

BCS

CONCRETE WORK

1. ALL CONCRETE FOR THE PROJECT SHALL BE "READY MIX" AND SHALL COMPLY WITH ASTM C-94. ALL SECTIONS OF THE CONCRETE WORK SHALL COMPLY WITH ALL A.S.T.M. AND A.C.I. REQUIREMENTS.
2. FORM WORK - ALL FORMS TO BE CAREFULLY BUILT AND SECURED IN PLACE IN SUCH A MANNER AS TO HAVE SUFFICIENT STRENGTH TO CARRY THE DEAD WEIGHT OF THE CONSTRUCTION AS A LIQUID, WITHOUT DEFLECTION OR VIBRATION. FORMS TO BE BUILT TIGHT, TRUE TO POSITION AND DIRECTION, THOROUGHLY BRACED, WIRED AND SPIKED OR OTHERWISE FASTENED TOGETHER.
3. CONCRETE - MINIMUM OF 3,000 PSI COMPRESSIVE STRENGTH AT 28 DAYS, MINIMUM OF FIVE SACKS OF CEMENT PER CUBIC YARD OF CONCRETE, MAXIMUM OF 4" SLUMP, 3 POUNDS OF FORTA-FERRO FIBER PER CUBIC YARD MAY BE SUBSTITUTED FOR 6X6 H WVF.
4. FINISHING - IN ACCORDANCE WITH THE LATEST A.C.I. CODE, PLUMB, LEVEL, TRUE IN LINE, FREE OF HONEYCOMB, BUILDING SLAB SHALL HAVE A HARD STEEL TROWEL FINISH. WALKS SHALL HAVE BROOMED FINISH AND EXPANSION JOINTS AT APPROXIMATELY 50'-0" O.C. AND DUMMY JOINTS AS SHOWN ON THE SITE PLAN.
5. REMOVAL OF FORMS - FORMS SHALL BE CAREFULLY REMOVED SO AS NOT TO IMPAIR THE FACE OF THE CONCRETE. IMMEDIATELY AFTER THE FORMS ARE REMOVED ALL DAMAGE OF IMPERFECT WORK SHALL BE REPAIRED OR PATCHED IN A NEAT AND WORKMANLIKE MANNER OR IF BADLY DAMAGED, IN THE OPINION OF THE OWNER, THE WORK SHALL BE REBUILT. THE MINIMUM TIME BEFORE ANY FORMS CAN BE REMOVED IS SEVEN (7) DAYS FOR SUCH MEMBERS AS ARE SUBJECT TO BENDING STRESSES, SUCH AS SLABS.
6. CURING - USE MEMBRANE CURING METHOD. USE MFG. RATE, SPRAY IMMEDIATELY FOLLOWING FINISHING. PROTECT FROM FREEZING WEATHER, CURE A TOTAL OF 28 DAYS USING A.C.I. METHODS.

4

12'-0"

12'-0"

STORAGE
100
ACCESSORY
144 GSF

5
G1

6
G1

FIRE EXTINGUISHER

ELECTRICAL PANEL

3'X7' EXTERIOR
HINGED DOOR WITH
ENTRANCE LOCK

1'-0"

3'-4"

7'-8"

PLAN NORTH

4
G1

1
G1

FLOOR PLAN

0 2' 4' 8'

SCALE: 1/4" = 1'-0"

TRUE NORTH

3
G1

4
G1

7
G1

5
G1

	DUPLEX RECEPTACLE; MOUNT AT 18" A.F.F.
	DUPLEX RECEPTACLE; MOUNT AT 18" A.F.F.; TAMPER RESISTANT
	DUPLEX RECEPTACLE; GROUND FAULT CIRCUIT INTERRUPTER
	DUPLEX RECEPTACLE; WEATHERPROOF GROUND FAULT CIRCUIT INTERRUPTER
	QUAD RECEPTACLE; MOUNT AT 18" A.F.F.
	2 POLE 208/240V RECEPTACLE
	CEILING MOUNTED DUPLEX RECEPTACLE
	FLOOR MOUNTED RECEPTACLE
	SINGLE POLE POWER/LIGHTING HOMERUN
	2-POLE POWER HOMERUN
	3-POLE POWER HOMERUN (3 PHASE)
	WALL MOUNTED DATA OUTLET
	WALL MOUNTED VOICE (TELEPHONE) OUTLET
	WALL MOUNTED VOICE/DATA OUTLET
	TIMECLOCK
	TELEVISION OUTLET
	DISCONNECT
	JUNCTION BOX
	POWER PANEL
	SWITCH
	3-WAY SWITCH
	SWITCH WITH DIMMER
	OCCUPANCY SENSOR WITH MANUAL OVERRIDE
	LAY-IN/SURFACE MOUNTED LED LIGHT FIXTURE
	LAY-IN/SURFACE MOUNTED LED; NIGHT LIGHT
	PENDANT LIGHT
	CAN LIGHT
	EMERGENCY LIGHT
	EXIT/EMERGENCY COMBO
	EXIT LIGHT
	REMOTE HEAD FOR EXIT LIGHTING
	EXTERIOR MOUNTED WALL PACK



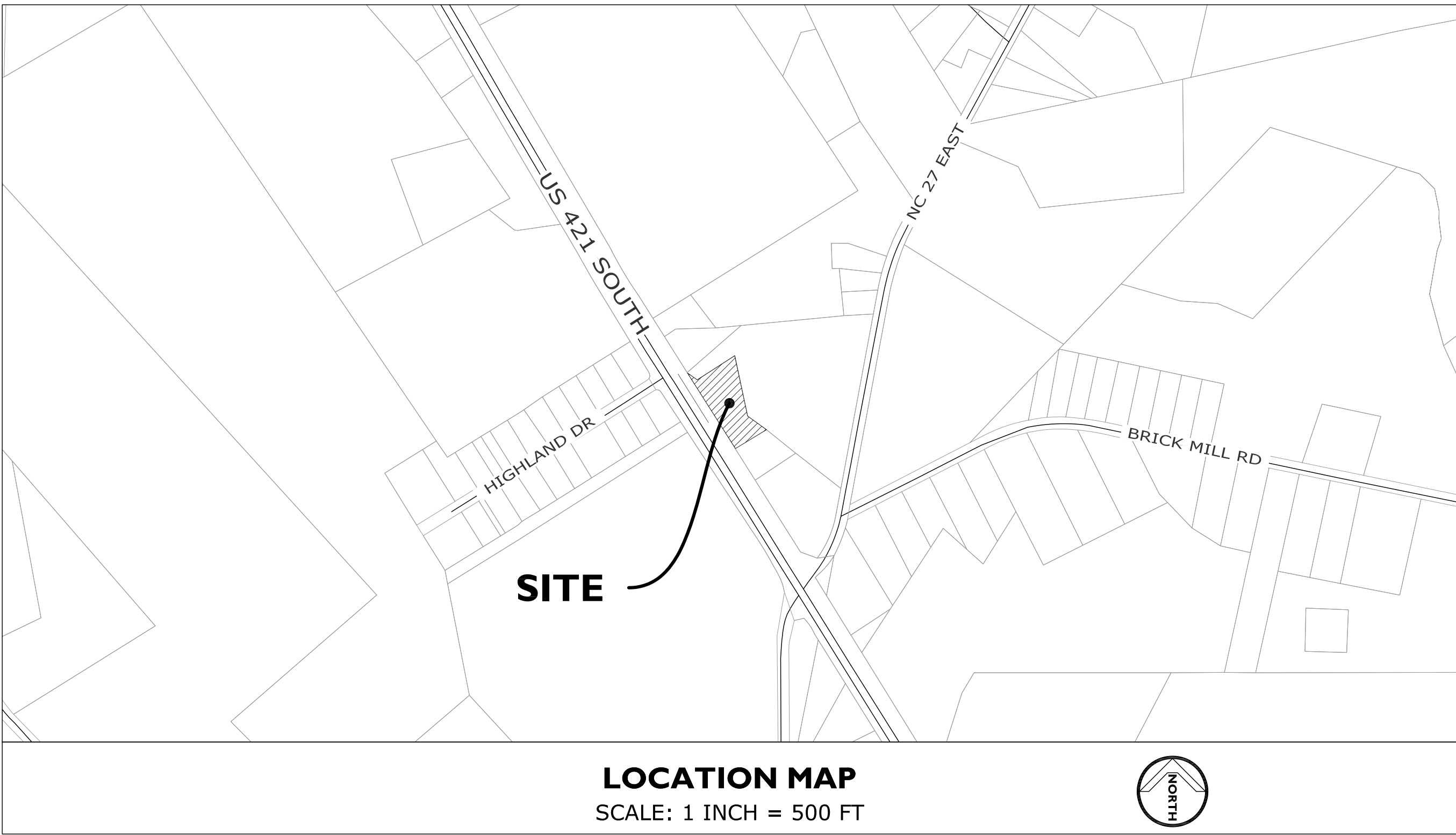
LIGHT FIXTURE SCHEDULE												
TAG	DESCRIPTION	SIZE	MOUNTING	LENS	COLOR	LUMENS	BULB	BALLAST TYPE	HOUSING	VOLTAGE	WATTAGE	MANU/MODEL NUMBER
A	LED TROFFER	48"x12"	SURFACE	N/A	5000 K	4000	LED	LED DRIVER	STEEL	120	33	LITHONIA NO. SBL4 4000LM 80CRI 50K OR EQUAL
B	EXTERIOR LED WALL PACK	11" x 6"	SURFACE	N/A	4000 K	1,600	LED	N/A	STEEL	120	18.5	LITHONIA NO. OLWP LED SSW2 120 PE DDB OR EQUAL



SITE CONSTRUCTION PLANS FOR:

TIRADO TRUCK REPAIR

US 421 SOUTH
HARNETT COUNTY, NORTH CAROLINA
PIN NO. 0589-17-0727



LEGEND OF ABBREVIATIONS

BC	BACK OF CURB	LP	LIGHT POLE
CB	CATCH BASIN	N/F	NOW OR FORMERLY
CO	CLEAN OUT	P.E.	PERMANENT EASEMENT
CPP	CORRUGATED PLASTIC PIPE	PVC	POLYVINYL CHLORIDE PIPE
CMP	CORRUGATED METAL PIPE	PP	POWER POLE
C & G	CURB & GUTTER	RCP	REINFORCED CONCRETE PIPE
DI	DROP INLET	R/R	RAILROAD CROSSING
DIP	DUCTILE IRON PIPE	R / W	RIGHT OF WAY
EG	EDGE OF GRAVEL	SS OR SAN	SANITARY SEWER
EP	EDGE OF PAVEMENT	SSMH	SANITARY SEWER MANHOLE
EB	ELECTRICAL BOX	T.C.E.	TEMPORARY CONSTRUCTION EASEMENT
EV	ELECTRICAL VAULT	TMH	TELECOMMUNICATION MANHOLE
EL	ELEVATION	TF	TRANSFORMER
ECM	EXISTING CONCRETE MONUMENT	TP	TELEPHONE PEDESTAL
EIP	EXISTING IRON PIN	TS	TOP OF SIDEWALK
EPK	EXISTING PK NAIL	TSP	TRAFFIC SIGNAL POLE
FO	FIBER OPTIC	TW	TOP OF WALL
FOM	FIBER OPTIC MARKER	UC	UNDERGROUND COMMUNICATIONS
FOB	FIBER OPTIC BOX	VB	VALVE BOX
FH	FIRE HYDRANT	WM	WATER METER
GUY	GUY WIRE	WV	WATER VALVE
HP	HIGH POINT	WCR	WHEELCHAIR RAMP
INV	INVERT	YI	YARD INLET
JB	JUNCTION BOX (STORM)		
IPS	IRON PIN SET		

LEGEND OF SYMBOLS AND LINES

PROPERTY CORNER		RIGHT OF WAY	
UTILITY POLE		PROPERTY LINE	
LIGHT POLE		UTILITY EASEMENT	
TELEPHONE PEDESTAL		CENTER LINE	
GATE VALVE		LIMIT OF DISTURBANCE	
WATER METER		UNDERGROUND ELECTRIC LINE	
FIRE HYDRANT		OVERHEAD ELECTRIC LINE	
SEWER MANHOLE		SANITARY SEWER (GRAVITY)	
SEWER CLEANOUT		SANITARY SEWER (FORCEMAIN)	
CATCH BASIN		STORM DRAIN PIPE	
YARD INLET / DROP INLET		WATER LINE	
STORM JUNCTION BOX / MH		GAS LINE	
HANDICAP		COMMUNICATIONS LINE	
SPOT ELEVATION		FIBER OPTIC LINE	
SIGN		FENCE LINE	
ALIGNMENT CHANGE		TREE LINE	
PVI		DRAINAGE FLOW	
DELTA		CURB AND GUTTER	
		CURB AND GUTTER (SPILL)	
NOTE: EXISTING FEATURES ARE SHOWN SHADED.		CONCRETE PAVEMENT	
		ASPHALT PAVEMENT	
		GRAVEL SURFACE	

OWNER INFORMATION

LUIS TIRADO
3577 OLD US 421
LILLINGTON, NC 27546
EMAIL: L.ACEVEDO95@GMAIL.COM
TEL: 919-648-3999

SHEET INDEX (12 SHEETS TOTAL)

- C1 COVER SHEET
- C2 EXISTING CONDITIONS AND DEMOLITION
- C3 SITE LAYOUT
- C4 GRADING AND STORM DRAINAGE
- C5 SITE UTILITY
- C6 TEMP. EROSION CONTROL
- C7 SANITARY SEWER PLAN / PROFILE
- C8 HARNETT REGIONAL WATER STANDARD NOTES
- C9 CONSTRUCTION DETAILS
- C10 STANDARD DRAWINGS - HARNETT REGIONAL WATER
- C11 STANDARD DRAWINGS - NCDOT / NCDEQ
- L-1 STANDARD DRAWINGS - NCDEQ
- L-1 LANDSCAPE PLAN

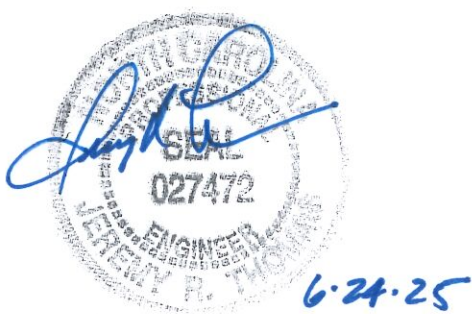


JUNE 24, 2025

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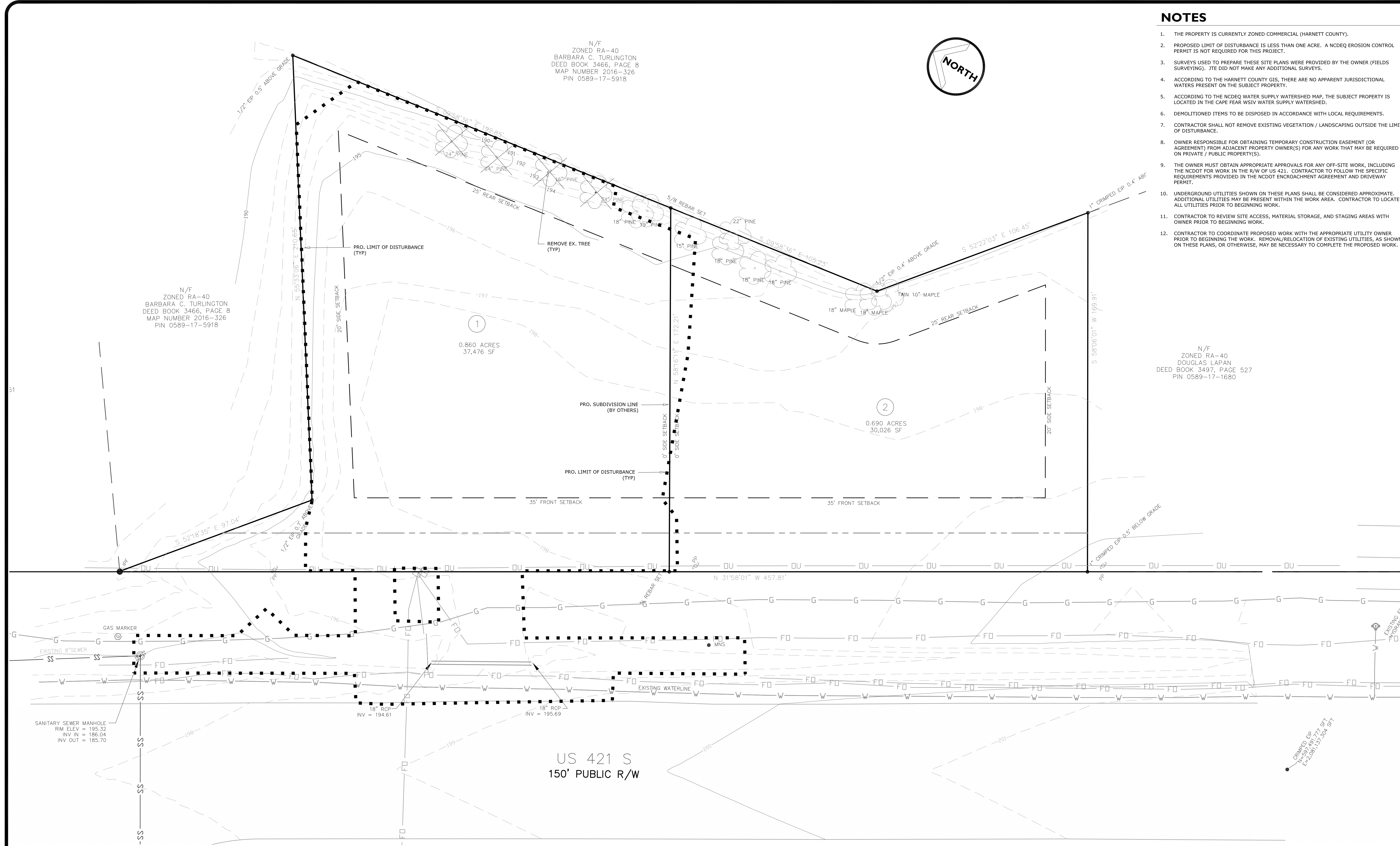
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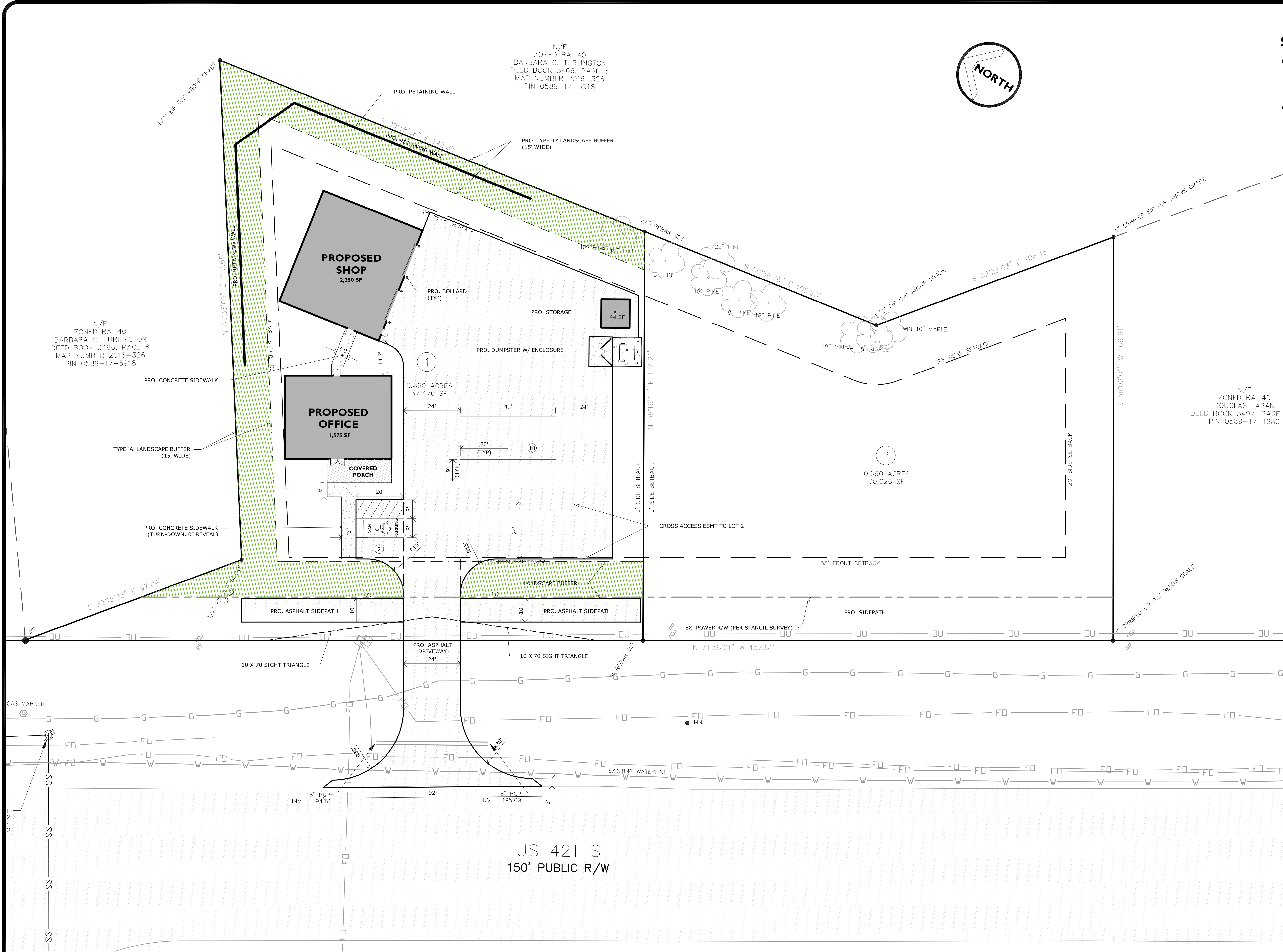
JTE Project No. 25-009



