90

GATEWOOD STATION RD. PROJECT SITE

VICINITY MAP

STATE OF NORTH CAROLINA DIVISION OF HIGHWAYS

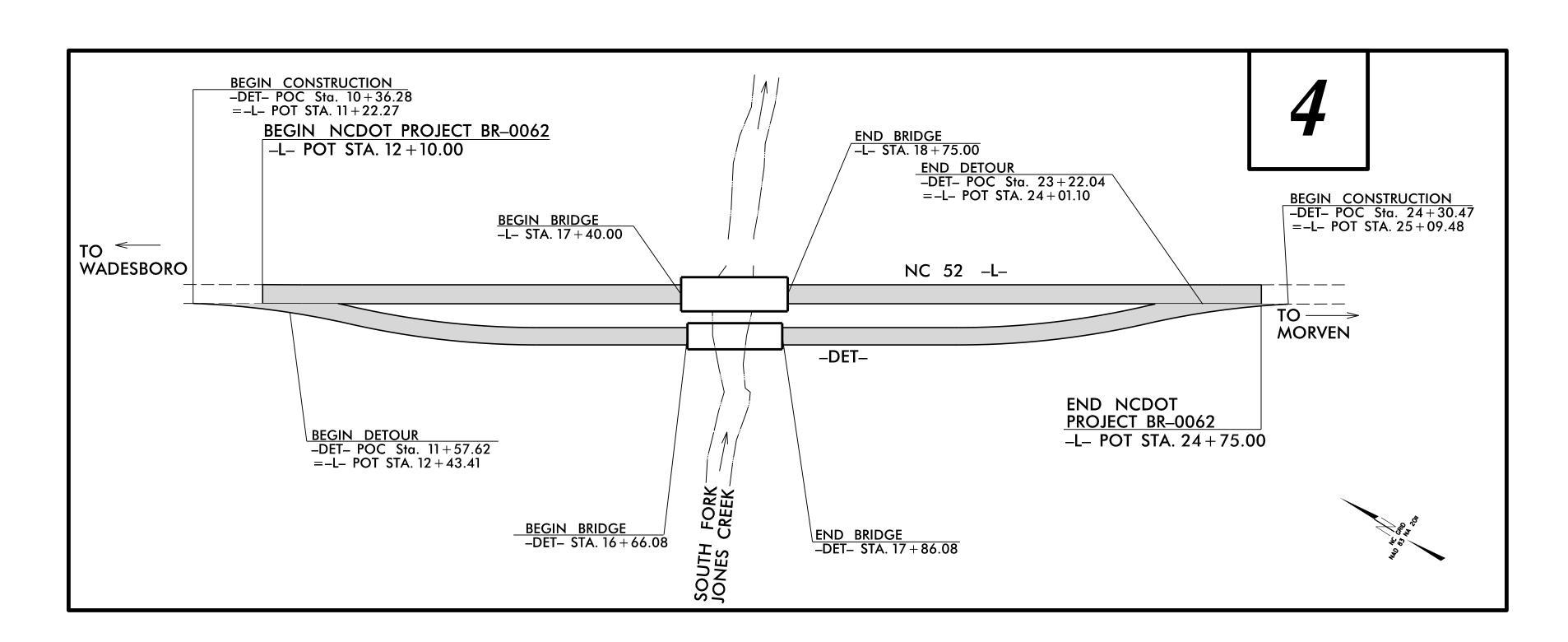
T.I.P. NO.	SHEET NO.
BR-0062	UC-1

BRIDGE #030014

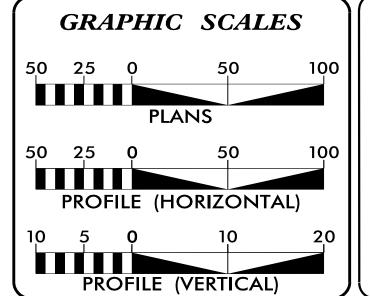
UTILITY CONSTRUCTION PLANS ANSON COUNTY

LOCATION: REPLACE BRIDGE OVER SOUTH FORK JONES CREEK **ON US** 52

TYPE OF WORK: WATER RELOCATION



DOCUMENT NOT CONSIDERED FINAL UNTIL ALL SIGNATURES ARE COMPLETED



INDEX OF SHEETS

DESCRIPTION: SHEET NO.: TITLE SHEET UTILITY SYMBOLOGY *UC-2* **NOTES** UC-3A THRU UC-3C DETAILS *UC-4* UTILITY CONSTRUCTION SHEET *UC-5*

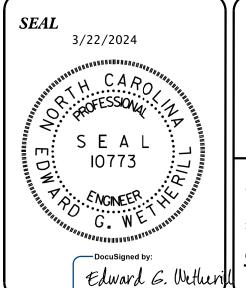
PROFILE SHEET

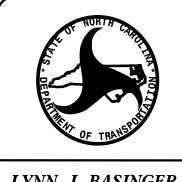
WATER OWNERS ON PROJECT

(A) WATER – ANSON COUNTY



TREVER REEVES PROJECT UTILITY COORDINATOR





DIVISION OF HIGHWAYS DIVISION 10

716 West Main Street Albemarle NC, 28001

LYNN L. BASINGER ADAM J. PRESLAR

DIVISION UTILITY ENGINEER **DIVISION UTILITY AGENT**

GARLAND HAYWOOD, PE DIVISION BRIDGE PROGRAM MANAGER

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STATE OF NORTH CAROLINA DIVISION OF HIGHWAYS

ETHERILL ENGINEERING	223 Jones Franklin Rd. Raleigh, N.C. 27606 License No. F-0377 Bus: 919 851 8077 Fax: 919 851 8107					
TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN						
CIVIL/SITE DESIGN - GIS/GPS - SURVEY/SUE - UTILITIE	S - CONSTRUCTION OBSERVATION					

