

V2-SDP-23-07 -  
rcvd 1-2-2024

# THE LEARNING CENTER ROLESVILLE

302 SOUTH MAIN STREET  
ROLESVILLE, NC 27571

A DEVELOPMENT BY:  
**ROLESVILLE, LLC.**

Please provide submittal  
& revision dates.

PROJECT NO.: SDP-23-07

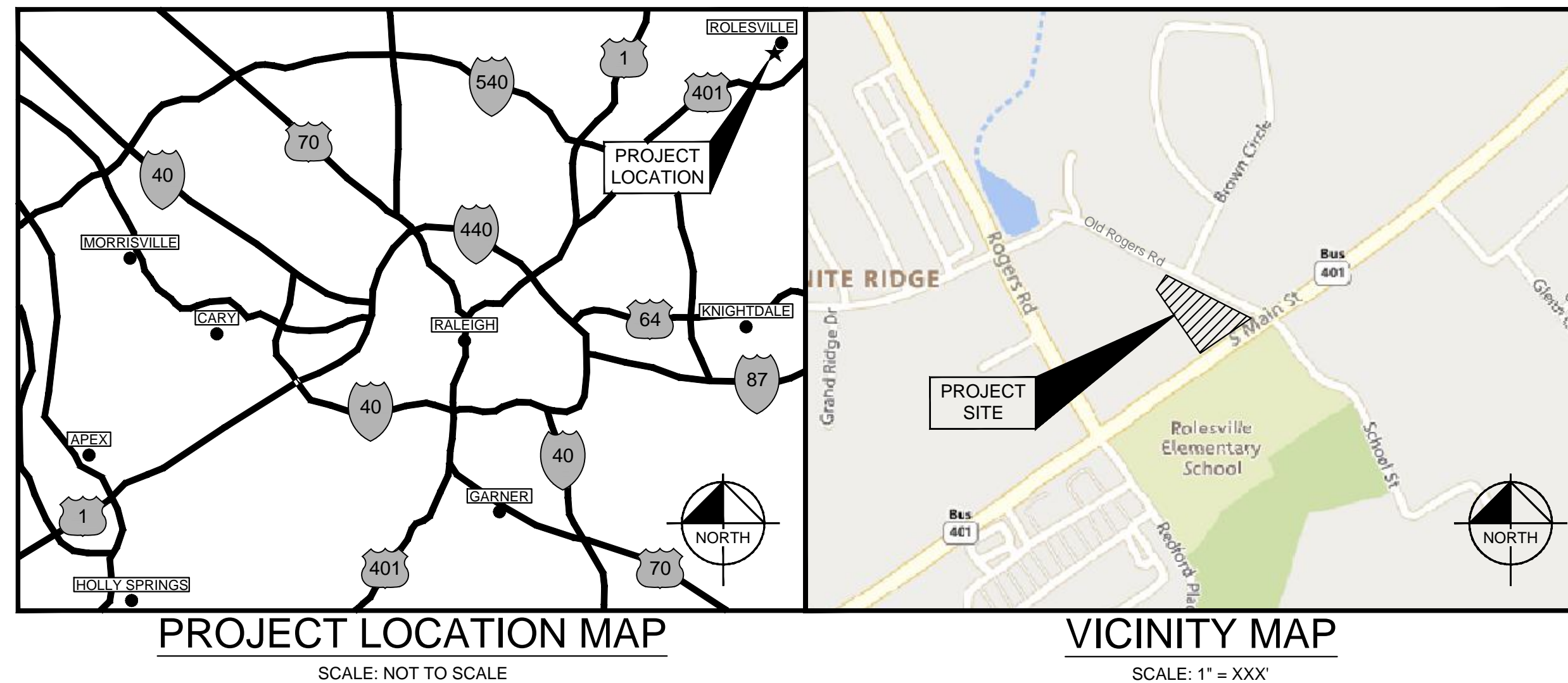
SITE DATA TABLE	
PIN:	1759808293
TOTAL SITE AREA:	1.25 AC
EXISTING ZONING:	GENERAL COMMERCIAL (GC)
BUFFERS:	10' LANDSCAPE
PROPERTY SETBACKS:	FRONT: 20' SIDE: 15' REAR: 35'
WATERSHED:	SANFORD CREEK
RIVER BASIN:	NEUSE
CURRENT USE:	VACANT
PROPOSED USE:	COMMERCIAL
CURRENT IMPERVIOUS:	8,680 SF
PROPOSED IMPERVIOUS:	34,457 SF
PARKING:	MIN. REQUIRED: $(2.5 \text{ SPACES}/1,000 \text{ SF}) \times 10,000 \text{ SF} = 25 \text{ SPACES}$  MAX. ALLOWED: $(5 \text{ SPACES}/1,000 \text{ SF}) \times 10,000 \text{ SF} = 50 \text{ SPACES}$  PROVIDED: 33 SPACES
ACCESSIBLE PARKING:	REQUIRED: 2 SPACES PROVIDED: 2 SPACES
BICYCLE PARKING:	MIN. REQUIRED: $(1 \text{ SPACE}/5,000 \text{ SF}) \times 10,000 \text{ SF} = 2 \text{ SPACES}$  PROVIDED: 2 SPACES
TREE COVERAGE DATA:	SEE SHEET L1.0
BUILDING HEIGHT:	22'
BUILDING SQUARE FOOTAGE:	10,000 SF
OPEN SPACE: (PER LDO SEC. 6.2.1.D.3)	MIN. REQUIRED: $5\% \times 66,527 \text{ SF} = 3,327 \text{ SF}$  PROVIDED: 6,154 SF

There is only one 10' buffer on the site. Please update with the required street buffers and perimeter buffers.

Add corner setback

The amount of open space listed here does not match the amount shown on the site plan. Please revise.

Please clarify what setbacks are required, what setbacks are being reduced, and by which ordinance section number this reduction is permitted, including the specific design criteria that is being met. While some of this is provided on Sheet C.2.3 there should be a note on the cover sheet.



## PROJECT OWNERS & CONSULTANTS

<b>OWNER/DEVELOPER</b> ROLESVILLE, LLC 11016 RUSHMORE DRIVE, SUITE 160 CHARLOTTE, NORTH CAROLINA 28277 CONTACT: MARLAINE KLINTWORTH PHONE: (919) 868-4472 EMAIL: mvkcommercial@gmail.com	<b>LANDSCAPE ARCHITECT</b> KIMLEY-HORN AND ASSOCIATES, INC. 421 FAYETTEVILLE ST., SUITE 600 RALEIGH, NORTH CAROLINA 27601 CONTACT: ADAM FULLERTON, M.L.A., A.S.L.A. PHONE: (919) 853-2937 EMAIL: adam.fullerton@kimley-horn.com
<b>CIVIL ENGINEER</b> KIMLEY-HORN AND ASSOCIATES, INC. 421 FAYETTEVILLE ST., SUITE 600 RALEIGH, NORTH CAROLINA 27601 CONTACT: CHRIS BOSTIC, P.E. PHONE: (919) 853-2927 EMAIL: chris.bostic@kimley-horn.com	<b>SURVEYOR</b> CMP PROFESSIONAL LAND SURVEYORS, PC 333 S. WHITE ST WAKE FOREST, NORTH CAROLINA 27587 CONTACT: MICHAEL A. MOSS, PLS PHONE: (919) 556-3148 EMAIL: mike@cnppls.com

**SURVEY NOTE:**  
EXISTING TOPOGRAPHICAL INFORMATION IS BASED ON A TOPOGRAPHIC SURVEY OBTAINED ON 02/23/2023 BY CMP PROFESSIONAL LAND SURVEYORS, 333 S. WHITE STREET, WAKE FOREST, NC, 27588. PHONE: (919) 556-3148. CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING ALL EXISTING INFORMATION, DEPICTED OR NOT, PRIOR TO CONSTRUCTION AND REPORT POTENTIAL CONFLICTS TO OWNER AND ENGINEER.

Sheet List Table	
Sheet Number	Sheet Title
C0.0	COVER SHEET
C0.1	GENERAL NOTES
C1.0	EXISTING CONDITIONS & DEMOLITION PLAN
C2.0	SITE PLAN
C2.1	TRUCK ROUTING EXHIBIT
C2.2	TRUCK ROUTING EXHIBIT
C2.3	BUILD TO EXHIBIT
C3.0	GRADING PLAN
C4.0	UTILITY PLAN
C4.1	MECHANICAL PLAN
C4.2	SEPTIC TANK DETAILS
C5.0	EROSION CONTROL PLAN - PHASE 1
C5.1	EROSION CONTROL PLAN - PHASE 2
C5.2	EROSION CONTROL DETAILS
C5.3	EROSION CONTROL DETAILS
C8.0	SITE DETAILS
C8.1	SITE DETAILS
C9.0	STORM DETAILS
C9.1	STORM DETAILS
C10.0	SANITARY SEWER DETAILS
C11.0	WATER DETAILS
C11.1	WATER DETAILS
LT1.0	SITE LIGHTING PLAN
L1.0	LANDSCAPE PLAN
L2.0	LANDSCAPE DETAILS
SA 1.1	PROPOSED FLOOR PLAN
SA 1.2	PROPOSED ELEVATIONS

Kimley»Horn

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#F-0102 WWW.KIMLEY-HORN.COM PHONE: 919-677-2000 FAX: 919-677-2050  
421 FAYETTEVILLE STREET, SUITE 600, RALEIGH, NC 27601

NO. \_\_\_\_\_ DATE \_\_\_\_\_

REVISIONS \_\_\_\_\_

KHA PROJECT 013031004

DATE 09/29/2023

SCALE AS SHOWN

DESIGNED BY JAA

DRAWN BY JAA

CHECKED BY COE

COVER SHEET

THE LEARNING CENTER ROLESVILLE

PREPARED FOR ROLESVILLE, LLC.

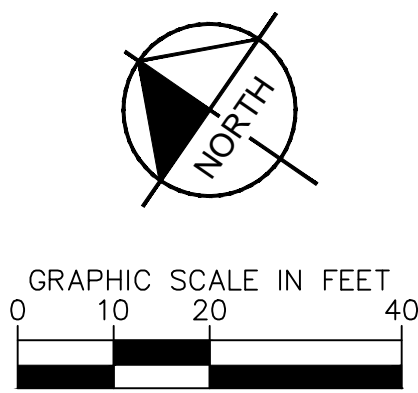
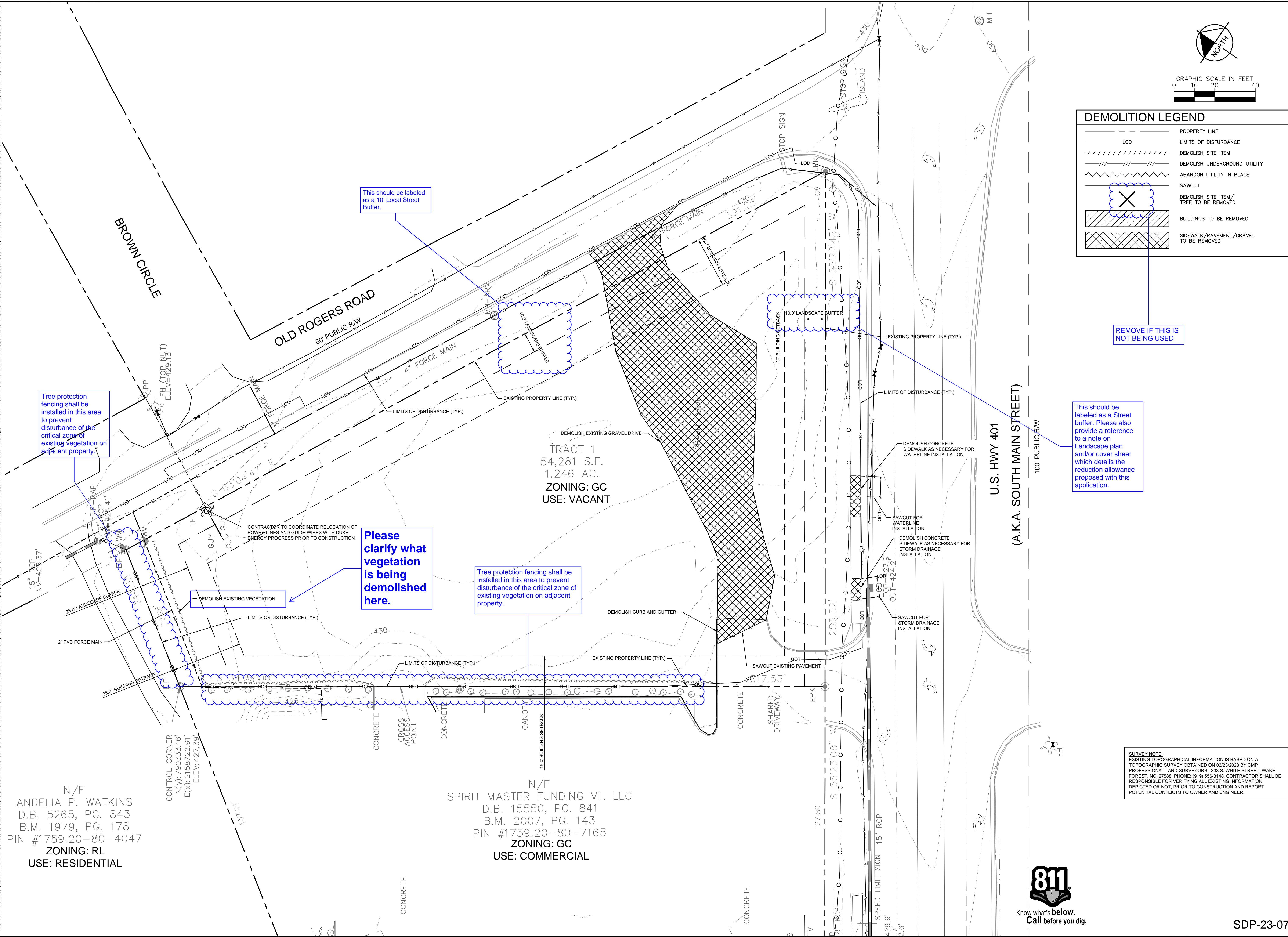
TOWN OF ROLESVILLE NORTH CAROLINA

SHEET NUMBER C0.0





Plotted By: Alexander, Jamal Sheet Set: THE LEARNING CENTER ROLESVILLE, Layout: C1.0 EXISTING CONDITIONS & DEMOLITION PLAN, January 02, 2024, 06:13:15pm. KIRAL\_LDEV013031004\_Rolesville\_Layouting\_CenterP10\_CAD\_Plan\_Sheets\_C-003\_EXISTING CONDITIONS & DEMOLITION PLAN.dwg  
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DEMOLITION LEGEND	
	PROPERTY LINE
	LIMITS OF DISTURBANCE
	DEMOLISH SITE ITEM
	DEMOLISH UNDERGROUND UTILITY
	ABANDON UTILITY IN PLACE
	SAWCUT
	DEMOLISH SITE ITEM / TREE TO BE REMOVED
	BUILDINGS TO BE REMOVED
	SIDEWALK / PAVEMENT / GRAVEL TO BE REMOVED

Tree protection fencing shall be installed in this area to prevent disturbance of the critical zone of existing vegetation on adjacent property.

This should be labeled as a 10' Local Street Buffer.

REMOVE IF THIS IS NOT BEING USED

This should be labeled as a Street buffer. Please also provide a reference to a note on Landscape plan and/or cover sheet which details the reduction allowance proposed with this application.

Please clarify what vegetation is being demolished here.

Tree protection fencing shall be installed in this area to prevent disturbance of the critical zone of existing vegetation on adjacent property.

N/F  
 ANDELIA P. WATKINS  
 D.B. 5265, PG. 843  
 B.M. 1979, PG. 178  
 PIN #1759.20-80-4047  
 ZONING: RL  
 USE: RESIDENTIAL

CONTROL CORNER  
 N(Y): 790333.16'  
 E(X): 2158722.91'  
 ELEV: 427.30'

N/F  
 SPIRIT MASTER FUNDING VII, LLC  
 D.B. 15550, PG. 841  
 B.M. 2007, PG. 143  
 PIN #1759.20-80-7165  
 ZONING: GC  
 USE: COMMERCIAL

**SURVEY NOTE:**  
 EXISTING TOPOGRAPHICAL INFORMATION IS BASED ON A TOPOGRAPHIC SURVEY OBTAINED ON 02/23/2023 BY CMP PROFESSIONAL LAND SURVEYORS, 333 S. WHITE STREET, WAKE FOREST, NC, 27588. PHONE: (919) 556-3148. CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING ALL EXISTING INFORMATION, DEPICTED OR NOT, PRIOR TO CONSTRUCTION AND REPORT POTENTIAL CONFLICTS TO OWNER AND ENGINEER.



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		SHEET NO.	
KHA PROJECT 013031004		DATE 09/29/2023	
SCALE AS SHOWN		DESIGNED BY JAA	
DRAWN BY JAA		CHECKED BY COE	
THE LEARNING CENTER ROLESVILLE PREPARED FOR ROLESVILLE, LLC. TOWN OF ROLESVILLE NORTH CAROLINA		EXISTING CONDITIONS & DEMOLITION PLAN	
REVISIONS		BY DATE	

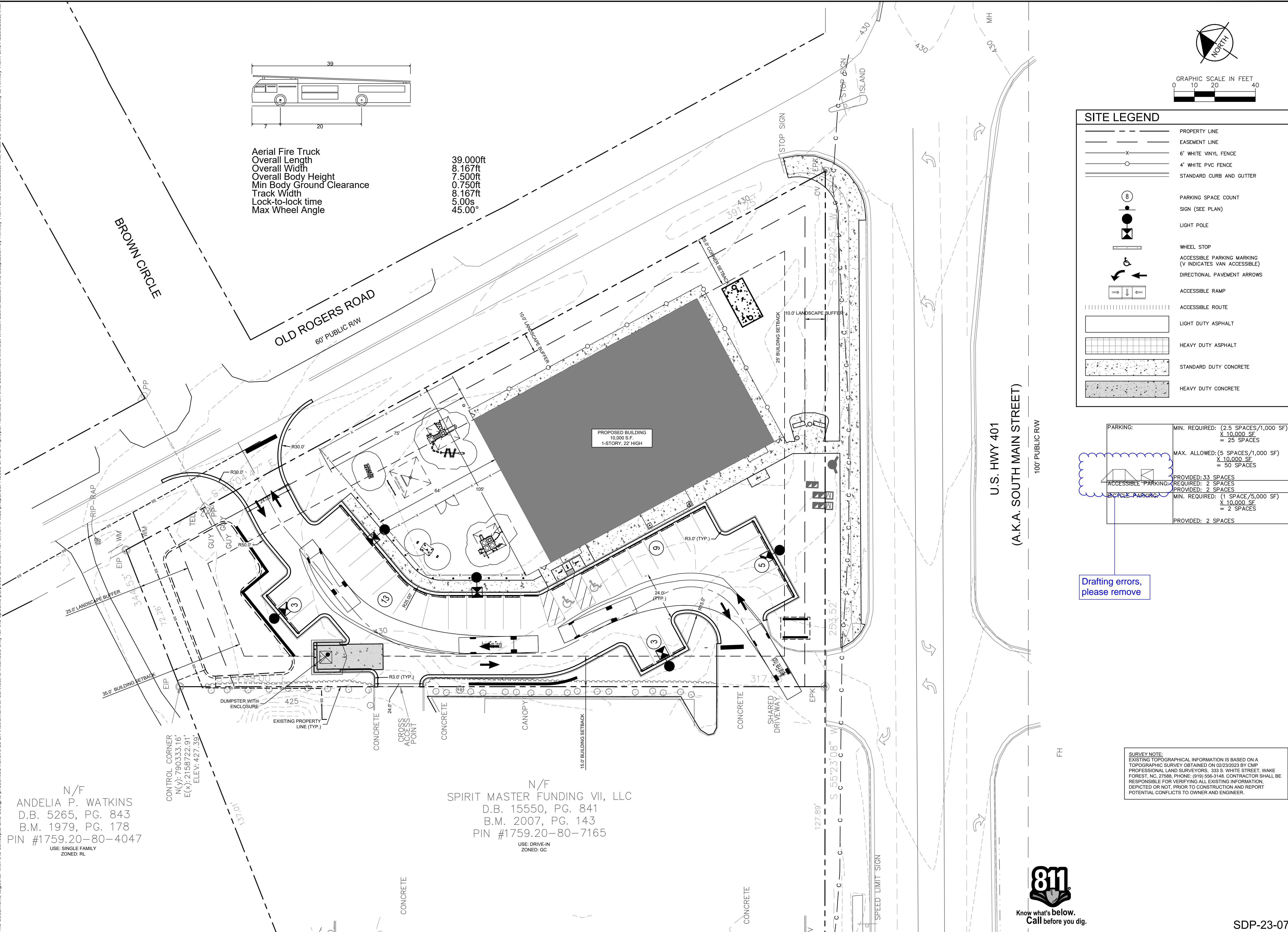
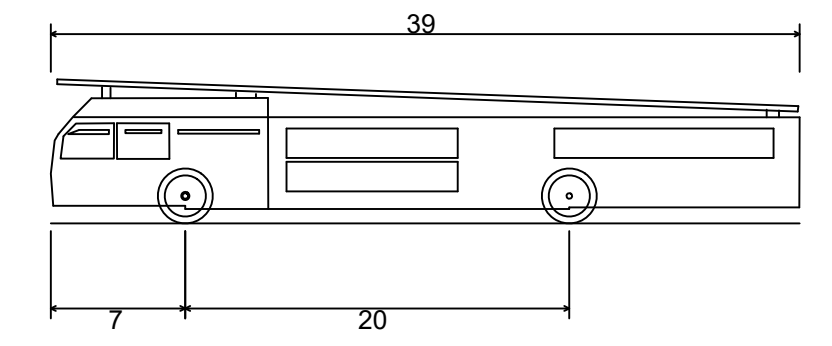


Plotted By: Alexander, Jamal Sheet Set: THE LEARNING CENTER ROLESVILLE Layout: C2.1 TRUCK ROUTING EXHIBIT January 02, 2024 05:55:27pm K:\RAL\_LDEV\013031004\_Rolesville\_Learning\_Center\P10\_CAD Files\Plan\Sheets\C2.1 TRUCK ROUTING EXHIBIT.dwg  
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N/F  
 ANDELIA P. WATKINS  
 D.B. 5265, PG. 843  
 B.M. 1979, PG. 178  
 PIN #1759.20-80-4047  
 USE: SINGLE FAMILY  
 ZONED: RL

N/F  
 SPIRIT MASTER FUNDING VII, LLC  
 D.B. 15550, PG. 841  
 B.M. 2007, PG. 143  
 PIN #1759.20-80-7165  
 USE: DRIVE-IN  
 ZONED: GC

Aerial Fire Truck  
 Overall Length 39.000ft  
 Overall Width 8.167ft  
 Overall Body Height 7.500ft  
 Min Body Ground Clearance 0.750ft  
 Track Width 8.167ft  
 Lock-to-lock time 5.00s  
 Max Wheel Angle 45.00°

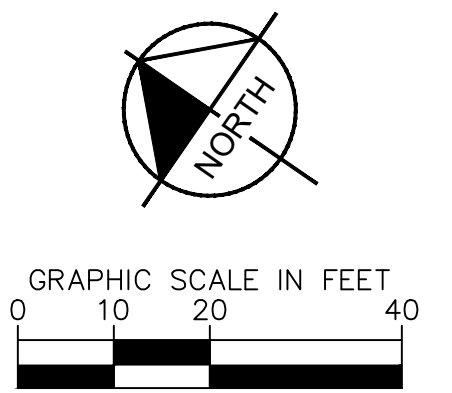


SITE LEGEND	
	PROPERTY LINE
	EASEMENT LINE
	6' WHITE VINYL FENCE
	4' WHITE PVC FENCE
	STANDARD CURB AND GUTTER
	PARKING SPACE COUNT
	SIGN (SEE PLAN)
	LIGHT POLE
	WHEEL STOP
	ACCESSIBLE PARKING MARKING (V INDICATES VAN ACCESSIBLE)
	DIRECTIONAL PAVEMENT ARROWS
	ACCESSIBLE RAMP
	ACCESSIBLE ROUTE
	LIGHT DUTY ASPHALT
	HEAVY DUTY ASPHALT
	STANDARD DUTY CONCRETE
	HEAVY DUTY CONCRETE

PARKING:	MIN. REQUIRED: (2.5 SPACES/1,000 SF) X 10,000 SF = 25 SPACES
	MAX. ALLOWED: (5 SPACES/1,000 SF) X 10,000 SF = 50 SPACES
ACCESSIBLE PARKING:	PROVIDED: 33 SPACES REQUIRED: 7 SPACES PROVIDED: 2 SPACES
BICYCLE PARKING:	MIN. REQUIRED: (1 SPACE/5,000 SF) X 10,000 SF = 2 SPACES PROVIDED: 2 SPACES

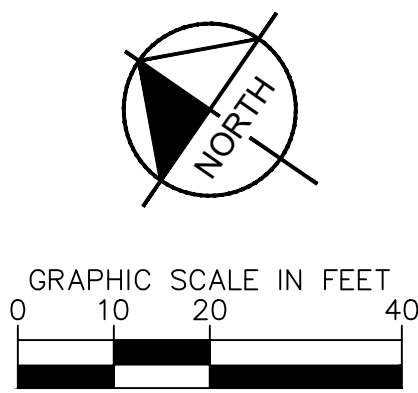
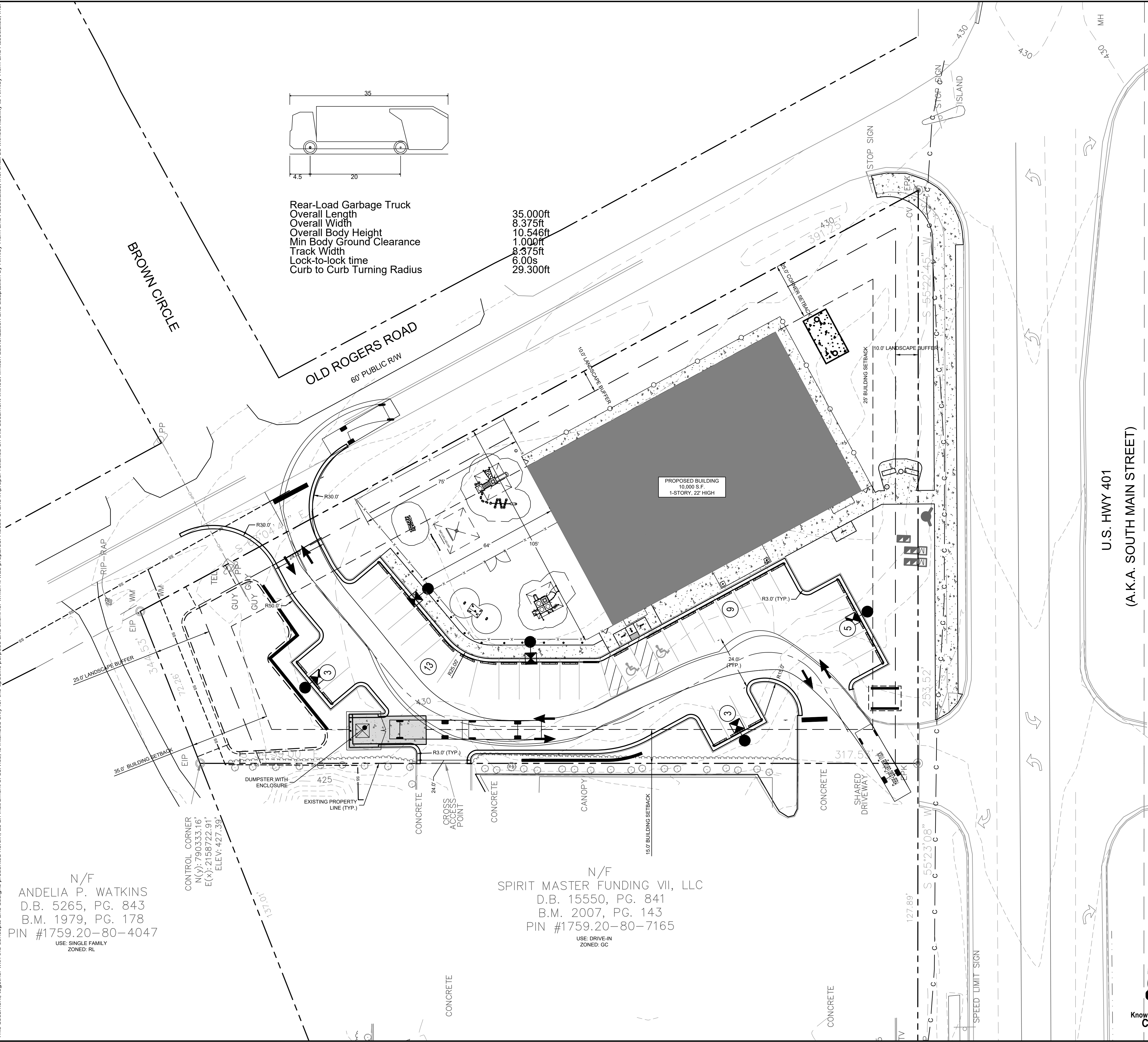
Drafting errors, please remove

**SURVEY NOTE:**  
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		7	
THE LEARNING CENTER ROLESVILLE PREPARED FOR ROLESVILLE, LLC. TOWN OF ROLESVILLE NORTH CAROLINA		TRUCK ROUTING EXHIBIT	
SHEET NUMBER <b>C2.1</b>		SDP-23-07	

Plotted By: Alexander, Jamal Sheet Set: THE LEARNING CENTER ROLESVILLE Layout: C2.2 TRUCK ROUTING EXHIBIT January 02, 2024 05:55:29pm K:\RAL\_LDEV\013031004\_Rolesville\_Learning\_Center\P10\_CAD Files\PlanSheets\C2.1 TRUCK ROUTING EXHIBIT.dwg  
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SITE LEGEND	
	PROPERTY LINE
	EASEMENT LINE
	6' WHITE VINYL FENCE
	4' WHITE PVC FENCE
	STANDARD CURB AND GUTTER
	PARKING SPACE COUNT
	SIGN (SEE PLAN)
	LIGHT POLE
	WHEEL STOP
	ACCESSIBLE PARKING MARKING (V INDICATES VAN ACCESSIBLE)
	DIRECTIONAL PAVEMENT ARROWS
	ACCESSIBLE RAMP
	ACCESSIBLE ROUTE
	LIGHT DUTY ASPHALT
	HEAVY DUTY ASPHALT
	STANDARD DUTY CONCRETE
	HEAVY DUTY CONCRETE

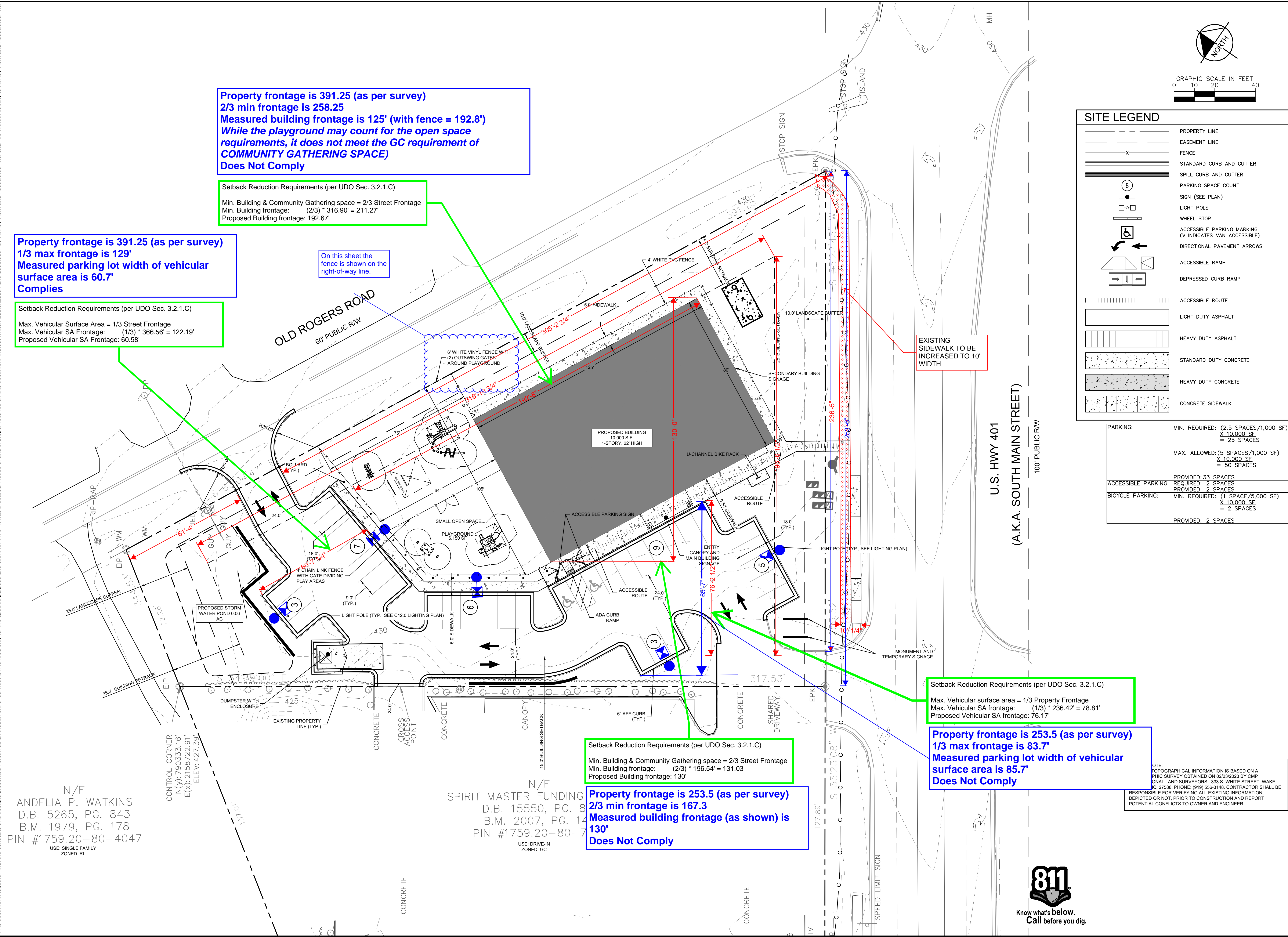
PARKING:	MIN. REQUIRED: (2.5 SPACES/1,000 SF) X 10,000 SF = 25 SPACES
	MAX. ALLOWED: (5 SPACES/1,000 SF) X 10,000 SF = 50 SPACES
ACCESSIBLE PARKING:	PROVIDED: 33 SPACES REQUIRED: 7 SPACES
BICYCLE PARKING:	MIN. REQUIRED: (1 SPACE/5,000 SF) X 10,000 SF = 2 SPACES PROVIDED: 2 SPACES

**SURVEY NOTE:**  
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		7	
THE LEARNING CENTER ROLESVILLE PREPARED FOR ROLESVILLE, LLC. TOWN OF ROLESVILLE NORTH CAROLINA		TRUCK ROUTING EXHIBIT	
SHEET NUMBER <b>C2.2</b>		SDP-23-07	

Plotted By: Alexander, Jamal Sheet Set: THE LEARNING CENTER ROLESVILLE, Layout: C2.0 SITE PLAN, October 02, 2023 09:41:05pm. K:\RAL\_LDE\013031004\_Rolesville\_Layout\_Center\10\_CAD Files\Plan\Sheet\C2.0 SITE PLAN.dwg  
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**Property frontage is 391.25 (as per survey)**  
**2/3 min frontage is 258.25**  
**Measured building frontage is 125' (with fence = 192.8')**  
**While the playground may count for the open space requirements, it does not meet the GC requirement of COMMUNITY GATHERING SPACE**  
**Does Not Comply**

**Setback Reduction Requirements (per UDO Sec. 3.2.1.C)**  
 Min. Building & Community Gathering space = 2/3 Street Frontage  
 Min. Building frontage: (2/3) \* 316.90' = 211.27'  
 Proposed Building frontage: 192.67'

**Property frontage is 391.25 (as per survey)**  
**1/3 max frontage is 129'**  
**Measured parking lot width of vehicular surface area is 60.7'**  
**Complies**

**Setback Reduction Requirements (per UDO Sec. 3.2.1.C)**  
 Max. Vehicular Surface Area = 1/3 Street Frontage  
 Max. Vehicular SA Frontage: (1/3) \* 366.56' = 122.19'  
 Proposed Vehicular SA Frontage: 60.58'

On this sheet the fence is shown on the right-of-way line.

EXISTING SIDEWALK TO BE INCREASED TO 10' WIDTH

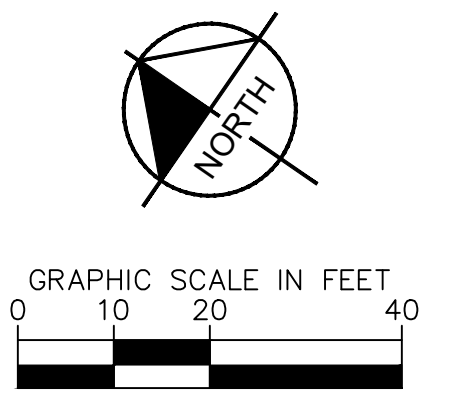
**Setback Reduction Requirements (per UDO Sec. 3.2.1.C)**  
 Min. Building & Community Gathering space = 2/3 Street Frontage  
 Min. Building frontage: (2/3) \* 196.54' = 131.03'  
 Proposed Building frontage: 130'

**Property frontage is 253.5 (as per survey)**  
**2/3 min frontage is 167.3**  
**Measured building frontage (as shown) is 130'**  
**Does Not Comply**

**Setback Reduction Requirements (per UDO Sec. 3.2.1.C)**  
 Max. Vehicular surface area = 1/3 Property Frontage  
 Max. Vehicular SA frontage: (1/3) \* 236.42' = 78.81'  
 Proposed Vehicular SA frontage: 76.17'

**Property frontage is 253.5 (as per survey)**  
**1/3 max frontage is 83.7'**  
**Measured parking lot width of vehicular surface area is 85.7'**  
**Does Not Comply**

NOTE:  
 TOPOGRAPHICAL INFORMATION IS BASED ON A PHIC SURVEY OBTAINED ON 02/23/2023 BY CMP ANIMAL LAND SURVEYORS, 333 S. WHITE STREET, WAKE CO. 27588. PHONE: (919) 556-3148. CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING ALL EXISTING INFORMATION, DEPICTED OR NOT, PRIOR TO CONSTRUCTION AND REPORT POTENTIAL CONFLICTS TO OWNER AND ENGINEER.



SITE LEGEND	
	PROPERTY LINE
	EASEMENT LINE
	FENCE
	STANDARD CURB AND GUTTER
	SPILL CURB AND GUTTER
	PARKING SPACE COUNT
	SIGN (SEE PLAN)
	LIGHT POLE
	WHEEL STOP
	ACCESSIBLE PARKING MARKING (V INDICATES VAN ACCESSIBLE)
	DIRECTIONAL PAVEMENT ARROWS
	ACCESSIBLE RAMP
	DEPRESSED CURB RAMP
	ACCESSIBLE ROUTE
	LIGHT DUTY ASPHALT
	HEAVY DUTY ASPHALT
	STANDARD DUTY CONCRETE
	HEAVY DUTY CONCRETE
	CONCRETE SIDEWALK

PARKING:	MIN. REQUIRED: (2.5 SPACES/1,000 SF) X 10,000 SF = 25 SPACES
	MAX. ALLOWED: (5 SPACES/1,000 SF) X 10,000 SF = 50 SPACES
ACCESSIBLE PARKING:	PROVIDED: 33 SPACES REQUIRED: 7 SPACES
BICYCLE PARKING:	MIN. REQUIRED: (1 SPACE/5,000 SF) X 10,000 SF = 2 SPACES PROVIDED: 2 SPACES

N/F  
 ANDELIA P. WATKINS  
 D.B. 5265, PG. 843  
 B.M. 1979, PG. 178  
 PIN #1759.20-80-4047  
 USE: SINGLE FAMILY  
 ZONED: RL

N/F  
 SPIRIT MASTER FUNDING  
 D.B. 15550, PG. 8  
 B.M. 2007, PG. 14  
 PIN #1759.20-80-7  
 USE: DRIVE-IN  
 ZONED: GC

SHEET NUMBER  
**C2.3**

DATE  
 REVISIONS  
 BY

THE LEARNING CENTER ROLESVILLE  
 PREPARED FOR  
 ROLESVILLE, LLC.  
 TOWN OF ROLESVILLE  
 NORTH CAROLINA

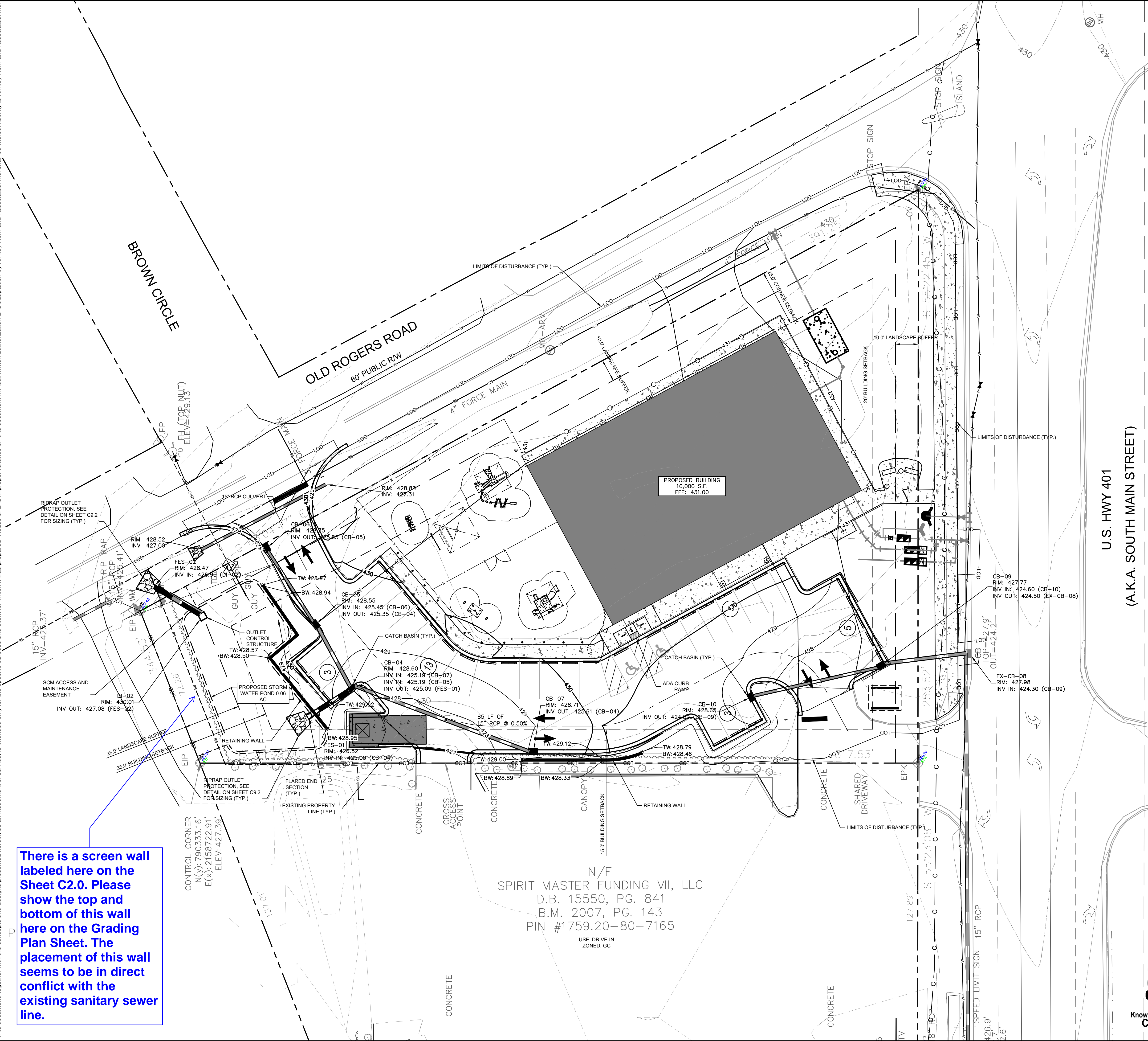
BUILD-TO EXHIBIT

Kimley»Horn  
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 421 FAYETTEVILLE STREET, SUITE 600, RALEIGH, NC 27601

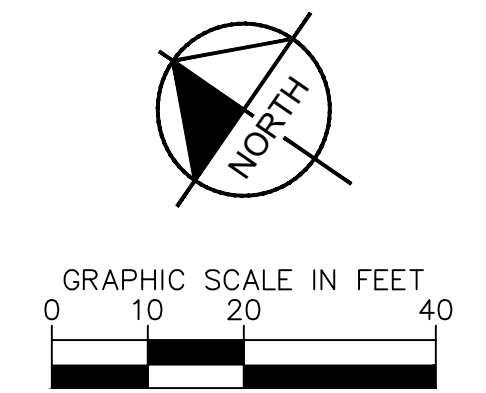


Plotted By: Alexander, Jamal Sheet Set: THE LEARNING CENTER ROLESVILLE Layout: C3.0 GRADING PLAN January 02, 2024 05:55:42pm K:\B\AL\02\01\303\1004\_Rolesville\_Layout\02\01\303\1004\_C3.0 GRADING PLAN.dwg  
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**There is a screen wall labeled here on the Sheet C2.0. Please show the top and bottom of this wall here on the Grading Plan Sheet. The placement of this wall seems to be in direct conflict with the existing sanitary sewer line.**



GRADING AND DRAINAGE LEGEND	
	PROPERTY LINE
	STORM DRAIN (≥ 12 INCH)
	STORM DRAIN (< 12 INCH)
	ROOF DRAIN
	CURB AND GUTTER
	LIMITS OF DISTURBANCE
	EXISTING CONTOUR
	PROPOSED CONTOUR
	SPOT ELEVATION
	CATCH BASIN (CB)
	MANHOLE (SDMH)
	CLEANOUT (SDCO)
	DROP INLET (DI)
	AREA DRAIN (AD)
	CONTROL STRUCTURE (CS)
	FLARED END SECTION (FES)
	CONCRETE HEADWALL (HW)
	RIP-RAP APRON
	FLOW ARROW
	TOP OF WALL (GRADE ELEV.)
	BOTTOM OF WALL (GRADE ELEV.)
	TOP OF PAVEMENT (GRADE ELEV.)
	TOP OF CURB (GRADE ELEV.)
	FLUSH CURB (GRADE ELEV.)



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		NORTH CAROLINA PRELIMINARY NOT FOR CONSTRUCTION	REVISIONS No. DATE BY
KHA PROJECT 013031004	DATE 09/29/2023	SCALE AS SHOWN	DESIGNED BY JAA
GRADING PLAN		DRAWN BY JAA	CHECKED BY COE
THE LEARNING CENTER ROLESVILLE	PREPARED FOR ROLESVILLE, LLC.	NORTH CAROLINA	
SHEET NUMBER C3.0		SDP-23-07	

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N/F  
 SPIRIT MASTER FUNDING VII, LLC  
 D.B. 15550, PG. 841  
 B.M. 2007, PG. 143  
 PIN #1759.20-80-7165  
 USE: DRIVE-IN  
 ZONED: GC



Plotted By: Alexander, Jamal Sheet Set: THE LEARNING CENTER ROLESVILLE, Layout: C4.0 UTILITY PLAN, January 02, 2024, 05:55:52pm, K:\RAL\_LDEV\0130031004\_Rolesville\_Leaning\_Center\10\_CAD Files\Plan\Sheet\C4.0 UTILITY PLAN.dwg  
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### STANDARD UTILITY NOTES

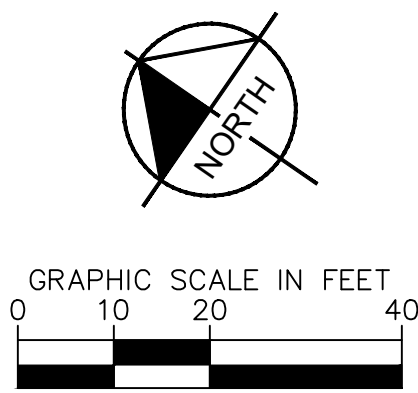
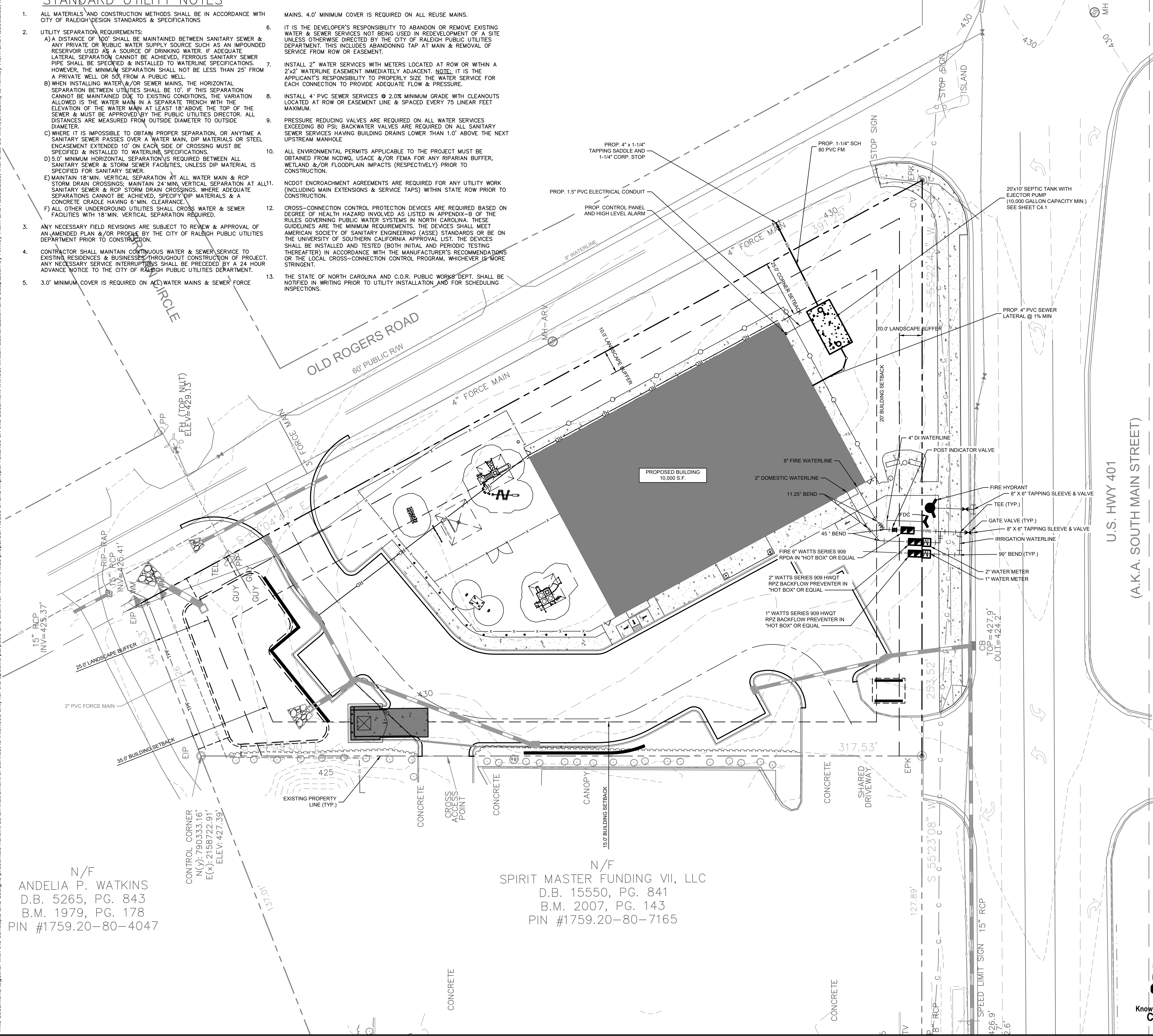
- ALL MATERIALS AND CONSTRUCTION METHODS SHALL BE IN ACCORDANCE WITH CITY OF RALEIGH DESIGN STANDARDS & SPECIFICATIONS
- UTILITY SEPARATION REQUIREMENTS:
  - A DISTANCE OF 100' SHALL BE MAINTAINED BETWEEN SANITARY SEWER & ANY PRIVATE OR PUBLIC WATER SUPPLY SOURCE SUCH AS AN IMPOUNDED RESERVOIR USED AS 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 25' FROM A PRIVATE WELL, OR 50' FROM A PUBLIC WELL.
  - WHEN INSTALLING WATER &/OR SEWER MAINS, THE HORIZONTAL SEPARATION BETWEEN UTILITIES SHALL BE 10'. IF THIS SEPARATION CANNOT BE MAINTAINED DUE TO EXISTING CONDITIONS, THE VARIATION ALLOWED IS THE WATER MAIN IN A SEPARATE TRENCH WITH THE ELEVATION OF THE WATER MAIN AT LEAST 18" ABOVE THE TOP OF THE SEWER & MUST BE APPROVED BY THE PUBLIC UTILITIES DIRECTOR. ALL DISTANCES ARE MEASURED FROM OUTSIDE DIAMETER TO OUTSIDE DIAMETER.
  - WHERE IT IS IMPOSSIBLE TO OBTAIN PROPER SEPARATION, OR ANYTIME A SANITARY SEWER PASSES OVER A WATER MAIN, DIP MATERIALS OR STEEL ENCASMENT EXTENDED 10' ON EACH SIDE OF CROSSING MUST BE SPECIFIED & INSTALLED TO WATERLINE SPECIFICATIONS.
  - 5.0' MINIMUM HORIZONTAL SEPARATION IS REQUIRED BETWEEN ALL SANITARY SEWER & STORM SEWER FACILITIES, UNLESS DIP MATERIAL IS SPECIFIED FOR SANITARY SEWER.
  - MAINTAIN 18" MIN. VERTICAL SEPARATION AT ALL WATER MAIN & RCP STORM DRAIN CROSSINGS; MAINTAIN 24" MIN. VERTICAL SEPARATION AT ALL SANITARY SEWER & RCP STORM DRAIN CROSSINGS. WHERE ADEQUATE SEPARATIONS CANNOT BE ACHIEVED, SPECIFY DIP MATERIALS & A CONCRETE CRADLE HAVING 6" MIN. CLEARANCE.
  - 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.
- CONTRACTOR SHALL MAINTAIN CONTINUOUS WATER & SEWER SERVICE TO EXISTING RESIDENCES & BUSINESSES THROUGHOUT CONSTRUCTION OF PROJECT. ANY NECESSARY SERVICE INTERRUPTIONS SHALL BE PRECEDED BY A 24 HOUR ADVANCE NOTICE TO THE CITY OF RALEIGH PUBLIC UTILITIES DEPARTMENT.
- 3.0' MINIMUM COVER IS REQUIRED ON ALL WATER MAINS & SEWER FORCE MAINS. 4.0' MINIMUM COVER IS REQUIRED ON ALL REUSE MAINS.
- IT IS THE DEVELOPER'S RESPONSIBILITY TO ABANDON OR REMOVE EXISTING WATER & SEWER SERVICES NOT BEING USED IN REDEVELOPMENT OF A SITE UNLESS OTHERWISE DIRECTED BY THE CITY OF RALEIGH PUBLIC UTILITIES DEPARTMENT. THIS INCLUDES ABANDONING TAP AT MAIN & REMOVAL OF SERVICE FROM ROW OR EASEMENT.
- INSTALL 2" 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 4" PVC SEWER SERVICES @ 2.0% MINIMUM GRADE WITH CLEANOUTS LOCATED AT ROW OR EASEMENT LINE & SPACED EVERY 75' LINEAR FEET MAXIMUM.
- PRESSURE REDUCING VALVES ARE REQUIRED ON ALL WATER SERVICES EXCEEDING 80 PSI; BACKWATER VALVES ARE REQUIRED ON ALL SANITARY SEWER SERVICES HAVING BUILDING DRAINS LOWER THAN 1.0' ABOVE THE NEXT UPSTREAM MANHOLE.
- ALL ENVIRONMENTAL PERMITS APPLICABLE TO THE PROJECT MUST BE OBTAINED FROM NCDOW, USACE &/OR FEMA FOR ANY RIPARIAN BUFFER, WETLAND &/OR FLOODPLAIN IMPACTS (RESPECTIVELY) PRIOR TO CONSTRUCTION.
- NC DOT ENCROACHMENT AGREEMENTS ARE REQUIRED FOR ANY UTILITY WORK (INCLUDING MAIN EXTENSIONS & SERVICE TAPS) WITHIN STATE ROW PRIOR TO CONSTRUCTION.
- CROSS-CONNECTION CONTROL PROTECTION DEVICES ARE REQUIRED BASED ON DEGREE OF HEALTH HAZARD INVOLVED AS LISTED IN APPENDIX-9 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.
- THE STATE OF NORTH CAROLINA AND C.O.R. PUBLIC WORKS DEPT. SHALL BE NOTIFIED IN WRITING PRIOR TO UTILITY INSTALLATION AND FOR SCHEDULING INSPECTIONS.