NOTES

1. THE PROPERTY IS CURRENTLY ZONED COMMERCIAL (HARNETT COUNTY).
2. PROPOSED LIMIT OF DISTURBANCE IS LESS THAN ONE ACRE. A NCDEQ EROSION CONTROL PERMIT IS NOT REQUIRED FOR THIS PROJECT.
3. SURVEYS USED TO PREPARE THESE SITE PLANS WERE PROVIDED BY THE OWNER (FIELDS SURVEYING). JTE DID NOT MAKE ANY ADDITIONAL SURVEYS.
4. ACCORDING TO THE HARNETT COUNTY GIS, THERE ARE NO APPARENT JURISDICTIONAL WATERS PRESENT ON THE SUBJECT PROPERTY.
5. ACCORDING TO THE NCDEQ WATER SUPPLY WATERSHED MAP, THE SUBJECT PROPERTY IS LOCATED IN THE CAPE FEAR WSIV WATER SUPPLY WATERSHED.
6. DEMOLITION ITEMS TO BE DISPOSED IN ACCORDANCE WITH LOCAL REQUIREMENTS.
7. CONTRACTOR SHALL NOT REMOVE EXISTING VEGETATION / LANDSCAPING OUTSIDE THE LIMIT OF DISTURBANCE.
8. OWNER RESPONSIBLE FOR OBTAINING TEMPORARY CONSTRUCTION EASEMENT (OR AGREEMENT) FROM ADJACENT PROPERTY OWNER(S) FOR ANY WORK THAT MAY BE REQUIRED ON PRIVATE / PUBLIC PROPERTY(S).
9. THE OWNER MUST OBTAIN APPROPRIATE APPROVALS FOR ANY OFF-SITE WORK, INCLUDING THE NCDOT FOR WORK IN THE R/W OF US 421. CONTRACTOR TO FOLLOW THE SPECIFIC REQUIREMENTS PROVIDED IN THE NCDOT ENCROACHMENT AGREEMENT AND DRIVEWAY PERMIT.
10. UNDERGROUND UTILITIES SHOWN ON THESE PLANS SHALL BE CONSIDERED APPROXIMATE. ADDITIONAL UTILITIES MAY BE PRESENT WITHIN THE WORK AREA. CONTRACTOR TO LOCATE ALL UTILITIES PRIOR TO BEGINNING WORK.
11. CONTRACTOR TO REVIEW SITE ACCESS, MATERIAL STORAGE, AND STAGING AREAS WITH OWNER PRIOR TO BEGINNING WORK.
12. CONTRACTOR TO COORDINATE PROPOSED WORK WITH THE APPROPRIATE UTILITY OWNER PRIOR TO BEGINNING THE WORK. REMOVAL/RELOCATION OF EXISTING UTILITIES, AS SHOWN ON THESE PLANS, OR OTHERWISE, MAY BE NECESSARY TO COMPLETE THE PROPOSED WORK.

Project: TIRADO TRUCK REPAIR		Date: 24 JUN 2025	Drawn by: JRT	Scale: 1" = 20'	REVISIONS		J THOMAS ENGINEERING, INC. CIVIL ENGINEERING & PLANNING 143 Charlotte Avenue, Suite 104 Sanford, North Carolina 27330 (919) 777-6010 phone www.jthomasengineering.com license no. C-3389
US 421 SOUTH HARNETT COUNTY, NC		JTE Project No. 25-009	Designed by: JRT				
Sheet: EXISTING CONDITIONS AND DEMOLITION	AGENCY REVIEW ONLY	Sheet No.: C2 of 12	Reviewed by: JRT				



SITE DATA

OWNER:

TIRADO, LUIS ANTONIO ACEVEDO
3577 OLD US 421
LILLINGTON, NC 27546

PROPERTY ID:

HARNETT COUNTY, NORTH CAROLINA
DEED REFERENCE: 4182 / 1264
PLAT REFERENCE: 2023 / 130
HARNETT COUNTY PIN NO.: 0589-17-0727-000
PID: 110589 0009 01
ADDRESS: US 421 S,
LILLINGTON, NC 27546

SITE INFO:

JURISDICTION:	HARNETT COUNTY
TOWNSHIP:	NEILLS CREEK
ZONING CLASSIFICATION, EXISTING:	COMMERCIAL
ZONING CLASSIFICATION, PROPOSED:	COMMERCIAL
PROPERTY ACREAGE:	1.55 AC +/-
	0.86 AC (PRO. LOT 1)
	0.69 AC (PRO. LOT 2)
USE, EXISTING:	UNIMPROVED LAND
USE, PROPOSED:	COMMERCIAL
BUILDING GSF, EXISTING:	0 SF
BUILDING GSF NEW:	3,825 SF +/-
BUILDING GSF, PROPOSED:	3,825 SF +/-
(EX TO REMAIN + NEW):	35 FT
BUILDING HEIGHT, MAX ALLOWED:	34 FT +/-
BUILDING HEIGHT, PROPOSED:	11 (3 PER BAY (2 BAYS)+ 1 PER EMPLOYEE (5 EMPLOYEES))
PARKING SPACES, REQUIRED:	0
PARKING SPACES, EXISTING:	12 (INCLUDES 1 ADA SPACES)
PARKING SPACES, PROPOSED:	70% (WATERSHED - MUST BE APPROVED BY HARNETT CO.)
(EX + NEW):	0 SF (0%)
IMPERVIOUS AREA, MAX ALLOWED:	19,145 SF +/- (51% OF LOT 1)
IMPERVIOUS AREA, EXISTING:	0.98 AC
IMPERVIOUS AREA, PROPOSED:	15 FT
(EX TO REMAIN + NEW):	15 FT
DISTURBED AREA, PROPOSED:	0 FT
STREET YARD, REQUIRED (US 421):	0 FT
BUFFER YARD, REQUIRED (SIDE, NORTH):	15 FT
BUFFER YARD, REQUIRED (SIDE, SOUTH):	0 FT
BUFFER YARD, REQUIRED (REAR):	15 FT
SETBACK, REQUIRED (FRONT):	35 FT
SETBACK, REQUIRED (SIDE, NORTH):	20 FT
SETBACK, REQUIRED (SIDE, SOUTH):	0 FT
SETBACK, REQUIRED (REAR):	25 FT
FRONTAGE STREET:	PUBLIC (NCDOT)
WATER SUPPLY:	PUBLIC (HRW)
SANITARY SEWER:	PUBLIC (HRW)

NOTES

- REVIEW AND APPROVAL OF THE PLANS DOES NOT RELIEVE THE OWNER OR CONTRACTOR FROM MEETING ALL THE REQUIREMENTS OF THE HARNETT COUNTY DEVELOPMENT ORDINANCE, AND ANY OTHER LOCAL, STATE, AND FEDERAL REGULATIONS AND APPROVALS.
- ALL IMPROVEMENTS OR EXTENSIONS OF PUBLIC INFRASTRUCTURE UNDER THE JURISDICTION OF HARNETT REGIONAL WATER (HRW) SHALL BE IN STRICT ACCORDANCE WITH THE REGULATIONS, SPECIFICATIONS, AND POLICIES OF TRIRIVER WATER.
- THE PROPOSED SITE AREA IS NOT LOCATED WITHIN THE 100 YEAR FLOOD HAZARD BOUNDARY AREAS AS DELINEATED ON THE HARNETT COUNTY FLOOD INSURANCE MAP (FIRM) MAP NUMBER: 37200589003 DATED 10/03/2006.
- THIS PROPERTY IS LOCATED WITHIN ONE (1) MILE OF A VOLUNTARY AGRICULTURAL DISTRICT.
- OWNER HAS NOT IDENTIFIED JURISDICTIONAL WATERS ON THE SUBJECT PROPERTY. ACCORDING TO THE HARNETT COUNTY GIS, NO WETLANDS ARE PRESENT ON THE SUBJECT PROPERTY.
- THE PROPOSED SITE AREA IS LOCATED IN A DESIGNATED WATER SUPPLY WATERSHED: CAPE FEAR WSIV.
- THE SUBJECT PROPERTY IS LOCATED IN THE HIGHWAY CORRIDOR OVERLAY.
- CONTRACTOR TO VERIFY QUANTITIES SHOWN ON THESE PLANS WITH ACTUAL FIELD CONDITIONS.
- ALL HANDICAP ACCESSIBLE AREAS ON THE SITE SHALL CONFORM TO THE REQUIREMENTS OF VOLUME 1-C OF THE NC STATE BUILDING CODE.
- DETAILED DESIGN OF ANY PROPOSED RETAINING WALLS SHOWN SHALL BE BY THE OWNER/CONTRACTOR. THE FINAL LAYOUT AND LENGTH MAY NEED TO BE ADJUSTED PER THE FINAL DESIGN AND ACTUAL FIELD CONDITIONS. COORDINATE FENCE INSTALLATION WHERE SPECIFIED ALONG TOP OF RETAINING WALL.
- CONTACT DUKE ENERGY PROGRESS WHEN WORKING WITHIN 15' OF THEIR POLES.
- OWNER IS RESPONSIBLE FOR SECURING NECESSARY EASEMENTS FOR WORKING ON ADJACENT PROPERTIES INCLUDING ANY WORK WITHIN THE PUBLIC R/W.
- NO MONUMENT SIGN PROPOSED WITH THESE SITE PLANS. A SIGN PERMIT MUST BE OBTAINED FROM HARNETT COUNTY PRIOR TO INSTALLATION. SEE SECTION 10.0 OF THE HARNETT COUNTY UDO.
- 10' X 70' SIGHT TRIANGLES SHOWN ON THE PROPOSED DRIVEWAY.
- CONTRACTOR RESPONSIBLE FOR ADEQUATE TRAFFIC CONTROL MEASURES DURING CONSTRUCTION. CONTRACTOR MAY BE REQUIRED TO SUBMIT M.O.T. PLAN TO NCDOT PRIOR TO BEGINNING WORK.
- AN ENCLOSED DUMPSTER AREA IS PROPOSED FOR TRASH COLLECTION AT THE FUTURE BUSINESS.
- ANTICIPATED PERMITS/APPROVALS REQUIRED FOR THE SITE WORK AS PROPOSED:
 - HARNETT COUNTY DRB
 - HARNETT REGIONAL WATER
 - NCDEQ WASTEWATER EXTENSION PERMIT
 - NCDEQ EROSION CONTROL PERMIT
 - NCDOT DRIVEWAY PERMIT (PREVIOUSLY OBTAINED)
 - NCDOT ENCROACHMENT AGREEMENT

Project: **TIRADO TRUCK REPAIR**

US 421 SOUTH
HARNETT COUNTY, NC

Sheet: **SITE LAYOUT**

AGENCY REVIEW ONLY

Date:
24 JUN 2025

JTE Project No.
25-009

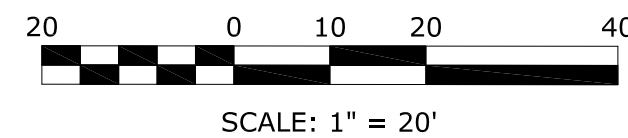
Sheet No.:
C3 of 12

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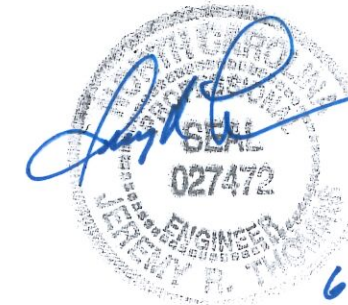
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Reviewed by:
JRT

Scale:



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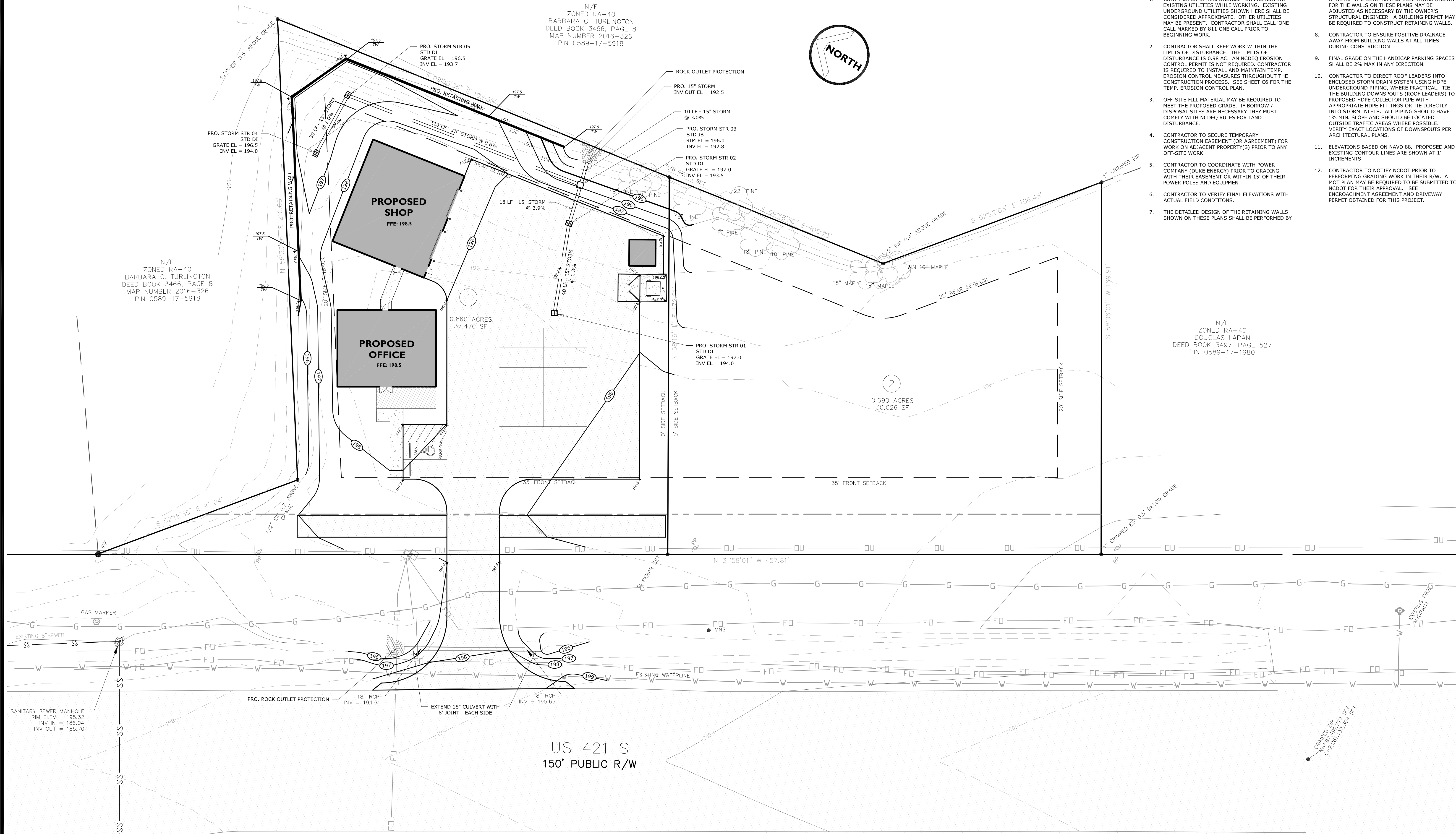


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NOTES

- CONTRACTOR IS RESPONSIBLE FOR PROTECTING EXISTING UTILITIES WHILE WORKING. EXISTING UNDERGROUND UTILITIES SHOWN HERE SHALL BE CONSIDERED APPROXIMATE. OTHER UTILITIES MAY BE PRESENT. CONTRACTOR SHALL CALL ONE CALL MARKED BY 811 ONE CALL PRIOR TO BEGINNING WORK.
- CONTRACTOR SHALL KEEP WORK WITHIN THE LIMITS OF DISTURBANCE. THE LIMITS OF DISTURBANCE IS 0.98 AC. AN NCDEQ EROSION CONTROL PERMIT IS NOT REQUIRED. CONTRACTOR IS REQUIRED TO INSTALL AND MAINTAIN TEMP. EROSION CONTROL MEASURES THROUGHOUT THE CONSTRUCTION PROCESS. SEE SHEET C6 FOR THE TEMP. EROSION CONTROL PLAN.
- OFF-SITE FILL MATERIAL MAY BE REQUIRED TO MEET THE PROPOSED GRADE. IF BORROW / DISPOSAL SITES ARE NECESSARY THEY MUST COMPLY WITH NCDEQ RULES FOR LAND DISTURBANCE.
- CONTRACTOR TO SECURE TEMPORARY CONSTRUCTION EASEMENT (OR AGREEMENT) FOR WORK ON ADJACENT PROPERTY(S) PRIOR TO ANY OFF-SITE WORK.
- CONTRACTOR TO COORDINATE WITH POWER COMPANY (DUKE ENERGY) PRIOR TO GRADING WITH THEIR EASEMENT OR WITHIN 15' OF THEIR POWER POLES AND EQUIPMENT.
- CONTRACTOR TO VERIFY FINAL ELEVATIONS WITH ACTUAL FIELD CONDITIONS.
- THE DETAILED DESIGN OF THE RETAINING WALLS SHOWN ON THESE PLANS SHALL BE PERFORMED BY OTHERS. THE LENGTHS AND ELEVATIONS SHOWN FOR THE WALLS ON THESE PLANS MAY BE ADJUSTED AS NECESSARY BY THE OWNER'S STRUCTURAL ENGINEER. A BUILDING PERMIT MAY BE REQUIRED TO CONSTRUCT RETAINING WALLS.
- CONTRACTOR TO ENSURE POSITIVE DRAINAGE AWAY FROM BUILDING WALLS AT ALL TIMES DURING CONSTRUCTION.
- FINAL GRADE ON THE HANDICAP PARKING SPACES SHALL BE 2% MAX IN ANY DIRECTION.
- CONTRACTOR TO DIRECT ROOF LEADERS INTO ENCLOSED STORM DRAIN SYSTEM USING HDPE TIE BUILDING DOWNSPOUTS (ROOF LEADERS) TO PROPOSED HDPE COLLECTOR PIPE WITH APPROPRIATE HDPE FITTINGS OR TIE DIRECTLY INTO STORM INLETS. ALL PIPING SHOULD HAVE 1% MIN. SLOPE AND SHOULD BE LOCATED OUTSIDE TRAFFIC AREAS WHERE POSSIBLE. VERIFY EXACT LOCATIONS OF DOWNSPOUTS PER ARCHITECTURAL PLANS.
- ELEVATIONS BASED ON NAVD 88. PROPOSED AND EXISTING CONTOUR LINES ARE SHOWN AT 1' INCREMENTS.
- CONTRACTOR TO NOTIFY NCDOT PRIOR TO PERFORMING GRADING WORK IN THEIR R/W. A MOT PLAN MAY BE REQUIRED TO BE SUBMITTED TO NCDOT FOR THEIR APPROVAL. SEE ENCROACHMENT AGREEMENT AND DRIVEWAY PERMIT OBTAINED FOR THIS PROJECT.

