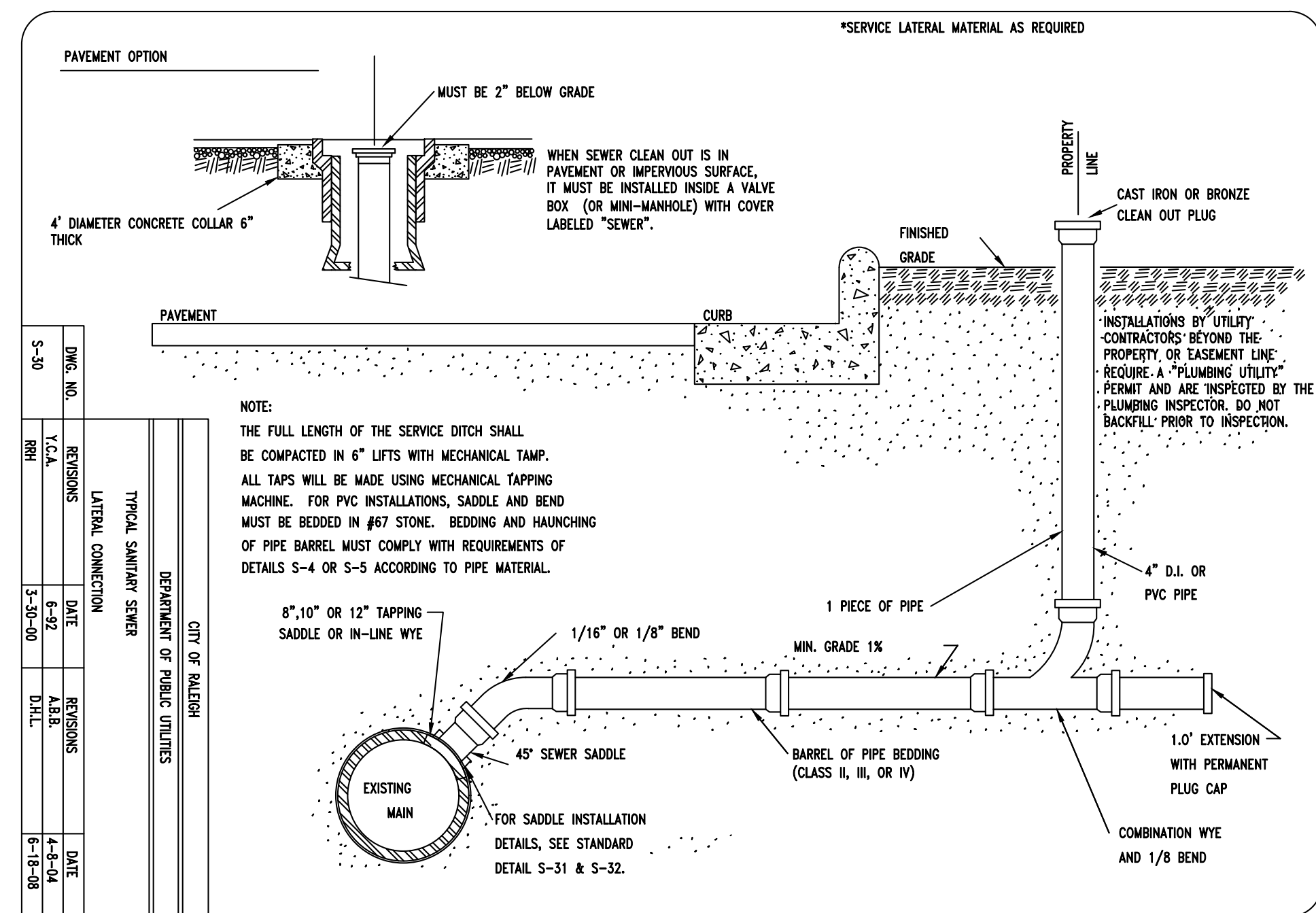
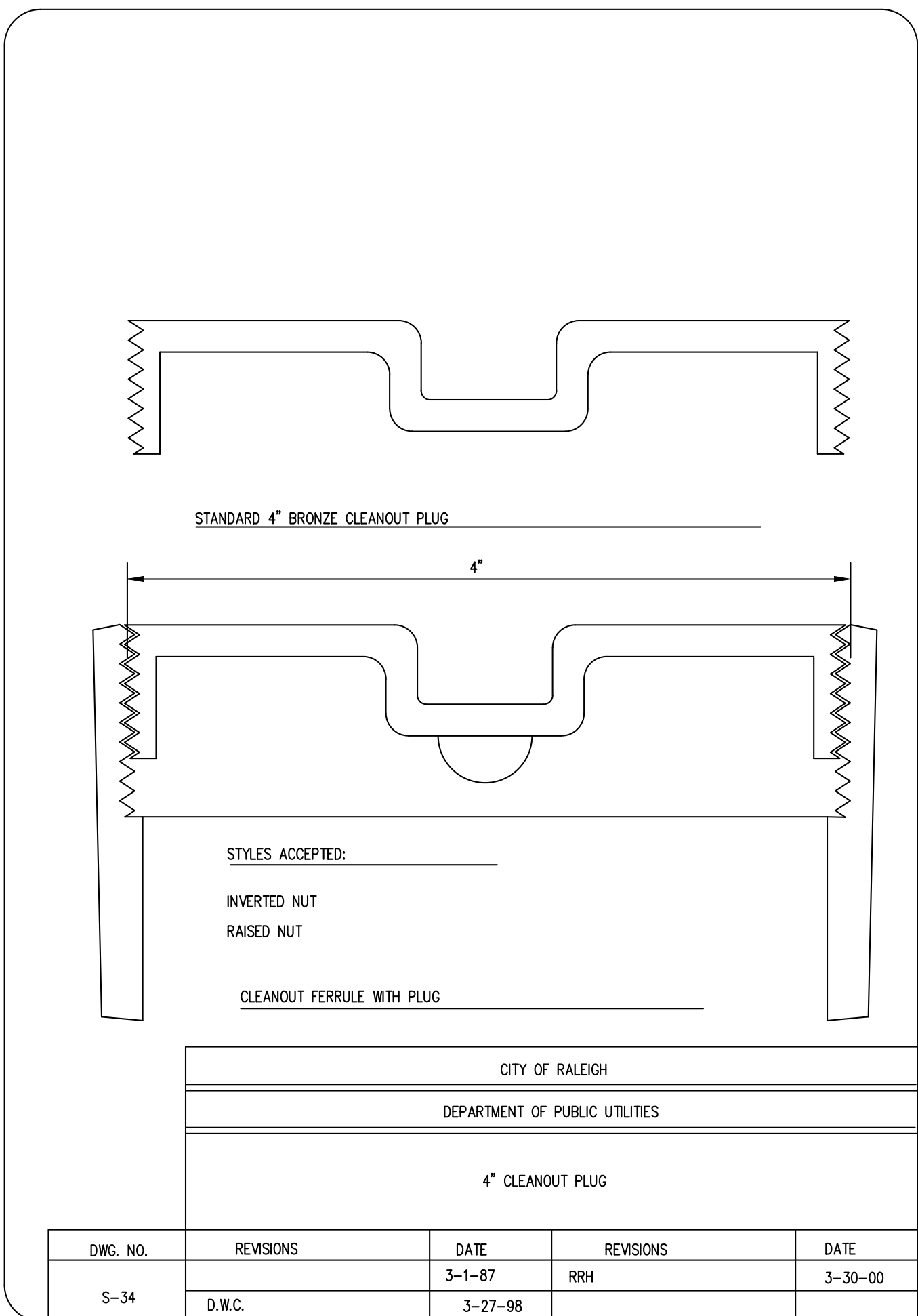
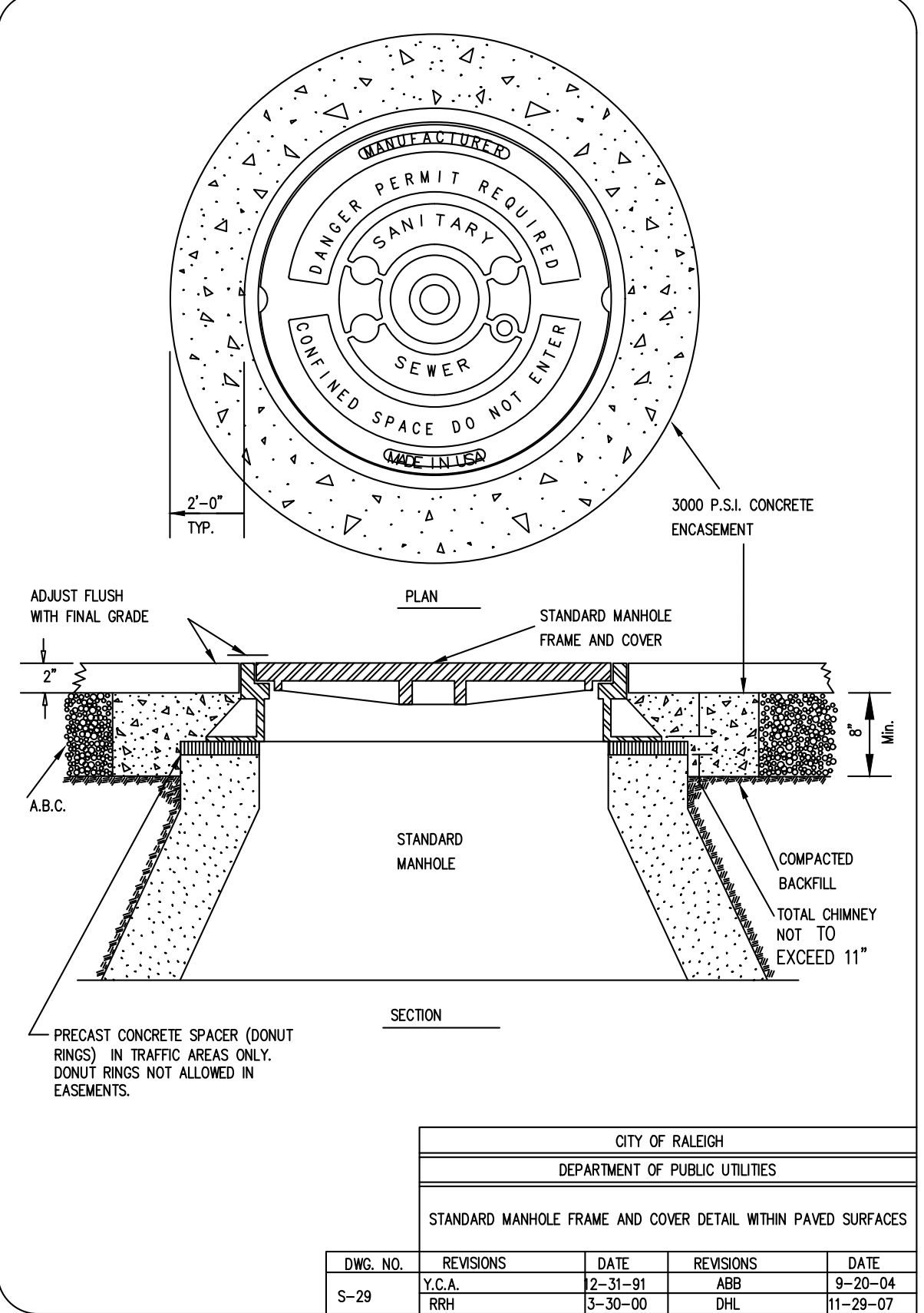
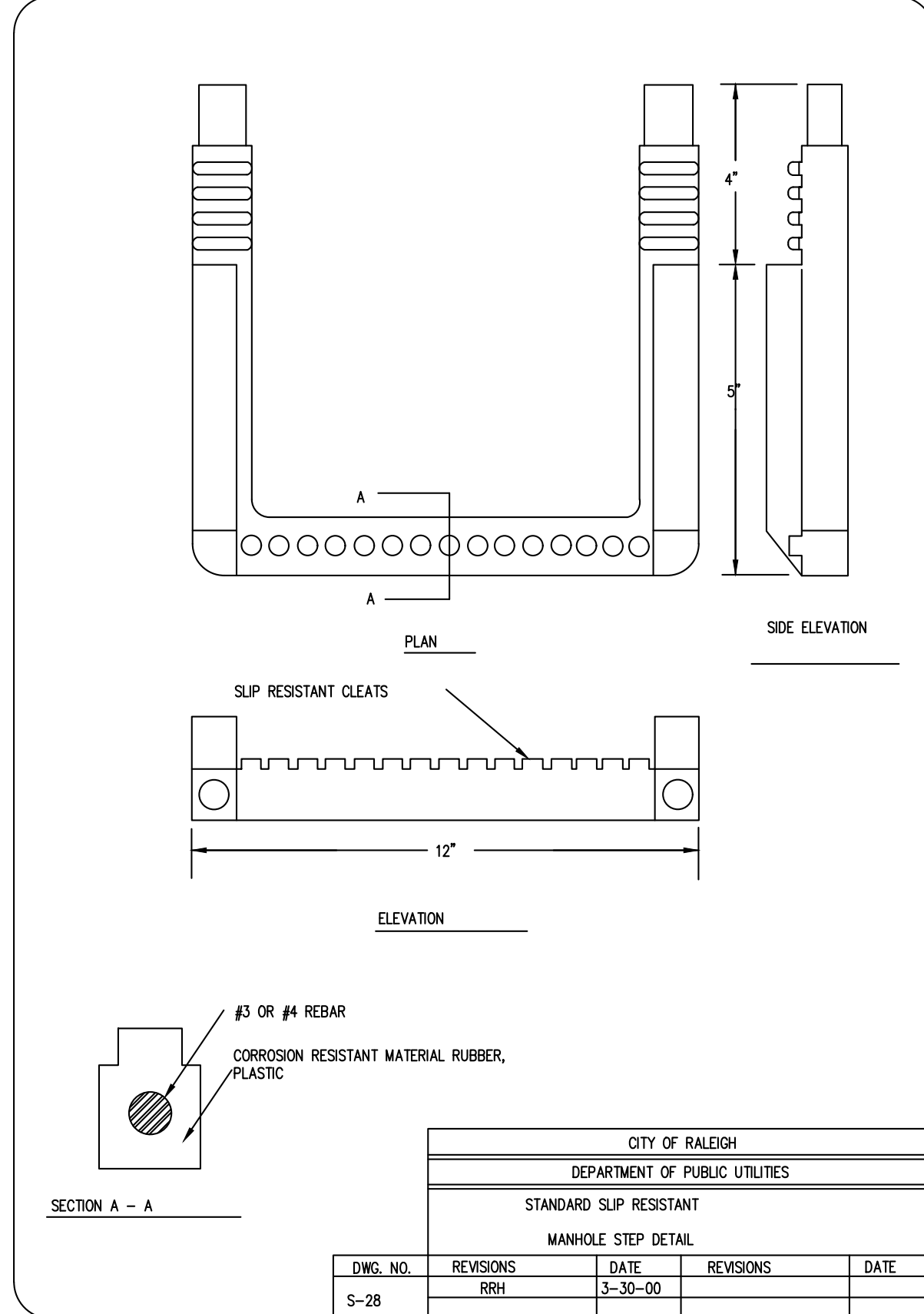
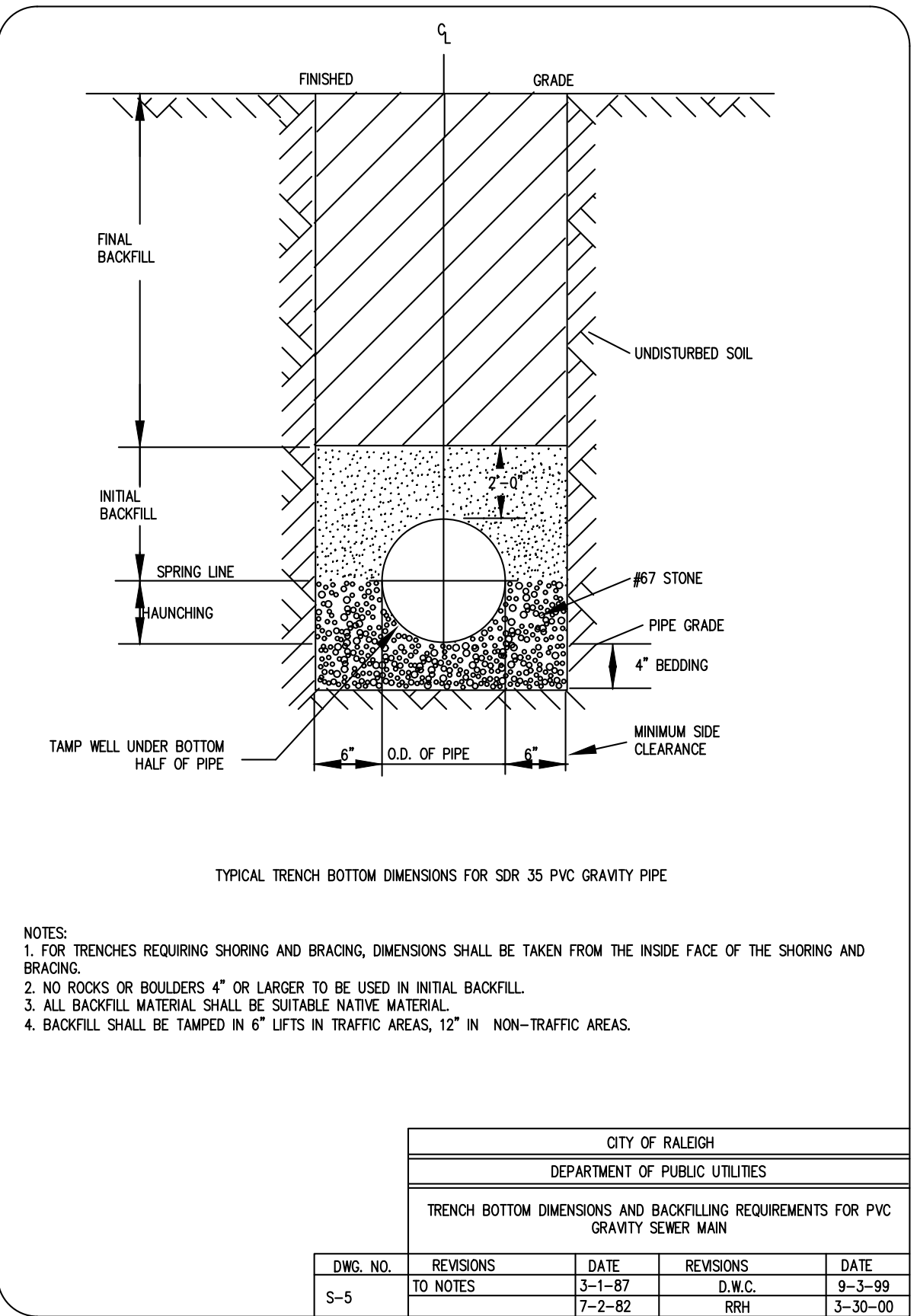
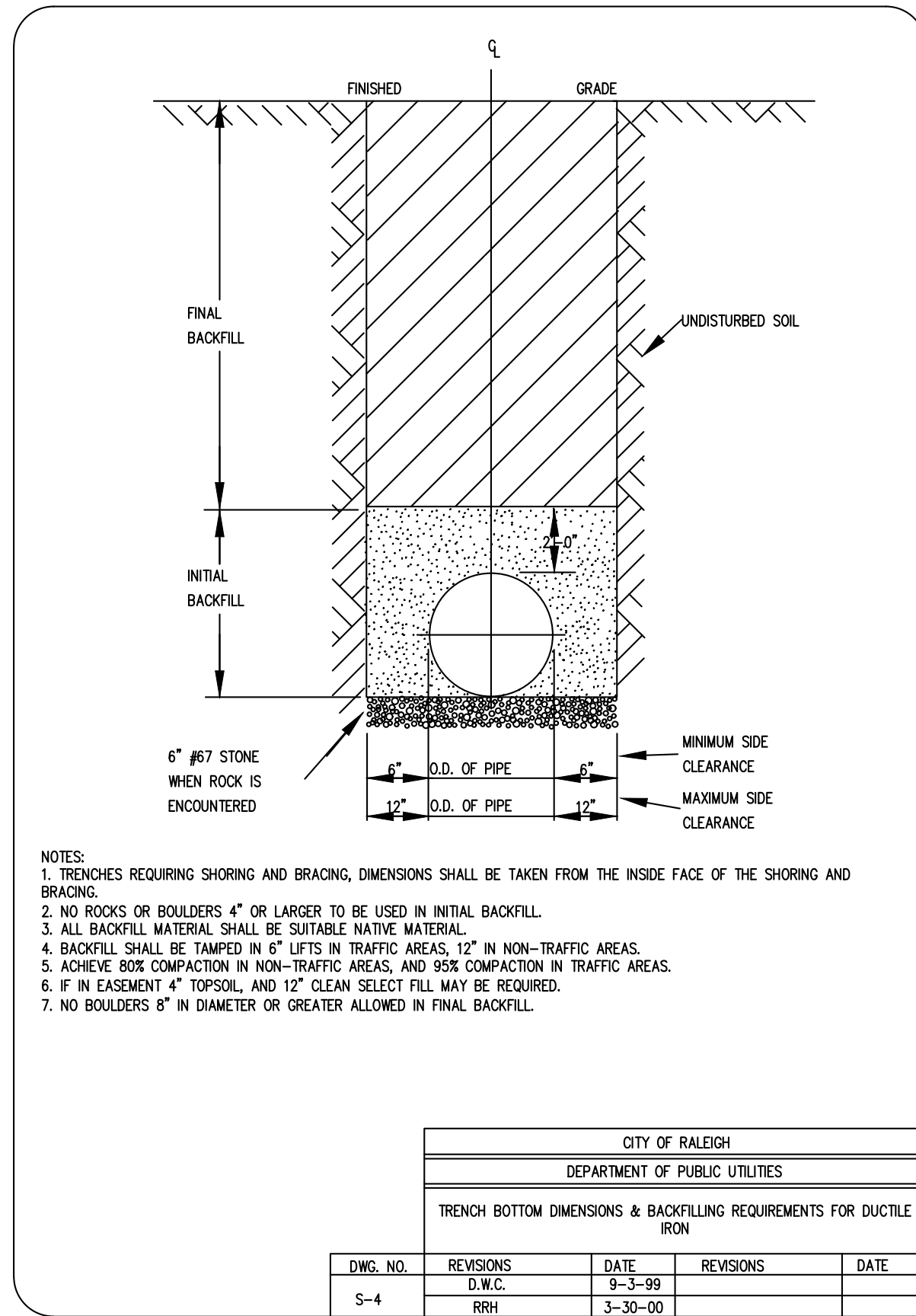
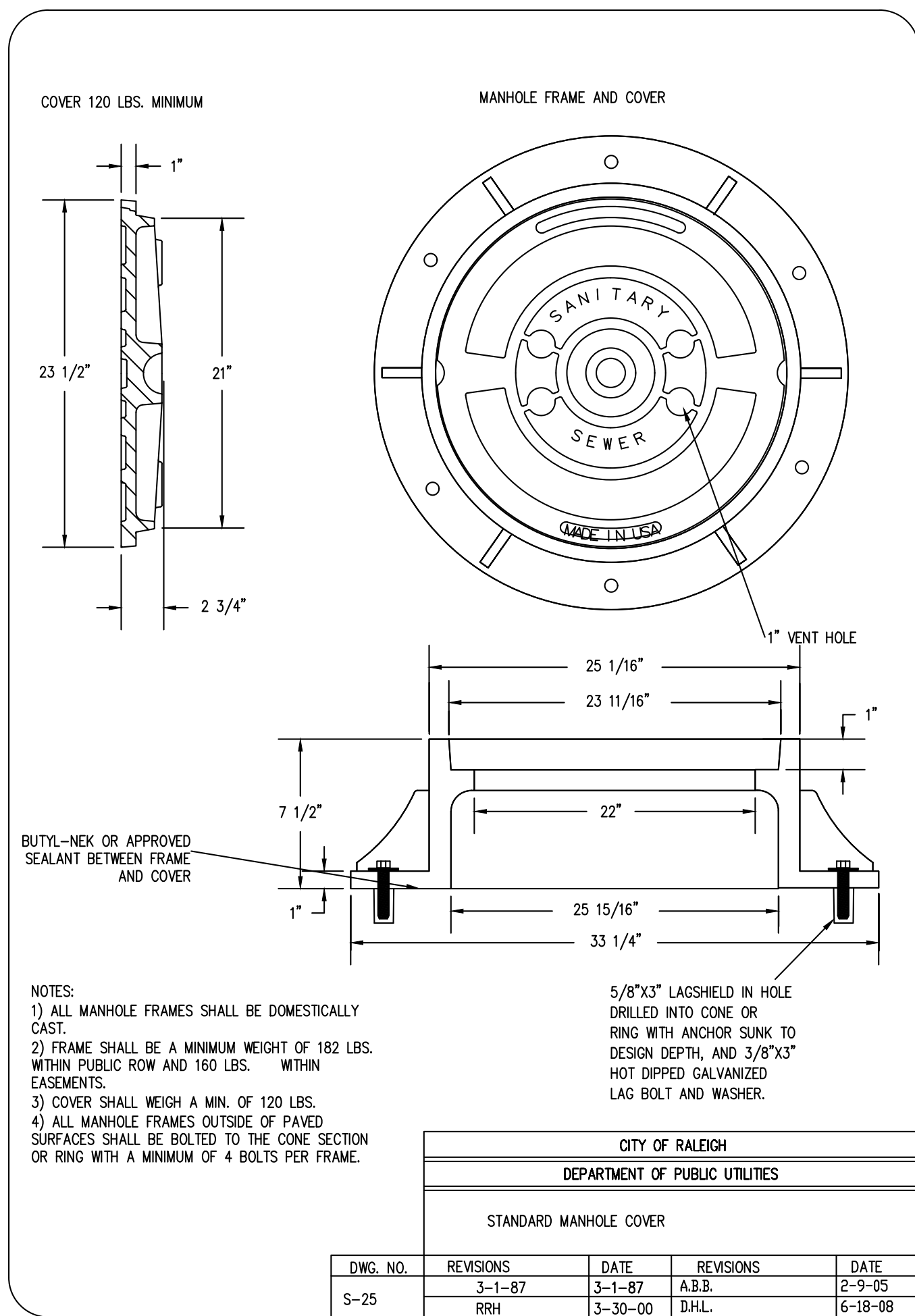
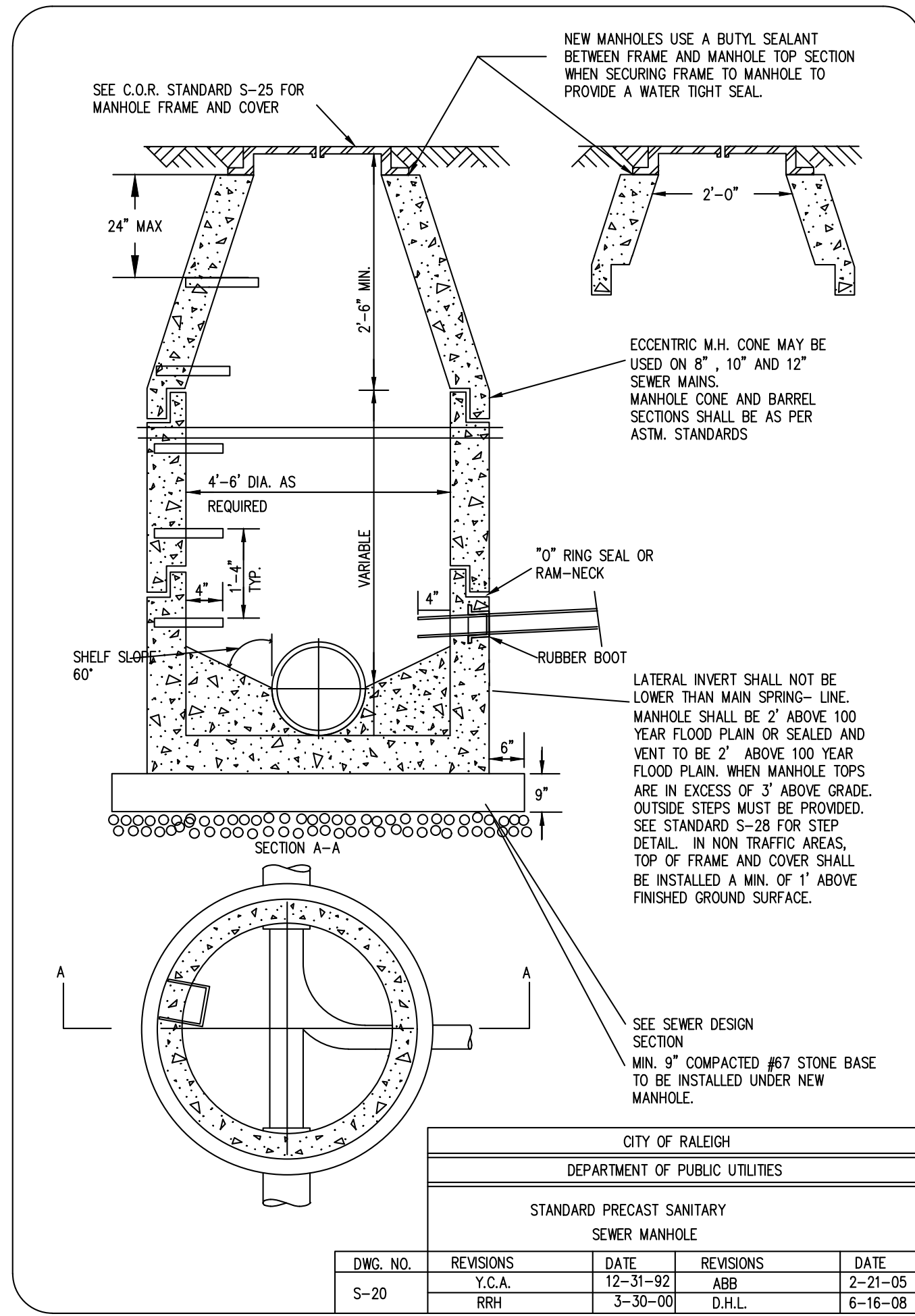