UTILITY LEGEND	
---	PROPERTY LINE
W	WATER LINE
FW	FIRE LINE
SS	SANITARY SEWER LINE
E	ELECTRIC
FO	FIBER OPTIC
G	GAS
P	POWER
T	TELECOMMUNICATION
C	CABLE
LP	LIGHT POLE
WM	WATER METER
GV	GATE VALVE
PC	POINT OF CONNECTION
BP	BACKFLOW PREVENTOR
PT	PIPE TEE/BENDS
FD	FIRE HYDRANT (FH)
FDC	FIRE DEPARTMENT CONNECTION (FDC)
SSCO	SANITARY SEWER CLEANOUT (SSCO)
SSMH	SANITARY SEWER MANHOLE (SSMH)
SSGT	SANITARY SEWER GREASE TRAP

### STANDARD UTILITY NOTES (CONT.)

- TRAFFIC CONTROLS FOR ANY UTILITY WORK WITHIN THE PUBLIC RIGHT-OF-WAY SHALL BE IN COMPLIANCE WITH STANDARDS OF THE NORTH CAROLINA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.
- IN THE EVENT AN 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.
- IF CITY OF RALEIGH WATER AND SANITARY SEWER PERMITS ARE REQUIRED, CONTRACTOR IS RESPONSIBLE FOR ALL PERMIT FEES.
- LOCATIONS AND SIZES OF EXISTING WATER AND SEWER LINES SHOWN ON THESE PLANS WITHIN THE PROPERTY LIMITS OF THE SITE ARE ASSUMED BASED ON SURVEY OF SURFACE FEATURES (MANHOLES, VALVES, VAULTS, METERS, ETC.) PREPARED BY GSC SURVEYING, INC., 4072 BARRETT DRIVE, RALEIGH, N.C. 27609. IT IS SOLELY THE RESPONSIBILITY OF THE CONTRACTOR TO FIELD VERIFY THE HORIZONTAL AND VERTICAL LOCATION OF THE EXISTING UTILITIES PRIOR TO COMMENCING WORK. ANY DEVIATIONS FROM WHAT IS INDICATED ON THESE PLANS SHALL BE REPORTED TO THE DEVELOPER AND ENGINEER, IN WRITING, IMMEDIATELY.
- CONTRACTOR SHALL PROVIDE A MEANS TO KEEP ALL NEW PIPING ISOLATED FROM EXISTING PIPING UNTIL ALL NEW PIPING HAS BEEN TESTED, AND ACCEPTED FOR SERVICE.
- EXISTING UTILITIES SHALL BE PROTECTED DURING ALL CONSTRUCTION.
- THE SITE UTILITY CONTRACTOR SHALL PROVIDE ALL MATERIALS AND APPURTENANCES NECESSARY FOR COMPLETE INSTALLATION OF THE UTILITIES. ALL PUBLIC PIPE, STRUCTURES, AND FITTINGS SHALL BE INSPECTED BY THE CITY INSPECTOR PRIOR TO BEING COVERED. THE INSPECTOR MUST ALSO BE PRESENT DURING DISINFECTION AND PRESSURE TESTING OF ALL MAINS. THE CONTRACTOR'S BID PRICE SHALL INCLUDE ALL INSPECTION FEES.
- UTILITY WORK SHALL BE INSPECTED AND ACCEPTED BY CITY OF RALEIGH PRIOR TO PLACING INTO SERVICE.
- THERE SHALL BE A MINIMUM 3' CLEAR DISTANCE AROUND ALL FIRE HYDRANTS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING "AS-BUILT" PLANS, PER CITY OF RALEIGH REQUIREMENTS, 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 PLANS TO THE CITY OF RALEIGH.

**SURVEY NOTE:**  
 EXISTING TOPOGRAPHICAL INFORMATION IS BASED ON A TOPOGRAPHIC SURVEY OBTAINED ON 02/23/2023 BY CMP PROFESSIONAL LAND SURVEYORS, 333 S. WHITE STREET, WAKE FOREST, NC 27988. PHONE: (919) 556-3148. CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING ALL EXISTING INFORMATION, DEPICTED OR NOT, PRIOR TO CONSTRUCTION AND REPORT POTENTIAL CONFLICTS TO OWNER AND ENGINEER.



N/F  
 ANDELIA P. WATKINS  
 D.B. 5265, PG. 843  
 B.M. 1979, PG. 178  
 PIN #1759.20-80-4047

N/F  
 SPIRIT MASTER FUNDING VII, LLC  
 D.B. 15550, PG. 841  
 B.M. 2007, PG. 143  
 PIN #1759.20-80-7165



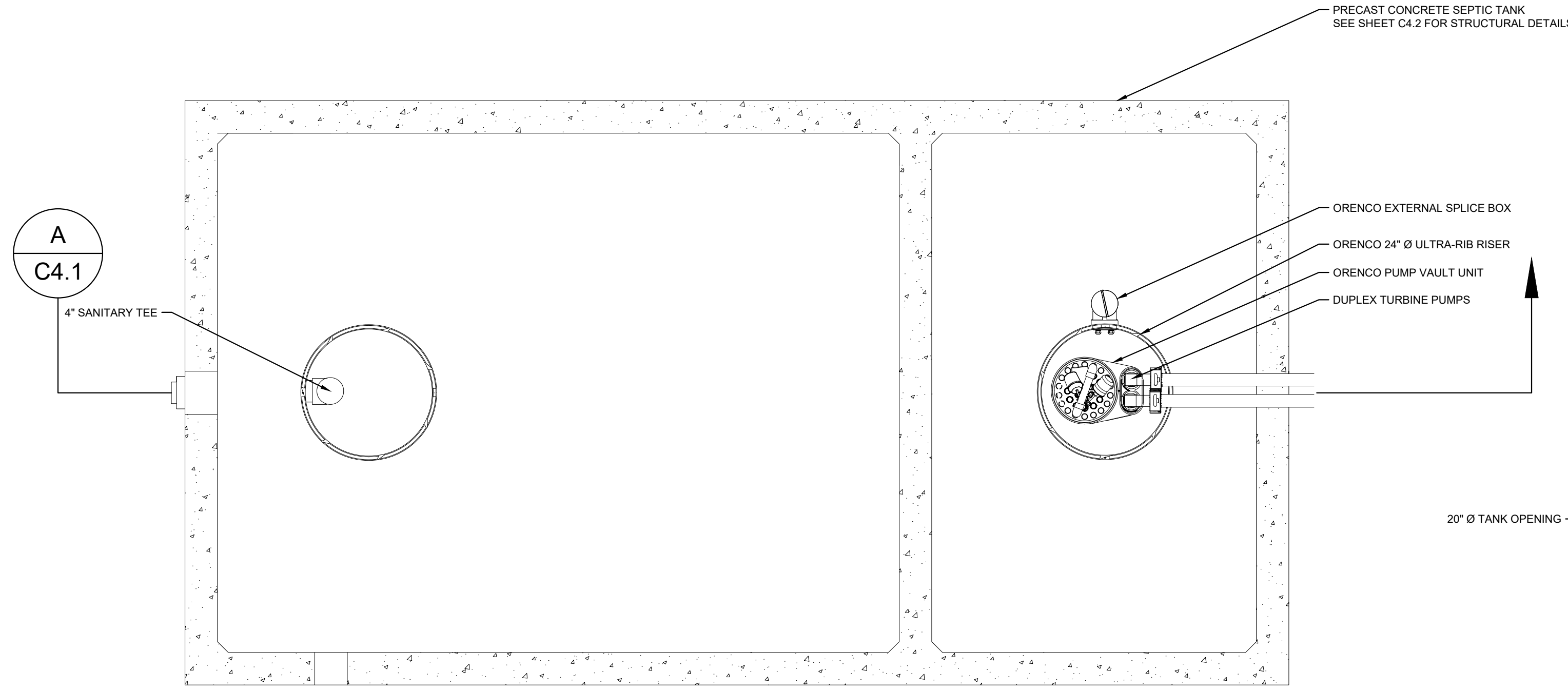
SDP-23-07

		REVISIONS No. DATE BY	
KHA PROJECT 013031004		DATE 09/29/2023	
SCALE AS SHOWN		DESIGNED BY JAA	
DRAWN BY JAA		CHECKED BY COB	
<b>UTILITY PLAN</b>			
THE LEARNING CENTER ROLESVILLE		PREPARED FOR ROLESVILLE, LLC.	
SHEET NUMBER <b>C4.0</b>		TOWN OF ROLESVILLE NORTH CAROLINA	

Plotted By: Alexander, Jamal Sheet Set: THE LEARNING CENTER ROLESVILLE Layout: C4.1 MECHANICAL PLAN January 02, 2024 05:56:01 pm K:\RAL\_LDEV\013031004\_Rolesville\_Learning\_Center\P10\_CAD Files\PlanSheets\C4.1 MECHANICAL PLAN.dwg  
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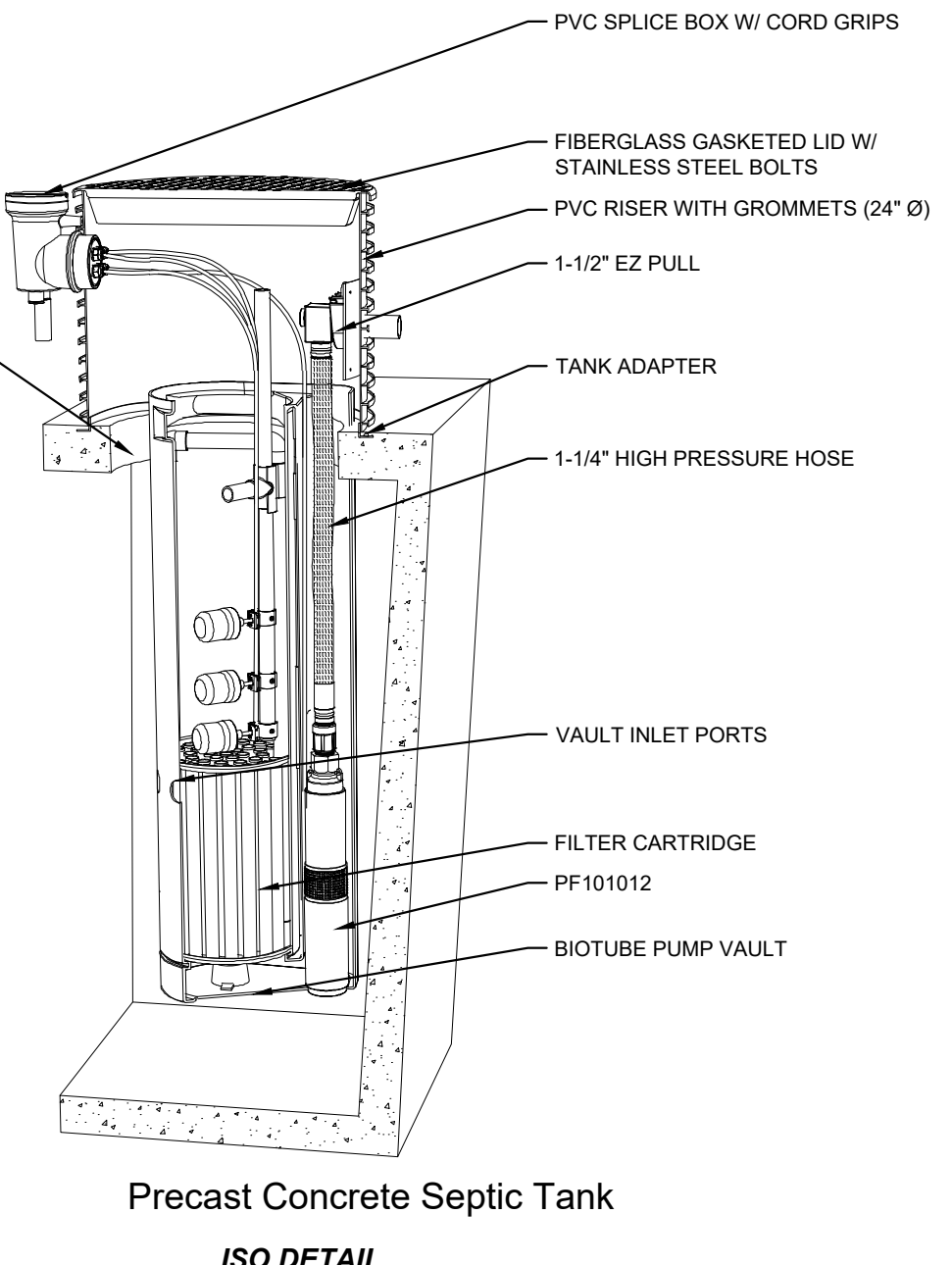
NOTES:  
 1) PROPOSED STEP SYSTEM SHALL BE EQUIPPED WITH A "VERICOMM DAX RO" CONTROL PANEL OR APPROVED EQUAL. CONTACT MICHAEL CLAYTON (MCLAYTON@AQWA.NET, 252-292-1667) FOR STEP SYSTEM SPECIFICATIONS.

PUMP STATION GENERAL INFORMATION	
AVERAGE DAILY FLOW	4,400 GPD
TANK DIMENSIONS	20'x10'x7'-9" (INSIDE DIMENSIONS), 10,000 GAL MIN.
DISCHARGE PIPING	1.25" Ø SCH 80 PVC
HORSEPOWER	1 HP (NON-OVERLOADING OVER ENTIRE PUMP CURVE)
VOLTAGE/PHASE/CYCLES	240 V / 1 PHASE / 60 HZ
PUMP	ORENCO PF101012
PRIMARY LEVEL SENSING METHOD	FLOATS (3)

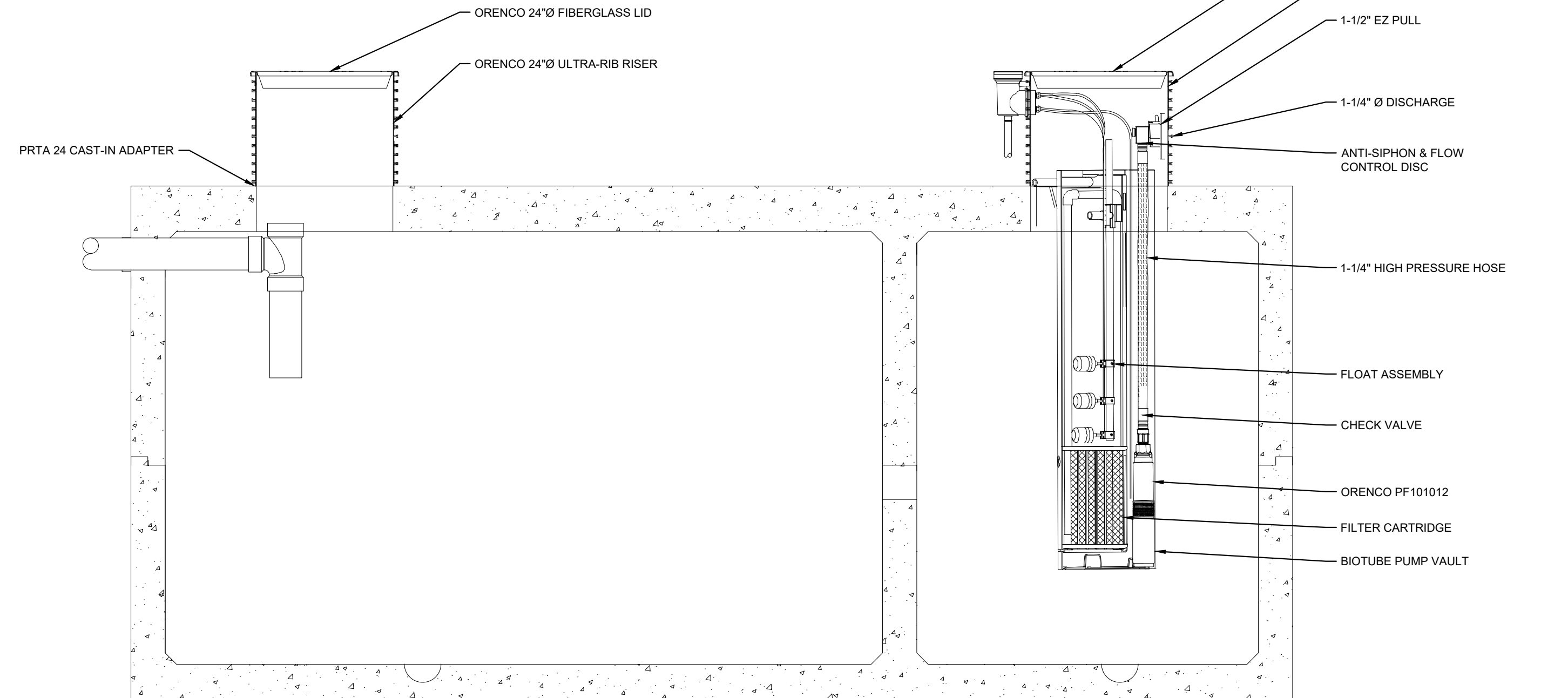


**1** MECHANICAL PLAN VIEW

SCALE: NTS



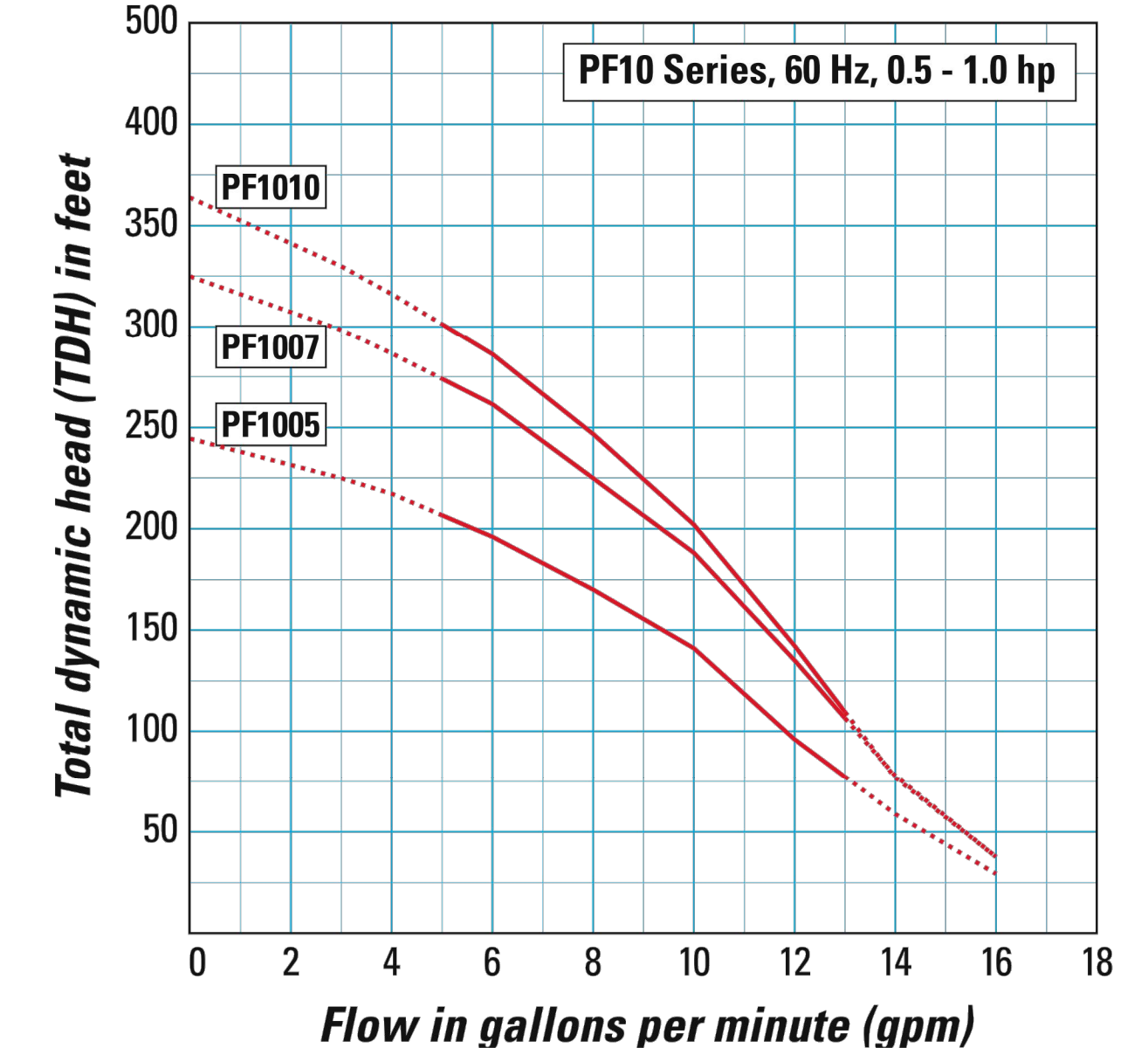
Precast Concrete Septic Tank  
ISO DETAIL



**A** MECHANICAL SECTION VIEW

SCALE: NTS

**Pump Curves**



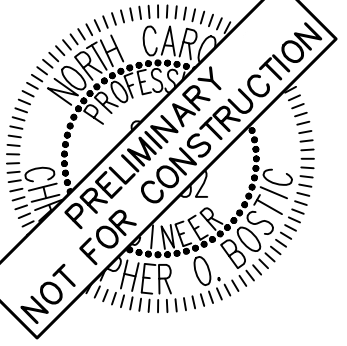
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SDP-23-07

NO.	REVISIONS	BY	DATE

**Kimley»Horn**  
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 WWW.KIMLEY-HORN.COM PHONE: 919-677-2000 FAX: 919-677-2050  
 #F-0102 421 FAYETTEVILLE STREET, SUITE 600, RALEIGH, NC 27601



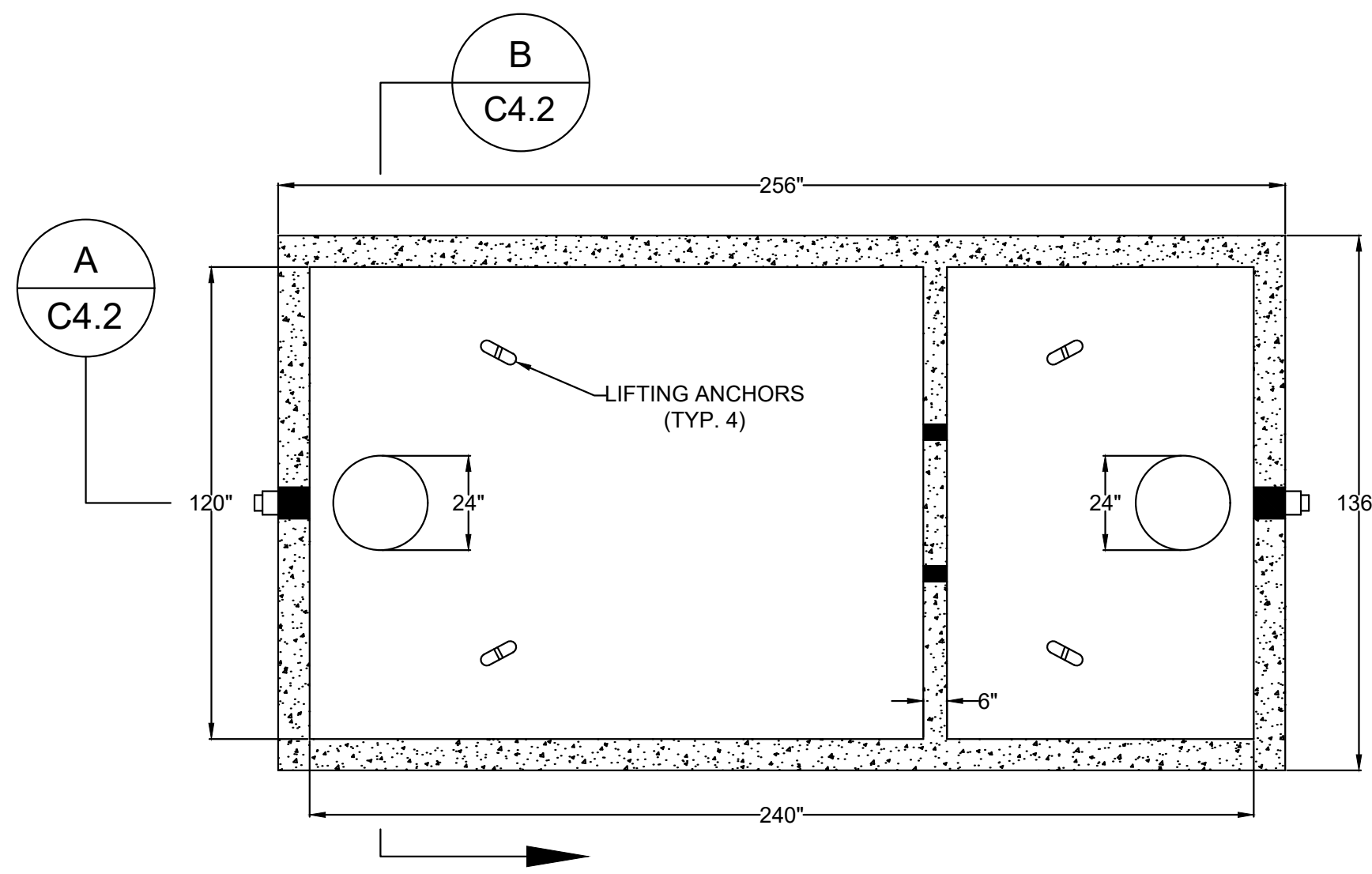
KHA PROJECT	013031004
DATE	09/29/2023
SCALE	AS SHOWN
DESIGNED BY	JAA
DRAWN BY	JAA
CHECKED BY	COB

**MECHANICAL PLAN**

**THE LEARNING CENTER ROLESVILLE**  
 PREPARED FOR  
**ROLESVILLE, LLC.**  
 TOWN OF ROLESVILLE NORTH CAROLINA

SHEET NUMBER  
**C4.1**

Plotted By: Alexander, Jamal Sheet Set: THE LEARNING CENTER ROLESVILLE, Layout: C4.2 SEPTIC TANK DETAILS, January 02, 2024, 05:56:11pm, K:\RAL\_LDEV\013031004\_Rolesville\_Learning\_Center\PI0\_CAD\PlanSheets\C4.2 SEPTIC TANK DETAILS.dwg  
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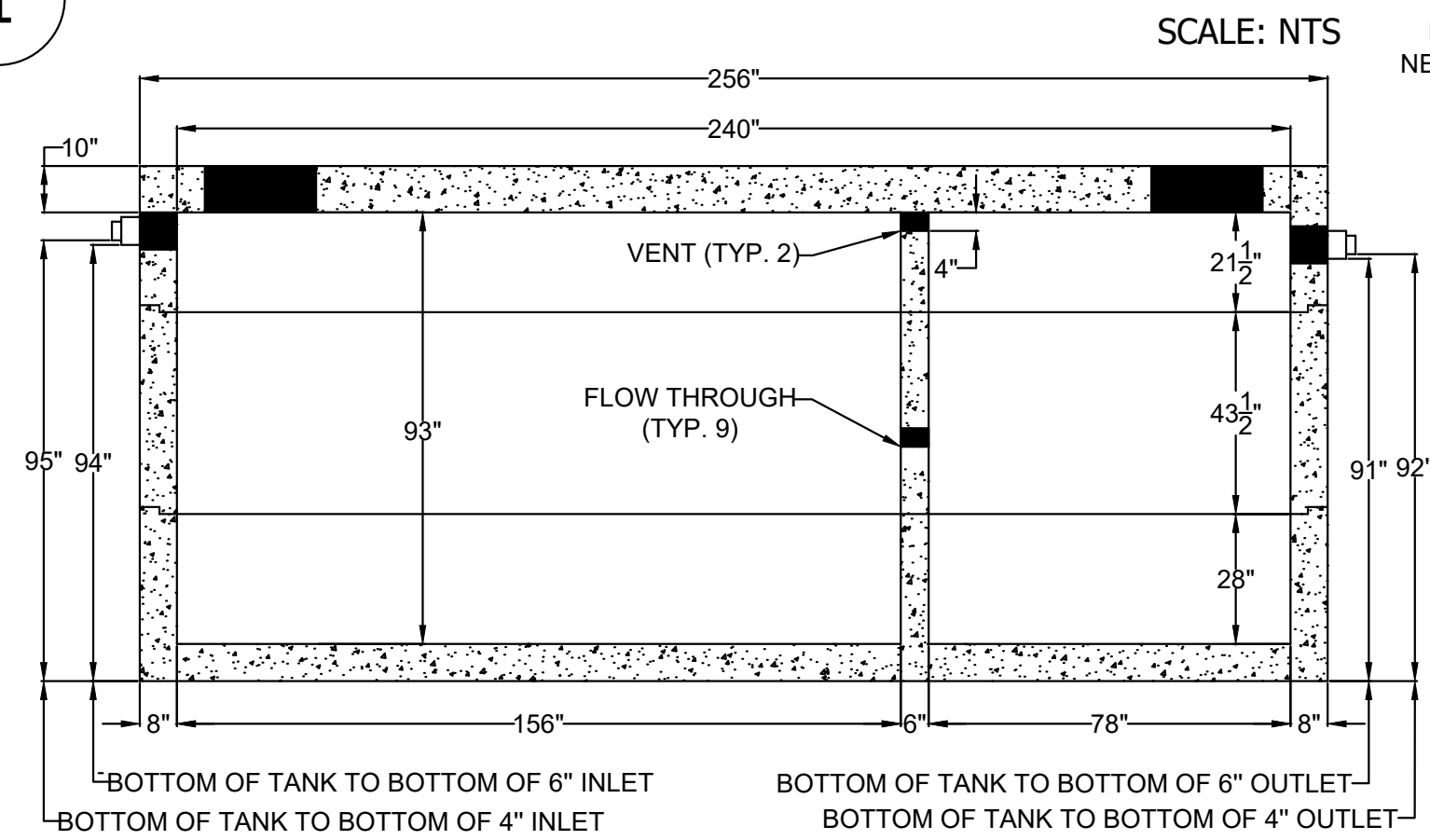


**1** STRUCTURAL PLAN VIEW

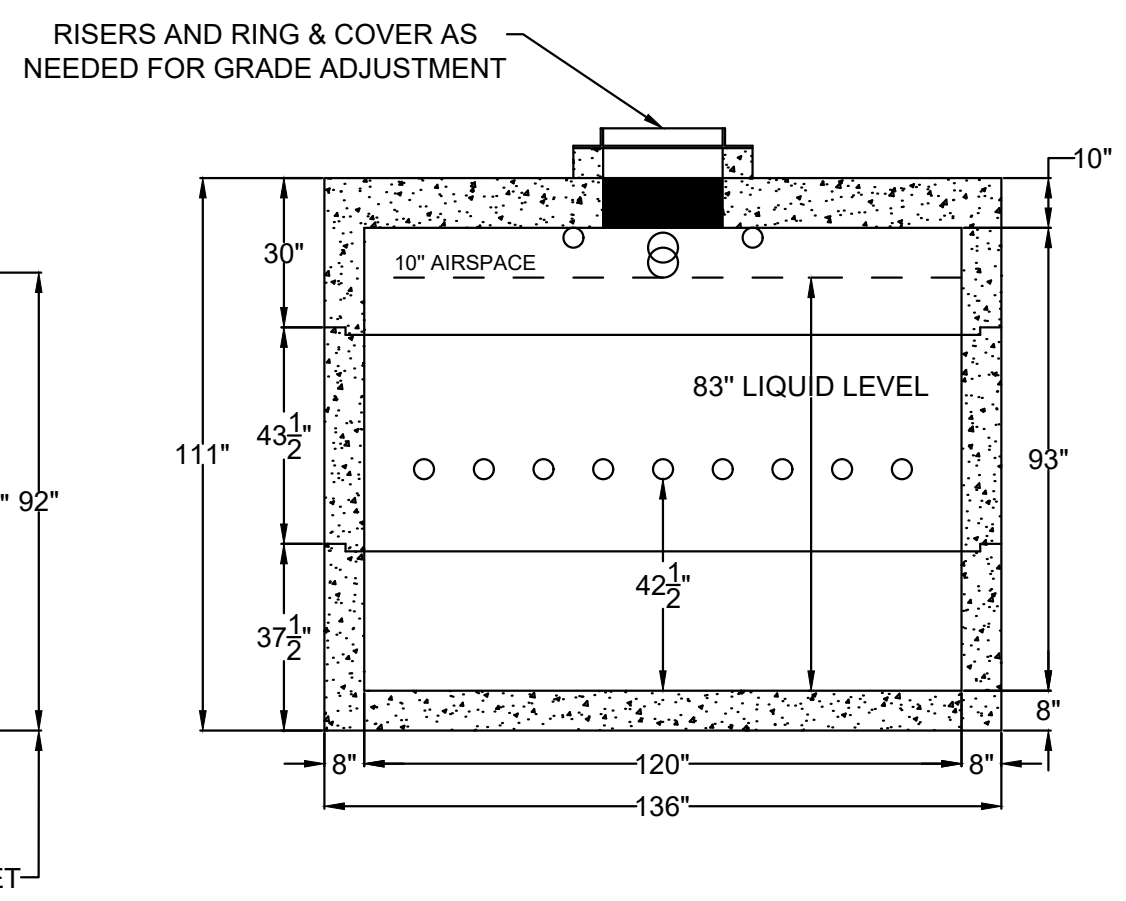
**SHOAF - 10,000 GAL. SEPTIC TANK  
HS/20 TRAFFIC RATED**

SHOAF PRECAST INC.  
4130 W US HWY 64  
LEXINGTON, NC 27295  
PHONE (336) 787-5826  
FAX (336) 787-2826  
info@shoafprecast.com  
www.shoafprecast.com

- GAL. PER INCH - 121.56
- 2 TO 1 LENGTH TO WIDTH RATIO
- PIPE PENETRATION SEALS MEET ASTM C-923
- 1 1/4" BUTYL RUBBER SEALANT CONTINUOUS IN JOINTS
- REINFORCED PER ENGINEER SPECS
- CONCRETE - 5,000 PSI MIN.
- TANK WEIGHT - 106,000 #
- TOP - 40,000 #
- BOTTOM - 40,000 #
- RISER SECTION - 26,000 #



**A** STRUCTURAL SECTION VIEW  
SCALE: NTS



**B** STRUCTURAL SECTION VIEW  
SCALE: NTS

**SURVEY NOTE:**  
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SDP-23-07

<p><b>THE LEARNING CENTER ROLESVILLE</b></p> <p>PREPARED FOR <b>ROLESVILLE, LLC.</b></p> <p>TOWN OF ROLESVILLE NORTH CAROLINA</p>	<p><b>SEPTIC TANK DETAILS</b></p>																		
<p>PROJECT NO. 013031004</p> <p>DATE 09/29/2023</p> <p>SCALE AS SHOWN</p> <p>DESIGNED BY JAA</p> <p>DRAWN BY JAA</p> <p>CHECKED BY COB</p>	<p>NO. 7</p> <p>NO. 6</p> <p>NO. 5</p> <p>NO. 4</p> <p>NO. 3</p> <p>NO. 2</p> <p>NO. 1</p>																		
<p><b>Kimley &gt;&gt;&gt; Horn</b></p> <p>© 2023 KIMLEY-HORN AND ASSOCIATES, INC. WWW.KIMLEY-HORN.COM PHONE: 919.677.2000 FAX: 919.677.2050 421 FAYETTEVILLE STREET, SUITE 600, RALEIGH, NC 27601</p>																			
<p>NOT FOR CONSTRUCTION</p> <p>PRELIMINARY</p>																			
<p>SHEET NUMBER <b>C4.2</b></p>	<p>REVISIONS</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>NO.</th> <th>DATE</th> <th>BY</th> </tr> </thead> <tbody> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> </tbody> </table>	NO.	DATE	BY															
NO.	DATE	BY																	

**SELF MONITORING AND INSPECTION NOTIFICATION**

THE SEDIMENTATION POLLUTION CONTROL ACT WAS AMENDED IN 2008 TO REQUIRE THAT PERSONS RESPONSIBLE FOR LAND-DISTURBING ACTIVITIES INSPECT A PROJECT AFTER EACH PHASE OF THE PROJECT TO MAKE SURE THAT THE APPROVED EROSION AND SEDIMENTATION CONTROL PLAN IS BEING FOLLOWED. RULES DETAILING THE DOCUMENTATION OF THESE INSPECTIONS BECAME EFFECTIVE OCTOBER 1, 2010. TO SIMPLIFY DOCUMENTATION OF SELF-INSPECTION REPORTS AND NPDES SELF-MONITORING REPORTS, A COMBINED FORM IS NOW AVAILABLE. THE NEW FORM WAS DEVELOPED TO SATISFY THE REQUIREMENTS OF THE SEDIMENTATION POLLUTION CONTROL ACT AND THE NPDES STORMWATER PERMIT FOR CONSTRUCTION ACTIVITIES, NCD 01006, BEGINNING AUGUST 1, 2013. THE DIVISION OF ENERGY, MINERAL AND LAND RESOURCES IS RESPONSIBLE FOR ADMINISTERING BOTH THE SPCA AND THE NPDES STORMWATER PERMIT FOR CONSTRUCTION ACTIVITIES. NCD 010000. THE COMBINED FORM SHOULD MAKE IT EASIER TO COMPLY WITH SELF-INSPECTION REQUIREMENTS. THE COMBINED SELF-MONITORING FORM IS AVAILABLE AS A PDF AND WORD DOCUMENT FROM THE LAND QUALITY WEB SITE, [HTTP://PORTAL.NCENR.ORG/WEB/EROSION](http://portal.ncdenr.org/web/erosion). IF YOU HAVE QUESTIONS, PLEASE CONTACT THE LAND QUALITY SECTION AT NCDEQ REGIONAL OFFICE.

**MAINTENANCE NOTES:**

DURING THE DEVELOPMENT OF A SITE, THE DEVELOPER SHALL INSTALL AND MAINTAIN ALL TEMPORARY AND PERMANENT STORMWATER CONTROL MEASURES AS REQUIRED BY THE APPROVED PLAN OR ANY PROVISION OF THIS ARTICLE. THE ACT OR ANY ORDER ADOPTED PURSUANT TO THIS ARTICLE OR THE ACT AFTER SITE DEVELOPMENT, THE DEVELOPER SHALL INSTALL AND/OR MAINTAIN ALL NECESSARY PERMANENT STORMWATER CONTROL MEASURES SPECIFIED IN THE APPROVED PLAN, EXCEPT THOSE MEASURES INSTALLED WITHIN A ROAD OR STREET RIGHT-OF-WAY OR EASEMENT ACCEPTED FOR MAINTENANCE BY A GOVERNMENTAL AGENCY. CONVEYANCE OF THE PROPERTY SHALL NOT TERMINATE THE ORIGINAL DEVELOPER'S OBLIGATIONS UNDER THIS ARTICLE UNTIL SUCH TIME AS A REPLACEMENT PERMIT IS APPROVED BY THE COUNTY ENGINEER, OR DESIGNEE. THE ORIGINAL DEVELOPER SHALL INCLUDE IN THE DEED CONVEYING THE PROPERTY NOTICE OF THE EXISTENCE OF THE STORMWATER CONTROL MEASURES AND THE PURCHASER'S OBLIGATIONS TO MAINTAIN AND INSPECT THEM AND TO OBTAIN A PERMIT AND OTHERWISE COMPLY WITH THE TERMS OF THIS ARTICLE. REFER TO THE EROSION CONTROL DETAILS SHEET FOR ADDITIONAL MAINTENANCE NOTES.

- CONSTRUCTION ENTRANCE:**  
INSPECT CONSTRUCTION ROADS AND PARKING AREAS PERIODICALLY FOR CONDITION OF SURFACE. TOP DRESS WITH NEW GRAVEL AS NEEDED. CHECK ROAD DITCHES AND OTHER SEEDED AREAS FOR EROSION AND SEDIMENTATION AFTER RUNOFF-PRODUCING RAINS. MAINTAIN ALL VEGETATION IN A HEALTHY, VIGOROUS CONDITION. SEDIMENT PRODUCING AREAS SHOULD BE TREATED IMMEDIATELY.
- SILT FENCE:**  
INSPECT SEDIMENT FENCES AT LEAST ONCE A WEEK AND AFTER EACH RAINFALL. MAKE ANY REQUIRED REPAIRS IMMEDIATELY. SHOULD THE FABRIC OF A SEDIMENT FENCE COLLAPSE, TEAR, DECOMPOSE, OR BECOME INEFFECTIVE, REPLACE IT IMMEDIATELY. REMOVE SEDIMENT DEPOSITS AS NECESSARY TO PROVIDE ADEQUATE STORAGE VOLUME FOR THE NEXT RAIN AND TO REDUCE PRESSURE ON THE FENCE. TAKE CARE TO AVOID UNDERMINING THE FENCE DURING CLEANOUT. REMOVE ALL FENCING MATERIALS AND UNSTABLE SEDIMENT DEPOSITS AND BRING THE AREA TO GRADE AND STABILIZE IT AFTER THE CONTRIBUTING DRAINAGE AREA HAS BEEN PROPERLY STABILIZED.
- SILT FENCE GRAVEL OUTLET:**  
INSPECT SEDIMENT FENCE GRAVEL OUTLETS AT LEAST ONCE A WEEK AND AFTER EACH RAINFALL. MAKE ANY REQUIRED REPAIRS IMMEDIATELY. REMOVE SEDIMENT DEPOSITS AS NECESSARY TO PROVIDE ADEQUATE STORAGE VOLUME FOR THE NEXT RAIN. ANY RIP RAP DISPLACED SHOULD BE REPLACED IMMEDIATELY.
- BLOCK AND GRAVEL INLET PROTECTION:**  
INSPECT THE BARRIER OF AFTER EACH RAIN AND MAKE REPAIRS AS NEEDED. REMOVE SEDIMENT AS NECESSARY TO PROVIDE ADEQUATE STORAGE VOLUME FOR SUBSEQUENT RAINS. WHEN THE CONTRIBUTING DRAINAGE AREA HAS BEEN ADEQUATELY STABILIZED, REMOVE ALL MATERIALS AND ANY UNSTABLE SOIL, AND EITHER SALVAGE OR DISPOSE OF IT PROPERLY. BRING THE DISTURBED AREA TO PROPER GRADE, THEN SMOOTH AND COMPACT IT. APPROPRIATELY STABILIZE ALL BARE AREAS AROUND THE INLET.

**NPDES GROUND COVER REQUIREMENTS**

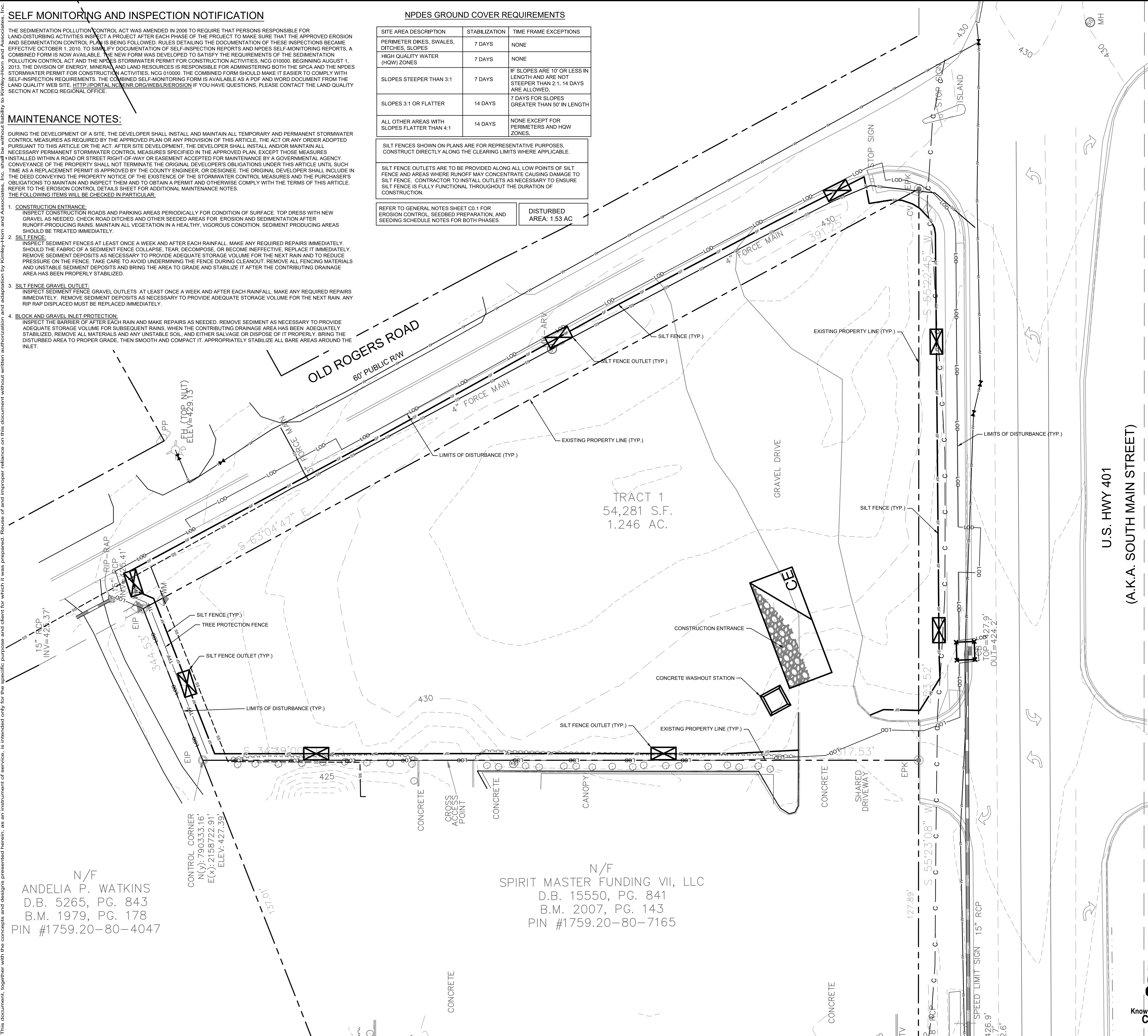
SITE AREA DESCRIPTION	STABILIZATION	TIME FRAME EXCEPTIONS
PERIMETER DIKES, SWALES, DITCHES, SLOPES	7 DAYS	NONE
HIGH QUALITY WATER (HQW) ZONES	7 DAYS	NONE
SLOPES STEEPER THAN 3:1	7 DAYS	IF SLOPES ARE 10' OR LESS IN LENGTH AND ARE NOT STEEPER THAN 2:1. 14 DAYS ARE ALLOWED.
SLOPES 3:1 OR FLATTER	14 DAYS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

SILT FENCES SHOWN ON PLANS ARE FOR REPRESENTATIVE PURPOSES, CONSTRUCT DIRECTLY ALONG THE CLEARING LIMITS WHERE APPLICABLE.

SILT FENCE OUTLETS ARE TO BE PROVIDED ALONG ALL LOW POINTS OF SILT FENCE AND AREAS WHERE RUNOFF MAY CONCENTRATE CAUSING DAMAGE TO SILT FENCE. CONTRACTOR TO INSTALL OUTLETS AS NECESSARY TO ENSURE SILT FENCE IS FULLY FUNCTIONAL THROUGHOUT THE DURATION OF CONSTRUCTION.

REFER TO GENERAL NOTES SHEET C0.1 FOR EROSION CONTROL, SEEDBED PREPARATION, AND SEEDING SCHEDULE NOTES FOR BOTH PHASES.

**DISTURBED AREA: 1.53 AC**



**EROSION CONTROL LEGEND**

---	PROPERTY LINE
-TCE-	TEMPORARY CONSTRUCTION EASEMENT
-LOD-	LIMITS OF DISTURBANCE
-SF-	SILT FENCE
-TPF-	TREE PROTECTION FENCE
-SF/TPF-	COMBINATION TREE PROTECTION/SILT FENCE
→ TD → TD	TEMPORARY DIVERSION DITCH
→ TD(CW) →	CLEAN WATER DIVERSION DITCH
→ X →	SEDIMENT BASIN POROUS Baffles
→ →	PUMP DISCHARGE HOSE
-805-	EXISTING CONTOUR
-805-	PROPOSED CONTOUR
---	DRAINAGE AREA BOUNDARY
CE	CONSTRUCTION ENTRANCE
□	SILT FENCE OUTLET
□	CONCRETE WASHOUT STATION
□	ROCK CHECK DAM
□	INLET PROTECTION
□	ROCK PIPE INLET PROTECTION
□	SKIMMER
□	TEMPORARY SLOPE DRAIN
□	RIP-RAP OUTLET PROTECTION
□	SILT BAG
▨	DESIGNATED AREAS TO BE STABILIZED WITHIN 7 DAYS
▨	TEMPORARY EROSION CONTROL MATTING

- PHASE 1 CONSTRUCTION SEQUENCE:**
- THE FOLLOWING PHASE 1 CONSTRUCTION SEQUENCE IS FURNISHED AS A GENERAL GUIDE FOR PREPARATION OF A SEQUENCE OF CONSTRUCTION EVENTS.
  - SCHEDULE AN ON-SITE PRE-CONSTRUCTION CONFERENCE WITH WAKE COUNTY ENVIRONMENTAL CONSULTANT TO DISCUSS EROSION CONTROL MEASURES.
  - OBTAIN LAND-DISTURBING PERMIT FROM WAKE COUNTY.
  - INSTALL TEMPORARY CONSTRUCTION ENTRANCE, SILT FENCE, INLET PROTECTION, TREE PROTECTION, AND OTHER MEASURES AS SHOWN ON PLANS, CLEARING ONLY AS NECESSARY TO INSTALL THESE DEVICES (SEE LOD FOR INITIAL CLEARING LIMITS). SEED, MAT MULCH, AND ANCHOR DIVERSION DITCHES AND BASIN IMMEDIATELY AFTER CONSTRUCTION AS APPROPRIATE.
  - CALL FOR ON-SITE INSPECTION BY WAKE COUNTY ENVIRONMENTAL CONSULTANT ONCE ALL EROSION CONTROL MEASURES ARE INSTALLED. OBTAIN CERTIFICATE OF COMPLIANCE FROM WAKE COUNTY.
  - ONCE CERTIFICATE OF COMPLIANCE HAS BEEN OBTAINED, APPLY FOR NCDEQ #NOI ON NCDEQ WEBSITE.
  - UPON APPROVAL, CLEARING AND DEMOLITION MAY BEGIN. MAINTAIN ALL EROSION CONTROL MEASURES AS NECESSARY. EROSION CONTROL MEASURES SHALL BE RESTORED TO ORIGINAL DIMENSIONS WHEN SEDIMENT ACCUMULATES TO 50% OF DESIGN DEPTH.
  - INSPECT AND REPAIR EROSION CONTROL MEASURES AFTER EVERY RAINFALL EVENT OF 1/2" OR GREATER OR EVERY SEVEN (7) CALENDAR DAYS.
  - FOR PHASED EROSION CONTROL PLANS, CONTRACTOR SHALL MEET WITH EROSION CONTROL INSPECTOR PRIOR TO COMMENCING EACH PHASE OF EROSION CONTROL MEASURES. SEED AND MULCH DENuded AREA WITHIN 15 CALENDAR DAYS AFTER ANY PHASE OF GRADING. MAINTAIN SOIL EROSION CONTROL MEASURES UNTIL PERMANENT GROUND COVER IS ESTABLISHED.
  - ALL EROSION CONTROL MEASURES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE NCDEQ EROSION AND SEDIMENT CONTROL PLANNING AND DESIGN MANUAL, U.S. DEPARTMENT OF AGRICULTURE, AND WAKE COUNTY EROSION CONTROL ORDINANCE.
  - REFER TO SHEET C0.1 - GENERAL NOTES FOR GENERAL EROSION CONTROL NOTES AND MAINTENANCE.

**SURVEY NOTE:**  
EXISTING TOPOGRAPHICAL INFORMATION IS BASED ON A TOPOGRAPHIC SURVEY OBTAINED ON 02/23/2023 BY CMP PROFESSIONAL LAND SURVEYORS, 333 S. WHITE STREET, WAKE FOREST, NC, 27888. PHONE: (919) 556-3148. CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING ALL EXISTING INFORMATION DEPICTED OR NOT, PRIOR TO CONSTRUCTION AND REPORT POTENTIAL CONFLICTS TO OWNER AND ENGINEER.

N/F  
ANDELIA P. WATKINS  
D.B. 5265, PG. 843  
B.M. 1979, PG. 178  
PIN #1759.20-80-4047

N/F  
SPIRIT MASTER FUNDING VII, LLC  
D.B. 15550, PG. 841  
B.M. 2007, PG. 143  
PIN #1759.20-80-7165



SDP-23-07

<p><b>THE LEARNING CENTER ROLESVILLE</b> EROSION CONTROL PLAN - PHASE 1</p>	<p>DATE: _____</p>										
	<p>BY: _____</p>										
<p>REVISIONS</p> <table border="1"> <tr> <th>No.</th> <th>Description</th> </tr> <tr> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> </tr> </table>	No.	Description									<p>DATE: _____</p>
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421 FAYETTEVILLE STREET, SUITE 800, RALEIGH, NC 27601

**NOT FOR CONSTRUCTION**

KHA PROJECT	013031004
DATE	09/29/2023
SCALE	AS SHOWN
DESIGNED BY	JAA
DRAWN BY	JAA
CHECKED BY	COB

**EROSION CONTROL PLAN - PHASE 1**

PREPARED FOR  
**ROLESVILLE, LLC.**  
TOWN OF ROLESVILLE  
NORTH CAROLINA

SHEET NUMBER  
**C5.0**

**SELF MONITORING AND INSPECTION NOTIFICATION**

THE SEDIMENTATION POLLUTION CONTROL ACT WAS AMENDED IN 2006 TO REQUIRE THAT PERSONS RESPONSIBLE FOR LAND-DISTURBING ACTIVITIES INSPECT A PROJECT AT EACH PHASE OF THE PROJECT TO MAKE SURE THAT THE DOCUMENTATION OF APPROVED EROSION AND SEDIMENTATION CONTROL PLAN IS BEING FOLLOWED. RULES DETAILING THE DOCUMENTATION OF THESE INSPECTIONS BECAME EFFECTIVE OCTOBER 1, 2010. TO SIMPLIFY DOCUMENTATION OF SELF-INSPECTION REPORTS AND NPDES SELF-MONITORING REPORTS, A COMBINED FORM IS NOW AVAILABLE. THE NEW FORM WAS DEVELOPED TO SATISFY THE REQUIREMENTS OF THE SEDIMENTATION POLLUTION CONTROL ACT AND THE NPDES STORMWATER PERMIT FOR CONSTRUCTION ACTIVITIES, NCG 0100.00, BEGINNING AUGUST 1, 2013. THE DIVISION OF ENERGY, MINERAL, AND LAND RESOURCES IS RESPONSIBLE FOR ADMINISTERING BOTH THE SPCA AND THE NPDES STORMWATER PERMIT FOR CONSTRUCTION ACTIVITIES. NCG 0100.00, THE COMBINED FORM SHOULD MAKE IT EASIER TO COMPLY WITH SELF-INSPECTION REQUIREMENTS. THE COMBINED SELF-MONITORING FORM IS AVAILABLE AS A PDF AND WORD DOCUMENT FROM THE LAND QUALITY WEB SITE, [HTTP://PORTAL.NC DENR.ORG/WEB/LOR/EROSION](http://portal.ncdenr.org/web/lor/erosion) IF YOU HAVE QUESTIONS, PLEASE CONTACT THE LAND QUALITY SECTION AT NCDEQ REGIONAL OFFICE.

