

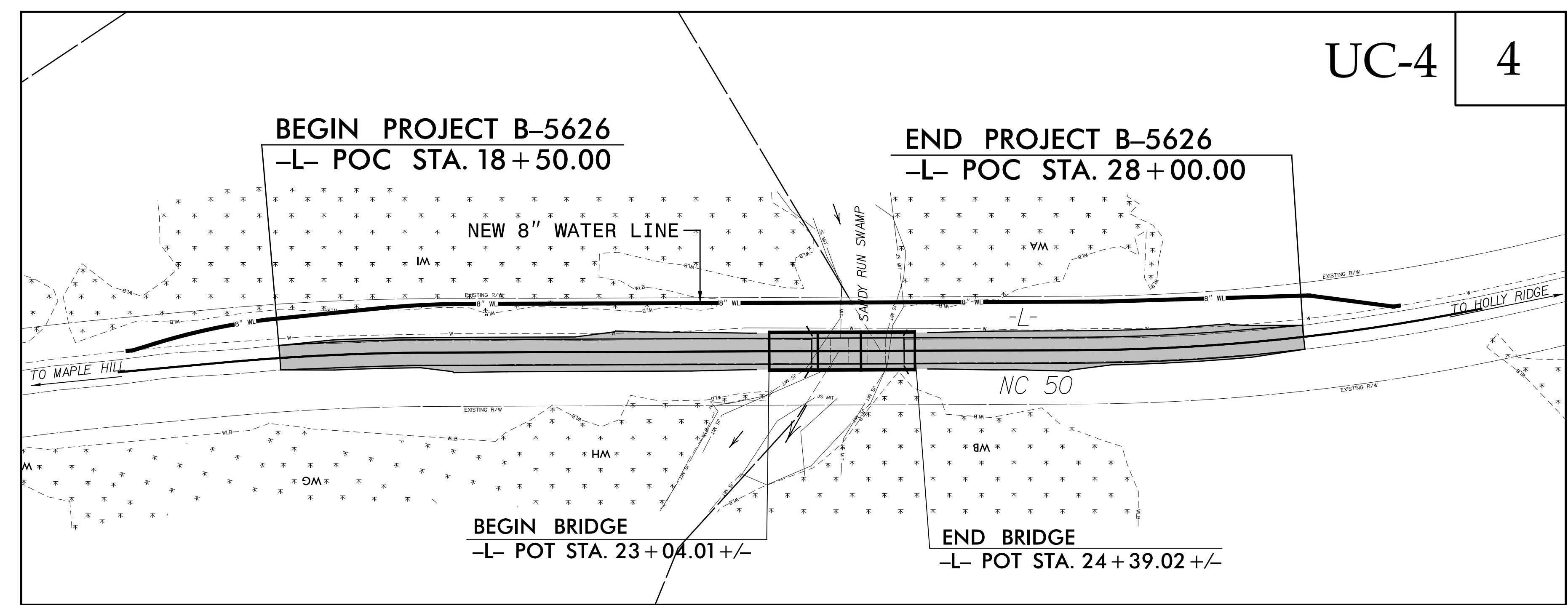
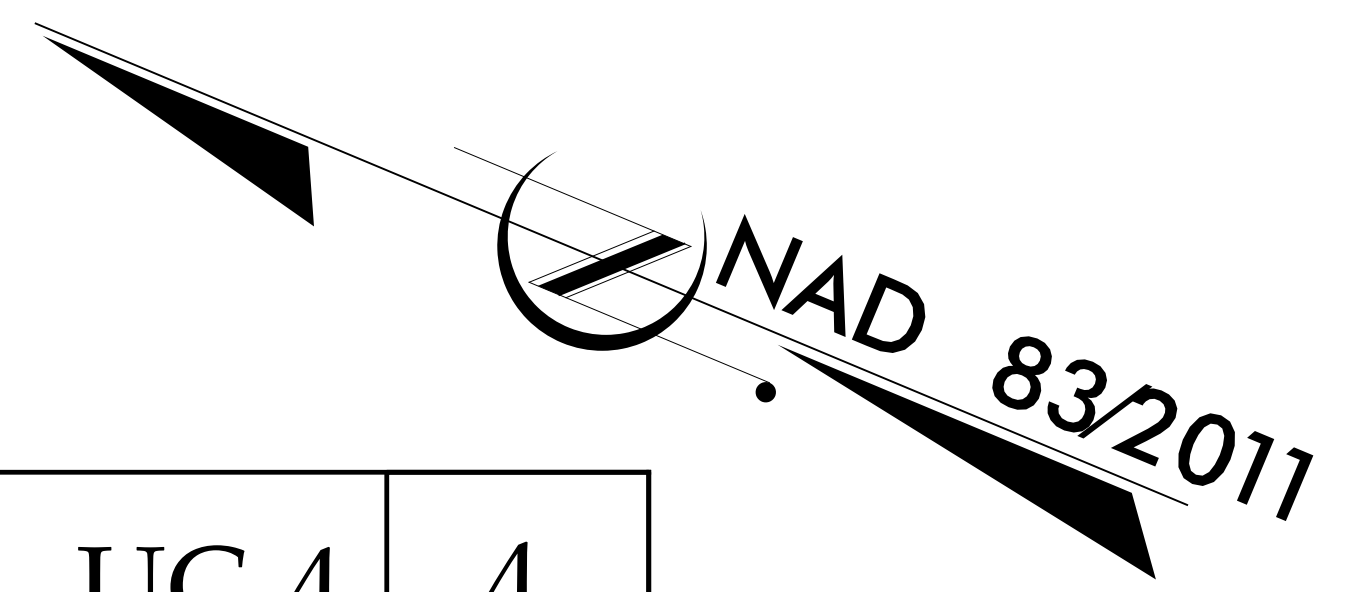