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	REVISED:		DocuSigned by:
	NORTH CAROLIN DEPARTMENT OI TRANSPORTATIO		C. WELLER CHARLES

UTILITY CONSTRUCTION

UTILITIES PLAN SHEET SYMBOLS

PROPOSED WATER SYMBOLS

THOI GOLD WAY	TEN OTHIDOLO
Water Line (Sized as Shown)	12″ WL
11½ Degree Bend	······ -
22½ Degree Bend	······+*
45 Degree Bend	+×
90 Degree Bend	+
Plug	
Tee	·············· - \$
Cross	······································
Reducer	···············
Gate Valve	GV
Butterfly Valve	BV
Tapping Valve	TGV
Line Stop	Ls
Line Stop with Bypass	LS/BP
Blow Off	B0
Fire Hydrant	PFH
Relocate Fire Hydrant	REH
Remove Fire Hydrant	REM FH
Water Meter	
Relocate Water Meter	RWM ■
Remove Water Meter	REM. WM
Water Pump Station	PS(W)
RPZ Backflow Preventer	PRPZ
DCV Backflow Preventer	PBFP
Relocate RPZ Backflow Preventer	······ RRPZ
Relocate DCV Backflow Preventer	RBFP

PROPOSED SEWER SYMBOLS

Gravity Sewer Line (Sized as Shown)	12" SS
Force Main Sewer Line(Sized as Shown)	12" FSS
Manhole (Sized per Note)	
Sewer Pump Station ·····PS(SS)	

PROPOSED MISCELLANOUS UTILITIES SYMBOLS

ower Pole ····································	
elephone Pole	
oint Use Pole	
elephone Pedestal ····································	
Itility Line by Others	
renchless Installation	
incasement by Open Cut	
incasement	

Thrust Block	[
Air Release Valve	ÅR •
Utility Vault	UV
Concrete Pier	CP
Steel Pier	SP
Plan Note	
Pay Item Note	
	PAY ITEM

EXISTING UTILITIES SYMBOLS

Power Pole	•
Telephone Pole	•
Joint Use Pole	—
Utility Pole	•
Utility Pole with Base	⊡
H-Frame Pole	•••
Power Transmission Line Tower	\boxtimes
Water Manhole	@
Power Manhole	®
Telephone Manhole	⑦
Sanitary Sewer Manhole	®
Hand Hole for Cable	HH
Power Transformer	M
Telephone Pedestal	T
CATV Pedestal	C
Gas Valve	♦
Gas Meter	\$
Located Miscellaneous Utility Object	0
Abandoned According to Utility Records	AATI
End of Information	E.O.

TILO OTMIDOLO	
*Underground Power Line	P
*Underground Telephone Cable	Т
*Underground Telephone Conduit	тс ———
*Underground Fiber Optics Telephone Cable	т го
*Underground TV Cable	TV
*Underground Fiber Optics TV Cable	TV F0
*Underground Gas Pipeline	c
Aboveground Gas Pipeline	A/G Gas
*Underground Water Line	
Aboveground Water Line	A/G Water
*Underground Gravity Sanitary Sewer Line	
Aboveground Gravity Sanitary Sewer Line	A/G Sanitary Sewer
*Underground SS Forced Main Line	FSS —
Underground Unknown Utility Line	?UTL ——
SUE Test Hole	•
Water Meter	O
Water Valve	⊗
Fire Hydrant	❖
Sanitary Sewer Cleanout	(

For Existing Utilities
Utility Line Drawn from Record
Designated Utility Line

UTILITY CONSTRUCTION

1223 Jones Franklin Rd. Raleigh, N.C. 27606 License No. F-0377 Bus: 919 851 8077 Fax: 919 851 8107 TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN

BR-0062 UC-3 DESIGNED BY: TWR TH CAPO DRAWN BY: TWR CHECKED BY: PKP IVIL/SITE DESIGN - GIS/GPS - SURVEY/SUE - UTILITIES - CONSTRUCTION OBSERVA PPROVED BY: SLK 10773 REVISED: NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

UTILITIES ENGINEERING SEC

FAX:(919)250-4151

PROJECT REFERENCE NO. | SHEET NO.

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

PHONE: (919)707-6690 UTILITY CONSTRUCTION PLANS ONLY

UTILITY CONSTRUCTION

GENERAL NOTES:

- 1. THE PROPOSED UTILITY CONSTRUCTION SHALL MEET THE APPLICABLE REQUIREMENTS OF THE NC DEPARTMENT OF TRANSPORTATIONS "STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES" DATED JANUARY 2024.
- 2. THE EXISTING UTILITIES BELONG TO ANSON COUNTY. CONTACT CHRIS HARRINGTON, ANSON COUNTY ASSISTANT UTILITIES DIRECTOR, AT 704-694-5208.
- 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.
- 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.
- 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.
- 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.
- 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 FROM WL-1 STATION 10+00 +/- TO WL-1 STATION 15+69 +/- SHALL BE 12" PVC SDR21, INSTALLED BY OPEN CUT METHOD.
- 2. PROPOSED WATER LINE FROM WL-1 STATION 15+69 +/- TO WL-1 STATION 16+79 +/- SHALL BE 12" PVC SDR21 WITH 20" STEEL ENCASEMENT, INSTALLED BY BORE AND JACK METHOD.
- 3. PROPOSED WATER LINE FROM WL-1 STATION 16+79 +/- TO WL-1 STATION 23+04 +/- SHALL BE 12" PVC SDR21, INSTALLED BY OPEN CUT METHOD.