**MAINTENANCE NOTES:**

DURING THE DEVELOPMENT OF A SITE, THE DEVELOPER SHALL INSTALL AND MAINTAIN ALL TEMPORARY AND PERMANENT STORMWATER CONTROL MEASURES AS REQUIRED BY THE APPROVED PLAN OR ANY PROVISION OF THIS ARTICLE. THE ACT OR ANY ORDER ADOPTED PURSUANT TO THIS ARTICLE OR THE ACT, AFTER SITE DEVELOPMENT, THE DEVELOPER SHALL INSTALL AND/OR MAINTAIN ALL NECESSARY PERMANENT STORMWATER CONTROL MEASURES SPECIFIED IN THE APPROVED PLAN, EXCEPT THOSE MEASURES INSTALLED WITHIN A ROAD OR STREET RIGHT-OF-WAY OR EASEMENT ACCEPTED FOR MAINTENANCE BY A GOVERNMENTAL AGENCY. CONVEYANCE OF THE PROPERTY SHALL NOT TERMINATE THE ORIGINAL DEVELOPER'S OBLIGATIONS UNDER THIS ARTICLE UNTIL SUCH TIME AS A REPLACEMENT PERMIT IS APPROVED BY THE COUNTY ENGINEER, OR DESIGNEE. THE ORIGINAL DEVELOPER SHALL INCLUDE IN THE DEED CONVEYING THE PROPERTY NOTICE OF THE EXISTENCE OF THE STORMWATER CONTROL MEASURES AND THE PURCHASER'S OBLIGATIONS TO MAINTAIN AND INSPECT THEM AND TO OBTAIN A PERMIT AND OTHERWISE COMPLY WITH THE TERMS OF THIS ARTICLE. REFER TO THE EROSION CONTROL DETAILS SHEET FOR ADDITIONAL MAINTENANCE NOTES. THE FOLLOWING ITEMS WILL BE CHECKED IN PARTICULAR:

- CONSTRUCTION ENTRANCE:**  
INSPECT CONSTRUCTION ROADS AND PARKING AREAS PERIODICALLY FOR CONDITION OF SURFACE. TOP DRESS WITH NEW GRAVEL AS NEEDED. CHECK ROAD DITCHES AND OTHER SEEDED AREAS FOR EROSION AND SEDIMENTATION AFTER RUNOFF-PRODUCING RAINS. MAINTAIN ALL VEGETATION IN A HEALTHY, VIGOROUS CONDITION. SEDIMENT PRODUCING AREAS SHOULD BE TREATED IMMEDIATELY.
- SILT FENCE:**  
INSPECT SEDIMENT FENCES AT LEAST ONCE A WEEK AND AFTER EACH RAINFALL. MAKE ANY REQUIRED REPAIRS IMMEDIATELY. SHOULD THE FABRIC OF A SEDIMENT FENCE COLLAPSE, TEAR, DECOMPOSE, OR BECOME INEFFECTIVE, REPLACE IT IMMEDIATELY. REMOVE SEDIMENT DEPOSITS AS NECESSARY TO PROVIDE ADEQUATE STORAGE VOLUME FOR THE NEXT RAIN AND TO REDUCE PRESSURE ON THE FENCE. TAKE CARE TO AVOID UNDERMINING THE FENCE DURING CLEANOUT. REMOVE ALL FENCING MATERIALS AND UNSTABLE SEDIMENT DEPOSITS AND BRING THE AREA TO GRADE AND STABILIZE IT AFTER THE CONTRIBUTING DRAINAGE AREA HAS BEEN PROPERLY STABILIZED.
- SILT FENCE GRAVEL OUTLET:**  
INSPECT SEDIMENT FENCE GRAVEL OUTLETS AT LEAST ONCE A WEEK AND AFTER EACH RAINFALL. MAKE ANY REQUIRED REPAIRS IMMEDIATELY. REMOVE SEDIMENT DEPOSITS AS NECESSARY TO PROVIDE ADEQUATE STORAGE VOLUME FOR THE NEXT RAIN. ANY RIP RAP DISPLACED MUST BE REPLACED IMMEDIATELY.
- BLOCK AND GRAVEL INLET PROTECTION:**  
INSPECT THE BARRIER OF AFTER EACH RAIN AND MAKE REPAIRS AS NEEDED. REMOVE SEDIMENT AS NECESSARY TO PROVIDE ADEQUATE STORAGE VOLUME FOR SUBSEQUENT RAINS. WHEN THE CONTRIBUTING DRAINAGE AREA HAS BEEN ADEQUATELY STABILIZED, REMOVE ALL MATERIALS AND ANY UNSTABLE SOIL, AND EITHER SALVAGE OR DISPOSE OF IT PROPERLY. BRING THE DISTURBED AREA TO PROPER GRADE, THEN SMOOTH AND COMPACT IT. APPROPRIATELY STABILIZE ALL BARE AREAS AROUND THE INLET.

**NPDES GROUND COVER REQUIREMENTS**

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

SILT FENCES SHOWN ON PLANS ARE FOR REPRESENTATIVE PURPOSES. CONSTRUCT DIRECTLY ALONG THE CLEARING LIMITS WHERE APPLICABLE.

SILT FENCE OUTLETS ARE TO BE PROVIDED ALONG ALL LOW POINTS OF SILT FENCE AND AREAS WHERE RUNOFF MAY CONCENTRATE CAUSING DAMAGE TO SILT FENCE. CONTRACTOR TO INSTALL OUTLETS AS NECESSARY TO ENSURE SILT FENCE IS FULLY FUNCTIONAL THROUGHOUT THE DURATION OF CONSTRUCTION.

REFER TO GENERAL NOTES SHEET C0.1 FOR EROSION CONTROL, SEEDING PREPARATION, AND SEEDING SCHEDULE NOTES FOR BOTH PHASES.

DISTURBED AREA: 1.53 AC

**EROSION CONTROL LEGEND**

- PROPERTY LINE
- TCE- TEMPORARY CONSTRUCTION EASEMENT
- LOD- LIMITS OF DISTURBANCE
- SF- SILT FENCE
- TPF- TREE PROTECTION FENCE
- SF/TPF- COMBINATION TREE PROTECTION/SILT FENCE
- > TD -> TD- TEMPORARY DIVERSION DITCH
- > TD(CW) -> TD(CW)- CLEAN WATER DIVERSION DITCH
- X- SEDIMENT BASIN POROUS Baffles
- > PUMP DISCHARGE HOSE
- 805- EXISTING CONTOUR
- 805- PROPOSED CONTOUR
- - - DRAINAGE AREA BOUNDARY
- [Symbol] CE- CONSTRUCTION ENTRANCE
- [Symbol] SILT FENCE OUTLET
- [Symbol] CONCRETE WASHOUT STATION
- [Symbol] ROCK CHECK DAM
- [Symbol] INLET PROTECTION
- [Symbol] ROCK PIPE INLET PROTECTION
- [Symbol] SKIMMER
- [Symbol] TEMPORARY SLOPE DRAIN
- [Symbol] RIP-RAP OUTLET PROTECTION
- [Symbol] SILT BAG
- [Symbol] DESIGNATED AREAS TO BE STABILIZED WITHIN 7 DAYS
- [Symbol] TEMPORARY EROSION CONTROL MATTING

- PHASE 2 CONSTRUCTION SEQUENCE:**
- THE FOLLOWING PHASE 2 CONSTRUCTION SEQUENCE IS FURNISHED AS A GENERAL GUIDE FOR PREPARATION OF A SEQUENCE OF CONSTRUCTION EVENTS.
  - MAINTAIN CONSTRUCTION ENTRANCE AND SILT FENCE.
  - CALL FOR ON-SITE INSPECTION BY INSPECTOR ONCE ALL PHASE 2 EROSION CONTROL MEASURES ARE INSTALLED. OBTAIN CERTIFICATE OF COMPLIANCE FROM WAKE COUNTY.
  - CONTRACTOR IS TO CUT AND/OR FILL AREAS TO BRING THE SITE TO THE PROPOSED GRADES SHOWN ON THE GRADING AND DRAINAGE PLANS. GRADING ACTIVITY SHALL BE LIMITED TO WITHIN THE CLEARING LIMITS. MAINTAIN ALL EROSION CONTROL MEASURES AS NECESSARY.
  - PROVIDE GROUND COVER ON SLOPES GREATER THAN 3:1 WITHIN 7 DAYS FOLLOWING COMPLETION OF ANY PHASE OF GRADING. PROVIDE GROUND COVER TO ALL OTHER AREAS WITHIN 14 DAYS FOLLOWING COMPLETION OF ANY PHASE OF GRADING OR INACTIVITY.
  - INSTALL STORM DRAINAGE AND PROTECT INLETS WITH BLOCK AND GRAVEL INLET CONTROLS, SEDIMENT TRAPS, OR OTHER APPROVED MEASURES AS SHOWN ON THE PLAN.
  - STABILIZE SITE AS AREAS ARE BROUGHT UP TO FINISH GRADE WITH VEGETATION, PAVING, DITCH LININGS, ETC. SEED AND MULCH DENUDE AREAS PER GROUND STABILIZATION TIME FRAMES.
  - INSPECT AND REPAIR EROSION CONTROL MEASURES AFTER EVERY RAINFALL EVENT OF 1/2" OR GREATER OR EVERY SEVEN (7) CALENDAR DAYS.
  - ALL EROSION CONTROL MEASURES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE NC DENR EROSION AND SEDIMENT CONTROL PLANNING AND DESIGN MANUAL, U.S. DEPARTMENT OF AGRICULTURE, AND WAKE COUNTY EROSION CONTROL ORDINANCE.
  - REFER TO SHEET C0.1 - GENERAL NOTES FOR GENERAL EROSION CONTROL NOTES AND MAINTENANCE.
  - ALL EROSION CONTROL MEASURES TO REMAIN IN PLACE UNTIL +/- 80% STABILIZATION IS ACHIEVED.
  - ONCE CONSTRUCTION IS COMPLETE AND ENTIRE SITE IS STABILIZED, CALL FOR FINAL INSPECTION BY WAKE COUNTY ENVIRONMENTAL CONSULTANT. IF APPROVED, REMOVE REMAINING EROSION CONTROL MEASURES. ALL REMAINING PERMANENT EROSION CONTROL DEVICES SHOULD NOW BE INSTALLED.
  - WHEN VEGETATION HAS BECOME ESTABLISHED, CALL FOR A FINAL INSPECTION BY WAKE COUNTY ENVIRONMENTAL CONSULTANT. OBTAIN A CERTIFICATE OF COMPLETION.

**SURVEY NOTE:**  
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Plotted By: Alexander, Jamal Sheet Set: THE LEARNING CENTER ROLESVILLE, LAYOUT C5.1 EROSION CONTROL PLAN - PHASE 2, January 02, 2024, 05:58:41pm, K:\REAL\_DRAWINGS\13031004\_Rolesville\_Learning\_Center\10\_CAD Files\PlanSheets\C502 EROSION CONTROL PLAN.dwg  
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ANDELIA P. WATKINS  
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PIN #1759.20-80-4047

N/F  
SPIRIT MASTER FUNDING VII, LLC  
D.B. 15550, PG. 841  
B.M. 2007, PG. 143  
PIN #1759.20-80-7165



SDP-23-07

THE LEARNING CENTER ROLESVILLE  
PREPARED FOR  
ROLESVILLE, LLC.  
TOWN OF ROLESVILLE  
NORTH CAROLINA

EROSION CONTROL PLAN - PHASE 2

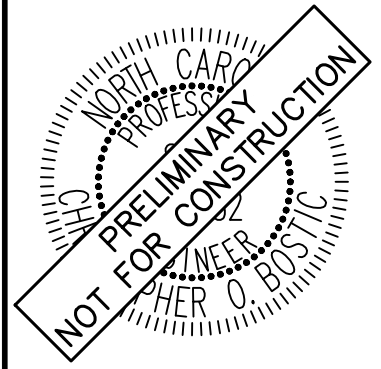
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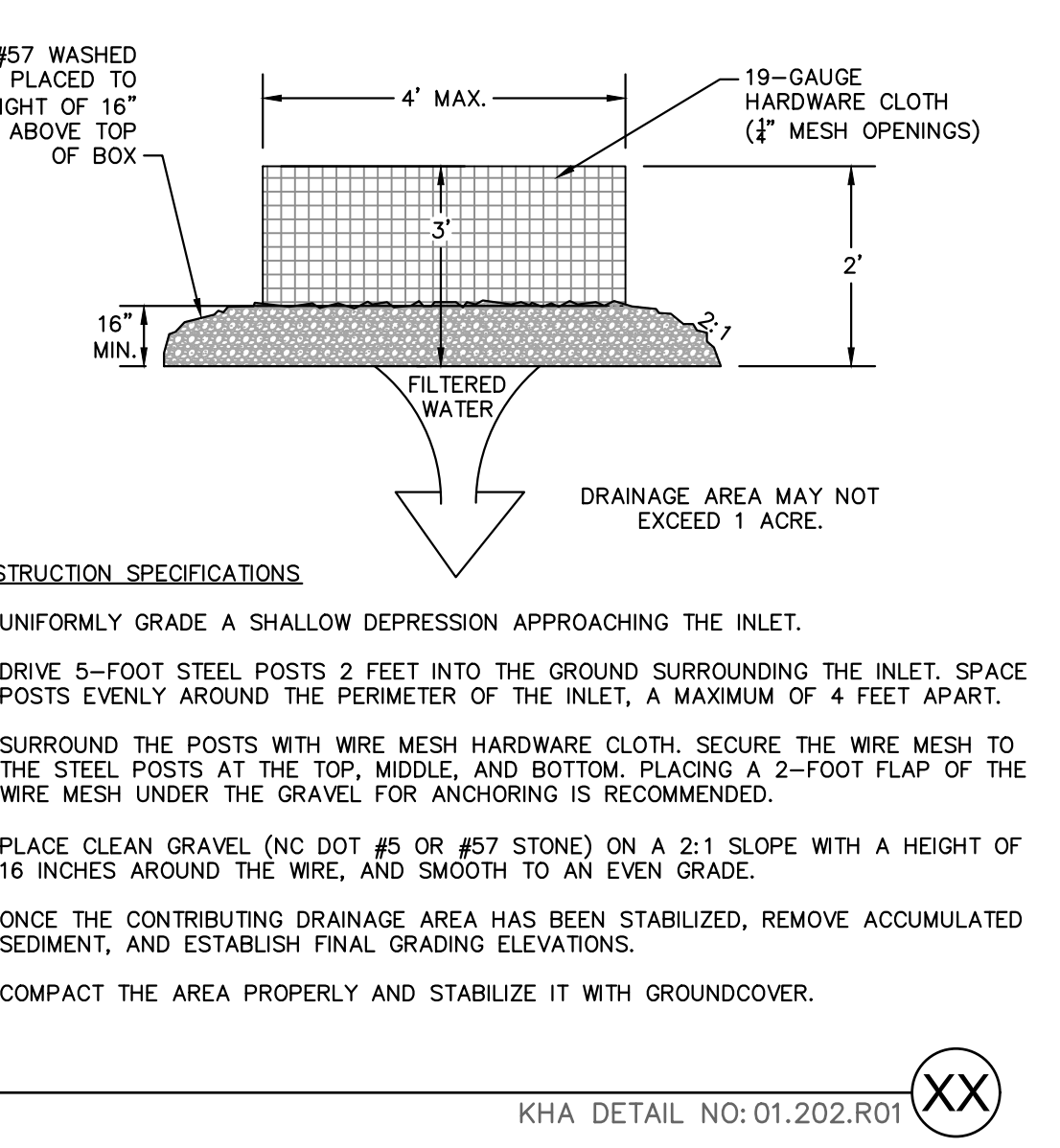
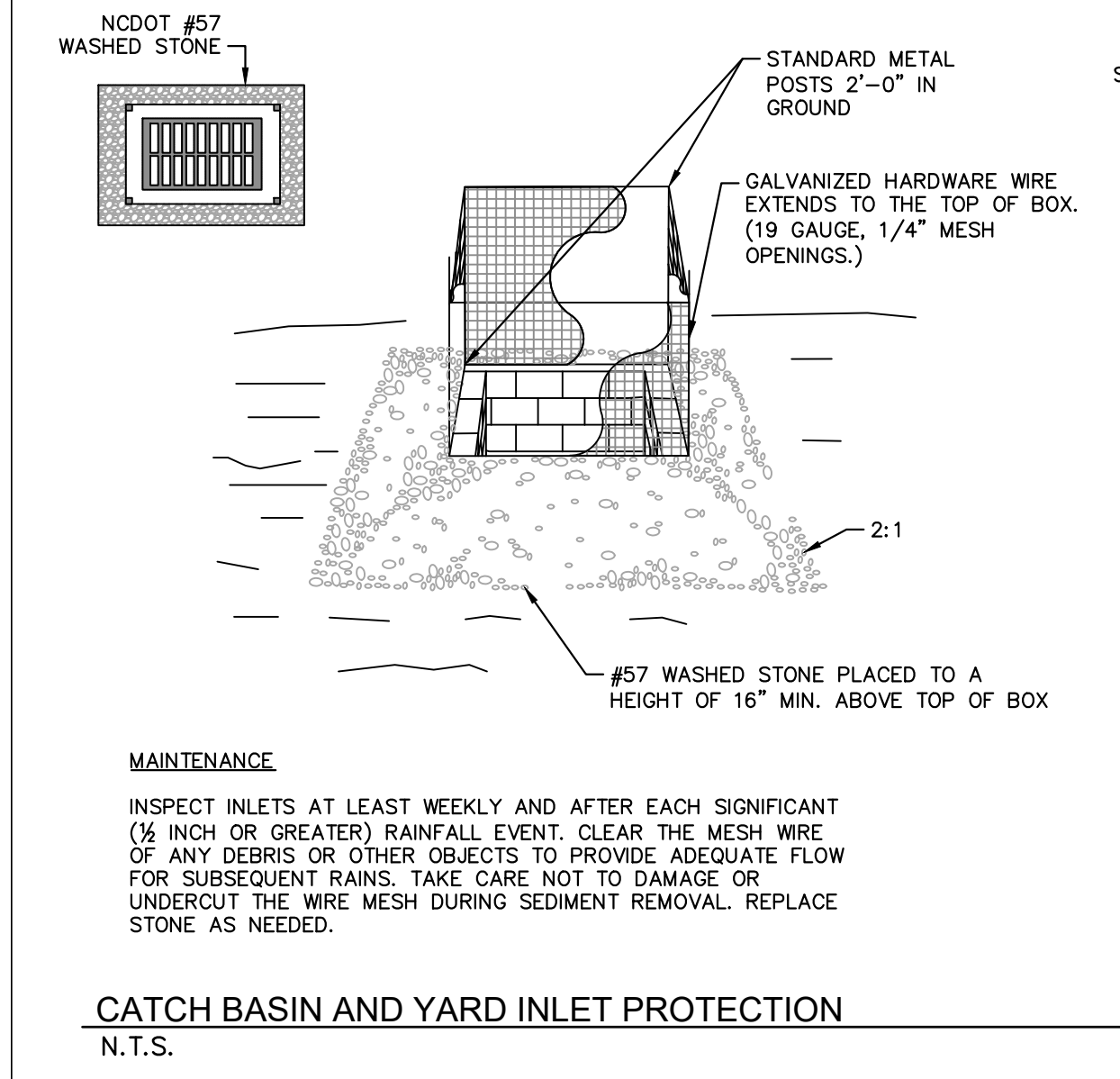
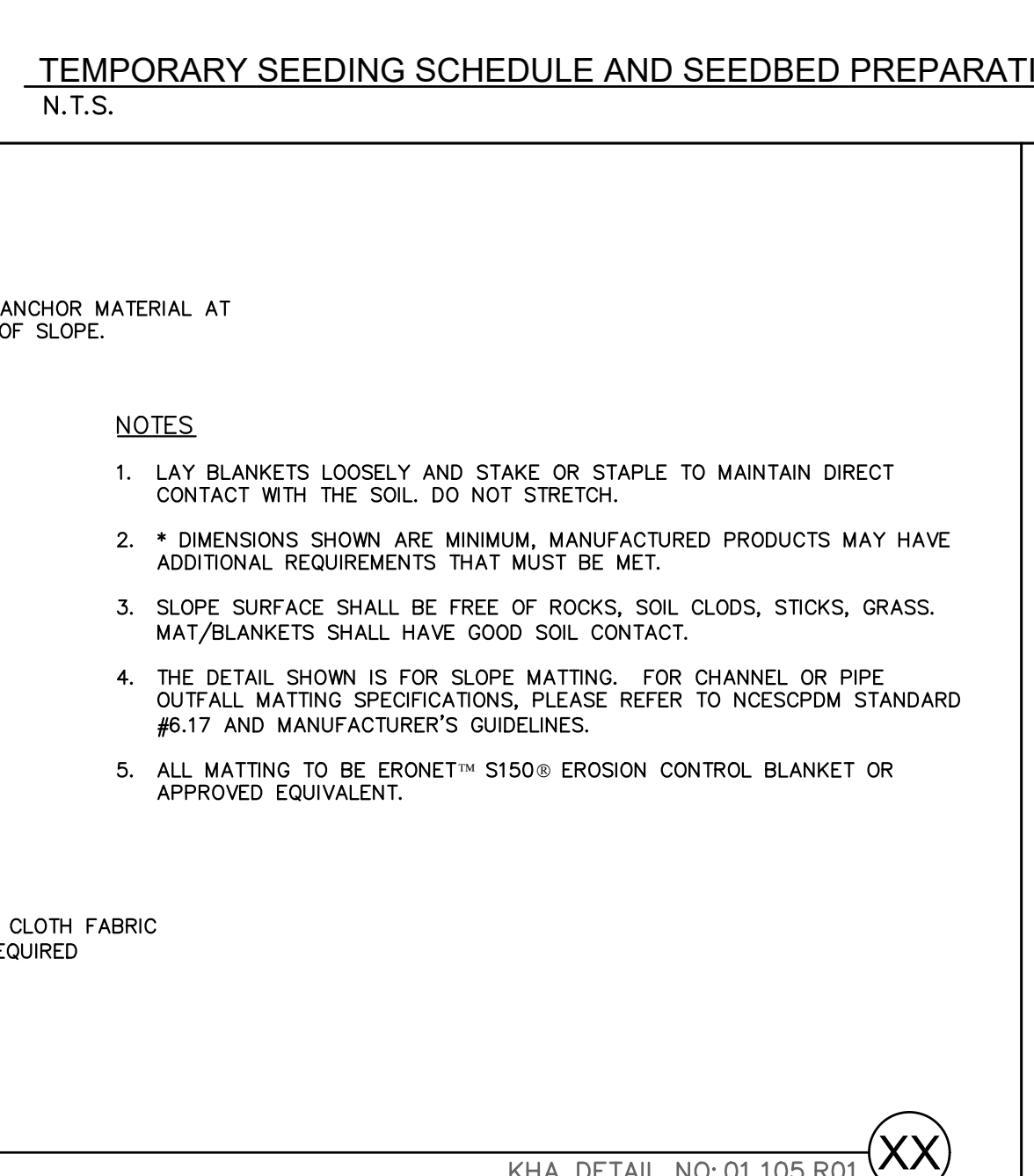
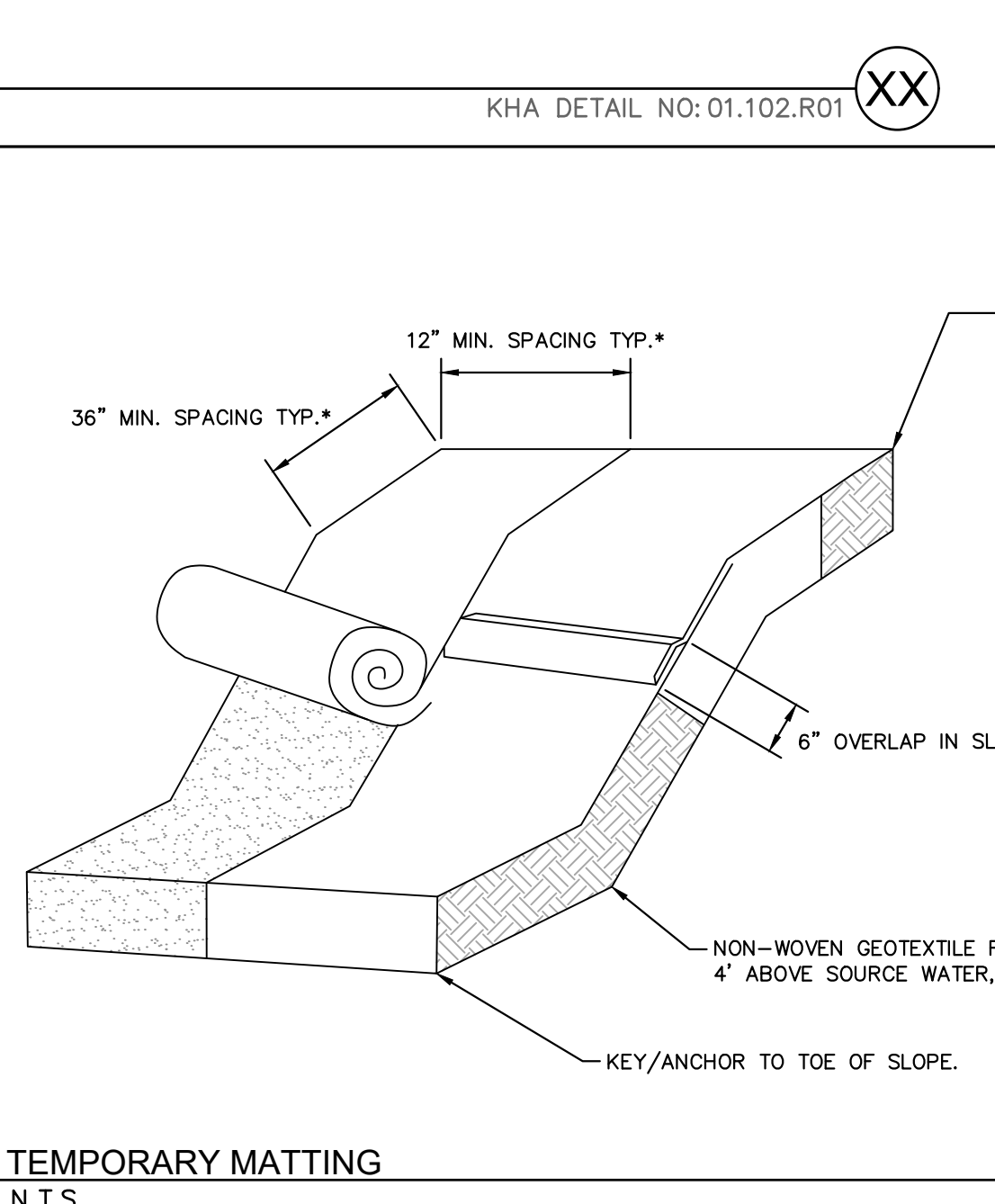
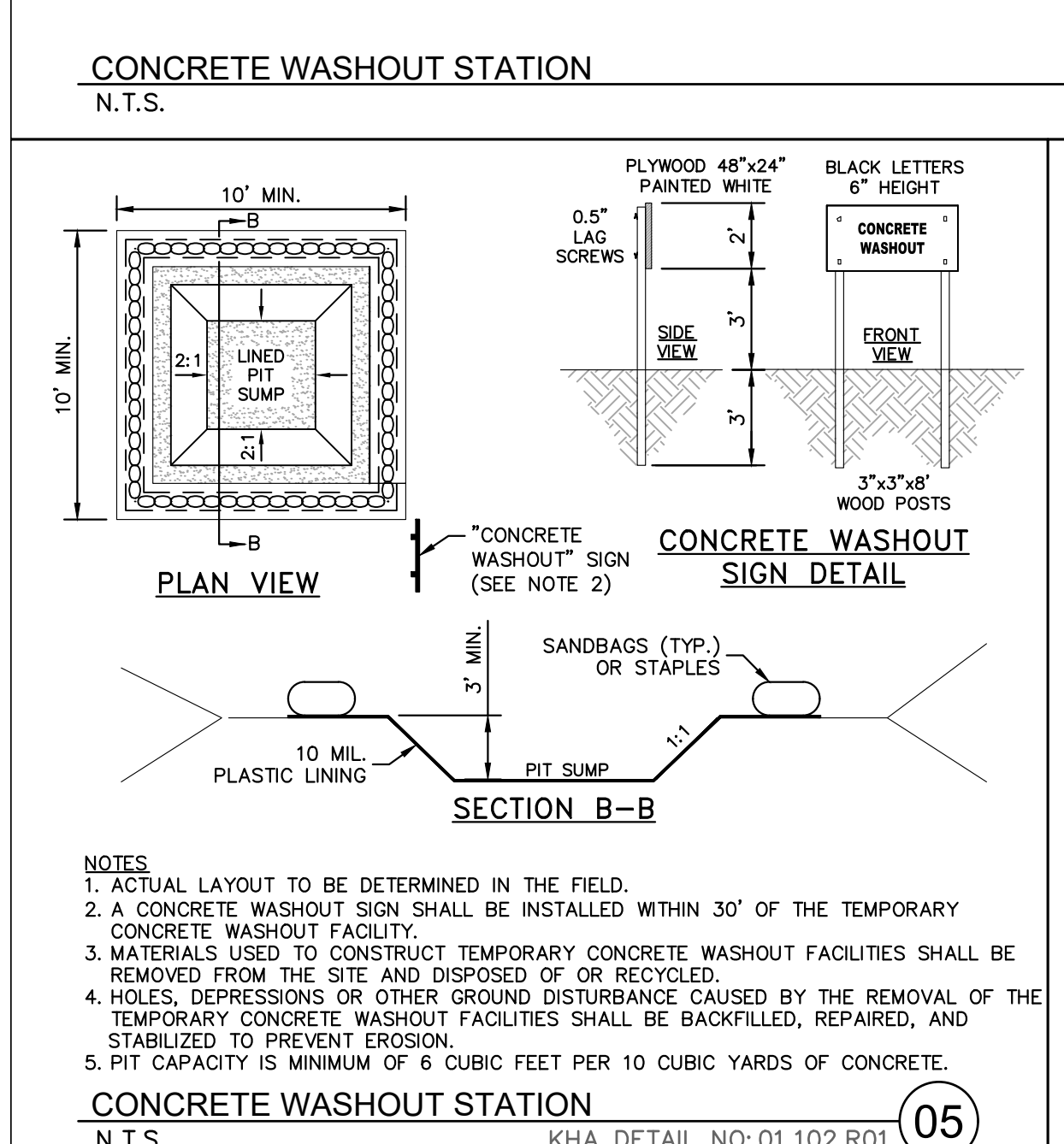
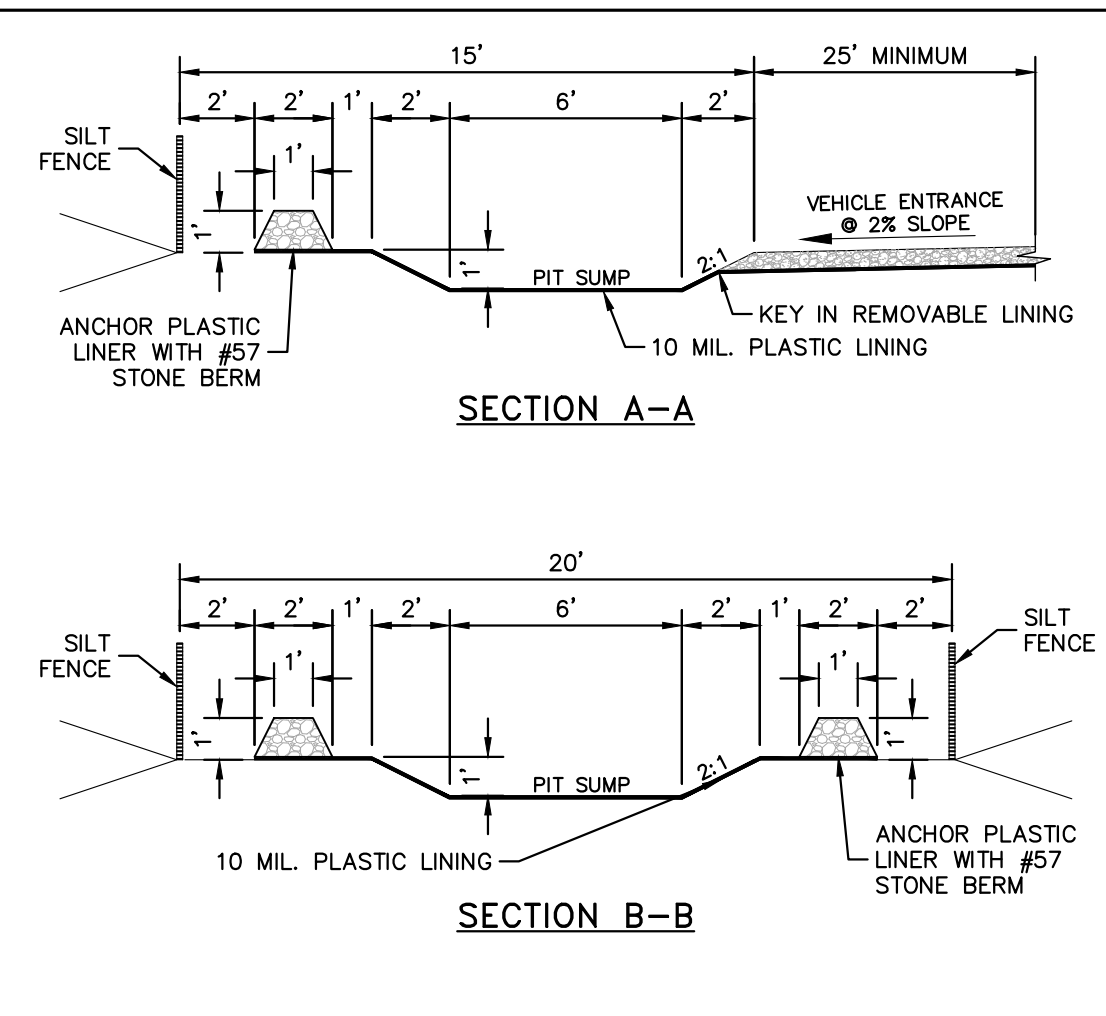
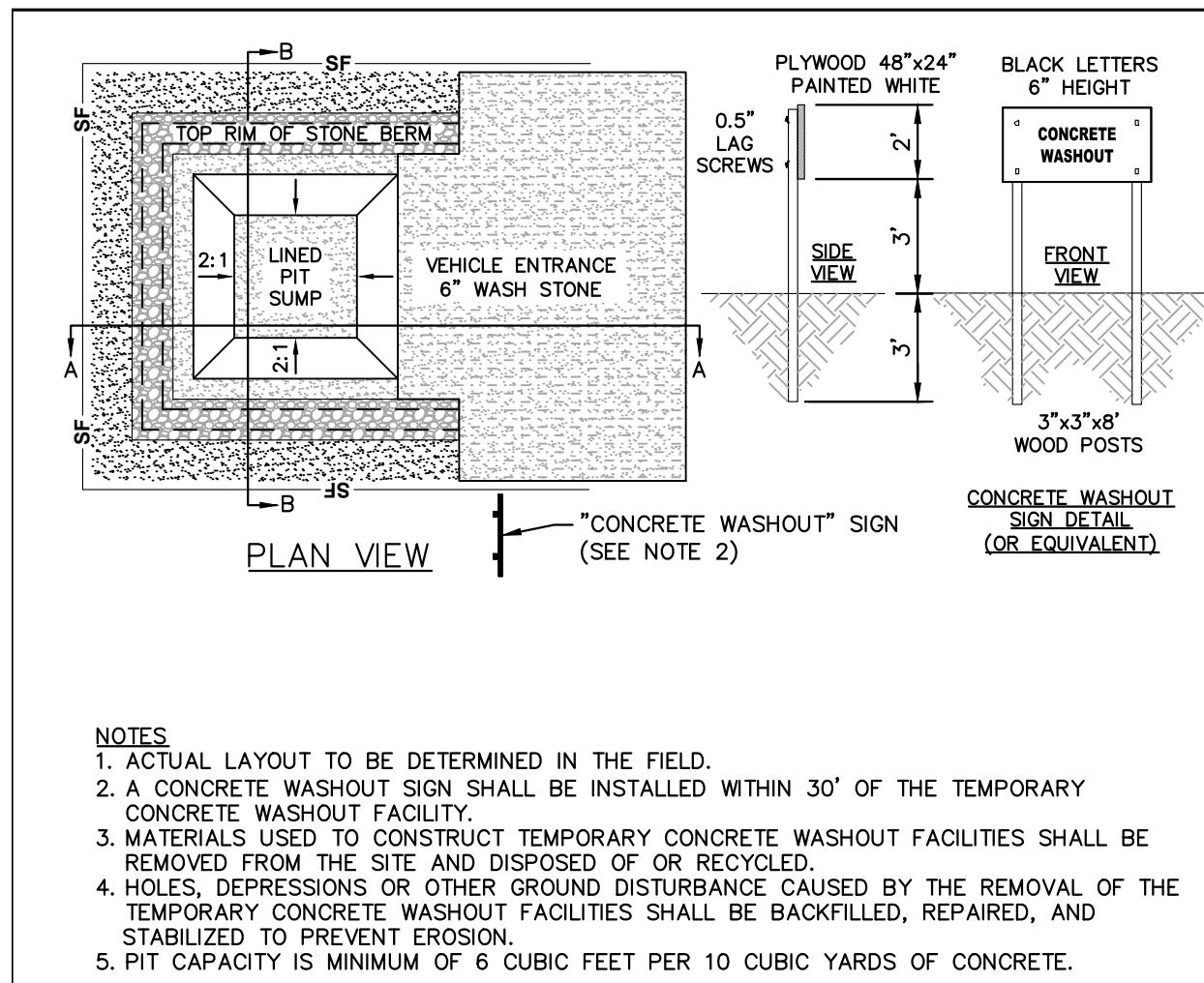
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KHA PROJECT: 013031004  
DATE: 09/29/2023  
SCALE: AS SHOWN  
DESIGNED BY: JAA  
DRAWN BY: JAA  
CHECKED BY: COE



Plotted By: Alexander, Jamal Sheet Set: THE LEARNING CENTER ROLESVILLE EROSION CONTROL DETAILS January 02, 2024 09:06:49pm K:\RAL\_LDEV\013031004\_Rolesville\_Leaning\_Center\10\_CAD Files\PlanSheets\C5.2 EROSION CONTROL DETAILS.dwg  
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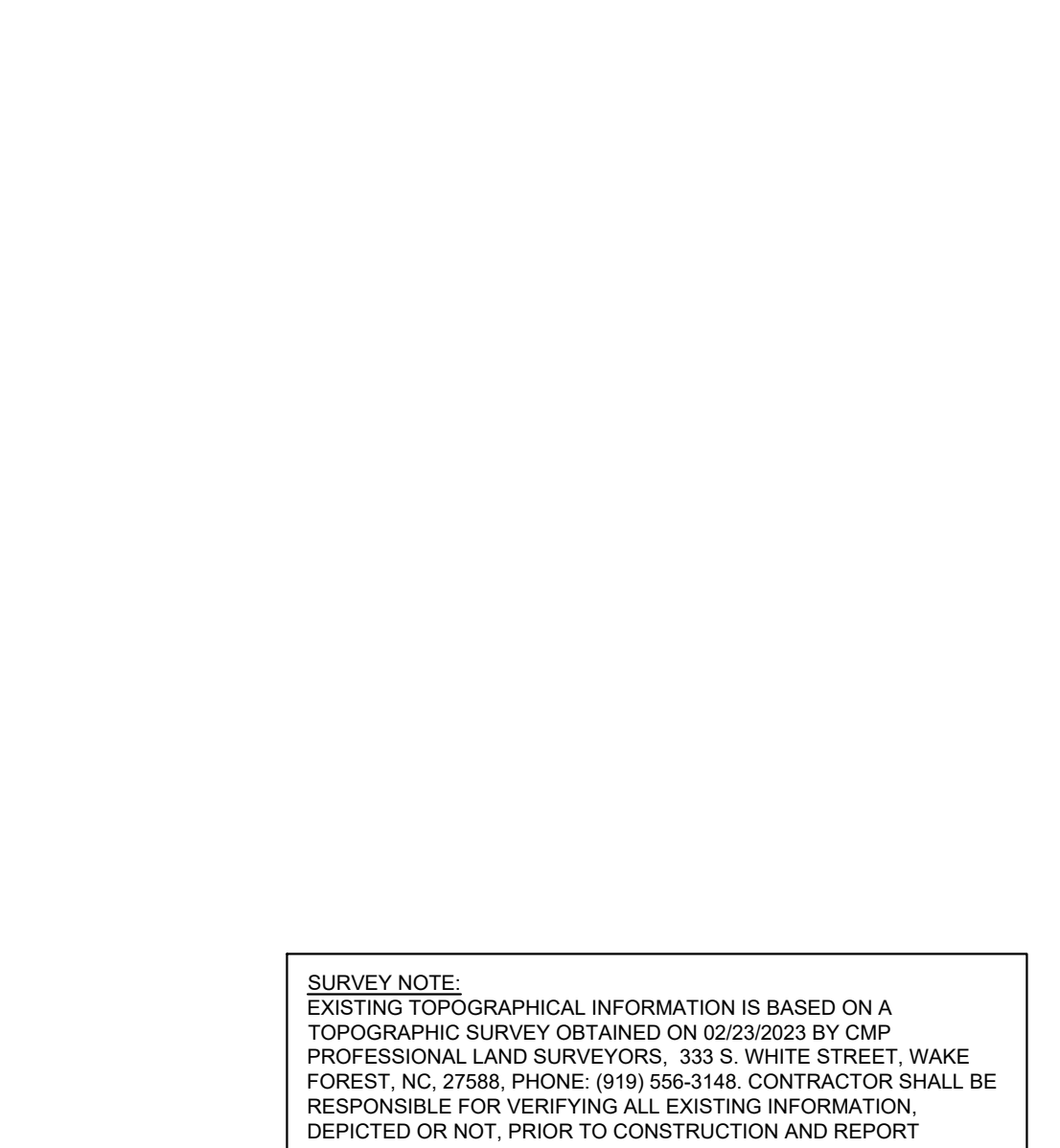
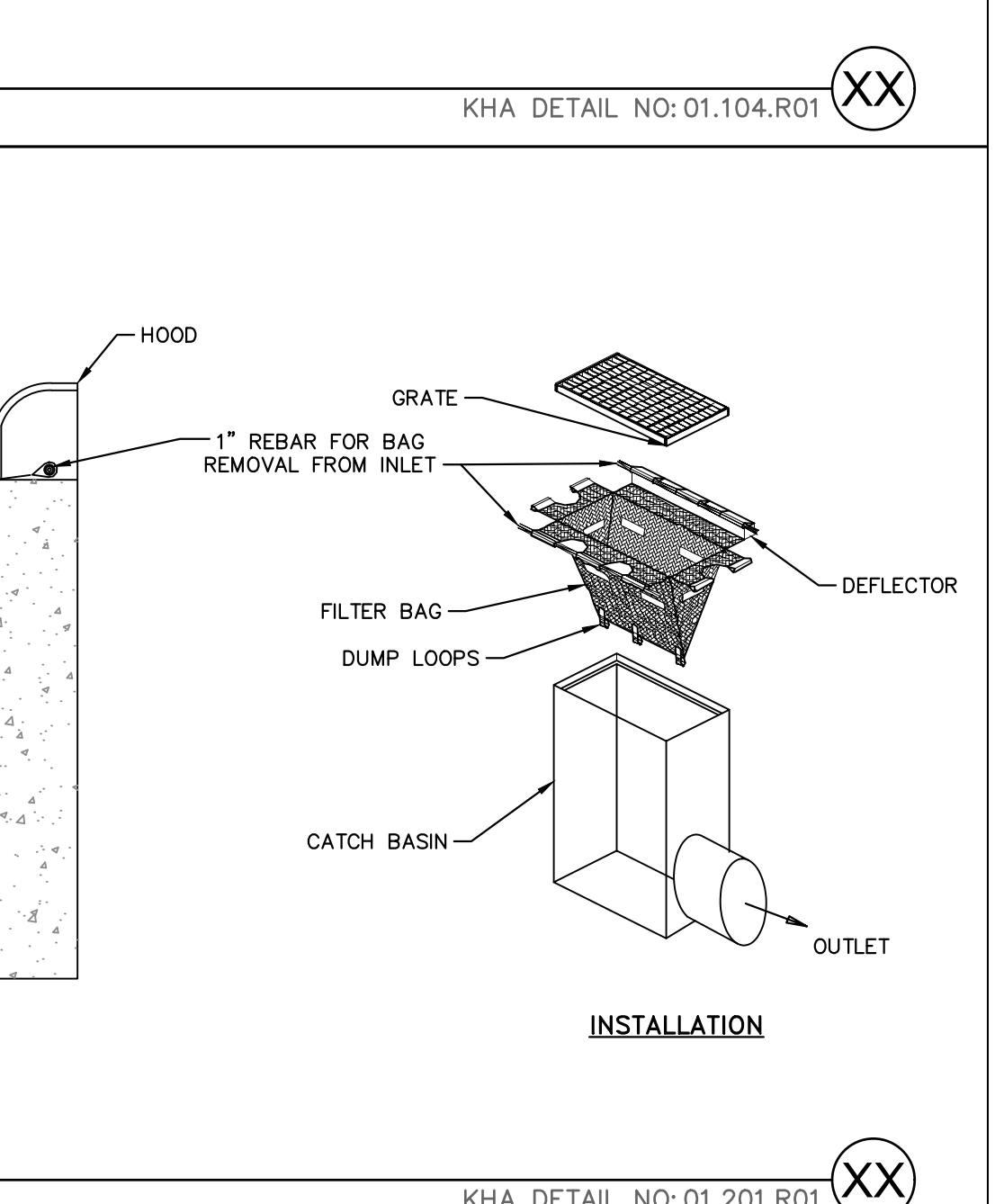
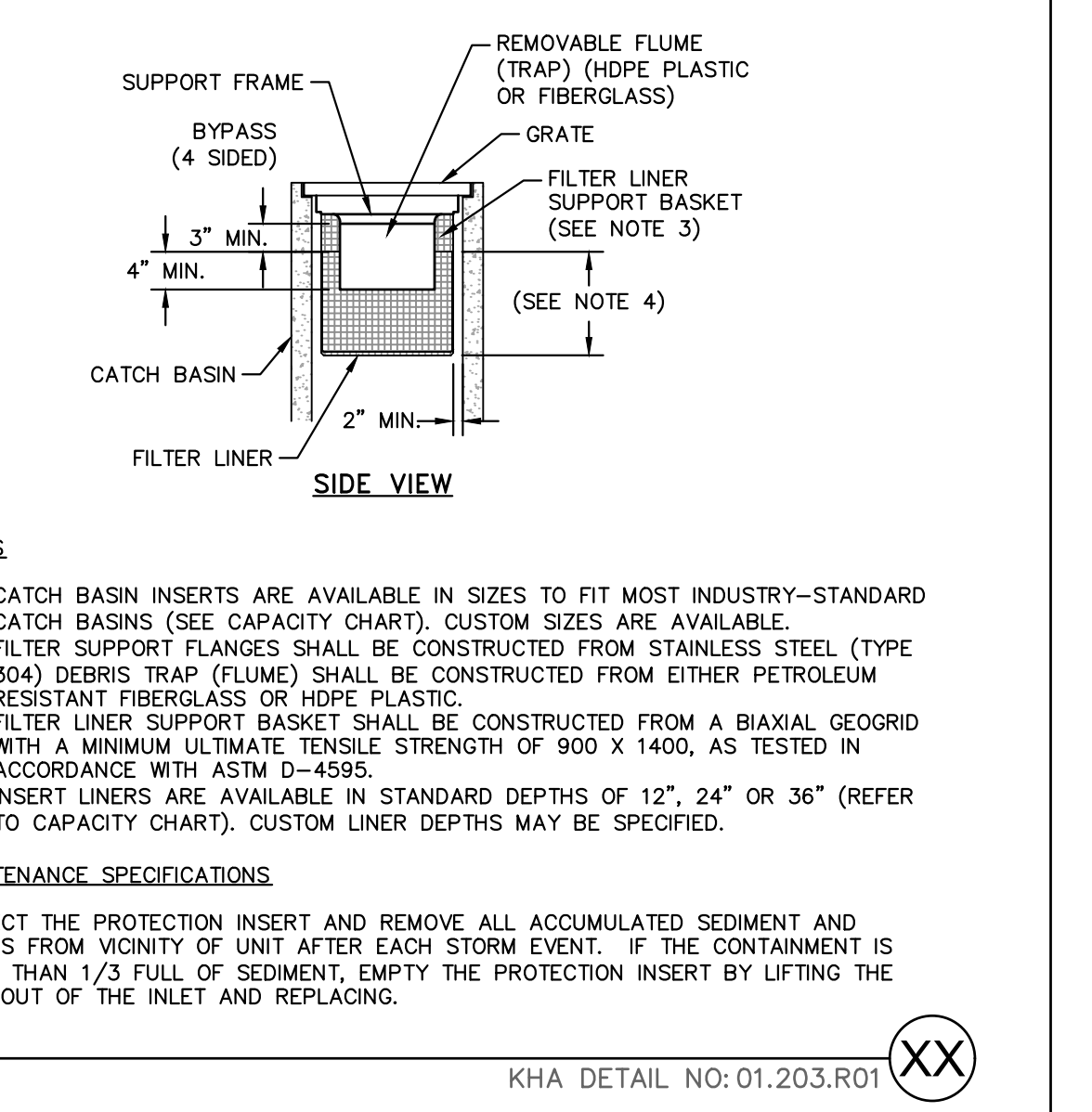
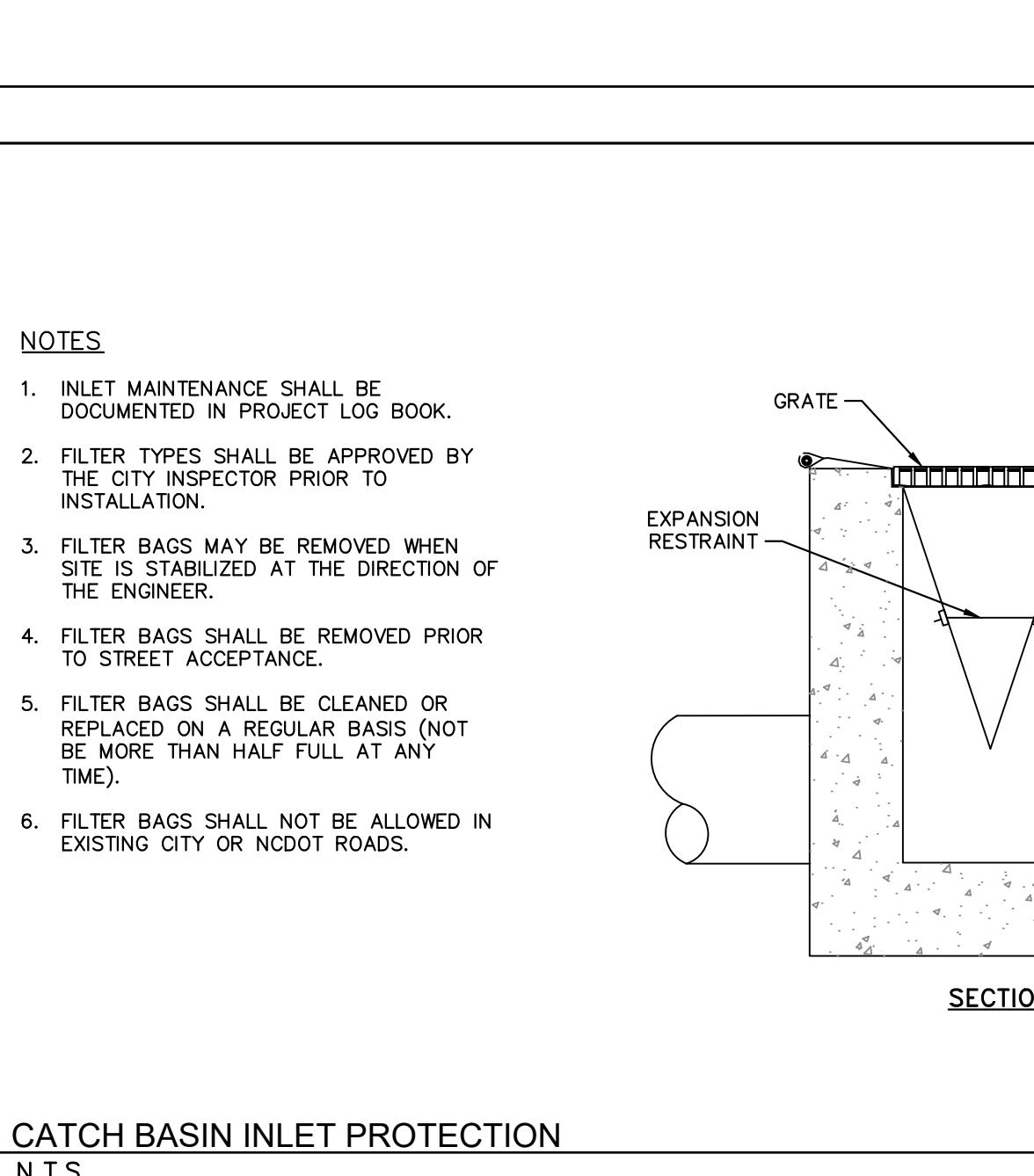
**CAPACITY CHART**

MODEL NO.	INLET SIZE	LINER DEPTH	STORAGE CAPACITY*	CLEAN FLOW RATE**
FF-2424HC	24" x 24"	12"	1.67 CU. FT.	470 GPM
"	24" x 24"	24"	4.18 CU. FT.	914 GPM
"	24" x 24"	36"	6.69 CU. FT.	1,357 GPM
FF-2436HC	24" x 36"	12"	2.55 CU. FT.	641 GPM
"	24" x 36"	24"	6.38 CU. FT.	1,201 GPM
"	24" x 36"	36"	10.20 CU. FT.	1,761 GPM
FF-3636HC-60	36" x 36"	12"	3.36 CU. FT.	772 GPM
"	36" x 36"	24"	8.39 CU. FT.	1,402 GPM
"	36" x 36"	36"	13.43 CU. FT.	2,032 GPM

\* STORAGE CAPACITY REFLECTS MAXIMUM SOLIDS COLLECTION PRIOR TO IMPEDING BYPASS.  
\*\* FLOW RATES ARE "CALCULATED CLEAN FLOW RATES" BASED ON LINER MATERIAL FLOW RATE OF 70 GPM/SQ. FT. (RECOMMEND APPLYING FACTOR OF .25 TO .50 TO FLOW RATES TO ALLOW FOR SEDIMENT AND DEBRIS)

**CATCH BASIN SILT PROTECTION INSERT**  
N.T.S.

KHA DETAIL NO: 01.203.R01 (XX)