SECOND POUR



FIRST POUR





PUBLIC Water Distribution/Extension System

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

City of Raleigh
Public Utilities Department Permit # W-4087

Authorization to Construct See digital signature

PUBLIC Sewer Collection/Extension System

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

City of Raleigh
Public Utilities Department Permit # S-5404

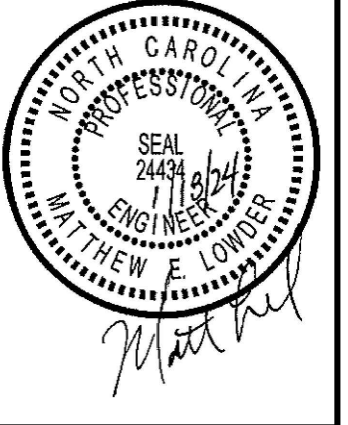
Authorization to Construct See digital signature

ATTENTION CONTRACTORS

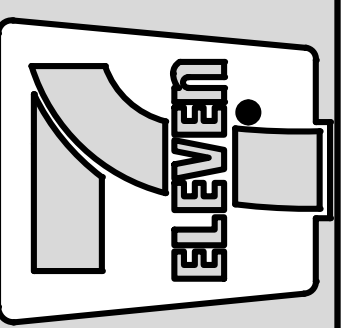
The **Construction Contractor** responsible for the extension of water, sewer, and/or reuse, as approved in these plans, is responsible for contacting the **Public Utilities Department** at (919)966-4540 at least **twenty four hours** prior to beginning any of their construction.

Failure to notify both **City Departments** in advance of beginning construction, will result in the issuance of **monetary fines**, and requires 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**.



Crosland Southeast
7-Eleven Store #42378
Zebulon, NC
WAKE COUNTY



NO.	REVISION DESCRIPTION	DATE REVISION	DATE REVISION
1	TOWN OF ZEBULON REVIEW	02/23	
2	TOWN OF ZEBULON REVIEW	05/23	
3	WAKE COUNTY REVIEW	02/23	
4	WAKE COUNTY REVIEW	02/24	

STORE OR BLDG NO.:
N/A

VERSION OR PROJECT ID:
N/A

DESIGN TEAM
DGNR, BRM & MCB

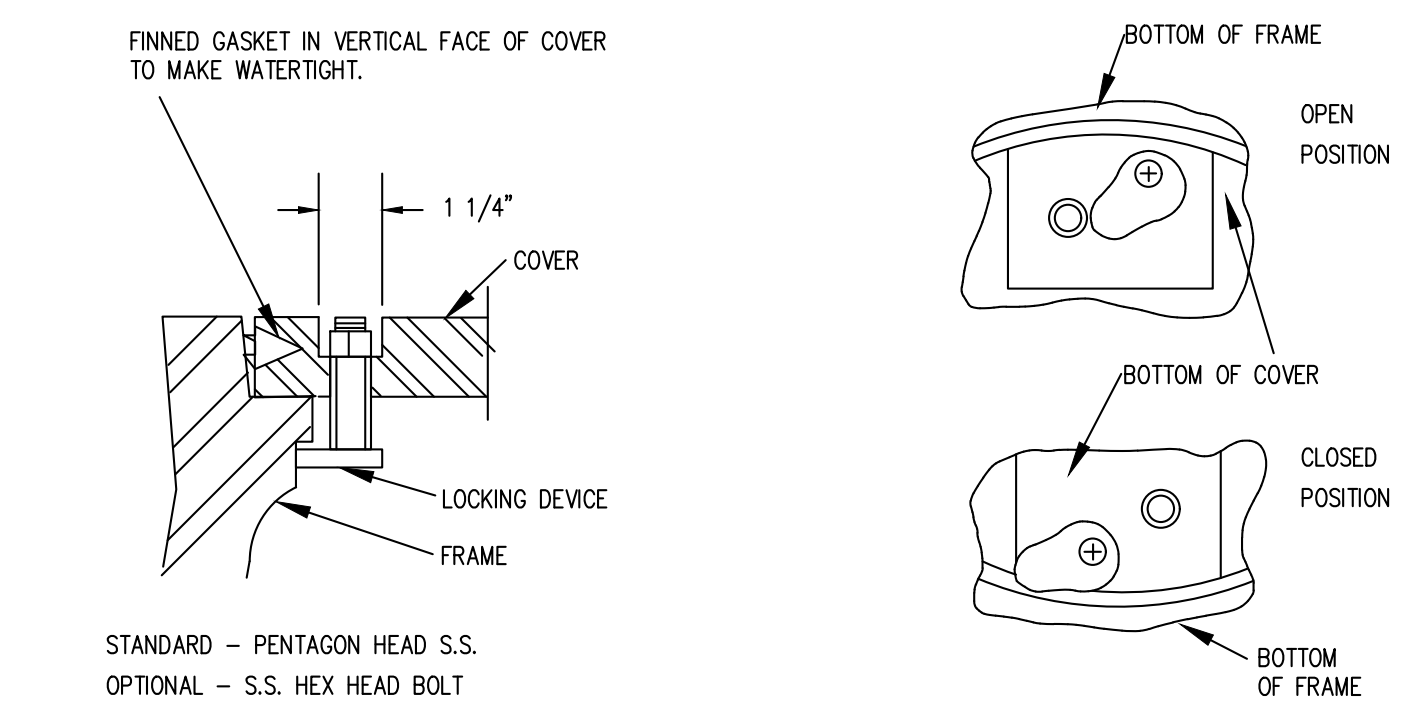
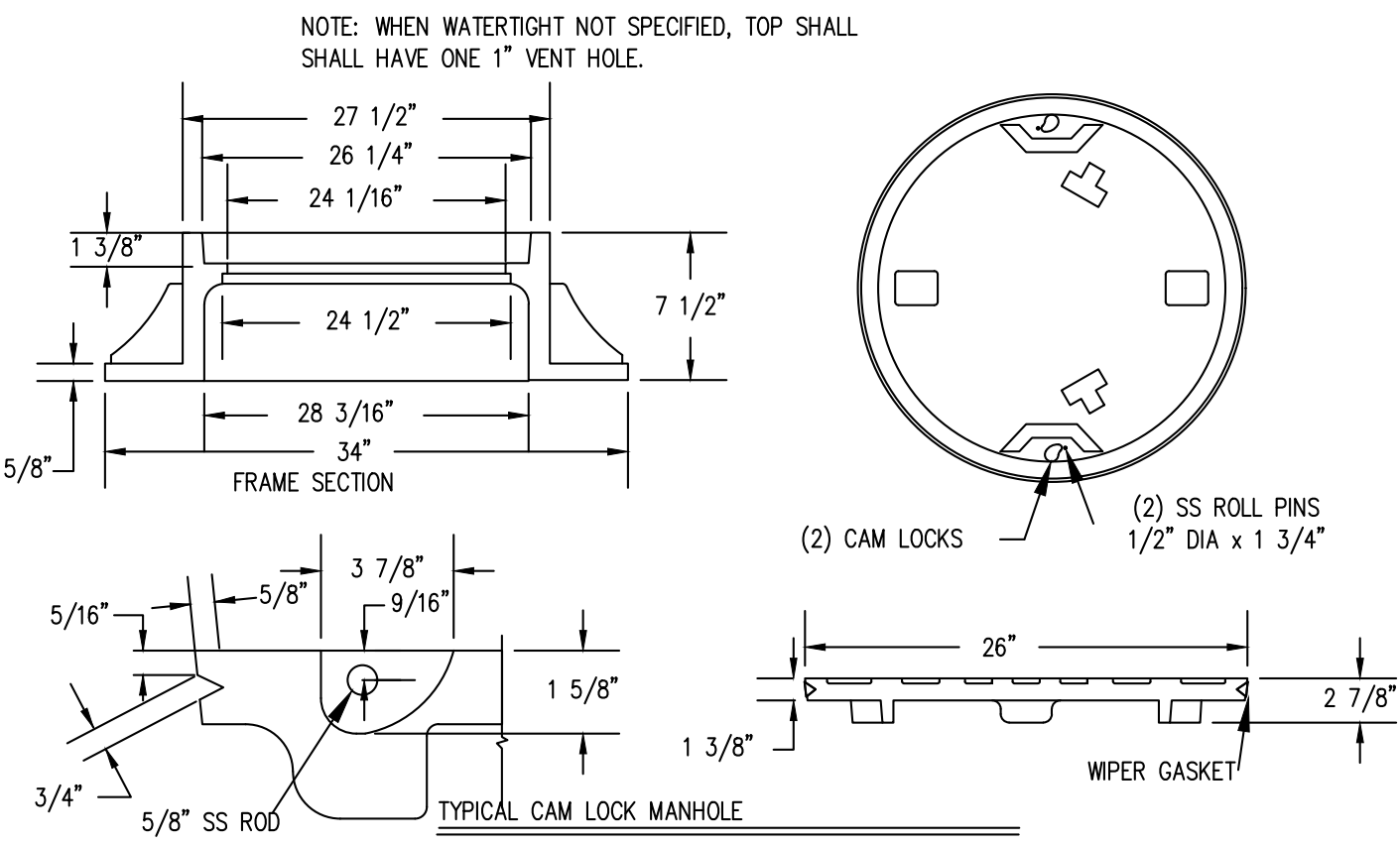
PM/DP: ML

RVVWR: ML

ISSUE DATE: 1/18/2024

ADDRESS
1106 N ARENDELL AVE
ZEBULON, NC 27587

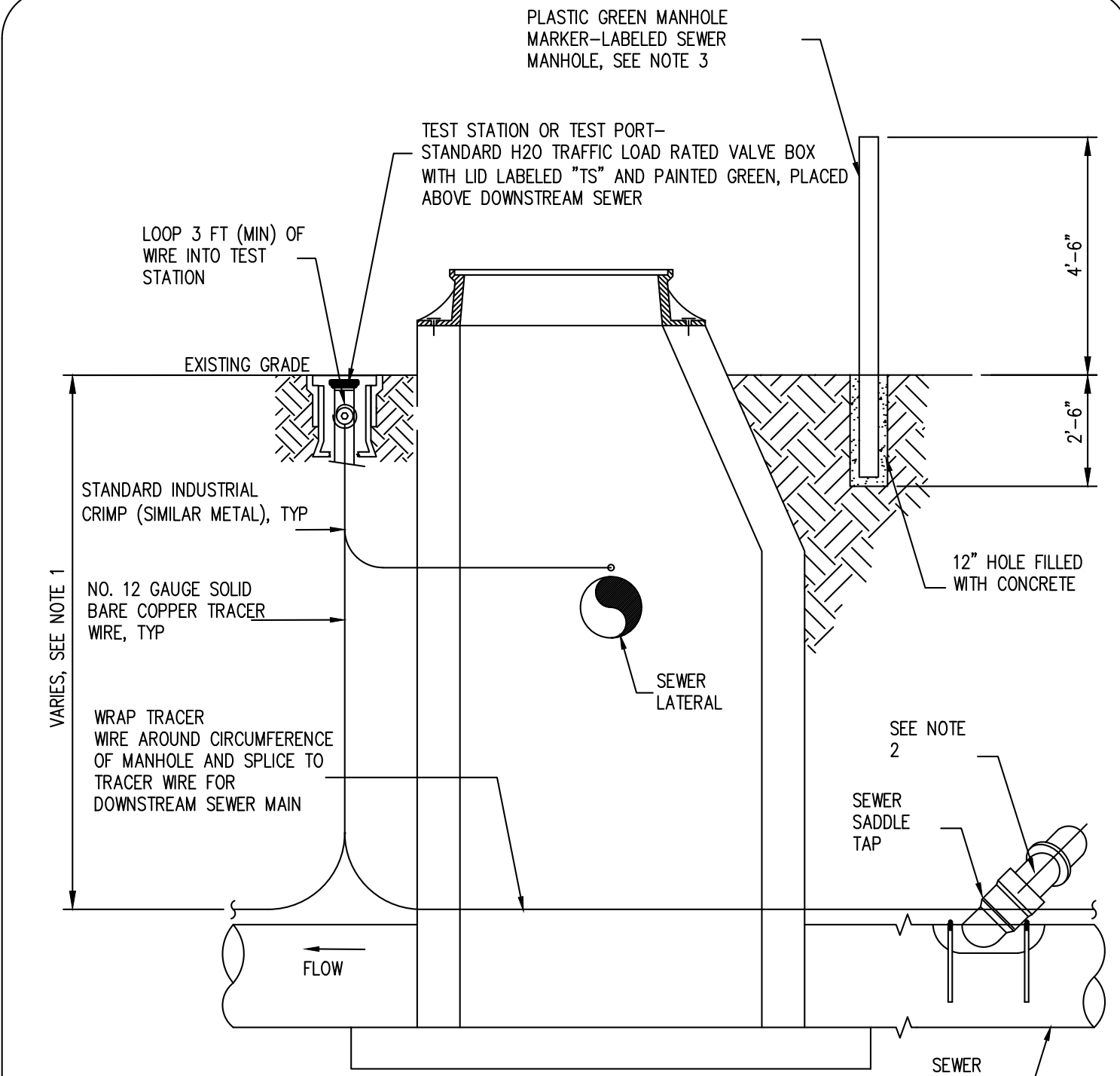
SHEET TITLE
SEWER DETAILS



TYPICAL LOCKING DEVICE

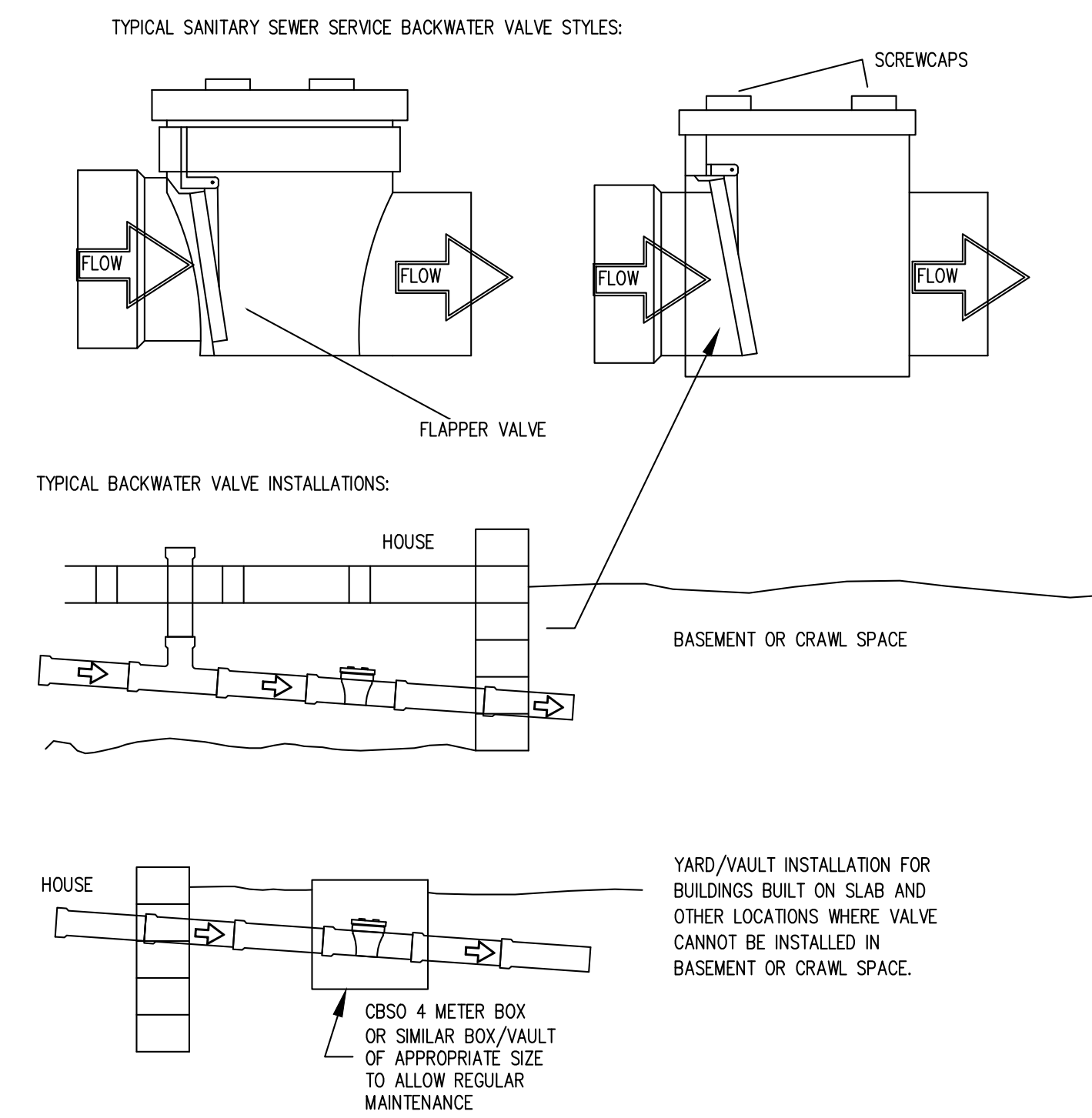
CITY OF RALEIGH				
DEPARTMENT OF PUBLIC UTILITIES				
WATER-TIGHT MANHOLE FRAME WITH CAM LOCK COVER				
DWG. NO.	REVISIONS	DATE	REVISIONS	DATE
S-27	RRH	3-30-00		
	DHL	6-16-08		

RING MUST BE ANCHORED IN ACCORDANCE WITH S-25



- NOTES:
1. THE TRACER WIRE SHALL BE CONTINUOUS TO THE GREATEST EXTENT POSSIBLE. FOR GRAVITY MAIN AND OR LATERAL INSTALLATIONS LESS THAN 8 FT, THE TRACING WIRE SHALL BE ATTACHED TO THE PIPE. TRACER WIRE SHALL BE LAID FLAT AND SECURELY AFFIXED TO THE PIPE AT 10 FOOT INTERVALS. FOR GRAVITY MAIN AND OR LATERAL INSTALLATION DEEPER THAN 8 FT, THE TRACING WIRE SHALL BE INSTALLED AT A DEPTH OF 7-8 FT. THE WIRE SHALL BE PROTECTED FROM DAMAGE DURING THE EXECUTION OF THE WORK. NO BREAKS OF CUTS IN THE TRACER WIRE SHALL BE PERMITTED.
 2. WHERE LATERAL TAPS ARE MADE BY SERVICE SADDLES, THE TRACER WIRE SHALL NOT BE ALLOWED TO BE PLACED BETWEEN THE SADDLE AND MAIN.
 3. MANHOLE MARKERS SHALL BE PLACED ADJACENT TO MANHOLES AT THE DISCRETION OF OWNER OR OWNER'S REPRESENTATIVE.