WATER INSTALLATION NOTES

- 1. CONTRACTOR SHALL COORDINATE ALL PROPOSED WORK WITH ANSON COUNTY MR. CHRIS HARRINGTON AT 704-694-5208, 48 HOURS PRIOR TO BEGINNING CONSTRUCTION.
- 2. CONTRACTOR SHALL FULLY INSTALL, PRESSURE & LEAKAGE TEST, AND CHLORINATE NEW WATER MAIN PRIOR TO CONNECTION TO EXISTING SYSTEM.
- 3. CONTRACTOR SHALL PERFORM THE CONNECTION DURING OFF PEAK HOURS WITH A MAXIMUM SHUT DOWN TIME OF FIVE HOURS. (12 PM MIDNIGHT TO 5 AM)
- 4. ANY WORK OR TEST PERFORMED WITHOUT NOTIFICATION AND CONTACT WITH ANSON COUNTY FIELD INSPECTORS SHALL BE PERFORMED AT THE CONTRACTOR'S RISK. TESTING SHALL BE PERFORMED IN THE PRESENCE OF ANSON COUNTY PERSONNEL. CONTACT MR. CHRIS HARRINGTON AT 704-694-5208.
- 5. OPERATION OF EXISTING GATE VALVES SHALL BE DONE BY ANSON COUNTY OPERATIONS STAFF. CONTACT MR. CHRIS HARRINGTON AT 704-694-5208.
- 6. TIE NEW WATER MAIN INTO EXISTING. INSTALL THRUST BLOCKS AND RODDING AS REQUIRED.
- 7. NEW WATER MAIN SHALL NOT BE CONNECTED TO EXISTING MAIN WITHOUT PRIOR APPROVAL AND COORDINATION WITH ANSON COUNTY.
- 8. PROPOSED PVC WATER LINE SHALL BE INSTALLED WITH TRACER WIRE.

1223 Jones Franklin Rd.

TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN

CIVIL/SITE DESIGN - GIS/GPS - SURVEY/SUE - UTILITIES - CONSTRUCTION OBSERVATI

PROJECT REFERENCE NO. | SHEET NO. Raleigh, N.C. 27606 License No. F-0377 Bus: 919 851 8077 Fax: 919 851 8107 DESIGNED BY: TWR DRAWN BY:

TWR PPROVED BY: SLK 10773

DocuSigned by: NORTH CAROLINA DEPARTMENT OF TRANSPORTATION UTILITIES ENGINEERING SEC

UC-3A

PHONE: (919)707-6690 UTILITY CONSTRUCTION FAX: (919)250-4151 PLANS ONLY DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