THE LEARNING CENTER ROLESVILLE  
 PREPARED FOR  
 ROLESVILLE, LLC.  
 TOWN OF ROLESVILLE  
 NORTH CAROLINA

EROSION CONTROL  
 DETAILS

SHEET NUMBER  
 C5.2

KHA PROJECT  
 013031004

DATE  
 09/29/2023

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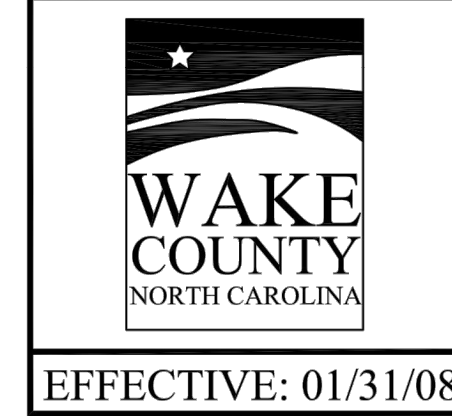
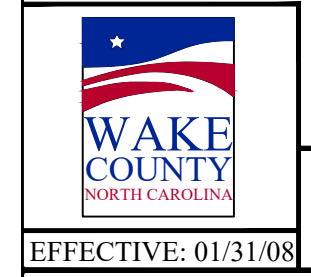
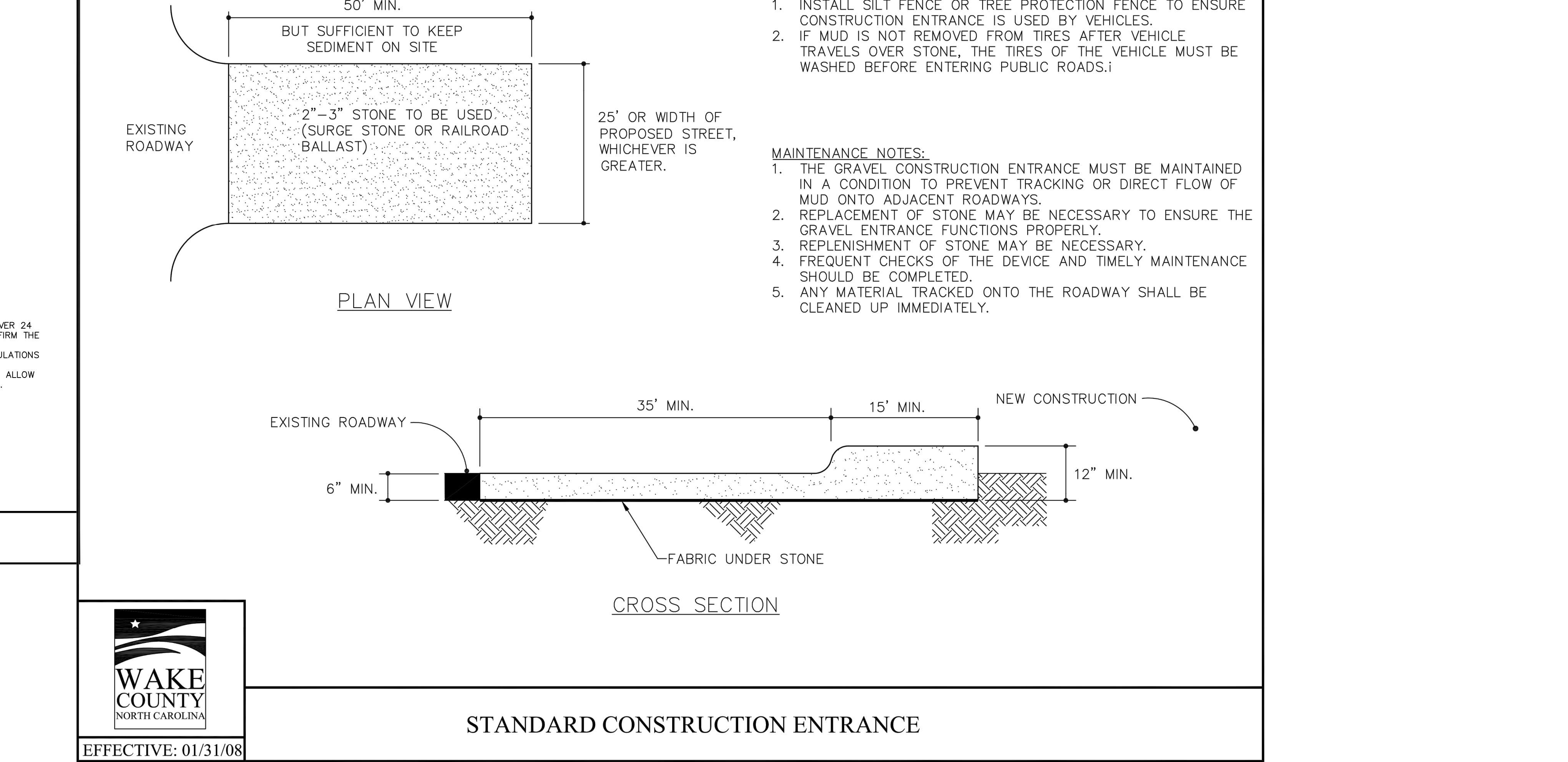
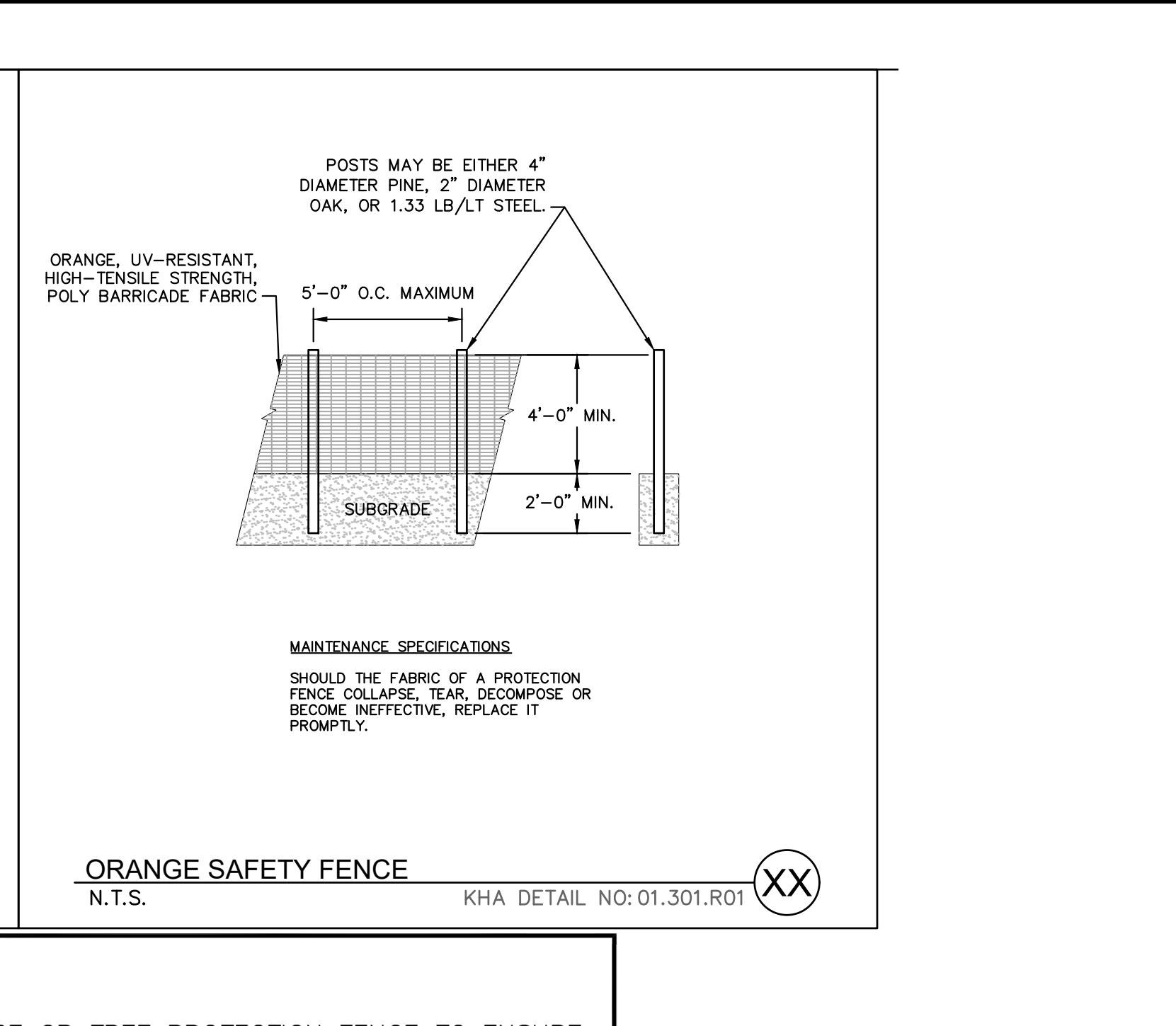
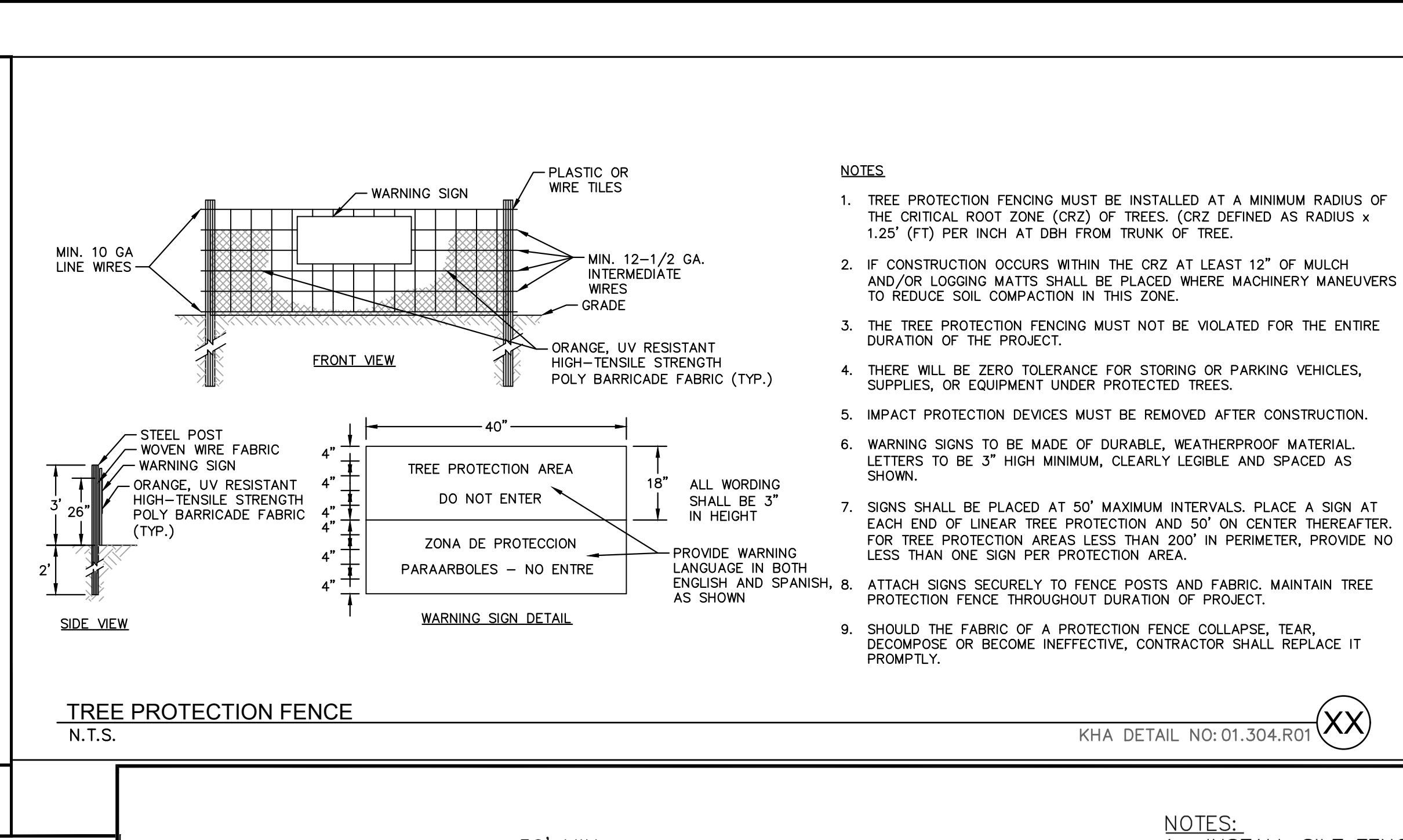
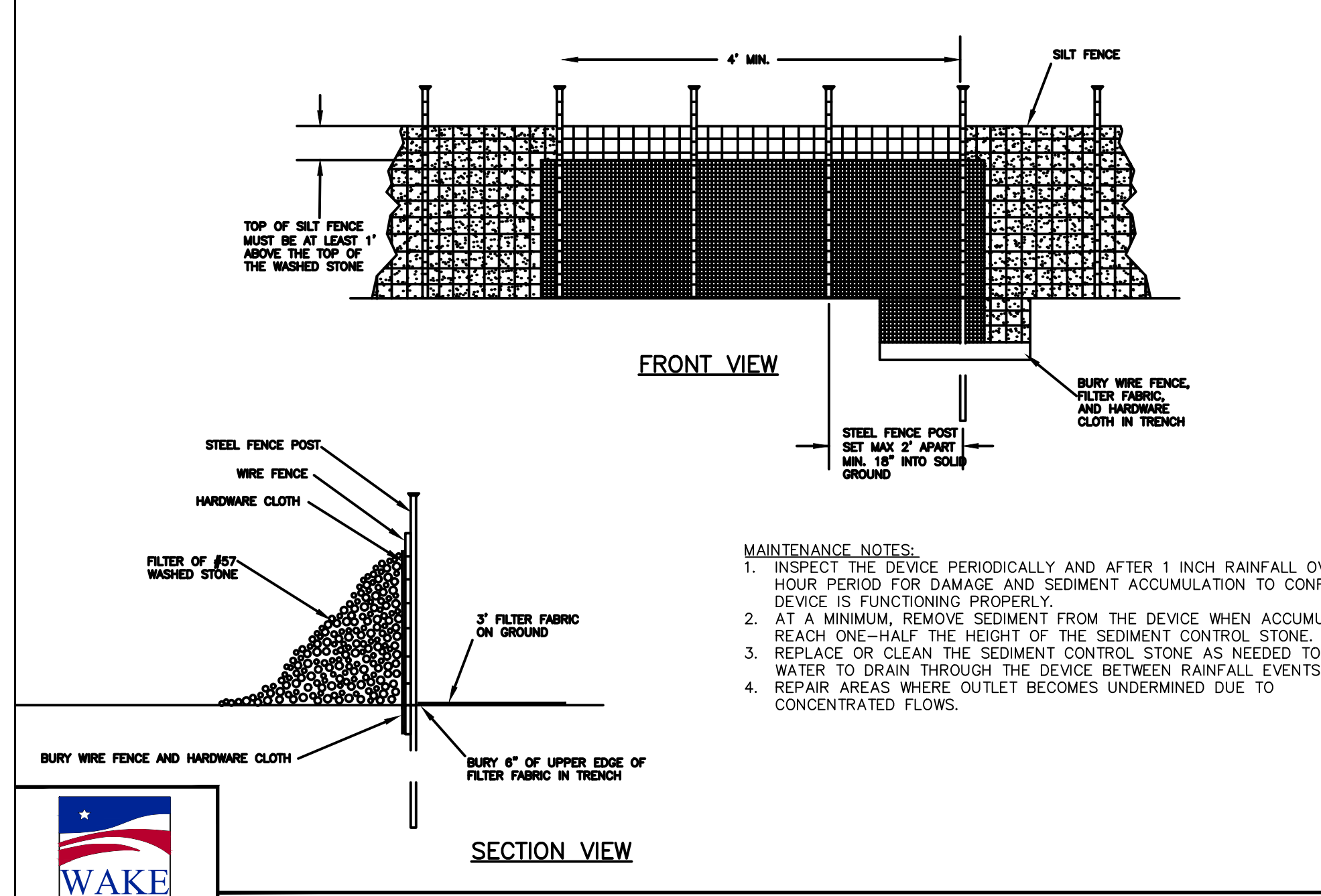
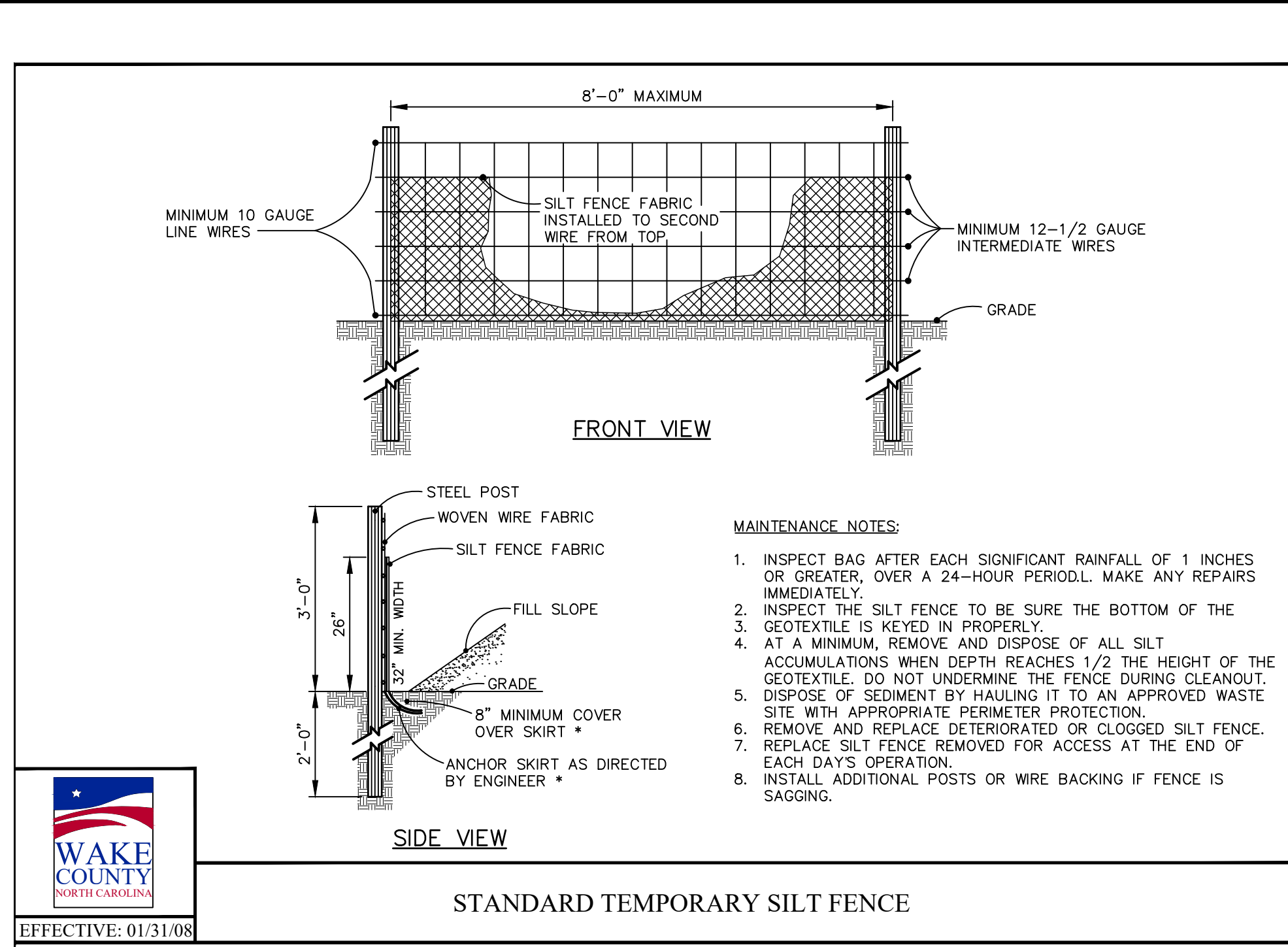
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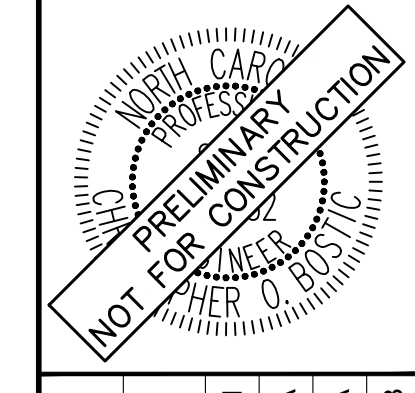
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KHA PROJECT	013031004
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**THE LEARNING CENTER ROLESVILLE**

**EROSION CONTROL DETAILS**

**THE LEARNING CENTER ROLESVILLE**

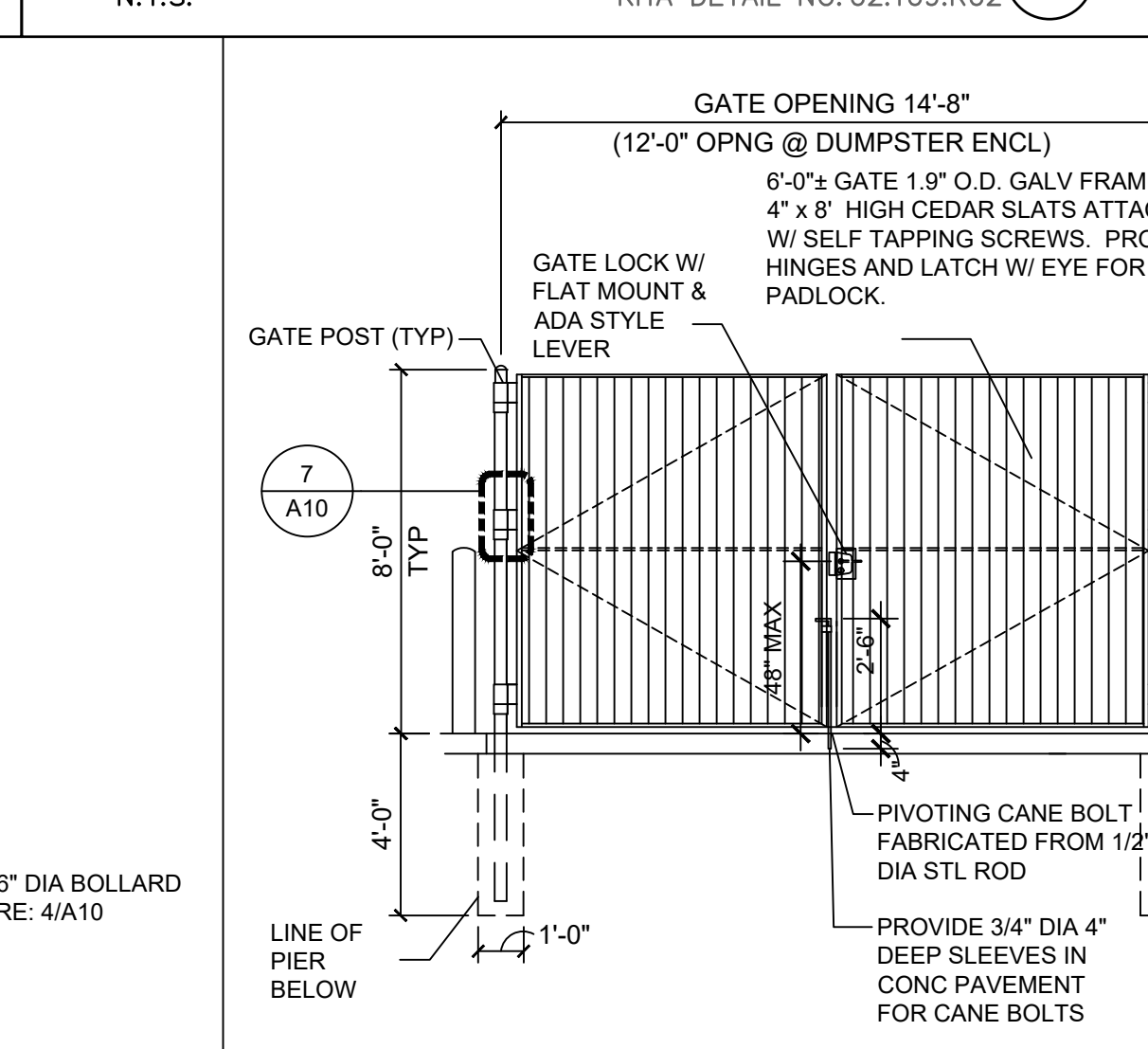
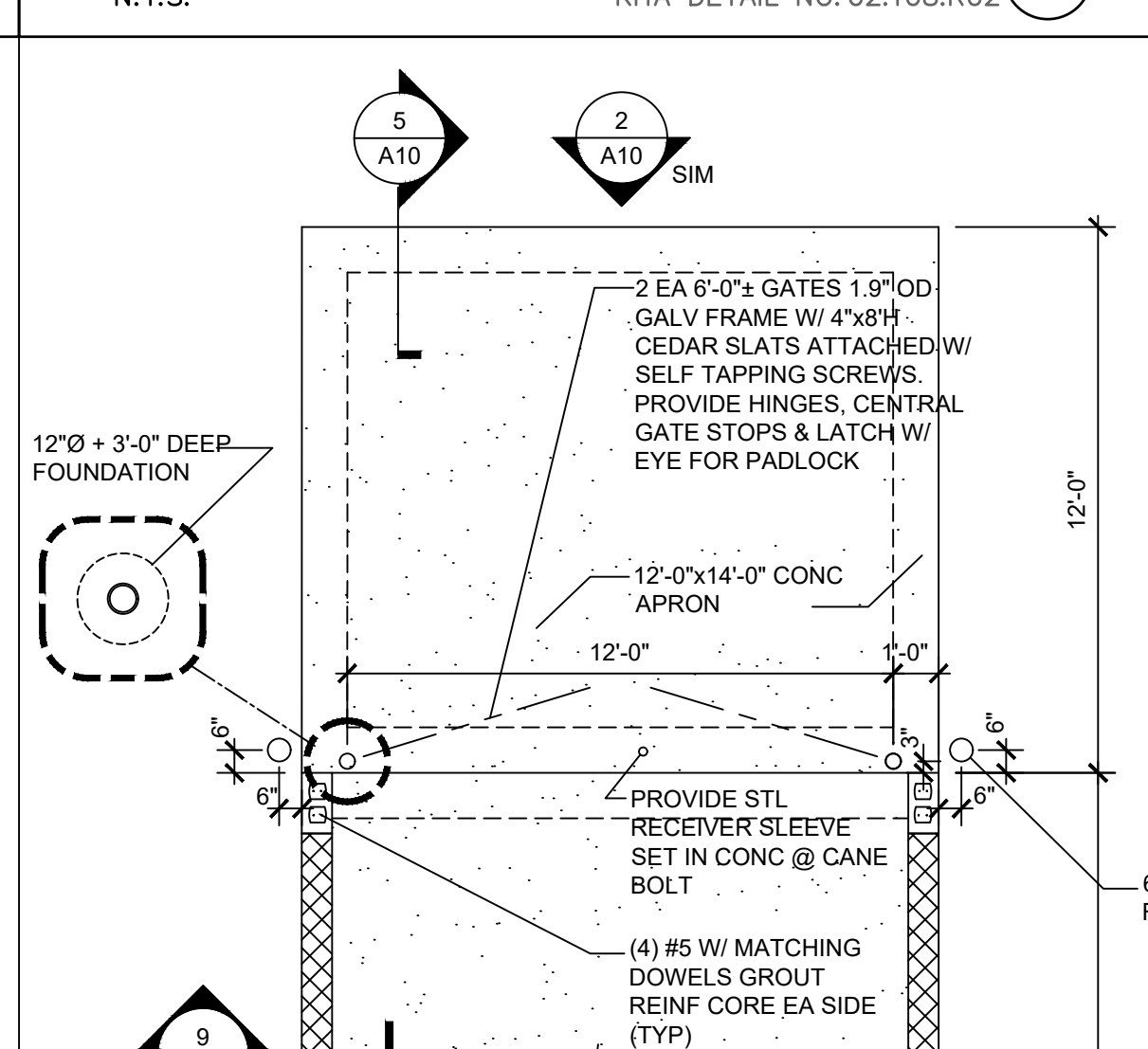
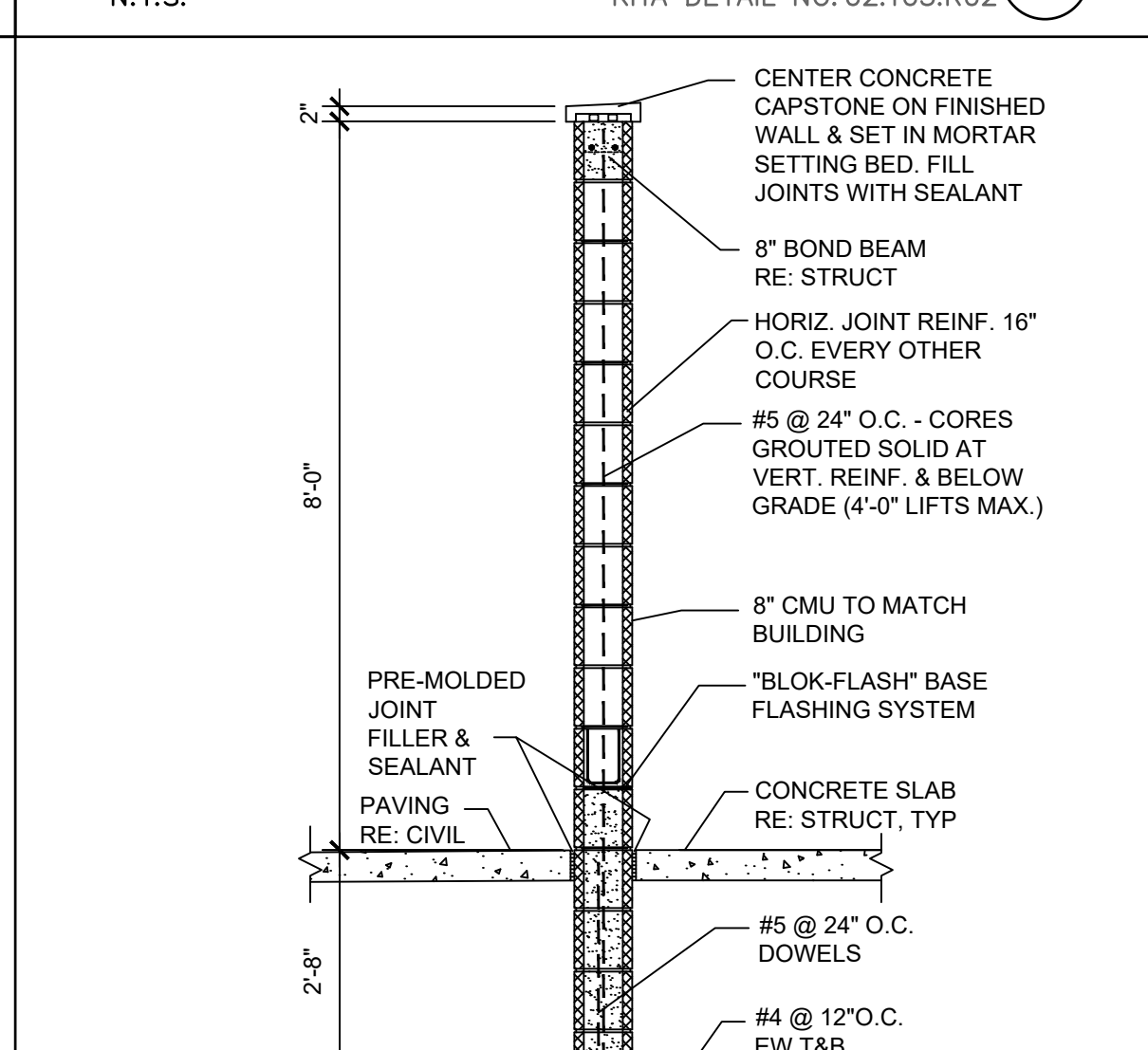
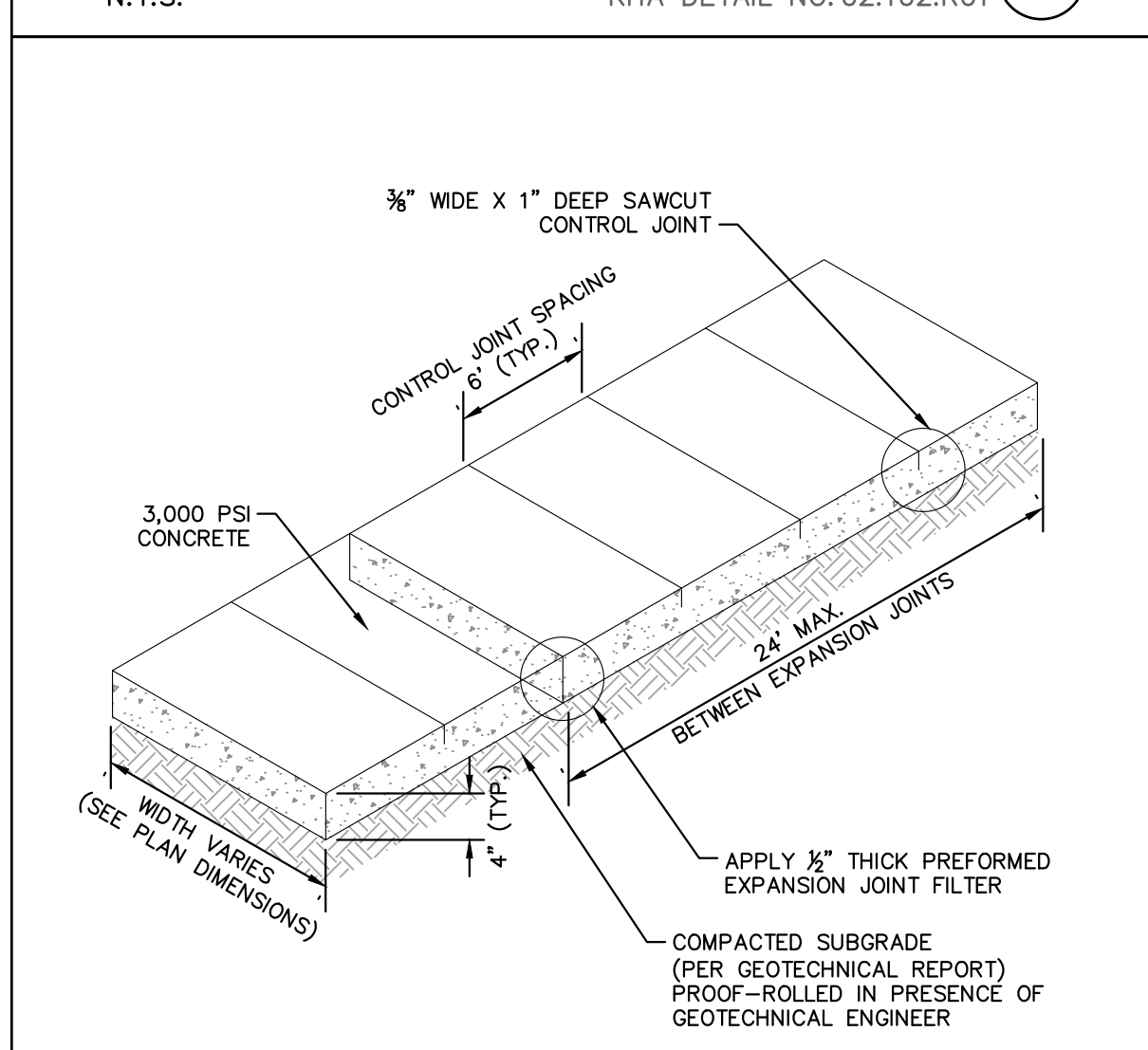
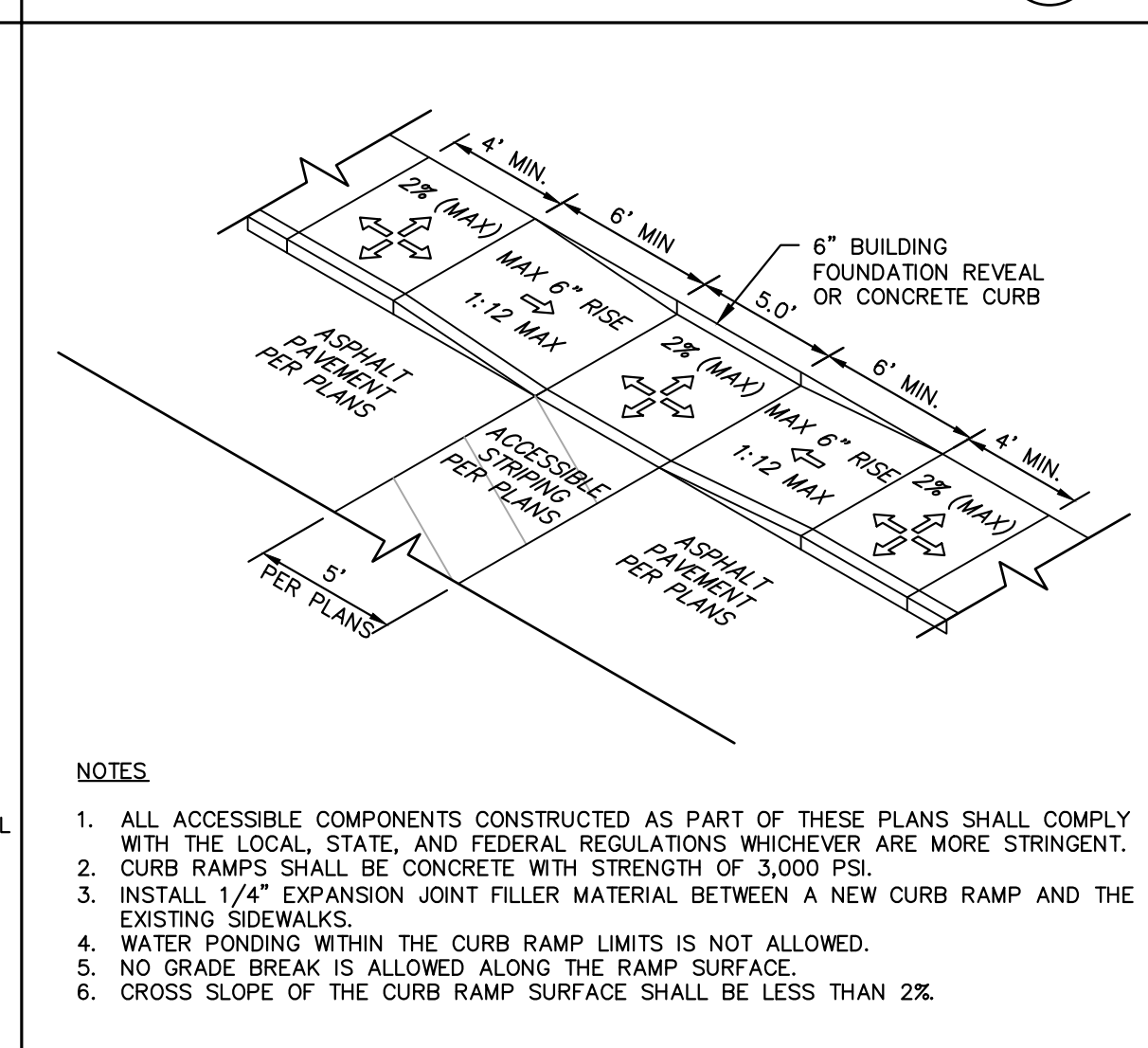
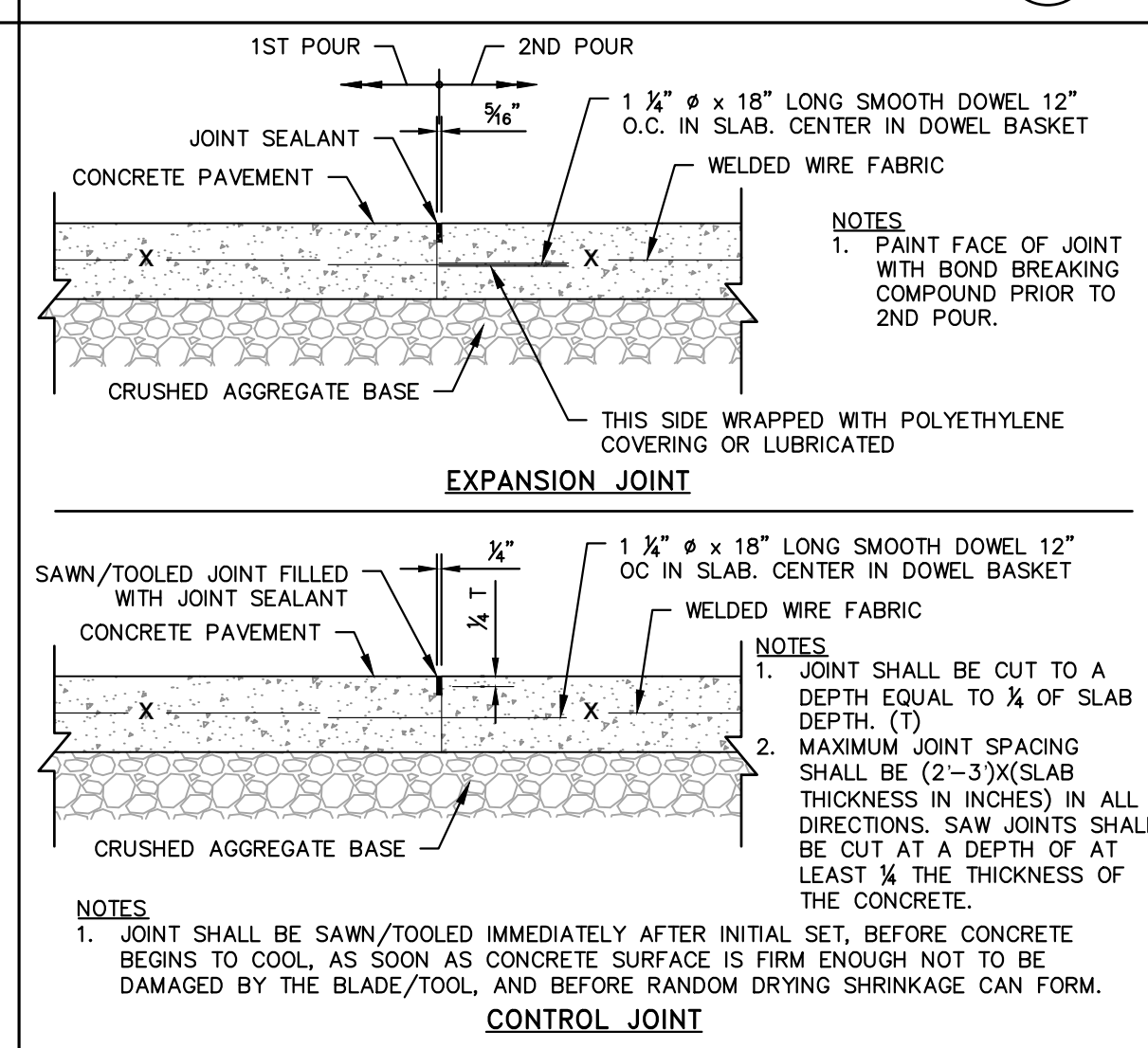
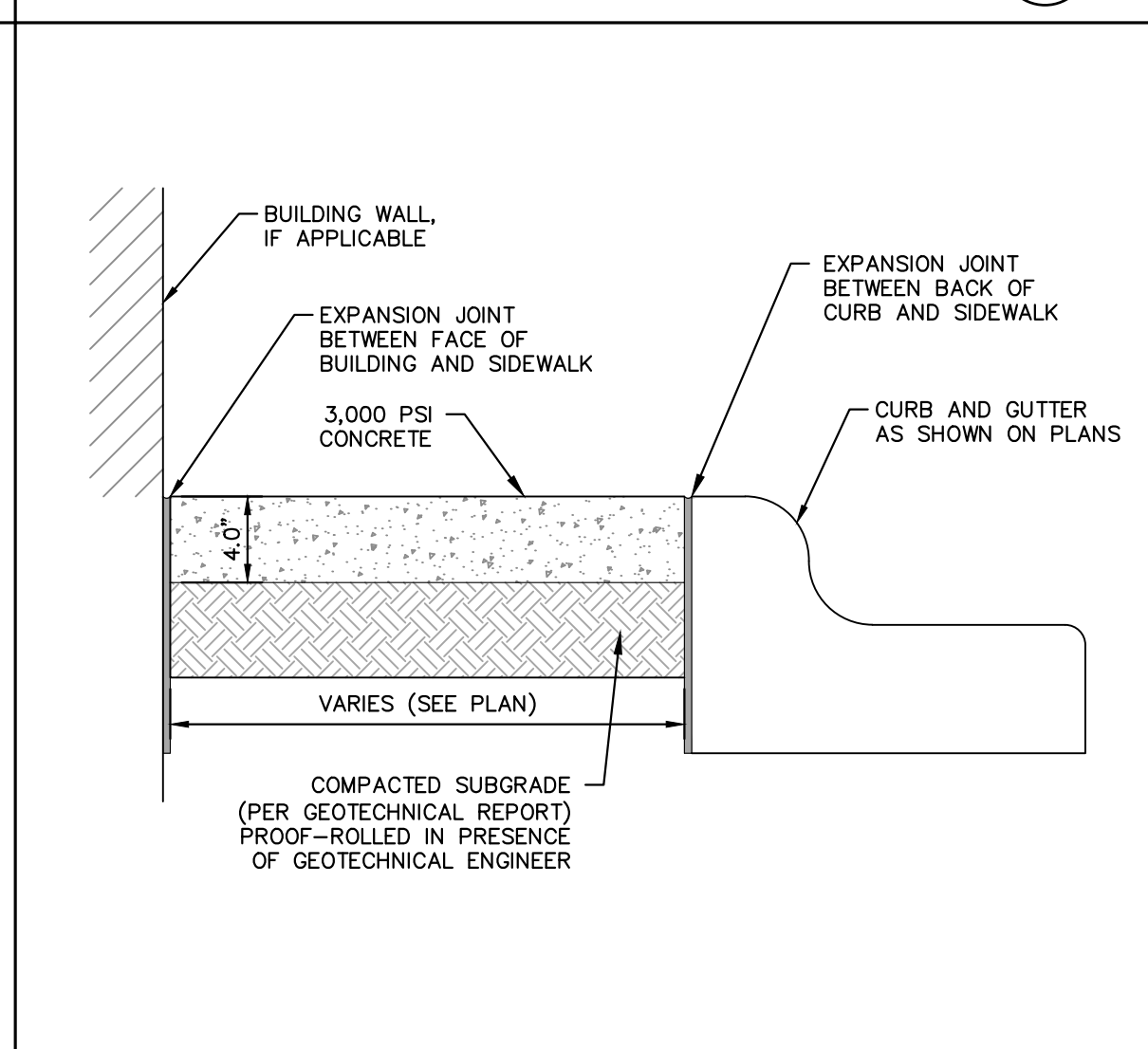
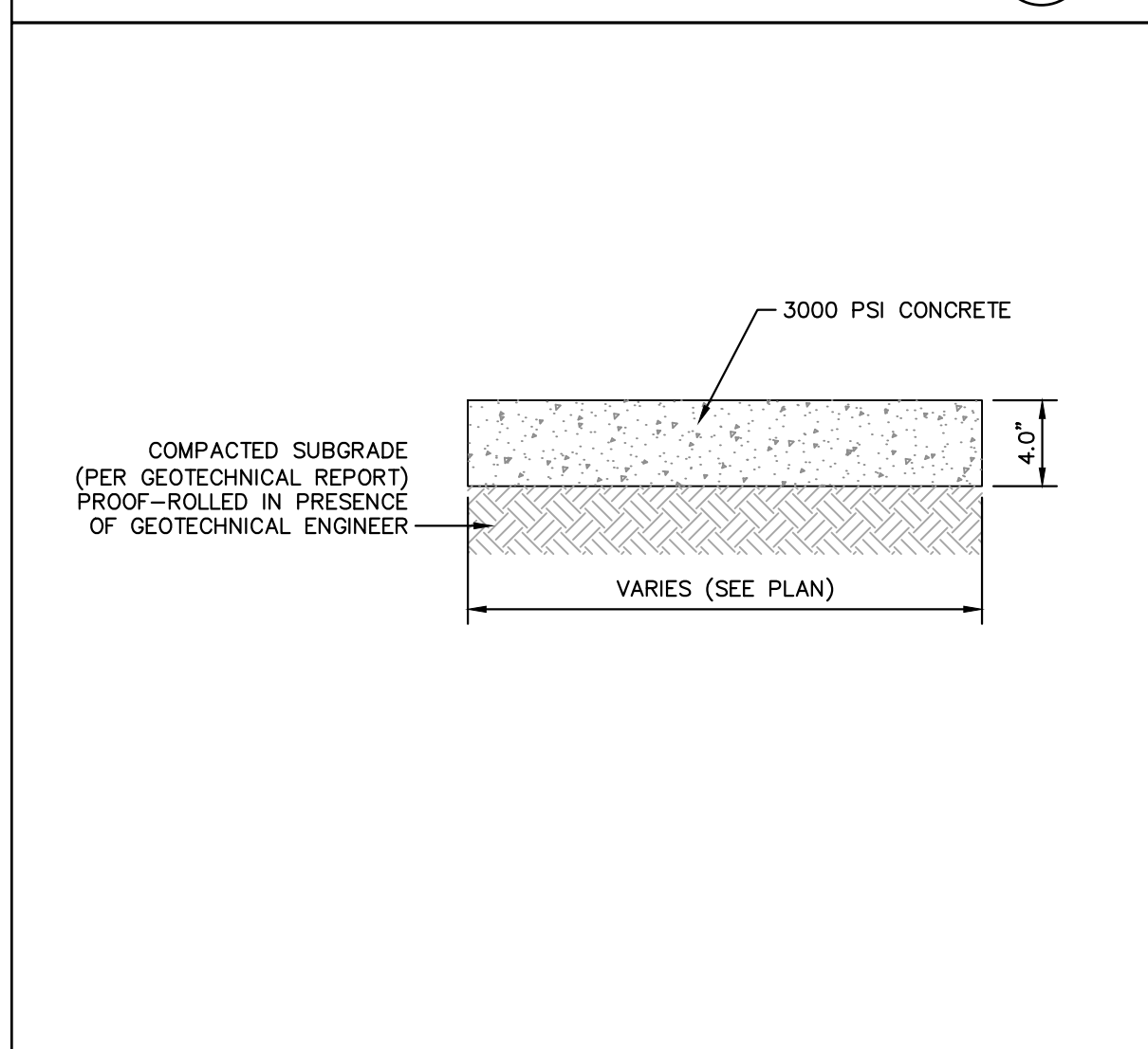
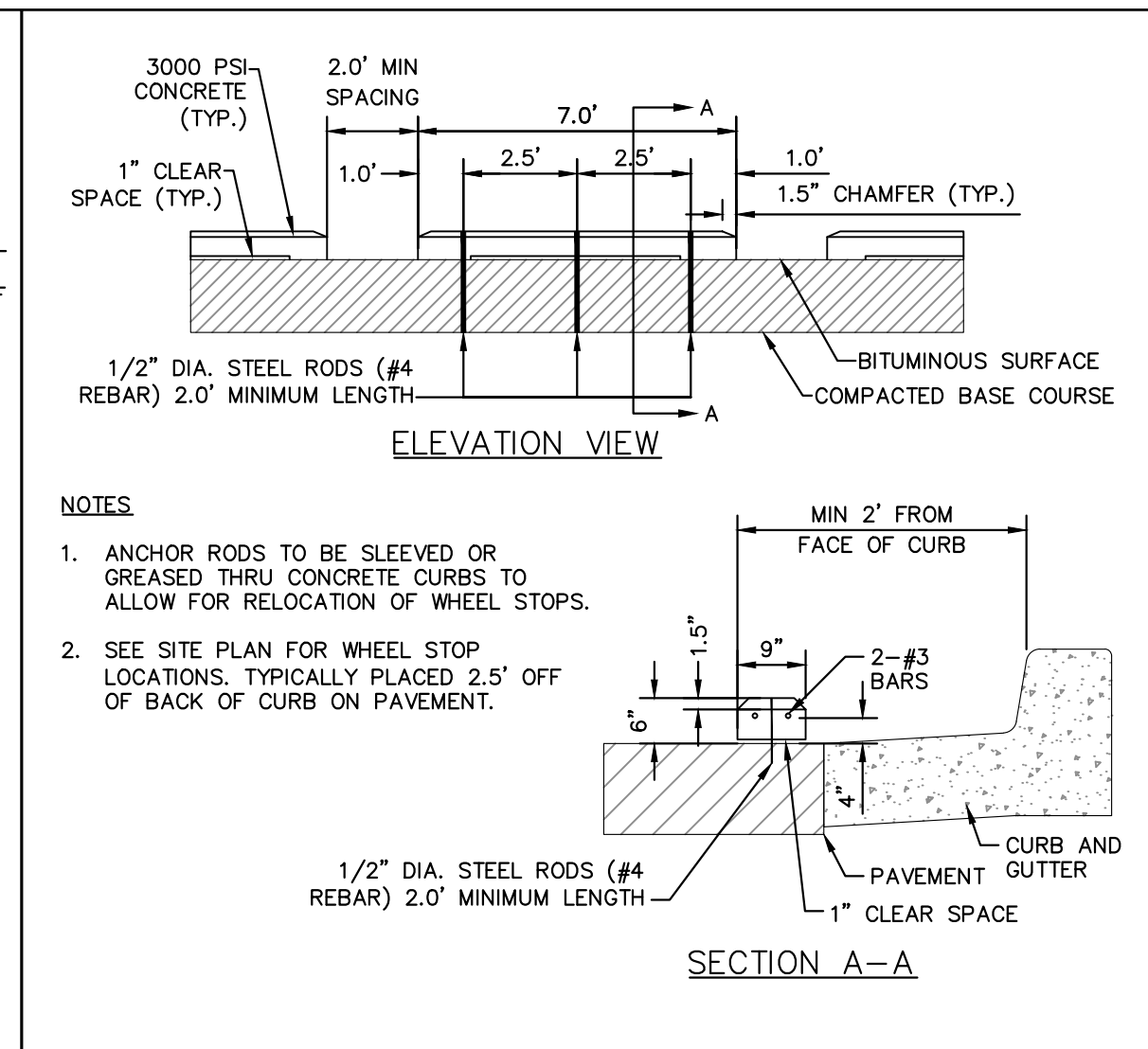
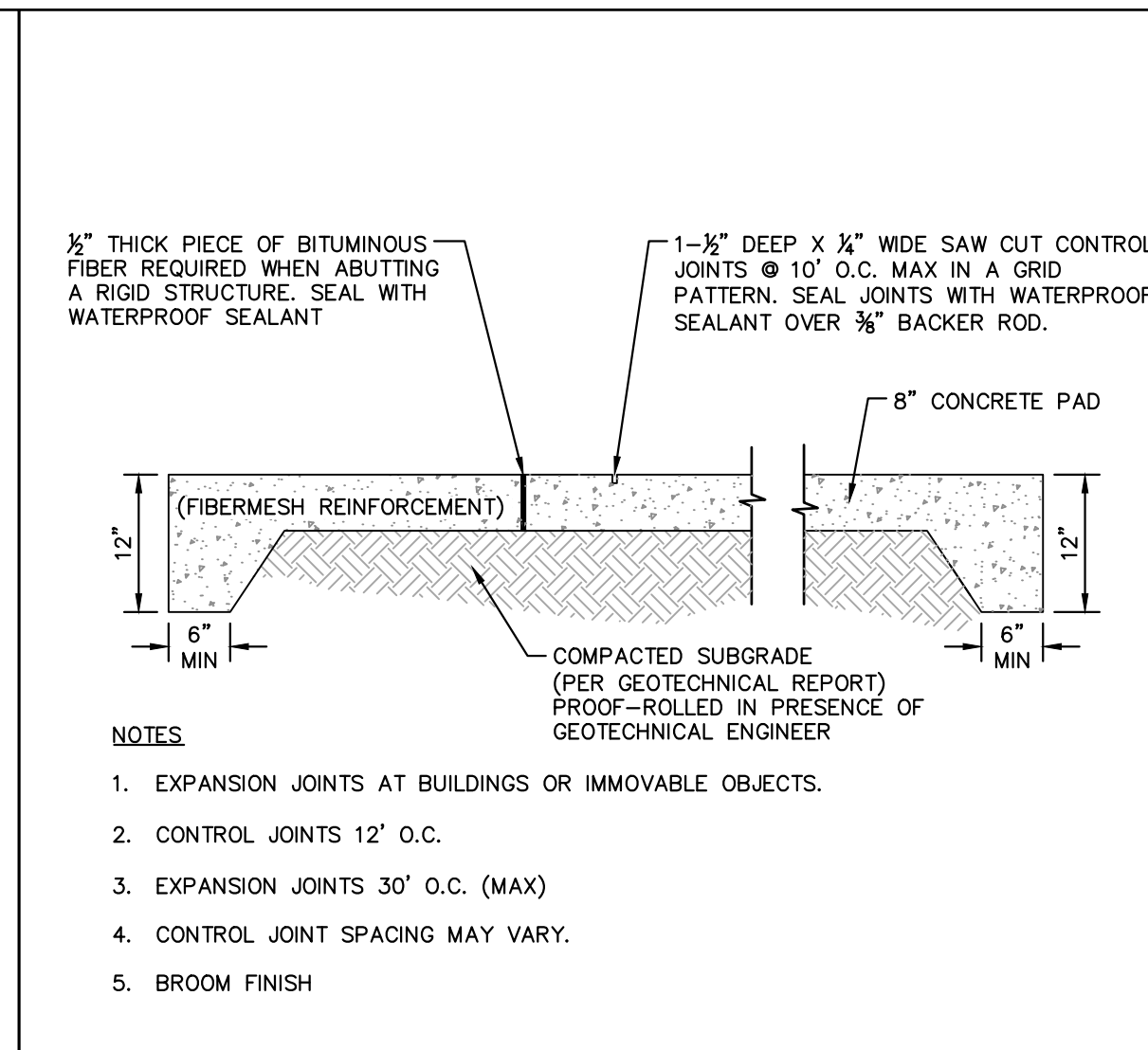
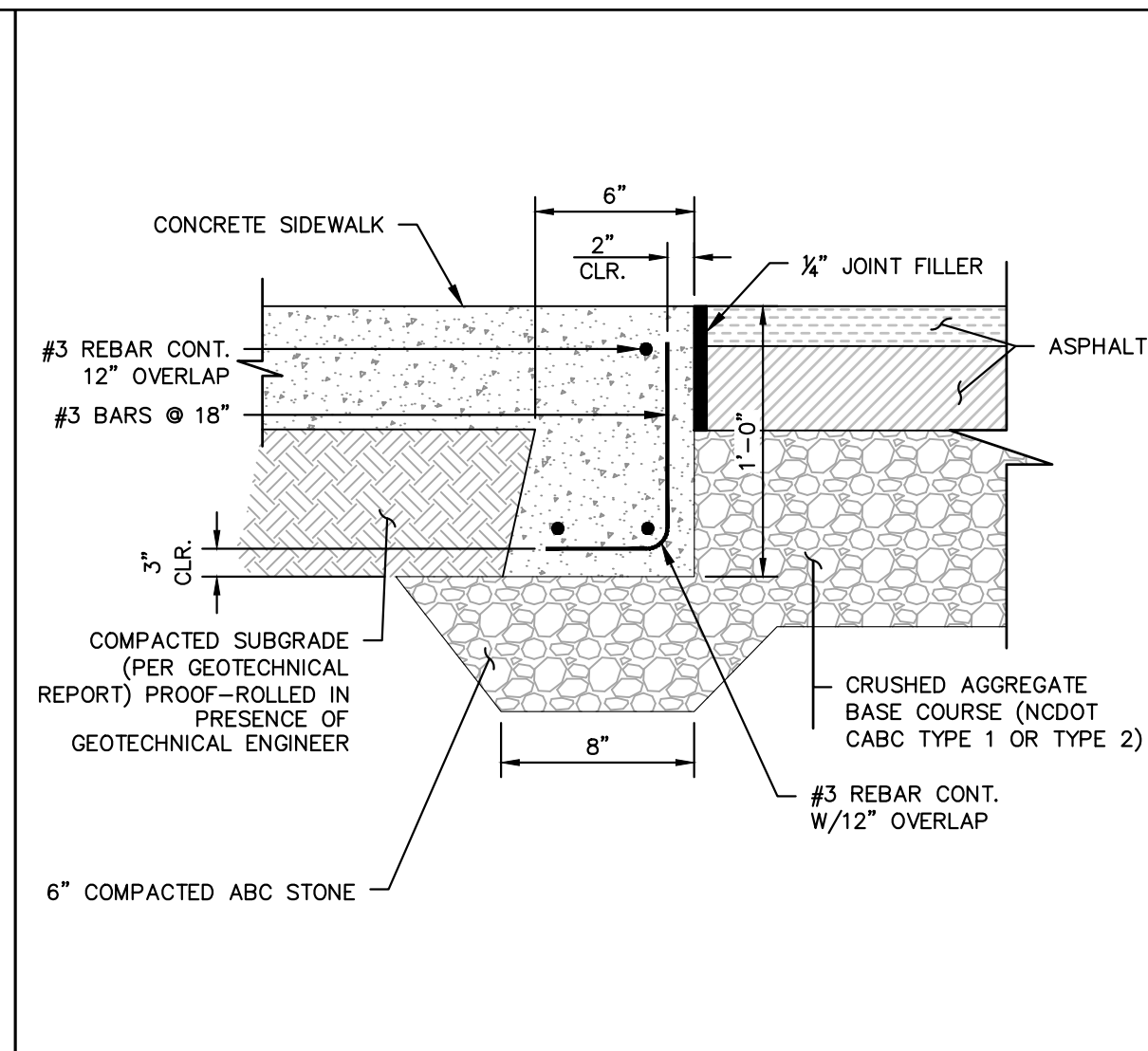
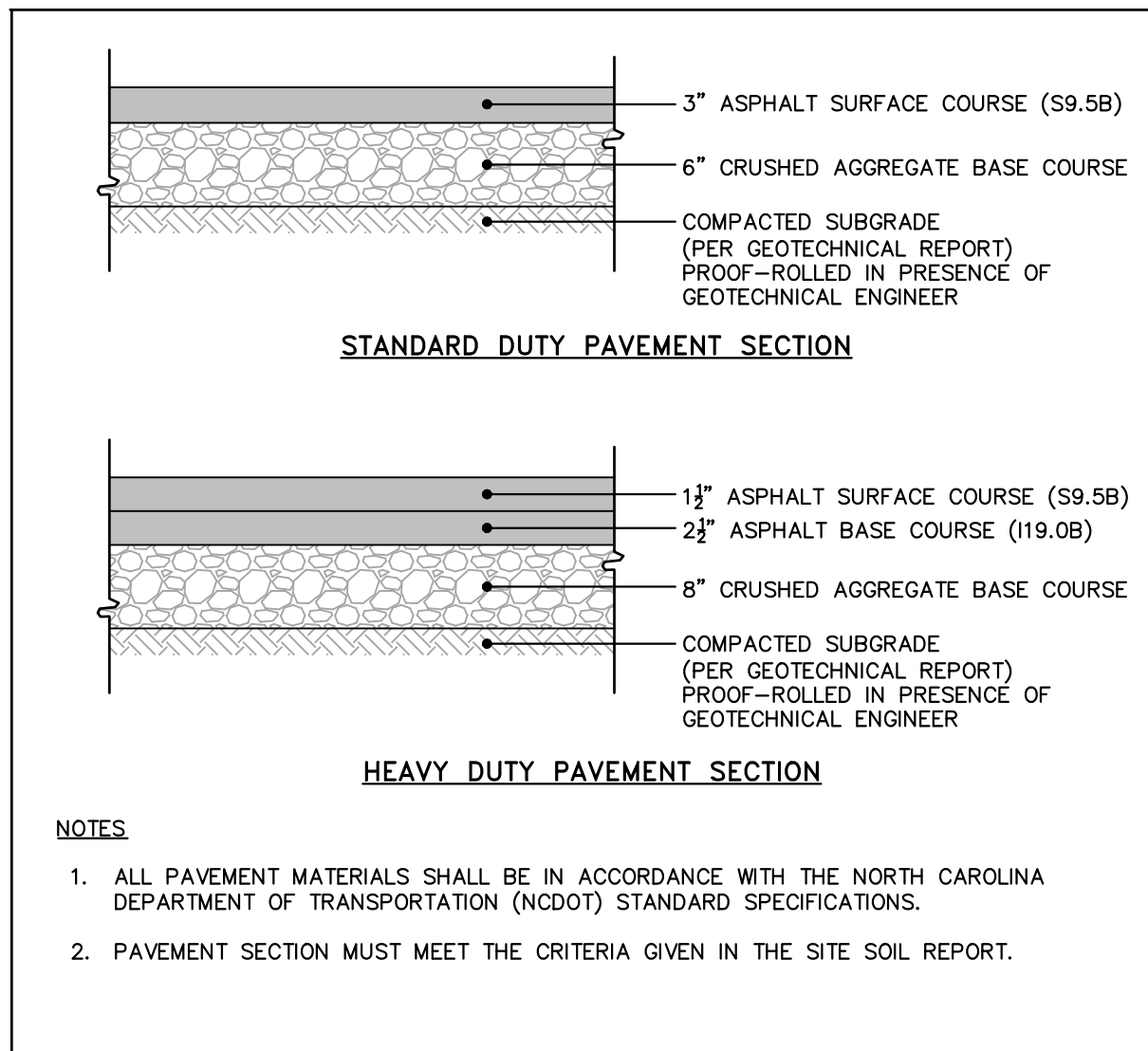
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TOWN OF ROLESVILLE  
NORTH CAROLINA