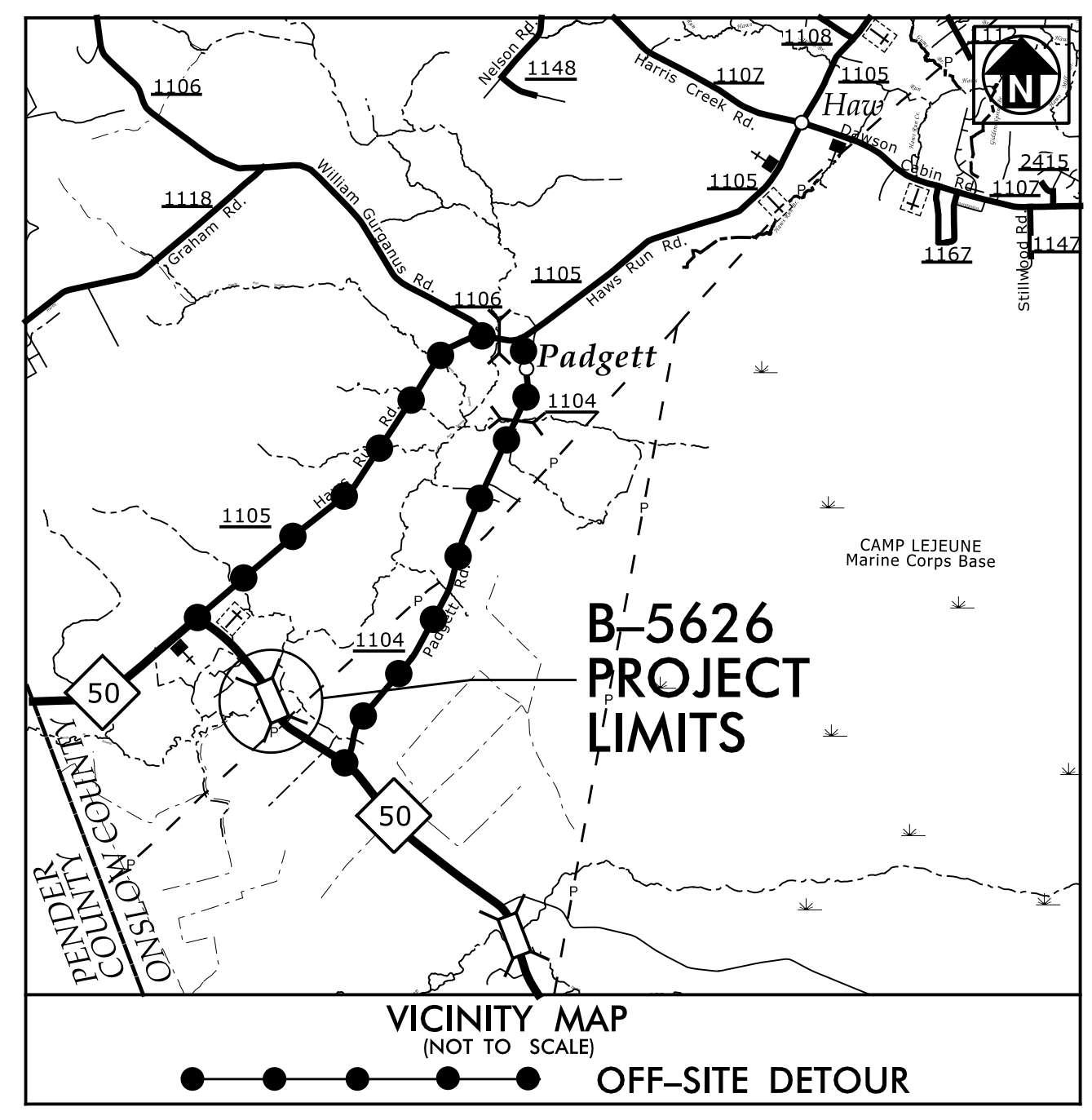
T.I.P. NO.	SHEET NO.
B-5626	UC-1