Project: **TIRADO TRUCK REPAIR**
US 421 SOUTH
HARNETT COUNTY, NC

Sheet: **SITE GRADING AND STORM DRAINAGE**

AGENCY REVIEW ONLY

Date: 24 JUN 2025
JTE Project No. 25-009
Sheet No.: **C4 of 12**

Drawn by: JRT
Designed by: JRT
Reviewed by: JRT

Scale: 1" = 20'

20 0 10 20 40

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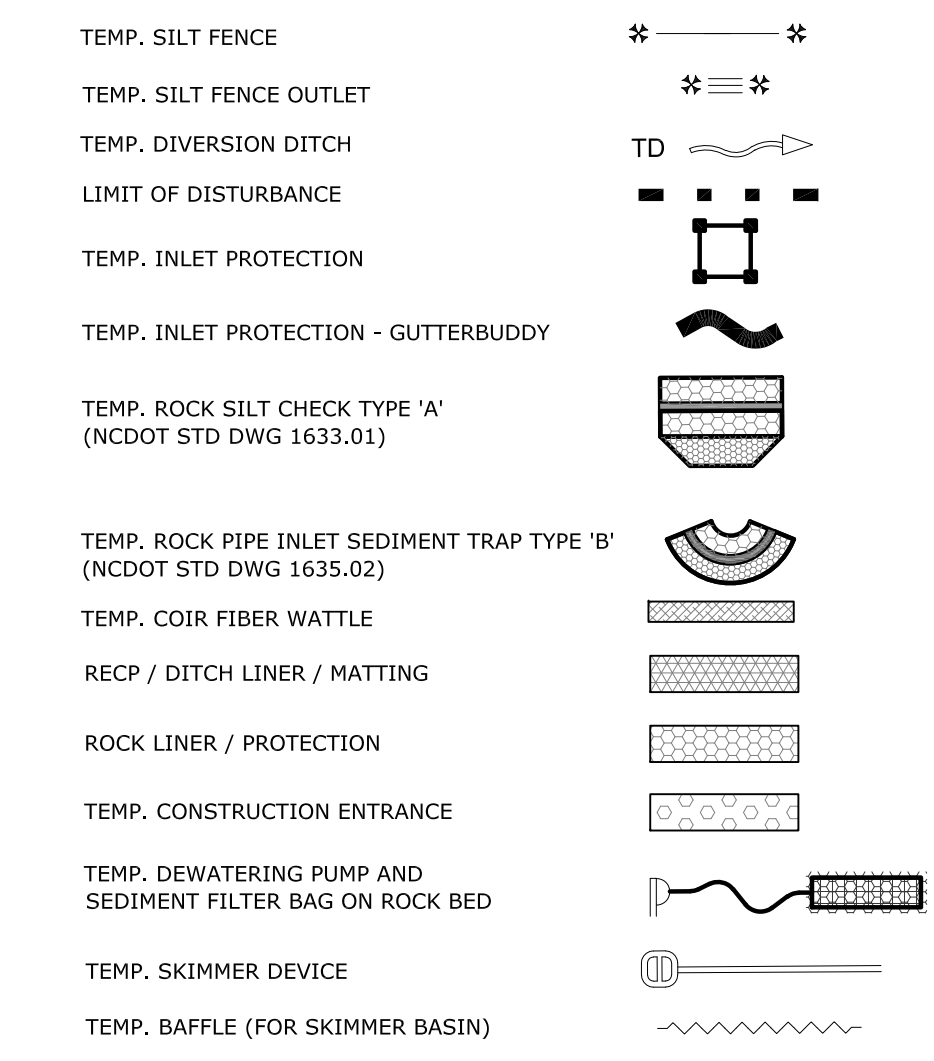
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This plan view shows the proposed sanitary sewer extension. Key features include:

- PRO. SANITARY SEWER EXTENSION:** The main line of the proposed sewer, shown as a solid line with manholes at stations 10+00, 11+00, 72+00, and 92+77.
- PRO. CONNECTION TO EX SYSTEM:** A connection point for the proposed sewer to an existing system.
- PRO. SS MH 01:** A proposed sanitary sewer manhole located near the connection point.
- EXISTING FEATURES:** Includes an existing manhole (MH 01), an existing sewer line, and an existing water line.
- ROADS:** The plan shows the intersection of 42nd Street and 150th Avenue.
- UTILITIES:** Various utility lines are shown, including gas, water, and sewer lines.
- LEGEND:** A north arrow is located in the upper right corner.
- SCALE:** A scale bar is provided at the bottom right, indicating a distance of 150 feet.



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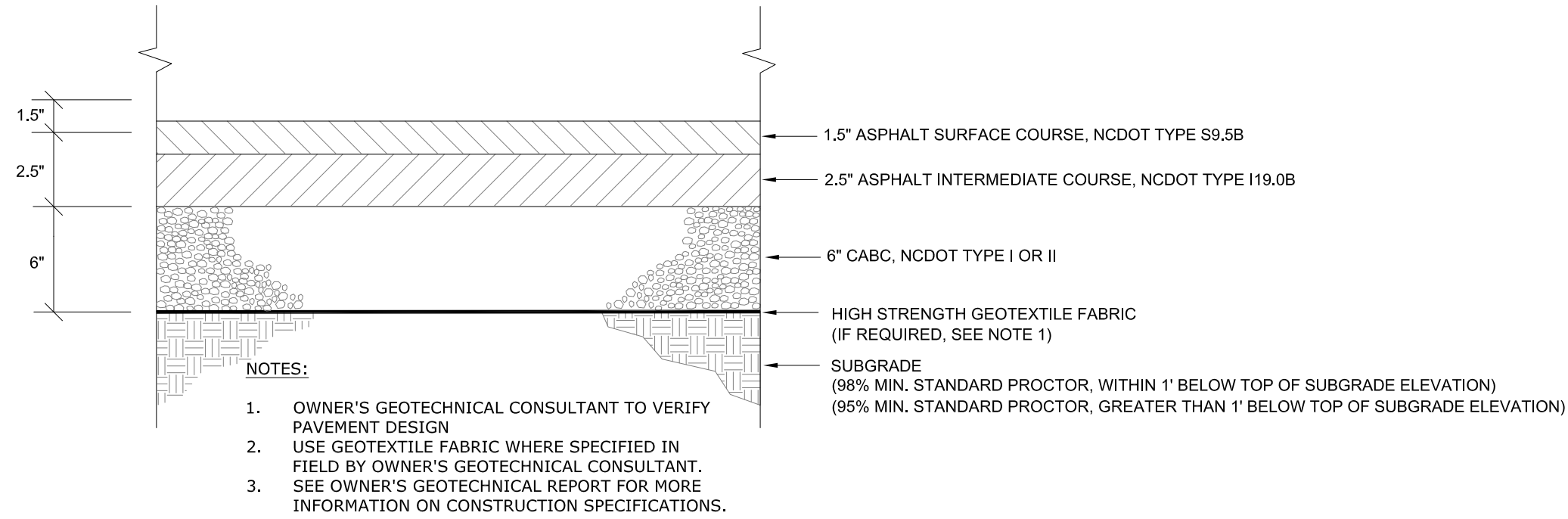
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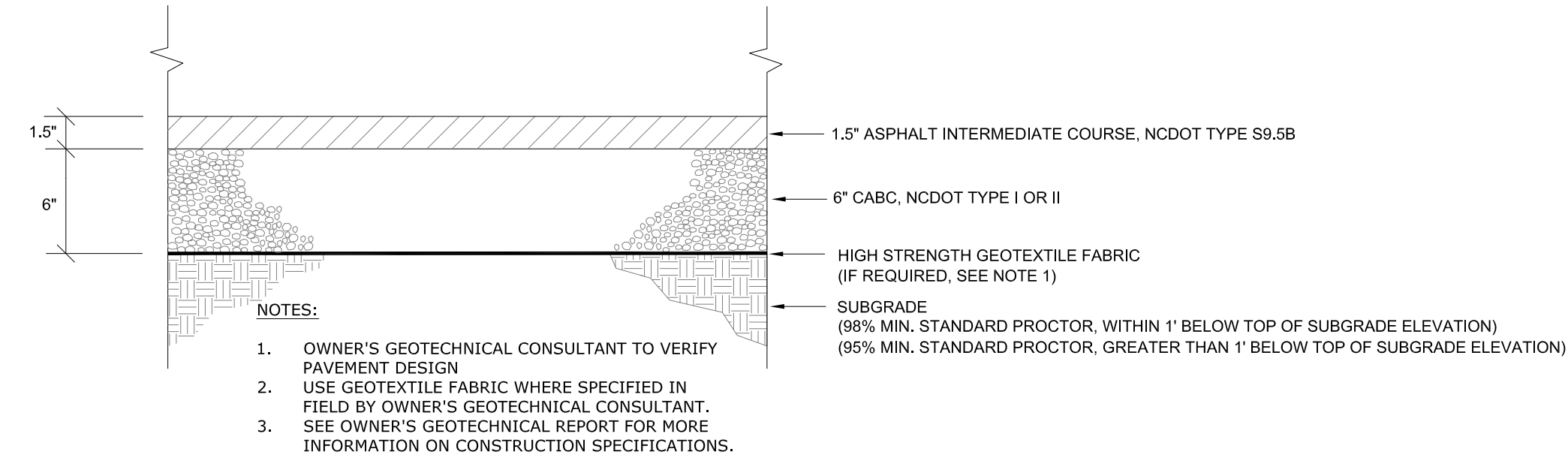
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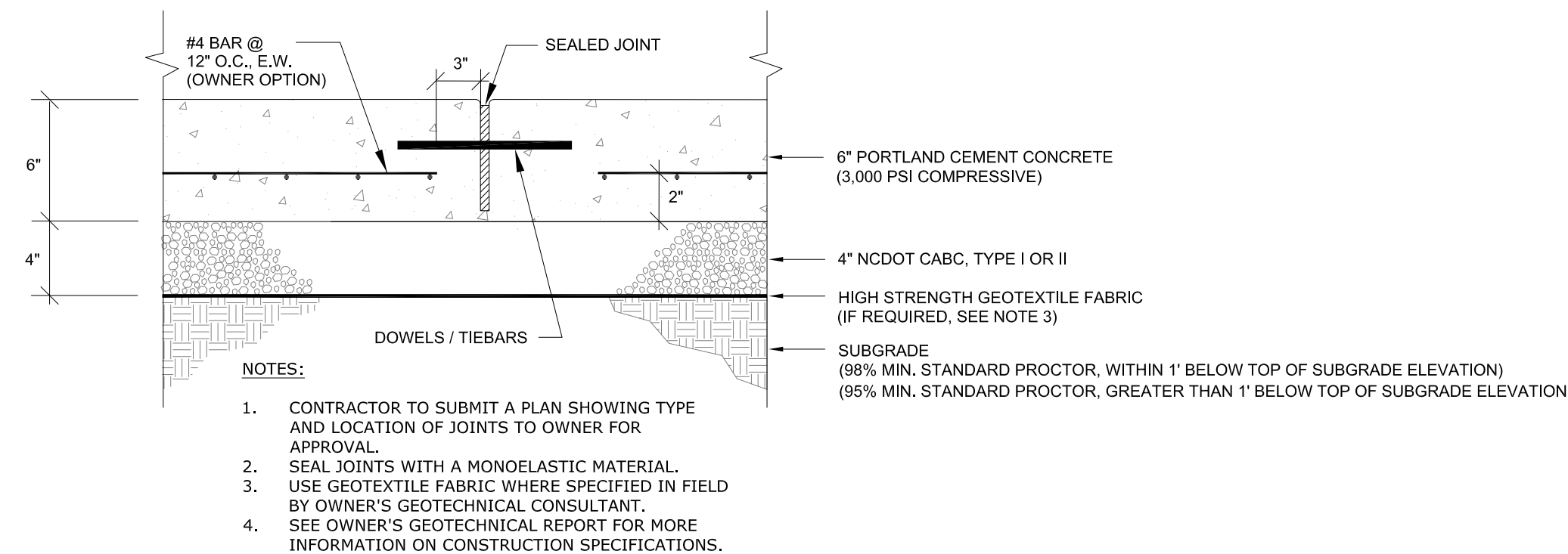
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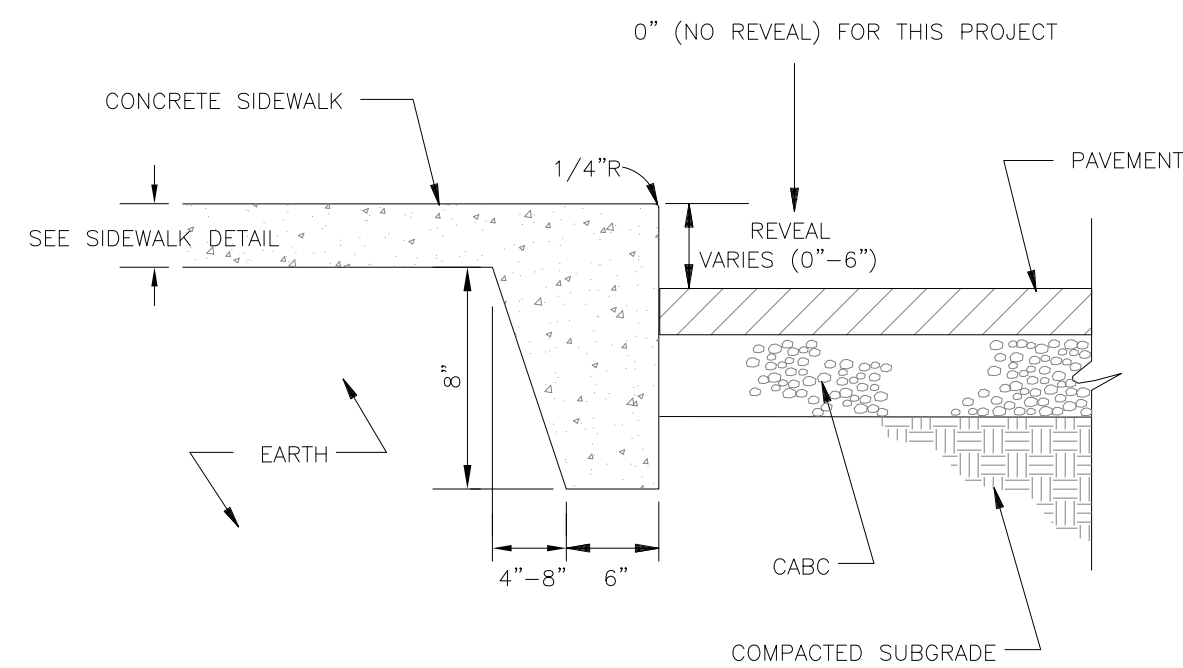
A-8 ASPHALT PAVEMENT (DRIVES AND PARKING)
NTS



B-8 ASPHALT PAVED PATH
NTS



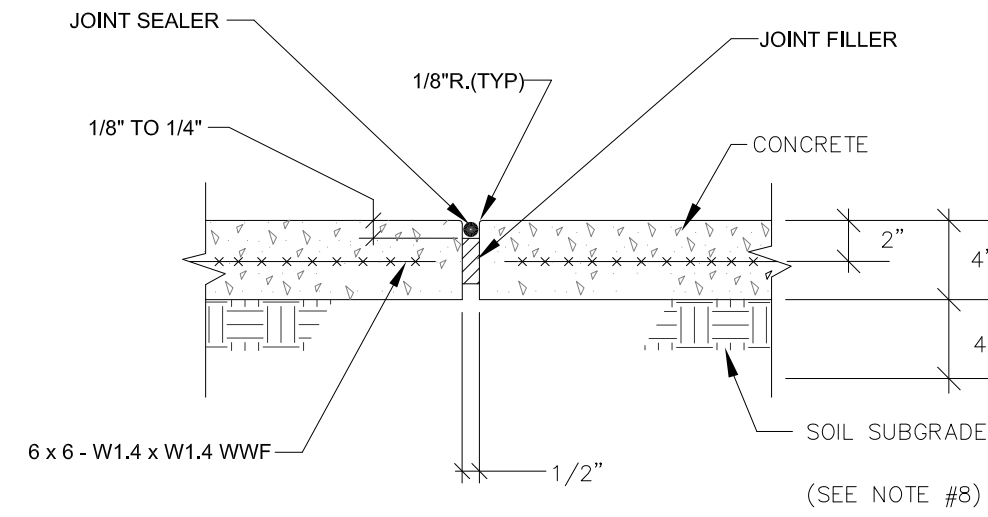
C-8 CONCRETE PAVEMENT
NTS



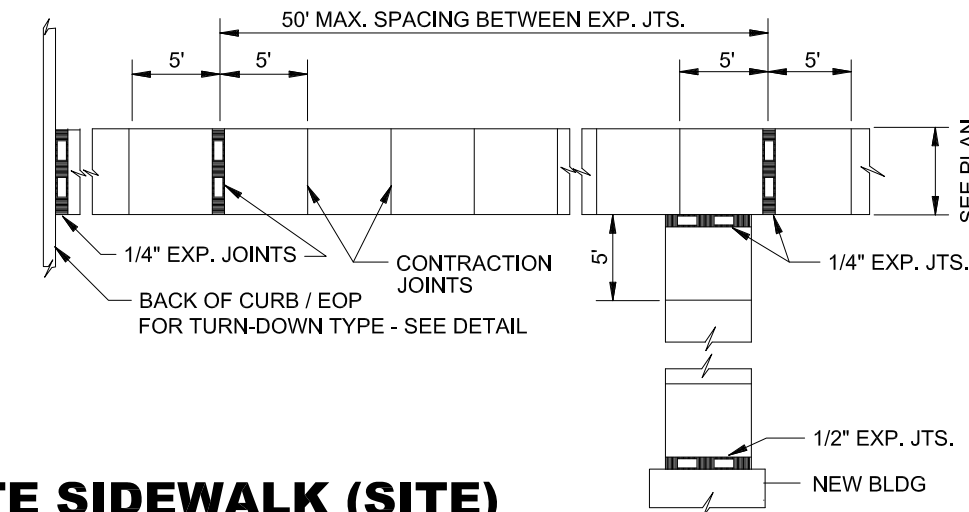
D-8 SIDEWALK W/ 'TURN DOWN' EDGE
NTS

NOTES:

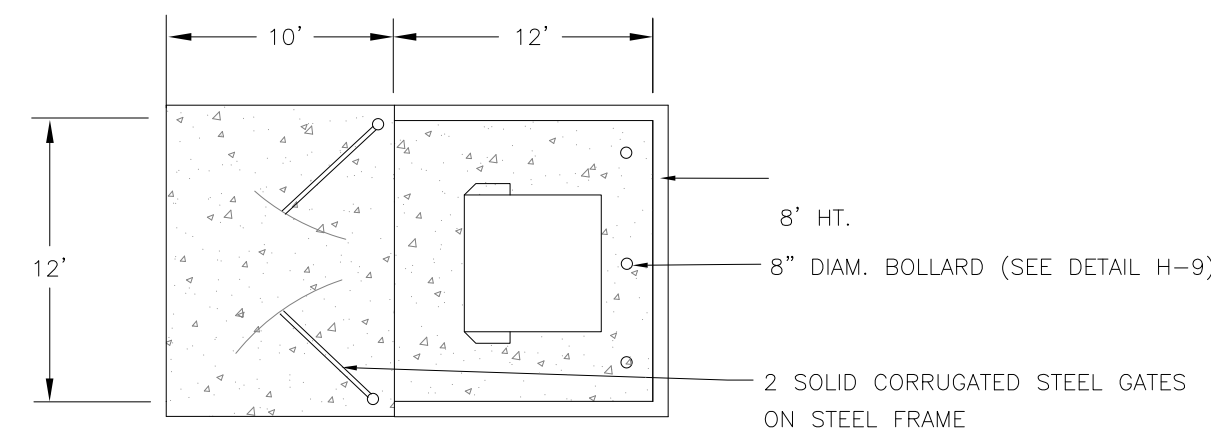
- CONCRETE SHOULD HAVE A MIN. COMPRESSIVE STRENGTH OF 3,000 PSI.
- ALL SIDEWALKS SHALL BE 4" THICK EXCEPT AT TURN DOWN.
- CONTRACTION JOINTS SHALL BE SPACED AT 5'-0" INTERVALS.
- CONTRACTION JOINTS SHALL BE FORMED 1" DEEP AND EDGED WITH 1/8" RADIUS, OR MAY BE SAWCUT 1" DEEP.
- SIDEWALK CROSS SLOPE SHOULD BE 2% MIN. TO AND SLOPE TOWARD PAVED AREAS
- 1/2" EXP. JT. MATERIAL REQUIRED WHERE CONC. SIDEWALK ABUTS ANY RIGID STRUCTURE.
- A LAYER OF 15# BLDG. FELT IS REQUIRED BETWEEN WALK AND ADJACENT PARALLELING CONC. CURB.
- ADD 4" LAYER OF CABC BETWEEN CONCRETE AND SOIL SUBGRADE IN AREAS OF POOR SOILS AND WHERE DIRECTED BY OWNER'S GEOTECHNICAL CONSULTANT.



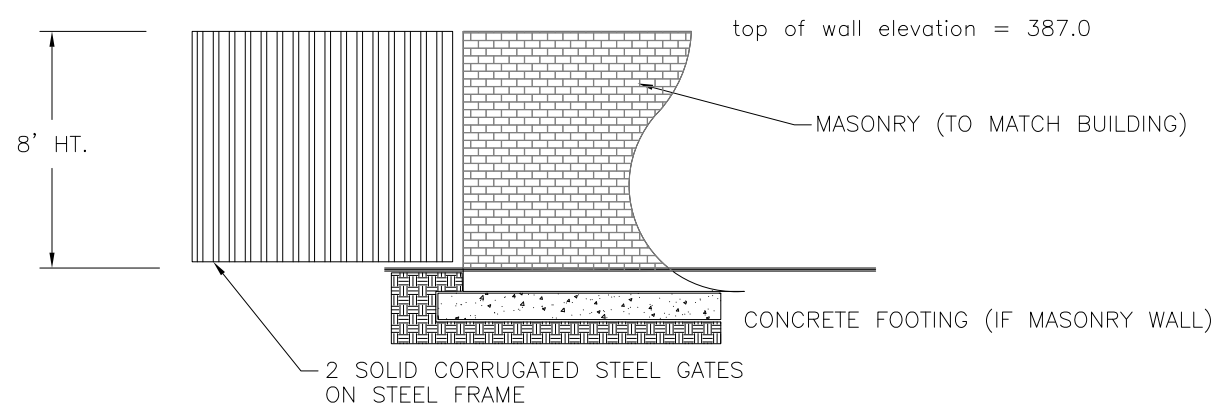
* INCREASE CONCRETE THICKNESS TO 6" WHERE DRIVEWAY CROSSES OR OTHERWISE WHERE VEHICLES ARE EXPECTED TO CROSS OVER.