SHEET NUMBER  
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NOT FOR CONSTRUCTION

KHA PROJECT 013031004	DATE 09/29/2023	SCALE AS SHOWN	DESIGNED BY JAA	DRAWN BY JAA	CHECKED BY COB
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**SITE DETAILS**

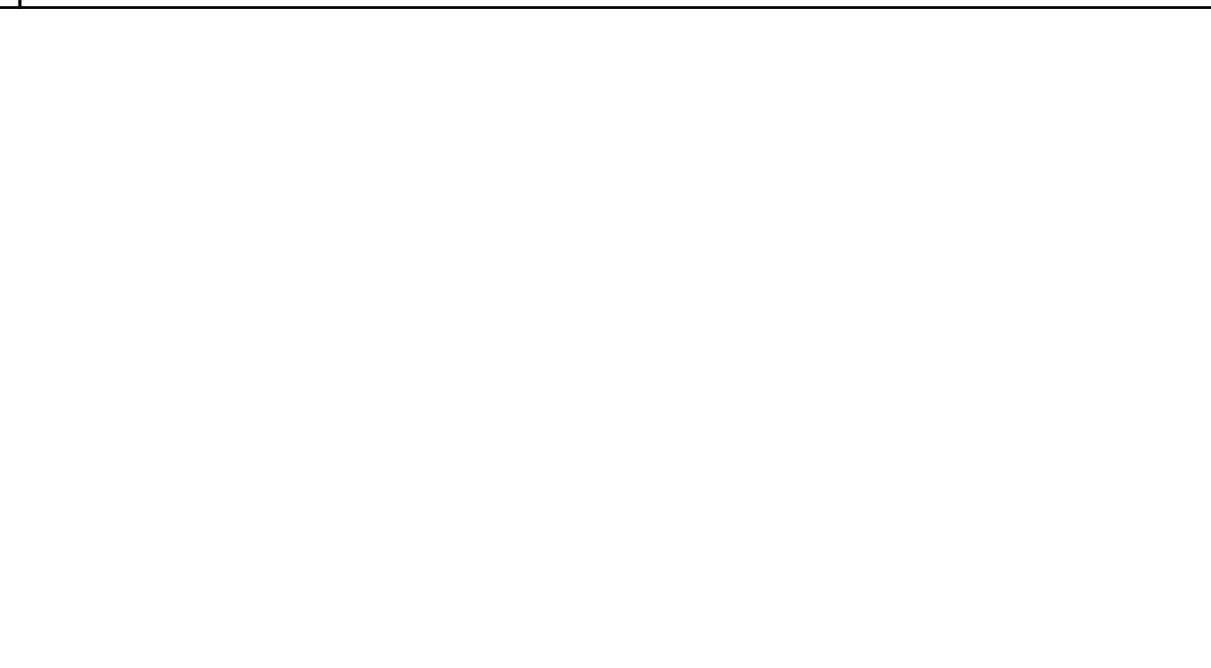
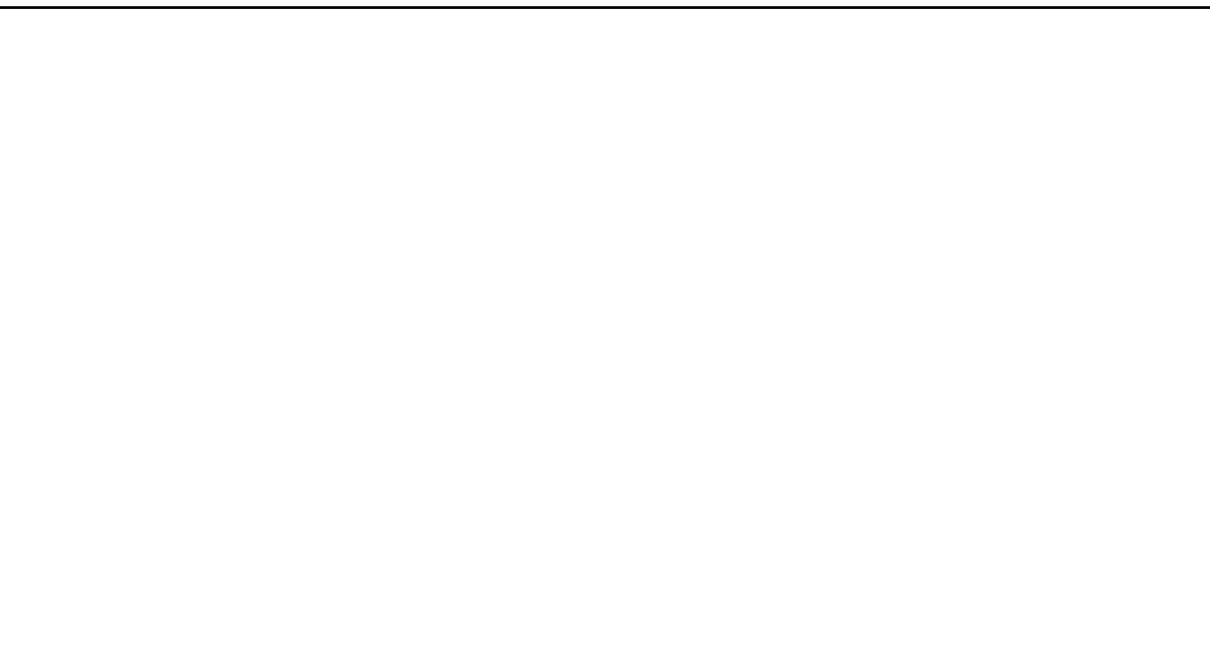
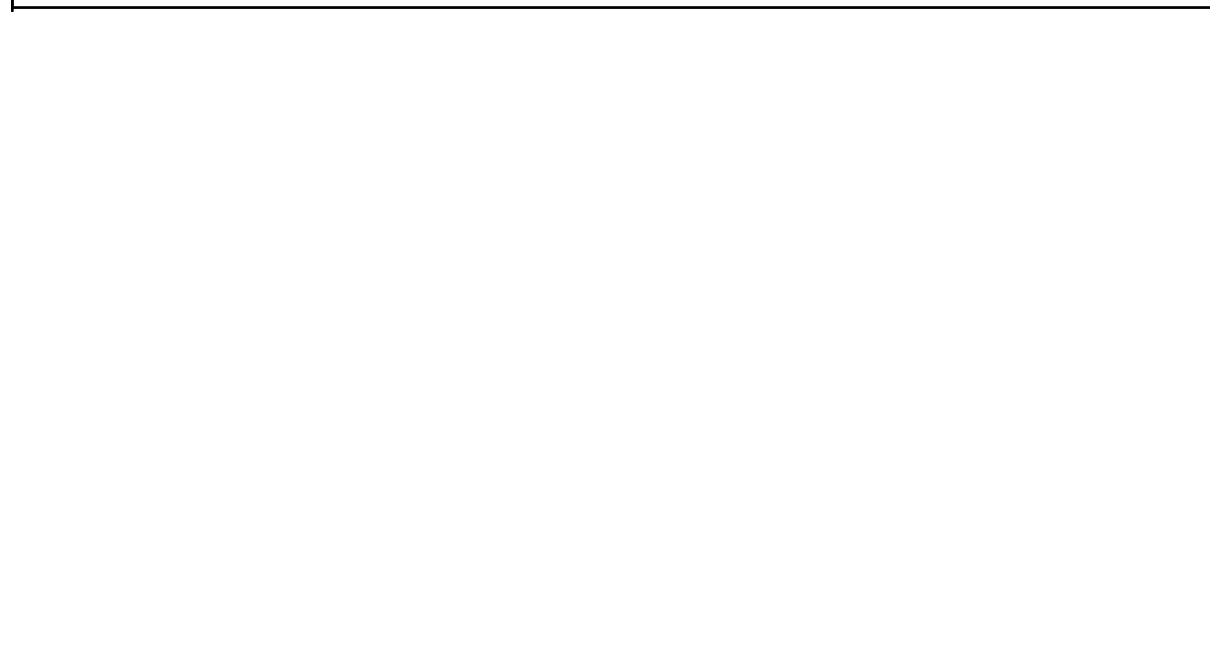
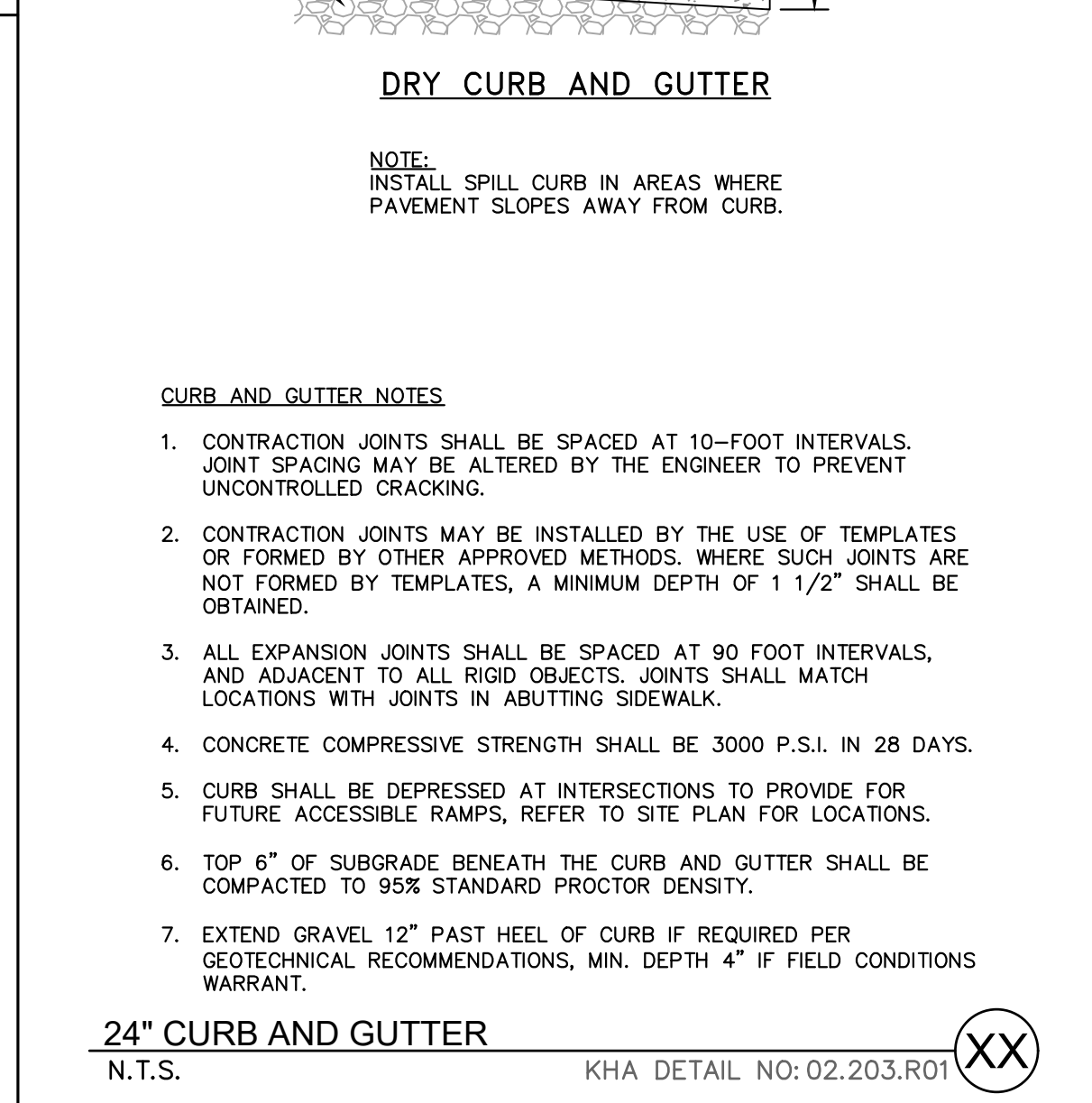
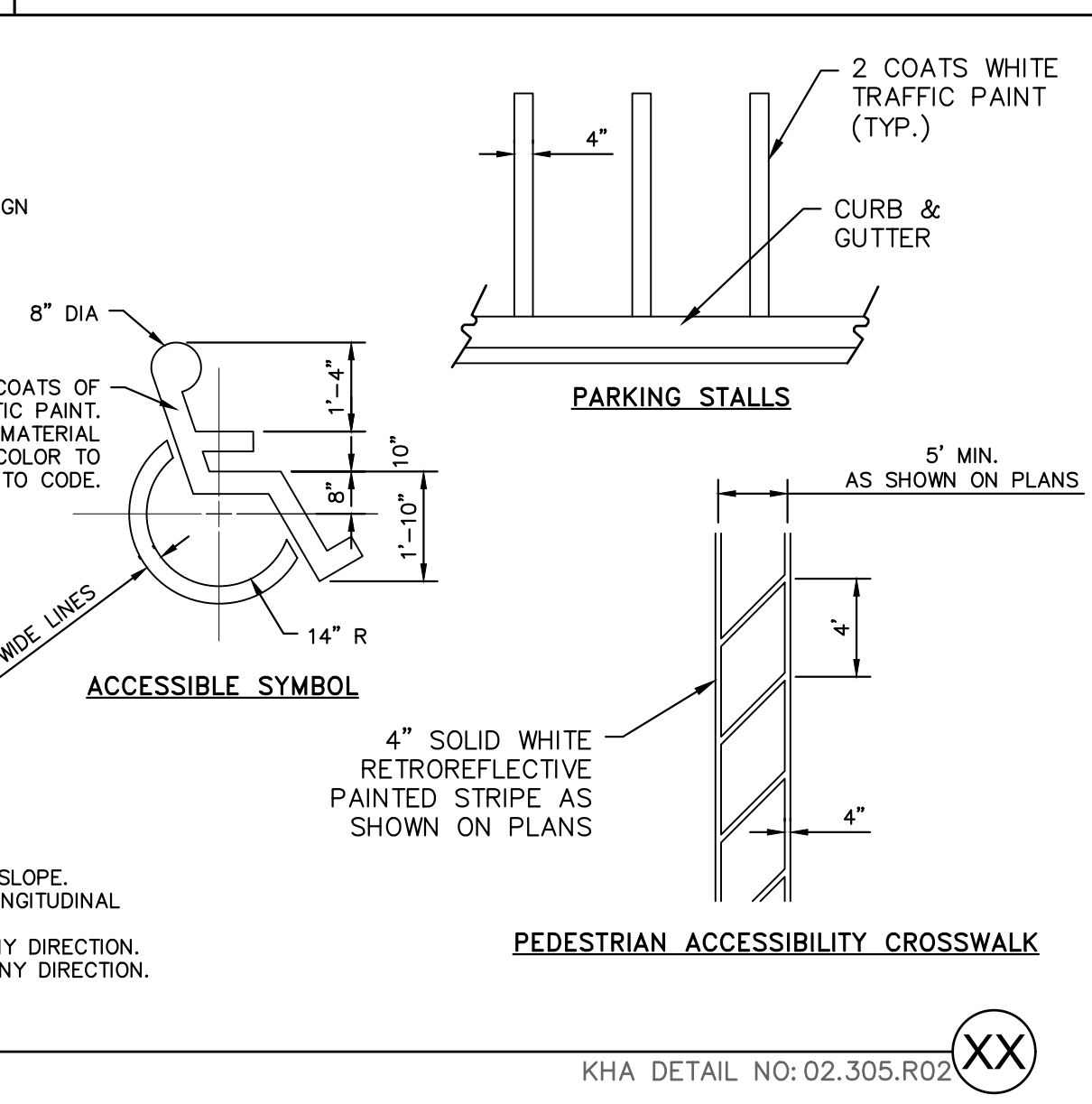
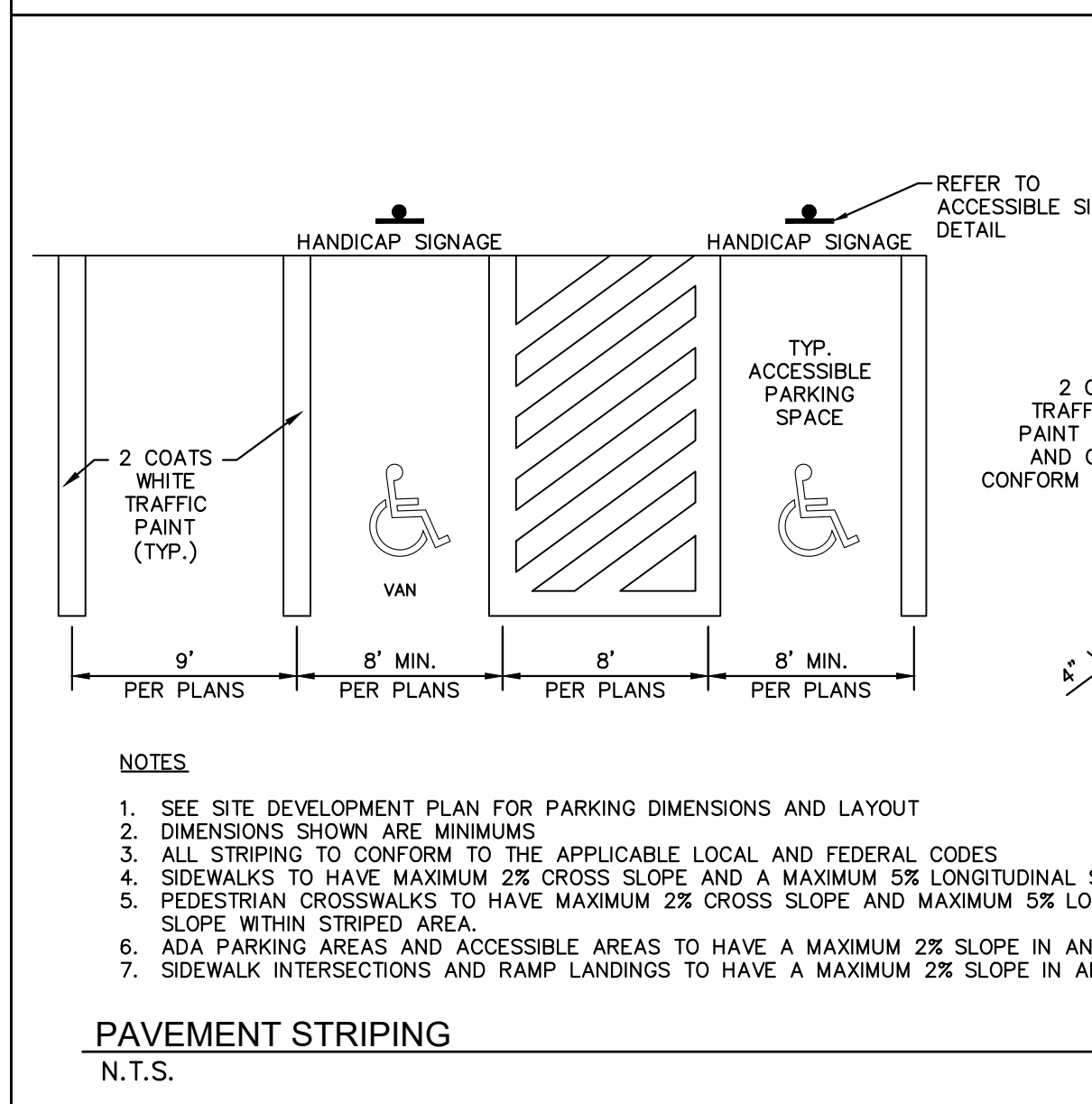
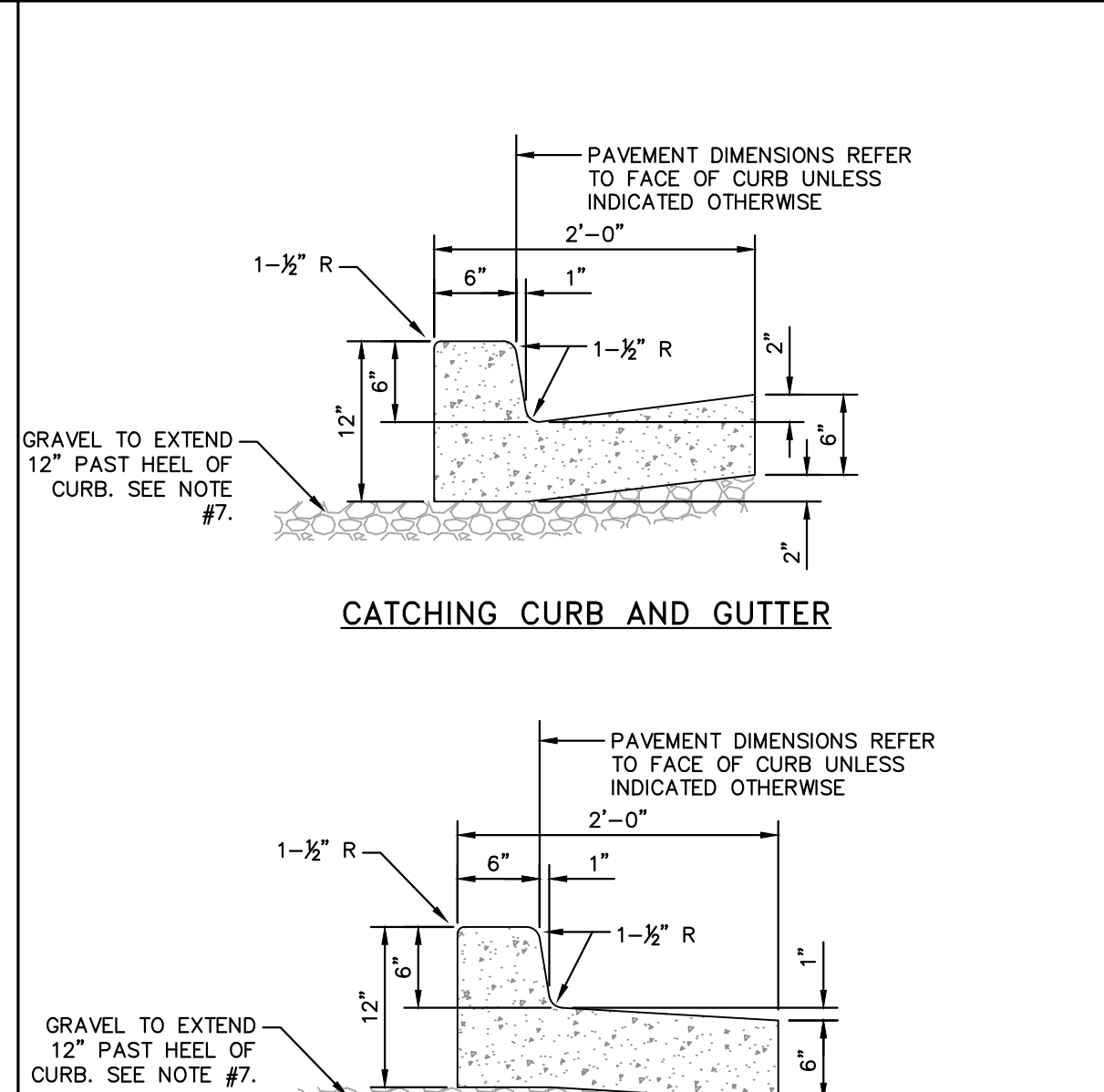
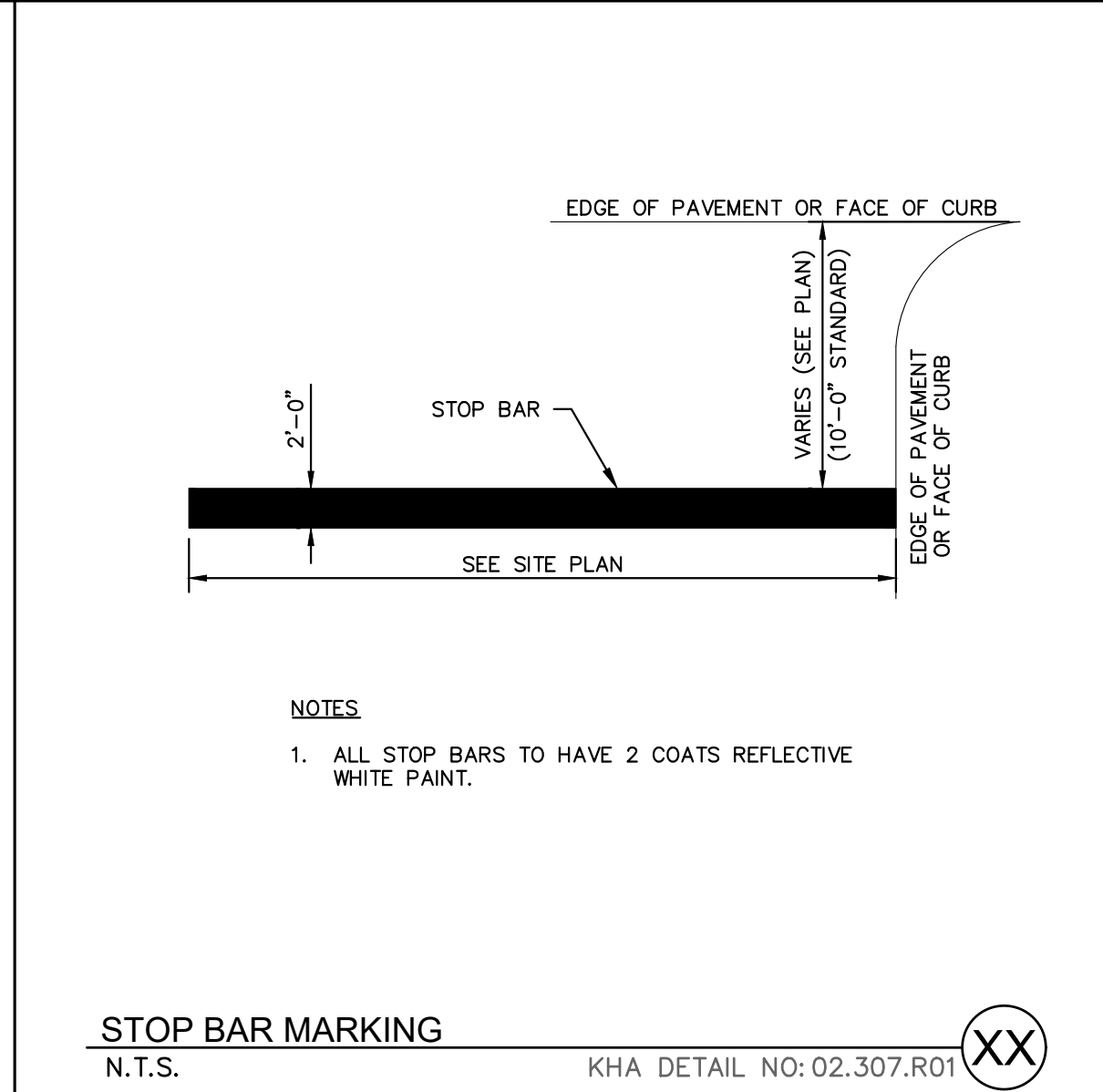
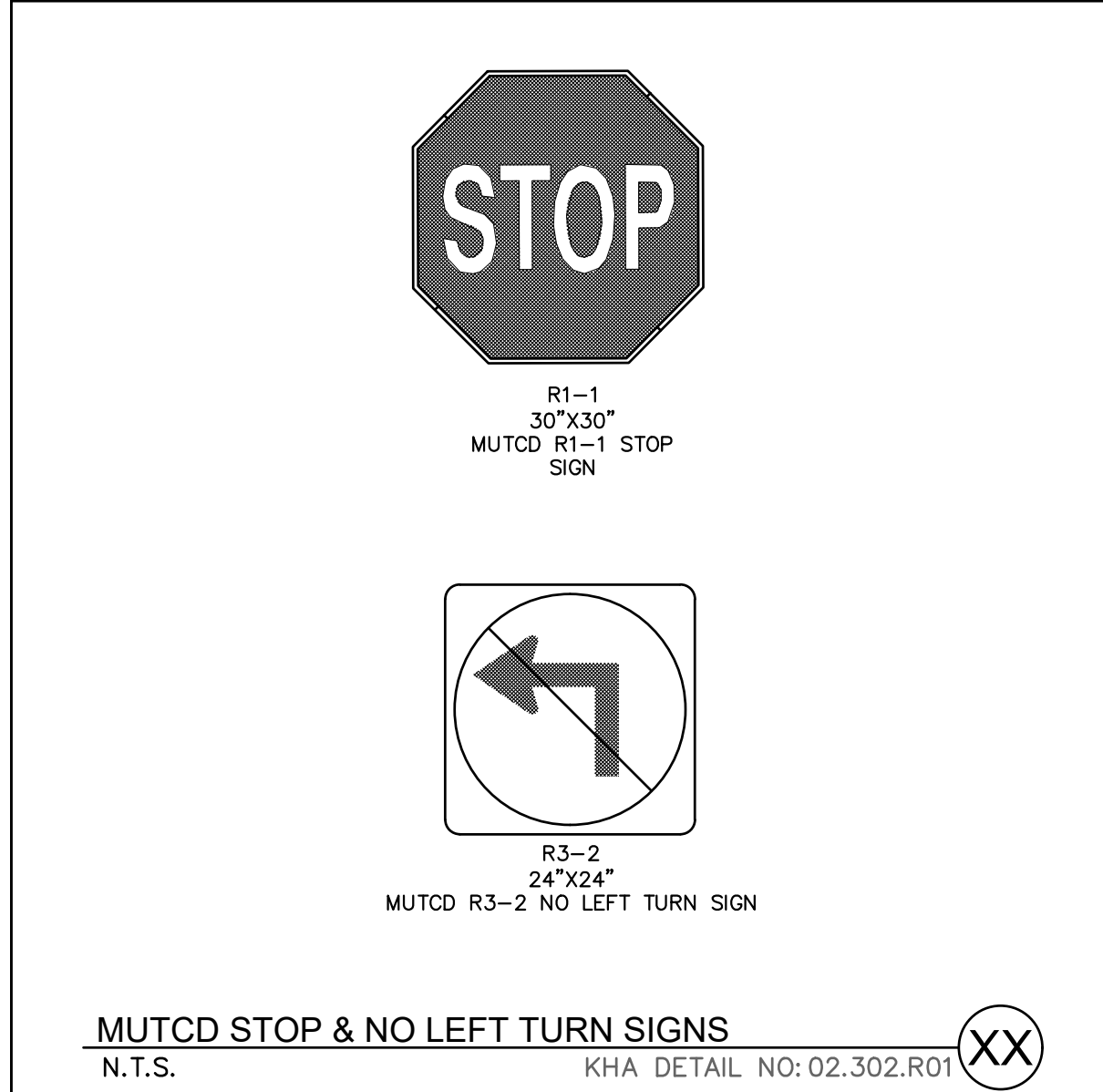
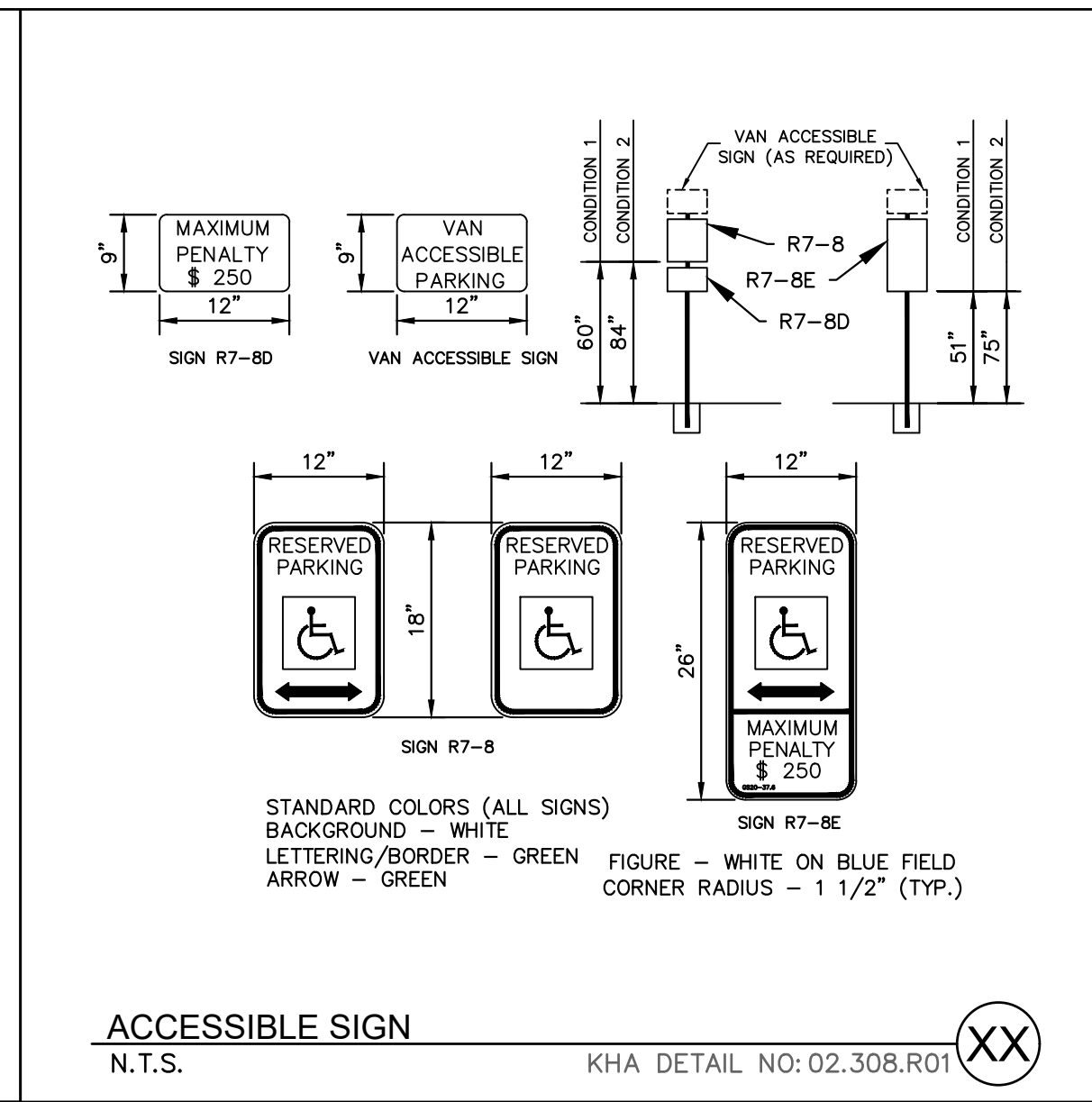
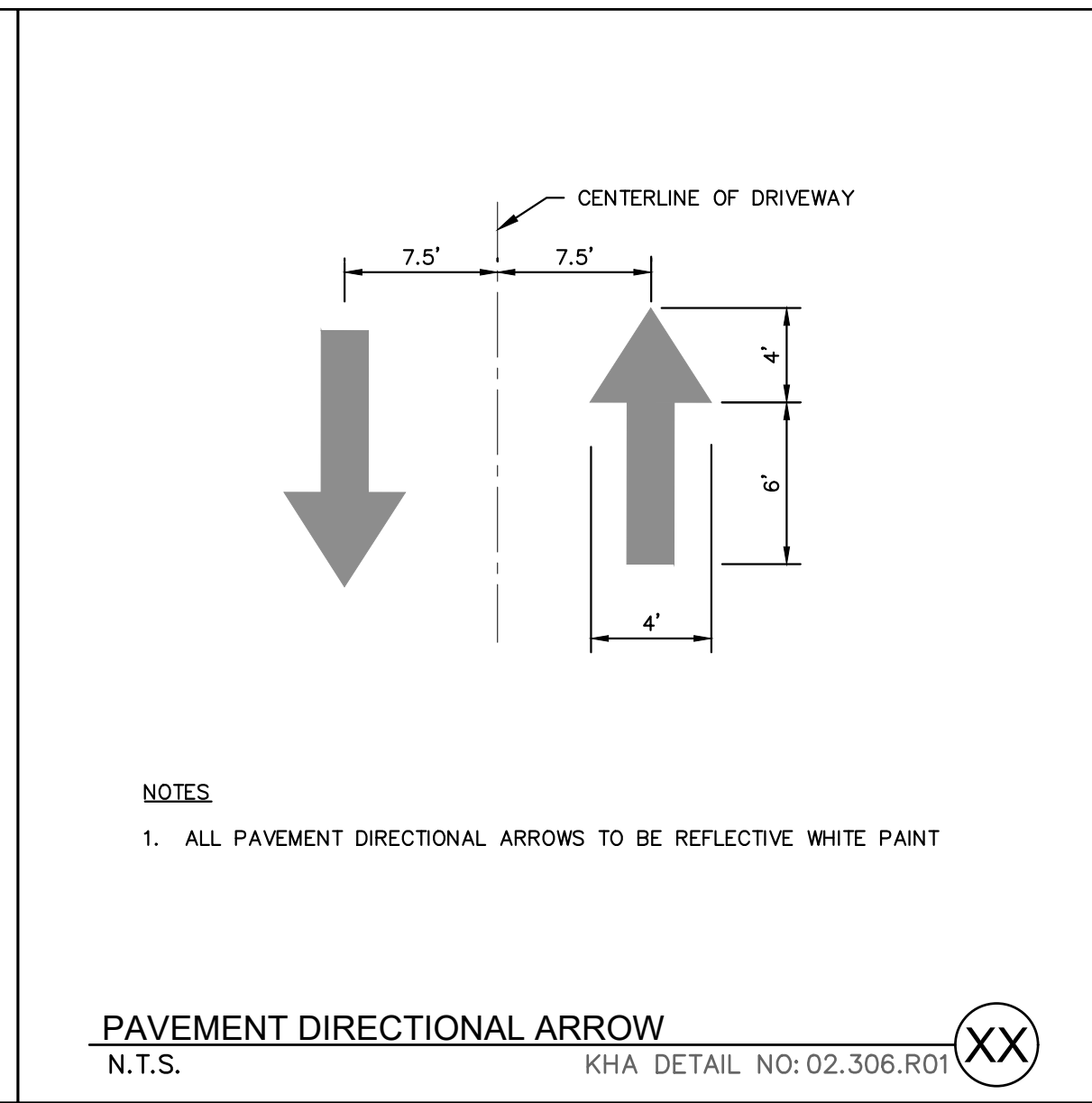
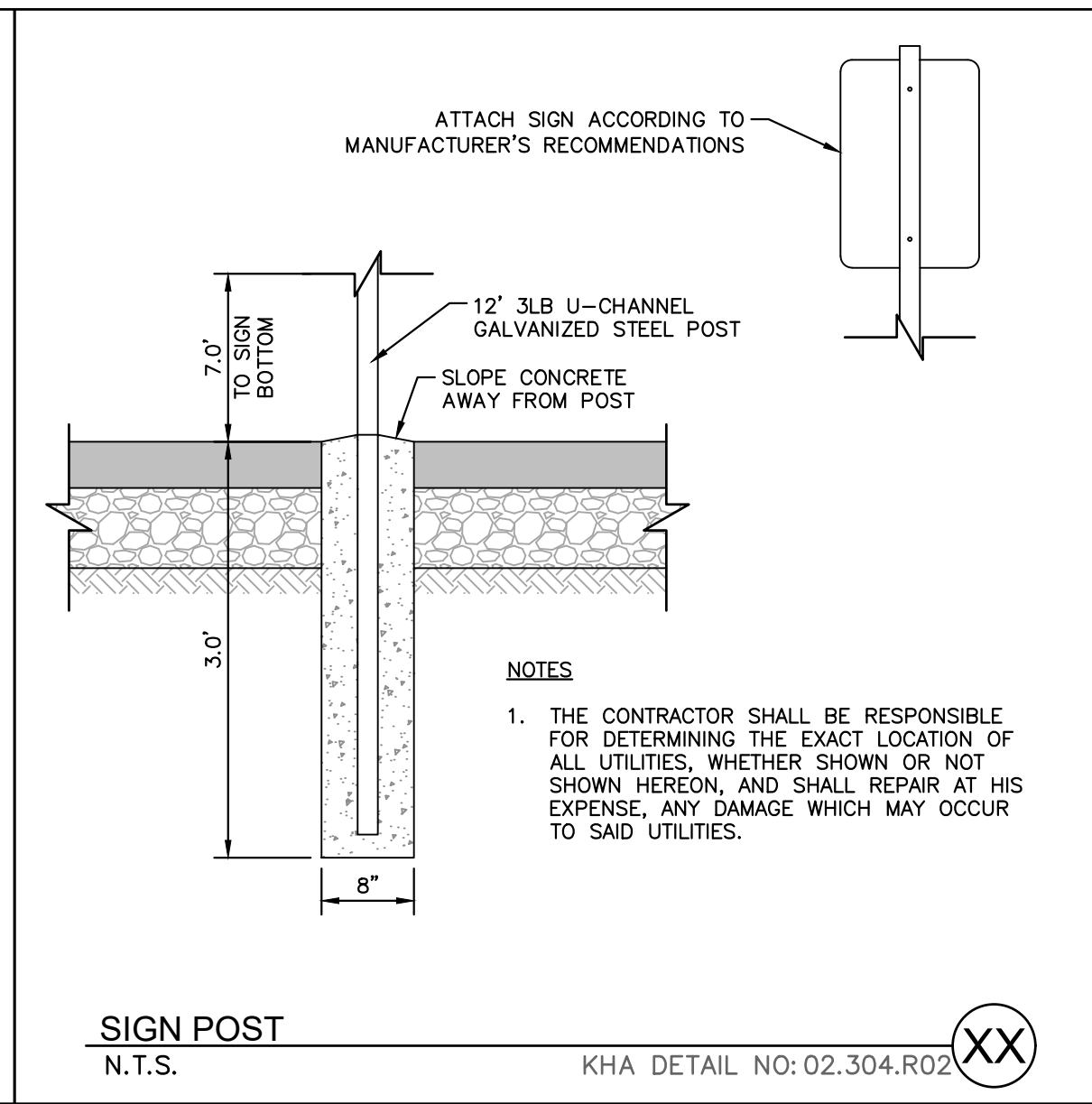
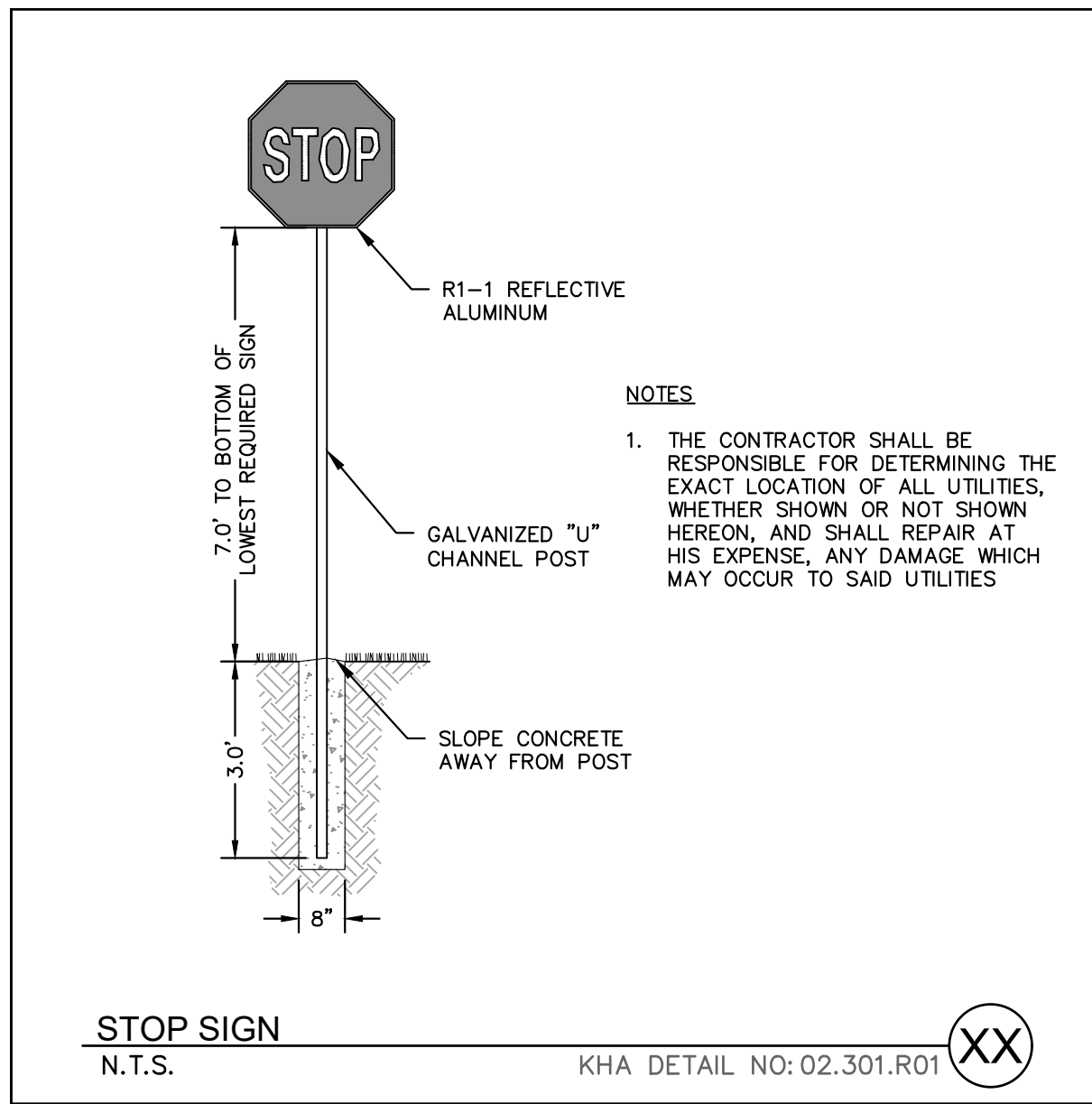
**THE LEARNING CENTER ROLESVILLE**  
 PREPARED FOR  
**ROLESVILLE, LLC.**  
 TOWN OF ROLESVILLE  
 NORTH CAROLINA

SHEET NUMBER  
**C8.0**

SDP-23-07



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 NORTH CAROLINA  
 PRELIMINARY  
 SHEET 02.305.R02

KHA PROJECT: 013031004  
 DATE: 09/29/2023  
 SCALE: AS SHOWN  
 DESIGNED BY: JAA  
 DRAWN BY: JAA  
 CHECKED BY: COE

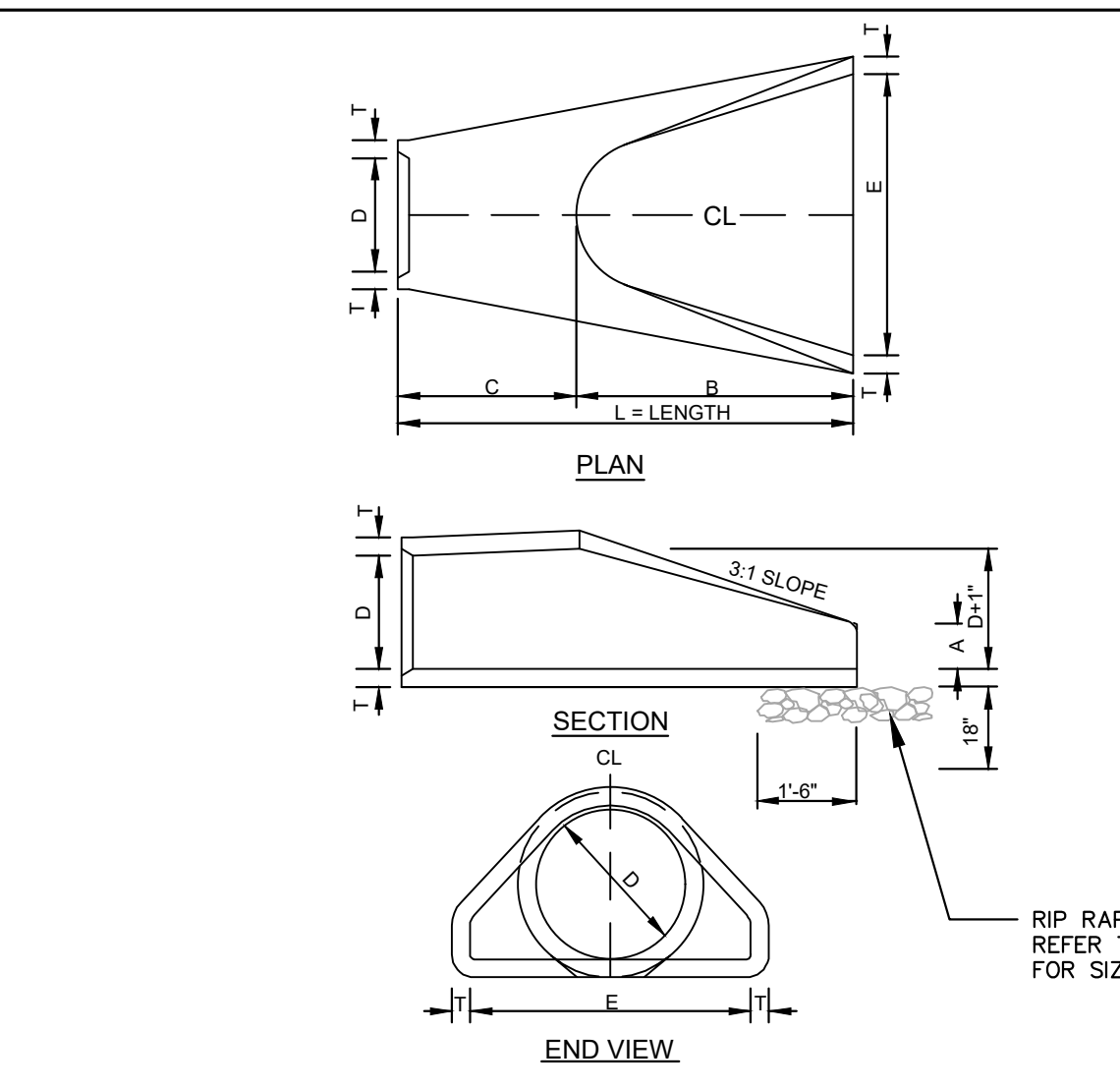
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**THE LEARNING CENTER ROLESVILLE**  
 PREPARED FOR  
**ROLESVILLE, LLC.**  
 TOWN OF ROLESVILLE NORTH CAROLINA

SHEET NUMBER  
**C8.1**



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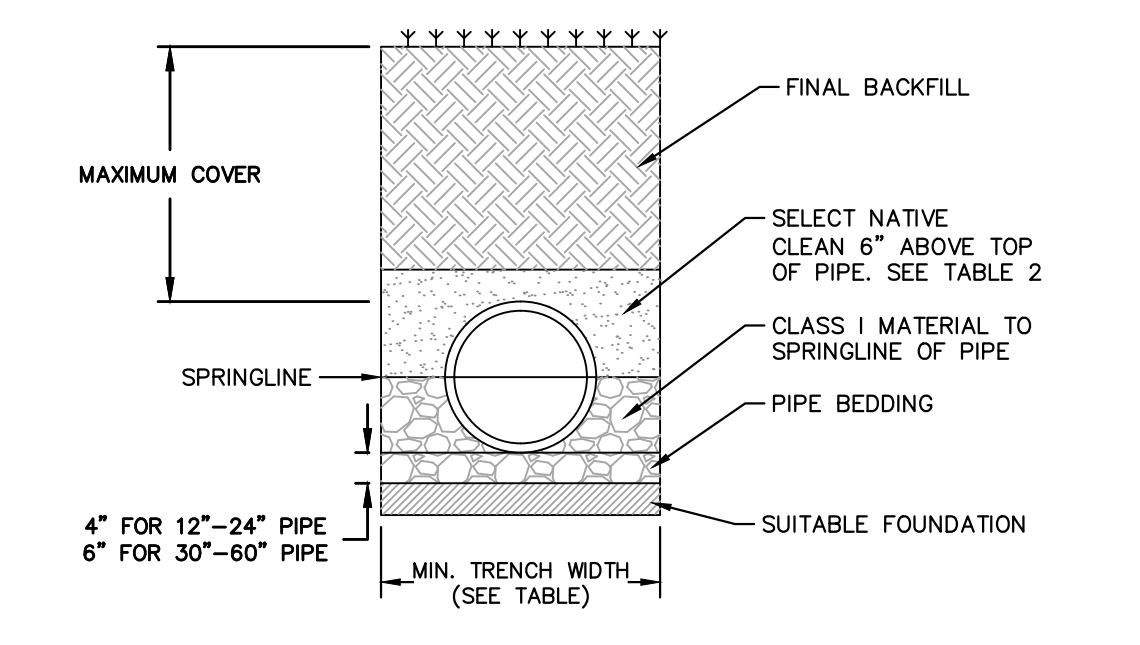


D	T	A	B	C	E	L	WT.
12"	2-1/4"	4"	2'-0"	4'-1"	2'-0"	6'-1"	730
15"	2-1/4"	6"	2'-3"	3'-10"	2'-0"	6'-1"	730
18"	2-1/2"	9"	2'-3"	3'-10"	3'-0"	6'-1"	1190
24"	3"	10"	3'-8"	2'-8"	4'-0"	6'-2"	1770
30"	3-1/2"	1'-0"	4'-8"	1'-8"	5'-0"	6'-2"	2380
36"	4"	1'-3"	5'-3"	2'-11"	6'-0"	8'-2"	5320
42"	4-1/2"	1'-9"	5'-3"	2'-11"	6'-6"	8'-2"	5920
48"	5"	2'-0"	6'-0"	2'-2"	7'-0"	8'-2"	7470
54"	5-1/2"	2'-3"	6'-8"	2'-10"	7'-2"	8'-4"	8810
60"	6"	2'-6"	6'-0"	3'-3"	8'-0"	8'-3"	11180
66"	6-1/2"	3'-0"	6'-0"	3'-3"	8'-6"	8'-3"	12530
72"	7"	3'-0"	6'-6"	1'-9"	9'-0"	8'-3"	13980

- GENERAL NOTES:
- SEE FORMER NCDOT STANDARD 310.01 FOR DETAILS.
  - REINFORCEMENT SHALL CONFORM TO THE REQUIREMENTS OF REINFORCED CONCRETE PIPE OF LIKE DIAMETER PER AASHTO M170.
  - ALL CONCRETE TO BE 3000 P.S.I COMPRESSIVE STRENGTH MIN.
  - PROVIDE TONGUE OR SPIGOT JOINT AT INLET END SECTION.
  - PROVIDE GROOVE OR BELL JOINT AT OUTLET END SECTION.
  - THE DIMENSIONS FOR END SECTIONS SHALL SUBSTANTIALLY AGREE WITH THE TABLE. MINOR VARIATIONS WILL BE PERMITTED BASED ON THE MANUFACTURER'S STANDARD SPECIFICATIONS.
  - NOT TO BE USED IN NCDOT MAINTAINED RIGHT OF WAY.