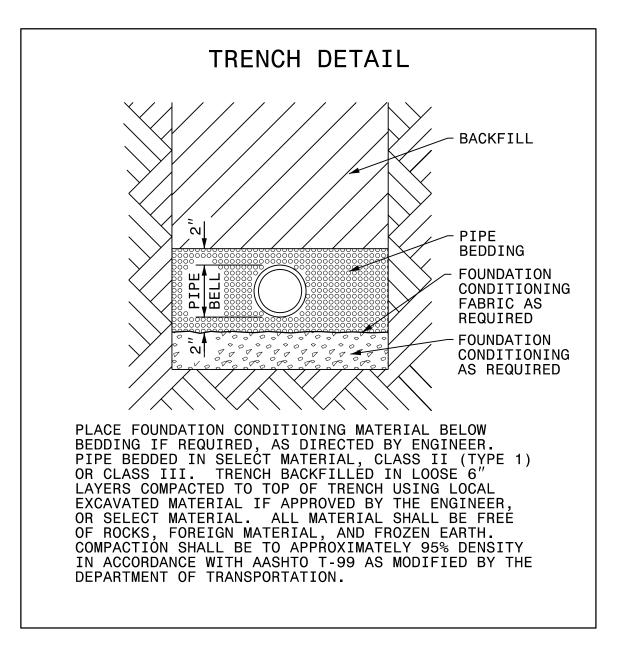
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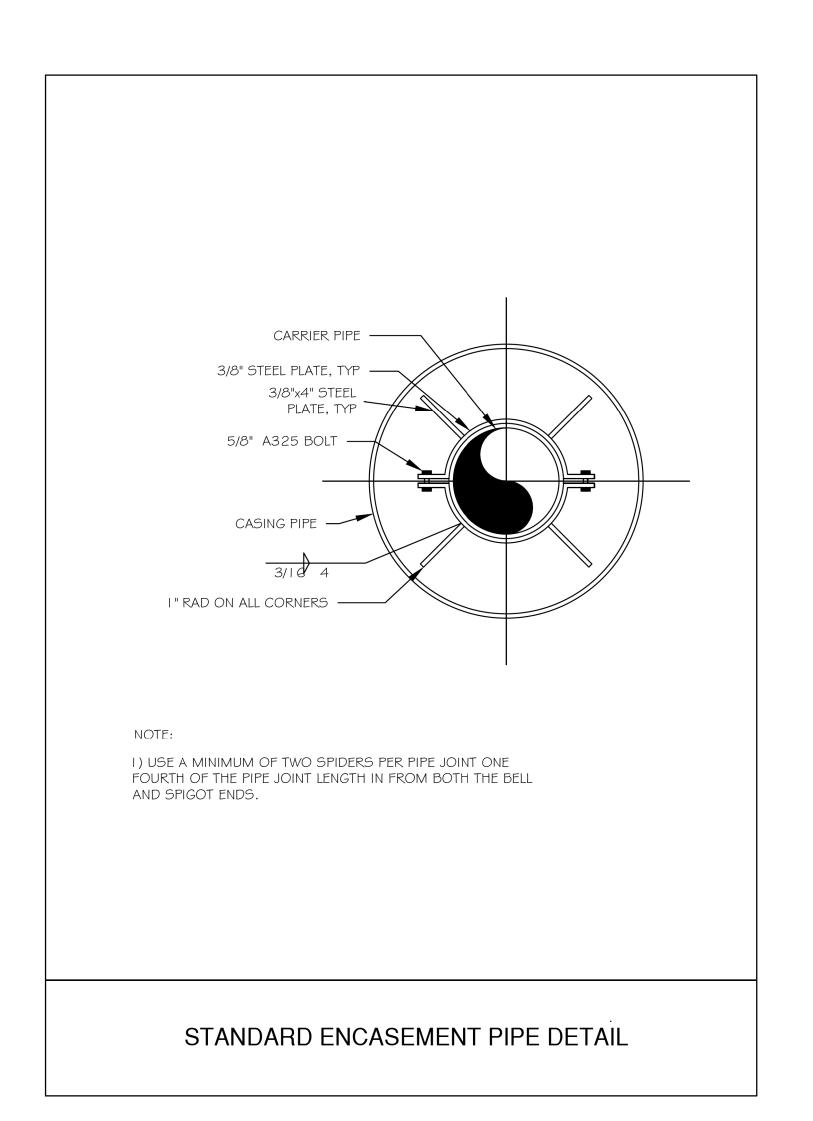
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