CITY OF RALEIGH				
DEPARTMENT OF PUBLIC UTILITIES				
GRAVITY SEWER MAIN TRACER WIRE AND MANHOLE MARKER				
DWG. NO.	REVISIONS	DATE	REVISIONS	DATE
S-20A	WKO	09-14		



- NOTES:
1. INSTALLATIONS OF GREATER THAN 4' IN DEPTH MAY REQUIRE MANHOLE.
 2. VALVES MUST BE INSTALLED IN A LOCATION AT WHICH THEY CAN BE CLEANED AND SERVICED REGULARLY.

CITY OF RALEIGH				
DEPARTMENT OF PUBLIC UTILITIES				
TYPICAL SANITARY SEWER SERVICE BACK-WATER VALVE INSTALLATION				
DWG. NO.	REVISIONS	DATE	REVISIONS	DATE
S-38	RRH	3-31-00		

PUBLIC Water Distribution/Extension System

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City of Raleigh
Public Utilities Department Permit # W-4087

Authorization to Construct See digital signature

PUBLIC Sewer Collection/Extension System

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

City of Raleigh
Public Utilities Department Permit # S-504

Authorization to Construct See digital signature

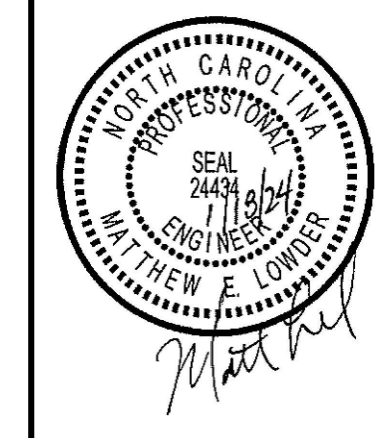
ATTENTION CONTRACTORS

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.

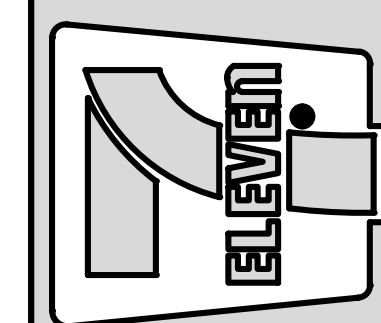
Failure to notify both City Departments in advance of beginning construction, will result in the issuance of **monetary fines** and require reinstatement of any water or sewer facilities not inspected as a result of this notification failure.

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.

Bowman
Bowman North Carolina Ltd.
4000 State St. 14
RALEIGH, NC 27609
Phone: (919) 553-6570
bowman.com
© Bowman North Carolina Ltd.



Crosland Southeast
7-Eleven Store #42378
Zebulon, NC
WAKE COUNTY



DATE REVISION	REVISION DESCRIPTION	DATE REVISION	REVISION DESCRIPTION
1	BRN	02/23	TOWN OF ZEBULON REVIEW
2	BRN/MCB	05/23	TOWN OF ZEBULON REVIEW
3	MCB	02/23	WAKE COUNTY REVIEW
4	BRN/MCB	01/24	TOWN OF ZEBULON REVIEW