CONCRETE FLARED END SECTION  
N.T.S.

KHA DETAIL NO: 01.905.R01 XX



PIPE DIAM. (INCHES)	MIN. TRENCH WIDTH (INCHES)
12"	30"
15"	36"
18"	42"
24"	48"
30"	54"
36"	60"
42"	66"
48"	72"
54"	78"
60"	84"
66"	90"
72"	96"

TABLE 2, MAXIMUM COVER FOR ADS HP STORM PIPE, ALTERNATE INSTALLATION, IR (ys=120)

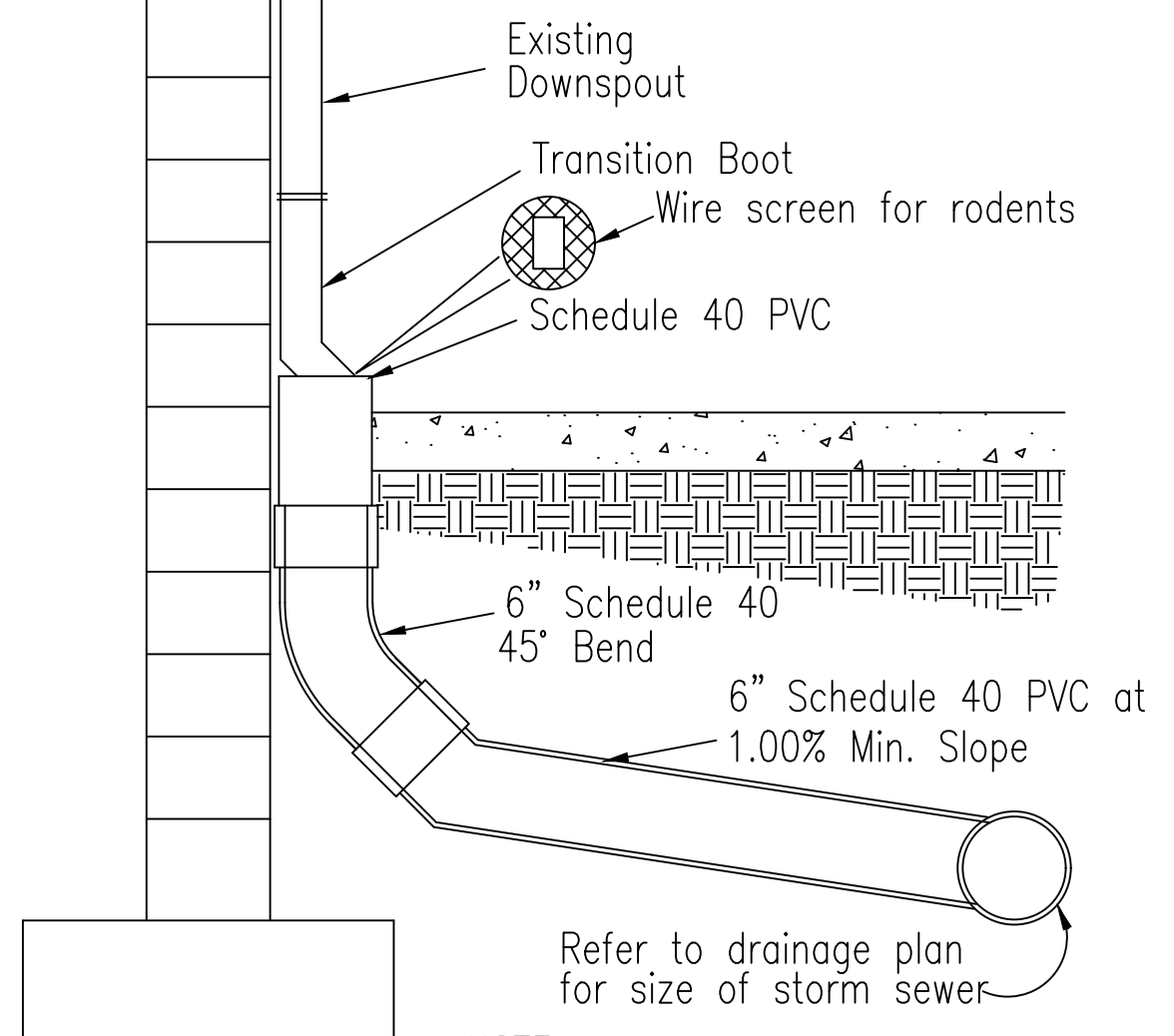
PIPE DIAM.	SELECT NATIVE CLEAN MATERIAL CLASSIFICATION		
	CLASS II	CLASS III	CLASS IV
12"	17"	14"	11"
15"	17"	14"	11"
18"	17"	14"	11"
24"	17"	14"	11"
30"	17"	14"	11"
36"	17"	14"	11"
42"	17"	14"	11"
48"	17"	14"	11"
54"	17"	14"	11"
60"	17"	14"	11"
66"	17"	14"	11"
72"	17"	14"	11"

FILL HEIGHT TABLE GENERATED ASSUMING DRY CONDITIONS, OUTSIDE OF WATER TABLE. FOR INSTALLATION WITHIN THE WATER TABLE, CONTACT APPLICATIONS ENGINEERING.

- NOTES:
- MEASURES SHOULD BE TAKEN TO PREVENT MIGRATION OF NATIVE FINES INTO BACKFILL MATERIAL, WHEN REQUIRED.
  - SOIL CLASSIFICATIONS ARE PER THE LATEST VERSION OF ASTM D2321. CLASS I/IV MATERIALS (MH, CH) AS DEFINED IN PREVIOUS VERSIONS OF ASTM D2321 ARE NOT APPROPRIATE BACKFILL MATERIALS.
  - FOUNDATION WHERE THE TRENCH BOTTOM IS UNSTABLE, THE CONTRACTOR SHALL EXCAVATE TO A DEPTH REQUIRED BY THE ENGINEER AND REPLACE WITH SUITABLE MATERIAL AS SPECIFIED BY THE ENGINEER. AS AN ALTERNATIVE AND AT THE DISCRETION OF THE DESIGN ENGINEER, THE TRENCH BOTTOM MAY BE STABILIZED USING A GEOTEXTILE MATERIAL.
  - BEDDING SUITABLE MATERIAL SHALL BE CLASS I. THE CONTRACTOR SHALL PROVIDE DOCUMENTATION FOR MATERIAL SPECIFICATION TO ENGINEER, UNLESS OTHERWISE NOTED BY THE ENGINEER. MINIMUM BEDDING THICKNESS SHALL BE 4" (100mm) FOR 4"-24" (100mm-600mm); 6" (150mm) FOR 30"-60" (750mm-1500mm).
  - BACKFILL FOR PIPES OUTSIDE OF PAVEMENT CLASS I MATERIAL TO BE USED FOR BACKFILL UP TO THE SPRINGLINE OF PIPE. THE CONTRACTOR SHALL PROVIDE DOCUMENTATION FOR MATERIAL SPECIFICATION TO ENGINEER, UNLESS OTHERWISE NOTED BY THE ENGINEER. CLASS I MATERIAL MUST BE COMPACTED IN 6" (200mm) LIFTS.
  - MINIMUM COVER MINIMUM COVER, H, IN NON-TRAFFIC APPLICATIONS (GRASS OR LANDSCAPE AREAS IS 12" (300mm) FROM THE TOP OF PIPE TO GROUND SURFACE. ADDITIONAL COVER MAY BE REQUIRED TO PREVENT FLOTATION.
  - SELECT NATIVE CLEAN BACKFILL SHALL BE WELL PLACED, MODERATELY COMPACTED (85% SPD) CLASS IV OR BETTER PER ASTM D2321 WITH NO FOREIGN DEBRIS INCLUDING ROCKS, LARGE CLUMPS ORGANIC MATERIAL, OR FROZEN MATERIAL.
  - HP STORM ALTERNATE TRENCH DETAIL ONLY APPLIES TO BACKFILL INSTALLATIONS IN NON-TRAFFIC APPLICATIONS PER TN 2.04A. ALTERNATE TRENCH USE MUST BE APPROVED BY DESIGN ENGINEER. DETAIL DOES NOT SUPERSEDE ADS STANDARD DETAIL STD-108.

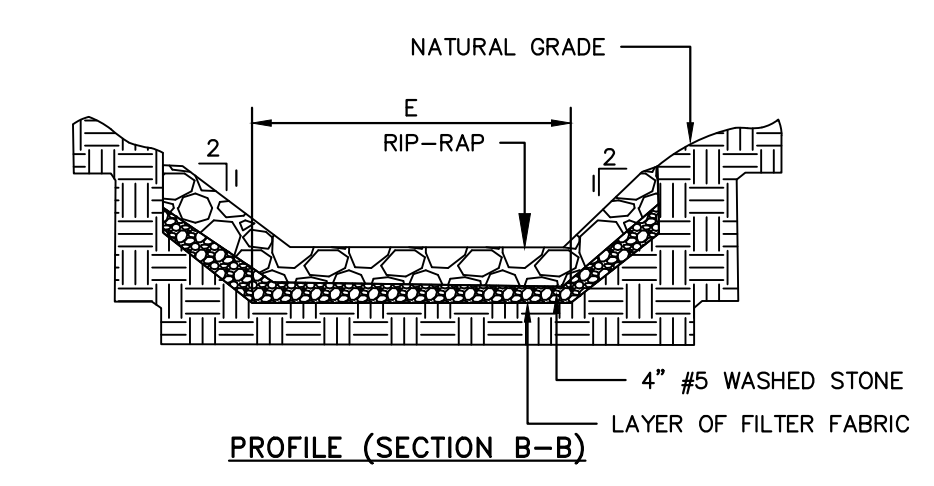
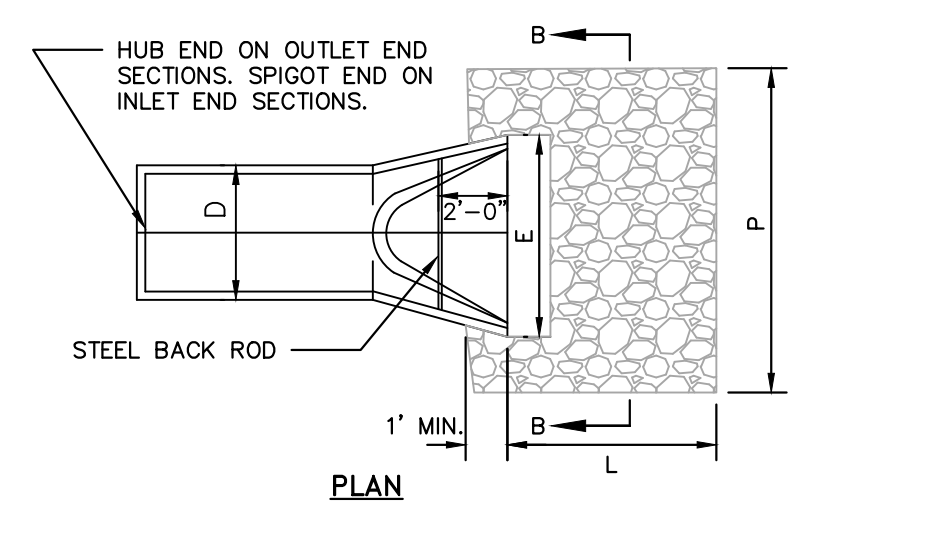
HP STORM TRENCH INSTALLATION DETAIL  
N.T.S.

KHA DETAIL NO: 03.101.R01 XX



NOTE: ALL DOWNSPOUT COLLECTOR PIPE SHALL BE SCHEDULE 40 PVC. Refer to drainage plan for size of storm sewer.

TYPICAL ROOF DRAIN CONNECTION  
NOT TO SCALE



RIP-RAP APRON AT FLARED END SECTION  
N.T.S.

KHA DETAIL NO: 03.205.R02 XX

STRUCTURE	Q-FULL (CFS)	E (FT)	P (FT)	D (IN)	STONE THICKNESS (IN)	STONE DIAMETER (IN)	STONE CLASS	VELOCITY (FPS)	
DRIVEWAY CULVERT	4.58	3.75	5	6.25	15	12	3	A	3.73
FES-1	16.04	6	8	10	24	12	3	A	5.11
FES-2	16.04	6	8	10	24	12	3	A	5.11

NOTES:  
1. THE LENGTHS OF THE RIP-RAP APRONS WERE DETERMINED BY USING THE NEW YORK DOT DISSIPATOR METHOD, AS OUTLINED IN SECTION 8.06 OF THE NCDOT EROSION CONTROL MANUAL.  
2. RIP-RAP APRONS DESIGNED FOR FULL FLOW CAPACITY

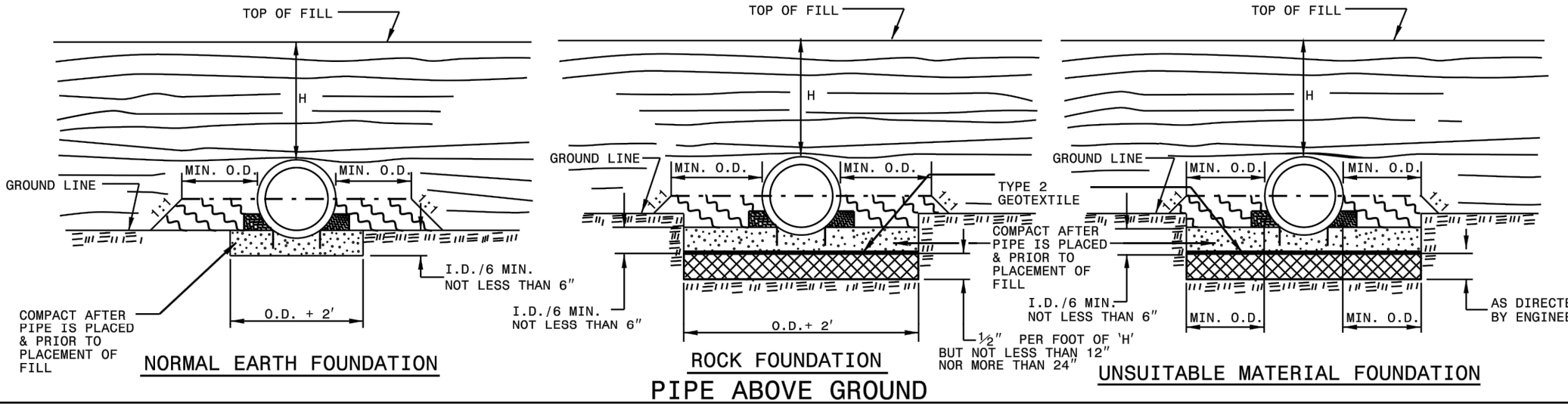
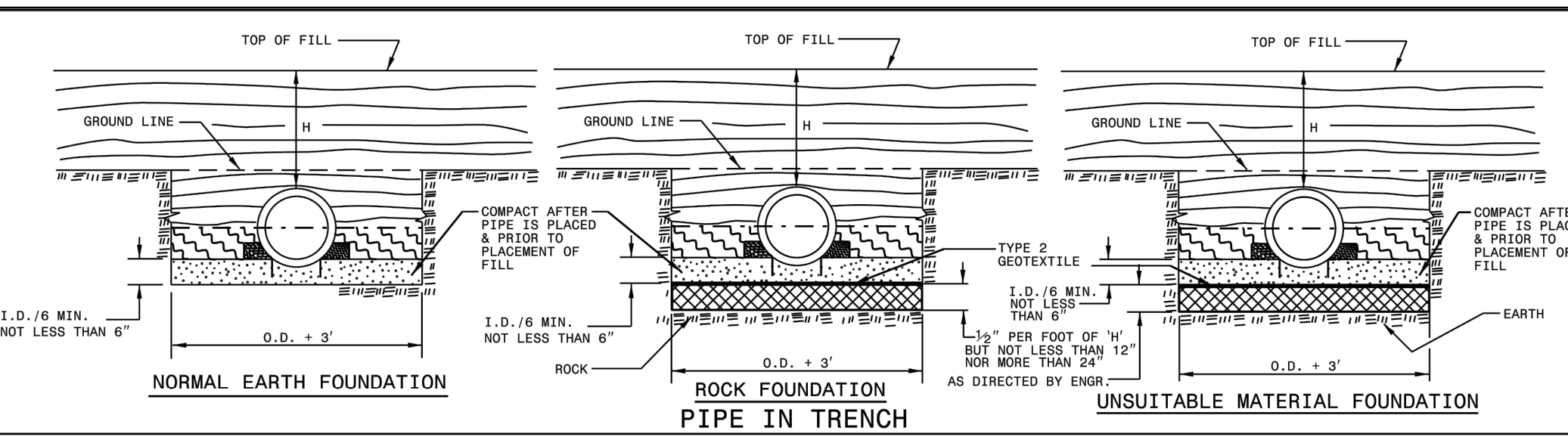
- NOTES:
- END OF THE PIPE OR CULVERT AT THE DISCHARGE OUTLET AT A MAXIMUM SLOPE OF 2:1 AND A HEIGHT NOT LESS THAN TWO THIRDS THE PIPE DIAMETER OR CULVERT HEIGHT.
  - THERE SHALL BE NO OVERFLOW FROM THE END OF THE APRON TO THE SURFACE OF THE RECEIVING CHANNEL. THE AREA TO BE PAVED OR RIP-RAPPED SHALL BE UNDERLAIN SO THAT THE INVERT OF THE APRON SHALL BE AT THE SAME GRADE (FLUSH) WITH THE SURFACE OF THE RECEIVING CHANNEL. THE APRON SHALL HAVE A CUTOFF OR TOE WALL AT THE DOWNSIDE END.
  - THE WIDTH OF THE END OF THE APRON SHALL BE EQUAL TO THE BOTTOM WIDTH OF THE RECEIVING CHANNEL.
  - MAXIMUM TAPER TO RECEIVING CHANNEL 5:1.
  - ALL SUBGRADE BELOW THE STRUCTURE TO BE COMPACTED TO 95% OR GREATER.
  - THE PLACING OF FILL, EITHER LOOSE OR COMPACTED IN THE RECEIVING CHANNEL SHALL NOT BE ALLOWED.
  - NO BENDS OR CURVES IN THE HORIZONTAL ALIGNMENT OF THE APRON WILL BE PERMITTED.

MAINTENANCE NOTES:  
IN GENERAL, ONCE A RIPRAP INSTALLATION HAS BEEN PROPERLY DESIGNED AND INSTALLED IT REQUIRES VERY LITTLE MAINTENANCE. RIPRAP SHOULD BE INSPECTED PERIODICALLY FOR SCOUR OR DISLODGED STONES. CONTROL OF WEED AND BRUSH GROWTH MAY BE NEEDED IN SOME LOCATIONS.

- CONSTRUCTION SPECIFICATIONS:
- ENSURE THAT THE SUBGRADE FOR THE FILTER AND RIPRAP FOLLOWS THE REQUIRED LINES AND GRADES SHOWN IN THE PLAN. COMPACT ANY FILL REQUIRED IN THE SUBGRADE TO THE DENSITY OF THE SURROUNDING UNDISTURBED MATERIAL. LOW AREAS IN THE SUBGRADE ON UNDISTURBED SOIL MAY ALSO BE FILLED BY INCREASING THE RIPRAP THICKNESS.
  - THE RIPRAP AND GRAVEL FILTER MUST CONFORM TO THE SPECIFIED GRADING LIMITS SHOWN ON THE PLANS.
  - FILTER CLOTH, WHEN USED, MUST MEET DESIGN REQUIREMENTS AND BE PROPERLY PROTECTED FROM PUNCHING OR TEARING DURING INSTALLATION. REPAIR ANY DAMAGE BY REMOVING THE RIPRAP AND PLACING ANOTHER PIECE OF FILTER CLOTH OVER THE DAMAGED AREA. ALL CONNECTING JOINTS SHOULD OVERLAP SO THE TOP LAYER IS ABOVE THE DOWNSIDE LAYER A MINIMUM OF 1 FOOT. IF THE DAMAGE IS EXTENSIVE, REPLACE THE ENTIRE FILTER CLOTH.
  - RIPRAP MAY BE PLACED BY EQUIPMENT, BUT TAKE CARE TO AVOID DAMAGING THE FILTER.
  - THE MINIMUM THICKNESS OF THE RIPRAP SHOULD BE 1.5 TIMES THE MAXIMUM STONE DIAMETER.
  - RIPRAP MAY BE FIELD STONE OR ROUGH QUARRY STONE. IT SHOULD BE HARD, ANGULAR, HIGHLY WEATHER-RESISTANT AND WELL GRADED.
  - CONSTRUCT THE APRON ON ZERO GRADE WITH NO OVERFILL AT THE END. MAKE THE TOP OF THE RIPRAP AT THE DOWNSIDE END LEVEL WITH THE RECEIVING AREA OR SLIGHTLY BELOW IT.
  - ENSURE THAT THE APRON IS PROPERLY ALIGNED WITH THE RECEIVING STREAM AND PREFERABLY STRAIGHT THROUGHOUT ITS LENGTH. IF A CURVE IS NEEDED TO FIT SITE CONDITIONS, PLACE IT IN THE UPPER SECTION OF THE APRON.
  - IMMEDIATELY AFTER CONSTRUCTION, STABILIZE ALL DISTURBED AREAS WITH VEGETATION.

RIP-RAP APRON AT FLARED END SECTION  
N.T.S.

KHA DETAIL NO: 03.205.R02 XX



- GENERAL NOTES:  
I.D. = THE MAXIMUM HORIZONTAL INSIDE DIAMETER DIMENSION.  
O.D. = THE MAXIMUM HORIZONTAL OUTSIDE DIAMETER DIMENSION.  
H = THE FILL HEIGHT MEASURED VERTICALLY AT ANY POINT ALONG THE PIPE FROM THE TOP OF THE PIPE TO THE TOP OF THE EMBANKMENT AT THAT POINT.  
DO NOT OPERATE HEAVY EQUIPMENT OVER ANY PIPE CULVERT UNTIL THE PIPE CULVERT HAS BEEN PROPERLY BACKFILLED AND COVERED WITH AT LEAST 3 FEET OF APPROVED MATERIAL.  
SELECT BACKFILL MATERIAL CLASS III OR CLASS II, BELOW SPRINGLINE.  
APPROVED SUITABLE LOCAL MATERIAL ABOVE SPRINGLINE.  
UNDISTURBED EARTH MATERIAL.  
SELECT MATERIAL CLASS V OR VI FOR FOUNDATION CONDITIONING. ENCAPSULATE WITH TYPE 2 GEOTEXTILE AS DIRECTED BY THE ENGINEER.

FLEXIBLE PIPE

Diameter (inches)	Minimum cover (inches)	Maximum Height of Cover (feet)			
		16"	14"	12"	10"
12	12	204	256	100	142
15	12	182	204	92	130
18	12	155	169	239	142
21	12	115	145	204	142
24	12	100	126	178	111
30	12	79	100	142	111
36	12	65	83	117	152
42	12	55	70	100	130
48	12	48	61	87	113
54	12	42	54	77	100
60	12	37	48	69	90
66	12	32	42	61	100
72	12	27	37	54	91
78	12	23	33	48	81
84	12	19	29	42	69

Diameter (inches)	Minimum cover (inches)	Maximum Height of Cover (feet)			
		16"	14"	12"	10"
12	12	123	155	218	281
15	12	98	123	174	224
18	12	81	102	144	187
21	12	69	87	123	160
24	12	60	76	108	139
27	12	52	67	95	123
30	12	46	60	85	111
36	12	37	50	71	92
42	12	30	42	60	78
48	12	25	36	52	68
54	12	21	30	44	58
60	12	18	26	37	51
66	12	15	22	31	44
72	12	13	19	27	38

- \*\* FOR DIFFERENT CORRUGATIONS AND ARCH PIPES REFER TO ROADWAY DESIGN MANUAL OR MANUFACTURERS SPECIFICATION.
- REFER TO THE FOLLOWING FOR PIPE SPECIFICATIONS
- HDPE - (Minimum fill) 2' for pipe diameters ≥ 12" and ≤ 60"
  - (Maximum fill) 20' for pipe diameters ≤ 24"
  - 17' for pipe diameters ≥ 30" and ≤ 60"
  - PVC - (Minimum fill) 2' for pipe diameters ≥ 12" and ≤ 36"
  - (Maximum fill) 30' for pipe diameters ≥ 12" and ≤ 36"
- \* FILL HEIGHT IS MEASURED FROM THE TOP OF THE PIPE TO THE BOTTOM OF THE PAVEMENT STRUCTURE

RIGID PIPE

- REFER TO THE FOLLOWING FOR PIPE SPECIFICATIONS
- RCP - (Minimum fill) 1' for Class IV & Class V
  - 2' for Class III & Class II
  - (Maximum fill) 10' - Class II pipe
  - 20' - Class III pipe
  - 30' - Class IV pipe
  - 40' - Class V pipe
- (For fills > 40' & < 80' use LRFD Direct Design Method)
- \* FILL HEIGHT IS MEASURED FROM THE TOP OF THE PIPE TO THE BOTTOM OF THE PAVEMENT STRUCTURE
- NOTES: FILL HEIGHTS SHOWN WERE CALCULATED USING AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS
- 1' MINIMUM COVER FOR ALL SIDE DRAIN PIPE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS

FILL HEIGHT TABLES

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

ROADWAY STANDARD DRAWING FOR  
METHOD OF PIPE INSTALLATION  
RIGID PIPE  
SHEET 2 OF 3  
300.01

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

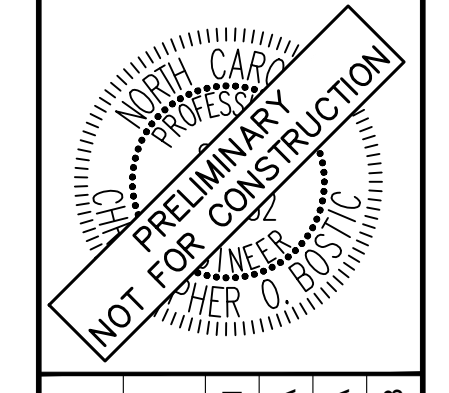
ROADWAY STANDARD DRAWING FOR  
METHOD OF PIPE INSTALLATION  
FILL HEIGHT TABLES  
SHEET 3 OF 3  
300.01

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

NO.	REVISIONS	DATE
1		
2		
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KHA PROJECT	013031004
DATE	09/29/2023
SCALE	AS SHOWN
DESIGNED BY	JAA
DRAWN BY	JAA
CHECKED BY	COE

**STORM DETAILS**

**THE LEARNING CENTER ROLESVILLE**

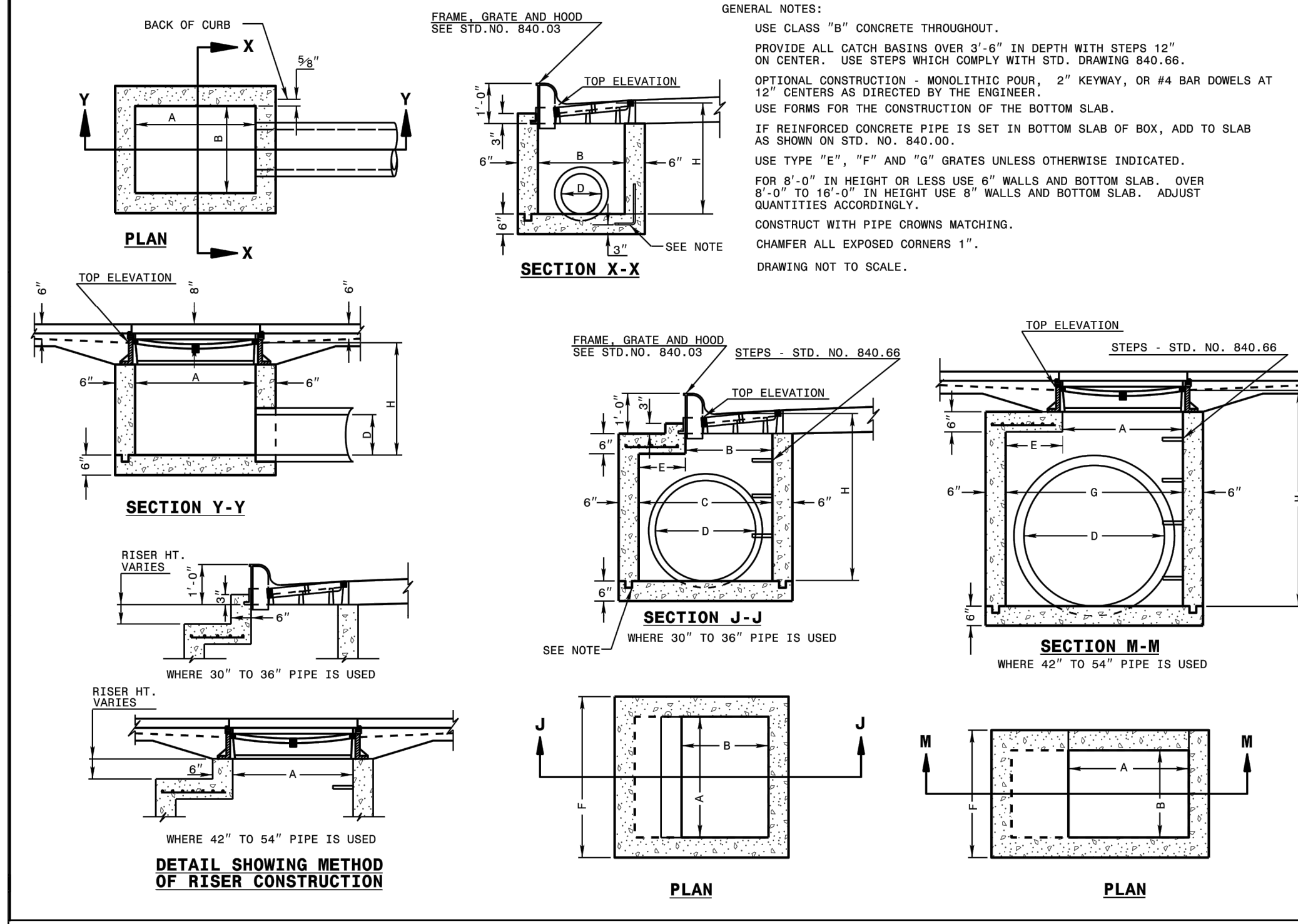
PREPARED FOR  
**ROLESVILLE, LLC.**

TOWN OF ROLESVILLE  
NORTH CAROLINA

SHEET NUMBER  
**C9.0**



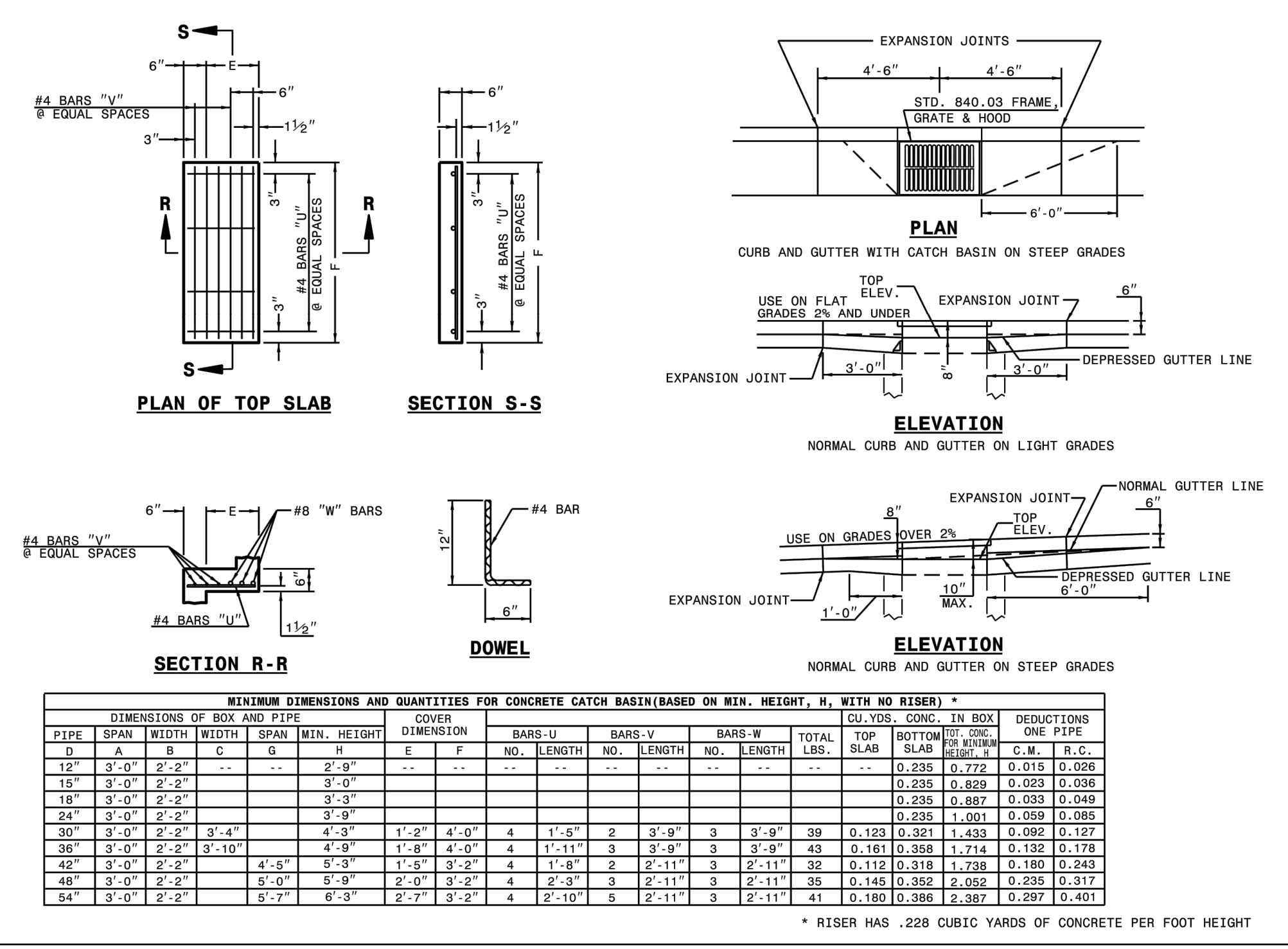
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 RALEIGH, N.C.

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

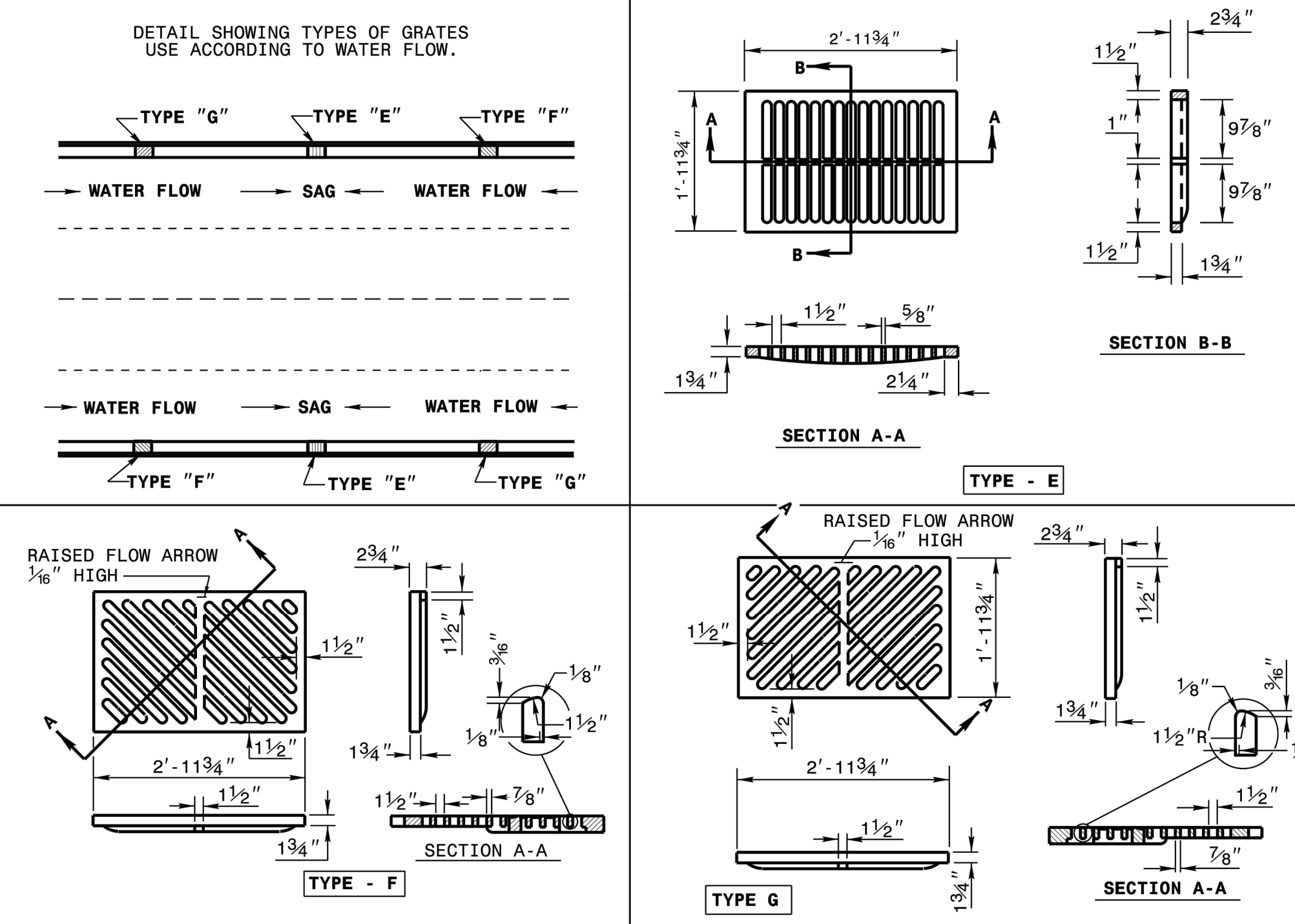
SHEET 1 OF 2  
**840.02**



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 DIVISION OF HIGHWAYS  
 RALEIGH, N.C.

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

SHEET 2 OF 2  
**840.02**



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

ROADWAY STANDARD DRAWING FOR  
**FRAME, GRATES, AND HOOD**  
 FOR USE ON STANDARD CATCH BASIN

SHEET 2 OF 2  
**840.03**

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SDP-23-07

THE LEARNING CENTER ROLESVILLE  
 PREPARED FOR  
 ROLESVILLE, LLC.  
 TOWN OF ROLESVILLE NORTH CAROLINA

STORM DETAILS

DATE  
 REVISIONS  
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NOT FOR CONSTRUCTION

KHA PROJECT  
 013031004

DATE  
 09/29/2023

SCALE  
 AS SHOWN

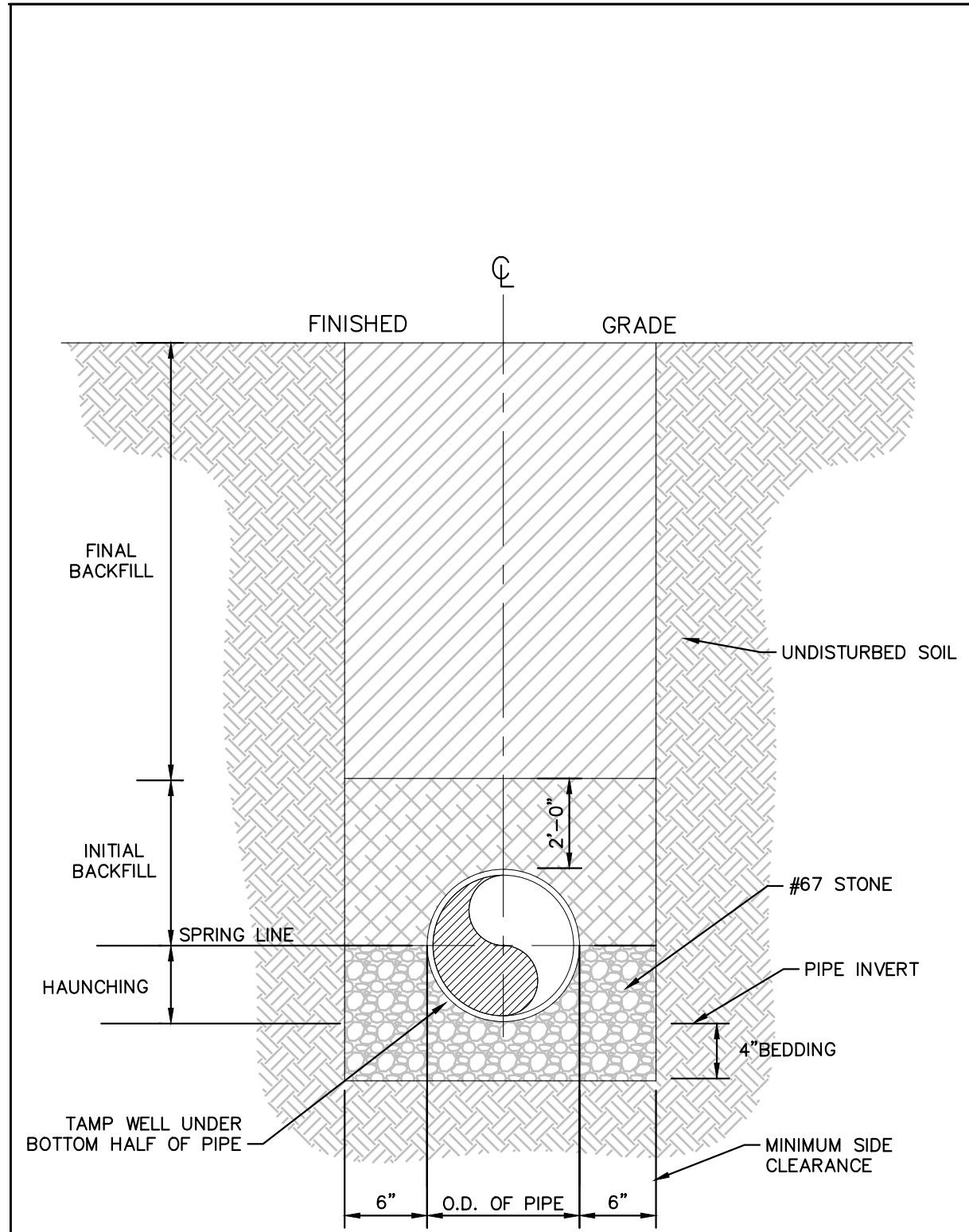
DESIGNED BY  
 JAA

DRAWN BY  
 JAA

CHECKED BY  
 COE

SHEET NUMBER  
**C9.1**

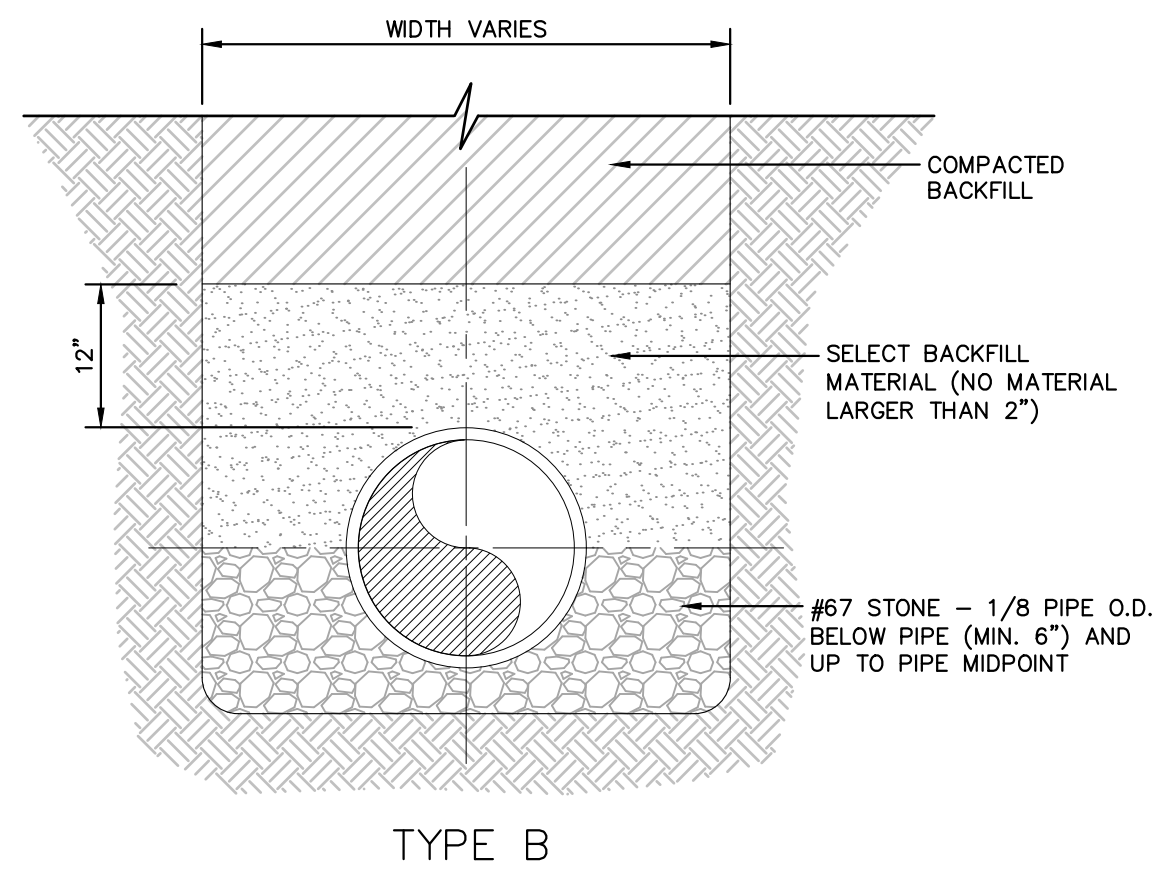
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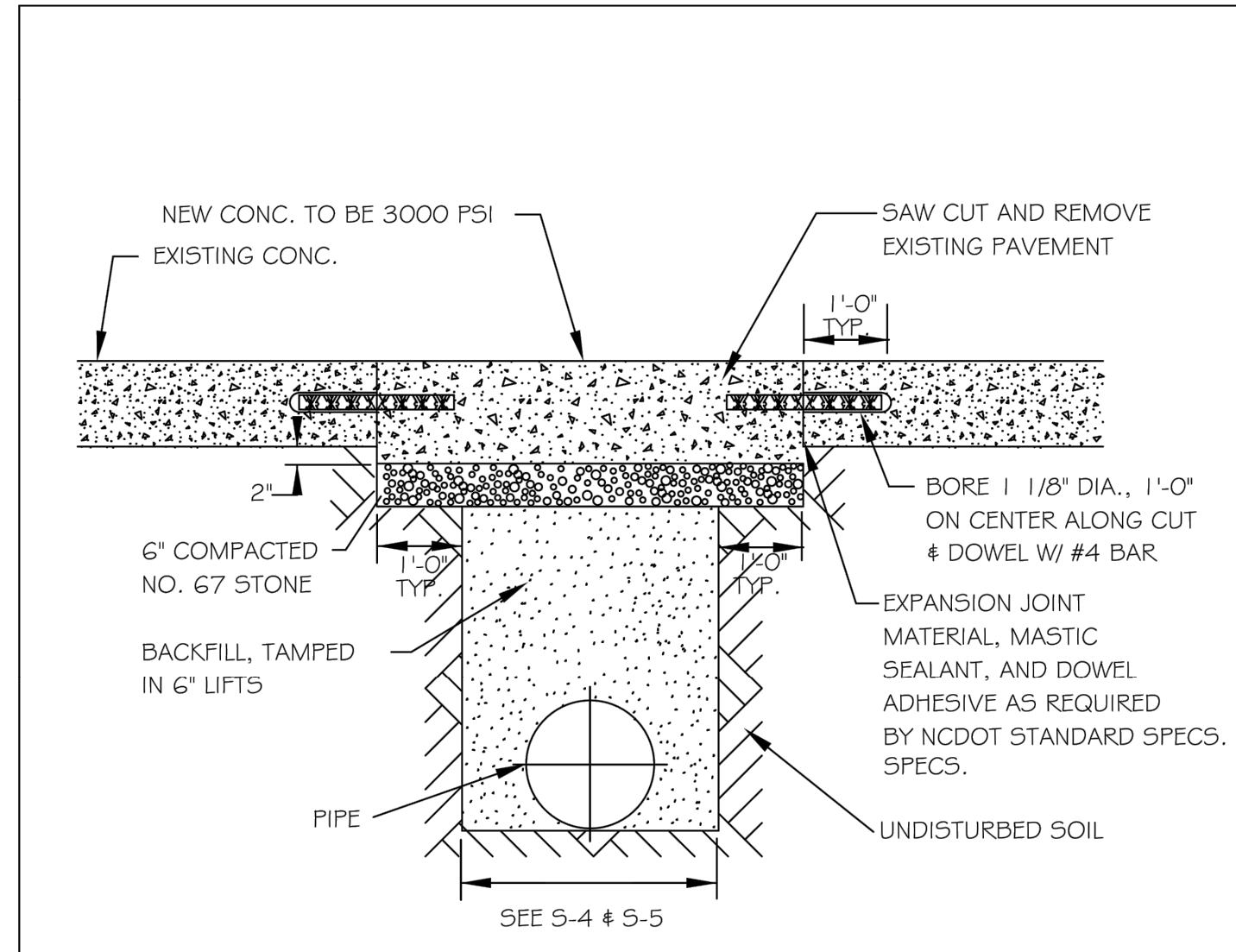
**NOTES**

1. FOR TRENCHES REQUIRING SHORING AND BRACING, DIMENSIONS SHALL BE TAKEN FROM THE INSIDE FACE OF THE SHORING AND BRACING.
2. NO ROCKS OR BOULDERS 4" OR LARGER TO BE USED IN INITIAL BACKFILL.
3. ALL BACKFILL MATERIAL SHALL BE SUITABLE NATIVE MATERIAL.
4. BACKFILL SHALL BE TAMPED IN 6" LIFTS IN TRAFFIC AREAS, 12" IN NON-TRAFFIC AREAS.

**BEDDING AND TRENCH**  
 N.T.S. KHA DETAIL NO: 04.101.R01 XX

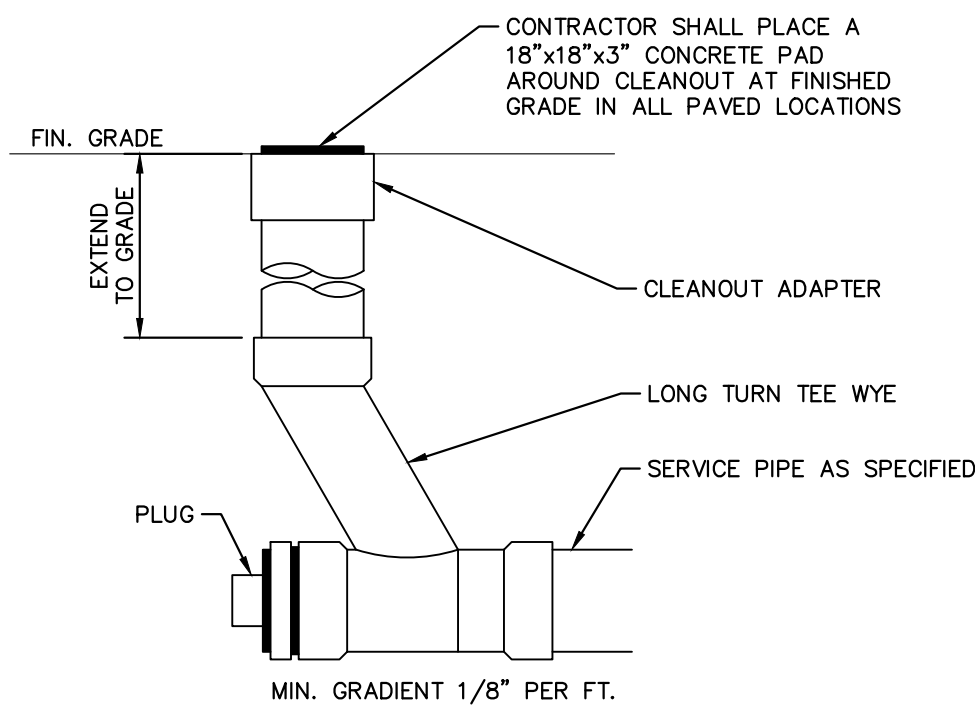


**BACKFILL SECTION**  
 N.T.S. KHA DETAIL NO: 04.102.R01 XX

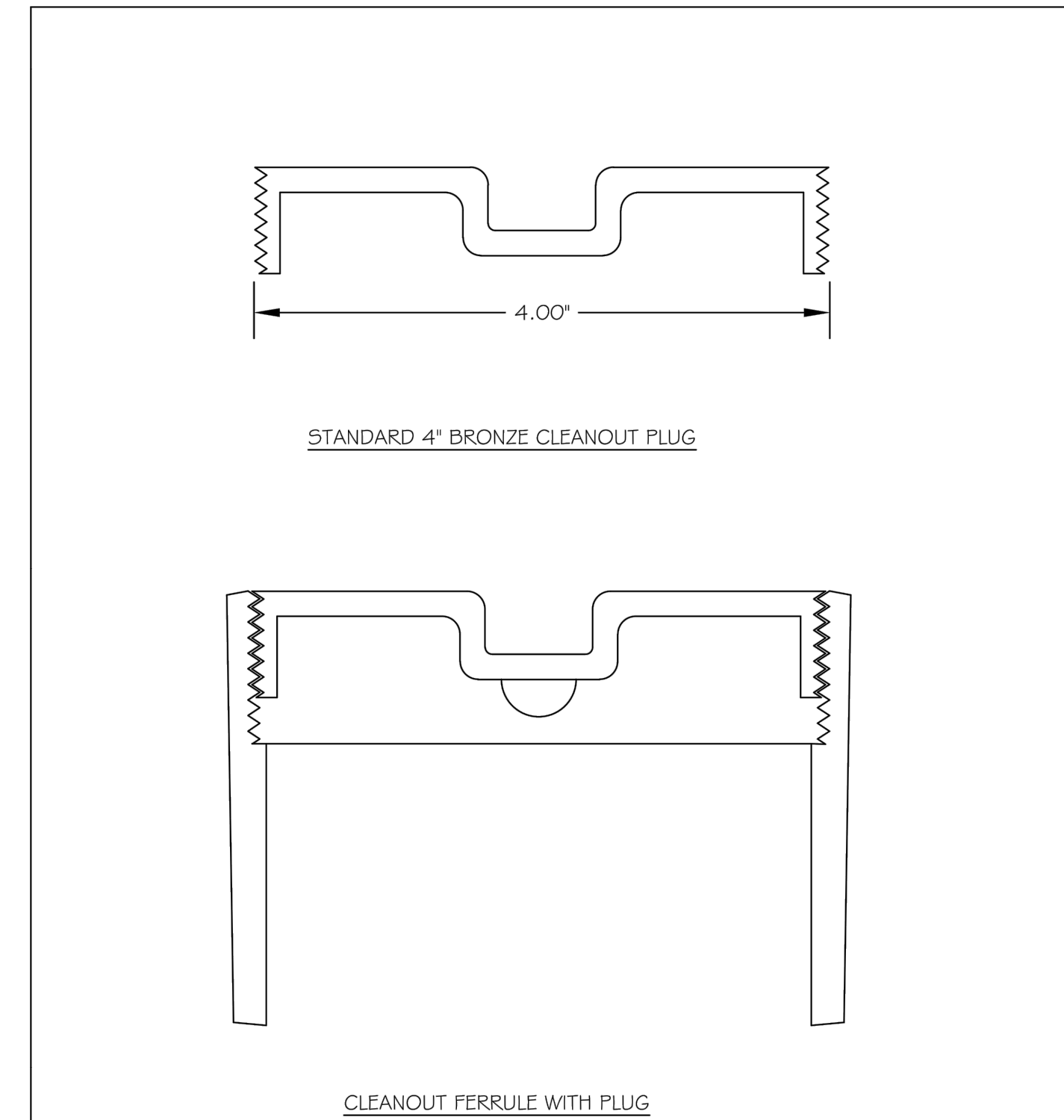


- NOTES:**
1. See City of Raleigh standards for trenches and pipe bedding (5-4 & 5-5) for additional details.
  2. Pavement cuts over 5'-0" in width shall be reinforced to N.C.D.O.T. standards.
  3. Pavement cuts shall be made with an appropriate saw cut machine.
  4. Pavement cuts within NCDOT ROW shall conform to the approved on site encroachment permit.