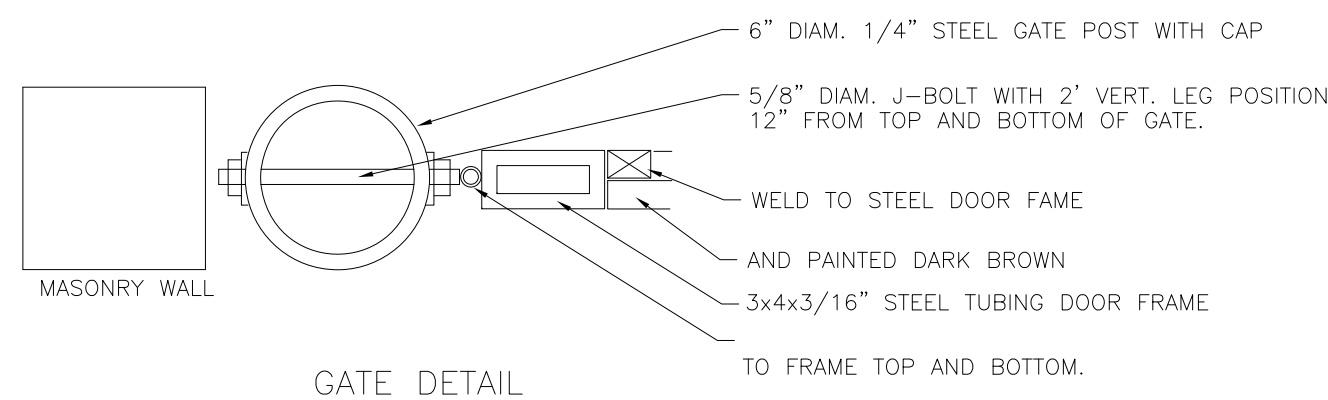
E-8 CONCRETE SIDEWALK (SITE)
NTS



SINGLE DUMPSTER PAD

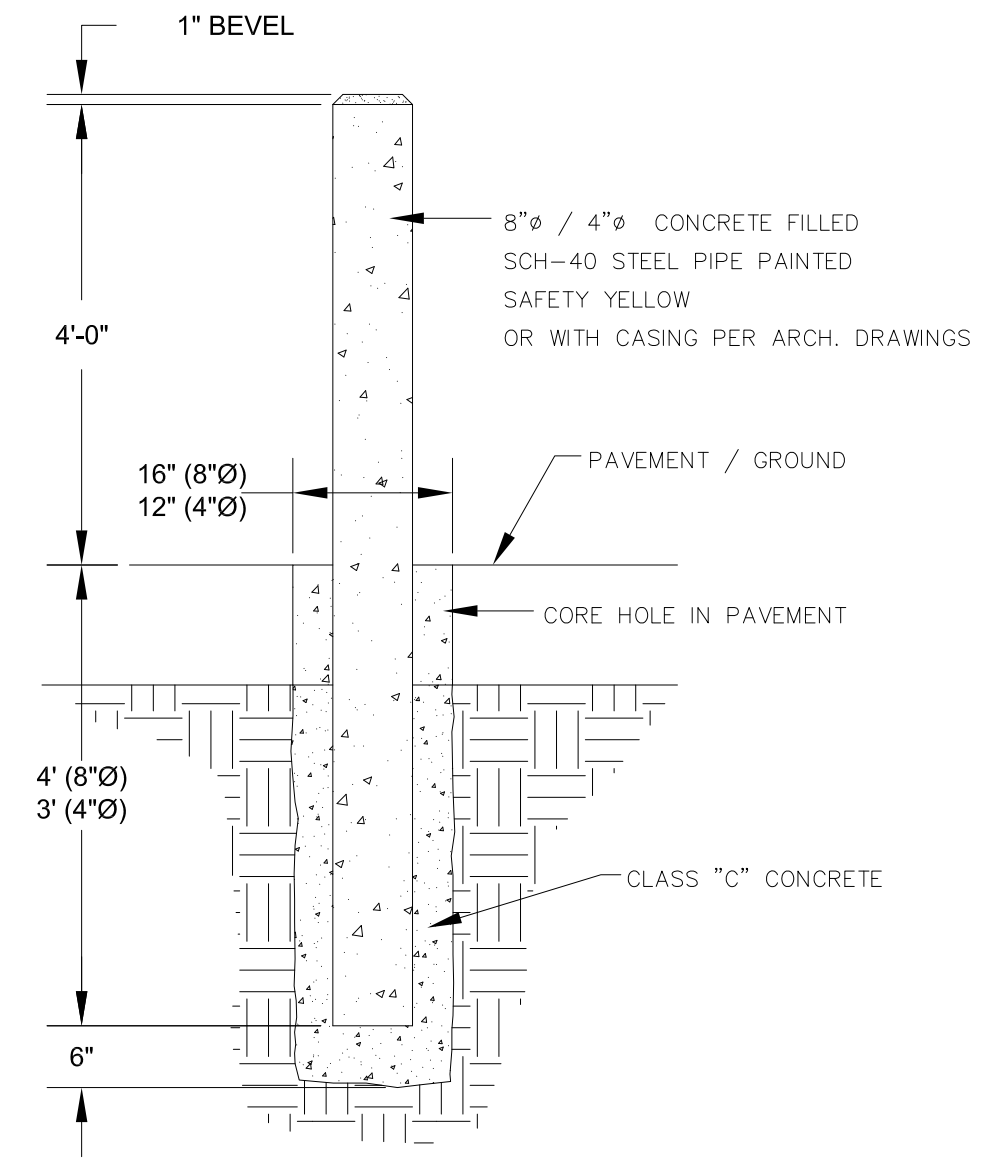


MASONRY SCREEN



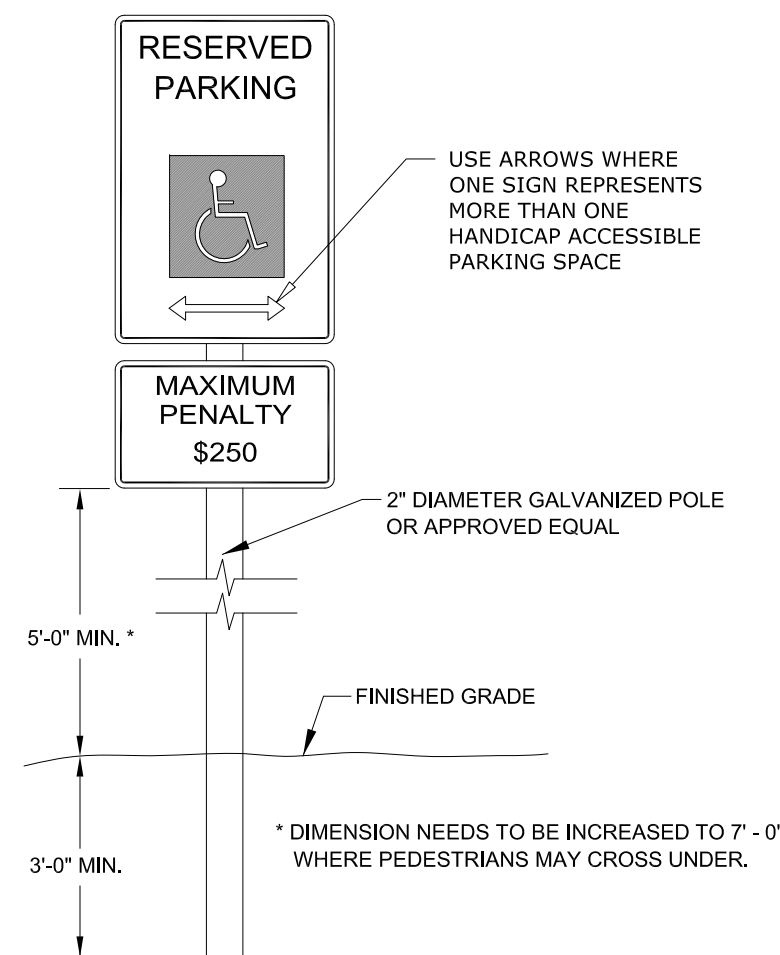
GATE DETAIL

F-8 DUMPSTER AREA
NTS



G-8 BOLLARD
NTS

STANDARD HANDICAP ACCESSIBLE PARKING SIGN



H-8 HANDICAP ACCESSIBLE PARKING SIGN
NTS

Project: **TIRADO TRUCK REPAIR**
US 421 SOUTH
HARNETT COUNTY, NC

Sheet: **CONSTRUCTION DETAILS** AGENCY REVIEW ONLY

Date: 24 JUN 2025
JTE Project No. 25-009
Sheet No.: **C8 of 12**

Drawn by: JRT
Designed by: JRT
Reviewed by: JRT

Scale:

NTS

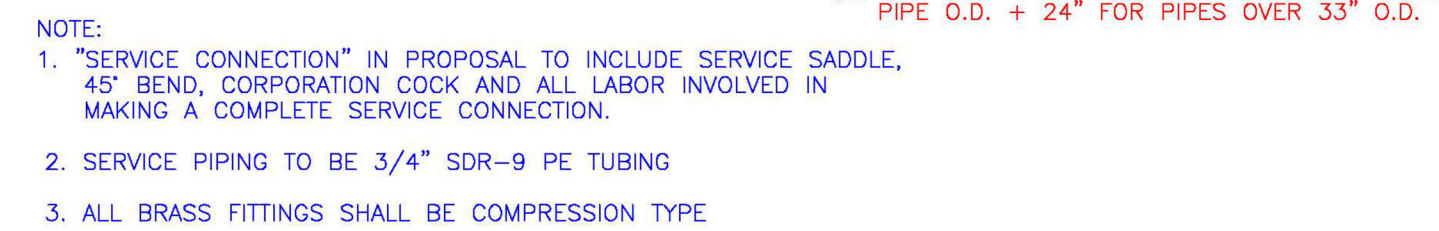
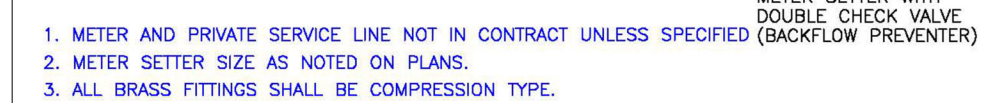
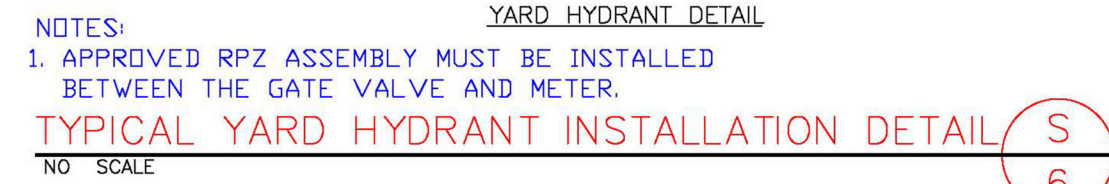
REVISIONS