STORE OR BLDG NO.:
N/A

VERSION OR PROJECT ID:
N/A

DESIGN TEAM
DGNR, BRM & MCB

PM/DP: ML

RVWR: ML

ISSUE DATE: 1/18/2024

ADDRESS
1106 N ARENDELL AVE
ZEBULON, NC 27587

SHEET TITLE
SEWER DETAILS

DRWG. NO.
C6.11

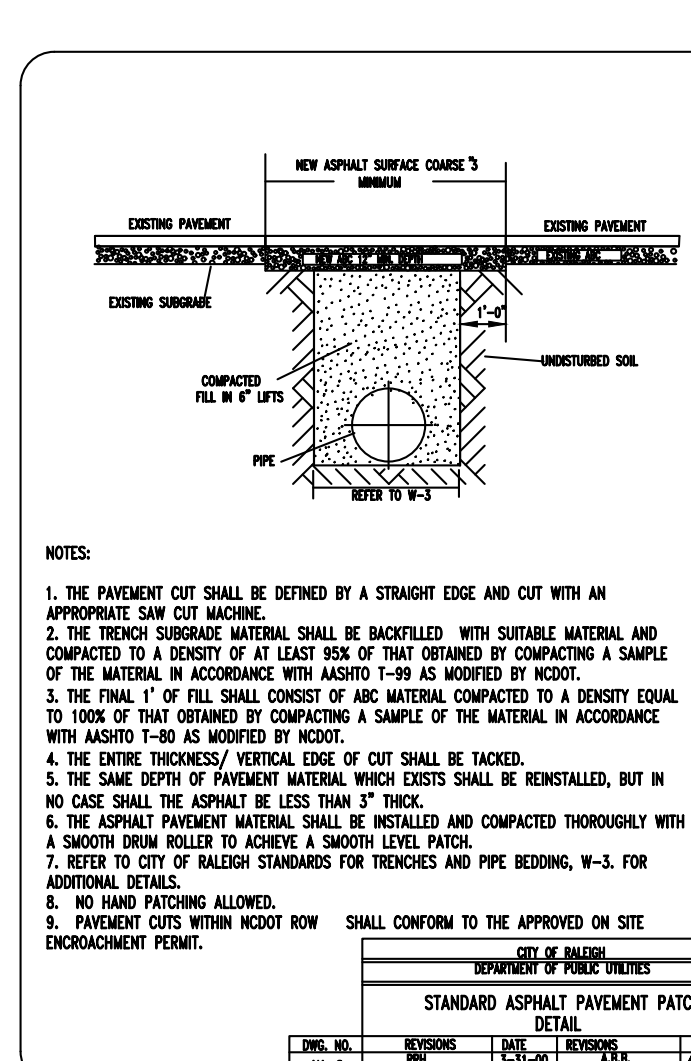


TABLE 1: REACTION BEARING AREAS FOR HORIZONTAL WATER PIPE BENDS

SIZE	REVISIONS	DATE	REVISIONS	DATE
W-2	1	10-20-11	1	10-20-11

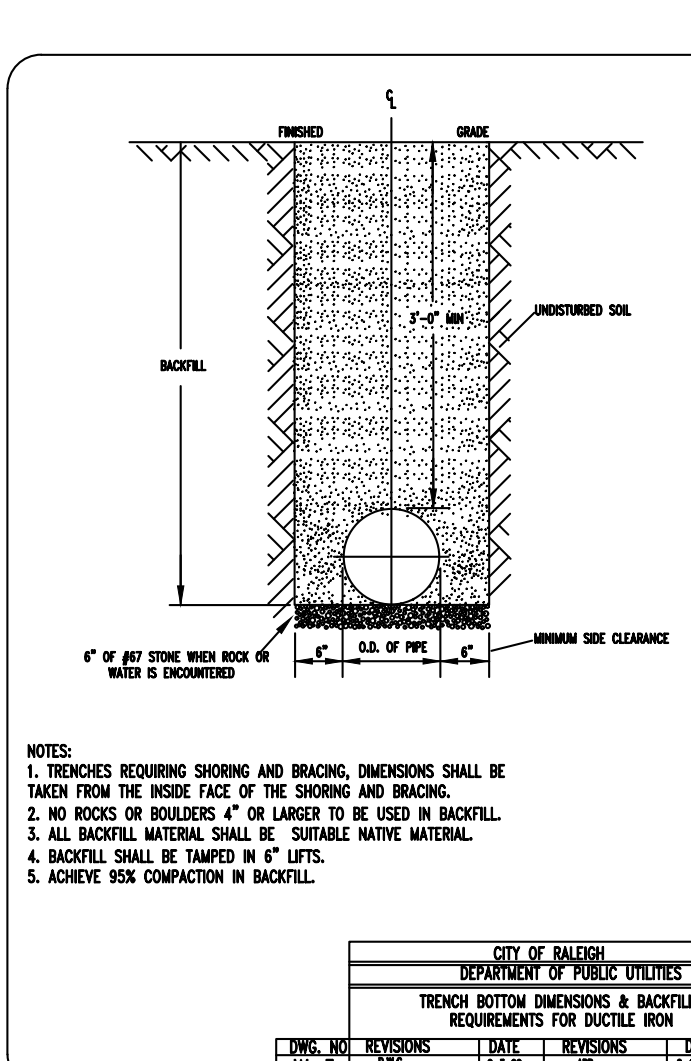


TABLE 2: REACTION BEARING AREAS FOR HORIZONTAL WATER PIPE BENDS

SIZE	REVISIONS	DATE	REVISIONS	DATE
W-3	1	10-20-11	1	10-20-11

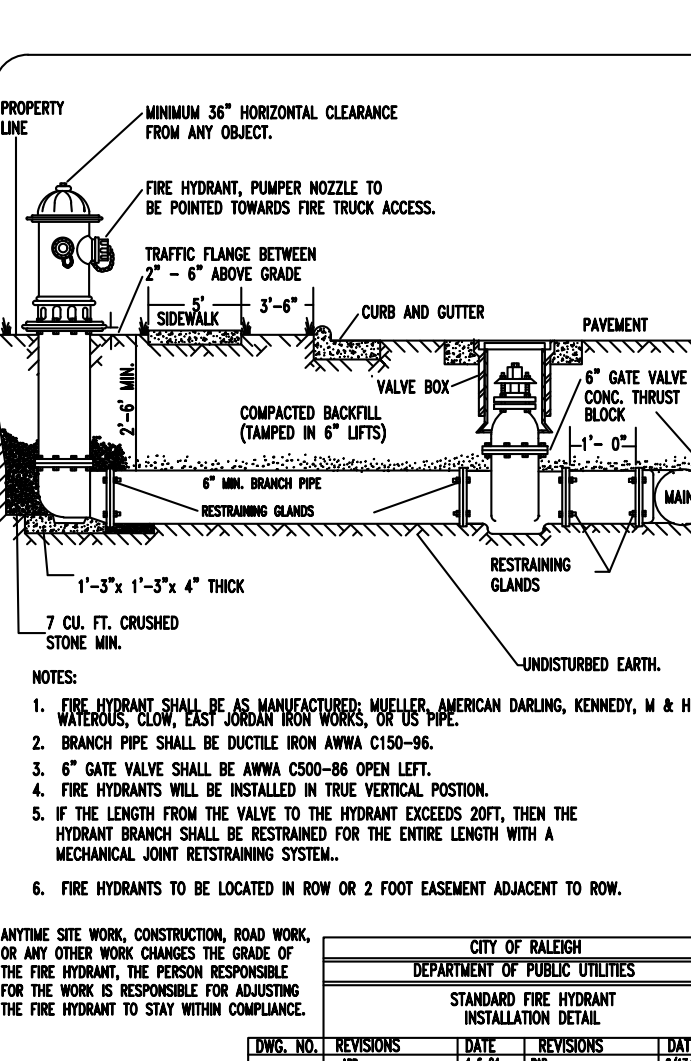


TABLE 3: REACTION BEARING AREAS FOR HORIZONTAL WATER PIPE BENDS

SIZE	REVISIONS	DATE	REVISIONS	DATE
W-4	1	10-20-11	1	10-20-11

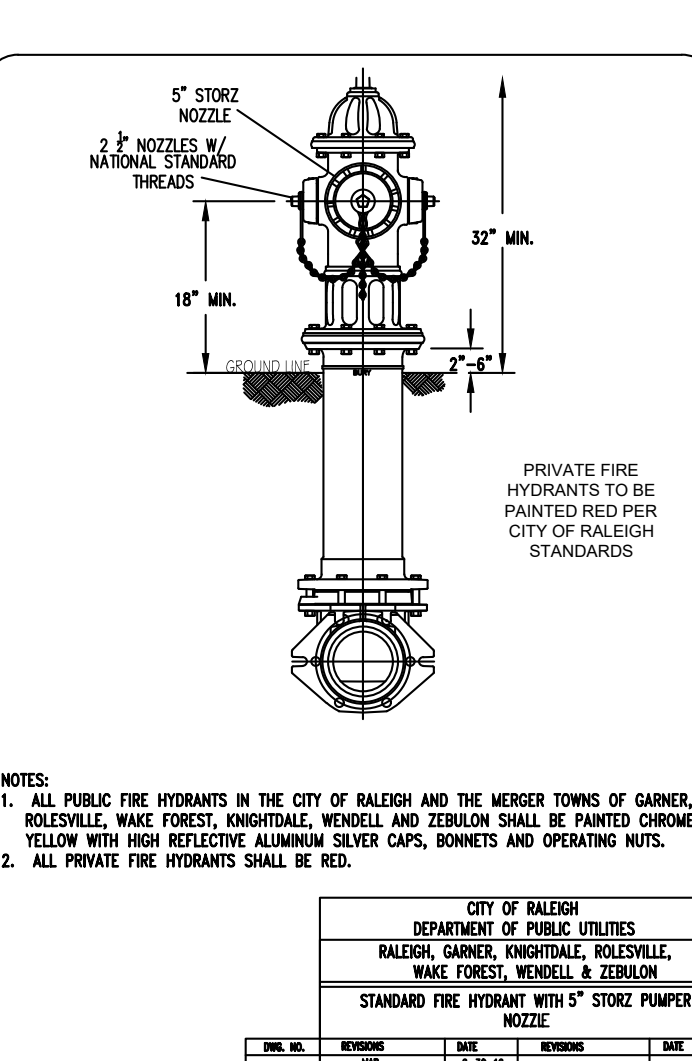


TABLE 4: REACTION BEARING AREAS FOR HORIZONTAL WATER PIPE BENDS

SIZE	REVISIONS	DATE	REVISIONS	DATE
W-5	1	10-20-11	1	10-20-11

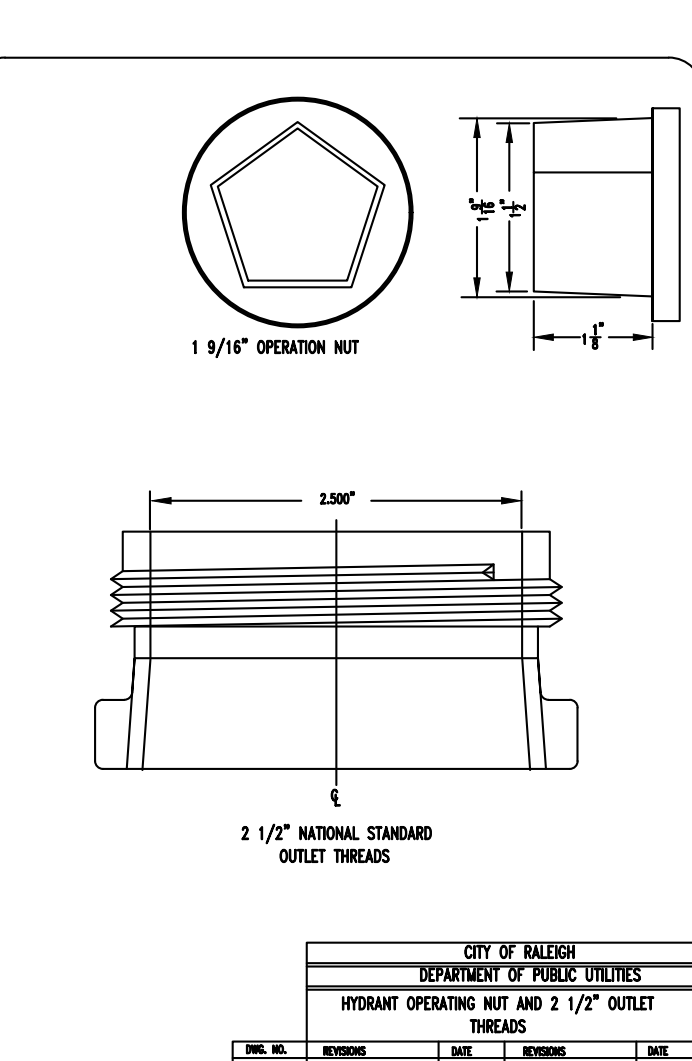


TABLE 5: REACTION BEARING AREAS FOR HORIZONTAL WATER PIPE BENDS

SIZE	REVISIONS	DATE	REVISIONS	DATE
W-6	1	10-20-11	1	10-20-11

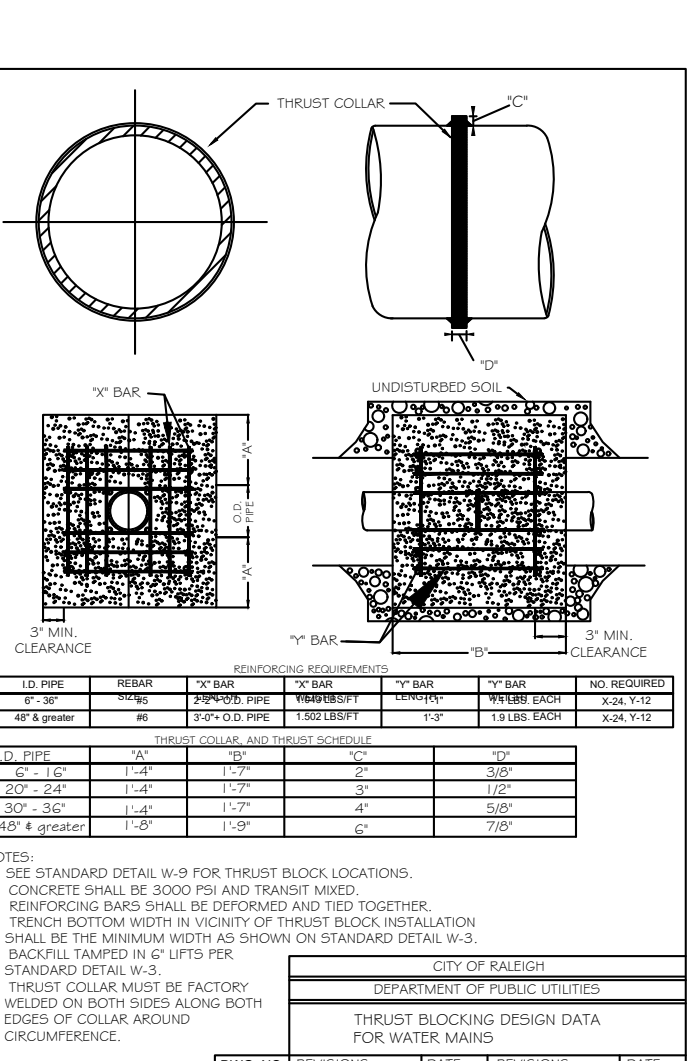


TABLE 6: REACTION BEARING AREAS FOR HORIZONTAL WATER PIPE BENDS

SIZE	REVISIONS	DATE	REVISIONS	DATE
W-7	1	10-20-11	1	10-20-11

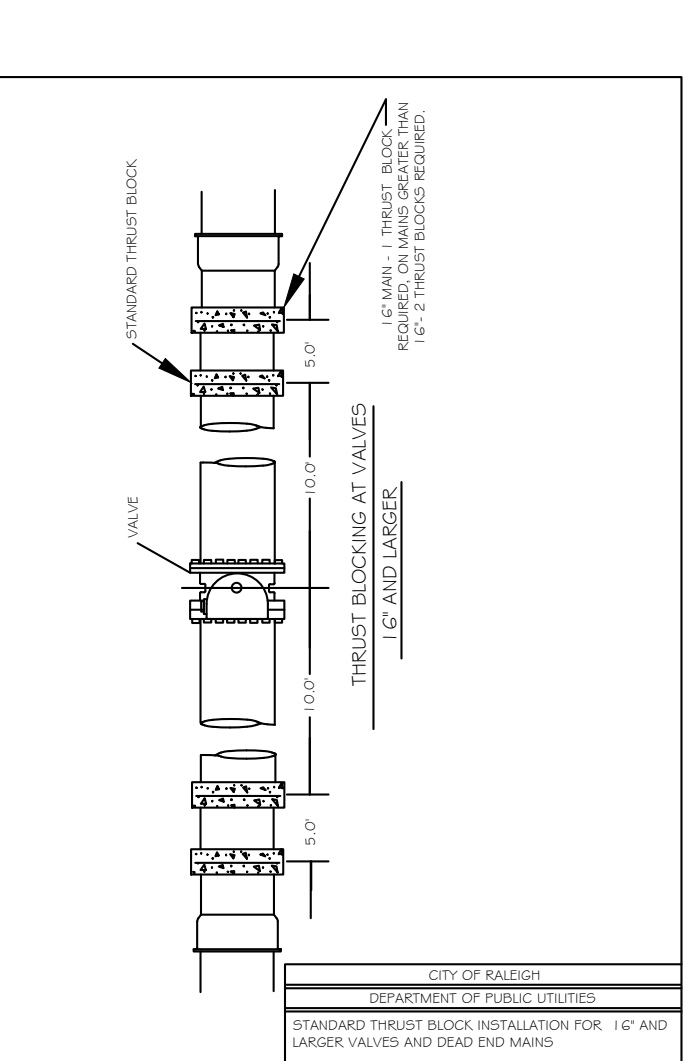


TABLE 7: REACTION BEARING AREAS FOR HORIZONTAL WATER PIPE BENDS

SIZE	REVISIONS	DATE	REVISIONS	DATE
W-8	1	10-20-11	1	10-20-11



TABLE 8: REACTION BEARING AREAS FOR HORIZONTAL WATER PIPE BENDS

SIZE	REVISIONS	DATE	REVISIONS	DATE
W-9	1	10-20-11	1	10-20-11

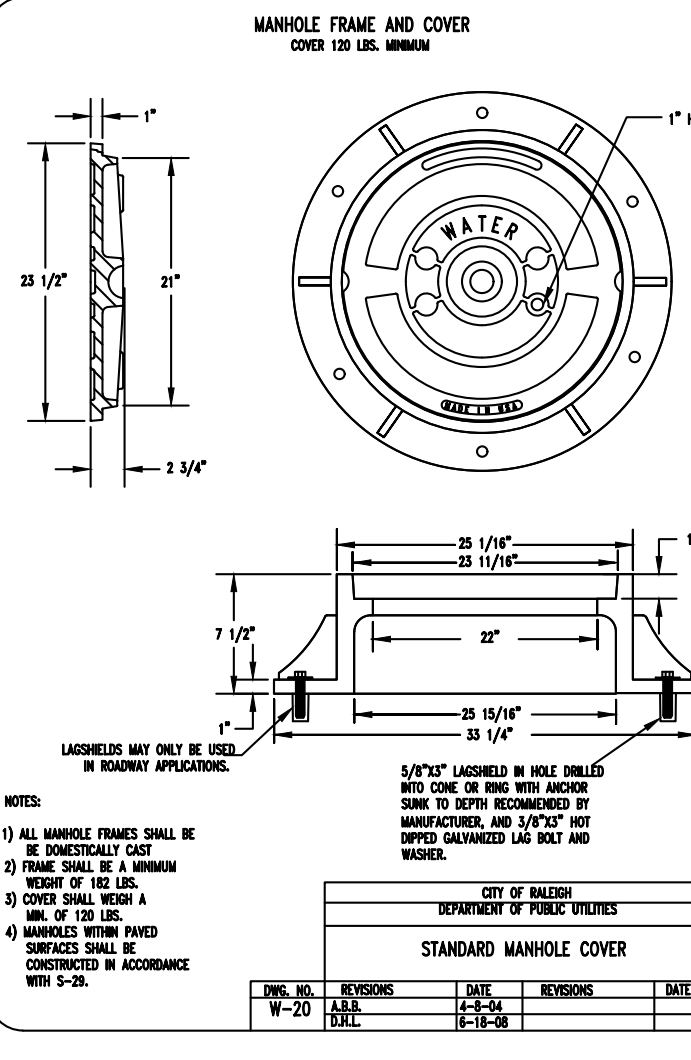


TABLE 9: REACTION BEARING AREAS FOR HORIZONTAL WATER PIPE BENDS

SIZE	REVISIONS	DATE	REVISIONS	DATE
W-10	1	10-20-11	1	10-20-11

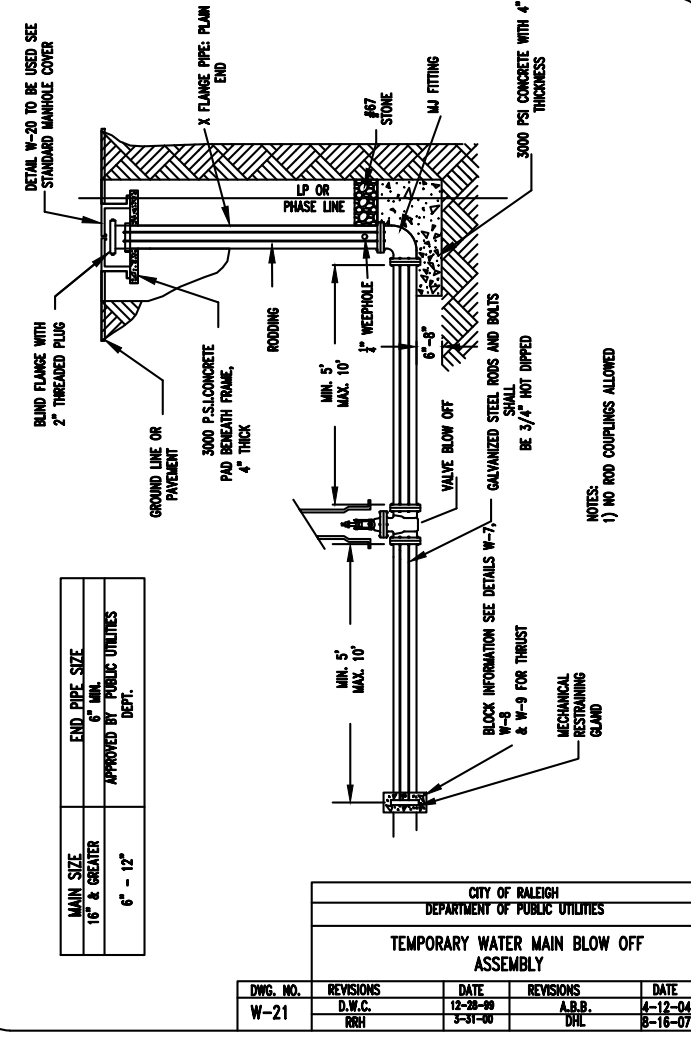


TABLE 10: REACTION BEARING AREAS FOR HORIZONTAL WATER PIPE BENDS

SIZE	REVISIONS	DATE	REVISIONS	DATE
W-11	1	10-20-11	1	10-20-11

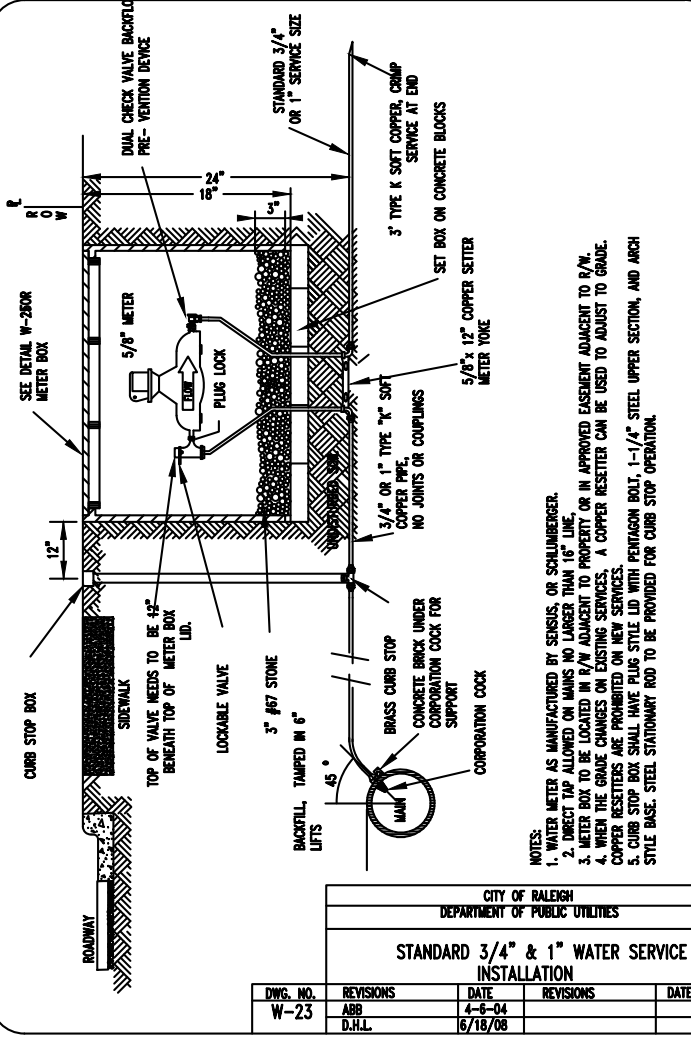


TABLE 11: REACTION BEARING AREAS FOR HORIZONTAL WATER PIPE BENDS

SIZE	REVISIONS	DATE	REVISIONS	DATE
W-12	1	10-20-11	1	10-20-11

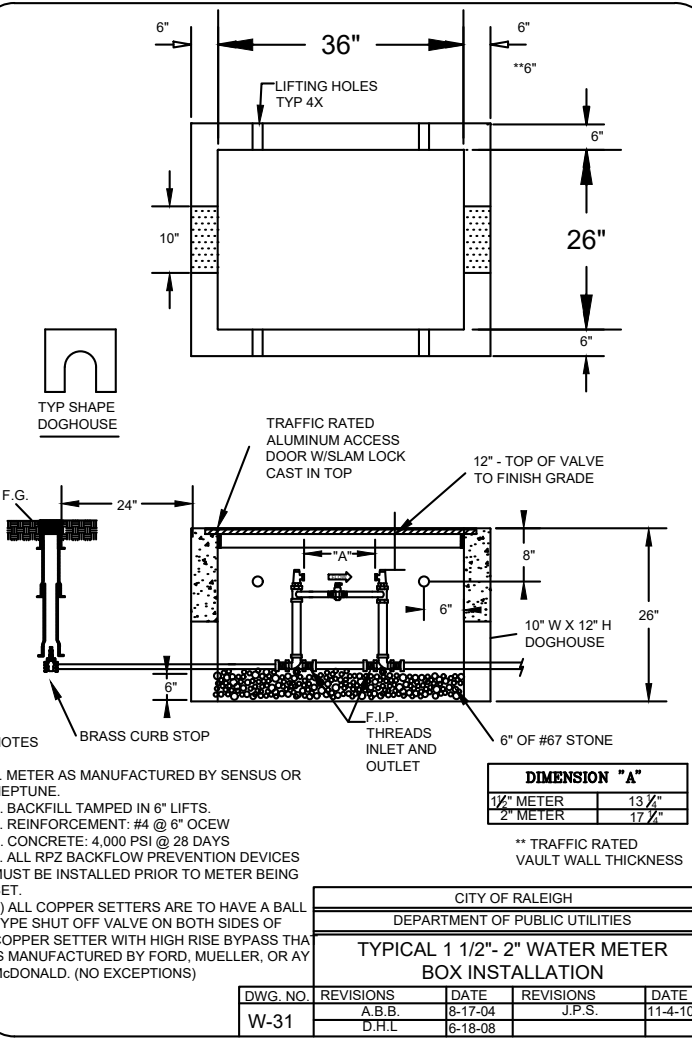


TABLE 12: REACTION BEARING AREAS FOR HORIZONTAL WATER PIPE BENDS

SIZE	REVISIONS	DATE	REVISIONS	DATE
W-13	1	10-20-11	1	10-20-11

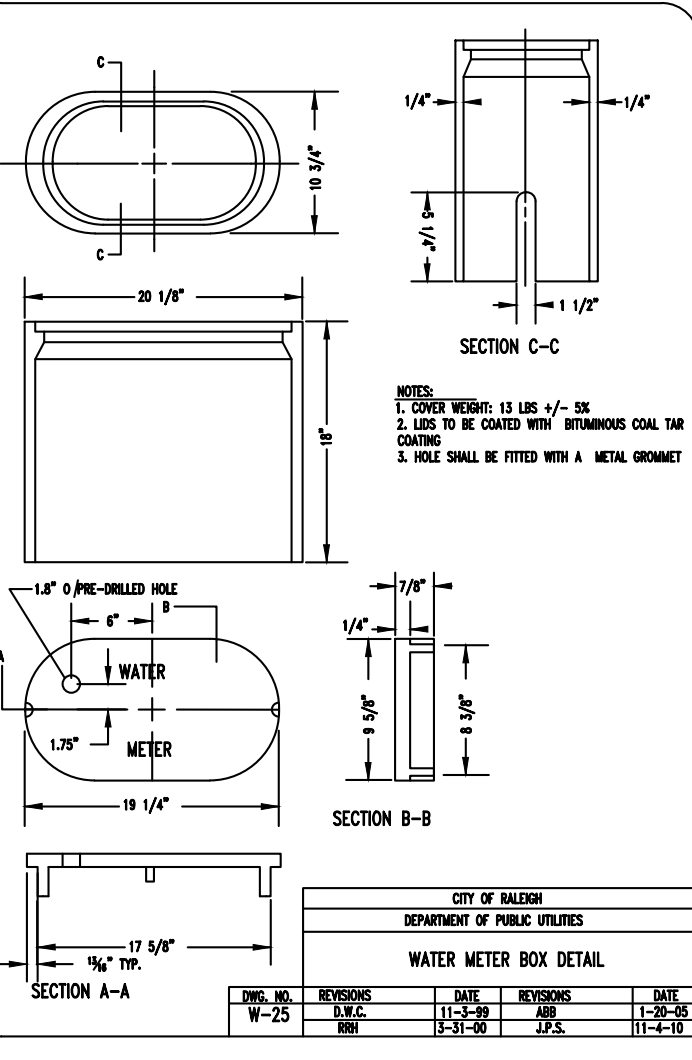


TABLE 13: REACTION BEARING AREAS FOR HORIZONTAL WATER PIPE BENDS

SIZE	REVISIONS	DATE	REVISIONS	DATE
W-14	1	10-20-11	1	10-20-11

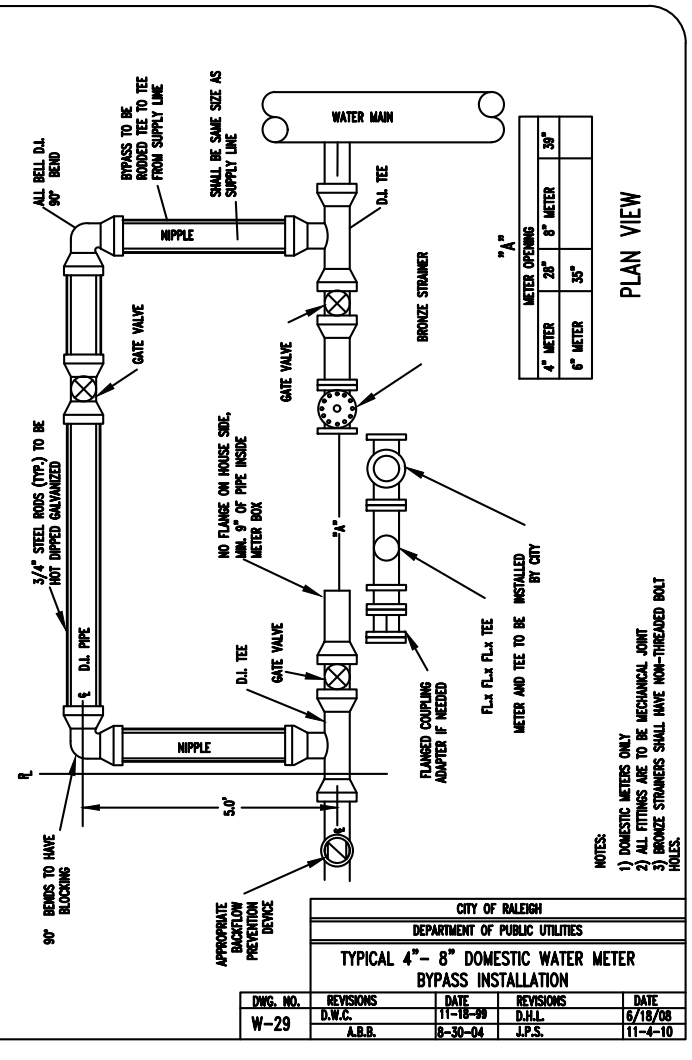


TABLE 14: REACTION BEARING AREAS FOR HORIZONTAL WATER PIPE BENDS

SIZE	REVISIONS	DATE	REVISIONS	DATE
W-15	1	10-20-11	1	10-20-11

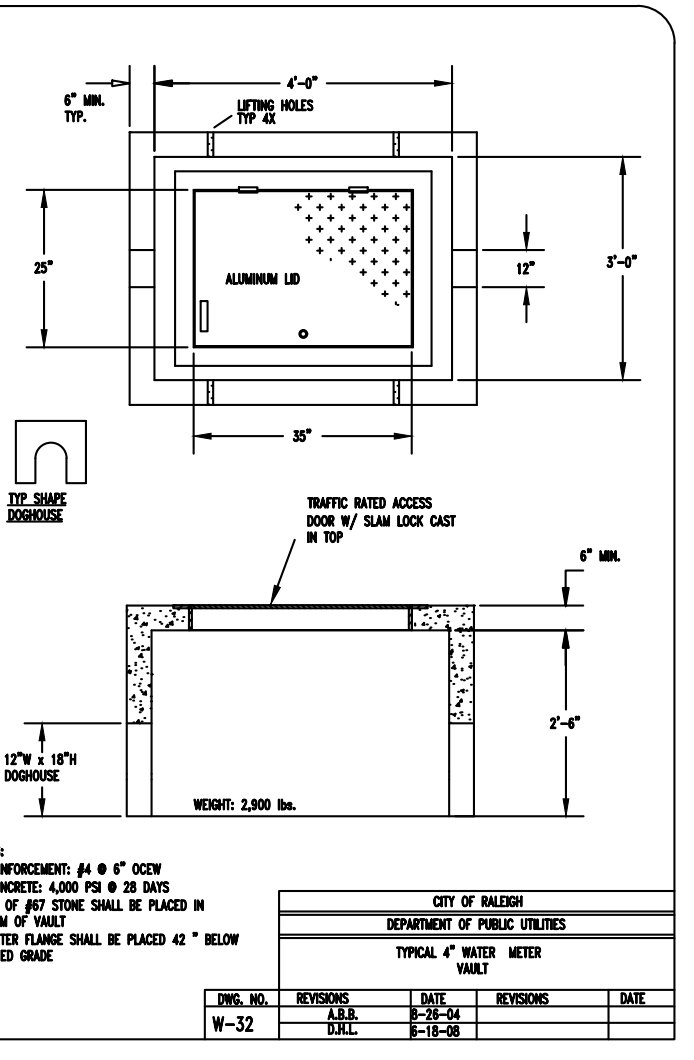


TABLE 15: REACTION BEARING AREAS FOR HORIZONTAL WATER PIPE BENDS

SIZE	REVISIONS	DATE	REVISIONS	DATE
W-16	1	10-20-11	1	10-20-11

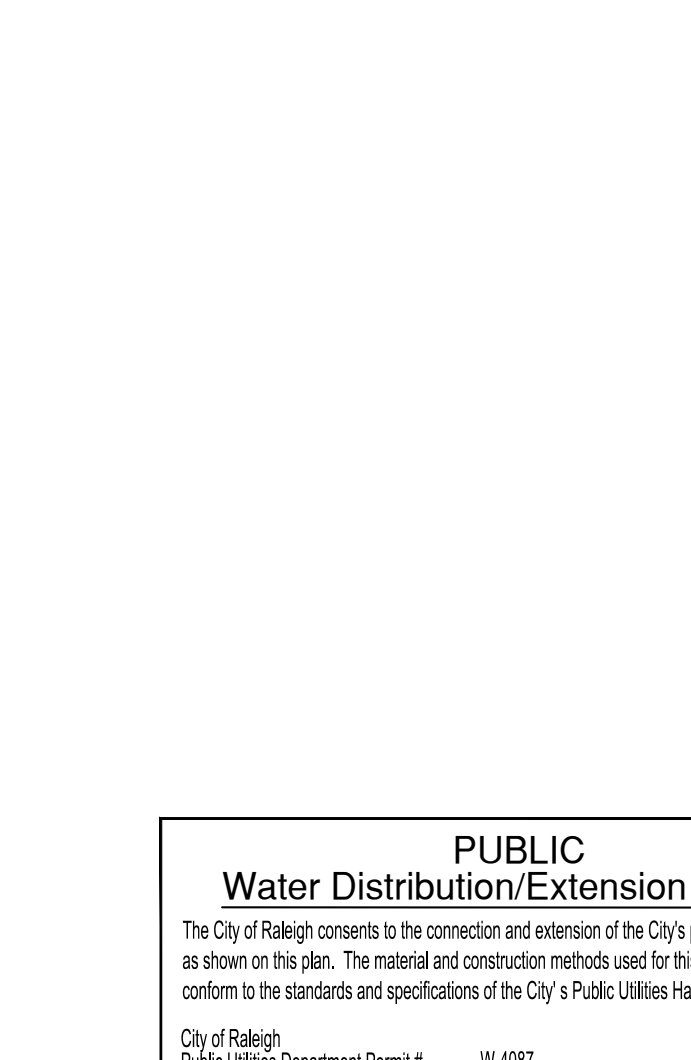


TABLE 16: REACTION BEARING AREAS FOR HORIZONTAL WATER PIPE BENDS

SIZE	REVISIONS	DATE	REVISIONS	DATE
W-17	1	10-20-11	1	10-20-11

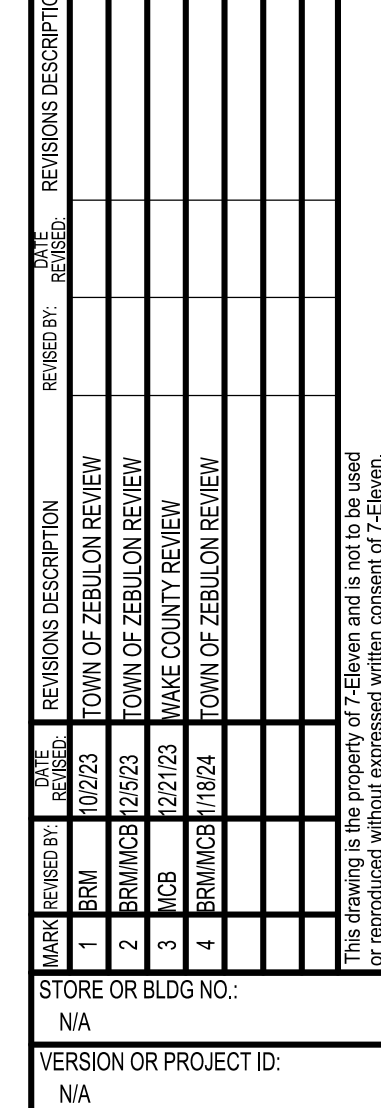
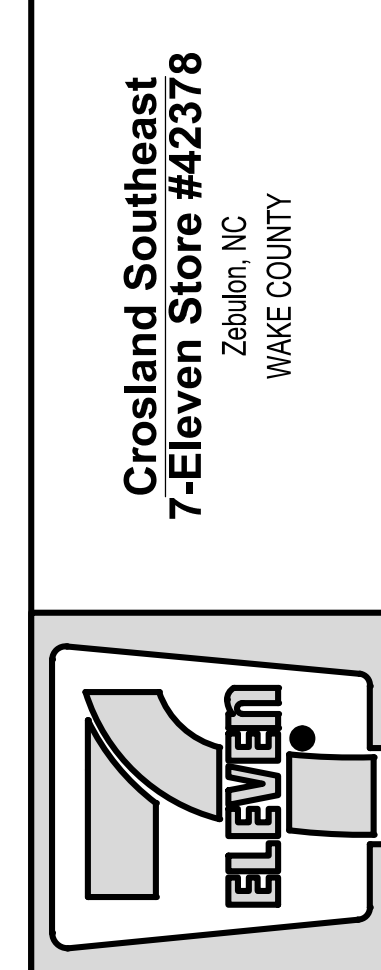
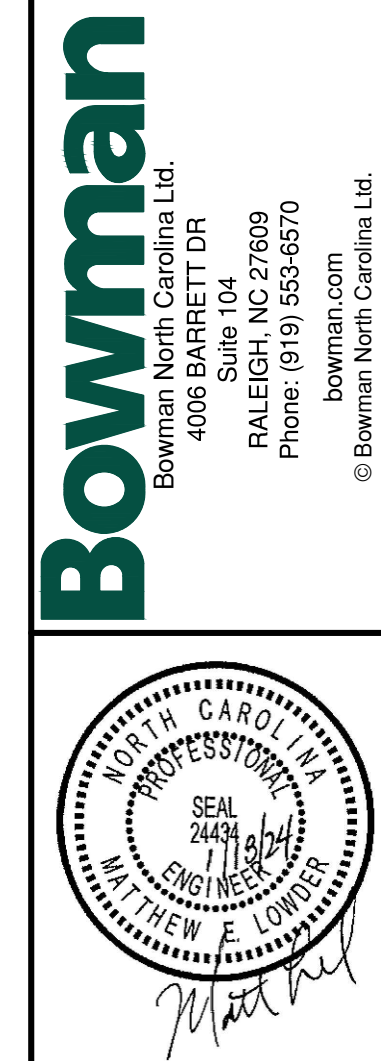


TABLE 17: REVISION DESCRIPTION TABLE

NO.	DATE	REVISION DESCRIPTION	REVISION
1	10/20/11	TOWN OF ZEBULON REVIEW	1
2	10/20/11	TOWN OF ZEBULON REVIEW	2
3	10/20/11	TOWN OF ZEBULON REVIEW	3
4	10/20/11	TOWN OF ZEBULON REVIEW	4

SCM element:	Potential problems:	How to remediate the problem:
The entire wetland	Trash/debris is present.	Remove the trash/debris.
The perimeter of wetland	Areas of bare soil and/or erosive gullies have formed.	Regrade the soil if necessary to remove the gully, and then plant a ground cover and water until it is established. Provide lime and a one-time fertilizer application.
Inlet device	The inlet pipe is clogged (if applicable). The inlet pipe is cracked or otherwise damaged (if applicable).	Unclog the pipe. Dispose of the sediment in a location where it will not cause impacts to streams or the SCM. Repair or replace the pipe.
Forebay	Erosion is occurring in the swale (if applicable).	Regrade the swale if necessary and provide erosion control devices such as reinforced turf matting or riprap to avoid future problems with erosion.
Forebay	Sediment has accumulated in the forebay to a depth of less than 15" or that inhibits the forebay from functioning well.	Search for the source of the sediment and remedy the problem if possible. Remove the sediment and dispose of it in a location where it will not cause impacts to streams or the SCM.
Forebay	Erosion has occurred.	Provide additional erosion protection such as reinforced turf matting or riprap if needed to prevent future erosion problems.
Forebay	Weeds are present.	Remove the weeds, preferably by hand. If a pesticide is used, wipe it on the plants rather than spraying.
Deep pool, shallow water areas	Algal growth covers over 30% of the deep pool and shallow water areas. Cattails, phragmites or other invasive plants cover 30% of the deep pool and shallow water areas. The temporary inundation zone remains flooded more than 5 days after a storm event.	Consult a professional to remove and control the algal growth. Remove the invasive plants by hand or by wiping them with pesticide (do not spray) - consult a professional. Unclog the outlet device immediately.
Deep pool, shallow water areas	Plants are dead, diseased or dying.	Determine the source of the problem: soils, hydrology, disease, etc. Remove the problem and replace plants. Provide a one-time fertilizer application to establish the ground cover if necessary.
Deep pool, shallow water areas	Sediment has accumulated and reduced the depth to 75% of the original design depth of the deep pools.	Search for the source of the sediment and remedy the problem if possible. Remove the sediment and dispose of it in a location where it will not cause impacts to streams or the SCM.
Embankment	A tree has started to grow on the embankment. An annual inspection by an appropriate professional shows that the embankment needs repair. Evidence of muskrat or beaver activity is present.	If tree is <6" in diameter, remove the tree. If the tree is 6" to 10" in diameter, consult a dam safety specialist to remove the tree. Make all needed repairs. Consult a professional to remove muskrats or beavers and repair any holes or erosion.
Micropool	Sediment has accumulated and reduced the depth to 75% of the original design depth.	Search for the source of the sediment and remedy the problem if possible. Remove the sediment and dispose of it in a location where it will not cause impacts to streams or the SCM.
Outlet Structure	Clogging has occurred. The outlet device is damaged.	Clean out the outlet device. Dispose of the sediment off-site. Repair or replace the outlet device.
Receiving water	Erosion or other signs of damage have occurred at the outlet. Discharges from the wetland are causing erosion or sedimentation in the receiving water.	Repair the damage and improve the flow dissipation structure. Contact the local NCDQ Regional Office.