CITY OF RALEIGH				
DEPARTMENT OF PUBLIC UTILITIES				
STANDARD CONCRETE PAVEMENT PATCH DETAIL				
DWG. NO.	REVISIONS	DATE	REVISIONS	DATE
5-2	D.W.C.	6-23-99	A.B.B.	4-19-04
	RRH	3-30-00	J.P.S	0-8-10



**CLEANOUT**  
 N.T.S. KHA DETAIL NO: 04.201.R01 XX



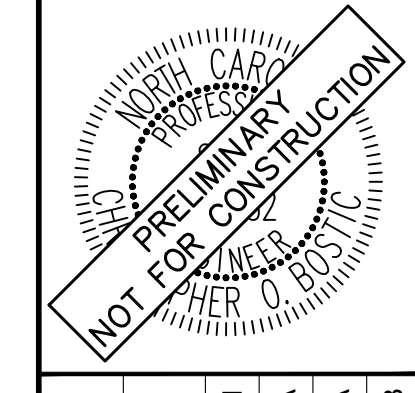
STYLES ACCEPTED:  
 INVERTED NUT  
 RAISED NUT

CITY OF RALEIGH				
DEPARTMENT OF PUBLIC UTILITIES				
4" CLEANOUT PLUG				
DWG. NO.	REVISIONS	DATE	REVISIONS	DATE
5-34	D.W.C.	3-1-87	RRH	3-30-00
		3-27-98		

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7					
6					
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3					
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No.					

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KHA PROJECT	DATE	SCALE	DESIGNED BY	DRAWN BY	CHECKED BY
013031004	09/29/2023	AS SHOWN	JAA	JAA	COB

**SANITARY SEWER DETAILS**

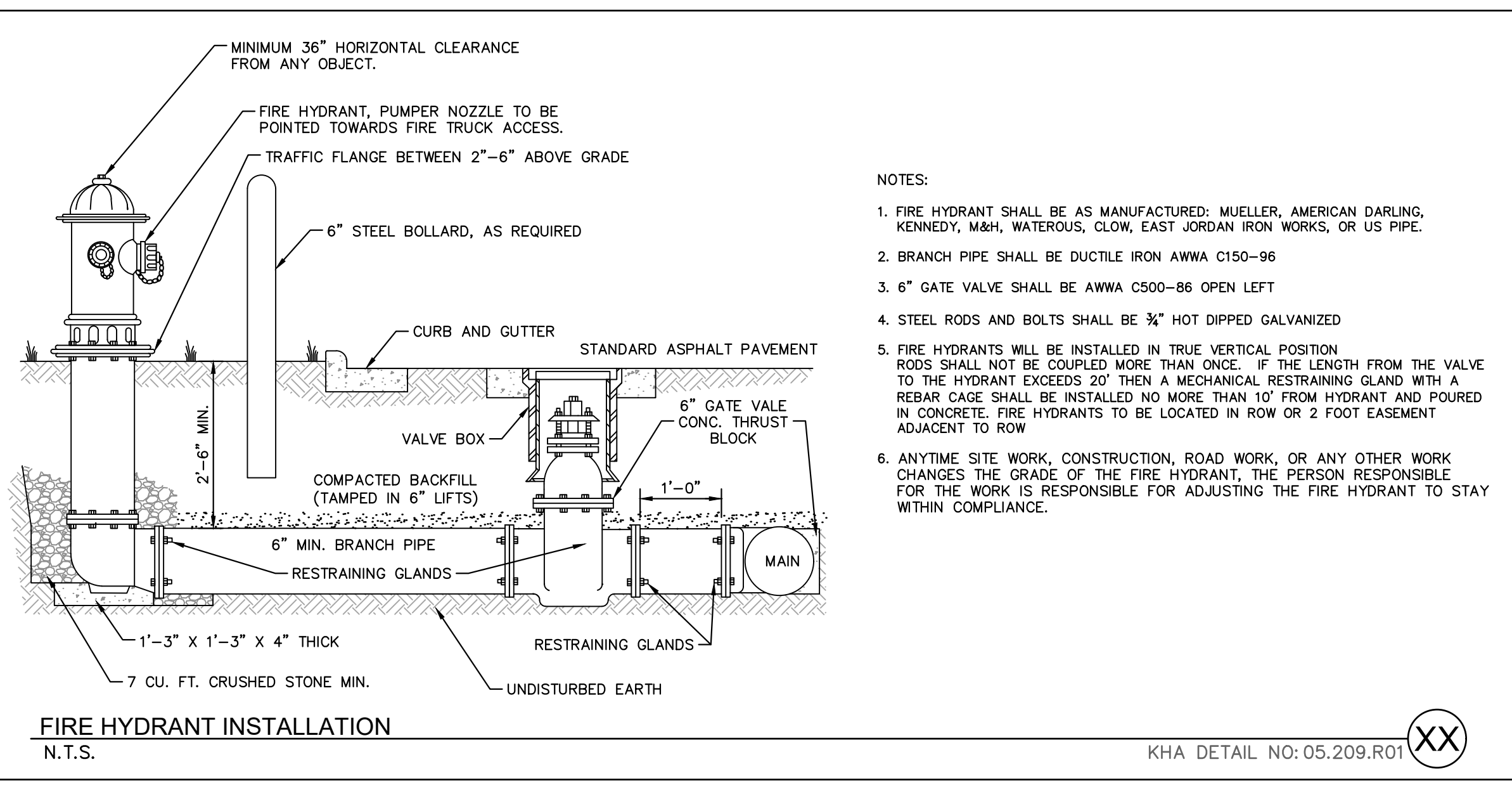
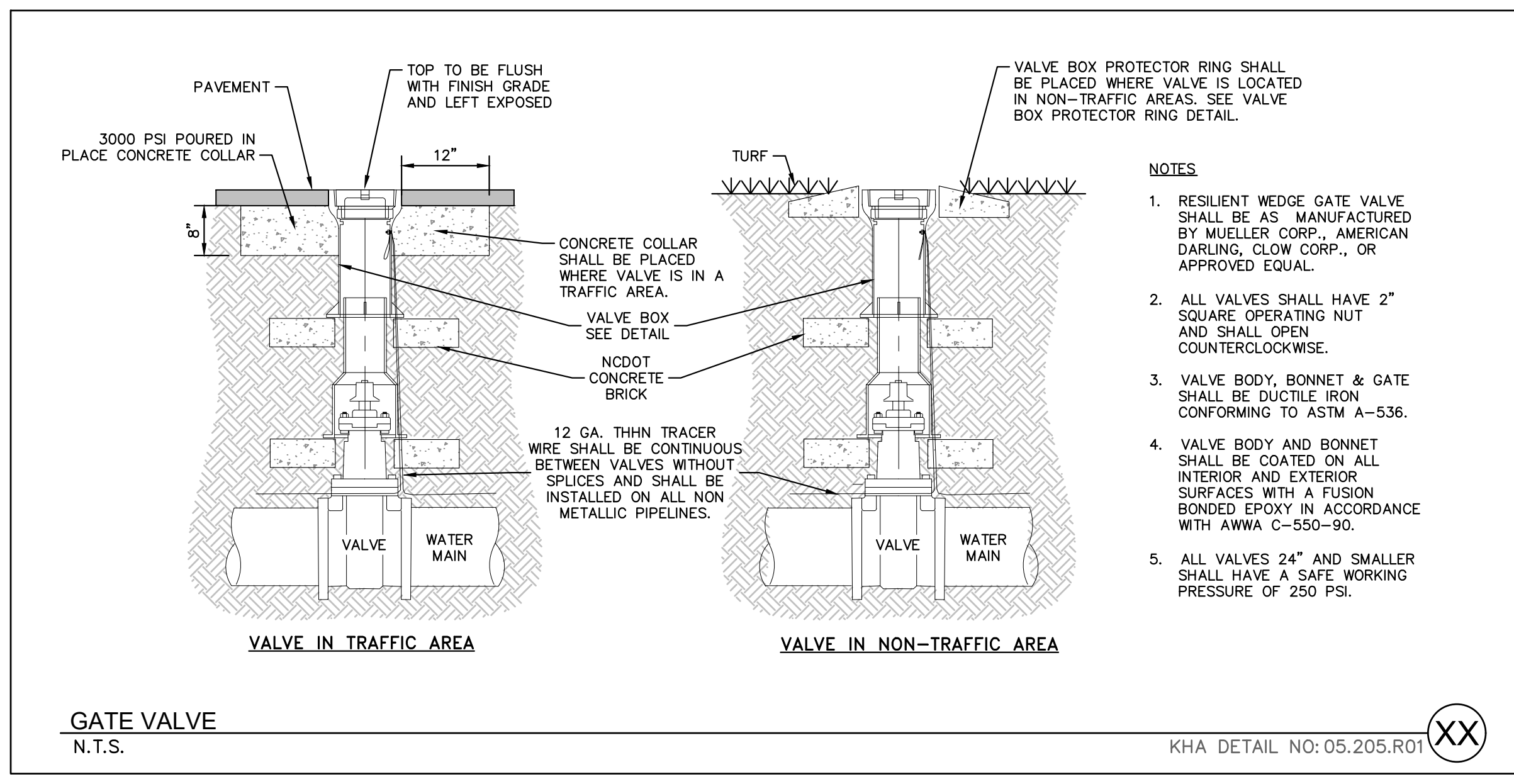
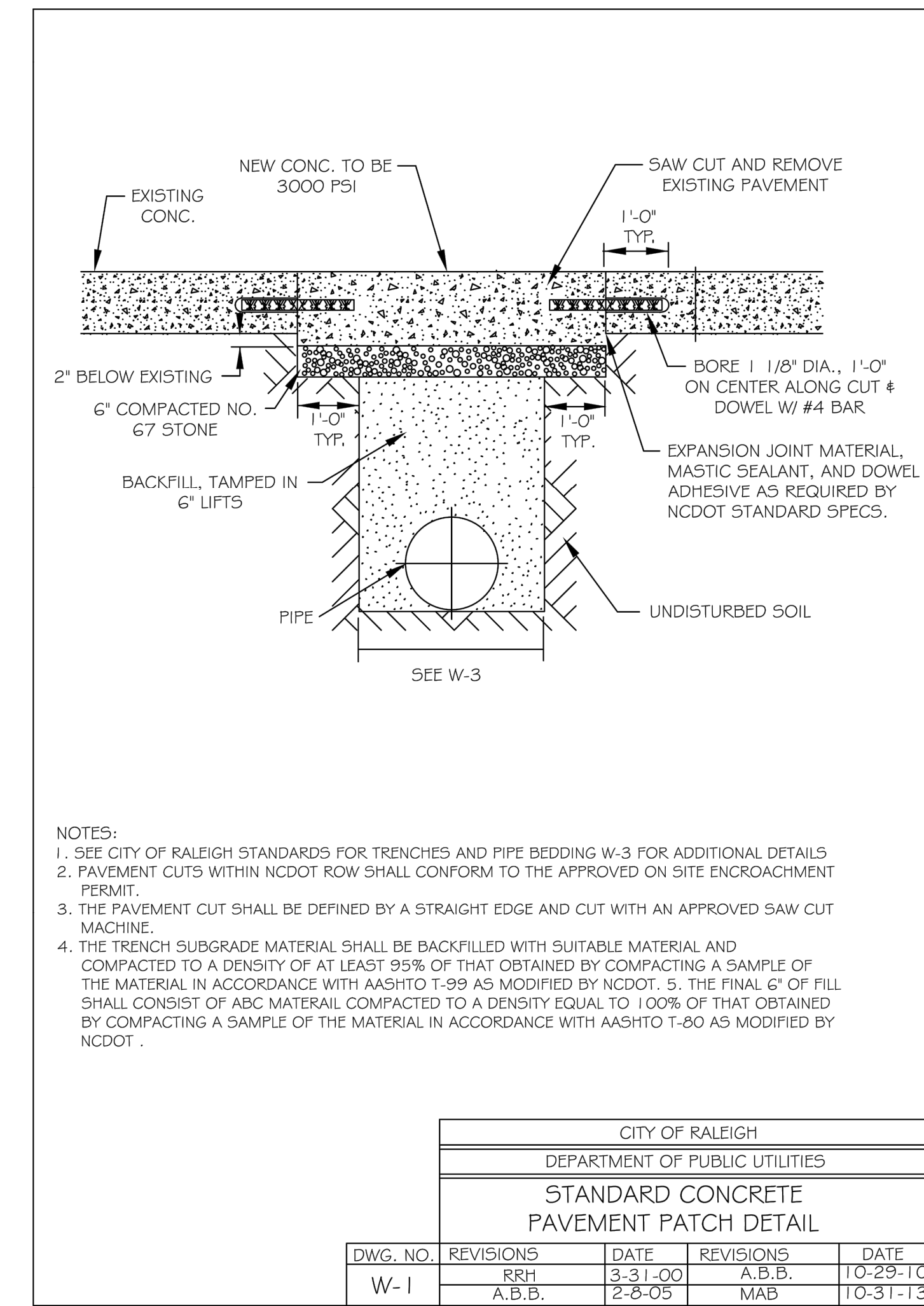
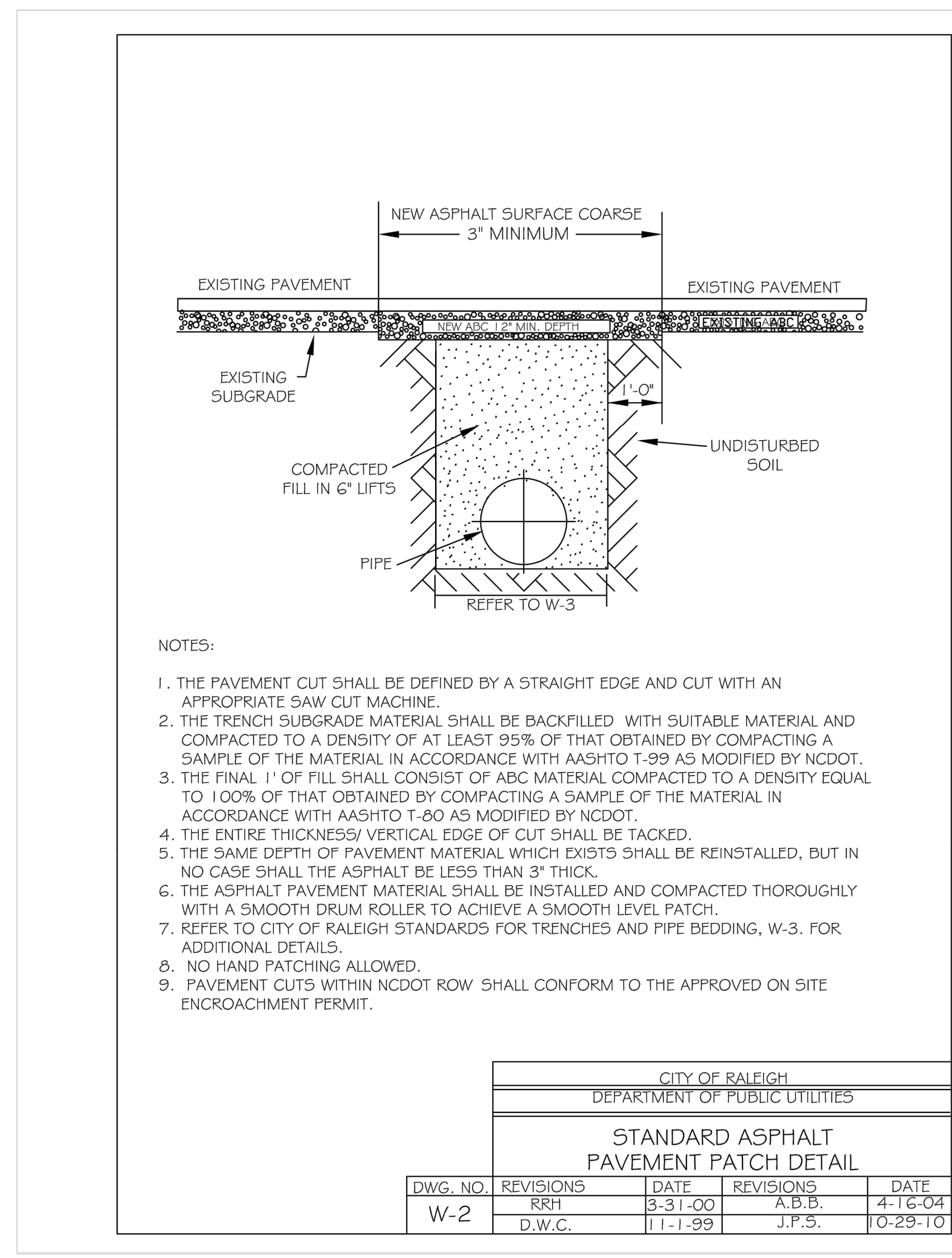
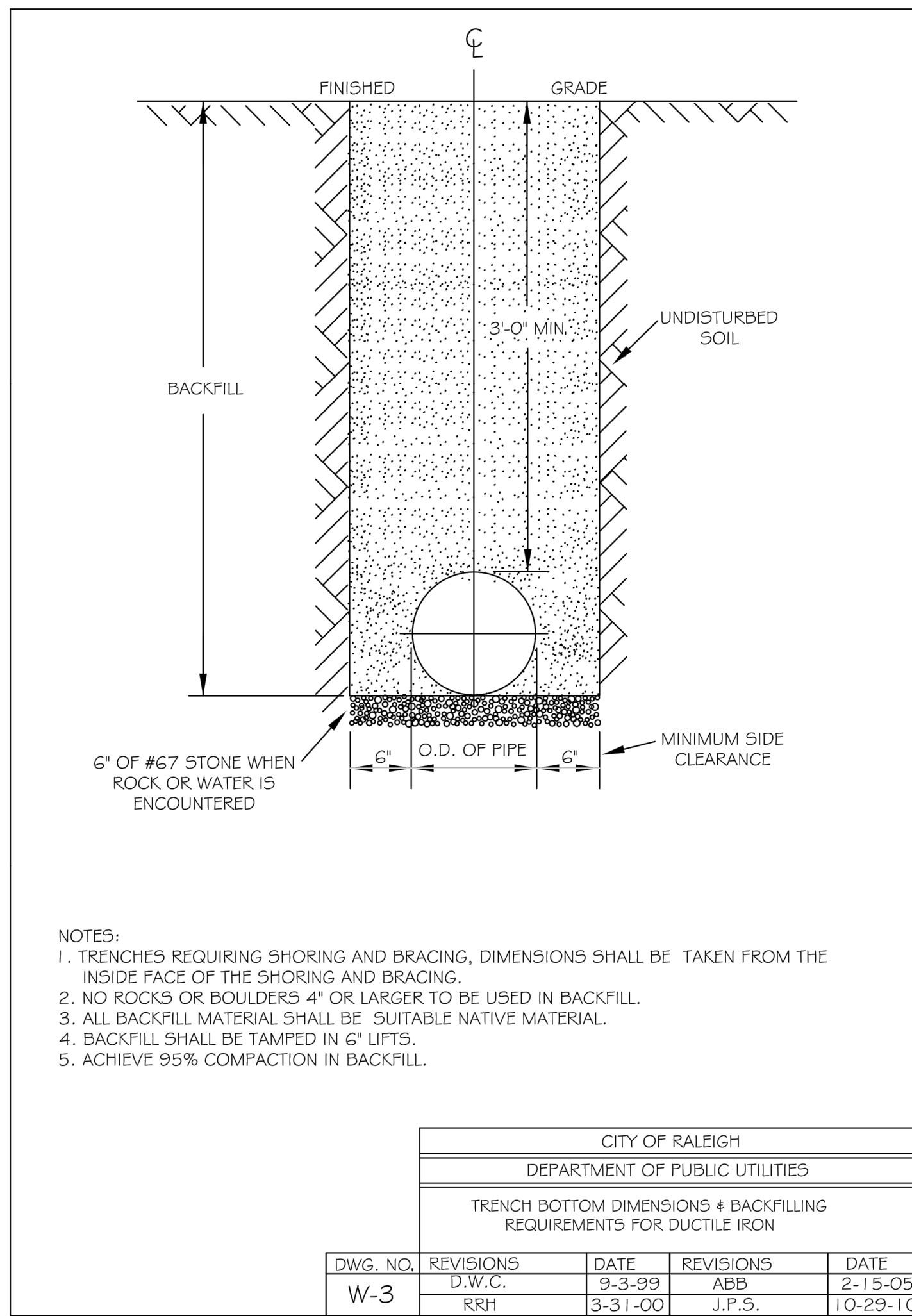
**THE LEARNING CENTER ROLESVILLE**  
 PREPARED FOR  
**ROLESVILLE, LLC.**  
 TOWN OF ROLESVILLE NORTH CAROLINA

SHEET NUMBER  
**C10.0**



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**THE LEARNING CENTER ROLESVILLE**  
 PREPARED FOR  
**ROLESVILLE, LLC.**  
 TOWN OF ROLESVILLE  
 NORTH CAROLINA

**WATER DETAILS**

SHEET NUMBER  
**C11.0**

Know what's below.  
Call before you dig.

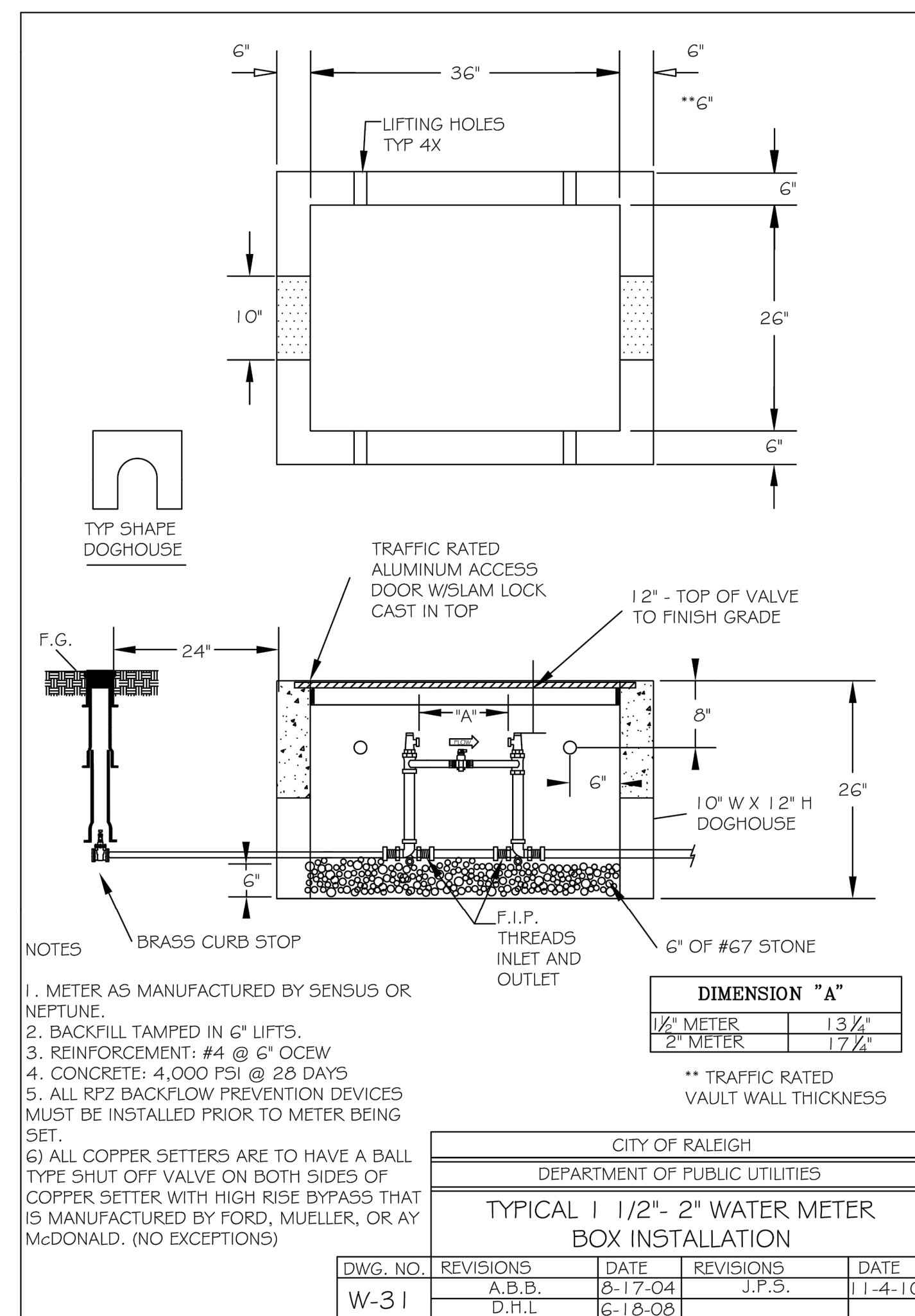
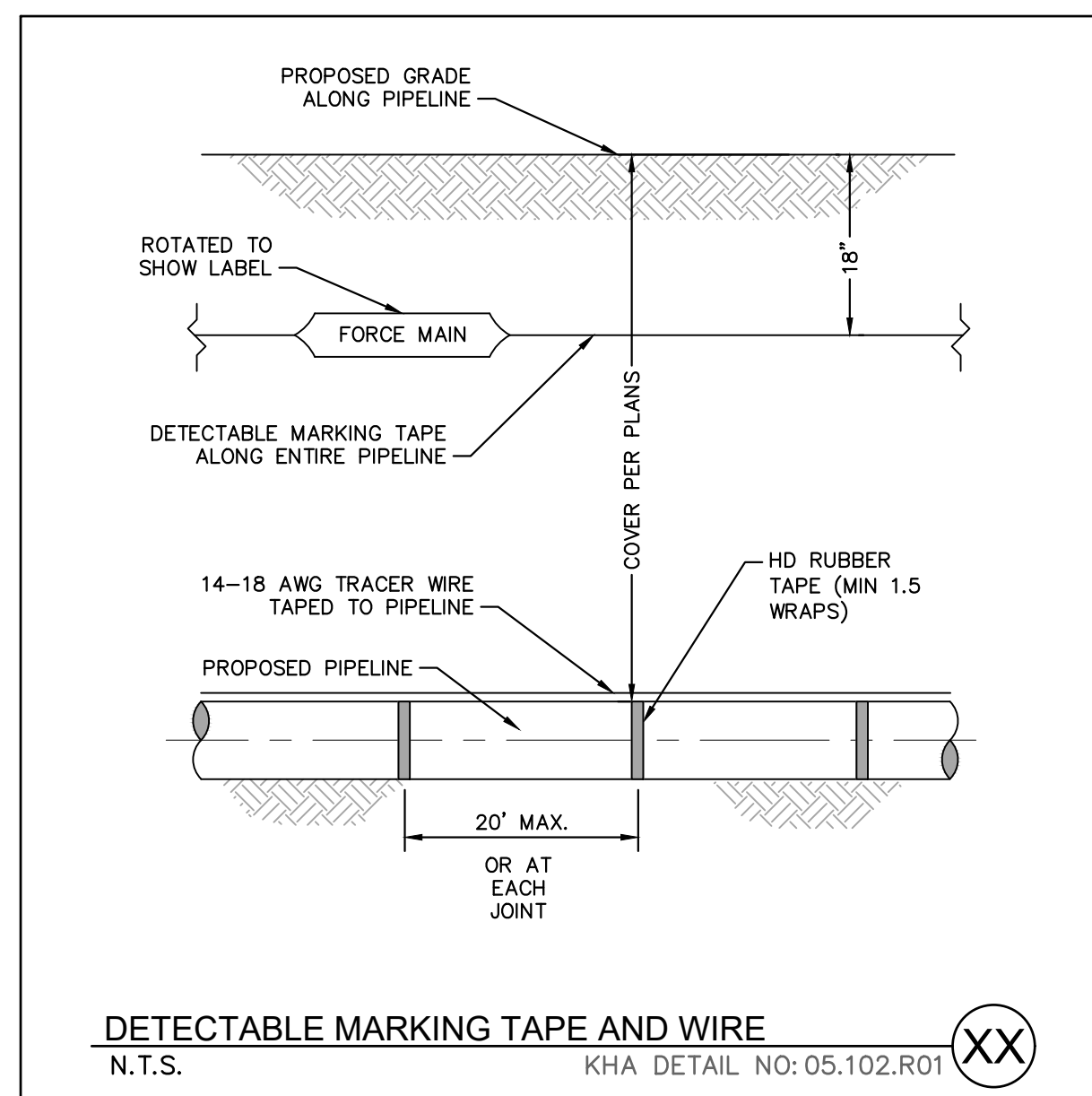
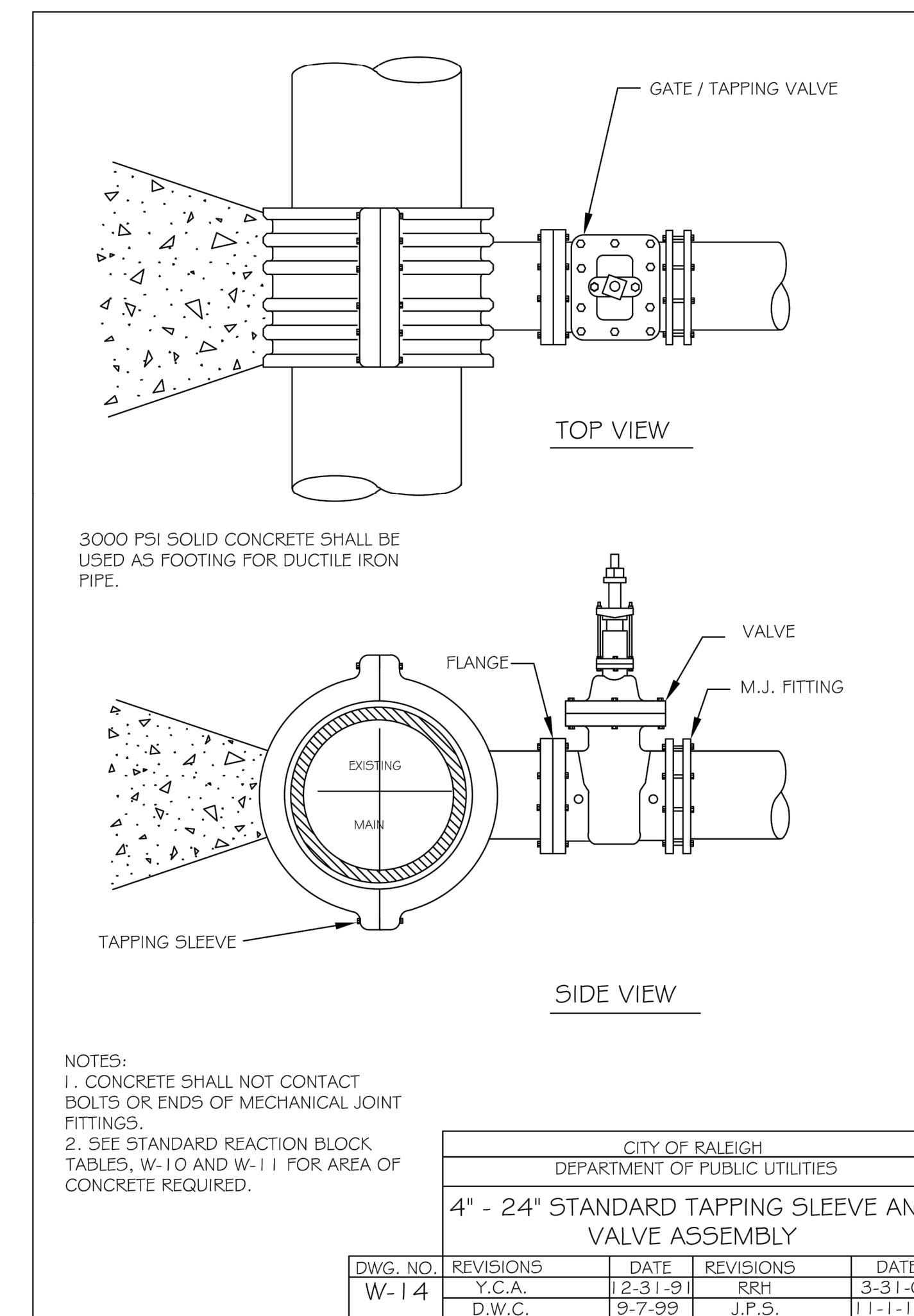
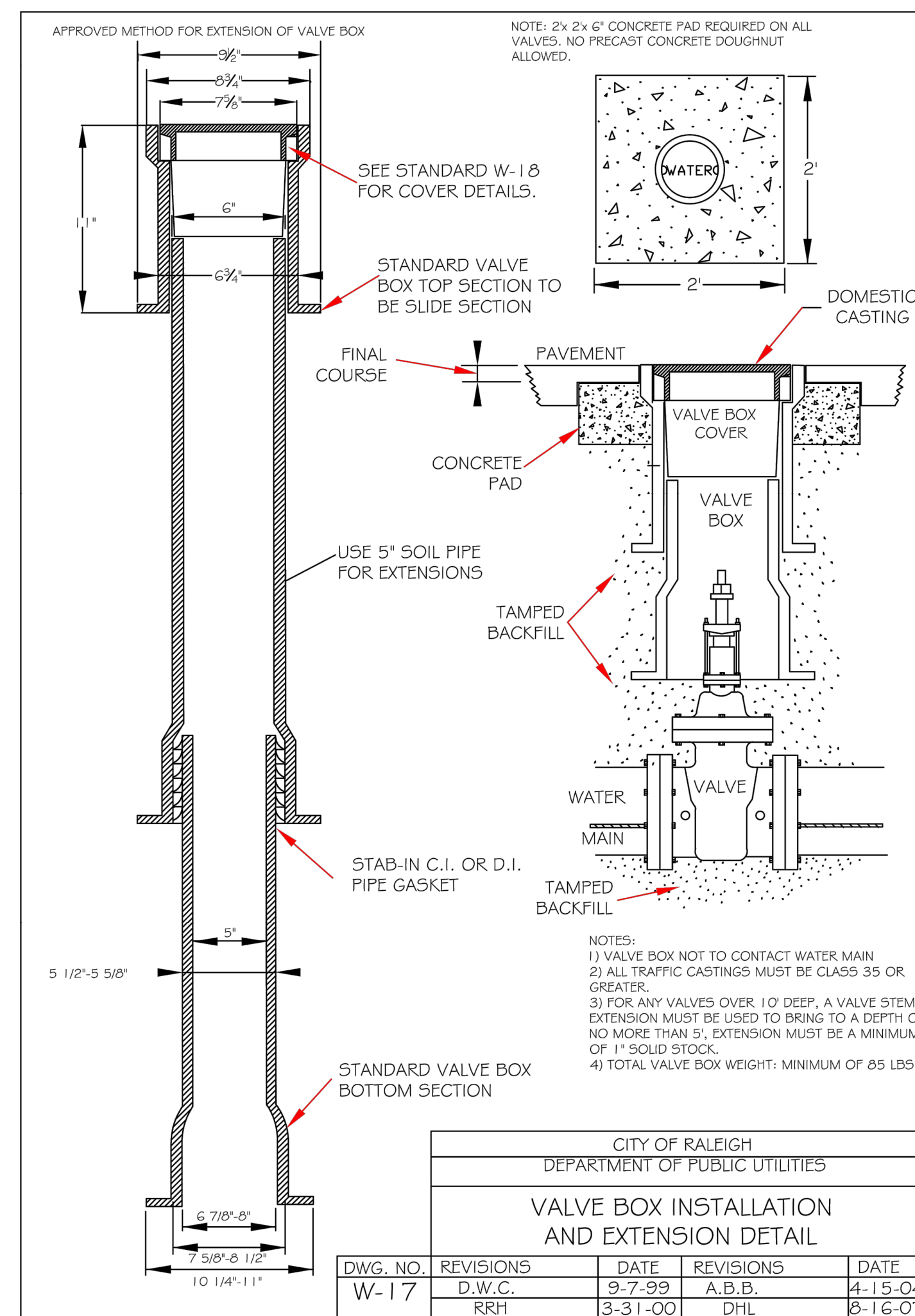
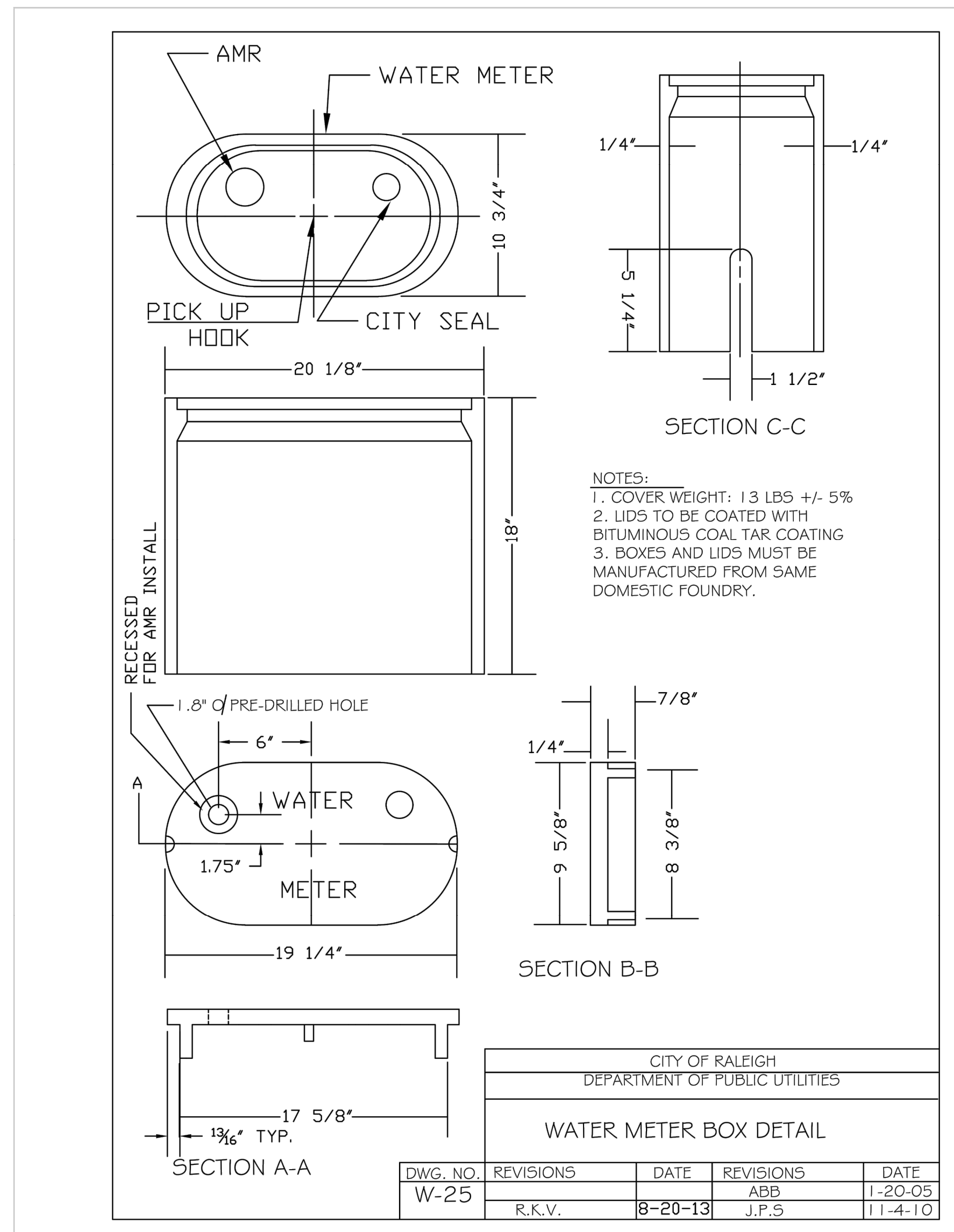
SDP-23-07

REVISIONS

No.	DATE	BY

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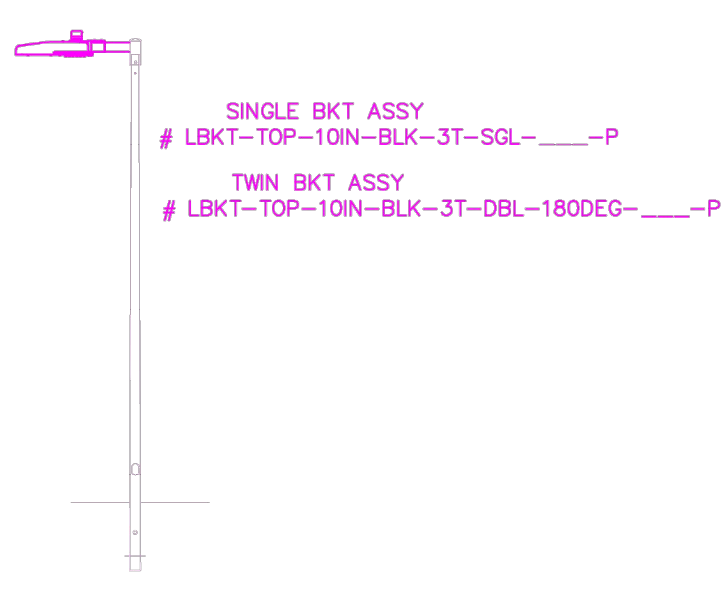
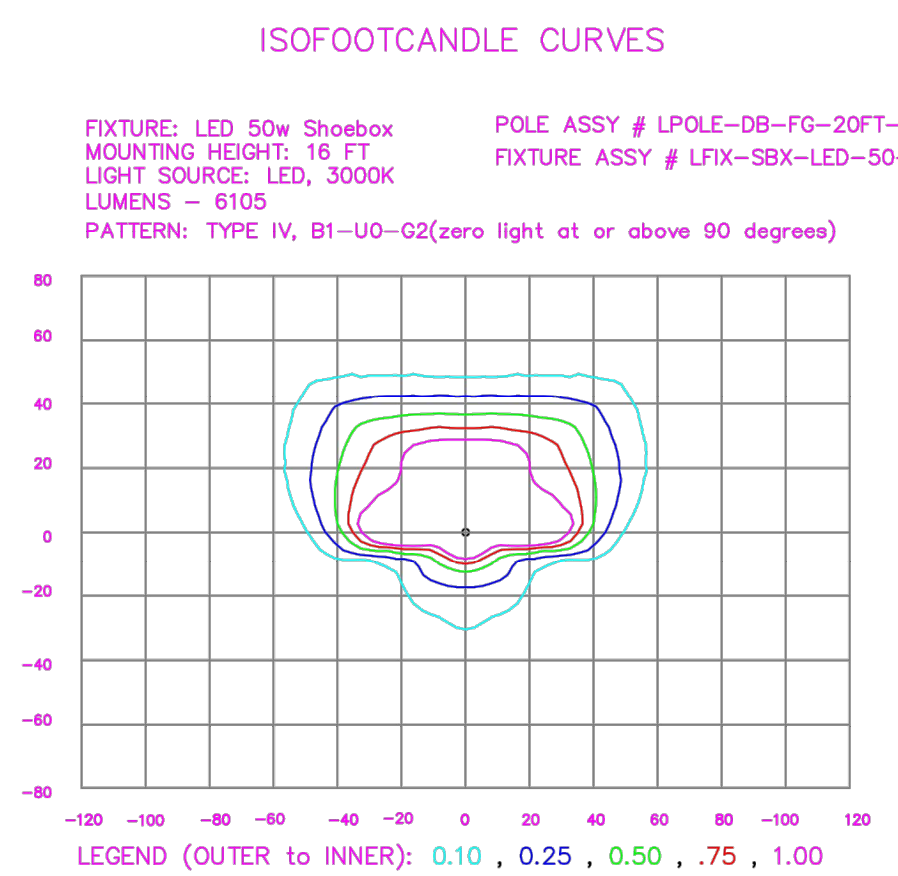
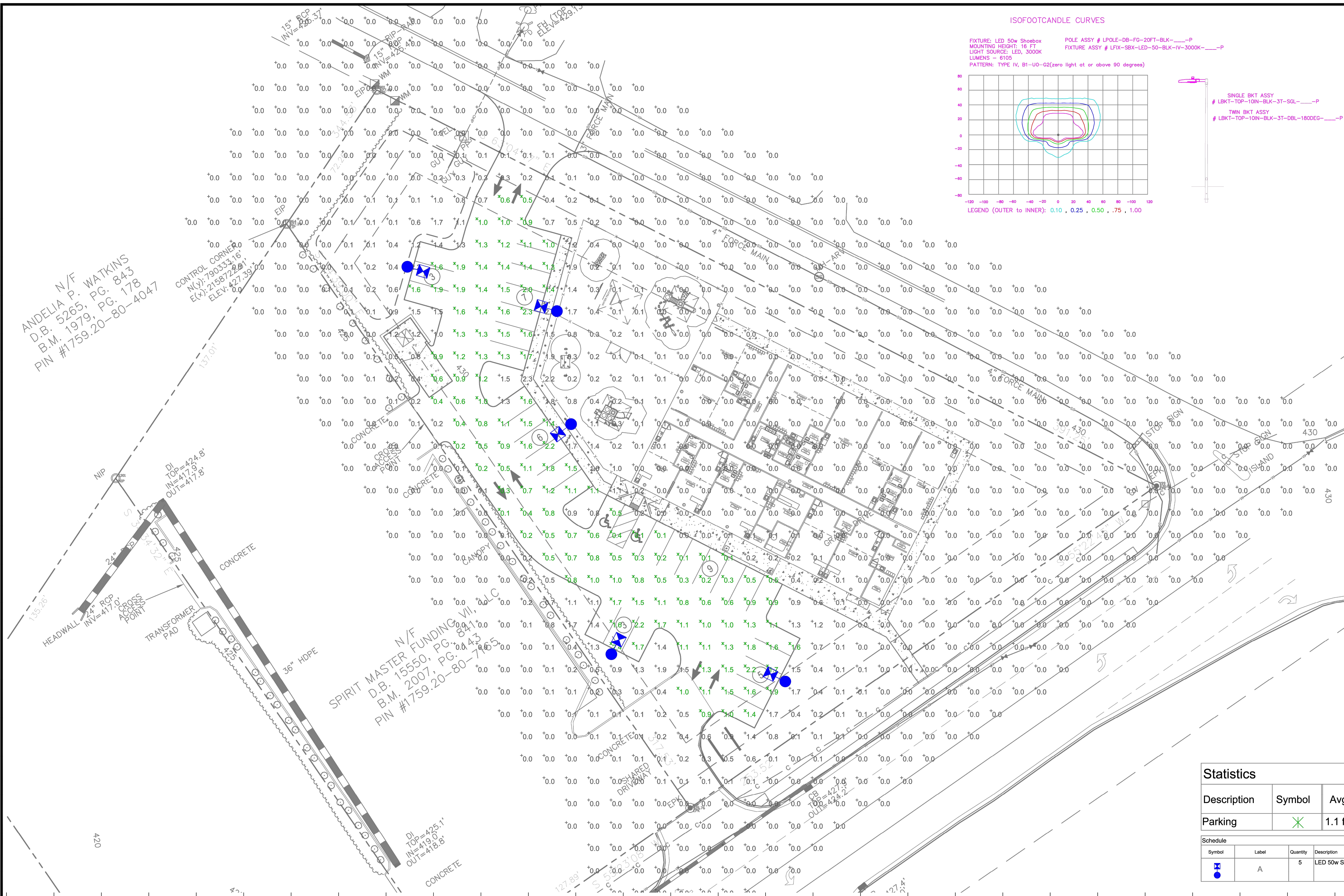
**THE LEARNING CENTER ROLESVILLE**  
PREPARED FOR  
**ROLESVILLE, LLC.**  
TOWN OF ROLESVILLE  
NORTH CAROLINA

**WATER DETAILS**

SHEET NUMBER  
**C11.1**

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NO.	REVISIONS	DATE	BY
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### Outdoor Lighting

**PEDESTRIAN SHOEBOX LED**  
(Meets Dark Sky Criteria)

LED (Light-emitting diode)	50 watts
Mounting height	12' - 17'
Color	Black
Pole	Aluminum Flangeless Concrete Decorative Aluminum
Applications	Neighborhoods Parks Shopping centers

Light source: LED (Aria)  
Wattage: 50 watts  
Lumens: 6,105 (1.4xLSF)  
Light pattern: IESNA Type IV  
IESNA cutoff classification: Full cutoff  
BUG rating: Type IV = B1 U0 G2  
Color temperature: 3,000K (1.4,000K)

POLE AVAILABLE	MOUNTING HEIGHT	COLOR
Aluminum	12', 15', 17'	Black
Flangeless	16'	Black
Flush Concrete	13'	Black
Decorative Aluminum	12', 16'	Black

FEATURES	BENEFITS
Touchless operation	Provides hands-free installation and service
Little or no installation cost	Free up capital for other projects
Design services by lighting professionals included	Meets industry standards and lighting ordinances
Maintenance, electricity & warranty included	Eliminates high and unexpected repair bills
One low monthly cost on your electric bill	Convenience and savings for you

For additional information, contact us at [GOLC@dukeenergy.com](mailto:GOLC@dukeenergy.com)

DUKE ENERGY PROGRESS

N/F  
ANDELIA P. WATKINS  
D.B. 5265, PG. 843  
B.M. 1979, PG. 178  
PIN #1759.20-80-4047

CONTROL CORNER  
N(4) 7903.53.16'  
E(X) 21587.22.80'  
ELEV. 427.39'

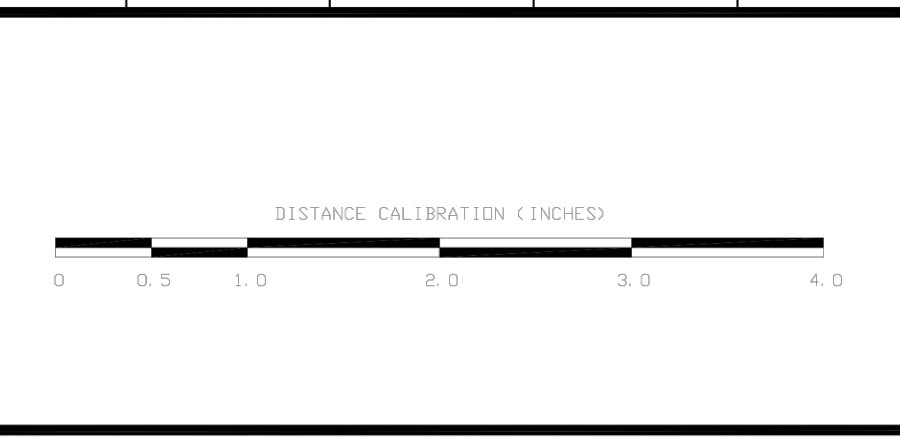
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SPIRIT MASTER FUNDING VII, LLC  
D.B. 15550, PG. 841  
B.M. 2007, PG. 443  
PIN #1759.20-80-74635

LT1.0

Statistics						
Description	Symbol	Avg	Max	Min	Max/Min	Avg/Min
Parking	X	1.1 fc	2.4 fc	0.1 fc	24.0:1	11.0:1

Schedule						
Symbol	Label	Quantity	Description	Number Lamps	Lumens Per Lamp	Light Loss Factor
Blue circle with 'A'	A	5	LED 50w Shoebox - Type IV - 3000K	16	382	0.85

NO.	DATE	REVISION	BY



**LIGHTING DESIGN TOLERANCE**

The calculated footcandle light levels in this lighting design are predicted values and are based on specific information that has been supplied to Duke Energy. Any inaccuracies in the supplied information, differences in luminaire installation, lighted area geometry including elevation differences, reflective properties of surrounding surfaces, obstructions (foliage or otherwise) in the lighted area, or lighting from sources other than listed in this design may produce different results from the predicted values. Normal tolerances of voltage, lamp output, and ballast and luminaire manufacture will also affect results.