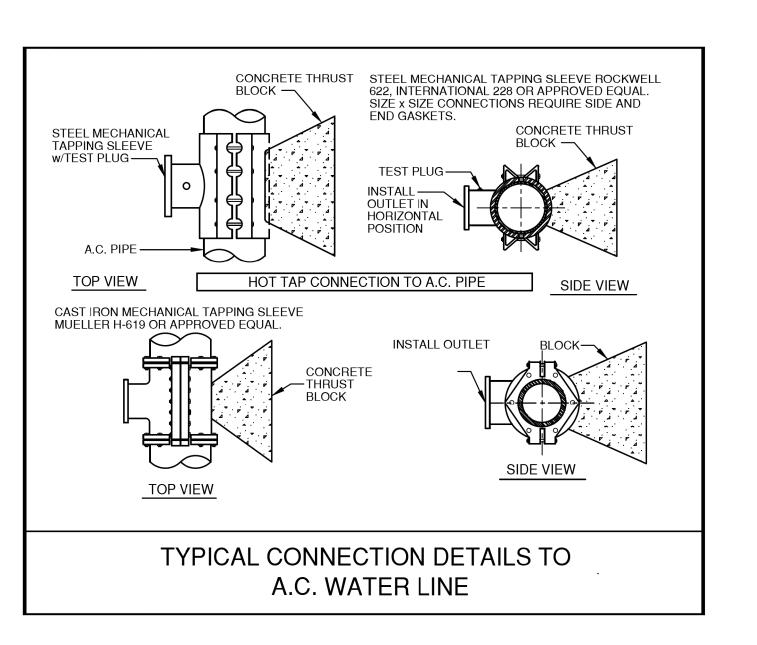
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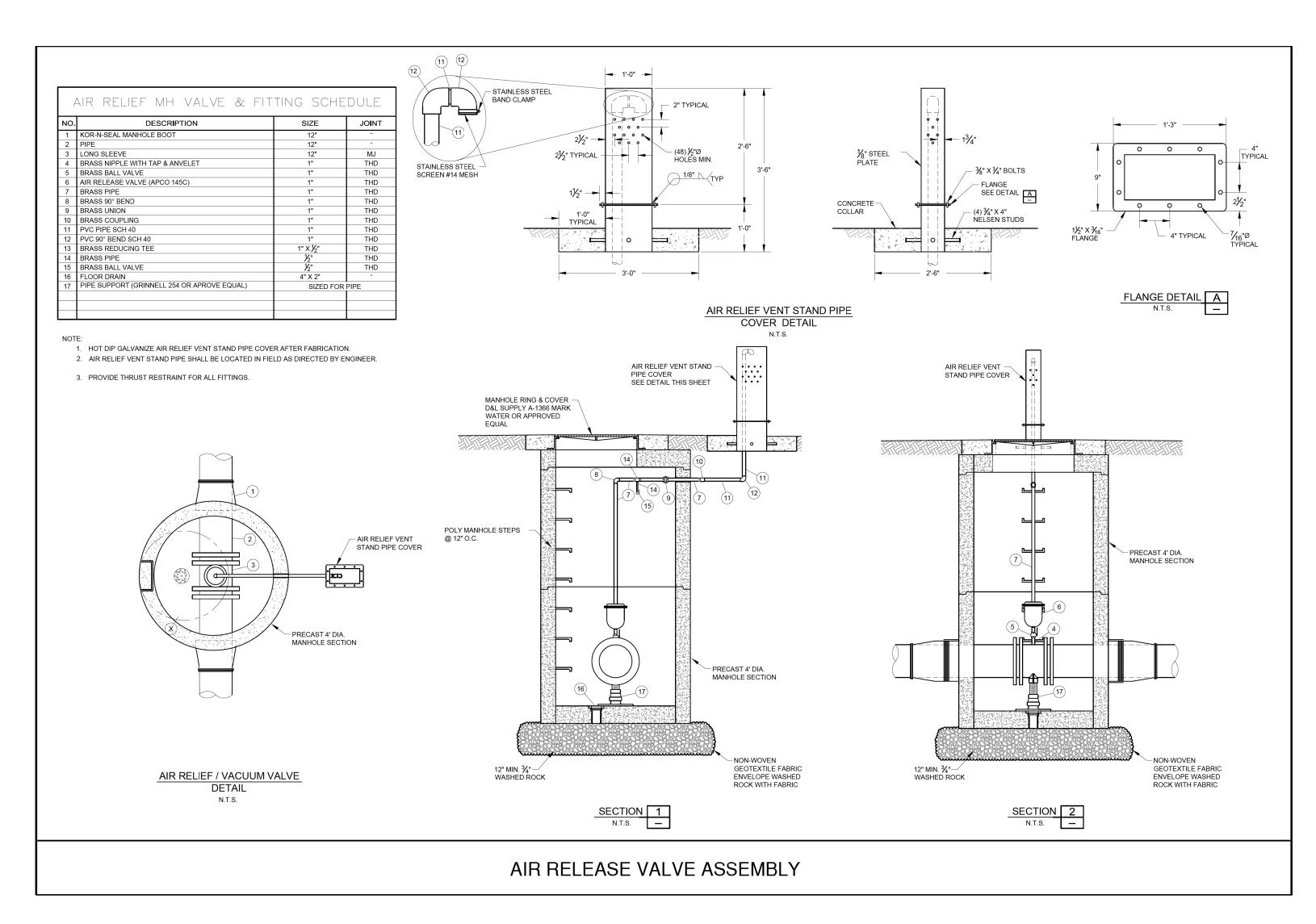
UTILITY CONSTRUCTION