SEEDBED PREPARATION:

- CHISEL COMPACTED AREAS AND SPREAD TOPSOIL THREE INCHES DEEP OVER ADVERSE SOIL CONDITIONS, IF AVAILABLE.
- REP 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 SEEDING MIXTURE).
- CONTINUE TILLAGE UNTIL A WELL-PULVERIZED, FIRM, REASONABLY UNIFORM SEEDBED IS PREPARED FOUR TO SIX INCHES DEEP.
- SEED ON A FRESHLY PREPARED SEEDBED AND COVER SEED LIGHTLY WITH SEEDING EQUIPMENT OR CULTIPACK AFTER SEEDING.
- MULCH IMMEDIATELY AFTER SEEDING AND ANCHOR MULCH.
- INSPECT ALL SEEDBED AREAS AND MAKE NECESSARY REPAIRS OR RE-SEEDINGS WITHIN THE PLANTING SEASON, IF POSSIBLE. IF STAND SHOULD BE MORE THAN 60% DAMAGED, RE-ESTABLISH FOLLOWING THE ORIGINAL LIME, FERTILIZER AND SEEDING RATES.
- CONSULT SOIL ENVIRONMENTAL ENGINEERS ON MAINTENANCE TREATMENT AND FERTILIZATION AFTER PERMANENT COVER IS ESTABLISHED.

LANDSCAPING NOTES:

ALL LANDSCAPING SHALL BE IN COMPLIANCE WITH THE NCDQ BMP REQUIREMENTS.

LANDSCAPE CONTRACTOR SHALL PROVIDE A TWO-YEAR WARRANTY FOR BMP PLANTING SURVIVAL/REPLACEMENT.

AT THE END OF THE FIRST YEAR AND AT THE END OF THE TWO-YEAR WARRANTY PERIOD, ALL PLANTS THAT DO NOT SURVIVE MUST BE REPLACED.

ESTABLISHMENT PROCEDURES, SUCH AS CONTROL OF INVASIVE WEEDS, ANIMAL AND VANDAL DAMAGE, MULCHING, RE-SEEDING, WATERING, AND WEED OR TIE PROTECTION REPLACEMENT, SHALL BE MAINTAINED TO THE EXTENT NEEDED TO ENSURE PLANT SURVIVAL. STAKES MUST BE REMOVED AFTER ESTABLISHMENT (APPROXIMATELY 12 MONTHS) TO PREVENT GIRDLING (STRANGLING) OF ALL WOODY PLANTS.

SOIL TO BE BERBERIS OR CENTIPEDE GRASS. REFER TO LANDSCAPE PLAN FOR LOCATION OF AREAS TO BE SODED.

GRASS OR WILDFLOWER SEED MUST BE APPLIED AT THE RATES SPECIFIED BY THE SUPPLIERS. IF PLANT ESTABLISHMENT CANNOT BE ACHIEVED WITH SEEDING BY THE TIME OF SUBSTANTIAL COMPLETION OF THE STORMWATER FACILITY PORTION OF THE PROJECT, THEN THE CONTRACTOR SHALL PLANT THE AREA WITH WILDFLOWER SEEDS, PLOWS, CONTAINER PLANTS, OR OTHER MEANS TO COMPLETE THE SPECIFIED PLANTING AND PROTECT AGAINST EROSION BEFORE WATER IS ALLOWED TO ENTER THE STORMWATER BMP FACILITY.

ALL MATERIALS SHALL BE ACQUIRED FROM AN APPROVED NCDQ PLANT VENDOR. PLANT MATERIAL SHOULD BE PURCHASED FROM A LOCAL SOURCE TO ENSURE SURVIVABILITY. LOCAL VENDORS FOR THIS SITE INCLUDE:

- CLL IDE NATIVE PLANT NURSERY 919-992-5566
- GROWING WILD NURSERY 910-259-6361
- NC FOREST SERVICE 919-731-7988
- PLANT DELIGHTS NURSERY 919-772-4794
- TARHEEL NATIVE TREES 919-553-5927

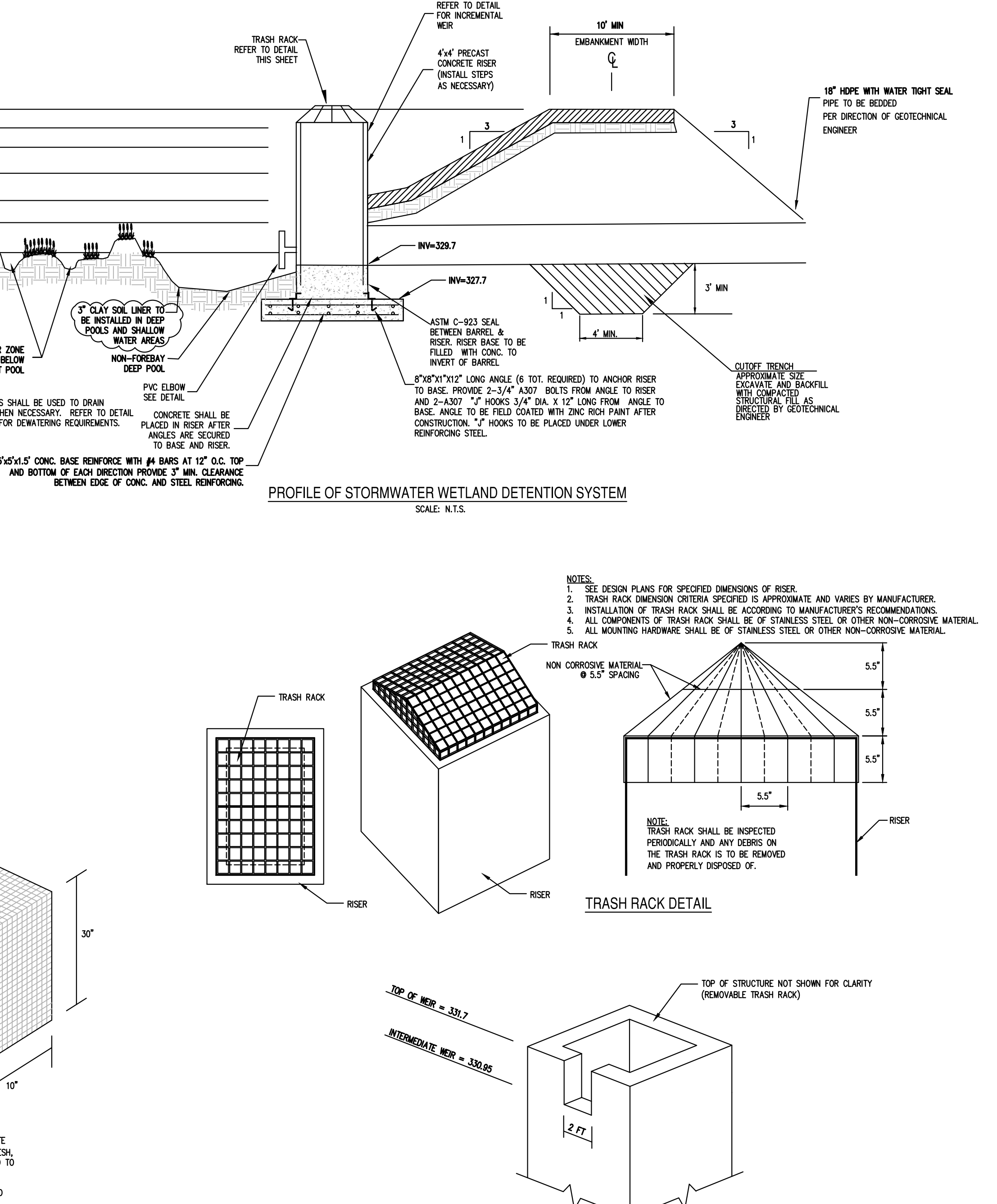
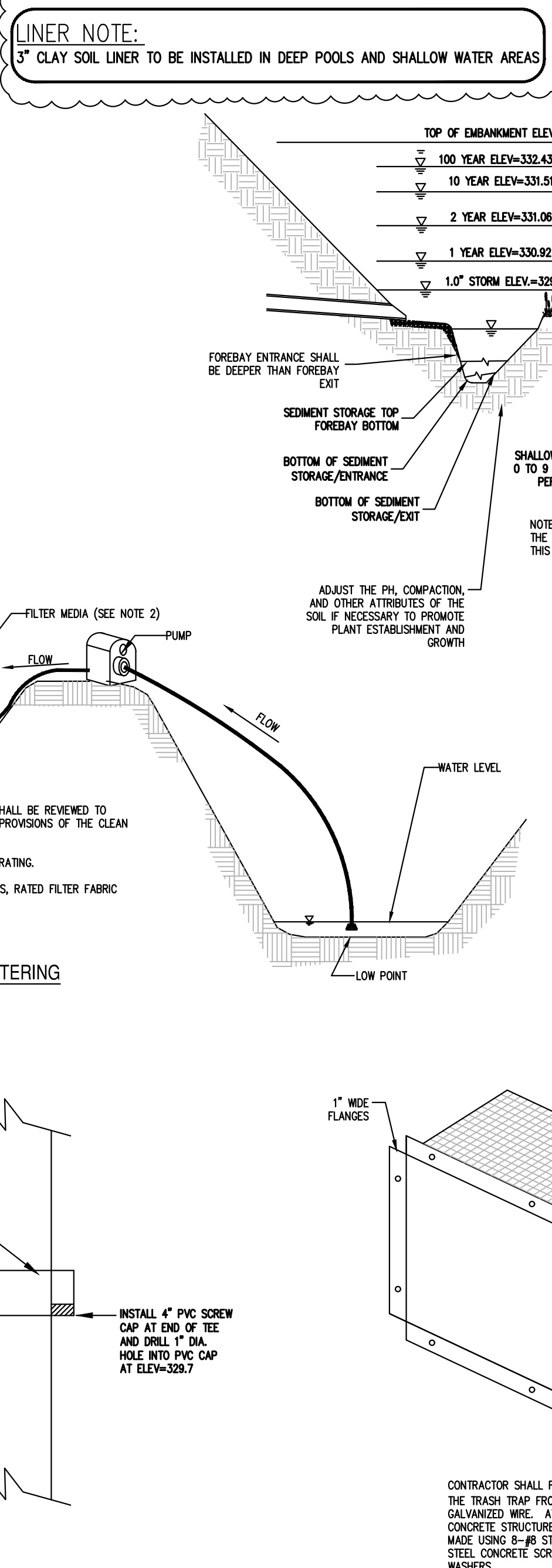
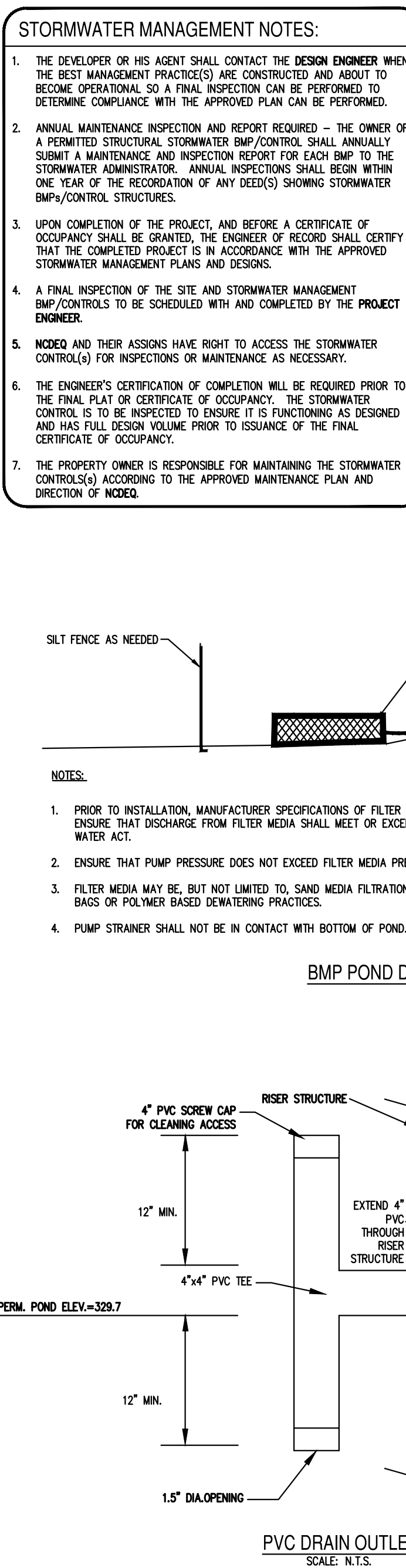
REFER TO PLANTINGS ON THIS SHEET FOR TYPE AND LOCATION OF SHALLOW WATER AND TEMPORARY INUNDATION ZONE PLANTINGS.

IMMEDIATELY AFTER THE STORMWATER WETLAND DETENTION POND IS ESTABLISHED, THE PLANTS ABOVE THE PERMANENT POOL ELEVATION AND PERIMETER OF THE BASIN SHOULD BE WATERED TWICE WEEKLY IF NEEDED UNTIL THE PLANTS BECOME ESTABLISHED (COMMONLY SIX WEEKS).

NO PORTION OF THE STORMWATER WETLAND DETENTION POND SHOULD BE FERTILIZED AFTER THE FIRST INITIAL FERTILIZATION THAT IS REQUIRED TO ESTABLISH THE PLANTS.

LANDSCAPING NOTES:

- CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE CODES AND ORDINANCES REGARDING LANDSCAPING.
- IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ESTABLISH A HEALTHY STAND OF GRASS ON ALL SEEDBED AREAS.
- CONTRACTOR SHALL PROVIDE NATURAL TOPSOIL THAT IS FERTILE, FRABLE, WITHOUT MIXTURE OF SUBSOIL MATERIALS, AND OBTAINED FROM A WELL DRAINABLE, AVAILABLE SITE. IT SHALL NOT CONTAIN SUBSTANCES WHICH MAY BE HARMFUL TO PLANT GROWTH. TOPSOIL SHALL BE SCREENED AND FREE FROM CLAY, LIMPS, STONES, ROOTS, PLANTS, OR SIMILAR SUBSTANCES 1" OR MORE IN DIAMETER, DEBRIS, OR OTHER OBJECTS WHICH MIGHT BE AN OBSTACLE TO PLANTING OPERATIONS. TOPSOIL SHALL CONTAIN AT LEAST 4-6% ORGANIC MATTER BY WEIGHT AND HAVE A PH RANGE OF 5.5 TO 7.0.
- CONTRACTOR SHALL BE RESPONSIBLE FOR THE WATERING AND MAINTENANCE OF ALL LANDSCAPED AREAS UNTIL THE LATER OF: (a) THIRTY (30) DAYS FOLLOWING THE PLANTING OF THE GRASS AND SHRUBS, OR (b) THE DATE THAT STORE OPENS FOR BUSINESS TO THE PUBLIC. CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR THE SURVIVAL OF THE BMP PLANTING MATERIALS DURING THE TWO-YEAR WARRANTY PERIOD AND SHALL REPLACE ALL PLANTS THAT DO NOT SURVIVE AT THE END OF THE FIRST YEAR AND AT THE END OF THE SECOND YEAR OF THE WARRANTY PERIOD.
- CONTRACTOR TO VERIFY QUANTITIES PRIOR TO COMMENCING WORK.
- ANY DISTURBED AREAS NOT SCHEDULED FOR HARDSCAPE, PLANTINGS, OR MULCH SHALL BE SEEDED LAMB. REFER TO LANDSCAPE PLAN FOR LOCATION OF AREAS TO BE SODED.
- NO PLANT SUBSTITUTIONS ARE PERMITTED WITHOUT WRITTEN APPROVAL OF THE OWNER'S REPRESENTATIVE.
- FOR NEW PLANTING AREAS, REMOVE ALL PAVEMENT, GRAVEL, SUB-BASE AND CONSTRUCTION DEBRIS; REMOVE COMPACTED SOIL AND ADD 18" NEW TOPSOIL, OR TILL AND AMEND THE TOP 18" OF EXISTING SOIL TO MEET TOPSOIL/PLANTING MIX STANDARDS FOR TREES.
- ADJUST TREE PLANTING LOCATIONS TO AVOID UNDERGROUND UTILITIES. PLANT 15' FROM ALL UNDERGROUND UTILITIES (SEWER AND STORM DRAINAGE, GAS, WATER, PHONE, AND ELECTRICAL LINES).



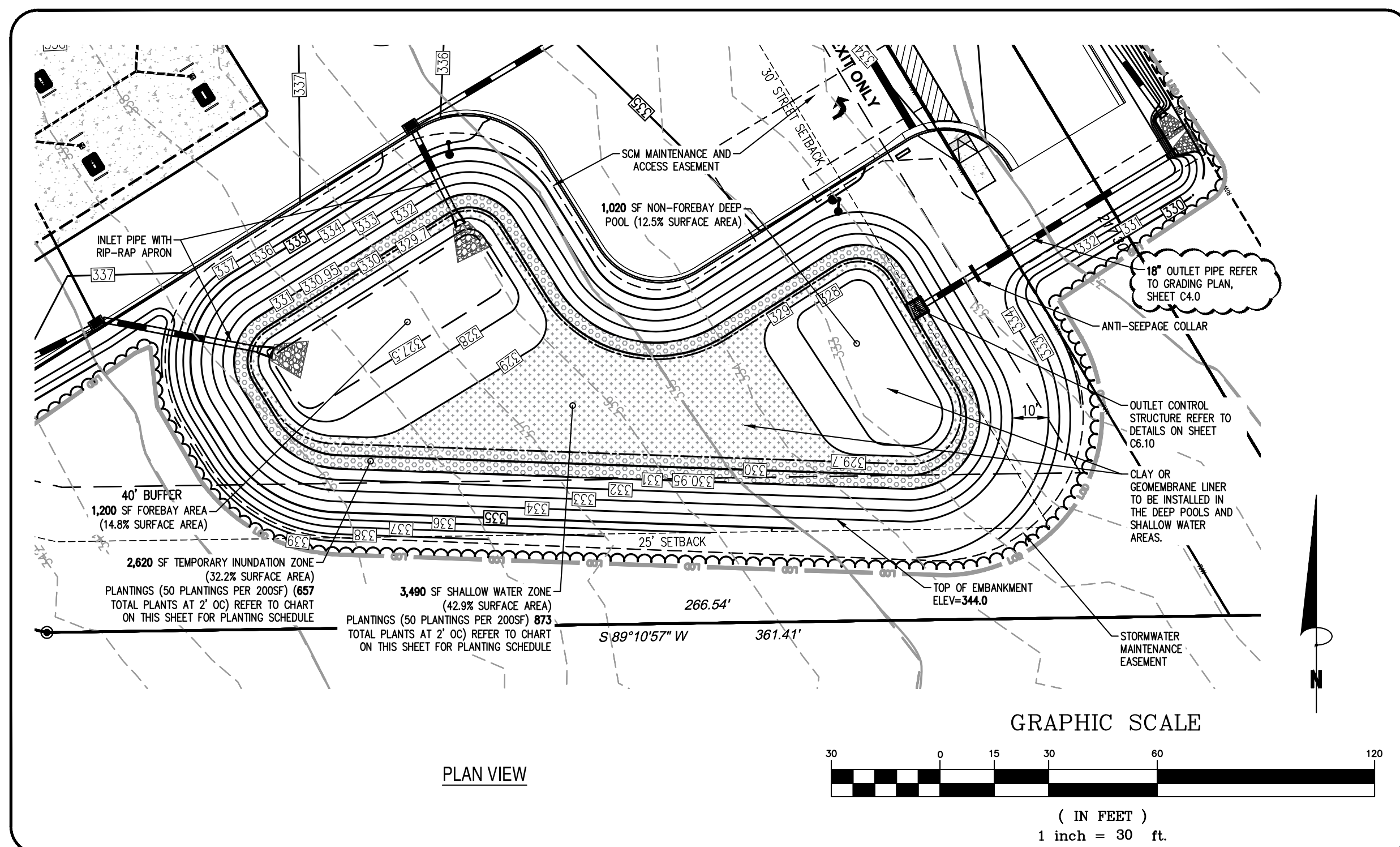
TYPICAL SHALLOW WATER PLANTING SCHEDULE

SCIENTIFIC NAME	COMMON NAME	PLANTING ZONE	QUANTITY	HEIGHT	IDEAL DEPTH	NURSERY CONTAINER TYPE	SPACING	PLANTING SEASON
<i>Juncus effusus</i>	Common Rush	SHALLOW WATER	291	9" FOLIAGE HEIGHT	0-2"	4" TEA POT	2' O.C.	SPRING/SUMMER
<i>Liseopsis carolinensis</i>	Caroline Grasswort	SHALLOW WATER	291	9" FOLIAGE HEIGHT	0-9"	4" TEA POT	2' O.C.	SPRING/SUMMER
<i>Scheuchzeria palustris</i>	Softstem Bulrush	SHALLOW WATER	291	9" FOLIAGE HEIGHT	0-6"	4" TEA POT	2' O.C.	SPRING/SUMMER

TYPICAL TEMPORARY INUNDATION ZONE PLANTING SCHEDULE

SCIENTIFIC NAME	COMMON NAME	PLANTING ZONE	QUANTITY	HEIGHT	NURSERY CONTAINER TYPE	SPACING	PLANTING SEASON
<i>Eutrochium dubium</i>	Coastal Joy Jay Weed	SHALLOW LAND	219	9" FOLIAGE HEIGHT	4" TEA POT	2' O.C.	SPRING/SUMMER
<i>Eupatorium erfolium</i>	Bonnet	SHALLOW LAND	219	9" FOLIAGE HEIGHT	4" TEA POT	2' O.C.	SPRING/SUMMER
<i>Rhynchospora colorata</i>	Stomach Whitetop	SHALLOW LAND	219	9" FOLIAGE HEIGHT	4" TEA POT	2' O.C.	SPRING/SUMMER

PLANTINGS



STAGE/STORAGE TABLE

STAGE (FT)	ELEVATION (FT)	CONTOUR AREA (SF)	INCREMENTAL STORAGE (CF)	TOTAL STORAGE (CF)
0.0	329.7	8,130	0	0
0.3	330.0	8,990	2,566	2,566
1.25	330.95	10,770	9,381	11,947 (NOV)
1.5	331.0	10,840	940	12,489
2.3	332.0	12,400	11,620	24,109
3.3	333.0	14,010	13,205	37,313
4.3	334.0	15,680	14,845	52,158

STORMWATER MANAGEMENT DESIGN STORMWATER WETLAND:

RIVER BASIN: NEUSE
RECEIVING STREAM: MOCCASIN CREEK
STREAM INDEX: 27-86-2.4
STREAM CLASS: C,NSW
HUC: 03020203
PROJECT COORDINATES: 35.836261N, -78.321664W

POND DESIGN SUMMARY:

DRAINAGE AREA:	PRE-DEVELOPED TO EMBANKMENT	POST-DEVELOPED TO EMBANKMENT	POST DEVELOPED THROUGH POND	POST DEVELOPED COMBINED
3.41 AC	3.16 AC	0.13 AC	0.13 AC	0.13 AC
57	83	73	73	73
24 MIN	5 MIN	10 MIN	10 MIN	10 MIN