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

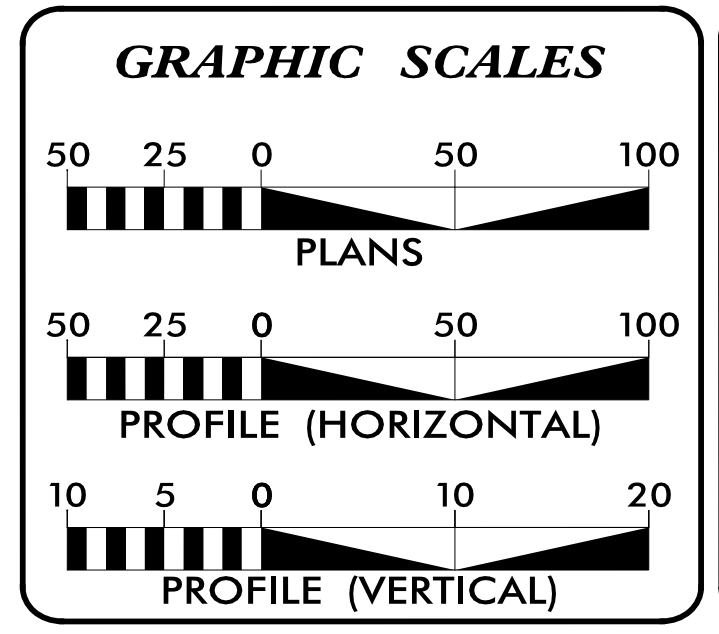
**UTILITY CONSTRUCTION PLANS
ON SLOW COUNTY**

LOCATION: BRIDGE NO. 31 OVER SANDY RUN SWAMP ON NC 50
TYPE OF WORK: WATER MAIN RELOCATION

TIP PROJECT: B-5626



DOCUMENT NOT CONSIDERED FINAL
UNTIL ALL SIGNATURES ARE COMPLETED



INDEX OF SHEETS

SHEET NO.:	DESCRIPTION:
UC-1	TITLE SHEET
UC-2	UTILITY SYMBOLOGY
UC-3	NOTES
UC-3A, UC-3B & UC-3C	DETAILS
UC-4	UTILITY CONSTRUCTION SHEET
UC-5	PROFILE SHEET

WATER AND SEWER OWNERS ON PROJECT

(A) WATER - ONSLOW WATER AND SEWER AUTHORITY

PREPARED IN THE OFFICE OF

THE WOOTEN COMPANY
120 North Boylan Avenue Raleigh NC 27603-1423
919.828.0531 Fax 919.834.3589
License Number: F-0115

DAVE MALINAUSKAS, P.E. PROJECT ENGINEER
COURTNEY GAMBLE, P.E. CONSULTANT CONTACT #2
CONSULTANT CONTACT #3

SEAL

4/8/2021

DIVISION OF HIGHWAYS UTILITIES UNIT
1555 MAIL SERVICES CENTER
RALEIGH NC 27699-1555
PHONE (919) 707-6690
FAX (919) 250-4151