PROJECT TYPICAL DETAILS

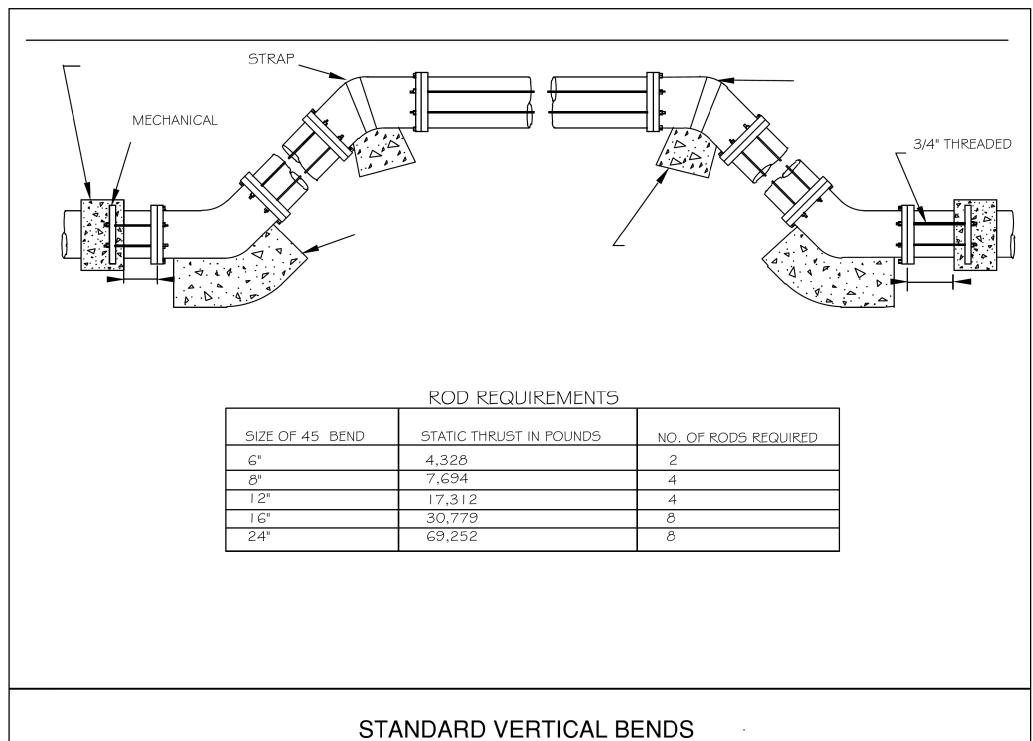


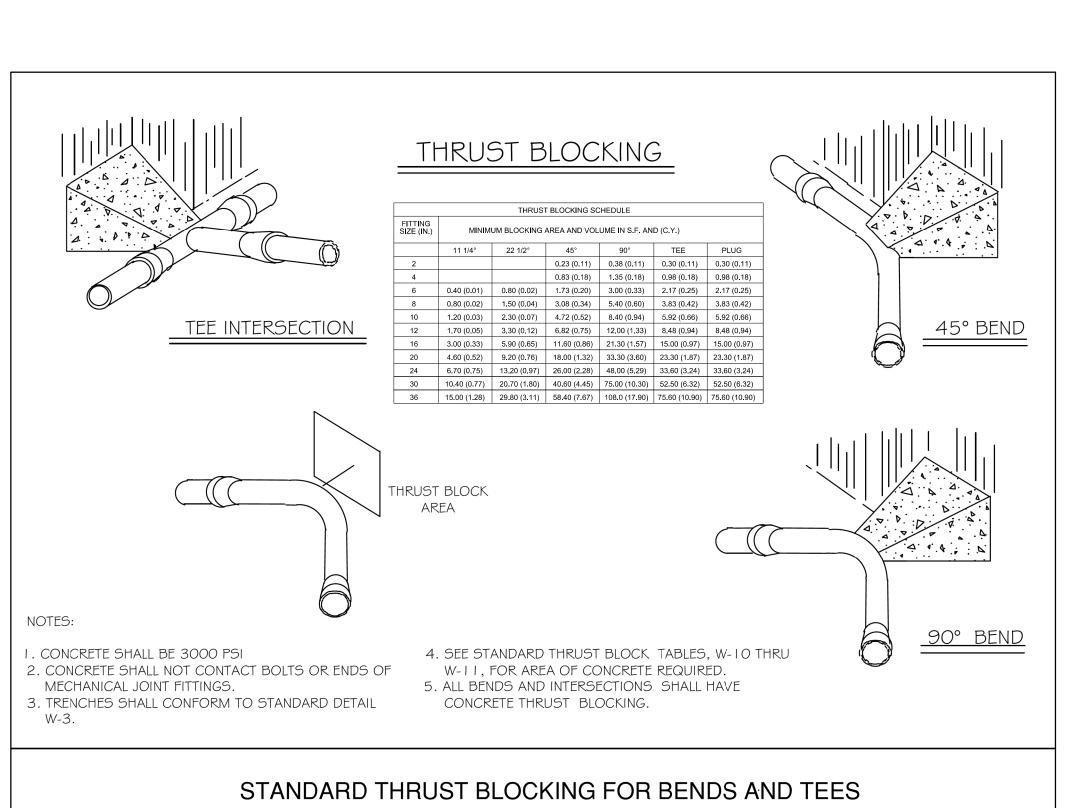


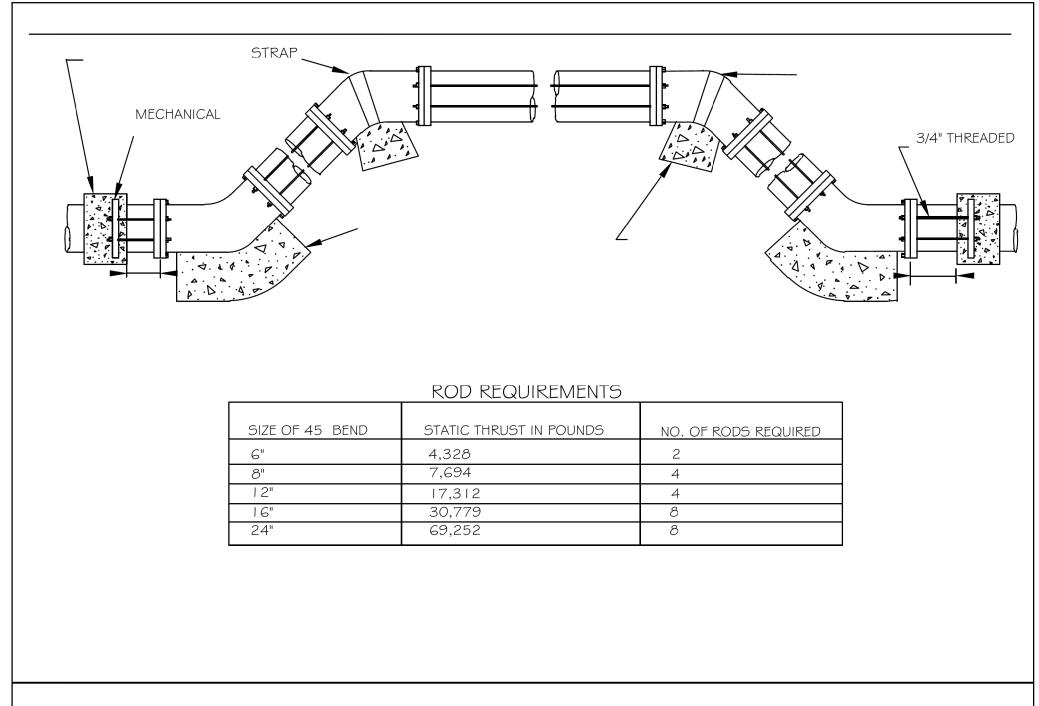


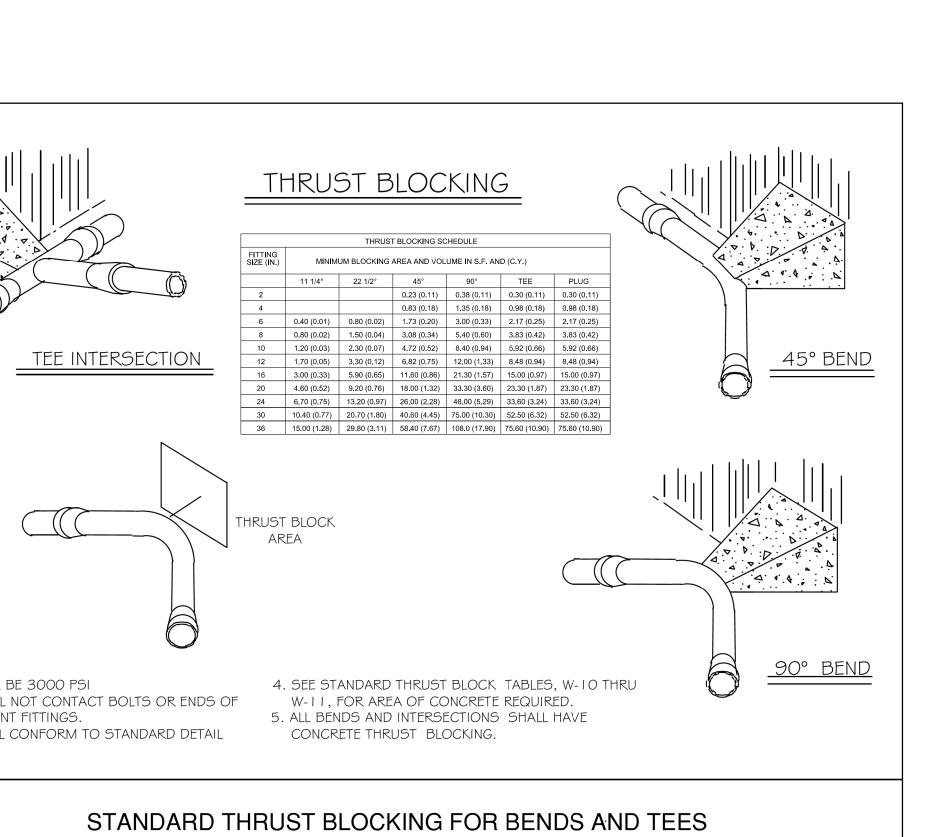


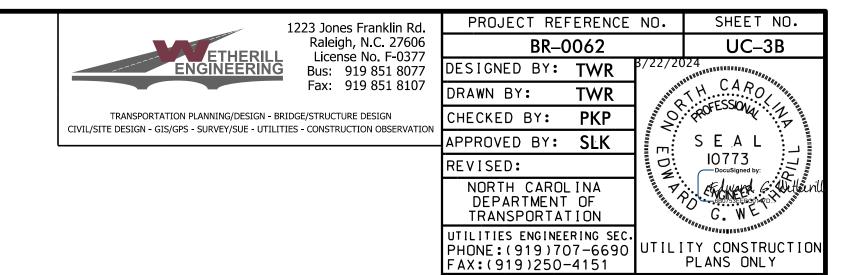