1.0" STORM EVENT: 0.224 CFS

1-YEAR STORM EVENT: 0.743 CFS

2-YEAR STORM EVENT: 0.743 CFS

10-YEAR STORM EVENT: 3.321 CFS

100-YEAR STORM EVENT: 9.617 CFS

POST-DEVELOPED TO EMBANKMENT: 0.245 CFS

POST-DEVELOPED THROUGH POND: 7.077 CFS

POST DEVELOPED COMBINED: 0.082 CFS

1-YEAR STORM EVENT: 0.283 CFS

2-YEAR STORM EVENT: 0.283 CFS

10-YEAR STORM EVENT: 1.725 CFS

100-YEAR STORM EVENT: 30.29 CFS

POST DEVELOPED THROUGH POND: 0.136 CFS

POST DEVELOPED COMBINED: 0.212 CFS

1-YEAR STORM EVENT: 0.475 CFS

2-YEAR STORM EVENT: 0.475 CFS

10-YEAR STORM EVENT: 2.248 CFS

100-YEAR STORM EVENT: 0.446 CFS

POST DEVELOPED THROUGH POND: 0.198 CFS

POST DEVELOPED COMBINED: 0.267 CFS

1-YEAR STORM EVENT: 11.62 CFS

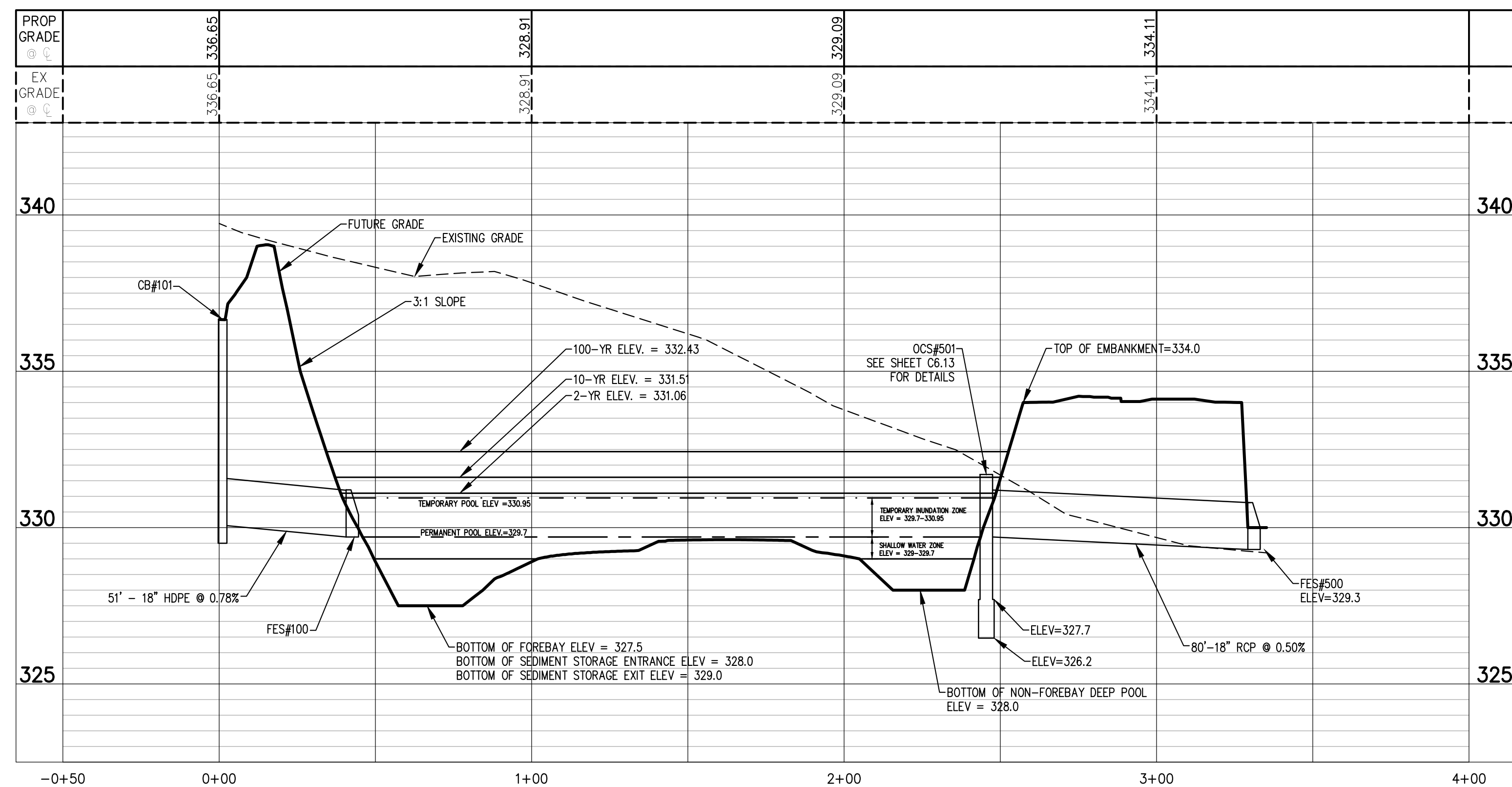
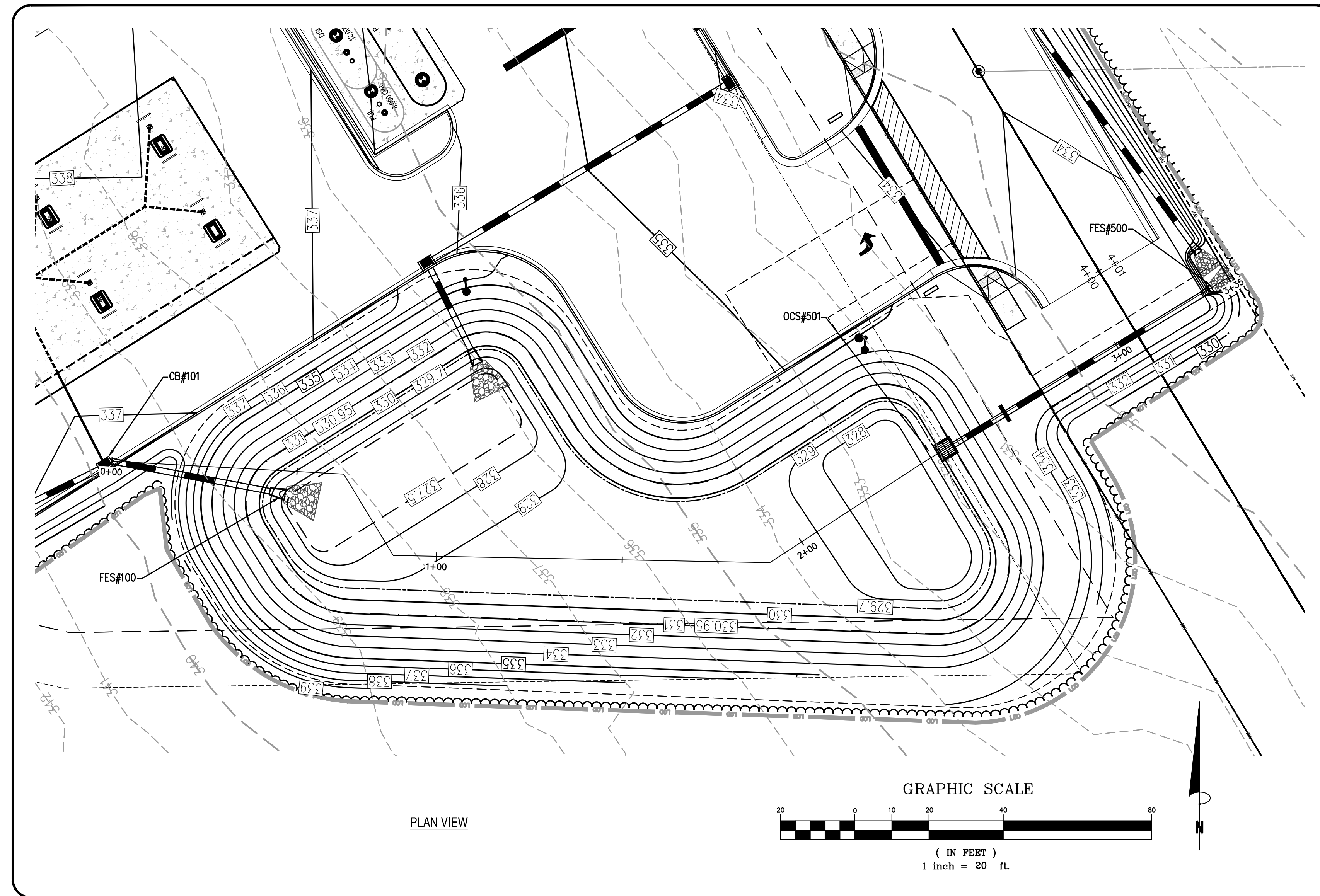
1 STORMWATER MANAGEMENT SYSTEM DETAILS
NOT TO SCALE

Bowman
Bowman North Carolina Ltd.
4000 State 101 DR
RALEIGH, NC 27609
Phone: (919) 553-6570
bowman.com
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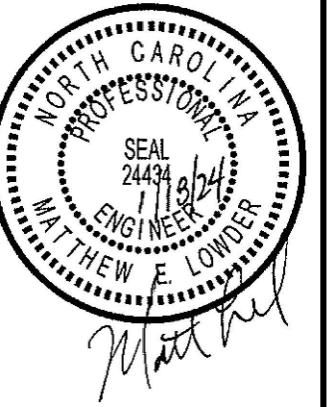
Crosland Southeast
7-Eleven Store #42378
Zebulon, NC
WAKE COUNTY

7-Eleven

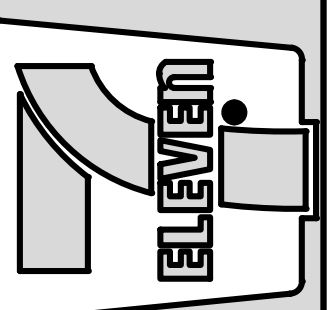
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51	REVISED	11/18/2024	REVISED
52	REVISED	1	



POND PROFILE VIEW
 HORIZONTAL SCALE: 1"=30'
 VERTICAL SCALE: 1"=3'



Crosland Southeast
7-Eleven Store #42378
 Zebulon, NC
 WAKE COUNTY



NO.	DATE	REVISION DESCRIPTION	DATE REVISION
1	02/23	TOWN OF ZEBULON REVIEW	
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3	02/23	WAKE COUNTY REVIEW	
4	02/24	TOWN OF ZEBULON REVIEW	

STORE OR BLDG NO.:	N/A
VERSION OR PROJECT ID:	N/A
DESIGN TEAM:	DGNR, BRM & MCB
PM/DP:	ML
RVWR:	ML
ISSUE DATE:	1/18/2024
ADDRESS:	1106 N ARENDELL AVE ZEBULON, NC 27587

SHEET TITLE
**STORMWATER
 WETLAND
 PROFILE**

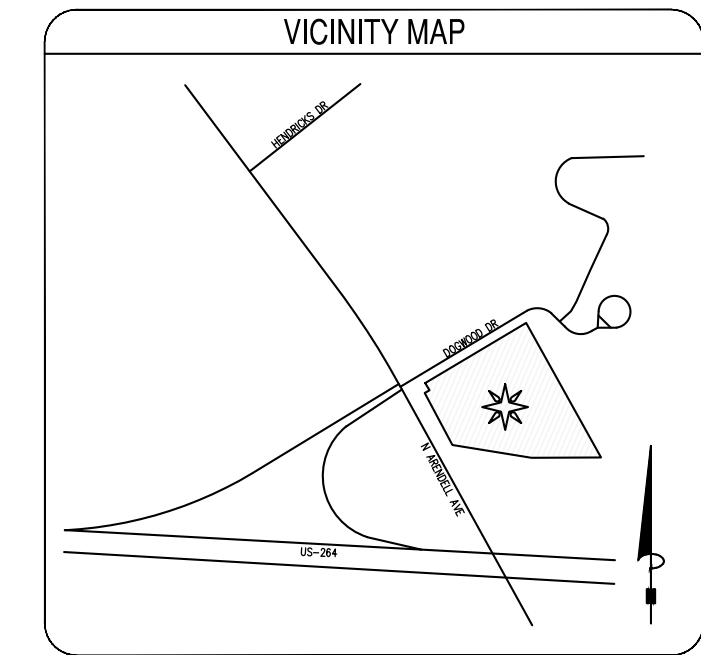
DRWG. NO.
C6.14

LANDSCAPE NOTES:

HYDROMULCH ALL DISTURBED AREAS OUTSIDE OF PROPERTY LIMITS (UNLESS SHOWN AS SOD).

THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR THE MAINTENANCE OF ALL WORK SHOWN ON THESE PLANS FOR 90 DAYS BEYOND FINAL ACCEPTANCE OF ALL LANDSCAPE WORK BY THE OWNER. LANDSCAPE MAINTENANCE SHALL INCLUDE WEEKLY SITE VISITS FOR THE FOLLOWING ACTIONS (AS APPROPRIATE): PROPER PRUNING, RESTAKING OF TREES, RESETING OF PLANTS THAT HAVE SETTLED, MOWING AND AERATION OF LAWNS, WEEDING, RESEEDING AREAS WHICH HAVE NOT GERMINATED WELL, TREATING FOR INSECTS AND DISEASES, REPLACEMENT OF MULCH, REMOVAL OF LITTER, REPAIRS TO THE IRRIGATION SYSTEM DUE TO FAULTY PARTS AND/OR WORKMANSHIP, AND THE APPROPRIATE WATERING OF ALL PLANTINGS. THE LANDSCAPE CONTRACTOR SHALL MAINTAIN THE IRRIGATION SYSTEM IN PROPER WORKING ORDER, WITH SCHEDULING ADJUSTMENTS BY SEASON TO MAXIMIZE WATER CONSERVATION.

SHOULD SEEDED AND/OR SODDED AREAS NOT BE COVERED BY AN AUTOMATIC IRRIGATION SYSTEM, THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR WATERING THESE AREAS AND OBTAINING A FULL STAND OF GRASS AT NO ADDITIONAL COST TO THE OWNER.



EROSION CONTROL NOTES:

AN EROSION AND SEDIMENTATION CONTROL PERMIT SHALL BE REQUIRED BY WAKE COUNTY PRIOR TO START OF CONSTRUCTION.

SURVEY NOTE:

ALL EXISTING BOUNDARY AND TOPOGRAPHIC INFORMATION TAKEN FROM A LAND SURVEY PREPARED BY: KCI ASSOCIATES OF NC.

STREAM/WETLAND NOTE:

THERE ARE NO EXISTING STREAM AND/OR WETLAND FEATURES ON THE PROPOSED PARCEL. THERE ARE NO PROPOSED IMPACTS TO AN EXISTING STREAM AND/OR WETLAND FEATURES.

FLOOD ZONE NOTE:

THE PROPERTY IS LOCATED IN FLOOD ZONE X AS SHOWN ON FEMA FLOOD PANELS 370272800K & 370272900K, BOTH DATED JULY 19, 2022. MAPS SUBJECT TO CHANGE BY FEMA.

IRRIGATION NOTE:

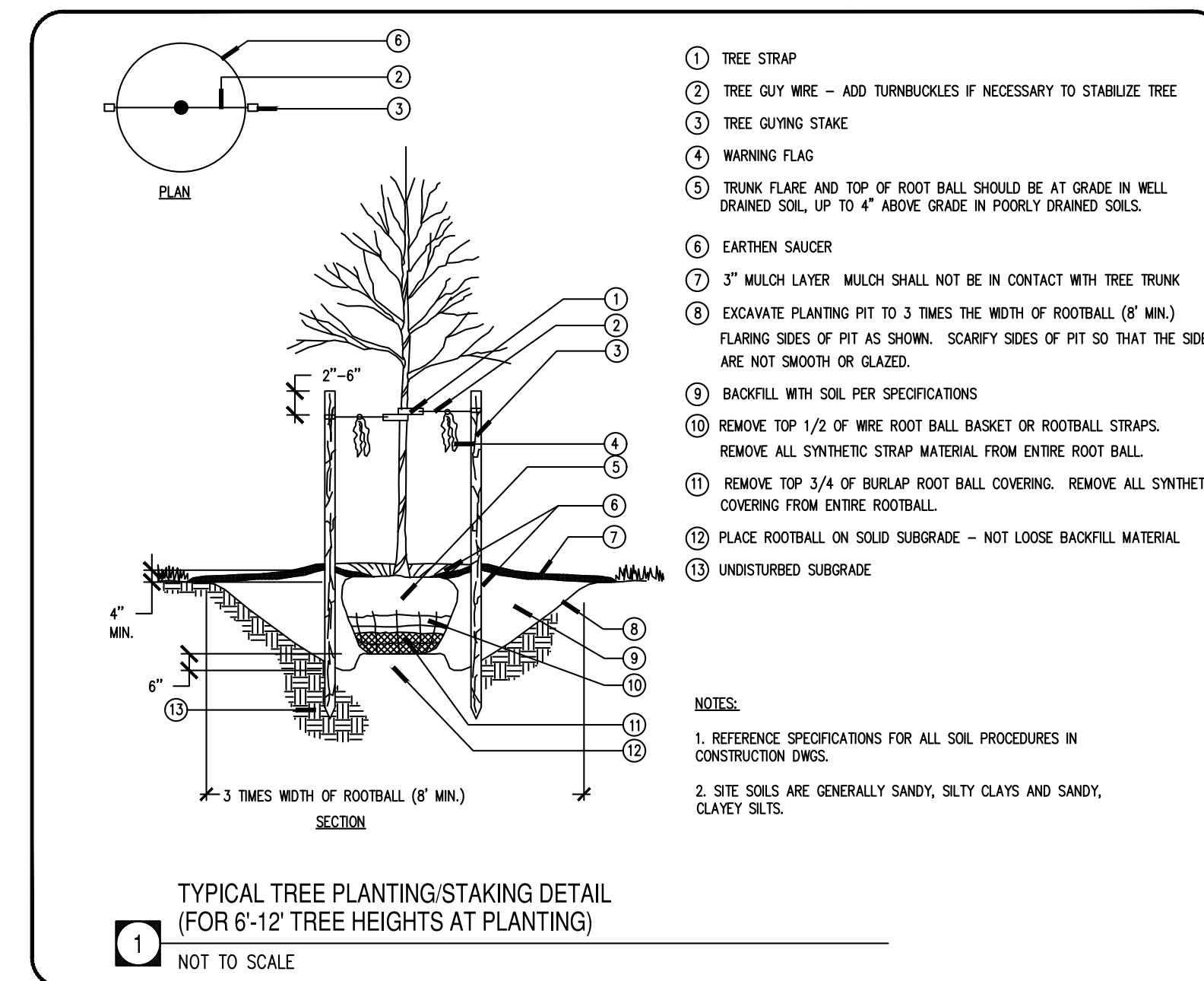
IRRIGATION SYSTEM TO BE A DESIGN-BUILD SYSTEM PROVIDED BY THE CONTRACTOR. IRRIGATION HEADS TO BE A MINIMUM OF 3" FROM EDGE OF CURB LINE. ALL LANDSCAPE BEDS TO HAVE CUT EDGE OR COMMERCIAL EDGING MATERIAL INSTALLED FULLY SEPARATING THE MULCH BED FROM ADJACENT LAWN AREA. ANY TREES OVER 2" CALIPER MUST BE STAKED AND TIED.

LANDSCAPING NOTES:

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

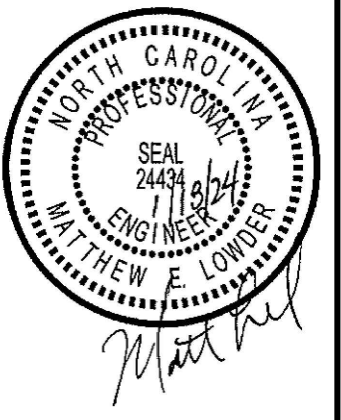
GENERAL LANDSCAPE NOTES:

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

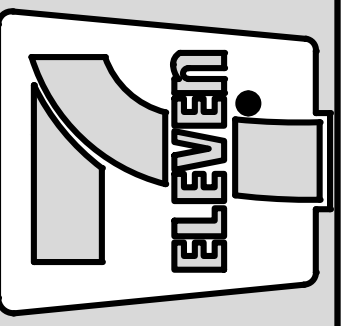


- TREE STRAP
- TREE GUY WIRE - ADD TURNBUCKLES IF NECESSARY TO STABILIZE TREE
- TREE GUYING STAKE
- WARNING FLAG
- TRUNK FLARE AND TOP OF ROOT BALL SHOULD BE AT GRADE IN WELL DRAINED SOIL, UP TO 4" ABOVE GRADE IN POORLY DRAINED SOILS.
- EARTHEN SAUCER
- 3" MULCH LAYER - MULCH SHALL NOT BE IN CONTACT WITH TREE TRUNK
- EXCAVATE PLANTING PIT TO 3 TIMES THE WIDTH OF ROOTBALL (8' MIN.) FLANGING SIDES OF PIT AS SHOWN. SCARIFY SIDES OF PIT SO THAT THE SIDES ARE NOT SMOOTH OR GLAZED.
- BACKFILL WITH SOIL PER SPECIFICATIONS
- REMOVE TOP 1/2 OF WIRE ROOT BALL BASKET OR ROOTBALL STRAPS. REMOVE ALL SYNTHETIC STRAP MATERIAL FROM ENTIRE ROOT BALL.
- REMOVE TOP 3/4 OF BURLAP ROOT BALL COVERING. REMOVE ALL SYNTHETIC COVERING FROM ENTIRE ROOTBALL.
- PLACE ROOTBALL ON SOLID SUBGRADE - NOT LOOSE BACKFILL MATERIAL
- UNDISTURBED SUBGRADE

- NOTES:**
- REFERENCE SPECIFICATIONS FOR ALL SOIL PROCEDURES IN CONSTRUCTION DWGS.
 - SITE SOILS ARE GENERALLY SANDY, SILTY CLAYS AND SANDY, CLAYEY SILTS.