NABIL HAMDAN UTILITIES REGIONAL ENGINEER
KELVIN MARTIN, E.I. UTILITIES PROJECT ENGINEER
KYLE PLEASANT UTILITIES AREA COORDINATOR
LARRY JAMES, JR. UTILITIES COORDINATOR

\$\$\$\$\$SYTIME\$\$\$\$\$
\$\$\$\$\$DGN\$\$\$\$\$
\$\$\$\$\$USERNAME\$\$\$\$\$

5/14/19

UTILITY CONSTRUCTION



GENERAL NOTES:

1. THE PROPOSED UTILITY CONSTRUCTION SHALL MEET THE APPLICABLE REQUIREMENTS OF THE NC DEPARTMENT OF TRANSPORTATION'S "STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES" DATED JANUARY 2018 AND ONWASA STANDARD SPECIFICATIONS AND DETAILS.
2. THE EXISTING UTILITIES BELONG TO ONWASA.
3. ALL WATER LINES TO BE INSTALLED WITHIN COMPLIANCE OF THE RULES AND REGULATIONS OF THE NORTH CAROLINA DEPARTMENT OF ENVIRONMENTAL QUALITY, DIVISION OF WATER RESOURCES, PUBLIC WATER SUPPLY SECTION. ALL SEWER LINES TO BE INSTALLED WITHIN COMPLIANCE OF THE RULES AND REGULATIONS OF THE NORTH CAROLINA DEPARTMENT OF ENVIRONMENT QUALITY, DIVISION OF WATER RESOURCES, WATER QUALITY SECTION. PERFORM ALL WORK IN ACCORDANCE WITH THE APPLICABLE PLUMBING CODES.
4. THE UTILITY OWNER OWNS THE EXISTING UTILITY FACILITIES AND WILL OWN THE NEW UTILITY FACILITIES AFTER ACCEPTANCE BY THE DEPARTMENT. THE DEPARTMENT OWNS THE CONSTRUCTION CONTRACT AND HAS ADMINISTRATIVE AUTHORITY. COMMUNICATIONS AND DECISIONS BETWEEN THE CONTRACTOR AND UTILITY OWNER ARE NOT BINDING UPON THE DEPARTMENT OR THIS CONTRACT UNLESS AUTHORIZED BY THE ENGINEER. AGREEMENTS BETWEEN THE UTILITY OWNER AND CONTRACTOR FOR THE WORK THAT IS NOT PART OF THIS CONTRACT OR IS SECONDARY TO THIS CONTRACT ARE ALLOWED, BUT ARE NOT BINDING UPON THE DEPARTMENT.
5. PROVIDE ACCESS FOR THE DEPARTMENT PERSONNEL AND THE OWNER'S REPRESENTATIVES TO ALL PHASES OF CONSTRUCTION. NOTIFY DEPARTMENT PERSONNEL AND THE UTILITY OWNER TWO WEEKS PRIOR TO COMMENCEMENT OF ANY WORK AND ONE WEEK PRIOR TO SERVICE INTERRUPTION. KEEP UTILITY OWNERS' REPRESENTATIVES INFORMED OF WORK PROGRESS AND PROVIDE OPPORTUNITY FOR INSPECTION OF CONSTRUCTION AND TESTING.