PROFESSIONAL ENGINEER'S SEAL

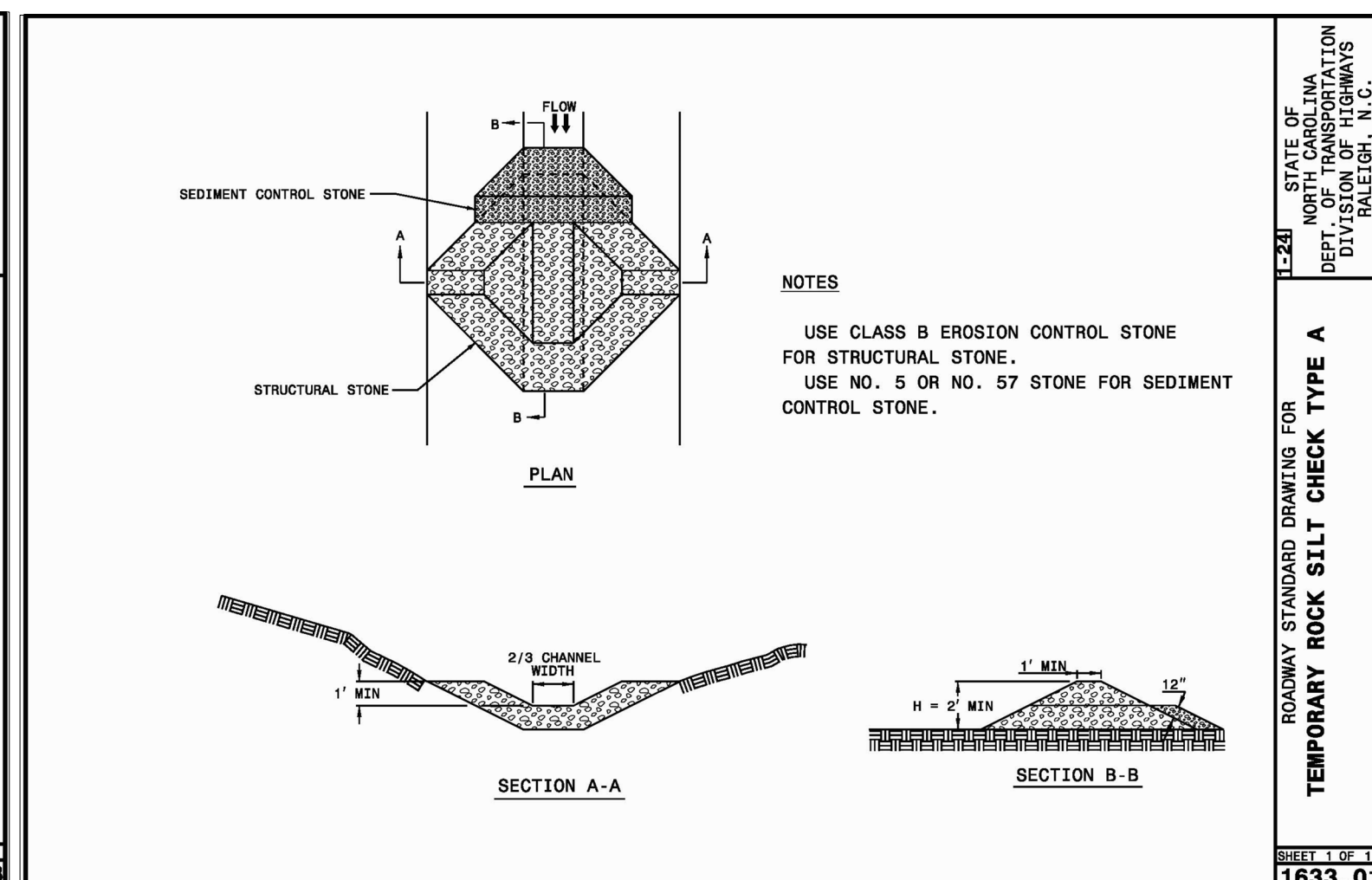
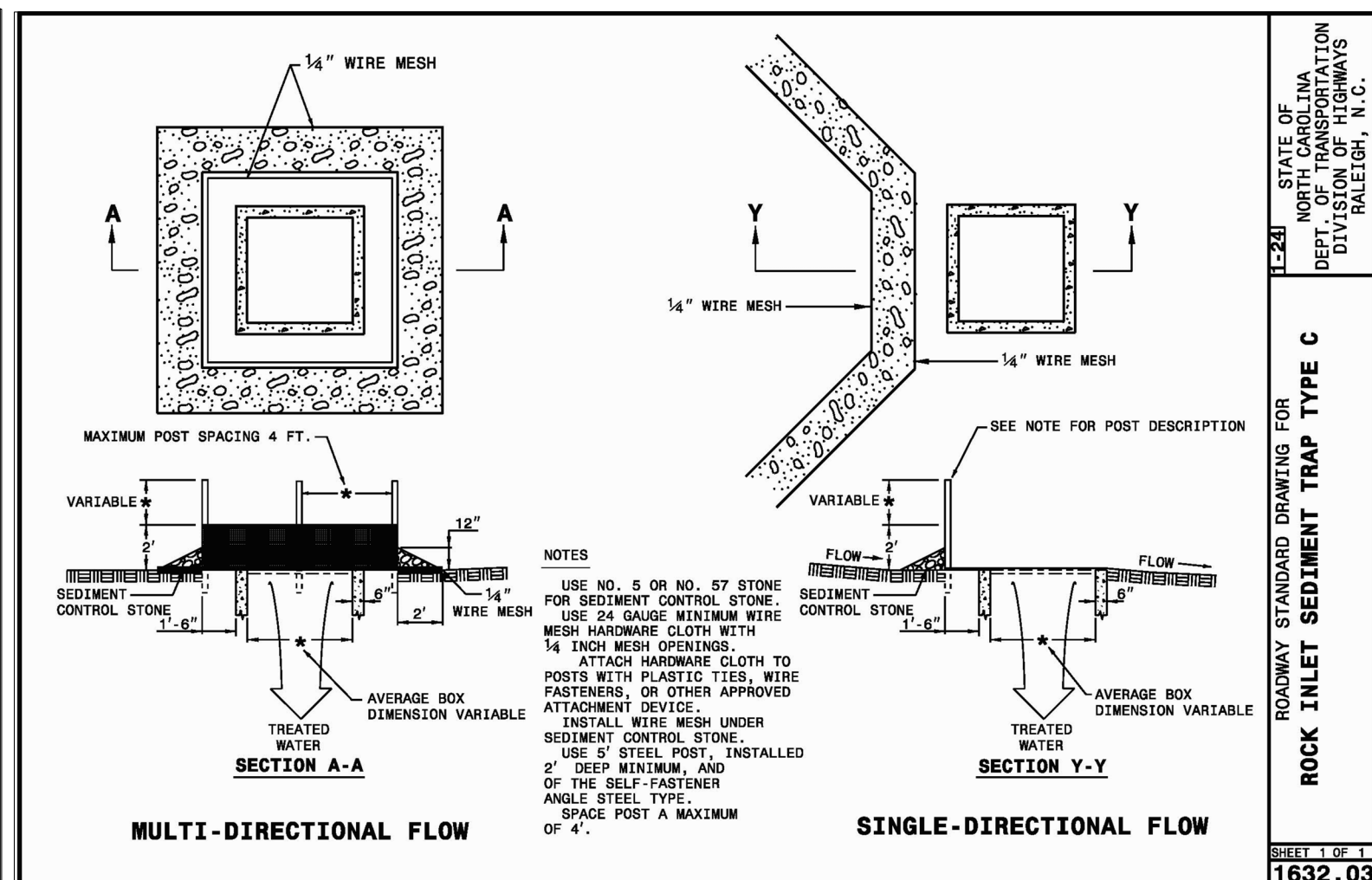
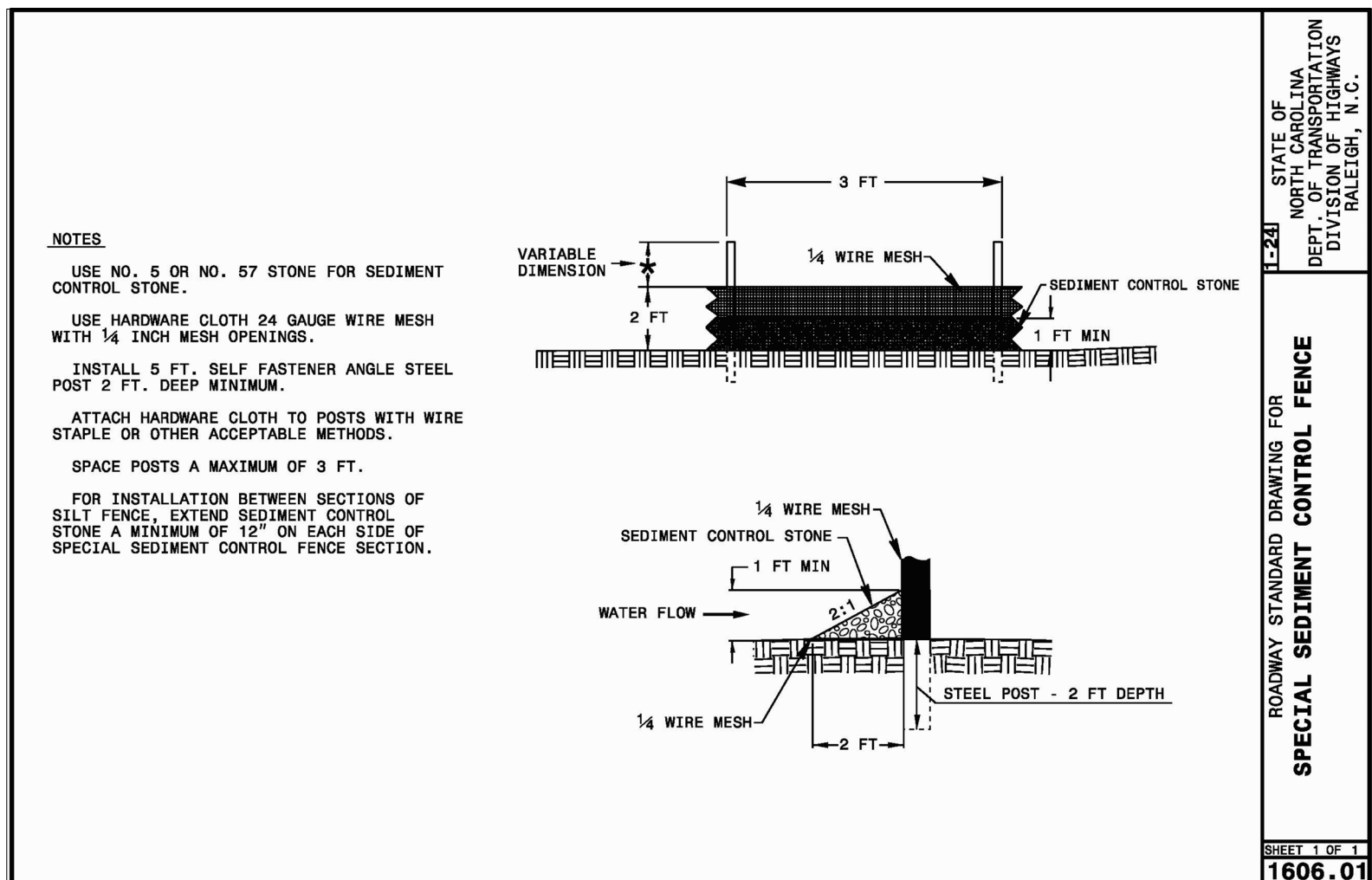
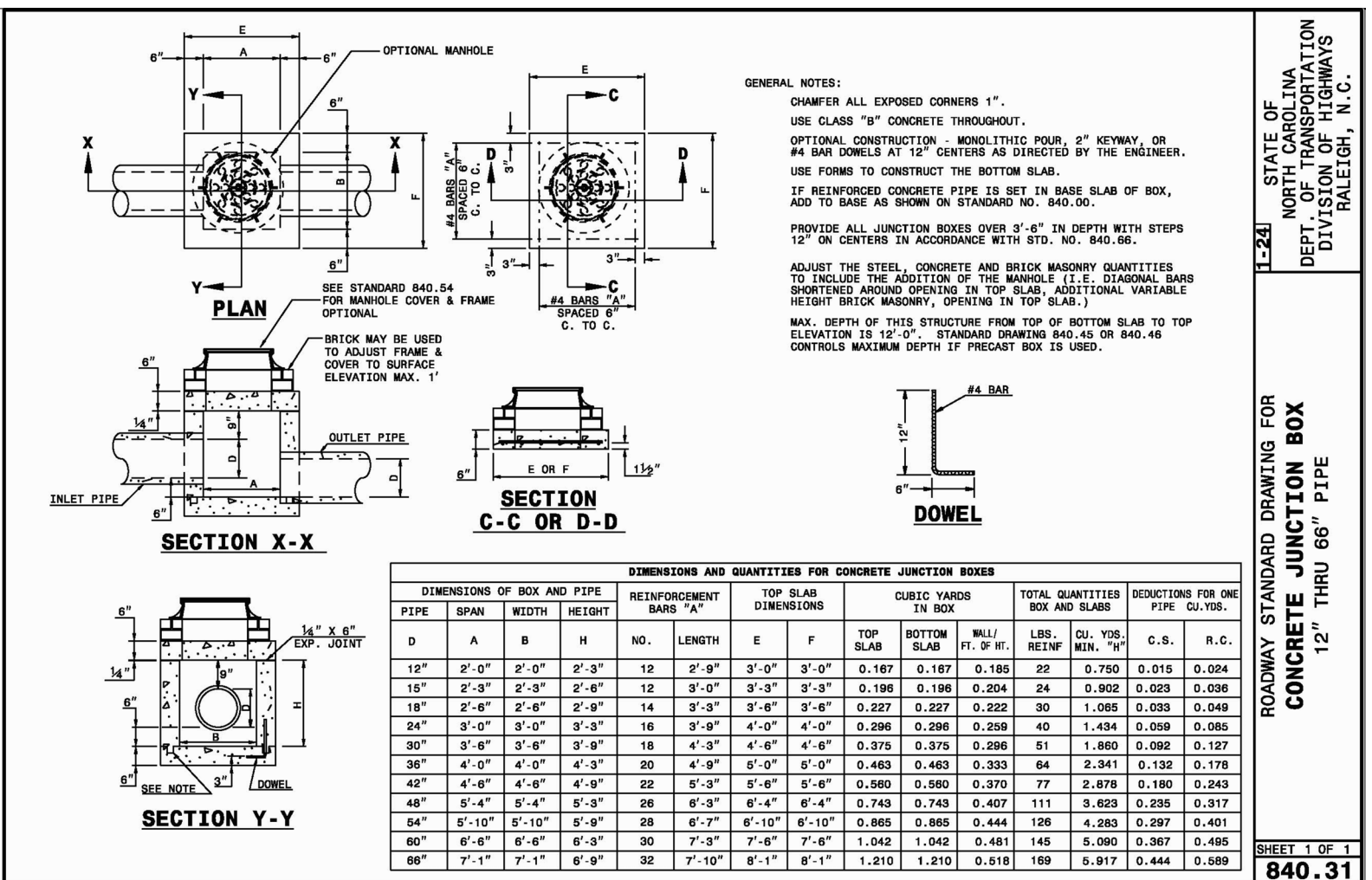
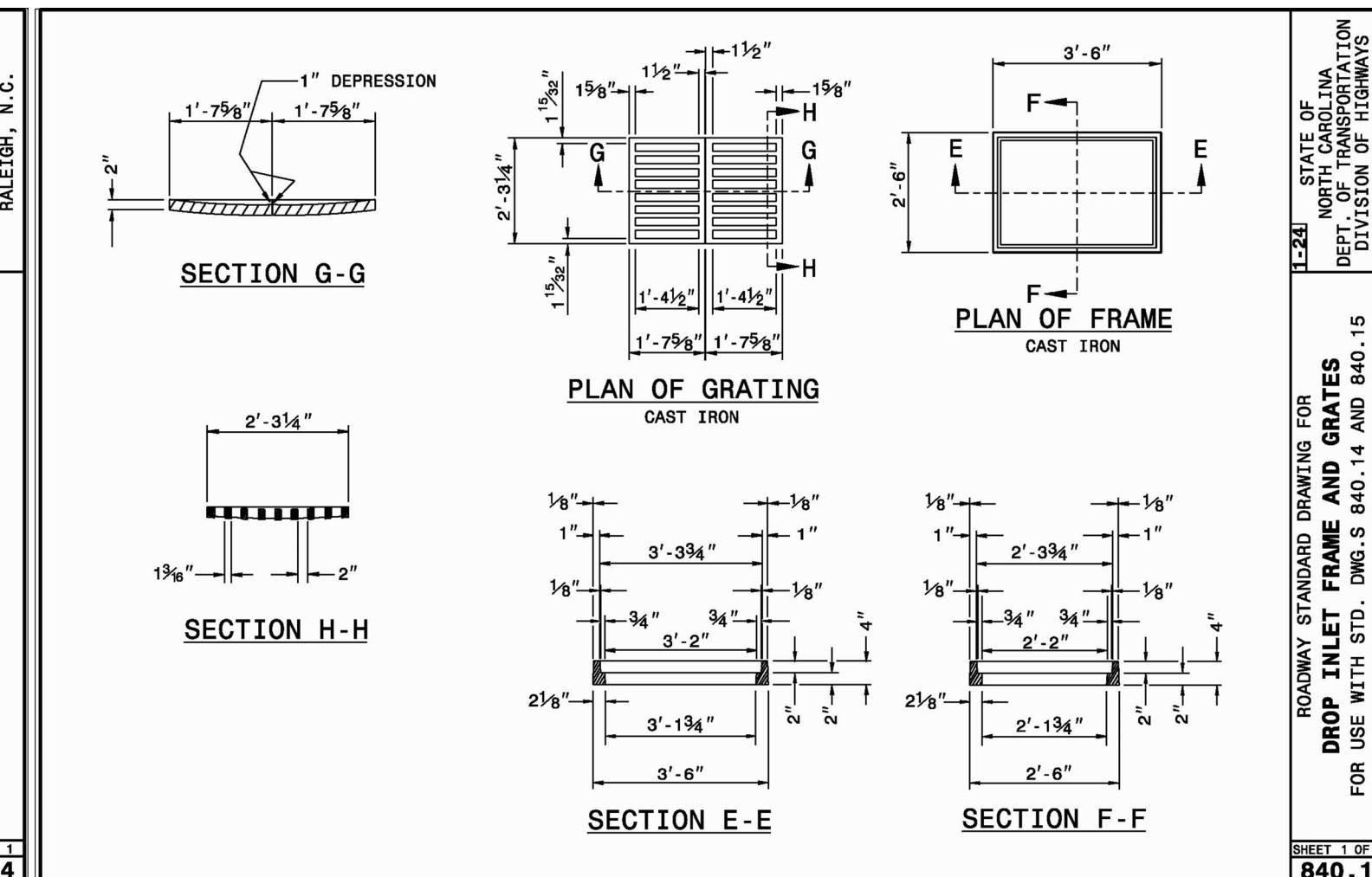
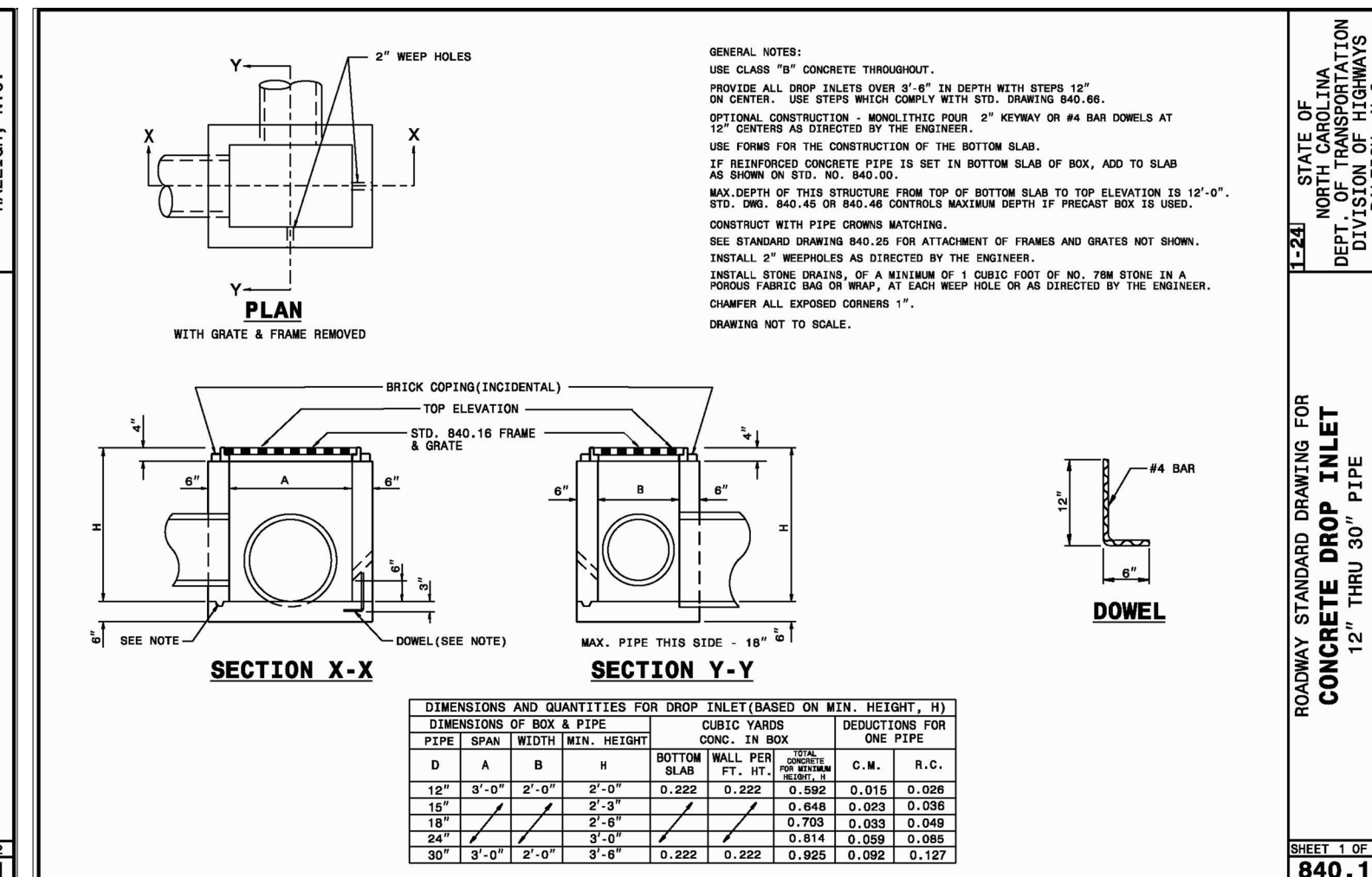
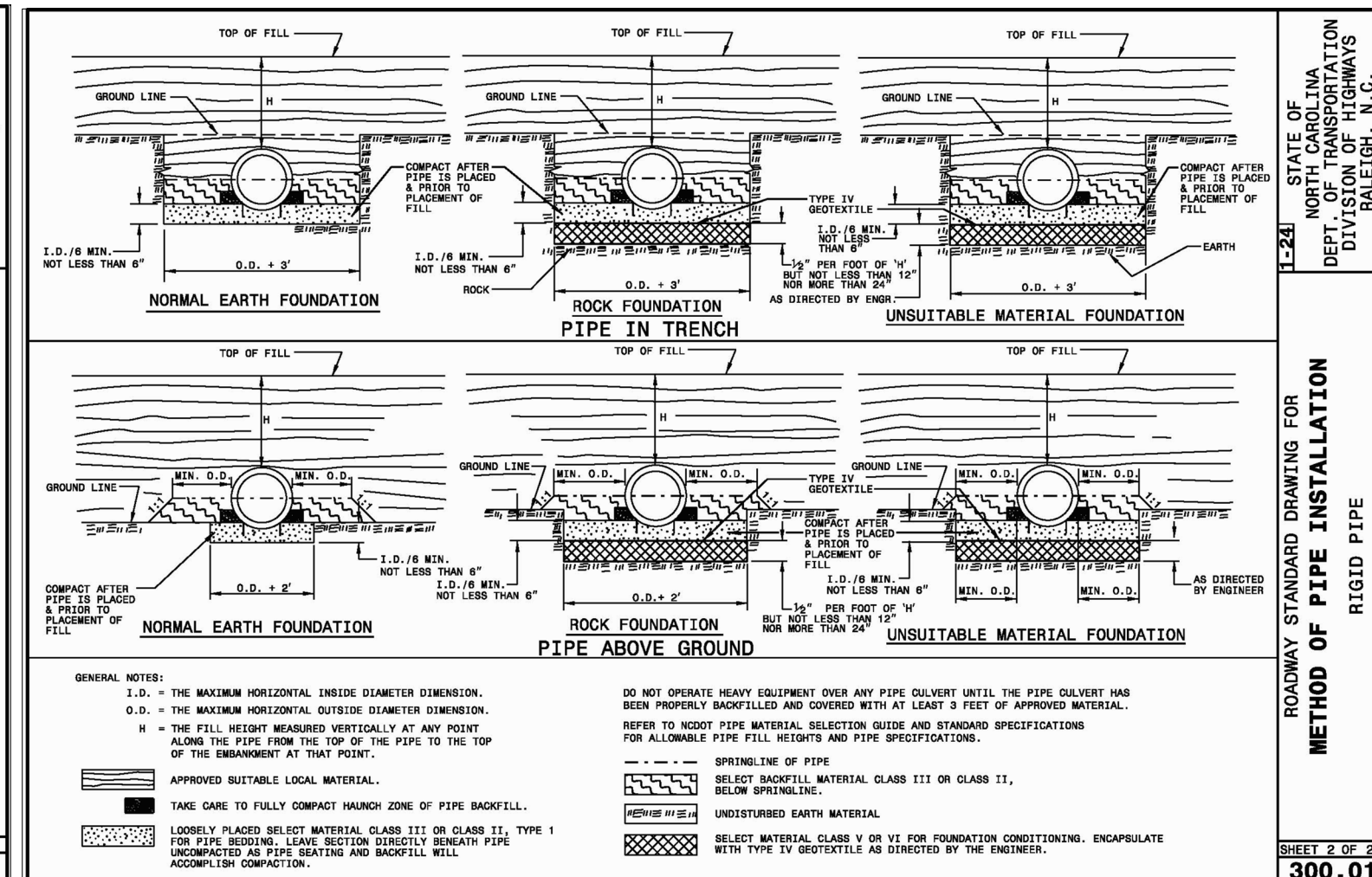
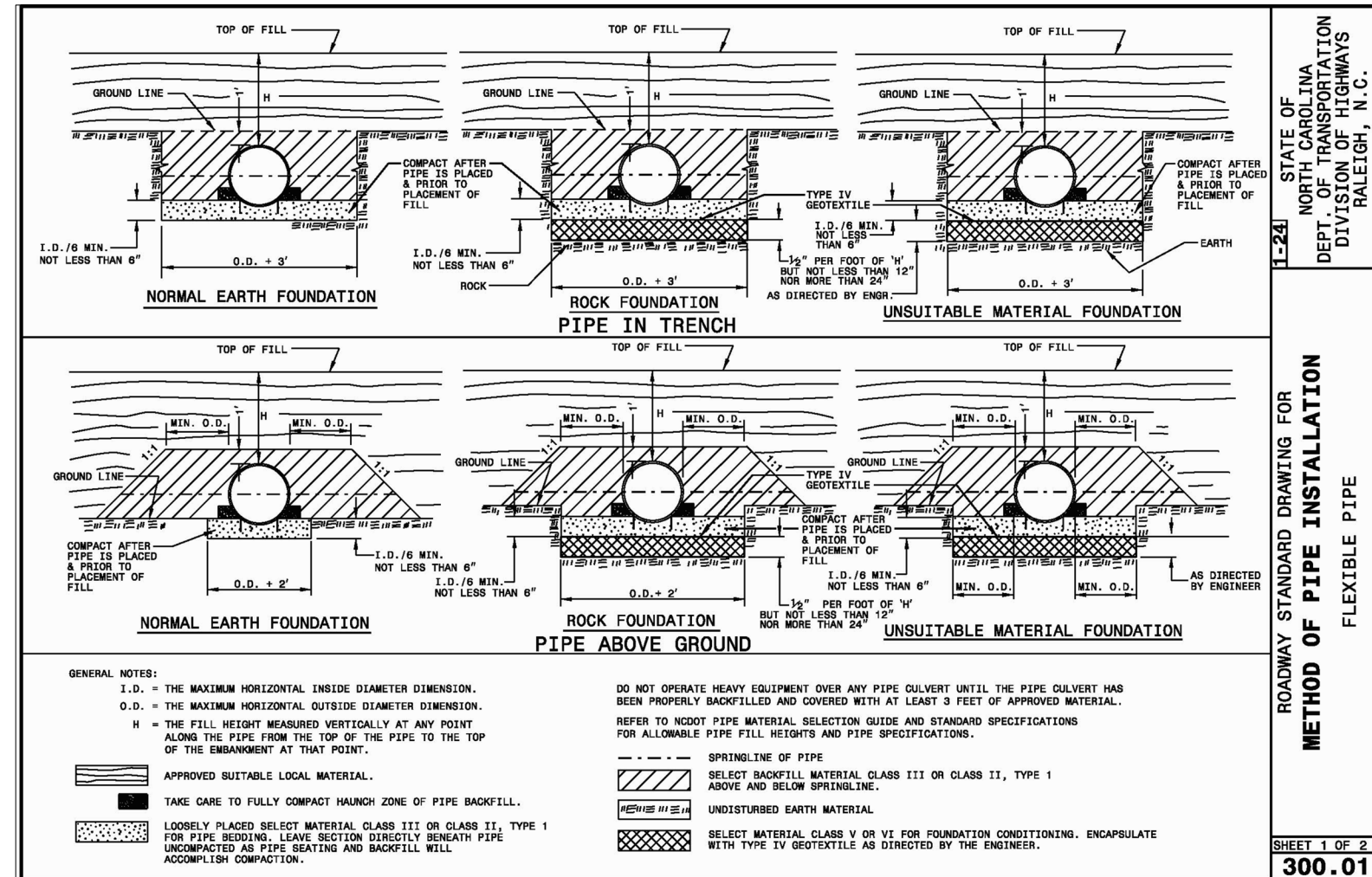
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MAINTENANCE FOR NCDOT STD DWG 1606.01: - INSPECT ALL MEASURES AT LEAST WEEKLY AND AFTER EACH RAINFALL OF 1.0 INCH OR GREATER. MAKE ANY REQUIRED REPAIRS IMMEDIATELY. - REMOVE SEDIMENT DEPOSITS BEHIND SEDIMENT CONTROL STONE TO PROVIDE ADEQUATE STORAGE VOLUME FOR THE NEXT RAIN EVENT. TAKE CARE TO AVOID TAKING UP STONE WHEN CLEANING. REPLACE STONE AS NEEDED. - REMOVE ALL FENCING MATERIALS AND UNSTABLE SEDIMENT DEPOSITS AND BRING AREA TO GRADE AND STABILIZE IT AFTER CONTRIBUTING DRAINAGE AREA HAS BEEN PROPERLY STABILIZED.		MAINTENANCE FOR NCDOT STD DWG 1632.03: - INSPECT ALL MEASURES AT LEAST WEEKLY AND AFTER EACH RAINFALL OF 1.0 INCH OR GREATER. MAKE ANY REQUIRED REPAIRS IMMEDIATELY. - REMOVE SEDIMENT DEPOSITS BEHIND SEDIMENT CONTROL STONE TO PROVIDE ADEQUATE STORAGE VOLUME FOR THE NEXT RAIN EVENT. TAKE CARE TO AVOID TAKING UP STONE WHEN CLEANING. REPLACE STONE AS NEEDED. - REMOVE ALL FENCING MATERIALS AND UNSTABLE SEDIMENT DEPOSITS AND BRING AREA TO GRADE AND STABILIZE IT AFTER CONTRIBUTING DRAINAGE AREA HAS BEEN PROPERLY STABILIZED. ENSURE POSITIVE DRAINAGE TOWARD THE INLET.	
MAINTENANCE FOR NCDOT STD DWG 1633.01: - INSPECT ALL MEASURES AT LEAST WEEKLY AND AFTER EACH RAINFALL OF 1.0 INCH OR GREATER. MAKE ANY REQUIRED REPAIRS IMMEDIATELY. - REMOVE SEDIMENT DEPOSITS BEHIND SEDIMENT CONTROL STONE TO PROVIDE ADEQUATE STORAGE VOLUME FOR THE NEXT RAIN EVENT. TAKE CARE TO AVOID TAKING UP STONE WHEN CLEANING. REPLACE STONE AS NEEDED. - REMOVE ALL STONE AND UNSTABLE SEDIMENT DEPOSITS AND BRING AREA TO GRADE AND STABILIZE IT AFTER CONTRIBUTING DRAINAGE AREA HAS BEEN PROPERLY STABILIZED. ENSURE POSITIVE DRAINAGE IN THE DRAINAGE CONVEYANCE.			