Crosland Southeast
7-Eleven Store #42378
Zebulon, NC
WAKE COUNTY



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RVWR: ML
ISSUE DATE: 1/18/2024

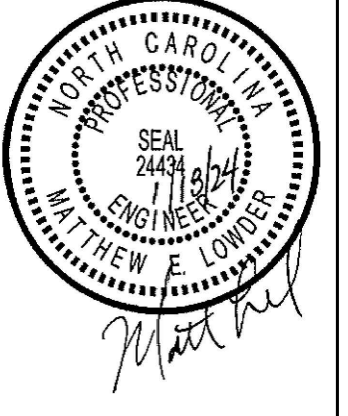
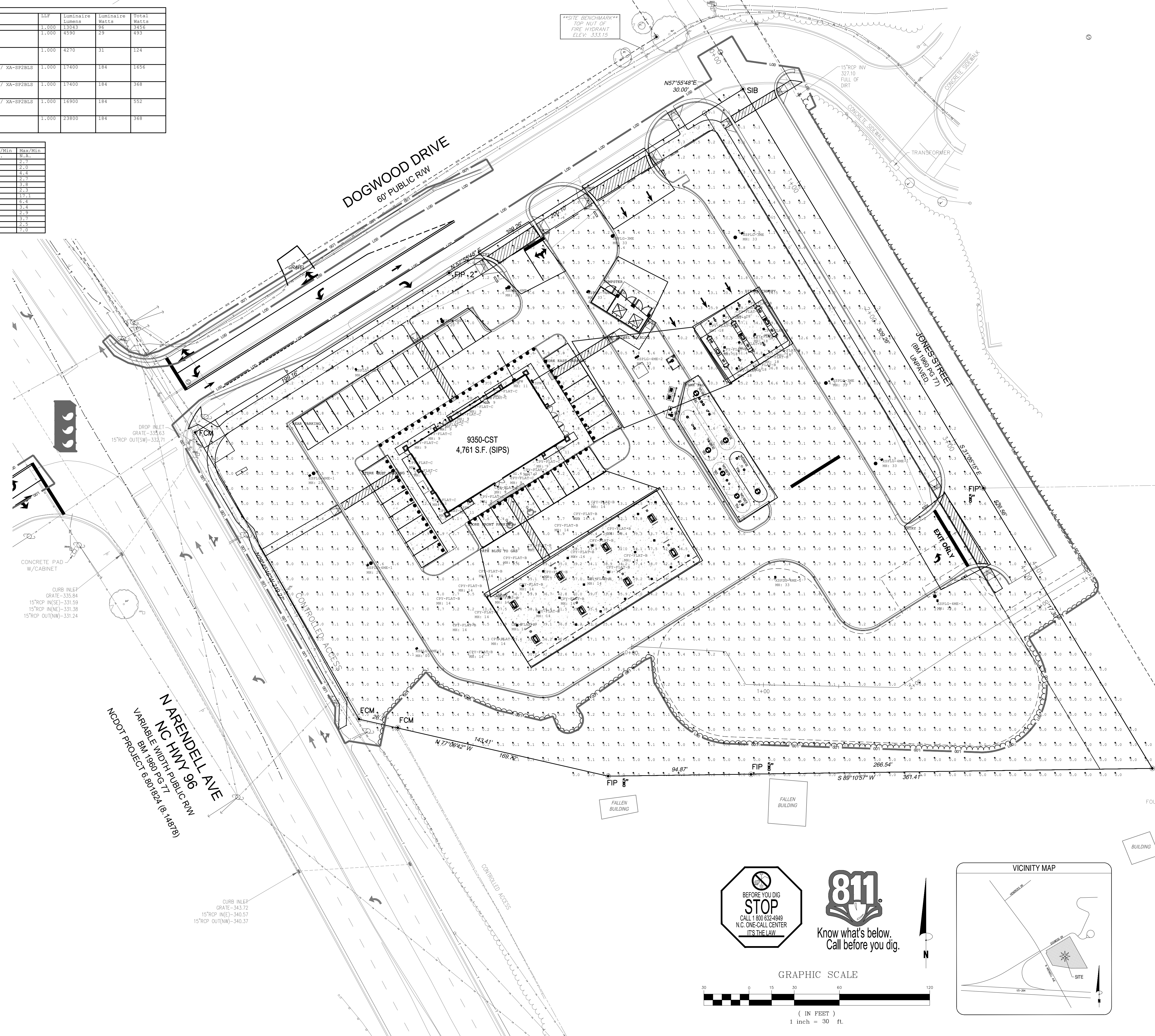
ADDRESS: 1106 N ARENDELL AVE, ZEBULON, NC 27587

SHEET TITLE: LANDSCAPING NOTES

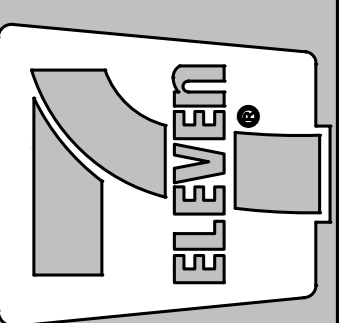
DRWG. NO. C7.1

Luminaire Schedule Symbol	Qty	Label	Arrangement	Description	LLF	Luminaire Lumens	Luminaire Watts	Total Watts
□	16	CPY-FLAT-B	SINGLE	CPY250-B-DM-F-8-UL-WB-5TK-BL	1.000	13063	96	1456
□	17	CPY-FLAT-C	SINGLE	CPY250-C-4L-5TK-F-UL-DM-BR-B2	1.000	9390	79	1352
□	4	XSPW	SINGLE	XSPW-B-WW-3MB-4L-5TK-UL-BR	1.000	4270	31	124
□	9	XSPLG-4MB-1	SINGLE	XSPLG-D-HT-4MB-24L-5TK7-DL-BR-N w/ XA-SP2BLS	1.000	17400	184	1656
□	1	XSPLG-4MB-2-BLS	2 @ 90 DEGREES	XSPLG-D-HT-4MB-24L-5TK7-DL-BR-N w/ XA-SP2BLS	1.000	17400	184	168
□	3	XSPLG-3MB	SINGLE	XSPLG-D-HT-3MB-24L-5TK7-DL-BR-N w/ XA-SP2BLS	1.000	16900	184	552
□	1	XSPLG-4MB-2	Back-Back	XSPLG-D-HT-4MB-24L-5TK7-DL-BR-N	1.000	23800	184	168

Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min
SITE TOP	Illuminance	FC	5.1	66.8	0.0	N.A.	N.A.
OVER CANOPY	Illuminance	FC	47.7	66.8	24.5	1.9	2.7
PUMPSTK	Illuminance	FC	4.4	4.4	3.8	1.4	2.0
ENTRY 1	Illuminance	FC	5.7	5.7	2.2	2.6	4.4
ENTRY 2	Illuminance	FC	2.4	2.8	1.4	1.9	2.3
ENTRY 3	Illuminance	FC	2.0	3.0	0.8	2.5	3.8
GAS CANOPY	Illuminance	FC	35.6	47.5	20.4	1.8	2.3
RAIN SLIDE TO GAS	Illuminance	FC	5.6	23.1	1.7	3.0	13.3
PATH DETSEL TO BLDG	Illuminance	FC	8.7	26.1	4.1	2.1	6.4
REAR PARKING	Illuminance	FC	3.8	8.8	2.6	2.2	3.4
STORE FRONT PARKING	Illuminance	FC	4.9	5.9	2.0	2.0	2.9
STORE WEST PARKING	Illuminance	FC	2.3	3.6	1.5	1.5	1.7
TANK PAD	Illuminance	FC	3.0	5.0	2.0	1.5	2.5
	Illuminance	FC	2.9	7.9	1.9	2.9	7.9



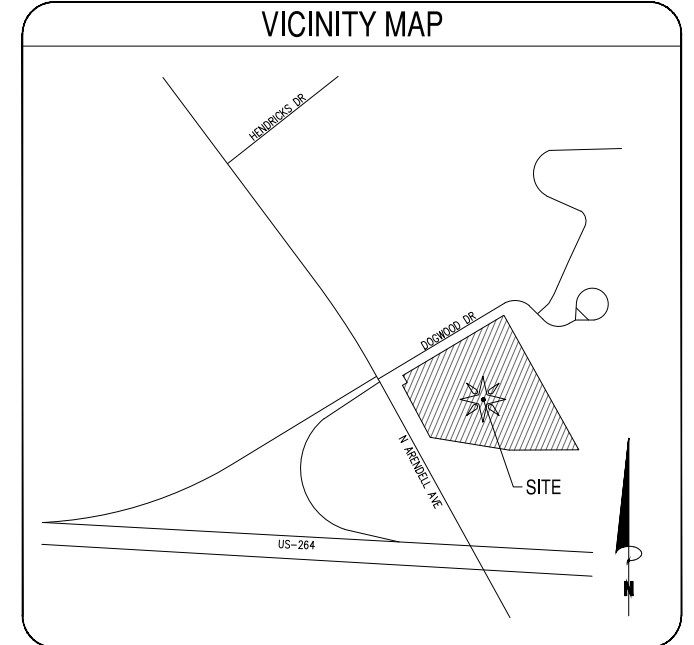
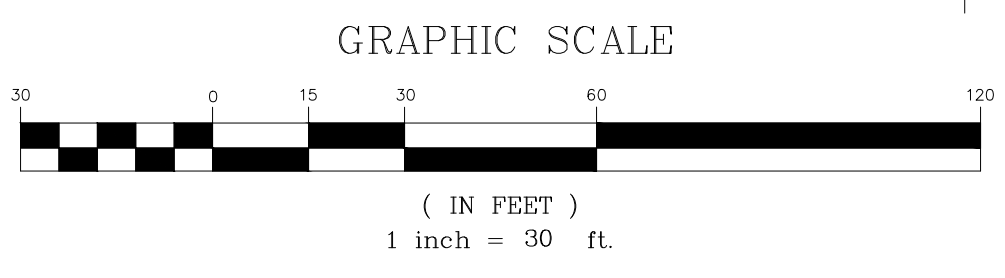
Crosland Southeast
7-Eleven Store #42378
 Zebulon, NC
 WAKE COUNTY

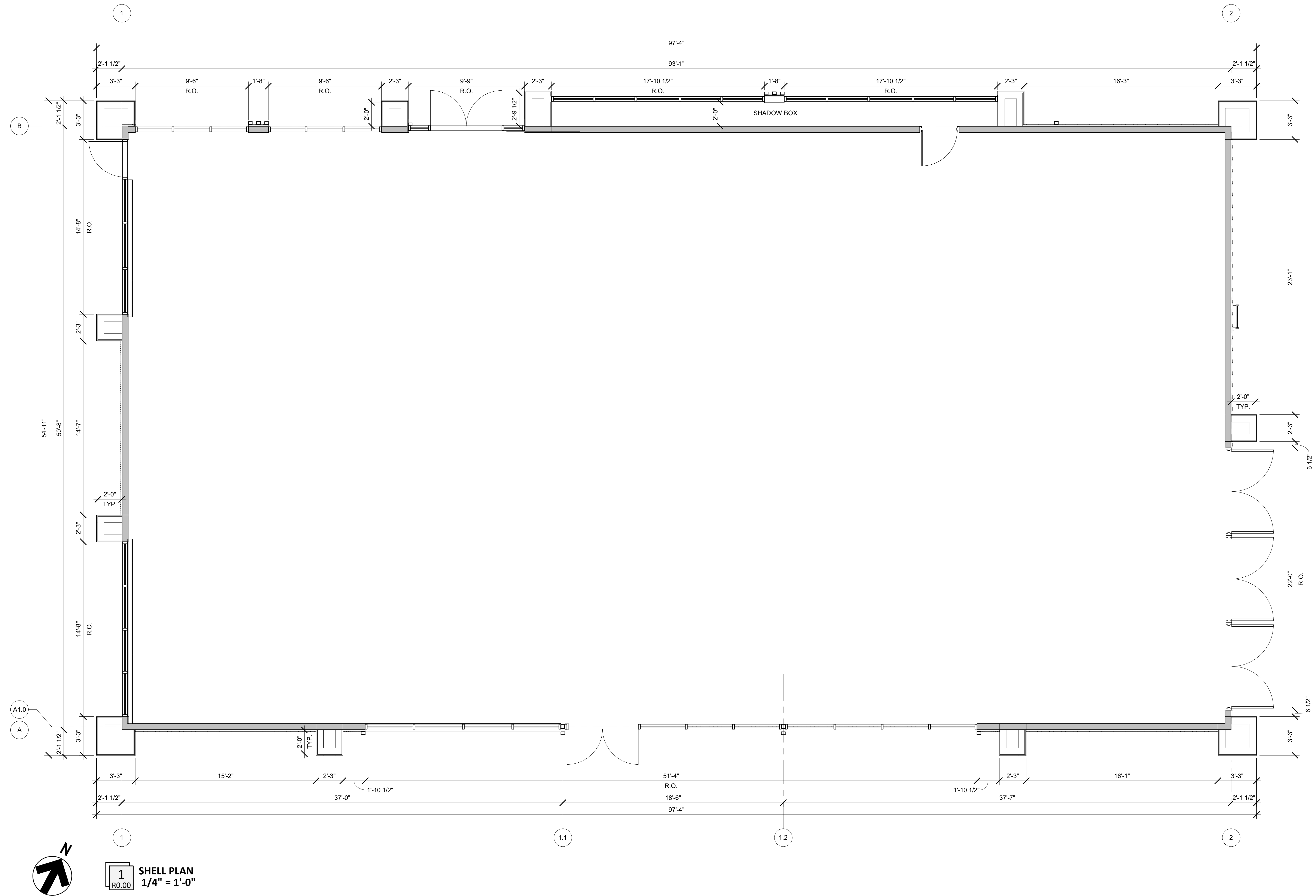


MARK	REVISION BY	DATE	REVISION DESCRIPTION
1	BRM	12/23	TOWN OF ZEBULON REVIEW
2	BRM/MCB	12/23	TOWN OF ZEBULON REVIEW
3	MCB	12/23	WAKE COUNTY REVIEW
4	BRM/MCB	1/18/24	TOWN OF ZEBULON REVIEW

STORE OR BLDG NO.:	N/A
VERSION OR PROJECT ID:	N/A
DESIGN TEAM:	DGNR, BRM & MCB
PM/DP:	ML
RVWR:	ML
ISSUE DATE:	1/18/2024
ADDRESS:	1106 N ARENDELL AVE ZEBULON, NC 27587

SHEET TITLE
PHOTOMETRIC PLAN
 DRWG. NO. **C8.0**





NOT FOR CONSTRUCTION

04/28/2023
Architect Name - RYAN M. FAUST
Architect Number - 14521
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REVISIONS	
NO.	DESCRIPTION

Drawing Size: 30 x 42
Drawn By: JMA
Project #: 22121
Checked By: ADF

Title: SHELL PLAN

Sheet Number: R0.00

Date: 04/28/2023 **Store #:** 1055397

EXTERIOR MATERIALS SCHEDULE			
(NOT ALL MATERIALS IN SCHEDULE ARE USED)			
NO.	MATERIAL	MANUFACTURER	COLOR
MR-1	MEMBRANE ROOFING	DURLAST	WHITE
N-1	FIBER CEMENT PANEL	NICHIHA	VINTAGE BRICK, PAINTED SHERWIN WILLIAMS SW7005 "PURE WHITE"
N-2	FIBER CEMENT PANEL	NICHIHA	RIBBED, COLOR TO MATCH SHERWIN WILLIAMS SW7659 "GRIS"
CP-1	EDGE METAL PARAPET CAP	DURLAST - ALL TERM EDGE	COAL BLACK
P-2	EXTERIOR HM DOORS, FRAMES, TRASH ENCLOSURE GATE, GRAVEL GUARDS, AND LIGHT POLES	SHERWIN WILLIAMS	SHERWIN WILLIAMS SW6232 "MISTY"
MT-2	PREFINISHED METAL PARAPET DETAIL		COLOR TO MATCH SHERWIN WILLIAMS SW6232 "TRICORN BLACK"
P-6	EXTERIOR BOLLARDS	SHERWIN WILLIAMS	SHERWIN WILLIAMS SW6258 "TRICORN BLACK"
S-1	ALUMINUM STOREFRONT GLAZING	MAPES	LUMISHADE CANOPY
C-1	PREFINISHED ALUMINUM CANOPY	MAPES	MATTE BLACK BAKED ENAMEL W/ REAR GUTTER CONNECTIONS
WDS-1	WOOD LOOK SIDING	NICHIHA	VINTAGE WOOD - CEDAR - VERTICAL



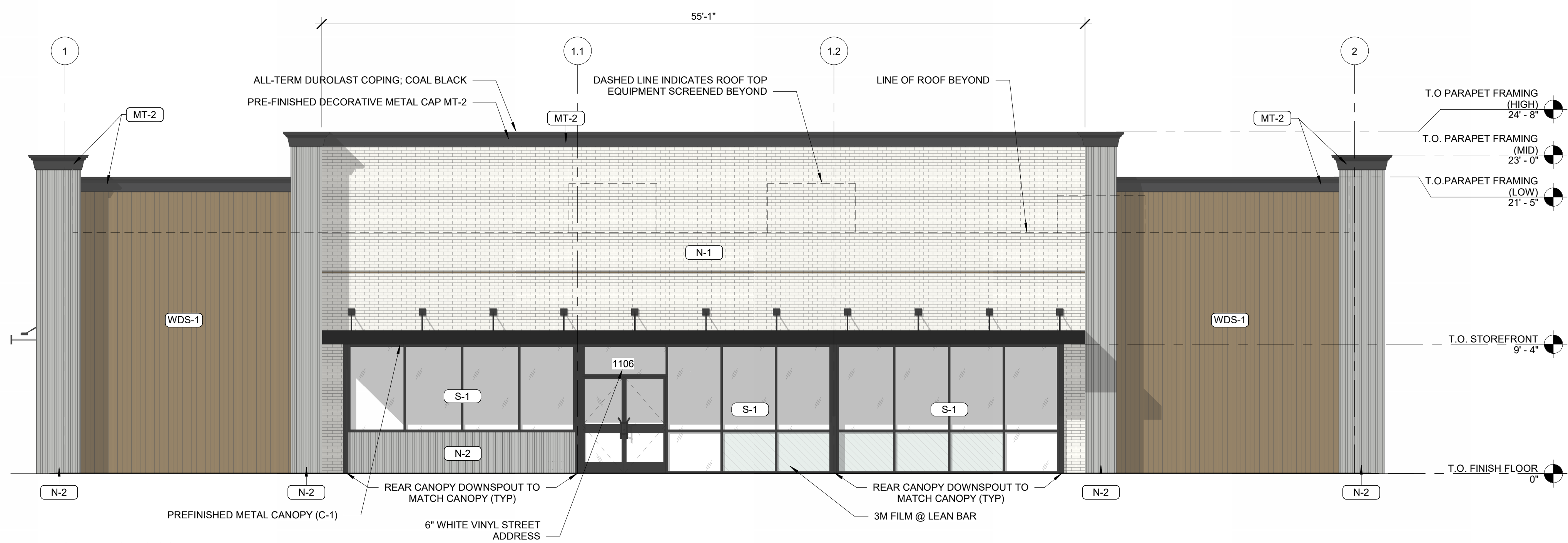
UDO SECTION 5.3.1.F.7: COMMERCIAL BUILDING FENESTRATION REQUIRED:
SECONDARY BUILDING WALL
TOTAL AREA = (15'-1" X 97'-4") = 1,492 SQFT
TRANSPARENCY SQFT = (1,492 SQFT X 30%) = 448 SQFT
PROVIDED:
(9'-4" X 34'-6") + (6'-4" X 16'-5") = 427 SQFT

UDO SECTION 5.3.1.F.7: COMMERCIAL BUILDING FENESTRATION REQUIRED:
SECONDARY BUILDING WALL
TOTAL AREA = (15'-1" X 54'-11") = 829 SQFT
TRANSPARENCY SQFT = (829 SQFT X 30%) = 249 SQFT
PROVIDED:
(9'-4" X 14'-8") + (9'-4" X 14'-8") = 274 SQFT

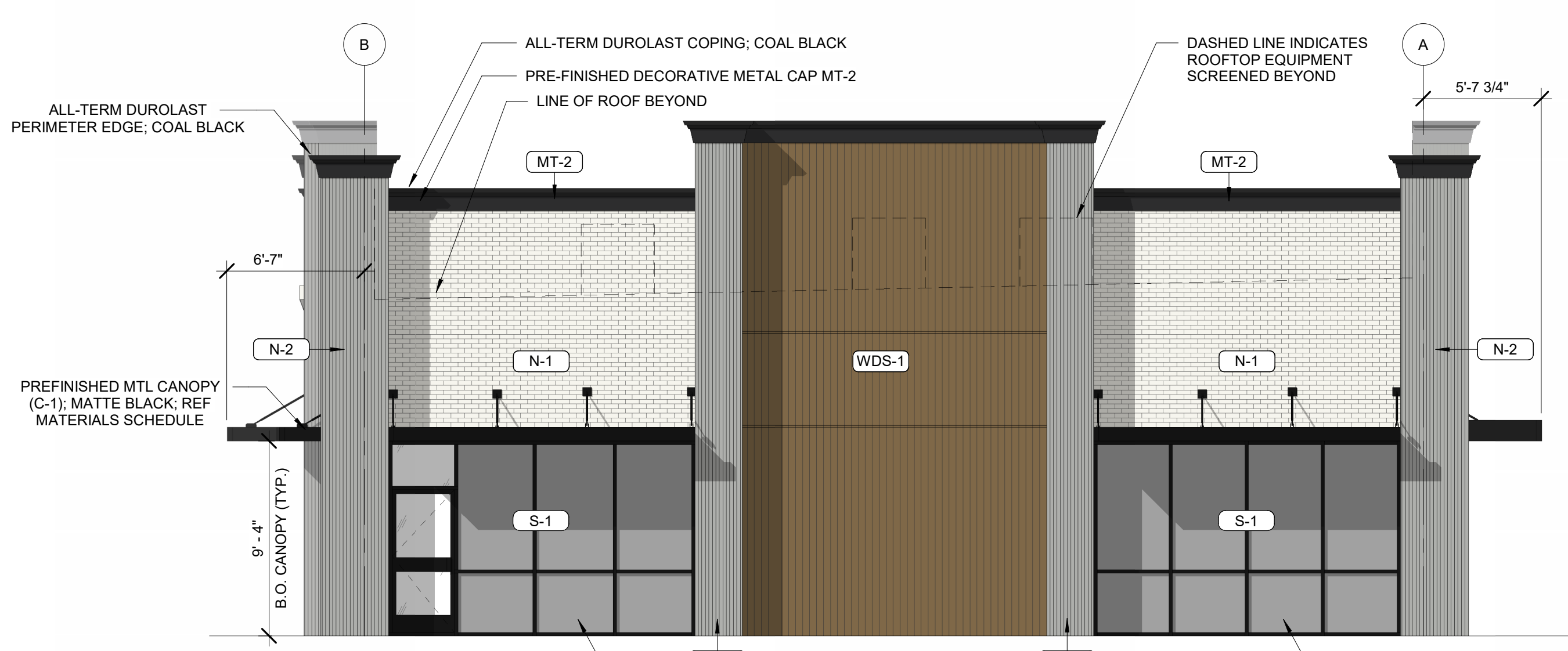
ELEVATION MEETS THE REQUIRED MINIMUM PERCENTAGE OF 30% GLAZING HOWEVER, THE GLAZING IS SPANDREL DUE TO INTERIOR LAYOUT, BACK OF HOUSE AND RESTROOM USES. DESIGN CHANGES TO INCLUDE CANOPIES ON THIS FACADE WERE ADDED BASED ON DISCUSSION WITH CITY STAFF TO AID WITH THE ELEVATIONS SCALE AND INTEREST.

UDO SECTION 5.3.1.F.7: COMMERCIAL BUILDING FENESTRATION REQUIRED:
PRIMARY BUILDING WALL
TOTAL AREA = (15'-1" X 97'-4") = 1,492 SQFT
TRANSPARENCY SQFT = (1,492 SQFT X 40%) = 597 SQFT
PROVIDED:
(9'-4" X 9'-6") + (9'-4" X 9'-6") + (9'-4" X 9'-9") + (9'-4" X 17'-10 1/2") + (9'-4" X 17'-10 1/2") = 602 SQFT

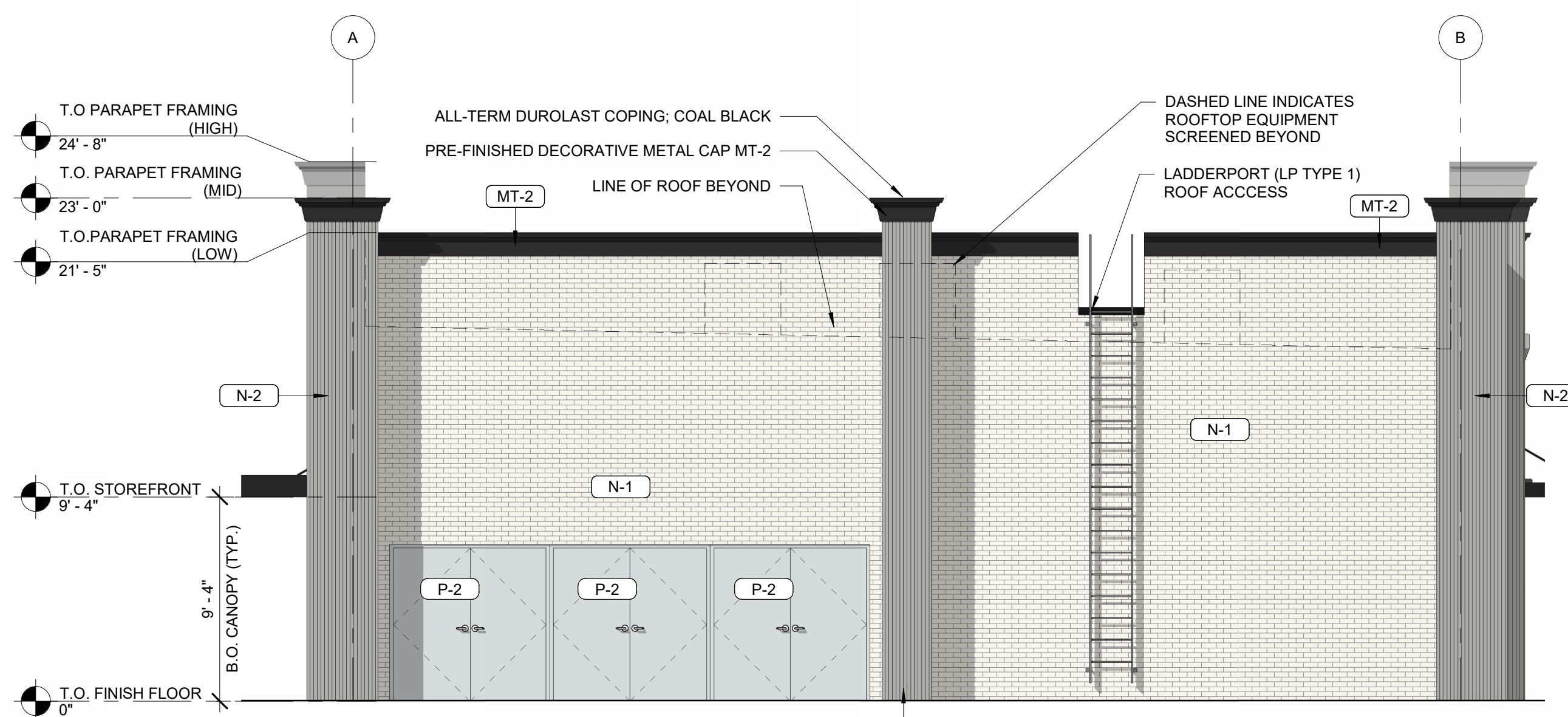
ELEVATION MEETS MINIMUM 40% TRANSPARENCY REQUIREMENT FOR A PRIMARY BUILDING WALL