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ROLESVILLE LEARNING CENTER Rolesville, NC	
SITE LIGHTING ARRANGEMENT	
Designed by	DUKE ENERGY PROGRESS LIGHTING SOLUTIONS
Reviewed by	N. Johnson
Date	09/25/2023
Description	LED Pedestrian Shoebox
Drawing No.	23-0400A
Scale	1" = 20'
Size	Drawing size "D"
Sht.	1 OF 1

Plotted by: Alexander, Jamal Sheet Set: THE LEARNING CENTER ROLESVILLE, Layout: L1.0 LANDSCAPE PLAN, January 02, 2024  
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**PLANT SCHEDULE**

TREES	CODE	QTY	BOTANICAL NAME	COMMON NAME	CONT.	CAL	HEIGHT	LOCATION
	AB	4	ACER BUERGERIANUM	TRIDENT MAPLE	B&B	3" MIN.	12' MIN.	VUA
	CC	6	CARPINUS CAROLINIANA	AMERICAN HORNBEAM	B&B	3" MIN.	12' MIN.	VUA
	MS	2	MAGNOLIA X SOULANGEANA	SAUCER MAGNOLIA MULTI-TRUNK	B&B	2" MIN.	8' MIN.	PERIMETER BUFFER
	QL	8	QUERCUS LYRATA	OVERCUP OAK	B&B	3" MIN.	12' MIN.	STREET BUFFER
	UA	8	ULMUS AMERICANA 'PRINCETON'	PRINCETON ELM	B&B	3" MIN.	12' MIN.	STREET BUFFER
SHRUBS	CODE	QTY	BOTANICAL NAME	COMMON NAME	CONT.	HEIGHT	LOCATION	
	AXG	45	ABELIA X GRANDIFLORA 'CANYON CREEK'	CANYON CREK ABELIA	5 GAL	24" HT.	VUA, PERIMETER BUFFER	
	ICD	33	ILEX CORNUTA 'DWARF BURFORD'	DRAWF BURFORD HOLLY	5 GAL	24" HT.	VUA, PERIMETER BUFFER	
	ICS	23	ILEX CRENATA 'SOFT TOUCH'	SOFT TOUCH HOLLY	5 GAL	24" HT.	VUA, PERIMETER BUFFER	
	IGN	35	ILEX GLABRA 'NIGRA'	INKBERRY HOLLY	5 GAL	24" HT.	VUA, PERIMETER BUFFER	
	LCE	30	LOROPETALUM CHINENSE 'EMERALD SNOW'	EMERALD SNOW FRINGE FLOWER	5 GAL	24" HT.	VUA, PERIMETER BUFFER	

Please move tree so that not located within 2' between the fence and the right-of-way. trees are allowed to be clustered so we suggest moving this tree elsewhere along the street buffer

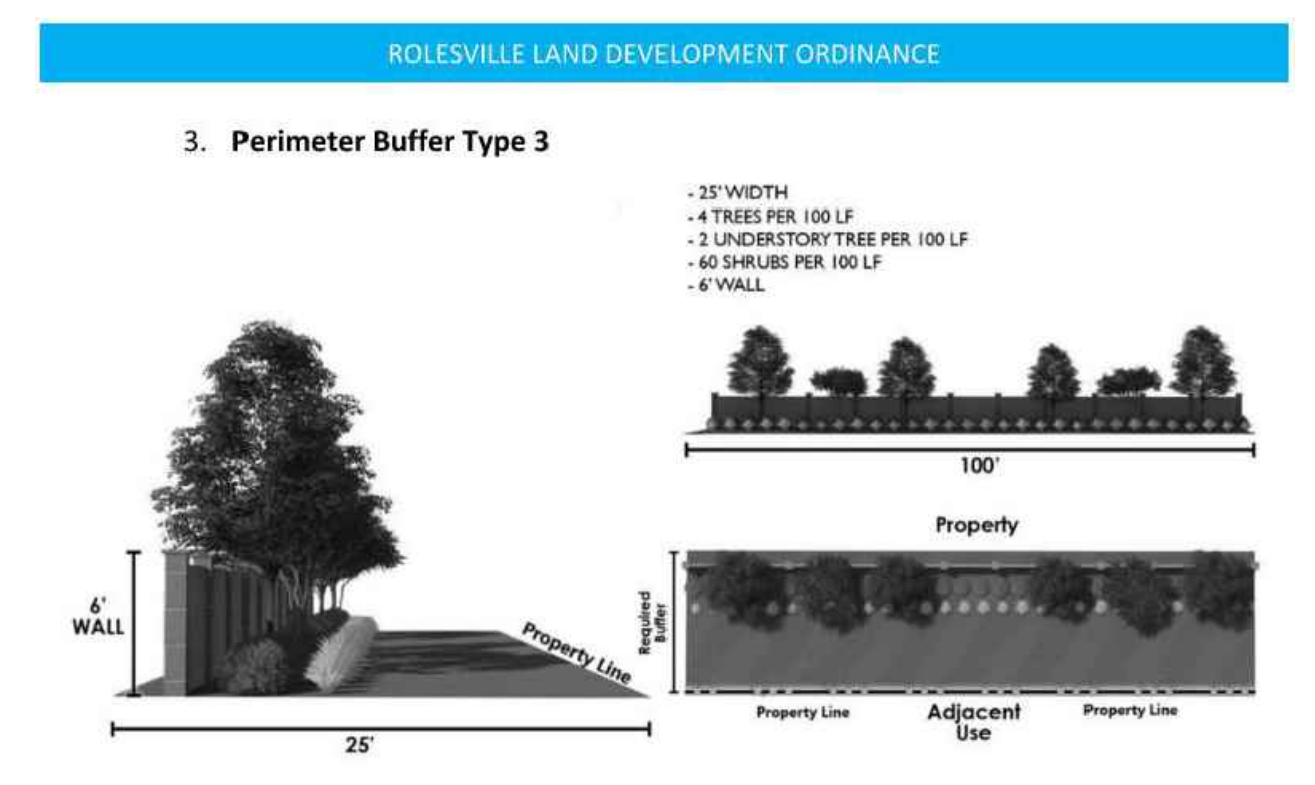
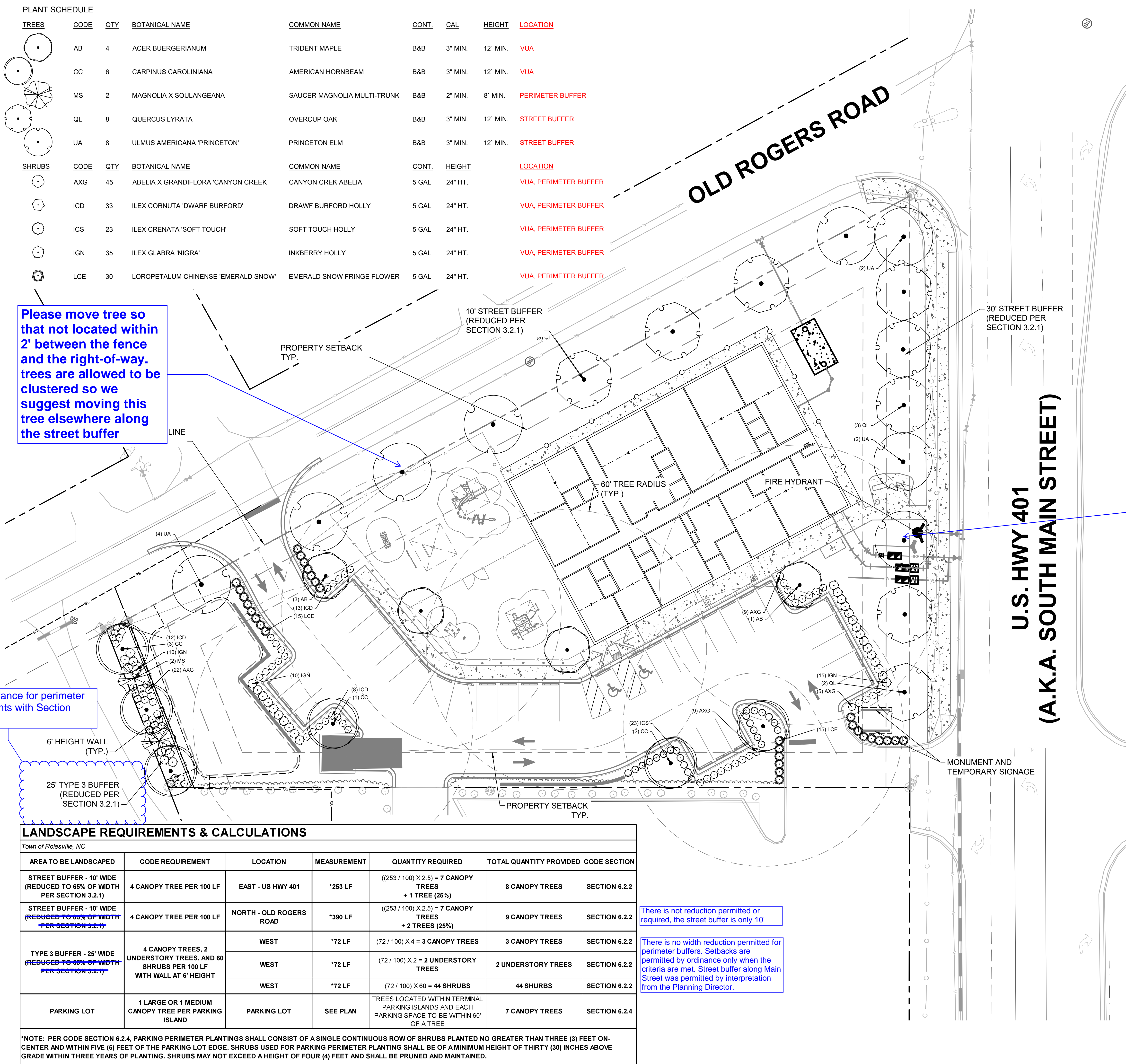
There is no allowance for perimeter buffer requirements with Section 3.2.1

LANDSCAPE REQUIREMENTS & CALCULATIONS						
Town of Rolesville, NC						
AREA TO BE LANDSCAPED	CODE REQUIREMENT	LOCATION	MEASUREMENT	QUANTITY REQUIRED	TOTAL QUANTITY PROVIDED	CODE SECTION
STREET BUFFER - 10' WIDE (REDUCED TO 66% OF WIDTH PER SECTION 3.2.1)	4 CANOPY TREE PER 100 LF	EAST - US HWY 401	*253 LF	((253 / 100) X 2.5) = 7 CANOPY TREES + 1 TREE (25%)	8 CANOPY TREES	SECTION 6.2.2
STREET BUFFER - 10' WIDE (REDUCED TO 66% OF WIDTH PER SECTION 3.2.1)	4 CANOPY TREE PER 100 LF	NORTH - OLD ROGERS ROAD	*390 LF	((253 / 100) X 2.5) = 7 CANOPY TREES + 2 TREES (25%)	9 CANOPY TREES	SECTION 6.2.2
TYPE 3 BUFFER - 25' WIDE (REDUCED TO 66% OF WIDTH PER SECTION 3.2.1)	4 CANOPY TREES, 2 UNDERSTORY TREES, AND 60 SHRUBS PER 100 LF WITH WALL AT 6' HEIGHT	WEST	*72 LF	(72 / 100) X 4 = 3 CANOPY TREES	3 CANOPY TREES	SECTION 6.2.2
		WEST	*72 LF	(72 / 100) X 2 = 2 UNDERSTORY TREES	2 UNDERSTORY TREES	SECTION 6.2.2
		WEST	*72 LF	(72 / 100) X 60 = 44 SHRUBS	44 SHRUBS	SECTION 6.2.2
PARKING LOT	1 LARGE OR 1 MEDIUM CANOPY TREE PER PARKING ISLAND	PARKING LOT	SEE PLAN	TREES LOCATED WITHIN TERMINAL PARKING ISLANDS AND EACH PARKING SPACE TO BE WITHIN 60' OF A TREE	7 CANOPY TREES	SECTION 6.2.4

\*NOTE: PER CODE SECTION 6.2.4, PARKING PERIMETER PLANTINGS SHALL CONSIST OF A SINGLE CONTINUOUS ROW OF SHRUBS PLANTED NO GREATER THAN THREE (3) FEET ON-CENTER AND WITHIN FIVE (5) FEET OF THE PARKING LOT EDGE. SHRUBS USED FOR PARKING PERIMETER PLANTING SHALL BE OF A MINIMUM HEIGHT OF THIRTY (30) INCHES ABOVE GRADE WITHIN THREE YEARS OF PLANTING. SHRUBS MAY NOT EXCEED A HEIGHT OF FOUR (4) FEET AND SHALL BE PRUNED AND MAINTAINED.

There is not reduction permitted or required, the street buffer is only 10'

There is no width reduction permitted for perimeter buffers. Setbacks are permitted by ordinance only when the criteria are met. Street buffer along Main Street was permitted by interpretation from the Planning Director.

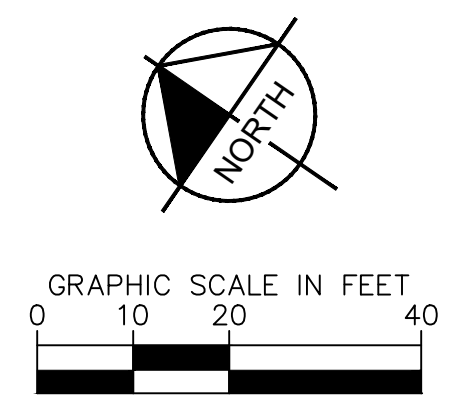


**3. Perimeter Buffer Type 3**

**GENERAL NOTES:**

1. SEE SHEET L2.0 LANDSCAPE DETAILS FOR LANDSCAPE INSTALLATION NOTES AND DETAILS

Please relocate this tree as it's proximity to the required water / fire hydrant may be problematic over time



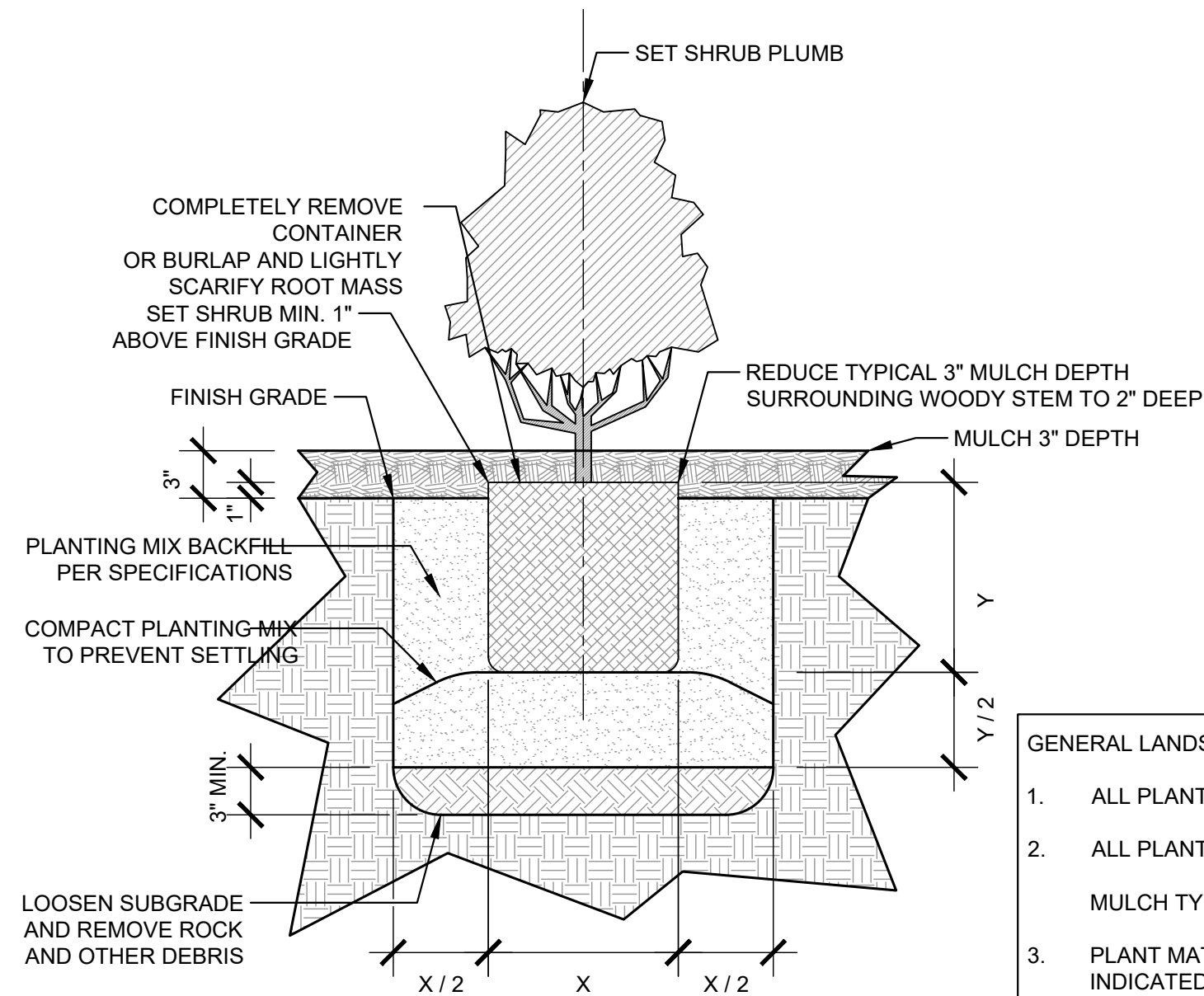
**SURVEY NOTE:**  
 EXISTING TOPOGRAPHICAL INFORMATION IS BASED ON A TOPOGRAPHIC SURVEY OBTAINED ON 02/23/2023 BY CMP PROFESSIONAL LAND SURVEYORS, 333 S. WHITE STREET, WAKE FOREST, NC, 27988. PHONE: (919) 556-3148. CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING ALL EXISTING INFORMATION, DEPICTED OR NOT, PRIOR TO CONSTRUCTION AND REPORT POTENTIAL CONFLICTS TO OWNER AND ENGINEER.



<b>Kimley»Horn</b>	© 2023 KIMLEY-HORN AND ASSOCIATES, INC. #F-0102 WWW.KIMLEY-HORN.COM PHONE: 919.677.2000 FAX: 919.677.2050 421 FAYETTEVILLE STREET, SUITE 600, RALEIGH, NC 27601		<b>THE LEARNING CENTER ROLESVILLE</b> PREPARED FOR <b>ROLESVILLE, LLC.</b> TOWN OF ROLESVILLE NORTH CAROLINA	<b>LANDSCAPE PLAN</b>	SHEET NUMBER <b>L1.0</b>
KHA PROJECT: 013031004 DATE: 09/29/2023 SCALE: AS SHOWN DESIGNED BY: JAA DRAWN BY: JAA CHECKED BY: COE	REVISIONS No. _____ DATE _____ BY _____				
SDP-23-07					

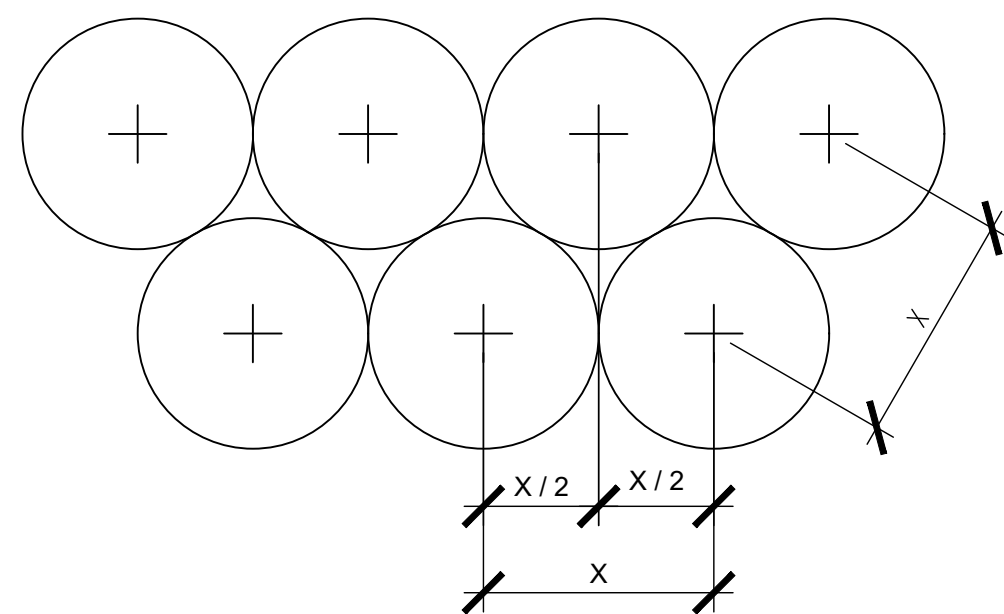


Plotted By: Alexander, Jamal Sheet Set: THE LEARNING CENTER ROLESVILLE Layout: L2.LANDSCAPE DETAILS January 02, 2024 05:08:17pm K:\REAL\_LDEV\013031004\_Rolesville Learning\_Center\PI.D CAD Files\Sheet\2.0.LANDSCAPE DETAILS.dwg  
 This document, together with the concepts and designs presented herein, is an instrument of service, as intended only for the specific purpose and client for which it was prepared. Reuse of and improper reliance on this document without written authorization and adaptation by Kimley-Horn and Associates, Inc. shall be without liability to Kimley-Horn and Associates, Inc.



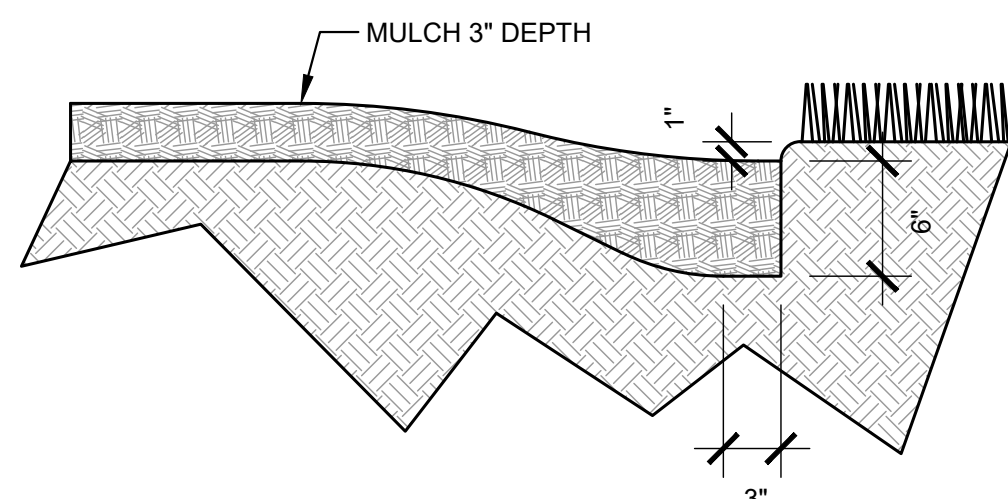
**1**  
 LS-2  
**TYPICAL SHRUB PLANTING**  
 SECTION  
 SCALE: 1"=1'-0"

- GENERAL LANDSCAPE NOTES:**
- ALL PLANT MATERIAL PRICING SHALL INCLUDE MULCH, BED PREPARATION, AND STAKING.
  - ALL PLANTING BEDS SHALL RECEIVE 3" (THREE INCHES) OF MULCH.  
MULCH TYPE FOR PROJECT: DOUBLE SHREDDED HARDWOOD
  - PLANT MATERIAL SPACING SHOWN ON LANDSCAPE PLANS SHALL OVERRIDE TYPICAL PLANT SPACING INDICATED ON PLANT SCHEDULE. LANDSCAPE CONTRACTOR RESPONSIBLE FOR VERIFYING ALL PLANT SPACING AND MAKING MINOR FIELD ADJUSTMENTS DUE TO UTILITY CONFLICTS.



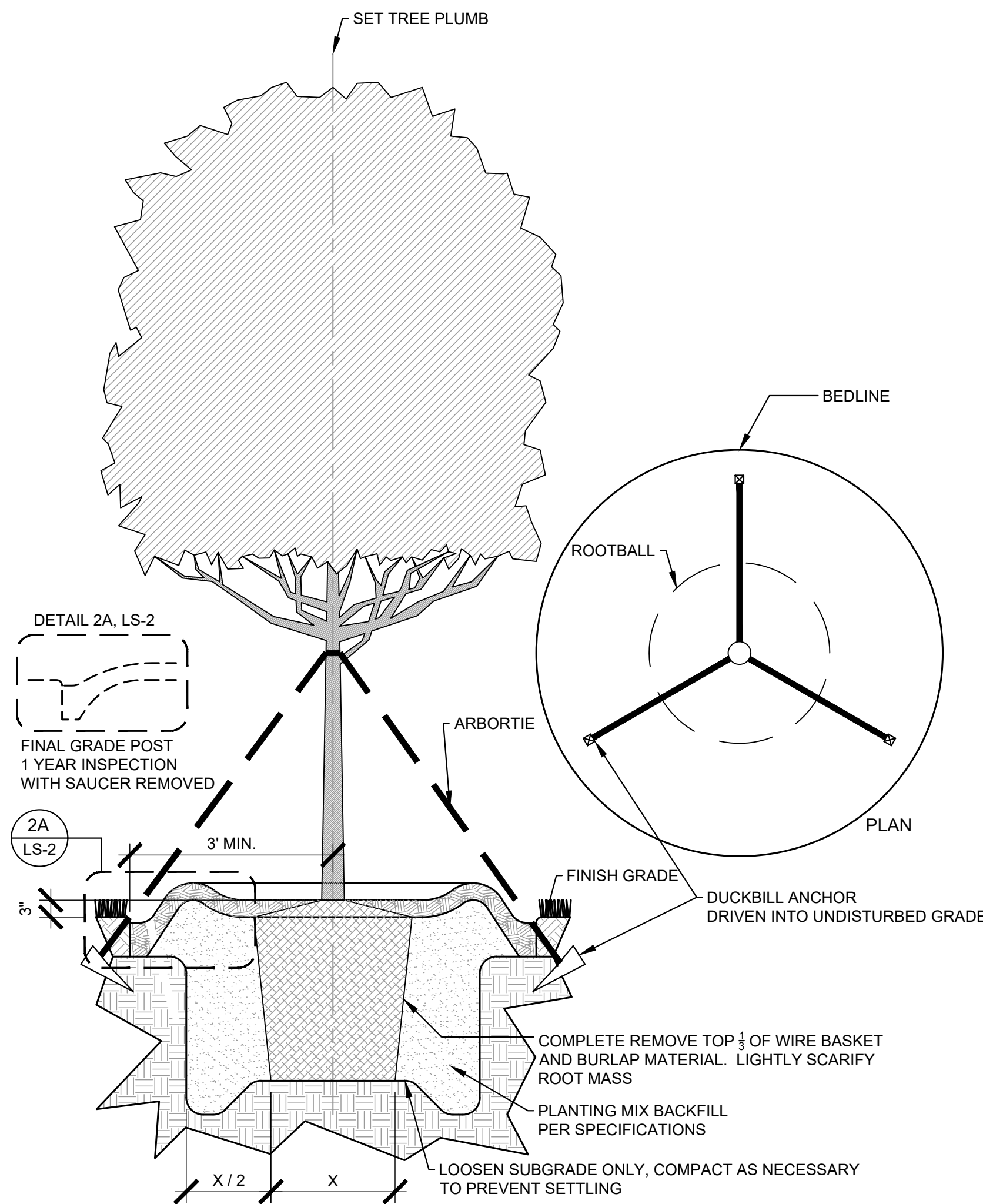
- PLANT SPACING NOTES:**
- SEE PLANTING PLAN FOR SHRUB AND GROUND COVER AREAS.
  - PLANT MATERIAL SHALL BE INSTALLED IN STRAIGHT AND PARALLEL ROWS UNLESS OTHERWISE SHOWN ON DRAWINGS.
  - SEE PLANTING PLAN AND / OR PLANT SCHEDULE FOR ACTUAL PLANT SPACING.

**2**  
 LS-2  
**TYPICAL STAGGERED ROW PLANT SPACING**  
 PLAN  
 SCALE: 1/2"=1'-0"



- PLANTING BED TRENCH EDGING NOTE:**
- TRENCH EDGE SHALL BE LOCATED BETWEEN PLANTING BED AND ALL TURF OR NATIVE GRASS AREAS.
  - TRENCH EDGE SHALL BE CONSTRUCTED ALONG ALL HARDSCAPE AREAS FOR SIMILAR CONDITION.
  - MAINTAIN POSITIVE DRAINAGE IN ALL PLANTING BEDS.

**3**  
 LS-2  
**PLANTING BED TRENCH EDGING**  
 SECTION  
 SCALE: 1"=1'-0"



- TREE PLANTING NOTES:**
- 4"-6" DIAMETER RIVER ROCK (INSIDE THE BUILDING PAD) OR 3" MINIMUM OF HARDWOOD BARK MULCH OR AS SPECIFIED (IN OUTLYING PLANT BEDS) (MULCH TYPE FOR PROJECT: SHREDDED CYPRESS MULCH)
  - TOP OF ROOTBALL MIN. 1" ABOVE FINISHED GRADE
  - ROOTBALLS GREATER THEN 24" DIAMETER SHALL BE PLACED ON MOUND OF UNDISTURBED SOIL TO PREVENT SETTLLING. ROOTBALLS SMALLER THEN 24" IN DIAMETER MAY SIT ON COMPACTED EARTH.

**4**  
 LS-2  
**TYPICAL TREE PLANTING & GUYING**  
 PLAN & SECTION  
 SCALE: 1/2"=1'-0"

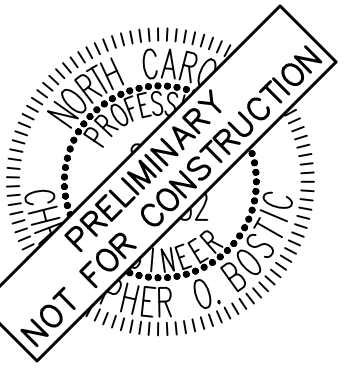
**GENERAL LANDSCAPE NOTES:**

- ALL PLANTS MUST BE HEALTHY, VIGOROUS MATERIAL, FREE OF PESTS AND DISEASE.
- ALL PLANTS MUST BE CONTAINER GROWN OR BALLED AND BURLAPPED AS INDICATED IN THE PLANT LIST.
- ALL TREES MUST HAVE A STRAIGHT TRUNK AND FULL HEADED AND MEET ALL REQUIREMENTS SPECIFIED.
- ALL PLANTS ARE SUBJECT TO THE APPROVAL OF THE LANDSCAPE ARCHITECT BEFORE, DURING, AND AFTER INSTALLATION.
- ALL TREES MUST BE GUYED OR STAKED AS SHOWN IN THE DETAILS.
- ALL SHADE TREES LOCATED WITHIN VEHICLE SIGHT TRIANGLES SHALL BE BRANCHED MIN. 8' (MEASURED FROM ADJACENT PROJECTED CURB LINE ELEVATION) PER ANSI Z60.1 STANDARDS FOR HEIGHT OF BRANCHING - STREET TREES.
- ALL PLANTING AREAS MUST BE COMPLETELY MULCHED AS SPECIFIED.
- PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING ALL UNDERGROUND UTILITIES AND SHALL AVOID DAMAGE TO ALL UTILITIES AND SHALL AVOID DAMAGE TO ALL UTILITIES DURING THE COURSE OF THE WORK. THE CONTRACTOR IS RESPONSIBLE FOR REPAIRING ANY AND ALL DAMAGE TO UTILITIES, STRUCTURES, SITE APPURTENANCES, ETC. WHICH OCCURS AS A RESULT OF THE LANDSCAPE CONSTRUCTION.
- THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL QUANTITIES SHOWN ON THESE PLANS BEFORE PRICING THE WORK. ANY DISCREPANCIES BETWEEN QUANTITIES ON PLAN AND PLANT LIST SHALL BE BROUGHT TO THE ATTENTION OF WAKE COUNTY INSPECTOR AND ANY FIELD ADJUSTMENTS OR QUANTITY ADJUSTMENTS MUST BE AUTHORIZED PRIOR TO PLANTING.
- THE CONTRACTOR IS RESPONSIBLE FOR FULLY MAINTAINING ALL PLANTING (INCLUDING BUT NOT LIMITED TO: WATERING, SPRAYING, MULCHING, FERTILIZING, ETC.) OF THE PLANTING AREAS AND LAWN UNTIL SUBSTANTIAL COMPLETION.
- CONTRACTOR SHALL INSTALL AND MAINTAIN TWO (2) GATORBAGS PER LARGE CANOPY TREE
- THE CONTRACTOR SHALL COMPLETELY GUARANTEE ALL PLANT MATERIAL FOR A PERIOD OF TWO (2) YEAR BEGINNING ON THE DATE OF SUBSTANTIAL COMPLETION. THE CONTRACTOR SHALL PROMPTLY MAKE ALL REPLACEMENTS BEFORE OR AT THE END OF THE GUARANTEE PERIOD.
- LANDSCAPE ARCHITECT SHALL APPROVE ALL BED LAYOUT STAKING PRIOR TO INSTALLATION OF PLANT MATERIAL.
- THE LANDSCAPE ARCHITECT SHALL APPROVE THE STAKING LOCATION OF ALL TREES PRIOR TO INSTALLATION.
- AFTER BEING DUG AT THE NURSERY SOURCE, ALL TREES IN LEAF SHALL BE ACCLIMATED FOR TWO (2) WEEKS UNDER A MIST SYSTEM PRIOR TO INSTALLATION.
- ANY PLANT MATERIAL WHICH DIES, TURNS BROWN, OR DEFOLIATES (PRIOR TO SUBSTANTIAL COMPLETION OF THE WORK) SHALL BE PROMPTLY REMOVED FROM THE SITE AND REPLACED WITH MATERIAL OF THE SAME SPECIES, QUANTITY, AND SIZE AND MEETING ALL PLANT SCHEDULE SPECIFICATIONS.
- STANDARDS SET FORTH IN "AMERICAN STANDARD FOR NURSERY STOCK" REPRESENT GUIDELINE SPECIFICATIONS ONLY AND SHALL CONSTITUTE MINIMUM QUALITY REQUIREMENTS FOR PLANT MATERIAL.
- ALL SHRUB, GROUND COVER AND SEASONAL COLOR ANNUAL PLANTING BEDS ARE TO BE COMPLETELY COVERED WITH DOUBLE SHREDDED HARDWOOD OR CURRENT CITY STANDARD TO A DEPTH OF THREE (3) INCHES.
- LOCATIONS OF EXISTING BURIED UTILITY LINES SHOWN ON THE PLANS ARE BASED UPON BEST AVAILABLE INFORMATION AND ARE TO BE CONSIDERED APPROXIMATE. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE LOCATIONS OF UTILITY LINES AND ADJACENT TO THE WORK AREA. THE CONTRACTOR IS RESPONSIBLE FOR THE PROTECTION OF ALL UTILITY LINES DURING THE CONSTRUCTION PERIOD.
- SAFE, CLEARLY MARKED PEDESTRIAN AND VEHICULAR ACCESS TO ALL ADJACENT PROPERTIES MUST BE MAINTAINED THROUGHOUT THE CONSTRUCTION PROCESS.
- ALL PLANT MATERIAL QUANTITIES SHOWN ARE APPROXIMATE. CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLETE COVERAGE OF ALL PLANTING BEDS AT SPACING SHOWN.
- THE TOP OF ALL ROOT BALLS SHALL BEAR THE SAME RELATIONSHIP TO FINISHED GRADE, AS BORN TO PREVIOUS GRADE AND GROWING CONDITIONS.
- ALL ROOT BALLS REMOVED FROM CONTAINERS SHALL BE SCARIFIED PRIOR TO BACKFILLING.
- 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 24" NEW TOPSOIL OR UNCOMPACT AND AMEND THE TOP 24" OF EXISTING SOIL TO MEET TOPSOIL PLANTING MIX STANDARDS FOR TREES. SEE DETAILS THIS SHEET.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING TREES AND SHRUBS THAT WILL MEET BOTH MINIMUM SIZE AND SPACING FOR TREE AND ZONING ORDINANCE COMPLIANCE. FAILURE TO INSTALL PLANT MATERIAL PER THIS PLAN WILL JEOPARDIZE ISSUANCE OF FINAL CERTIFICATE OF OCCUPANCY. CONTRACTOR SHALL BE RESPONSIBLE FOR SCHEDULING INSPECTIONS OF PLANT MATERIAL.
- CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE CODES & ORDINANCES REGARDING LANDSCAPING. GENERAL CONTRACTOR IS TO CLEAN THE ENTIRE SITE OF ALL CONSTRUCTION DEBRIS AND TO RAKE ENTIRE SITE.
- THE CONTRACTOR SHALL INSTALL BLACK FABRIC MESH UNDER PLANTING BED MULCH TO PREVENT WEED GROWTH.
- EACH LARGE CANOPY TREE AT THE TIME OF PLANTING SHALL BE A MINIMUM OF TWO (2) INCHES IN CALIPER AND EIGHT (8) - TEN (10) FEET IN HEIGHT. WHEN MATURE, A LARGE CANOPY TREE SHOULD BE AT LEAST FORTY (40) FEET HIGH AND HAVE A MINIMUM CROWN WIDTH OF THIRTY (30) FEET. LARGE CANOPY TREES MAY BE SUBSTITUTED WITH TWO (2) UNDERSTORY TREES. HOWEVER, NO MORE THAN FIFTY (50) PERCENT OF THE REQUIRED LARGE CANOPY TREES MAY BE SUBSTITUTED. EACH UNDERSTORY TREE AT THE TIME OF PLANTING SHALL BE A MINIMUM OF ONE (1) INCH IN CALIPER AND EIGHT (8) FEET IN HEIGHT. WHEN MATURE, AN UNDERSTORY TREE SHOULD BE BETWEEN FIFTEEN (15) AND FORTY (40) FEET HEIGHT. EVERY TWO (2) UNDERSTORY TREES MAY BE SUBSTITUTED WITH ONE (1) LARGE CANOPY TREE. HOWEVER, NO MORE THAN FIFTY (50) PERCENT OF THE REQUIRED UNDERSTORY TREES MAY BE SUBSTITUTED. EACH SHRUB AT THE TIME OF PLANTING SHALL BE 3 GALLON SIZE OR LARGER. SUBSTITUTIONS SHOULD BE CONFIRMED WITH THE PLANNING DIVISION.

**NOTE:**  
 Each large canopy tree at the time of planting shall be a minimum of two (2) inches in caliper and eight (8) - ten (10) feet in height. When mature, a large canopy tree should be at least forty (40) feet high and have a minimum crown width of thirty (30) feet. Large canopy trees may be substituted with two (2) understory trees. However, no more than fifty (50) percent of the required large canopy trees may be substituted. Each understory tree at the time of planting shall be a minimum of one (1) inch in caliper and eight (8) feet in height. When mature, an understory tree should be between fifteen (15) and forty (40) feet height. Every two (2) understory trees may be substituted with one (1) large canopy tree. However, no more than fifty (50) percent of the required understory trees may be substituted. Each shrub at the time of planting shall be 3 gallon size or larger. Substitutions should be confirmed with the Planning Division.

No.	REVISIONS	DATE	BY
1			
2			
3			
4			
5			
6			
7			

**Kimley»Horn**  
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 421 FAYETTEVILLE STREET, SUITE 800, RALEIGH, NC 27601  
 #F-0102 WWW.KIMLEY-HORN.COM PHONE: 919.677.2000 FAX: 919.677.2050



KHA PROJECT	013031004
DATE	09/29/2023
SCALE	AS SHOWN
DESIGNED BY	JAA
DRAWN BY	JAA
CHECKED BY	COB

**LANDSCAPE DETAILS**

**THE LEARNING CENTER ROLESVILLE**  
 PREPARED FOR  
**ROLESVILLE, LLC.**  
 NORTH CAROLINA

SHEET NUMBER  
**L2.0**



SDP-23-07

H:\DRAWINGS\TILE - THE LEARNING EXPERIENCE\TILE - NORTH CAROLINA\TILENC23-228 - TILE ROLESVILLE US HWY 401 S MAIN ST\SPACE PLAN\TILENC23-228-SA-1.DWG CSCHWEIKER PLOTTED: 12/21/2023

LICENSING CALCULATIONS								
Learning Experience, Roseville, North Carolina								
ROOM NAME	STATE REQUIRED AREA	NET AREA	ACTUAL AREA	RATIO	# OF CHILDREN	#OF TEACHERS	TEACHER RATIO	AGE GROUP
INFANTS A	440	493	552	55	8	2	1/4	6W-12MO
INFANTS B	440	482	541	55	8	2	1/4	6MO-18MO
TODDLERS A	350	358	417	35	10	2	1/5	18-24 MO
TODDLERS B	350	362	421	35	10	2	1/5	18-24MO
TWADDLERS	560	570	629	35	16	2	1/8	24-30 MO
PREPPERS	560	575	623	35	16	2	1/8	30-36 MO
PRE-SCHOOL 1	630	644	656	35	18	2	1/9	3-5 Y
PRE-SCHOOL 2	840	847	859	35	24	2	1/12	4-5Y
PRE-SCHOOL 3	630	637	649	35	18	2	1/9	3-5Y
PRE K-K	490	502	522	35	14	1	1/14	5-6Y
MBB/PRE-SCHOOL	735	740	752	35	21	2	VARIES	VARIES
TOTALS		6210			163	21		
					2	ADMIN STAFF		
					TOTAL	186		

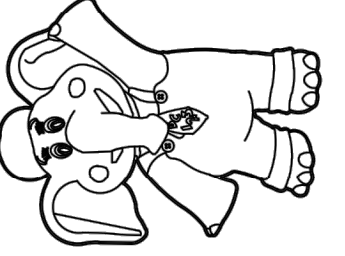
1. CONTRACTOR SHALL SUPERVISE AND DIRECT THE WORK USING THE CONTRACTOR'S BEST SKILL AND ATTENTION. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE AND HAVE CONTROL OVER CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCE, AND JOB SITE SAFETY.
2. GC MUST PROVIDE & INSTALL ALL PRODUCTS PER PLANS. ONLY SUBSTITUTED PRODUCTS NEED TO BE SUBMITTED TO THE ARCHITECT FOR APPROVAL. UNAPPROVED SUBSTITUTIONS WILL BE REPLACED AT THE EXPENSE OF THE GC.
3. VERBAL REPRESENTATION HAS NO VALUE AND ALL REQUESTS TO CHANGE ANY PRODUCTS OR SPECIFICATIONS PER PLANS, MUST BE SUBMITTED IN WRITING TO THE ARCHITECT & TLE FOR APPROVAL.



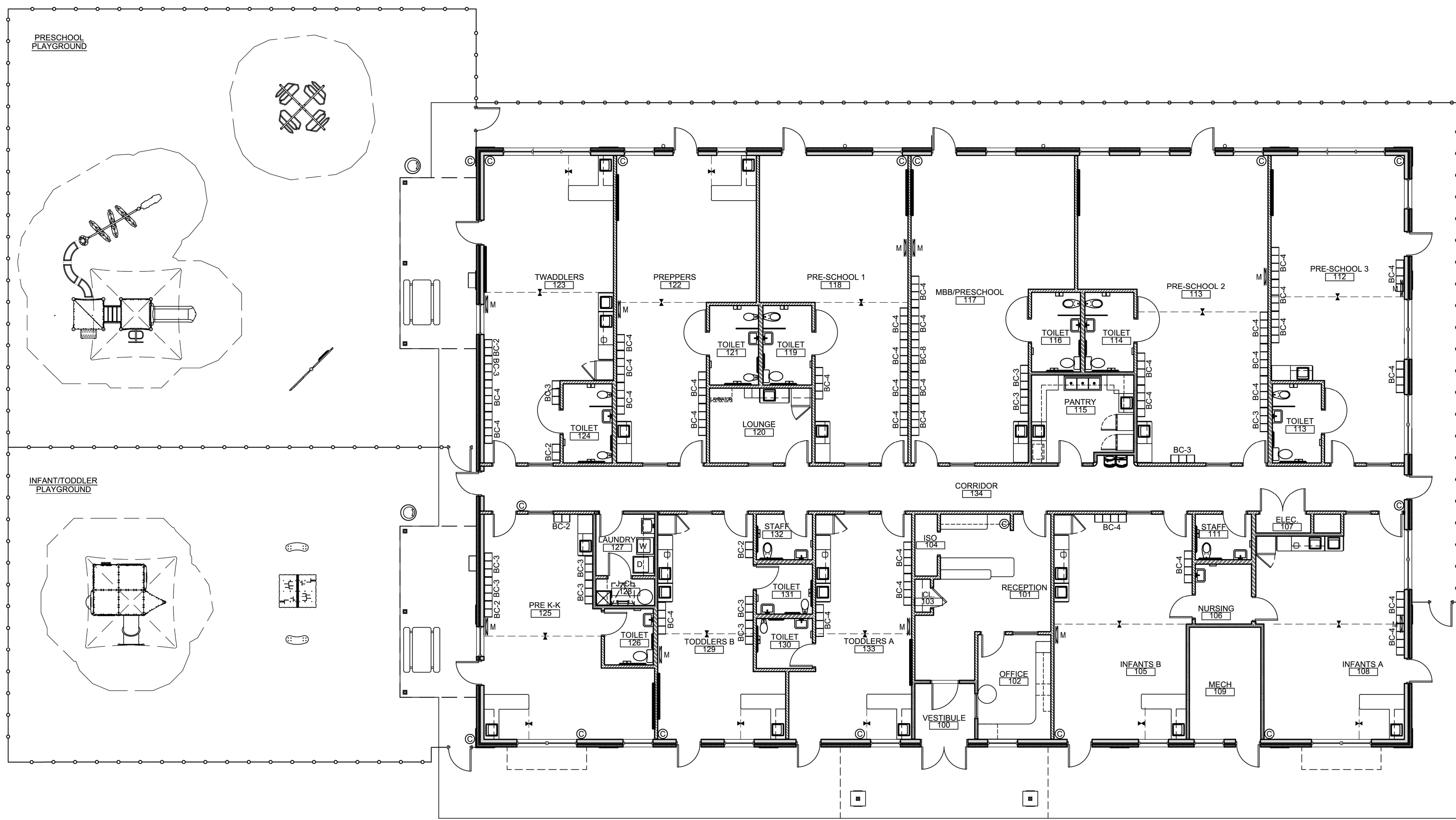
**Jarmel Kizel**  
ARCHITECTS AND ENGINEERS INC.  
42 OKNER PARKWAY  
LIVINGSTON, NEW JERSEY 07039  
TEL: 973-994-9669  
FAX: 973-994-4069  
www.jarmelkizel.com

Architecture  
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Implementation Services

THE LEARNING EXPERIENCE  
ACADEMY OF EARLY EDUCATION



US Hwy 401 S Main St  
ROLESVILLE NORTH CAROLINA



**1 FLOOR PLAN**  
SCALE: 1/8"=1'-0"

ISSUE			
NO.	DATE	DESCRIPTION	INT.

REVISION			
NO.	DATE	DESCRIPTION	INT.

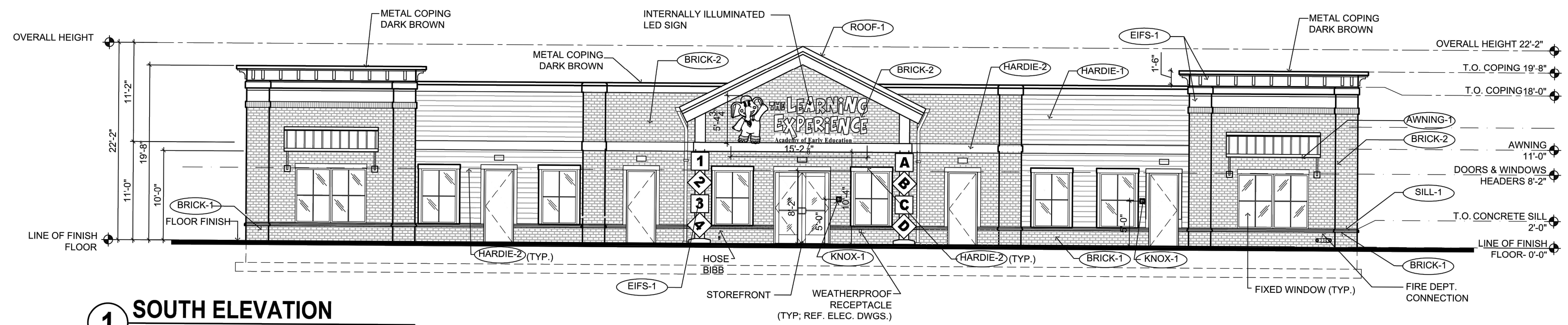
PROFESSIONAL CERTIFICATION  
NAME OF LICENSEE:  
MATTHEW B. JARME  
LICENSE NUMBER: 10120

Project Number: TLENC23-228	Scale: AS NOTED
Drawn By: BB	Approved By: ---

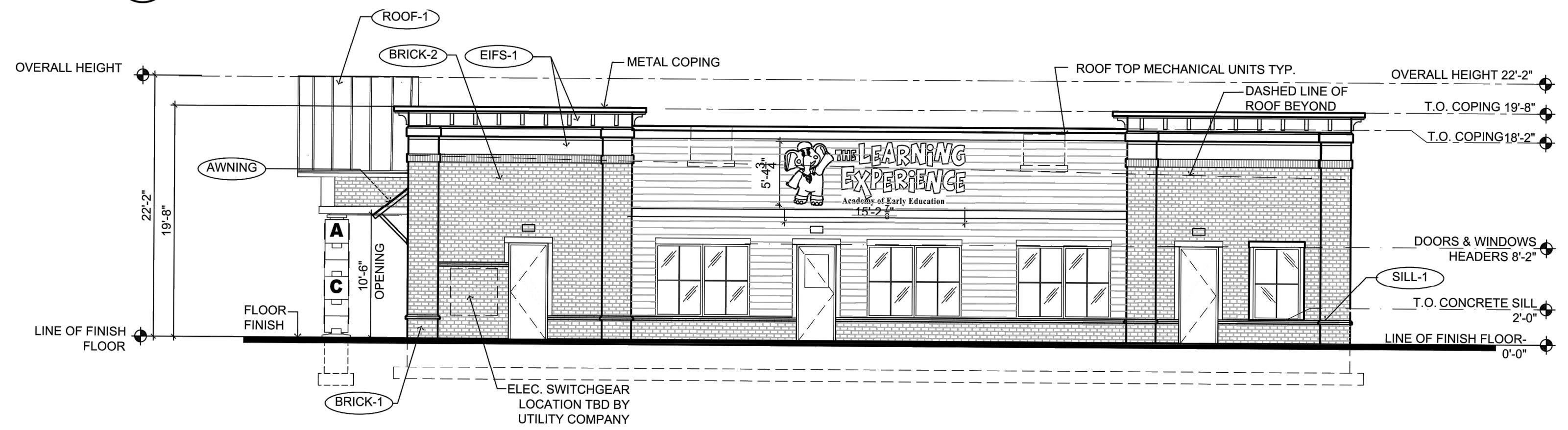
Drawing Name:  
**PROPOSED FLOOR PLAN**

Drawing Number:  
**SA-1.1**

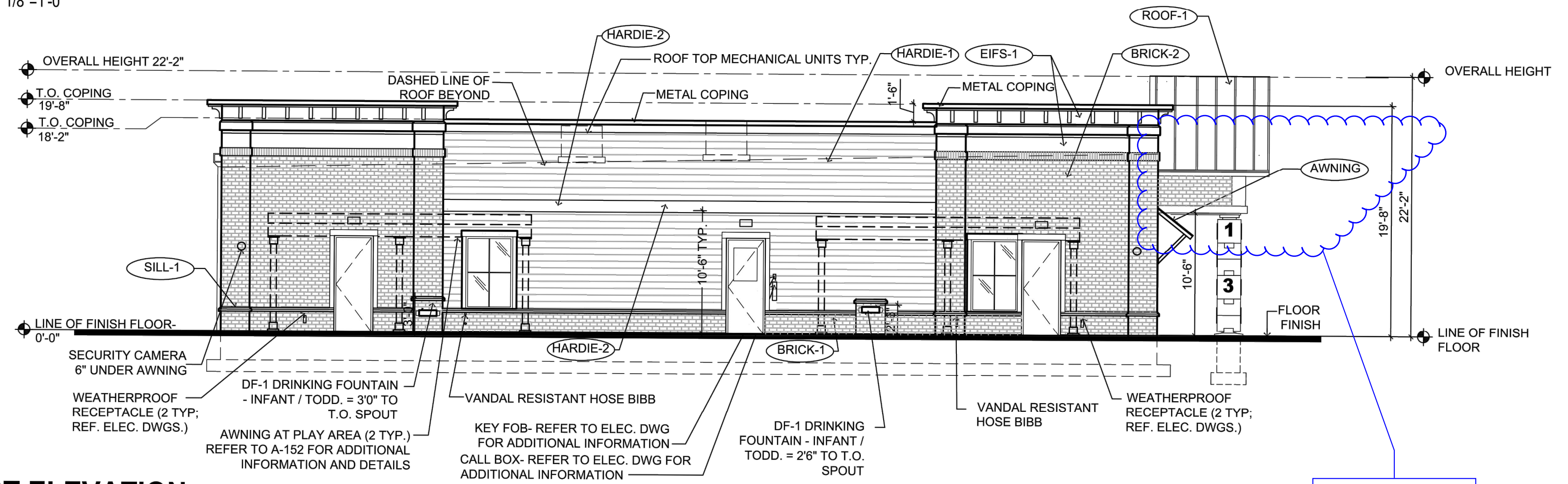
H-DRAWINGS: TITLE - THE LEARNING EXPERIENCE - NORTH CAROLINA; TLENC23-228 - TLE ROLESVILLE US HWY 401 S MAIN ST; SPACE PLAN; TITLE: TLENC23-228-SA-1.DWG; CSCHWEIKER; PLOTTED: 12/21/2023



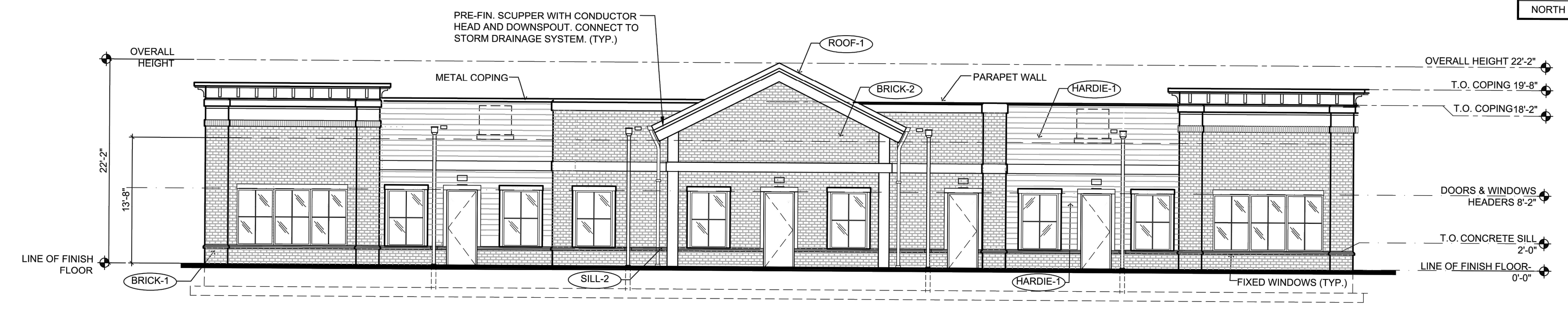
**1 SOUTH ELEVATION**  
SCALE: 1/8"=1'-0"



**2 EAST ELEVATION**  
SCALE: 1/8"=1'-0"



**3 WEST ELEVATION**  
SCALE: 1/8"=1'-0"



**4 NORTH ELEVATION**  
SCALE: 1/8"=1'-0"

1. CONTRACTOR SHALL SUPERVISE AND DIRECT THE WORK USING THE CONTRACTOR'S BEST SKILL AND ATTENTION. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE AND HAVE CONTROL OVER CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCE, AND JOB SITE SAFETY.  
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EXTERIOR MATERIAL SCHEDULE			
LABEL	MANUFACTURER	SIZE / TYPE	FINISH / COLOR
STOREFRONT	KAWNEER	TRIFAB 451T / 350 PER DOOR SCHEDULE	DARK BRONZE
DOOR	-	PER DOOR SCHEDULE	FACTORY PRIMED
FIXED WINDOW	PLY GEM	SILVER LINE V1 SERIES PER WINDOW SCHEDULE	DARK BRONZE
SILL-1	ROCKCAST	CAST STONE SILL	BUFFSTONE
SILL-2	ROCKCAST	CUSTOM SILL 3 3/4"Hx4"W W/ 2" FLAT REF. DTL. 6/A-032	BUFFSTONE
BRICK-1	GENERAL SHALE	MODULAR BRICK VENEER	DUTCH CHOCOLATE
BRICK-2	GENERAL SHALE	MODULAR BRICK VENEER	MILLBROOK
HARDIE-1	JAMES HARDIE	HARDIEPLANK LAP SIDING	COBBLESTONE
HARDIE-2	JAMES HARDIE	HARDIEPLANK TRIM	WHITE
EIFS-1	DRYVIT	SMOOTH FINISH	SW 7044 AMAZING GRAY
ROOF-1	BERRIDGE	STANDING SEAM METAL	DARK BRONZE
AWNING-1	BERRIDGE	STANDING SEAM AWNING W/ FRAME	DARK BRONZE
AWNING-2	-	FABRIC AWNING OVER FRAME REFER TO NOTE #4	MIDNIGHT BLUE
KNOX-1	KNOX BOX	3200 SERIES W/ RECESSED MOUNT FLANGE, HINGE DOOR, & TAMPER SWITCH	DARK BRONZE (REF. NOTE 2 BELOW)
KNOX-2	KNOX BOX	1650 SERIES W/ RECESSED MOUNT FLANGE, HINGE DOOR, & TAMPER SWITCH	DARK BRONZE (REF. NOTE 2 BELOW)

**FINISH SCHEDULE NOTES:**  
1. G.C. SHALL VERIFY KNOX BOX MODEL(S) AND LOCATION(S) WITH AUTHORITY HAVING JURISDICTION PRIOR TO ORDERING AND INSTALLATION.  
2. G.C. SHALL ENSURE ALL EXTERIOR FINISHES ARE INSTALLED AND FINISHED IN COMPLIANCE WITH MANUFACTURERS' WARRANTY REQUIREMENTS.  
3. IF BLOCKS ARE NOT PERMITTED, COLUMNS MUST MATCH EXTERIOR FINISH OF THE BUILDING.  
4. PER 2015 IBC SECTION 3105, AWNING FRAMES SHALL BE OF NONCOMBUSTIBLE MATERIALS AND DESIGNED TO RESIST APPLICABLE WIND LOADS. THE COVERING FABRIC SHALL HAVE A FLAME SPREAD RATING NOT GREATER THAN 25.

TRANSPARENCY CALCULATIONS				
	WALL	TRANSPARENCY	REQUIRED	PROVIDED
SOUTH	1,313 SQ. FT.	408 SQ. FT.	30.0%	31.07%
EAST	840 SQ. FT.	256 SQ. FT.	30.0%	30.48%
WEST	N/A	N/A	N/A	N/A
NORTH	1,313 SQ. FT.	431 SQ. FT.	30.0%	32.83%

**THE LEARNING EXPERIENCE**  
ACADEMY OF EARLY EDUCATION  
US Hwy 401 S Main St  
ROLESVILLE NORTH CAROLINA

ISSUE			
NO.	DATE	DESCRIPTION	INT.

REVISION			
NO.	DATE	DESCRIPTION	INT.

**PROFESSIONAL CERTIFICATION**  
NAME OF LICENSEE:  
MATTHEW B. JARMELE  
LICENSE NUMBER: 10120

Project Number: TLENC23-228  
Scale: AS NOTED  
Drawn By: BB  
Approved By: —

Drawing Name: **PROPOSED ELEVATIONS**  
Drawing Number: SA-1.2