DATE: _____ PAGE: _____

CONSTRUCTION ACTIVITY	SCHEDULE CONSIDERATION
CONSTRUCTION ACCESS: Construction entrance, construction routes, equipment parking areas.	First land-disturbing activity: Stabilize bare areas immediately with gravel and temporary vegetation as construction takes place.
SEDIMENT TRAPS AND BARRIERS: Basin traps, sediment fences, and outlet protection.	Install principal basins after construction site is accessed. Install additional traps and barriers as needed during grading.
RUNOFF CONTROL: Diversions, perimeter dikes, water bars, and outlet protection.	Install key practices after principal sediment traps and before land grading. Install additional runoff-control measures during grading.
RUNOFF CONVEYANCE SYSTEM: Stabilize streambanks, storm drains, channels, inlet and outlet protection, and slope drains.	Where necessary, stabilize streambanks as early as possible. Install principal runoff conveyance system with runoff-control measures. Install remainder of system after grading.
LANDING CLEARING AND GRADING: Site preparation-cutting, filling and grading, sediment traps, barriers, diversions, drains, and surface roughening.	Begin major clearing and grading AFTER principal sediment and key runoff-control measures are installed. Clear borrow and disposal areas only as needed. Install additional control measures as grading progresses. Mark trees and buffer areas for preservation.
SURFACE STABILIZATION: Temporary and permanent seeding, mulching, sodding and riprap.	Apply temporary or permanent stabilization measures immediately on all disturbed areas where work is delayed or complete.
BUILDING CONSTRUCTION: Buildings, utilities, and paving.	Install necessary additional erosion and sedimentation control practices as work takes place.
LANDSCAPE AND FINAL STABILIZATION: Topsoiling, trees and shrubs, permanent seeding, mulching, sodding, and riprap.	Last construction phase: Stabilize all open areas, including borrow and spoil areas. Remove and stabilize all temporary control areas.

NOTE: The above are the main aspects of a typical construction sequence in general terms. A detailed Construction Sequence should be site specific based on your project and site needs. As a minimum, the construction sequence schedule should follow the following:

- The erosion and sedimentation control practices to be installed,
- Principal development activities,
- What measures should be in place before other activities are begun, and
- Compatibility with the general construction schedule of the contract.

Many timely construction techniques can reduce the erosion potential of a site, such as (1) shaping earthen fills daily to prevent overflows and (2) constructing temporary diversions ahead of anticipated storms. These types of activities cannot be put on the construction sequence schedule, but should be used whenever possible.

CONSTRUCTION SEQUENCING

Effective Date: 9/1/2023
In accordance with the 2013 Design Manual Updates

DATE: _____ PAGE: _____

SPACING GUIDE FOR SLOPE BREAKS		
SLOPE	SPACING (FT)	
Steep Slopes	2:1	20
	3:1	35
	4:1	45
Long Slopes	15-25%	50
	10-15%	80
	6-10%	125
	3-6%	200
	<3%	300

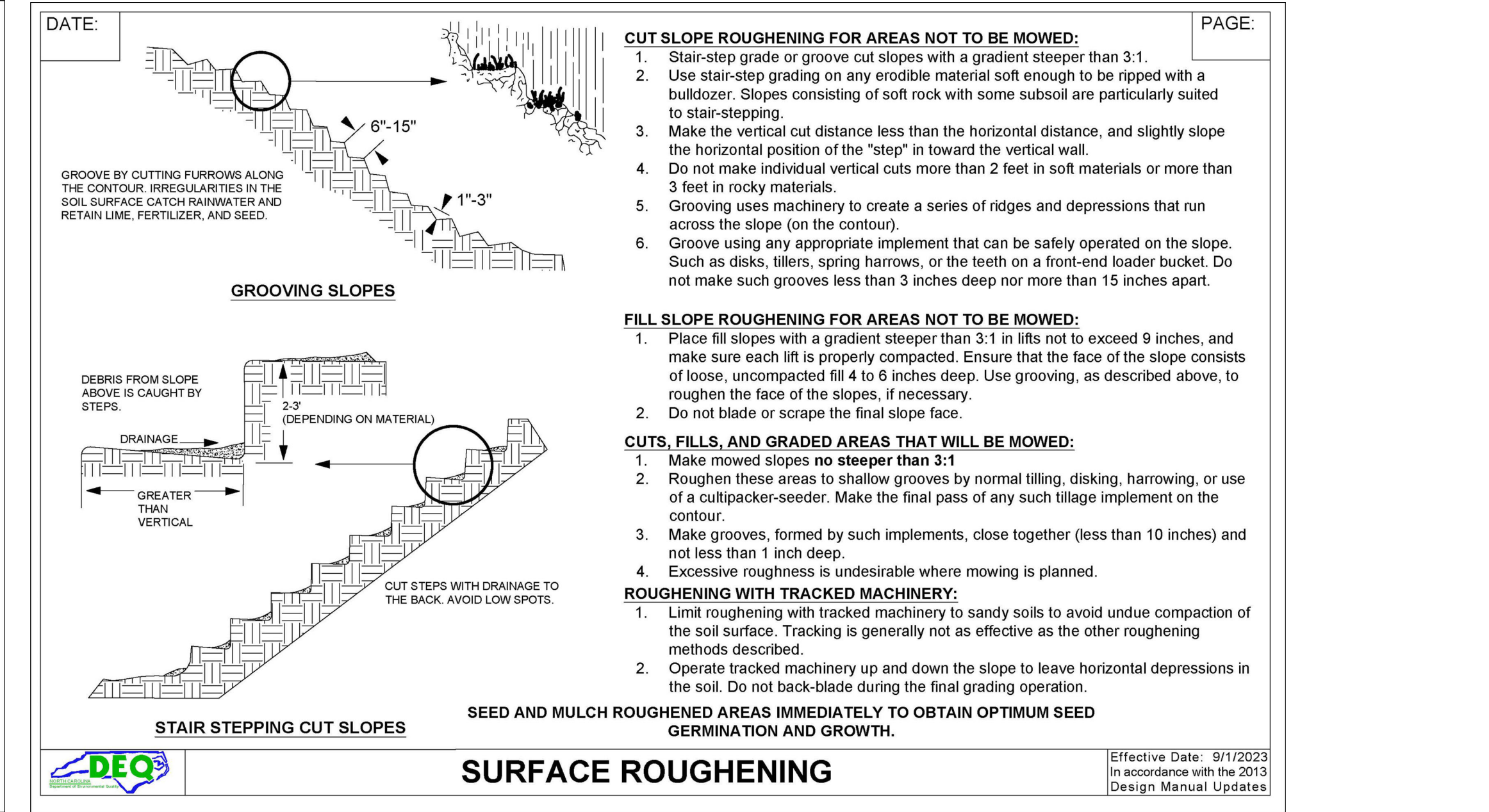
Use slope breaks, such as diversions, wattles, or benches, as appropriate, to reduce the length of cut-and-fill slope to limit sheet and soil erosion and prevent gullying.

MAINTENANCE:

- Periodically check all graded areas and the supporting erosion and sedimentation control practices, especially after heavy rainfalls.
- Promptly remove all sediment from diversions and other water-disposal practices.
- If washouts or breaks occur, repair immediately.
- Prompt maintenance of small eroded areas before they become significant gullies is an essential part of an effective erosion and sedimentation control plan.

LAND GRADING

Effective Date: 9/1/2023
In accordance with the 2013 Design Manual Updates



Project:	TIRADO TRUCK REPAIR	Date:	24 JUN 2025	Drawn by:	JRT	Scale:	NTS
	US 421 SOUTH HARNETT COUNTY, NC	JTE Project No:	25-009	Designed by:	JRT		
Sheet:	STANDARD DRAWINGS - NCDOT / NCDEQ	Sheet No.:		Reviewed by:	JRT		
	AGENCY REVIEW ONLY						

DATE:

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TEMPORARY SEEDING RECOMMENDATIONS FOR LATE WINTER AND EARLY SPRING

Seeding Mixture

Rate (lb/acre)

Species

Rate (lb/acre)

Annual lespedeza (Kobe in Piedmont and Coastal Plain, Korean in Mountains)

120

Onit annual lespedeza when duration of temporary cover is not to extend beyond June.

Seeding Dates

Mountains—Above 2500 feet: Feb. 15 - May 15
Below 2500 feet: Feb. 1 - May 1
Coastal Plain—Dec. 1 - Apr. 15

Mulch

Apply 4,000 lb/acre straw. Anchor straw by tacking with asphalt, netting, or a mulch anchoring tool. A disk with blades set nearly straight can be used as a mulch anchoring tool.

Maintenance

Refrtilize if growth is not fully adequate. Reseed, refrtilize and mulch immediately following erosion or other damage.

TEMPORARY SEEDING RECOMMENDATIONS FOR SUMMER

Seeding Mixture

Rate (lb/acre)

Species

Rate (lb/acre)

German millet

40

In the Piedmont and Mountains, a small-stemmed Sudangrass may be substituted at a rate of 50 lb/acre.

Seeding Dates

Mountains—May 15 - Aug. 15
Piedmont—Jan. 1 - May 1
Coastal Plain—Apr. 15 - Aug. 15

Mulch

Apply 4,000 lb/acre straw. Anchor straw by tacking with asphalt, netting, or a mulch anchoring tool. A disk with blades set nearly straight can be used as a mulch anchoring tool.

Maintenance

Refrtilize if growth is not fully adequate. Reseed, refrtilize and mulch immediately following erosion or other damage.

TEMPORARY SEEDING RECOMMENDATIONS FOR FALL

Seeding Mixture

Rate (lb/acre)

Species

Rate (lb/acre)

Rye (grain)

120

Seeding Dates

Mountains—Aug. 15 - Dec. 15
Coastal Plain and Piedmont—Aug. 15 - Dec. 31

Mulch

Apply 4,000 lb/acre straw. Anchor straw by tacking with asphalt, netting, or a mulch anchoring tool. A disk with blades set nearly straight can be used as a mulch anchoring tool.

Maintenance

Repair and refertilize damaged areas immediately. Topdress with 50 lb/acre of nitrogen in March. If it is necessary to extend temporary cover beyond June 15, overseed with 50 lb/acre Kobe (Piedmont and Coastal Plain) or Korean (Mountains) lespedeza in late February or early March.

LIMING: Apply lime according to soil test recommendations. If the pH (acidity) of the soil is not known, an application of ground agricultural limestone at the rate of 1-1½ tons/acre on coarse-textured soils and 2-3 tons/acre on fine-textured soils is usually sufficient. Apply limestone uniformly and incorporate into the top 4-6 inches of soil. Soils with a pH of 6 or higher need not be limed.

FERTILIZER: Base application rates on soil tests. When these are not possible, apply a 10-10-10 grade fertilizer at 700 - 1,000 lb/acre. Both fertilizer and lime should be incorporated into the top 4-6 inches of soil. If a hydraulic seeder is used, do not mix seed and fertilizer more than 30 minutes before application.

SURFACE ROUGHENING: If recent tillage operations have resulted in a loose surface additional roughening may not be required, except to break up large clods. If rainfall causes the surface to become sealed or crusted, loosen it just prior to seeding by raking, harrowing, or other suitable methods for fine grading. The finished grade shall be a smooth even soil surface with a loosen uniformly fine texture. All ridges and depressions shall be removed and filled to provide the approved surface drainage. Planting is to be done immediately after finished grades are obtained and seedbed preparation is completed.

DEQ

TEMPORARY SEEDING

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Design Manual Updates

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Subgrade Preparation:

1. Prepare the subgrade for riprap and filter to the required lines and grades shown on the plans.

2. Compact any fill required in the subgrade to a density approximating that of the surrounding undisturbed material or overfill depressions with riprap.

3. Remove brush, trees, stumps, and other objectionable material.

Sand and Gravel Filter Blanket:

1. Place the filter blanket immediately after the ground foundation is prepared.

2. When using gravel, spread filter stone in a uniform layer to the specified depth.

3. When more than one layer of filter material is used, spread the layers with minimal mixing.

Synthetic Filter Fabric:

1. Place the cloth filter directly on the prepared foundation.

2. Overlap the edges by at least 12 inches, and space anchor pins every 3 feet along the overlap.

3. Bury the upstream end of the cloth a minimum of 12 inches below ground and bury the lower end of the cloth or over lap with the next section as required.

4. If damage occurs while placing riprap, remove the riprap, and repair the sheet by adding another layer of filter material with a minimum overlap of 12 inches around the damaged area. If damage is extensive, remove and replace the entire sheet.

5. If placing large stones or machine placing is difficult, a 4 inch layer of fine gravel or sand may be needed to protect the filter cloth.

Maintenance:

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.

Size of Riprap stones

Weight (lb)	Mean Spherical Diameter (ft)	Length (ft)	Rectangular Shape Width/Height (ft)
50	0.8	1.4	0.5
100	1.1	1.8	0.6
150	1.3	2.0	0.7
300	1.6	2.6	0.9
500	1.9	3.0	1.0
1000	2.2	3.7	1.3
1500	2.6	4.7	1.5
2000	2.8	5.4	1.8
4000	3.6	6.0	2.0
6000	4.0	6.9	2.3
8000	4.5	7.6	2.5
20,000	6.1	10.0	3.3

Sizes for Riprap and Erosion Control Stone Specified by NCDOT

Riprap	Erosion Control
Class 1 500-1000 lb	Class 2 25-250 lb
30% shall weigh a minimum of 60 lbs each	60% shall weigh a minimum of 100 lbs each
No more than 10% shall weigh less than 15 lbs each	No more than 5% shall weigh less than 50 lbs each
	10% tolerance top and bottom sizes
	Equally distributed, no gradation specified

Riprap should be a well-graded mixture with 50% by weight larger than the specified design size. Diameter of the largest stone size in the mix should be 1.5 times the d₁₅ size with smaller sizes grading down to 1 inch.

Stone Placement:

1. Placement of riprap should follow immediately after placement of the filter.

2. Place so that riprap forms a dense, well-graded mass of stone with a minimum of voids.

3. Place to its full thickness in one operation.

4. Do not place by dumping through chutes or other methods that cause segregation of stone sizes.

5. Take care not to dislodge underlying base or filter when placing stone.

6. The toe of the riprap slope should be keyed to a stable foundation at its base.

7. The toe should be excavated to a depth about 1.5 times the design thickness of the riprap and extend horizontally from the slope, as shown above.

8. Hand placing may be necessary to achieve the proper distribution of stone sizes to produce a relatively smooth, uniform surface.

DEQ

RIP RAP

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8" MAX. STANDARD STRENGTH FABRIC WITH WIRE FENCE
6" MAX. EXTRA STRENGTH FABRIC WITHOUT WIRE FENCE

STEEL POST

WIRE FENCE

PLASTIC OR WIRE TIES

24"

18-24"

8" DOWN & 4" FORWARD ALONG THE TRENCH

24"

WIRE FENCE

PLASTIC OR WIRE

STEEL POST

BACKFILL TRENCH AND COMPACT THOROUGHLY

8" MIN.

4" MIN.

CROSS SECTION VIEW

Notes:

1. Construct the sediment barrier of standard strength or extra strength synthetic filter fabrics.

2. Ensure that the height of the sediment fence does not exceed 24 inches above the ground. (Higher fences may impound volumes of water sufficient to cause failure of the structure)

3. Construct the filter fabric from a continuous roll out to the length of the barrier to avoid joints. When joints are necessary, securely fasten the filter cloth only at a support post with 4 feet minimum overlap to the next post.

4. Support standard strength filter fabric by wire mesh fastened securely to the upslope side of the posts. Extend the wire mesh support to the bottom of the trench. Fasten the wire reinforcement, then fabric on the upslope side of the fence post. Wire or plastic zip ties should have a minimum 50 pound tensile strength.

5. When a wire mesh support fence is used, space posts a maximum of 8 feet apart. Supports should be driven securely into the ground a minimum of 24 inches. Wire mesh should be a minimum 14-gauge with 6 inch mesh spacing.

6. Extra strength filter fabric with 5 foot post spacing does not require a wire mesh support fence. Securely fasten the filter fabric directly to posts. Wire or plastic zip ties should have a minimum of 50 pound tensile strength.

7. Excavate the trench approximately 4 inches wide and 8 inches deep along the proposed line of the posts and upslope from the barrier.

8. Place 12 inches of fabric along the bottom and side of the trench.

9. Backfill the trench with soil placed over the filter fabric and compact. Thorough compaction of the backfill is critical to silt fence performance.

10. Do not attach filter fabric to existing trees.

11. Do not place across ditches, streams, or any other areas of concentrated flow.

Max. Slope Length and Slope for Which Sediment Fence is Applicable

Slope	Slope Length (ft)	Max. Area (ft²)
<2%	100	10,000
2 to 5%	75	7,500
5 to 10%	50	5,000
10 to 20%	25	2,500
>20%	15	1,500

Maintenance:

1. Inspect all measures at least weekly and after each rainfall of 1.0 inch or greater. Make any required repairs immediately.

2. Should the fabric of a sediment fence collapse, tear, decompose, or become ineffective, replace it promptly.

3. Remove sediment deposits as necessary to provide adequate storage volume for the next rain and reduce pressure on the fence. Take care to avoid undermining the fence during cleanouts.

4. 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.

DEQ

SEDIMENT FENCE

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NON-INVASIVE PERMANENT SEEDING RECOMMENDATIONS FOR LATE WINTER AND EARLY SPRING

Seeding Mixture

Rate

Species

Rate

Centipede

5 lbs/acre

Indian Woodoats

1.5-2.5 lbs/acre*

Virginia Wild Rye

4-6 lbs/acre

*Depending upon mix with other species. See table 6.11.d from Chapter 6 of the NC Erosion and Sediment Control Planning and Design Manual.

Seeding Dates

Coastal or Eastern Piedmont for Centipede- Sept. 1 - May 1
Wild Rye- Feb 15 - April 1
Mountains for Indian Woodoats and Virginia Wild Rye- March 1 - May 15

Maintenance:

Significant maintenance may be required to obtain desired cover.

NON-INVASIVE PERMANENT SEEDING RECOMMENDATIONS FOR SUMMER

Seeding Mixture

Rate

Species

Rate

Indian Woodoats

1.5-2.5 lbs/acre*

Virginia Wild Rye

4-6 lbs/acre*

*Depending upon mix with other species. See table 6.11.d from Chapter 6 of the NC Erosion and Sediment Control Planning and Design Manual.

Seeding Dates

Mountains - July 15 - Aug 15
Piedmont - Aug 15 - Oct 15

Maintenance:

Indian Woodoats and Virginia Wild Rye are both sun and shade tolerant.