PROJECT TYPICAL DETAILS





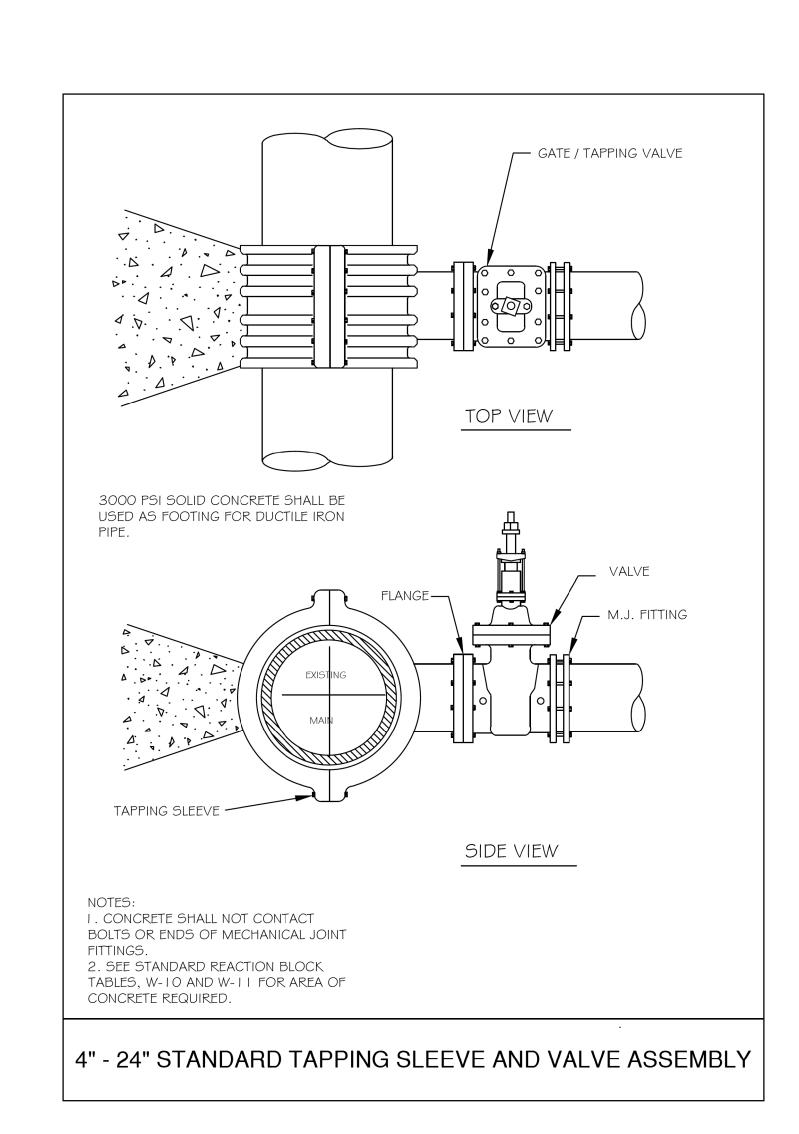






UTILITY CONSTRUCTION

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3/4" ALL-THREAD STEEL ROD (CUT TO LENGTH)

> I'-O" M.J. NIPPLE WITH GLANDS (MIN.)