6. THE PLANS DEPICT THE BEST AVAILABLE INFORMATION FOR THE LOCATION, SIZE, AND TYPE OF MATERIAL FOR ALL EXISTING UTILITIES. MAKE INVESTIGATIONS FOR DETERMINING THE EXACT LOCATION, SIZE, AND TYPE MATERIAL OF THE EXISTING FACILITIES AS NECESSARY FOR THE CONSTRUCTION OF THE PROPOSED UTILITIES AND FOR AVOIDING DAMAGE TO EXISTING FACILITIES. REPAIR ANY DAMAGE INCURRED TO EXISTING FACILITIES TO THE ORIGINAL OR BETTER CONDITION AT NO ADDITIONAL COST TO THE DEPARTMENT.
7. MAKE FINAL CONNECTIONS OF THE NEW WORK TO THE EXISTING SYSTEM WHERE INDICATED ON THE PLANS, AS REQUIRED TO FIT THE ACTUAL CONDITIONS, OR AS DIRECTED.
8. MAKE CONNECTIONS BETWEEN EXISTING AND PROPOSED UTILITIES AT TIMES MOST CONVENIENT TO THE PUBLIC, WITHOUT ENDANGERING THE UTILITY SERVICE, AND IN ACCORDANCE WITH THE UTILITY OWNER'S REQUIREMENTS. MAKE CONNECTIONS ON WEEKENDS, AT NIGHT, AND ON HOLIDAYS IF NECESSARY.
9. ALL UTILITY MATERIALS SHALL BE APPROVED PRIOR TO DELIVERY TO THE PROJECT. SEE 1500-7, " SUBMITTALS AND RECORDS" IN SECTION 1500 OF THE STANDARD SPECIFICATIONS.

PROJECT SPECIFIC NOTES:

1. PROPOSED WATER LINE SHALL BE PVC C900 DR-18, CLASS 235 (RESTRAINED JOINT), AND FUSIBLE PVC C900 FOR HORIZONTAL DIRECTION DRILL (HDD) AS INDICATED ON THE CONSTRUCTION DRAWINGS.
2. CONTRACTOR'S ATTENTION IS DIRECTED TO SECTIONS 102, 107, AND 1550 OF THE STANDARD SPECIFICATIONS CONCERNING TRENCHLESS INSTALLATION. IT IS CONTRACTOR'S RESPONSIBILITY TO HAVE BORE DESIGNED AND SEALED BY A LICENSED NORTH CAROLINA PROFESSIONAL ENGINEER. NO DAMAGE IS ALLOWED TO RIVER, WETLANDS, OR BUFFER ZONES.
3. TRACER WIRE, WARNING TAPES, AND UTILITY MARKERS SHALL BE INSTALLED WITH ALL PLASTIC PIPE UTILITIES. WIRE, TAPE AND PIPE SHALL BE COLOR CODED ACCORDING TO UTILITY (BLUE FOR WATER) AND SHALL BE IN ACCORDANCE WITH NCDOT SPECIFICATIONS AND ONWASA'S MANUAL OF STANDARDS, SPECIFICATIONS, AND DETAILS.
4. EXISTING CONDITIONS SURVEY AND PROPOSED HIGHWAY PLANS PROVIDED TO THE WOOTEN COMPANY BY NCDOT.
5. FUSED PVC LENGTHS THAT HAVE BEEN INSTALLED IN THE TRENCH SHALL NOT BE BENT OR JOCKEYED INTO POSITION WITH HEAVY EQUIPMENT IN ORDER TO CONNECT TO FITTINGS. ALL ALIGNMENT CORRECTIONS TO TAKE PLACE IN THE DIP FITTINGS.
6. THRUST COLLARS ON EXISTING UTILITIES ARE TO BE INSTALLED AND CURED PRIOR TO CONNECTION OF NEW UTILITIES TO EXISTING UTILITIES.
7. CONTRACTOR IS RESPONSIBLE FOR COORDINATING THE SHUTDOWN WITH ONWASA AND HAVING ADEQUATE STAFF AND MATERIALS TO COMPLETE THE CUT-IN CONNECTION DURING THE SPECIFIED SHUTDOWN.

PREPARED IN THE OFFICE OF:  THE WOOTEN COMPANY <small>120 North Roper Avenue Raleigh, NC 27603-1423 919.876.8111 Fax 919.876.3109 License Number: F-1015</small>	PROJECT REFERENCE NO.	SHEET NO.
	B-5626	UC-3
DESIGNED BY: DGM		
DRAWN BY: TK		
CHECKED BY: CMG		
APPROVED BY: DGM		
REVISED:	NORTH CAROLINA DEPARTMENT OF TRANSPORTATION UTILITIES ENGINEERING SEC. PHONE: (919) 707-6690 FAX: (919) 250-4151	
WATER LINE CONSTRUCTION SHOWN ON THIS SHEET		

UTILITY CONSTRUCTION

* SUGGESTED CONSTRUCTION SEQUENCE IS PROVIDED AS A GUIDE ONLY AND NOT INTENDED TO BE BINDING. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR ADEQUATE SEQUENCING TO COMPLETE THE INSTALLATION.