NON-INVASIVE PERMANENT SEEDING RECOMMENDATIONS FOR FALL

Seeding Mixture

Rate

Species

Rate

Hard Fescue

15 lbs/acre

Switchgrass

2.5-3.5 lbs/acre*

Indian Grass

5-7 lbs/acre*

Big Bluestem

5-7 lbs/acre*

Indian Woodoats

1.5-2.5 lbs/acre*

Virginia Wild Rye

4-6 lbs/acre*

*Depending upon mix with other species. See table 6.11.d from Chapter 6 of the NC Erosion and Sediment Control Planning and Design Manual.

Seeding Dates

Mountains - Hard Fescue- Aug 1 - June 1
Mountains- Switchgrass, Indian Grass, Big Bluestem- Dec 1 - April 15
Piedmont, and Coastal- Switchgrass, Indian Grass, Big Bluestem- Dec 1 - April 1
Coastal- Indian Woodoats and Virginia Wild Rye- Sept 1 - Nov 1

Maintenance:

Hard Fescue is not recommended for slopes > 5%. Prefers shade.

LIMING: Apply lime according to soil test recommendations. If the pH (acidity) of the soil is not known, an application of ground agricultural limestone at the rate of 1 to 1½ tons/acre on coarse-textured soils and 2-3 tons/acre on fine-textured soils is usually sufficient. Apply limestone uniformly and incorporate into the top 4-6 inches of soil. Soils with a pH of 6 or higher need not be limed.

FERTILIZER: Base application rates on soil tests. When these are not possible, apply a 10-10-10 grade fertilizer at 700-1,000 lb/acre. Both fertilizer and lime should be incorporated into the top 4-6 inches of soil. If a hydraulic seeder is used, do not mix seed and fertilizer more than 30 minutes before application.

SURFACE ROUGHENING: If recent tillage operations have resulted in a loose surface additional roughening may not be required, except to break up large clods. If rainfall causes the surface to become sealed or crusted, loosen it just prior to seeding by raking, harrowing, or other suitable methods for fine grading. The finished grade shall be a smooth even soil surface with a loosen uniformly fine texture. All ridges and depressions shall be removed and filled to provide the approved surface drainage. Planting is to be done immediately after finished grades are obtained and seedbed preparation is completed.

NOTES:

1. Permanent seeding, sodding or other means of stabilization are required when all construction work is completed according to the NPDES timeframes table.
2. A North Carolina Department of Agriculture soils test (or equal) is highly recommended to be obtained for all areas to be seeded, sprigged, sodded or planted.
3. Use a seeding mix that will produce fast-growing nurse crops and includes non-invasive species that will eventually provide a permanent groundcover. Soil blankets may be used in lieu of nurse crops.
4. Ground cover shall be maintained until permanent vegetation is established and stable against accelerated erosion.

DEQ

PERMANENT SEEDING

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STAKES AT 3'-5' INTERVALS

OVERLAP CHANNEL 2" TO ALLOW BUILDING CURBING SEEDING PREPARATION

LONGITUDINAL ANCHOR TRENCH

DESIGN DEPTH

CHECK SLOTS AT 25' INTERVALS

12" MIN.

INITIAL CHANNEL ANCHOR TRENCH

TERMINAL SLOPE AND CHANNEL ANCHOR TRENCH

3" MIN. OVERLAP

6" MIN. OVERLAP

ANCHOR 8"x6" MIN. TRENCH AND STAPLE AT 12" INTERVALS

BRING MATERIAL DOWN TO A LEVEL AREA. TURN THE END UNDER 4" AND STAPLE AT 12" INTERVALS.

STAPLE OVERLAPS MAX. 5" SPACING

PREPARE SOIL AND APPLY SEED BEFORE INSTALLING BLANKETS, MATS OR OTHER TEMPORARY CHANNEL LINER SYSTEMS

INTERMITTENT CHECK SLOT

LONGITUDINAL ANCHOR TRENCH

SINGLE-LAP SPliced ENDS OR BEGIN NEW ROLL IN AN INTERMITTENT CHECK SLOT

FLOW

MAINTENANCE:

1. Inspect Rolled Erosion Control Products at least weekly and after each rainfall of 1.0 inch or greater; repair immediately.

2. Good contact with the ground must be maintained, and erosion must not occur beneath the RECP.

3. Any areas of the RECP that are damaged or not in close contact with the ground shall be repaired and stapled.

4. If erosion occurs due to poorly controlled drainage, the problem shall be fixed and the eroded area protected.

5. Monitor and repair the RECP as necessary until ground cover is established.

NOTES:

1. Lime, fertilizer and seed before installation. Planting of shrubs, trees, etc. should occur after installation.

2. Slope surface shall be smooth before placement for proper soil contact.

3. Design velocities exceeding 2 feet/second require temporary blankets, mats or similar liners to protect seed and soil until vegetation becomes established.

4. Terminal anchor trenches are required at RECP ends and intermittent check slots must be constructed across channels at 25 foot intervals.

5. Terminal anchor trenches should be a minimum of 12 inches in depth and 6 inches in width. Intermittent check slots should be 6 inches deep and 6 inches wide.

6. For installation on a slope, place RECP 2-3 feet over the top of the slope and into an excavated end trench measuring approximately 12 inches deep by 6 inches wide. Pin the RECP at 1 foot intervals along the bottom of the trench, backfill and compact. Unroll the RECP down the slope maintaining direct contact between the soil and RECP. Secure using staples or pins in a 3 foot center-to-center pattern.

7. 11 gauge, at least 6 inch by 1 inch staples or 12 inch minimum length wooden stakes are recommended for anchoring.

8. Grass-lined channels with design velocities exceeding 6 feet/second should include turf reinforcement mats.

9. Check slots to be constructed per manufacturers specifications.

10. Staking or stapling layout per manufacturers specification.

11. If there is a berm at the top of slope, anchor up-slope of the berm.

12. Do not stretch blankets/matting tight, allow the rolls to conform to any irregularities.

13. For slopes less than 3H:1V, rolls may be placed in horizontal strips.

DEQ

ROLLED EROSION CONTROL PRODUCTS

Effective Date: 9/1/2023
In accordance with the 2013
Design Manual Updates

DATE:

PAGE:

Public Road

GEOTEXTILE FABRIC TO BE USED IN LOCATIONS SUBJECT TO SEEPAGE OR HIGH WATER TABLE

6" MIN.

2'-3" COURSE AGGREGATE

IF 50' MIN. REACHED A LENGTH SUFFICIENT ENOUGH TO RETAIN SEDIMENT ON SITE AND OFF ROADWAYS

50' MIN.

CONSTRUCTION:

1. Clear the entrance and exit area of all vegetation, roots, and other objectionable material and properly grade it.

2. Place the gravel to the specific grade and dimensions shown on the plans, and smooth it.

3. Provide drainage to carry water to a sediment trap or other suitable outlet.

4. Use geotextile fabrics in order to improve stability of the foundation in locations subject to seepage or high water table.

MAINTENANCE:

1. Inspect all measures at least weekly and after each rainfall of 1.0 inch or greater. Make any required repairs immediately.

2. Maintain the gravel pad in a condition to prevent mud or sediment from leaving the construction site. This may require periodic topdressing with 2-inch stone.

3. Sediment on roadways is to be removed immediately by broom and shovel, either by manual or mechanical means, and not to be washed off where it has the potential to enter a stream, drainage way or storm drain system.

DEQ

TEMPORARY GRAVEL CONSTRUCTION ENTRANCE/EXIT

Effective Date: 9/1/2023
In accordance with the 2013
Design Manual Updates

DATE:

PAGE:

Mulching Materials and Application Rates

Material	Rate Per Acre	Quality	Notes
Straw	1-2 tons	Dry, unchopped, unweathered; avoid weeds.	Should come from wheat or oats; spread by hand or machine; must be tacked.
Wood Chips	5-6 tons	Air dry	Treat with 12 lbs nitrogen. Apply with mulch blower, chip handle, or by hand. Not for use in fine turf.
Wood Fiber	0.5-1 tons	Air dry, shredded or hammer-milled, or chips.	Also referred to as wood cellulose. Do not use in hot, dry weather.
Bark	35 cubic yards	Air dry, shredded or hammer-milled, or chips.	Apply with mulch blower, chip handle, or by hand. Do not use asphalt tack.
Corn Stalks	4-6 tons	Cut or shredded in 4-6 inch lengths	Apply with mulch blower or by hand. Not for use in fine turf.
Sericea Lespedeza seed-bearing stems	1-3 tons	Green or dry; should contain mature seed.	Green or dry; should contain mature seed.

Nets and Mats

Heavy, uniform, woven of single jute yarn.

Withstands waterflow. Best when used with organic mulch.

Lightweight plastic, cotton, jute, wire or paper nets may be stapled over the mulch according to the manufacturer's recommendations.

For small areas where other methods cannot be used, peg and twine anchoring can be used. Drive 5-10 inch wooden pegs to within 3 inches of the soil surface, every 4 feet in all directions. Stakes can be driven before or after straw is spread. Secure mulch by stretching twine between pegs in a cross-cross-within-a-square pattern. Turn twine two or more times around each peg.

Rye Grain may be used to anchor mulch in fall plantings, and German Millet in spring. Broadcast at 15 lb/acre before applying mulch.

Chemical Mulches

May be effective for soil stabilization if used between May 1 and June 15, or Sept. 15 and Oct. 15, provided that they are used on slopes no steeper than 4:1, and that proper seedbed preparation has been accomplished, including surface roughening where required.

2 Chemical mulches cannot be used to bind other mulches, or with wood fiber in a hydrosieved slurry at any time. Follow the manufacturer's recommendations for application.

FIBERGLASS ROVING

Spread roving uniformly over the area at a rate of 0.25 to 0.35 sq/yd.

As a channel lining, and at other sites of concentrated flow, the roving mat must be further anchored to prevent undermining.

3 It may be secured with stakes placed at intervals no greater than 10 feet along the drainageway, and randomly throughout its width, but not more than 10 feet apart.

4 As an option to staking, the roving can be buried to a depth of 5 inches at the upgrade end and at intervals of 50 feet along the length of the channel.

NETS AND MATS

1. Nets alone generally provide little moisture conservation benefits and only limited erosion protection. Therefore, typically use in conjunction with an organic mulch such as straw.

2. Except when wood fiber slurry is used, netting should always be installed over the mulch. Wood fiber may be sprayed on top of an installed net.

3. Mats, including "excelsior" (wood fiber) blankets, are considered protective mulches and may be used alone.

4. Place the matting in firm contact with the soil, and staple securely.

NOTES:

1. Select material based on site and practice requirements, availability of material, labor and equipment.
2. Before mulching, complete grading, install sediment control practices, and prepare the seedbed. Apply seed before mulching except when seed is applied as part of a hydroseder slurry containing wood fiber mulch or a hydroseder slurry is applied over straw.
3. Spread mulch uniformly by hand, or with a mulch blower.
4. When spreading straw mulch by hand, divide the area to be mulched into sections of approximately 1,000 ft², and place 70-90 lb. of straw (1 1/2 to 2 bales) in each section to facilitate uniform distribution.
5. After Spreading, no more than 25% of the ground surface should be visible.
6. In hydroseding operations a green dye, added to the slurry, assures a uniform application.
7. Straw mulch must be anchored immediately after spreading.
8. A tractor-drawn implement designed to punch mulch into the soil or a mulch anchoring tool provides maximum erosion control with straw. A regular farm disk, weighted and set nearly straight, may substitute, but will not do a job comparable to the mulch anchoring tool. The disk should not be sharp enough to cut the straw. These methods are limited to slopes no steeper than 3:1, where equipment can operate safely.
9. Application of liquid mulch binders and tackifiers should be heaviest at the edges of areas and at crests of ridges and banks, to resist winds. Binder should be applied uniformly to the rest of the area. Binders may be applied after mulch is spread, or may be sprayed into the mulch as it is being blown onto the soil. Applying straw and binder together is the most effective method.
10. Emulsified asphalt should be applied at 0.10 gallons per square yard (10 gal./1,000 ft²). Heavier applications cause straw to "perch" over rills. Use Rapid setting RPS or CRS designated asphalt in traffic areas to prevent anchored asphalt from being picked up by shoes and causing damage to rugs, clothes, etc.
11. Synthetic binders may be used as recommended by the manufacturer.
12. Lightweight plastic, cotton, jute, wire or paper nets may be stapled over the mulch according to the manufacturer's recommendations.
13. For small areas where other methods cannot be used, peg and twine anchoring can be used. Drive 5-10 inch wooden pegs to within 3 inches of the soil surface, every 4 feet in all directions. Stakes can be driven before or after straw is spread. Secure mulch by stretching twine between pegs in a cross-cross-within-a-square pattern. Turn twine two or more times around each peg.
14. Rye Grain may be used to anchor mulch in fall plantings, and German Millet in spring. Broadcast at 15 lb/acre before applying mulch.

CHEMICAL MULCHES

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DEQ

MULCHING

Effective Date: 9/1/2023
In accordance with the 2013
Design Manual Updates

DATE:

PAGE:

PIPE OUTLET TO FLAT AREA NO WELL-DEFINED CHANNEL

PLAN

SECTION A

La = Length of Riprap Apron
d = Thickness of Riprap Apron

PIPE OUTLET TO WELL-DEFINED CHANNEL

PLAN

SECTION AA

La = Length of Riprap Apron
d = Thickness of Riprap Apron

NOTES:

1. 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.

2. The riprap and gravel filter must conform to the specified grading limits shown on the plans.

3. 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 over the damaged area.

4. If the damage is extensive, replace the entire filter cloth.

5. All connecting joints should overlap so the top layer is above the downstream layer a minimum of 1 foot.

6. The minimum thickness of the riprap should be 1.5 times the maximum stone diameter but not less than 6".

7. Riprap may be field stone or rough quarry stone. It should be hard, angular highly weather-resistant and well graded.

8. Construct the apron on zero grade with no overfill at the end. Make the top of the riprap at the downstream end level with the receiving area or slightly below it.

9. Ensure that the apron is properly aligned with the receiving stream and preferably straight throughout its length. If a curve is needed, place it in the upper section of the apron.

MAINTENANCE:

1. Inspect outlet structures at least weekly and after each rainfall of 1.0 inch or greater.

2. Check outlets for erosion around or below riprap and for if stones have been dislodged. Make repairs immediately to prevent further damage.

DEQ

OUTLET STABILIZATION STRUCTURE

Effective Date: 9/1/2023
In accordance with the 2013
Design Manual Updates

Project: TIRADO TRUCK REPAIR

US 421 SOUTH
HARNETT COUNTY, NC

Sheet: STANDARD DRAWINGS -
NCDEQ

Date: 24 JUN 2025

JTE Project No: 25-009

Sheet No.: CII of 12

Drawn by: JRT

Designed by: JRT

Reviewed by: JRT

Scale:

NTS

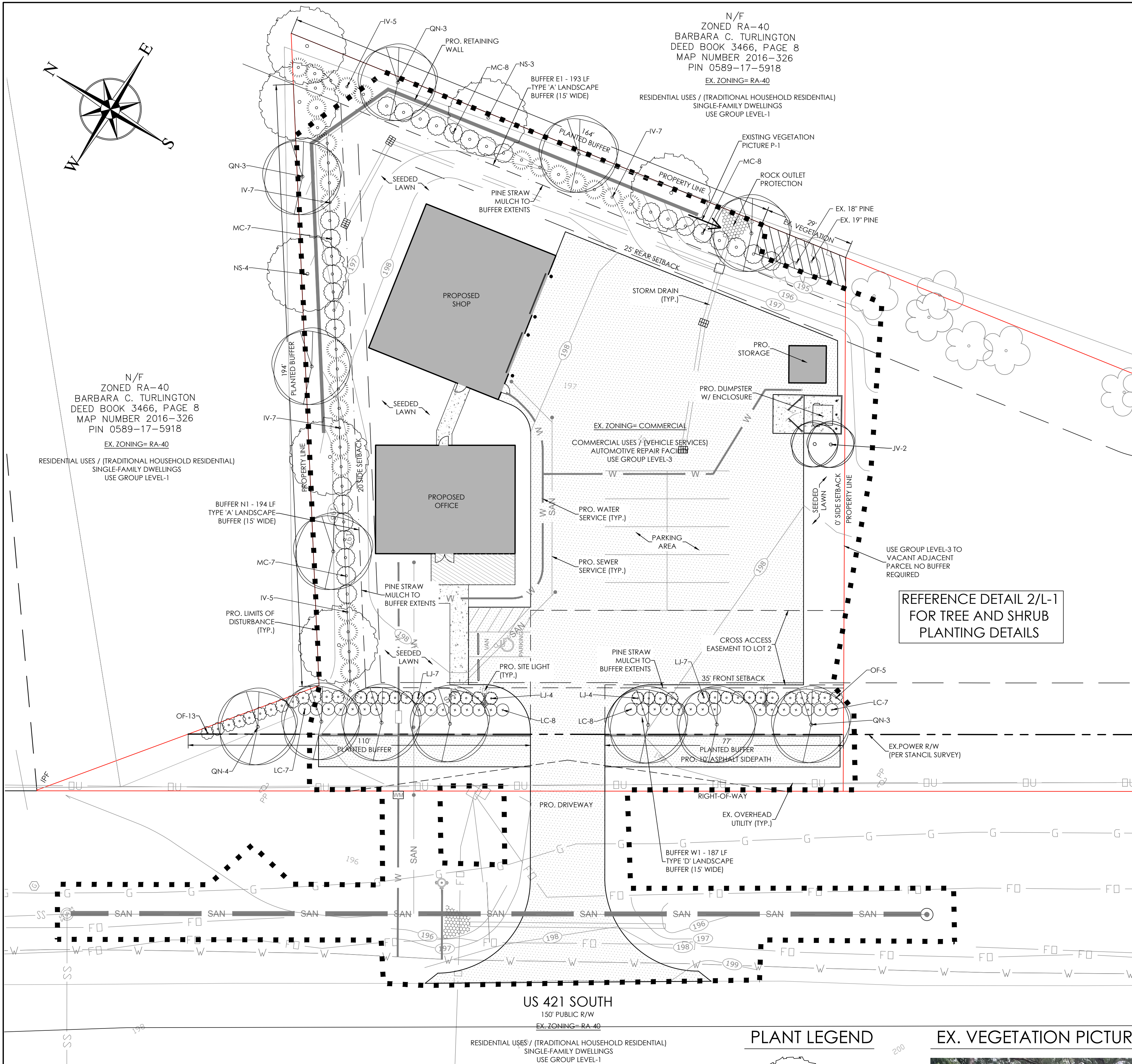
REVISIONS

J THOMAS ENGINEERING, INC.

CIVIL ENGINEERING & PLANNING

143 Charlotte Avenue, Suite 104
Sanford, North Carolina 27330
(919) 777-6010 phone
www.jthomasengineering.com
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PROFESSIONAL ENGINEER'S SEAL



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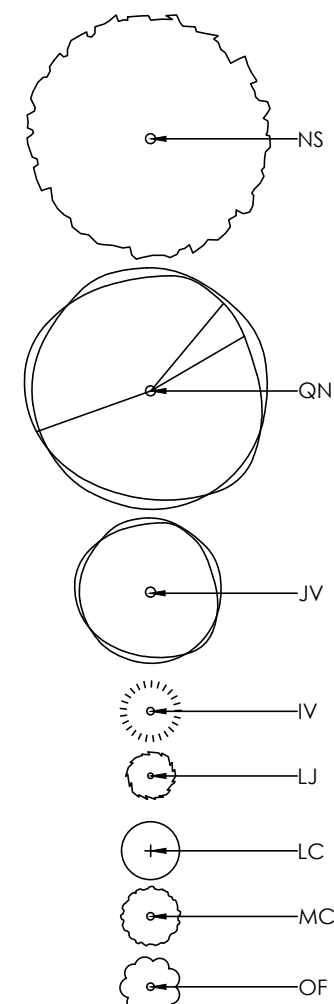
LANDSCAPE PLAN

SCALE: 1"=20'

PLANT SCHEDULE

KEY	QTY.	BOTANICAL NAME	COMMON NAME	CAL.	HEIGHT	ROOT	COMMENTS
DECIDUOUS CANOPY TREE							
NS	7	Nyssa sylvatica 'Wildfire'	Wildfire Blackgum	2"	8-10'	B&B	Full, Straight, Single Leader
QN	13	Quercus nuttallii	Nuttall Oak	2"	8-10'	B&B	Full, Straight, Single Leader
EVERGREEN TREE							
JV	2	Juniperus Virginiana	Eastern Red Cedar	-	6' Min.	Cont.	Full, Straight, Single Leader
EVERGREEN SHRUBS							
IV	31	Ilex vomitoria	Yaupon Holly	-	24" Min.	Cont.	Full, Match
LI	22	Ligustrum japonicum 'Recurvifolium'	Wax Leaf Ligustrum	-	24" Min.	Cont.	Full, Match
LC	30	Loropetalum Chinense 'Zhuzhou Fuschia'	Zhuzhou Fuschia Loropetalum	-	24" Min.	Cont.	Full, Match
MC	30	Myrica cerifera	Wax Myrtle	-	24" Min.	Cont.	Full, Match
OF	18	Osmanthus X Fortunei	Fortune's Osmanthus	-	24" Min.	Cont.	Full, Match

PLANT LEGEND



EX. VEGETATION PICTURE P1



LANDSCAPE CALCULATIONS

UDO SEC. 9.1.8 - REQUIRED BUFFER & SCREENING TYPES

UDO SEC. 9.1.8.A

ALL BUFFER TYPES SHALL INCLUDE:

- A STAGGERED ROW OF LARGE MATURING TREES, SPACED NOT MORE THAN 30 FEET APART; AND
- LOW-GROWING EVERGREEN SHRUBS, EVERGREEN GROUND COVER, OR MULCH COVERING THE BALANCE OF THE BUFFER AREA.