ROD REQUIREMENTS

NO. OF RODS

6"

12"

I. STEEL RODS AND BOLTS SHALL BE 3/4" HOT DIPPED GALVANIZED.

4. THIS RODDING REQUIREMENT DOES NOT APPLY TO FIRE HYDRANTS.

2. SEE STANDARD THRUST BLOCK. TABLES W-10 AND W-11 FOR CONCRETE. 3. CONCRETE SHALL NOT CONTACT BOLTS OR ENDS OF MECHANICAL FITTINGS.

SEE W-10 AND W-11

BLOCKING CONCRETE

FOR REACTION

VALVE MAY BE BOLTED

DIRECTLY TO TEE.

DRANCH SIZE

VALVE RESTRAINT AT TEES AND CROSSES

FOR LINES (4" - 24")

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PROJECT TYPICAL DETAILS

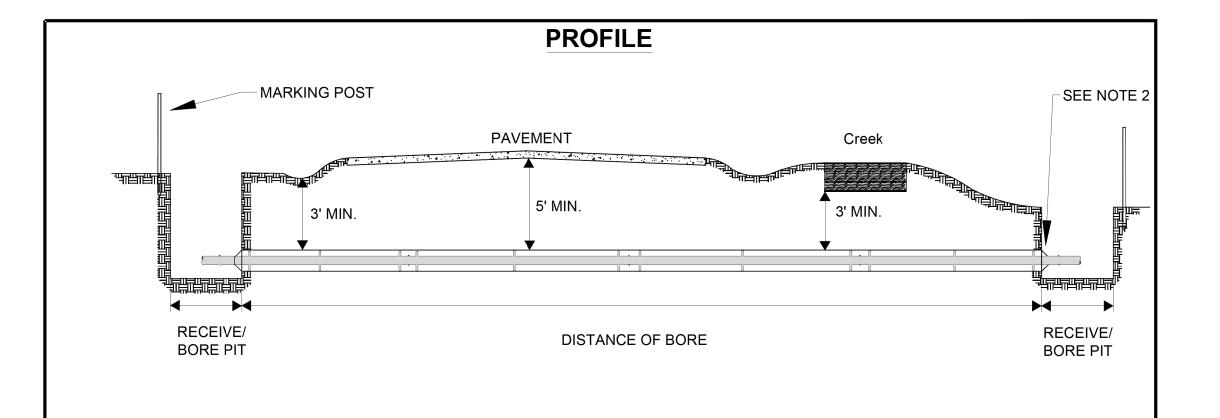
1223 Jones Franklin Rd. Raleigh, N.C. 27606 License No. F-0377 Bus: 919 851 8077 Fax: 919 851 8107 TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN

PROJECT REFERENCE NO. SHEET NO. BR-0062 UC-3C DESIGNED BY: TWR DRAWN BY: TWR CHECKED BY: CIVIL/SITE DESIGN - GIS/GPS - SURVEY/SUE - UTILITIES - CONSTRUCTION OBSERVAT NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

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

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UTILITY CONSTRUCTION



SIDE VIEW 12" MAX. CASING PIPE INSULATOR - MAXIMUM OF ONE FOOT FROM EACH SIDE OF JOINT-CASING SEAL SEE NOTE **END VIEW** NOTE: PIPE DIAMETER SEE TABLE 1 FOR CASING/CARRIER PIPE SPECIFICATIONS DIAMETER 16" TO 48" UP TO 14"

JACK & BORE DETAIL

NOT TO SCALE

SHEET

1 OF 2

NOTE:

- CARRIER SPACERS SHALL BE STAINLESS STEEL WITH 2 " WIDE PLASTIC RUNNERS.
- 2. ALTERNATE METHODS OF CASING SPACERS MAY BE UTILIZED UPON APPROVAL OF CITY ENGINEER.
- 3. SEAL ANNULUS BETWEEN CARRIER PIPE AND CASING AT BOTH ENDS USING CASING SEAL AS MANUFACTURED BY PIPELINE SEAL AND INSULATOR, MODEL S OR APPROVED EQUAL. ALTERNATE METHOD IS TO SEAL ANNULUS WITH 8 " THICK ASTM C32 GRADE MS BRICK BULKHEAD.
- 4. ALL CASING PIPE SHALL BE WELDED STEEL PIPE CONFORMING TO ASTM A139 CLASS B. COATING FOR STEEL CASING IS NOT REQUIRED.
- 5. TRACING WIRE SHALL BE INSTALLED THROUGH ALL CASED BORINGS AND CONNECTED TO TRACER WIRE ACCESS BOX.
- 6. FILL ENTIRE LENGTH OF PIPE WITH FLOWABLE FILL CDF.

TABLE 1

NOMINAL CARRIER PIPE DIAMETER	6 "	8 "	10 "	12 "	16 "	18 "	21 "	24 "
MINIMUM CASING PIPE DIAMETER	14 "	16 "	20 "	20 "	24 "	30 "	30 "	36 "
MINIMUM WALL THICKNESS	.281 "	.281 "	.343 "	.343 "	.406 "	.469 "	.469 "	.531 "

JACK & BORE DETAIL

SHEET 2 OF 2