SUGGESTED CONSTRUCTION SEQUENCE

1. CONTRACTOR TO INSTALL THRUST COLLAR SHOWN AT STA 0+00 (WL) ON SHEET UC-4. THRUST COLLAR MUST CURE AND ATTAIN 3,000 PSI STRENGTH.
2. CONTRACTOR TO SCHEDULE WATER SERVICE OUTAGE WITH ONWASA FOR ALL SERVICES ON HWY 50 BETWEEN PADGETT ROAD (SR 1104) AND HAWS RUN ROAD (SR 1105)
3. ONWASA TO CLOSE EXISTING IN-LINE VALVE AT PADGETT ROAD – HWY 50 INTERSECTION.
4. ONWASA TO CLOSE EXISTING IN-LINE VALVE AT HAWS RUN ROAD – HWY 50 INTERSECTION, ISOLATING HWY 50 BETWEEN PADGETT AND HAWS RUN ROADS (INCLUDES PROJECT SITE).
5. CONTRACTOR TO CUT-IN A NEW 8" GATE VALVE AND BLOW-OFF ON THE EXISTING MAIN AT STA 0+10 ON SHEET UC-4. ONCE PROPERLY INSTALLED CONTRACTOR TO CLOSE NEW 8" GATE VALVE.
6. ONWASA TO RE-OPEN EXISTING IN-LINE VALVE AT HAWS RUN ROAD INTERSECTION TO RESTORE SERVICE TO CUSTOMERS NORTH OF THE CONSTRUCTION SITE ON HWY 50.
7. ONWASA TO LEAVE EXISTING IN-LINE VALVE AT PADGETT ROAD CLOSED FOR DURATION OF THE RELOCATION PROJECT, AS THERE ARE NO SERVICES/CUSTOMERS BETWEEN THE CONSTRUCTION SITE AND PADGETT ROAD.
8. CONTRACTOR INSTALLS NEW 8" WATERLINE AND 8" GATE VALVE PER THE DRAWINGS.
9. ONCE INSTALLED, TESTED AND CHLORINATED, CLOSED VALVES ARE OPENED AND LINE PUT INTO SERVICE.

5/14/19

5/14/99

THIS SHEET CORRESPONDS WITH SHEET RDY-4

PREPARED IN THE OFFICE OF:



PROJECT REFERENCE NO.

B-5626

SHEET NO.

UC-4

DESIGNED BY: DGM

DRAWN BY: TK

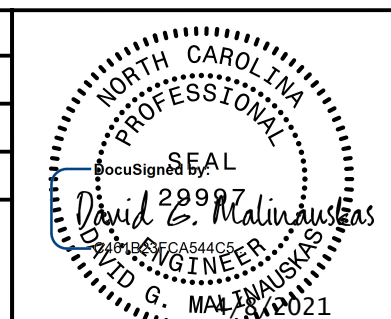
CHECKED BY: CMG

APPROVED BY: DGM

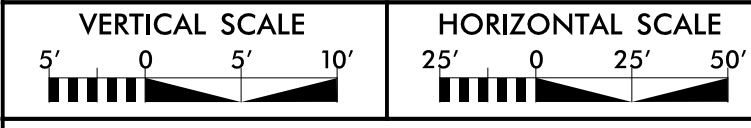
REVISED:

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Document Not Considered Final Unless All Signatures Completed UTILITY CONSTRUCTION PLANS ONLY

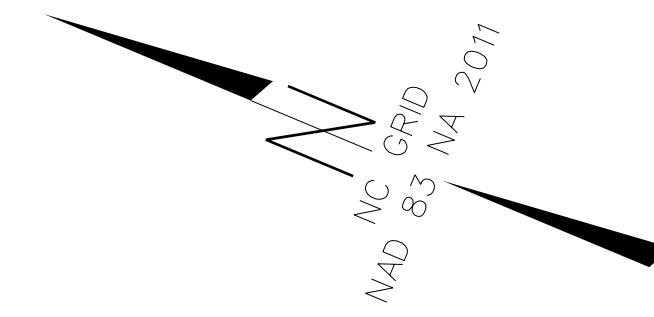


WATER LINE CONSTRUCTION SHOWN ON THIS SHEET

UTILITY CONSTRUCTION

THE STATE OF NORTH CAROLINA DB 2888 PG 20 PB 38 PAGE 207

SANDY RUN SAVANNAS STATE NATURAL AREA NC DNCR, DIVISION OF PARKS AND RECREATION



BEGIN WATER INSTALLATION STA. 0+00= STA. 17+00 (-L-)