BUFFER N1 - 194 LF, TYPE 'A' LANDSCAPE BUFFER (15' WIDE)

EXISTING BUFFER VEGETATION = 0 LF

PLANTED BUFFER = 194 LF

STAGGERED ROW OF LARGE MATURING TREES, SPACED NOT MORE THAN 30 FEET APART

194 LF / 30' = 6.4 (7) LARGE MATURING TREES REQUIRED/PROVIDED

ROW OF EVERGREEN SHRUBS PLACED NOT MORE THAN FOUR TO SIX FEET APART WHICH WILL GROW TO FORM A CONTINUOUS HEDGE OF AT LEAST SIX FEET IN HEIGHT WITHIN TWO YEARS OF PLANTING

194 LF / 6' = 32.3 (33) EVERGREEN SHRUBS REQUIRED/PROVIDED

PINE STRAW MULCH COVERING THE BALANCE OF THE BUFFER AREA

BUFFER E1 - 193 LF, TYPE 'A' LANDSCAPE BUFFER (15' WIDE)

EXISTING BUFFER VEGETATION = 29 LF

PLANTED BUFFER = 164 LF

STAGGERED ROW OF LARGE MATURING TREES, SPACED NOT MORE THAN 30 FEET APART

164 LF / 30' = 5.4 (6) LARGE MATURING TREES REQUIRED/PROVIDED

ROW OF EVERGREEN SHRUBS PLACED NOT MORE THAN FOUR TO SIX FEET APART WHICH WILL GROW TO FORM A CONTINUOUS HEDGE OF AT LEAST SIX FEET IN HEIGHT WITHIN TWO YEARS OF PLANTING

164 LF / 6' = 27.3 (28) EVERGREEN SHRUBS REQUIRED/PROVIDED

PINE STRAW MULCH COVERING THE BALANCE OF THE BUFFER AREA

BUFFER W1 - 187 LF, TYPE 'D' LANDSCAPE BUFFER (15' WIDE)

EXISTING BUFFER VEGETATION = 0 LF

PLANTED BUFFER = 187 LF

STAGGERED ROW OF LARGE MATURING TREES, SPACED NOT MORE THAN 30 FEET APART

187 LF / 30' = 6.2 (7) LARGE MATURING TREES REQUIRED/PROVIDED

ROW OF EVERGREEN SHRUBS, 10 SHRUBS FOR EVERY REQUIRED LARGE MATURING TREE, PLACED NOT MORE THAN FOUR FEET APART WHICH WILL GROW TO FORM A CONTINUOUS HEDGE OF AT LEAST 6 FEET IN HEIGHT WITHIN 2 YEARS OF PLANTING

7 LARGE MATURING TREES X 10 SHRUBS = 70 EVERGREEN SHRUBS REQUIRED/PROVIDED

PINE STRAW MULCH COVERING THE BALANCE OF THE BUFFER AREA

UDO SEC. 9.2.3 - TRASH CONTAINMENT AREAS SCREENING

ALL TRASH CONTAINMENT DEVICES, INCLUDING COMPACTORS AND DUMPSTERS, SHALL BE LOCATED AND DESIGNED SO AS NOT TO BE VISIBLE FROM THE VIEW OF ADJACENT RIGHT(S)-OF-WAY AND PROPERTIES. THE TYPE OF SCREENING USED SHALL BE A CONTINUOUS ROW OF LARGE MATURING EVERGREEN TREES.

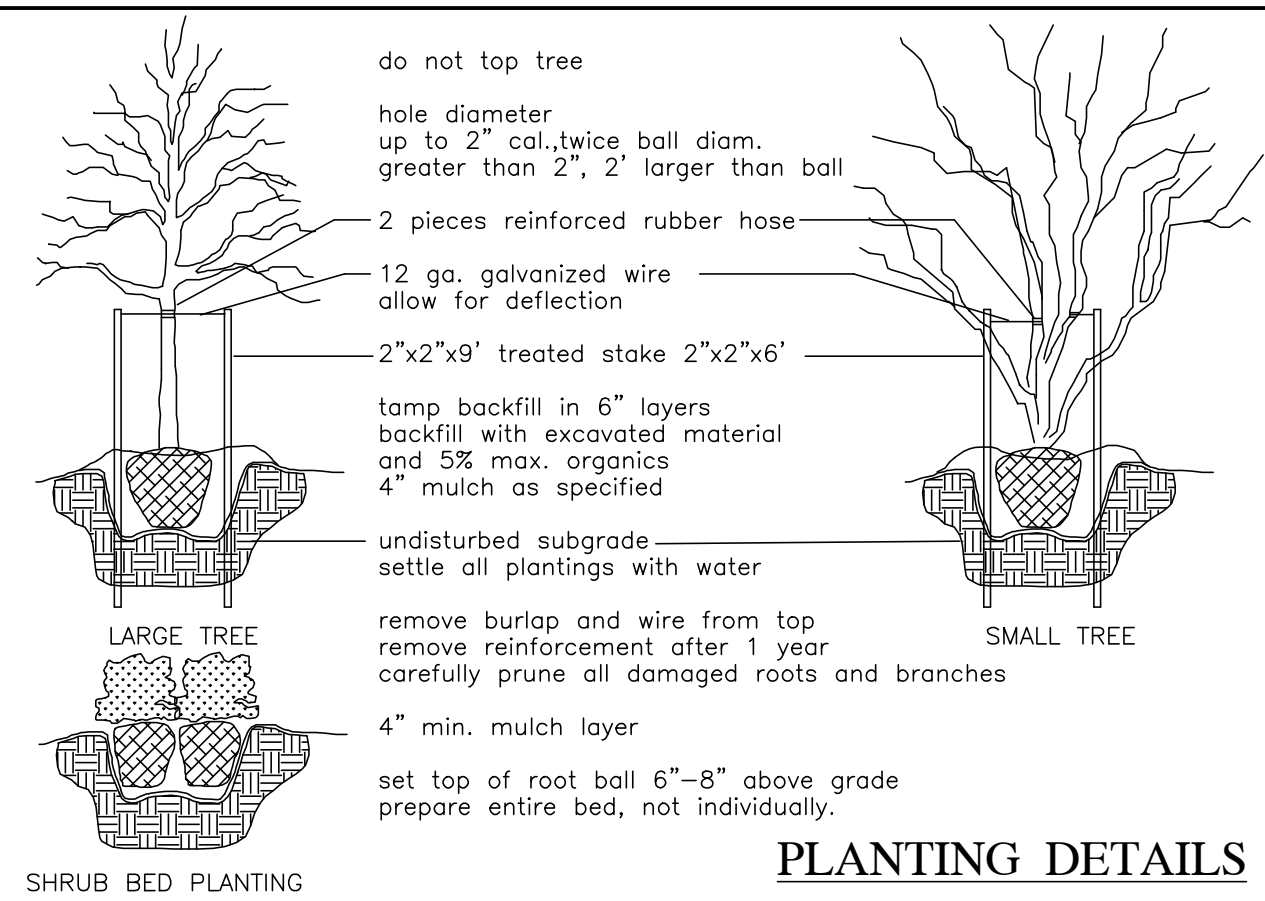
2 LARGE MATURING EVERGREEN TREES PROVIDED

LANDSCAPE SCOPE OF WORK

- FURNISH ALL LABOR, MATERIALS, AND EQUIPMENT REQUIRED OR INDICATED BY THE DRAWINGS AND SPECIFICATIONS TO COMPLETE THE WORK INCLUDING INSTALLATION OF ALL TREES, SHRUBS, SEED AND MULCH.
- MATERIALS AND WORK:**
THE SELECTION OF ALL MATERIALS AND THE EXECUTION OF ALL WORK REQUIRED UNDER THE CONTRACT SHALL BE SUBJECT TO APPROVAL BY THE OWNER. THE OWNER SHALL HAVE THE RIGHT TO REJECT ANY AND ALL MATERIALS AND ANY AND ALL WORK, WHICH IN HIS OPINION, DOES NOT MEET THE REQUIREMENTS OF THE CONTRACT.
- PLANT MATERIALS:**
ALL PLANT MATERIALS SHALL BE NURSERY GROWN, FRESHLY DUG IN THE FIELD, NATURALLY SHAPED, WELL BRANCHED, FULLY FOLIATED WHEN IN LEAF WITH FULLY DEVELOPED ROOT SYSTEMS. TREES MUST BE SELF-SUPPORTING, WITH STRAIGHT TRUNKS AND LEADERS INTACT. ALL PLANTS MUST BE FREE OF DISEASE, INSECT INFESTATION OR THEIR EGGS AND SHALL HAVE BEEN GROWN IN CLIMATIC CONDITIONS SIMILAR TO THOSE OF THE PROJECT SITE
- PLANT SIZE:**
SPECIFIED SIZES INDICATES THE MINIMUM ALLOWABLE SIZE AT PLANTING, WHERE CONTAINER AND HEIGHTS/SPREADS ARE INDICATED FOR A SINGLE SPECIES, BOTH SIZE REQUIREMENTS SHALL BE MET WHEN ONLY PLANT HEIGHT OR SPREAD ARE INDICATED, CONTAINER SIZE SHALL BE BASED ON "AMERICAN STANDARDS FOR NURSERY STOCK" STANDARDS.
- ORGANIC MATTER:**
AGED MANURE, COMPOST OR PINE BARK FINES, AT THE OPTION OF THE CONTRACTOR, MATERIAL SHALL BE AIR DRIED, FINELY SHREDDED AND SUITABLE FOR HORTICULTURAL PURPOSES AND SHALL CONTAIN NO MORE THAN 35% MOISTURE CONTENT BY WEIGHT.
- PINE BARK MULCH:**
ALL PINE BARK MULCH SHALL BE CLEAN, DOUBLE GROUND, FINE TEXTURED MULCH WITH MINIMAL AMOUNTS OF SAWWOOD CONTENT.
- TURF AREAS:**
PRIOR TO ANY SEEDING, VERIFY THAT ALL TRENCHING AND LAND DISTURBING ACTIVITIES HAVE BEEN COMPLETED. ENSURE ALL AREAS ARE FREE OF STONES, LARGE SOIL CLOUDS AND ANY OTHER CONSTRUCTION DEBRIS.

LANDSCAPE PLAN NOTES

- ALL PLANT MATERIAL ON THIS SITE MUST MEET MINIMUM HARNETT COUNTY UDO REQUIREMENTS FOR SIZE, HEIGHT, AND SPACING. PLANT MATERIAL SHALL BE INSTALLED ACCORDING TO SOUND NURSERY PRACTICES AND IN CONFORMANCE WITH THE GENERAL PLANTING NOTES AND DETAILS WITHIN THIS PLAN SET.
- PLANTING STOCK SHALL MEET ALL STANDARDS WITHIN THE LATEST EDITION OF "AMERICAN STANDARDS FOR NURSERY STOCK." ALL PLANTS SHALL BE VIGOROUS, HEALTHY MATERIAL FREE FROM PESTS AND DISEASE.
- IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO REVIEW THE PROJECT SITE AND FAMILIARIZE WITH ACTUAL FIELD CONDITIONS PRIOR TO BIDDING AND COMMENCING WORK. THE CONTRACTOR SHALL ACCEPT ACTUAL CONDITIONS AT THE SITE AND PERFORM THE WORK SPECIFIED INCLUDING THE FINE GRADING AND INCORPORATION OF TOPSOIL INTO PLANTING AREAS, WITHOUT ADDITIONAL COMPENSATION FOR POSSIBLE VARIATIONS FROM GRADES AND CONDITIONS SHOWN WEATHER SURFACE OR SUBSURFACE. IF FIELD CONDITIONS ARE FOUND TO BE SIGNIFICANTLY DIFFERENT THE CONTRACTOR SHALL NOTIFY THE PROJECT LANDSCAPE ARCHITECT OR ENGINEER IMMEDIATELY AND PRIOR TO ORDERING MATERIALS.
- CONTRACTOR IS RESPONSIBLE FOR ALL REQUIRED PERMITS TO PERFORM THE WORK.
- CONTRACTOR SHALL VERIFY THE LOCATION OF ALL EXISTING UTILITIES ABOVE AND BELOW GROUND AND SHALL BE RESPONSIBLE FOR ANY DAMAGE RESULTING FROM THEIR ACTIVITIES. CONTRACTOR SHALL NOTIFY NORTH CAROLINA ONE CALL (1-800-632-4949) AT LEAST 48 HOURS PRIOR TO BEGINNING CONSTRUCTION OR EXCAVATION TO HAVE EXISTING UTILITIES LOCATED. CONTRACTOR TO CONTACT ANY LOCAL UTILITIES THAT PROVIDE THEIR OWN LOCATOR SERVICES INDEPENDENT OF NORTH CAROLINA ONE CALL. THE CONTRACTOR MAY ALSO NEED TO ENGAGE A PRIVATE UTILITY LOCATING FIRM AT THEIR OWN COST TO EFFICIENTLY HAVE ALL UTILITIES LOCATED.
- ANY DAMAGE TO EXISTING IMPROVEMENTS OUTSIDE OF THE PROJECT LIMITS, INCLUDING CURB AND GUTTER, SIDEWALKS, PAVED OR TURF AREAS SHALL BE REPAIRED TO ORIGINAL CONDITIONS BY THE CONTRACTOR WITHOUT ADDITIONAL COST TO THE DEVELOPER.
- PLANT QUANTITIES TO BE VERIFIED BY LANDSCAPE CONTRACTOR, IN THE EVENT OF A DISCREPANCY BETWEEN THE QUANTITY OF PLANTS SHOWN ON THE PLANS AS COMPARED TO THE PLANT LIST THE CONTRACTOR SHALL PROVIDE THE QUANTITY SHOWN ON THE PLANS.
- CONTRACTOR SHALL OBTAIN WRITTEN AUTHORIZATION FROM THE LANDSCAPE ARCHITECT FOR ANY PLANT SUBSTITUTIONS OR MODIFICATIONS TO THE LANDSCAPE PLANS. THIS MAY REQUIRE A MODIFICATION TO THE APPROVED PLANS. NOTIFY THE LANDSCAPE ARCHITECT IMMEDIATELY OF ANY DISCREPANCIES ON THE PLANS.
- ALL ABOVE GROUND MECHANICAL EQUIPMENT, ELECTRICAL TRANSFORMERS, DUMPSTERS, BACKFLOW PREVENTERS, AND VALVE BOXES SHALL BE SCREENED FROM VIEW OF ADJACENT PROPERTIES AND RIGHT-OF-WAY WHILE MAINTAINING REQUIRED ACCESS TO LOCAL CODE STANDARDS AND REQUIREMENTS.
- WITHIN THE SIGHT TRIANGLES SHOWN ON THIS PLAN, NO OBSTRUCTIONS BETWEEN TWO FEET AND EIGHT FEET IN HEIGHT ABOVE THE NEAREST VEHICLE SURFACE OR ADJACENT CURB LINE SHALL BE ALLOWED.
- ALL UNPAVED AREAS SHALL BE TOPSOILED AND SEED OR MULCHED TO THE LIMITS OF CONSTRUCTION BASED ON ACTUAL FIELD CONDITIONS BEYOND THE APPROVED PLANS.
- ALL SEED TO BE REBEL RESCUE IV, TURF GEM, LESCO OR EQUAL @ 6 LBS. PER 1000 S.F. IN LAWN AREAS 3" TOPSOIL SHALL BE TILLED INTO THE TOP 6" OF GROUND PRIOR TO SEEDING.
- SLOPES GREATER THAN 3:1 SHALL REQUIRE HYDRO-SEEDING. SLOPES GREATER THAN 2:1 SHALL BE SODDED WITH CENTPEDE GRASS. ADDITIONAL STABILIZATION MEASURES MAY BE REQUIRED FOR SLOPES GREATER THAN 3:1 TO ENSURE SOIL STABILIZATION AND ESTABLISHMENT OF PERMANENT GROUND COVER.
- INTERIOR MULCH SHALL BE DOUBLE GROUND PINE BARK TO A DEPTH OF 4". PERIMETER LANDSCAPE BUFFERS SHALL BE MULCHED WITH 4" PINE STRAW TO BUFFER LIMITS.
- PINE STRAW SHALL NOT BE USED AS MULCH OR GROUND COVER WITHIN TEN FEET OF ANY STRUCTURES CONSISTING OF EXTERIOR COMBUSTIBLE CONSTRUCTION.
- CONTRACTOR SHALL LEVEL AND SMOOTH ALL DISTURBED AREAS AND REMOVE ALL ROCKS AND CONSTRUCTION DEBRIS PRIOR TO SEEDING, SOD OR PLANT INSTALLATION.
- OWNER SHALL MAINTAIN ALL PLANT BEDS AND PLANT MATERIAL IN GOOD HEALTH, AND ANY DEAD, UNHEALTHY OR MISSING PLANTS SHALL BE REPLACED WITH THE SAME PLANT MATERIAL ORIGINALLY SPECIFIED ON THIS PLAN.
- TREE PLANTING AND SITE LIGHTING SHALL BE SEPARATED BY AT LEAST 10 FEET.



GENERAL PLANTING NOTES

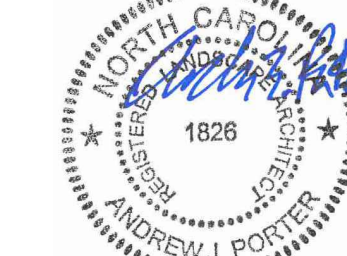
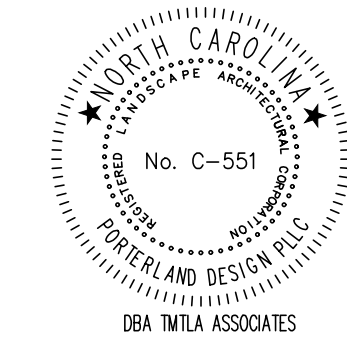
- VERIFICATION OF TOTAL QUANTITIES AS SHOWN ON THE PLANT LIST SHALL BE THE RESPONSIBILITY OF THE PLANTING CONTRACTOR, AND THE TOTAL QUANTITIES SHALL BE REQUIRED ON THE PLANTING PLAN.
- ALL TREES, SHRUBS, AND BEDDING PLANTS SHALL CONFORM TO THE ACCEPTED STANDARDS ESTABLISHED BY THE AMERICAN ASSOCIATION OF NURSEYMEN.
- ALL SAUCERS SHALL BE SOAKED WITH WATER AND MULCHED IMMEDIATELY FOLLOWING PLANTING.
- SET TOP OF ROOT BALL 6"-8" ABOVE GRADE, PREPARE ENTIRE BED, NOT INDIVIDUALLY.
- THE SIZE OF ALL ROOT BALLS SHALL CONFORM TO AAN STANDARDS.
- FERTILIZE ALL PLANTS WITH AGRIFORM FERTILIZER TABLETS OR EQUAL TO BE APPLIED AT MANUFACTURERS RECOMMENDED RATE.
- GUYING, IF NECESSARY, SHALL BE REMOVED AFTER ONE GROWING SEASON.
- ALL ROOT BALLS REMOVED FROM CONTAINERS SHALL BE SCARIFIED PRIOR TO BACKFILLING.
- ALL TREES HAVE BEEN LOCATED WITH RESPECT TO PROPOSED OR EXISTING FACILITIES OR STRUCTURES.
- OWNERS SHALL MAINTAIN ALL PLANT BEDS AND PLANT MATERIAL IN GOOD HEALTH, AND ANY DEAD, UNHEALTHY OR MISSING PLANTS SHALL BE REPLACED WITH LOCALLY ADAPTED VEGETATION WHICH CONFORMS TO THE INITIAL PLANTING STANDARDS OF THE LANDSCAPE ORDINANCE.
- REPORT ANY DISCREPANCIES TO THE PROJECT LANDSCAPE ARCHITECT.
- SUBSTITUTIONS OR ALTERATIONS SHALL NOT BE MADE WITHOUT PRIOR WRITTEN NOTIFICATION OF THE PROJECT LANDSCAPE ARCHITECT.
- ALL PLANT MATERIAL SHALL BE OF SPECIMEN QUALITY.

2
L-1

TREE & SHRUB PLANTING DETAIL

NTS

TMTLA ASSOCIATES



2025-06-24

PRELIMINARY
NOT FOR
CONSTRUCTION

REVISIONS:

LANDSCAPE PLAN
TIRADO TRUCK REPAIR
US 421 SOUTH
HARNETT COUNTY, NC

SCALE:

AS NOTED

DRAWN BY:

AJP

PROJECT #

25093

DATE:

6-24-2025

SHEET

L-1

OF