4
R1.00
ELEVATION - FACING SOUTH
3/16" = 1'-0"

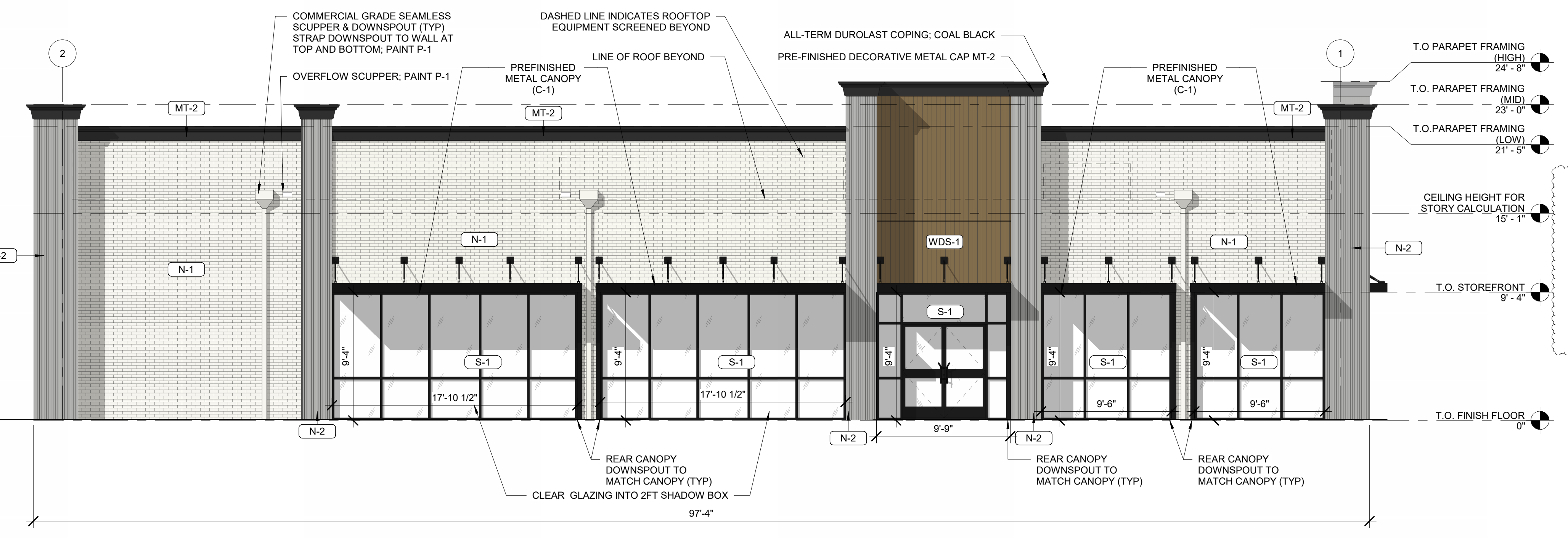


3
R1.00
ELEVATION - FACING WEST
3/16" = 1'-0"



2
R1.00
ELEVATION - FACING EAST
3/16" = 1'-0"

ELEVATION DOES NOT MEET THE 30% MINIMUM TRANSPARENCY REQUIREMENT. APPLICANT NOTES VIEW OF THIS WALL FROM THE ADJACENT SECONDARY STREET VIEW WILL BE SCREENED BY MULTIPLE DIFFERENT DESIGN ASPECTS INCLUDING: REQUIRED DUMPSTER ENCLOSURE AND LANDSCAPE SCREENING, STREET TREES, CANOPY AND UNDERSTORY TREES AND SHRUBS WITHIN THE REQUIRED STREET BUFFER, AND PROPOSED FUELING AREA AND ASSOCIATED STRUCTURES.



1
R1.00
ELEVATION - FACING NORTH
3/16" = 1'-0"

NOT FOR CONSTRUCTION

04/28/2023
Architect Name - RYAN M. FAUST
Architect Number - 14521

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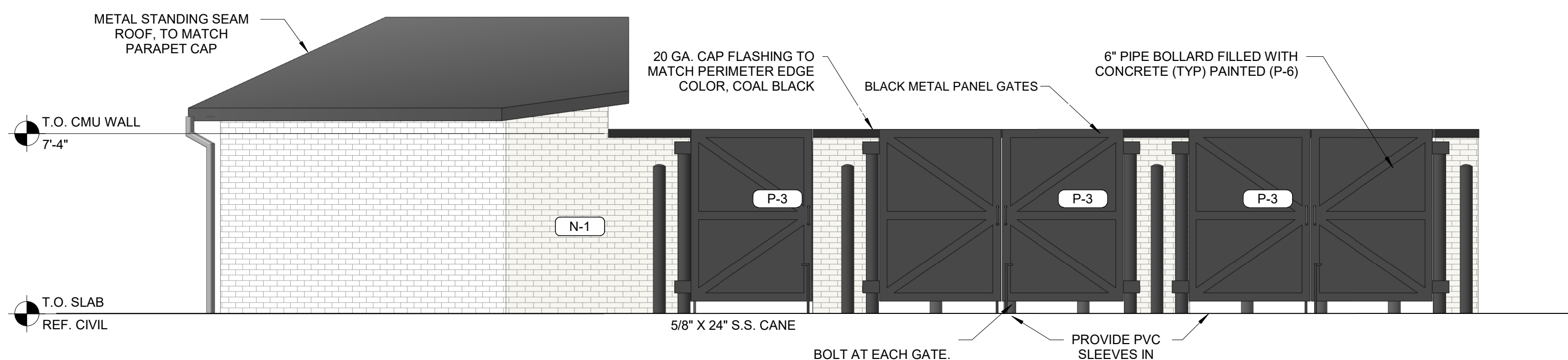
REVISIONS	
NO.	DESCRIPTION
1	05/07/2023 Revision 2

Drawing Size: 30 x 42
Project #: 22121
Drawn By: JMA
Checked By: ADF

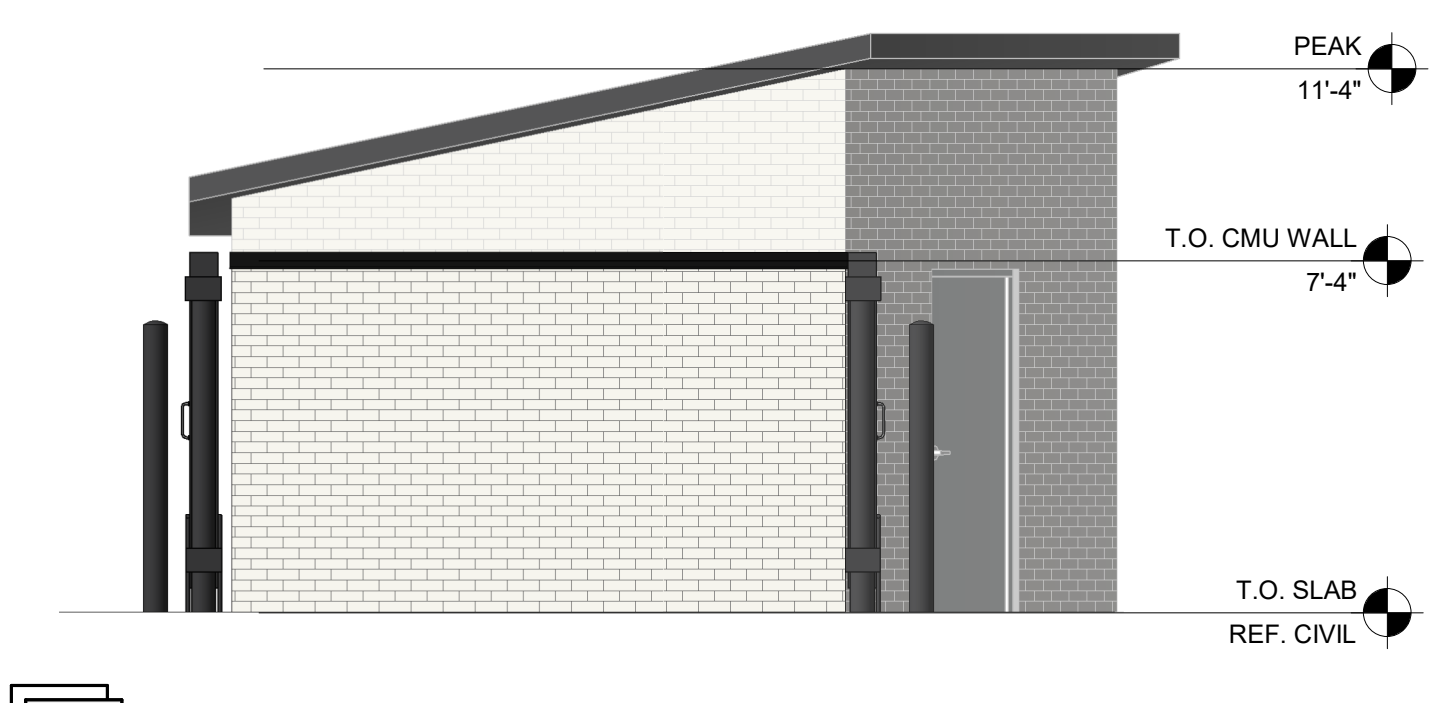
REVIEW BOARD ELEVATIONS

Sheet Number:
R1.00

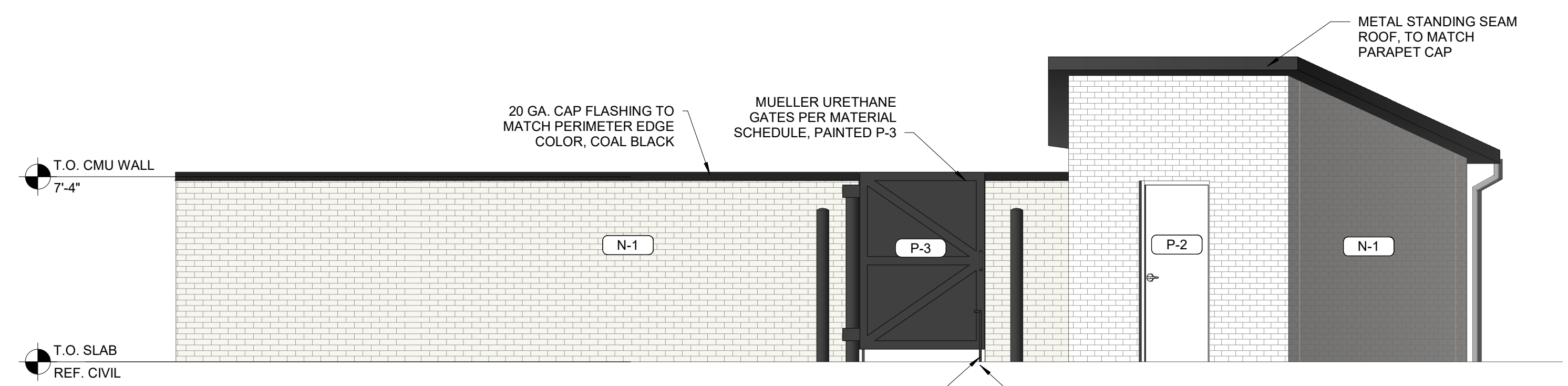
Date: 04/28/2023 Store #: 1055397



1 FRONT DUMPSTER ENCLOSURE ELEVATION
1/4" = 1'-0"

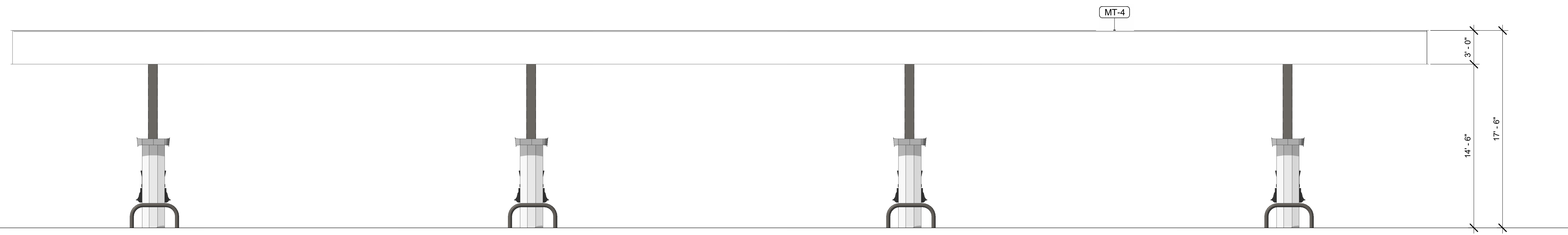


2 SIDE DUMPSTER ENCLOSURE ELEVATION
1/4" = 1'-0"

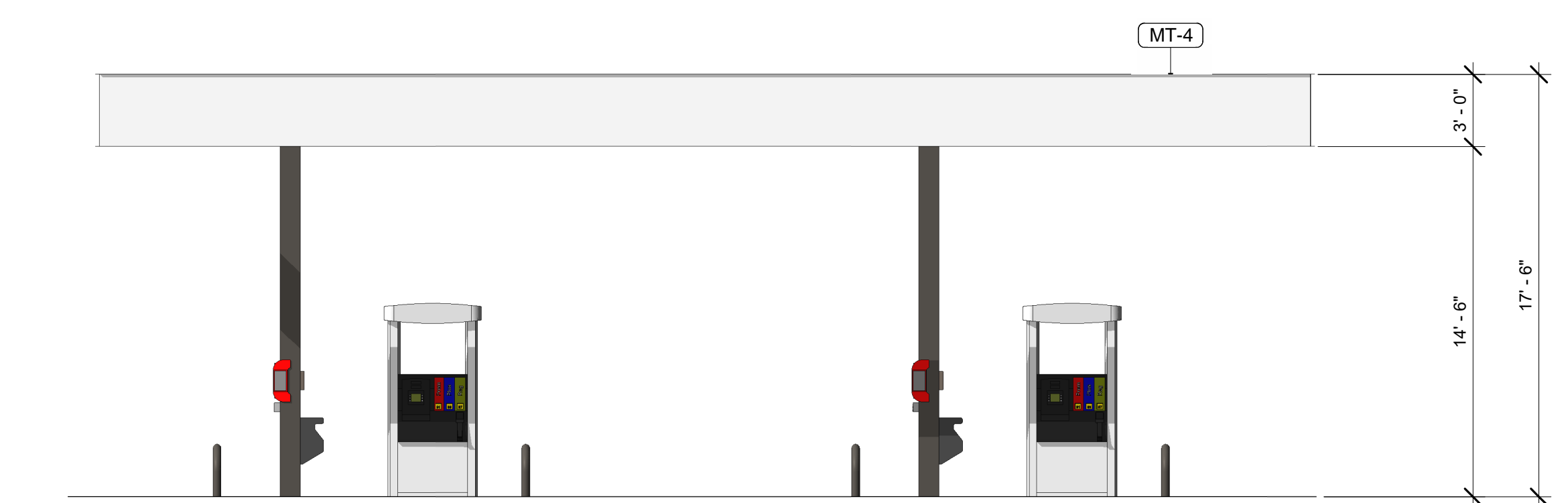


3 REAR DUMPSTER ENCLOSURE ELEVATION
1/4" = 1'-0"

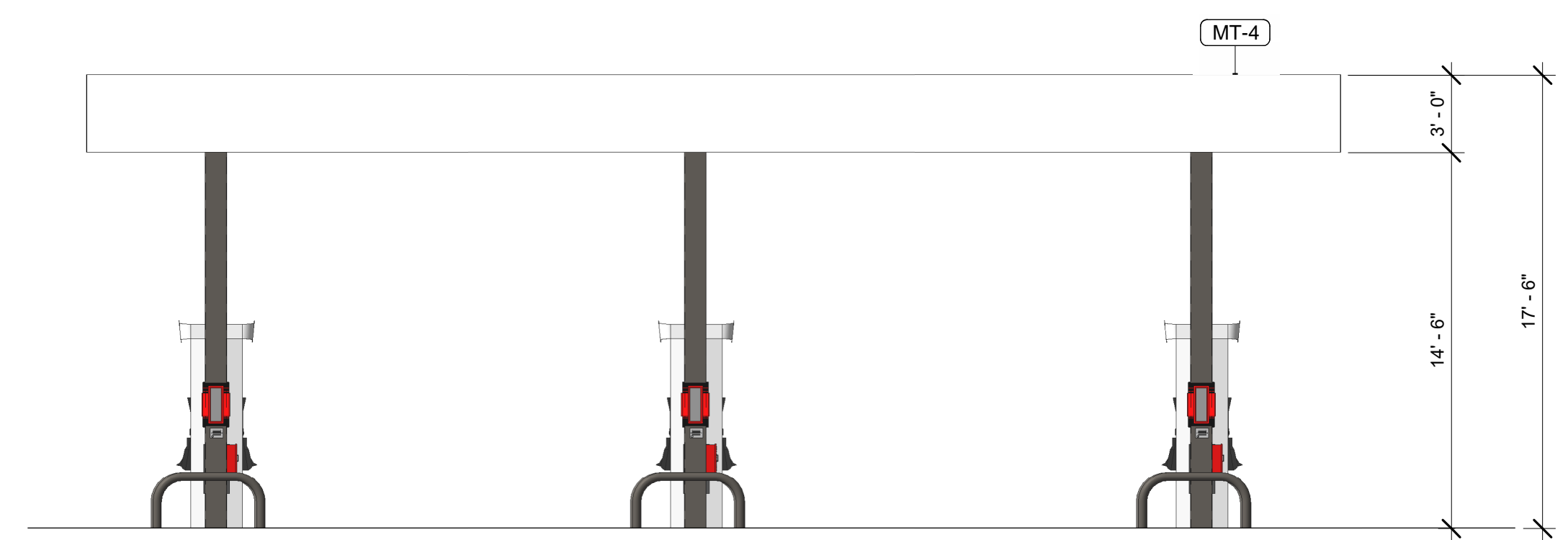
EXTERIOR MATERIALS SCHEDULE		
(NOT ALL MATERIALS IN SCHEDULE ARE USED)		
NO.	MATERIAL	COLOR
MR-1	MEMBRANE ROOFING	DUROLAST WHITE
N-1	FIBER CEMENT PANEL	NICHIHA VINTAGE BRICK, PAINTED SHERWIN WILLIAMS SW7005 "PURE WHITE"
N-2	FIBER CEMENT PANEL	NICHIHA RIBBED, COLOR TO MATCH SHERWIN WILLIAMS SW7659 "GRIS"
CP-1	EDGE METAL PARAPET CAP	DUROLAST - ALL TERM EDGE COAL BLACK
P-2	EXTERIOR HM DOORS, FRAMES, TRASH ENCLOSURE GATE, GRAVEL GUARDS, AND LIGHT POLES	SHERWIN WILLIAMS SHERWIN WILLIAMS SW6232 "MISTY"
MT-2	PREFINISHED METAL PARAPET DETAIL	COLOR TO MATCH SHERWIN WILLIAMS SW6258 "TRICORN BLACK"
P-6	EXTERIOR BOLLARDS	SHERWIN WILLIAMS SHERWIN WILLIAMS SW6258 "TRICORN BLACK"
S-1	ALUMINUM STOREFRONT GLAZING	KAWNEER 451T VG - #29 BLACK FINISH
C-1	PREFINISHED ALUMINUM CANOPY	MAPES LUMISHADE CANOPY MATTE BLACK BAKED ENAMEL W/ REAR GUTTER CONNECTIONS
WDS-1	WOOD LOOK SIDING	NICHIHA VINTAGE WOOD - CEDAR - VERTICAL
MT-4	FUEL CANOPY FASCIA	REYNOBOND EASTMAN WHITE - PY-25



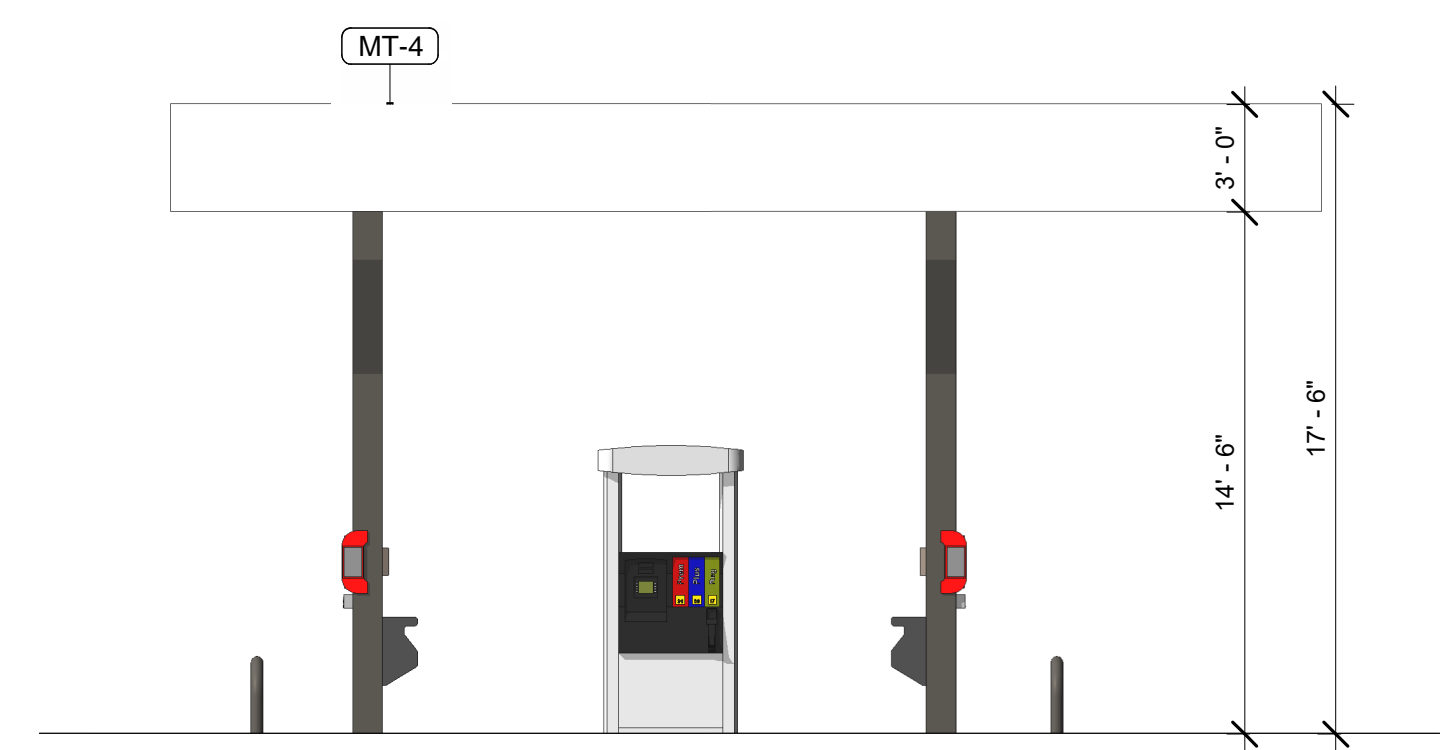
4 FUEL CANOPY LONG ELEVATION - 8 DISPENSERS TOTAL
3/16" = 1'-0"



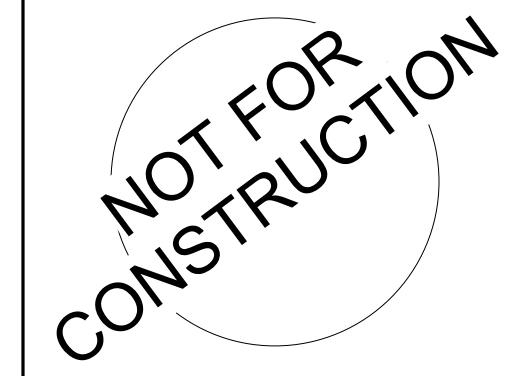
5 FUEL CANOPY SHORT ELEVATION
3/16" = 1'-0"



6 DIESEL CANOPY LONG ELEVATION
3/16" = 1'-0"



7 DIESEL CANOPY SHORT ELEVATION
3/16" = 1'-0"



NO.	DATE	DESCRIPTION