ENTRY / EXIT POINT OF DIRECTIONAL DRILLING (APPROX.) (WATER LINE INSTALLATION SHALL NOT DISTURB WETLANDS) DOROTHY J DUVALL DB 2726 PG 979 PB 41 PAGE 238

- +05.00 (-L-) 18.94' LT 2" BLOW OFF
- +10.00 (-L-) 18.94' LT 8" VALVE
- +15.00 (-L-) 18.94' LT 8" 11.25 DEGREE BEND

903' DIRECTIONAL DRILLING OF 8" WATER LINE

5'-0" MIN. INSIDE R/W, TYP.

PROP. 1,200' OF 8" WATER LINE (SEE PROFILE SHEET UC-5) 860 POUNDS OF DUCTILE IRON WATER PIPE FITTINGS

THIS IS THE ESTIMATED QUANTITY OF DUCTILE IRON WATER PIPE FITTINGS ON THIS PLAN SHEET. THE ACTUAL QUANTITY AND TYPE OF FITTINGS WILL VARY BASED ON FIELD CONDITIONS.

WATER LINE STATIONING (TYP.) 5'-0" MIN. INSIDE R/W, TYP.

+9.19 (-L-) 37.59 LT 8" 11.25 DEGREE BEND TRANSITION FROM OPEN CUT TO DIRECTIONAL DRILLING STA. 10+46+/- (WL) = STA. 27+43.81, 42.20' LT (-L-)

+75.28 (-L-) 19.85' LT 8" VALVE

+86.90 (-L-) 16.44' LT 8" 11.25 DEGREE BEND

END WATER TRANSITION STA. 12+00 = STA. 29+00 (-L-)

PROP. 8" PLUG CONTRACTOR SHALL LOCATE EXIST. 8" WATER LINE; CUT-IN 8" VALVE AND CONNECT WATER LINE. STA. 0+10 (WL) = STA. 17+10 (-L-) -L- PC Sta. 17+95.07 -L- POT Sta. 17+00.00

ABANDON 1,176' OF 8" UTILITY PIPE

PROP. 8" PLUG

PROVIDE THRUST COLLAR PER DETAIL, WS_TB4, SHEET UC-3B, AND ALLOW CONCRETE TO OBTAIN 3,000 PSI STRENGTH BEFORE CONNECTION OF NEW WATER LINE TO EXISTING WATER LINE WILL BE ALLOWED -L- POT Sta. 29+66.93 -L- PT Sta. 29+44.67

PROVIDE THRUST COLLAR PER DETAIL, WS_TB4, SHEET UC-3B, AND ALLOW CONCRETE TO OBTAIN 3,000 PSI STRENGTH BEFORE CONNECTION OF NEW WATER LINE TO EXISTING WATER LINE WILL BE ALLOWED

TODD W LYMAN BARBARA E LYMAN DB 1816 PG 979 PB 41 PAGE 238

THE STATE OF NORTH CAROLINA DB 2888 PG 20 PB 38 PAGE 207

SANDY RUN SAVANNAS STATE NATURAL AREA NC DNCR, DIVISION OF PARKS AND RECREATION

-L- PC Sta. 25+89.59

REVISIONS


Vertical list of revision numbers and descriptions.

PROFILE SHOWN IS BASED ON STATIONING ALONG
PROPOSED WATER LINE ALIGNMENT -L-
(SEE SHEET UC-4)

8" Water Line

PRIOR TO COMMENCING ANY WORK ON ANY
TRENCHLESS INSTALLATION ON THIS PROJECT,
PROVIDE A DESIGN FOR THE TRENCHLESS
INSTALLATION CERTIFIED BY AN ENGINEER
LICENSED BY THE STATE OF NORTH CAROLINA,
AS REQUIRED BY SUBARTICLE 1550-3 (B) OF
THE STANDARD SPECIFICATIONS.

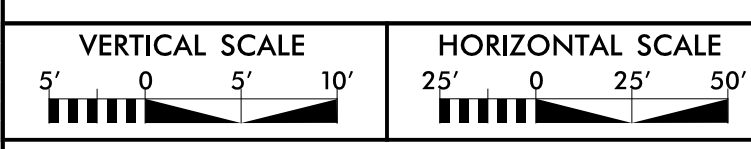
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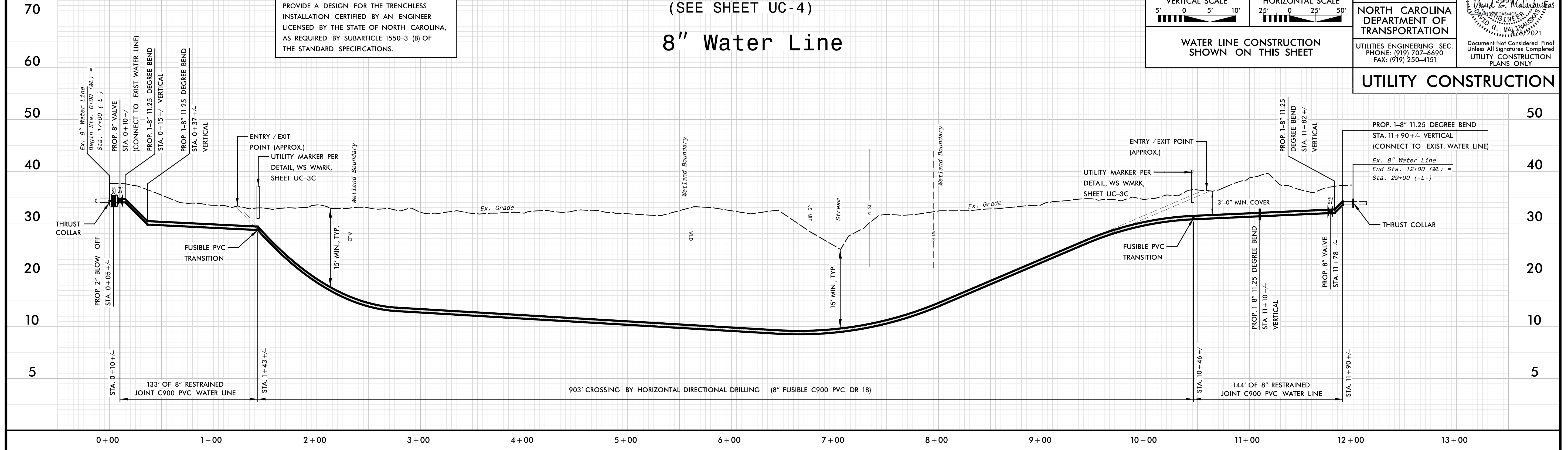
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UTILITIES ENGINEERING SEC. PHONE: (919) 707-6690 FAX: (919) 250-4151			

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UTILITY CONSTRUCTION
PLANS ONLY



WATER LINE CONSTRUCTION
SHOWN ON THIS SHEET

UTILITY CONSTRUCTION



CONSTRUCTION NOTES:
1. ALL DIMENSIONS ARE TO CENTERLINE UNLESS NOTED OTHERWISE.
2. VERIFY ALL EXISTING UTILITIES AND OBSTRUCTIONS PRIOR TO CONSTRUCTION.
3. MAINTAIN PROPER COVER OVER ALL EXISTING UTILITIES.
4. PROTECT ALL EXISTING UTILITIES AND OBSTRUCTIONS.
5. MAINTAIN PROPER EROSION CONTROL MEASURES.
6. MAINTAIN PROPER DRAINAGE PATTERNS.
7. MAINTAIN PROPER ACCESS TO ALL ADJACENT PROPERTIES.
8. MAINTAIN PROPER SAFETY MEASURES.
9. MAINTAIN PROPER RECORDS OF ALL CONSTRUCTION ACTIVITIES.
10. MAINTAIN PROPER COMMUNICATIONS WITH ALL STAKEHOLDERS.