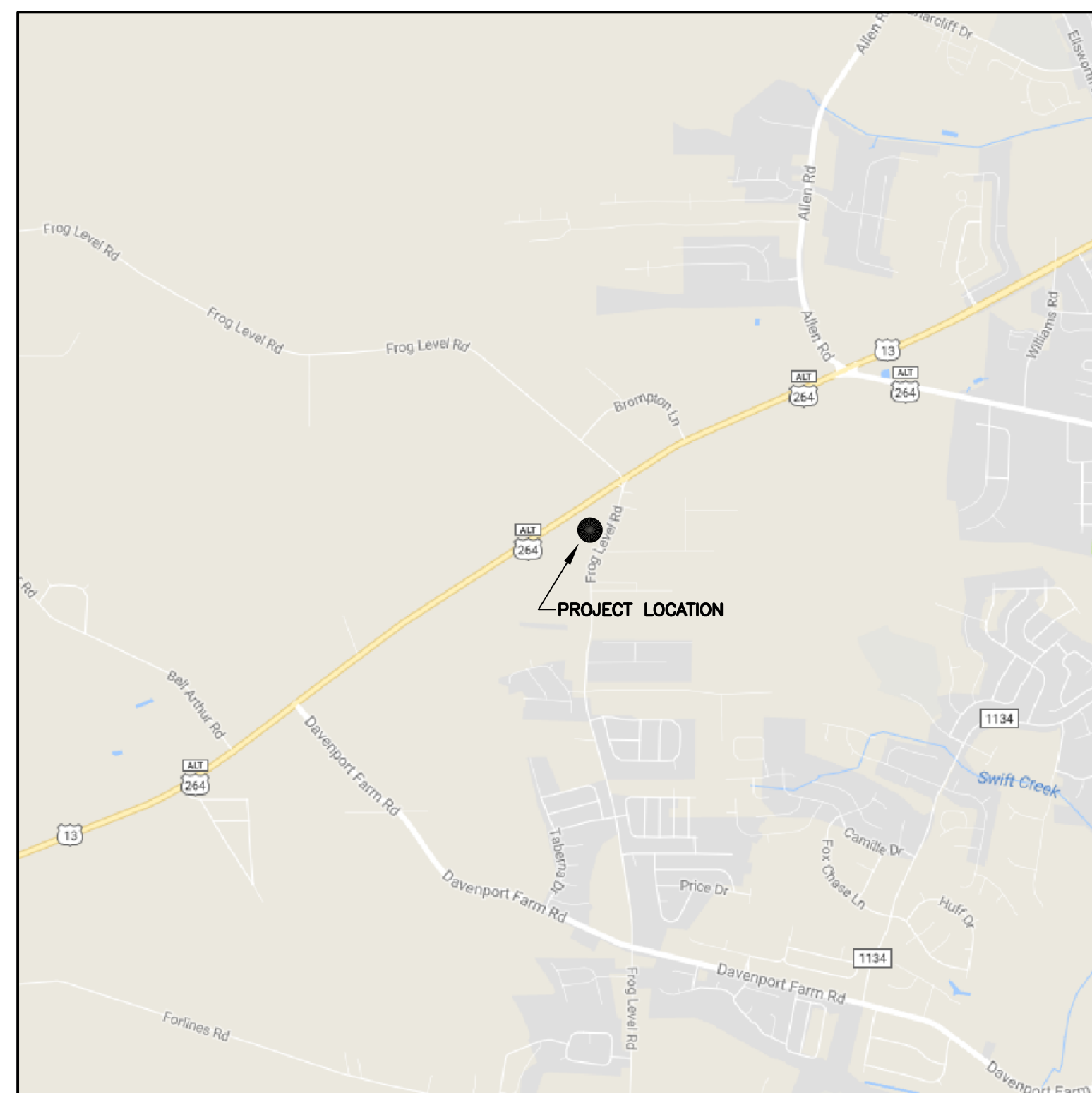


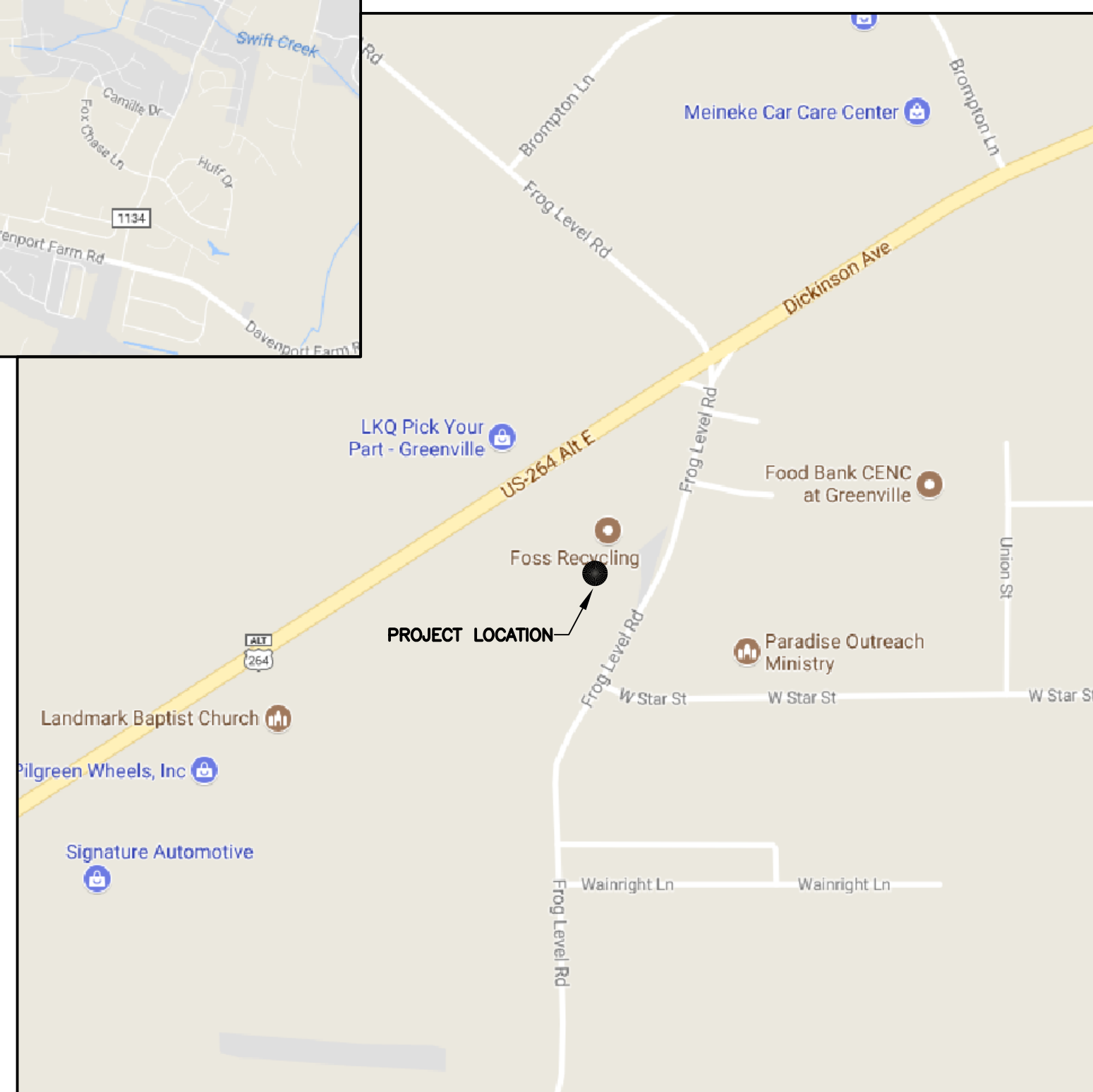
Greenville Utilities

PROPOSED HEATER INSTALLATION CITY GATE #5 PITT COUNTY, NORTH CAROLINA

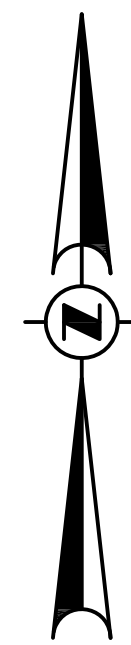
November 2017



VICINITY MAP
NOT TO SCALE



LOCATION MAP
NOT TO SCALE



SHEET INDEX

SHEET DESCRIPTION	SHEET NUMBER
COVER SHEET	-
SITE EXISTING CONDITIONS AND DEMOLITION PLAN	1 OF 5
PROPOSED HEATER AND VALVE INSTALLATION PLAN	2 OF 5
ELECTRICAL BELOW GRADE CONDUIT PLAN	3 OF 5
HEATER AND VALVE INSTALLATION DETAILS	4 OF 5
PIPE STAND AND HEATER FOUNDATION DETAILS	5 OF 5

PIPING BILL OF MATERIALS

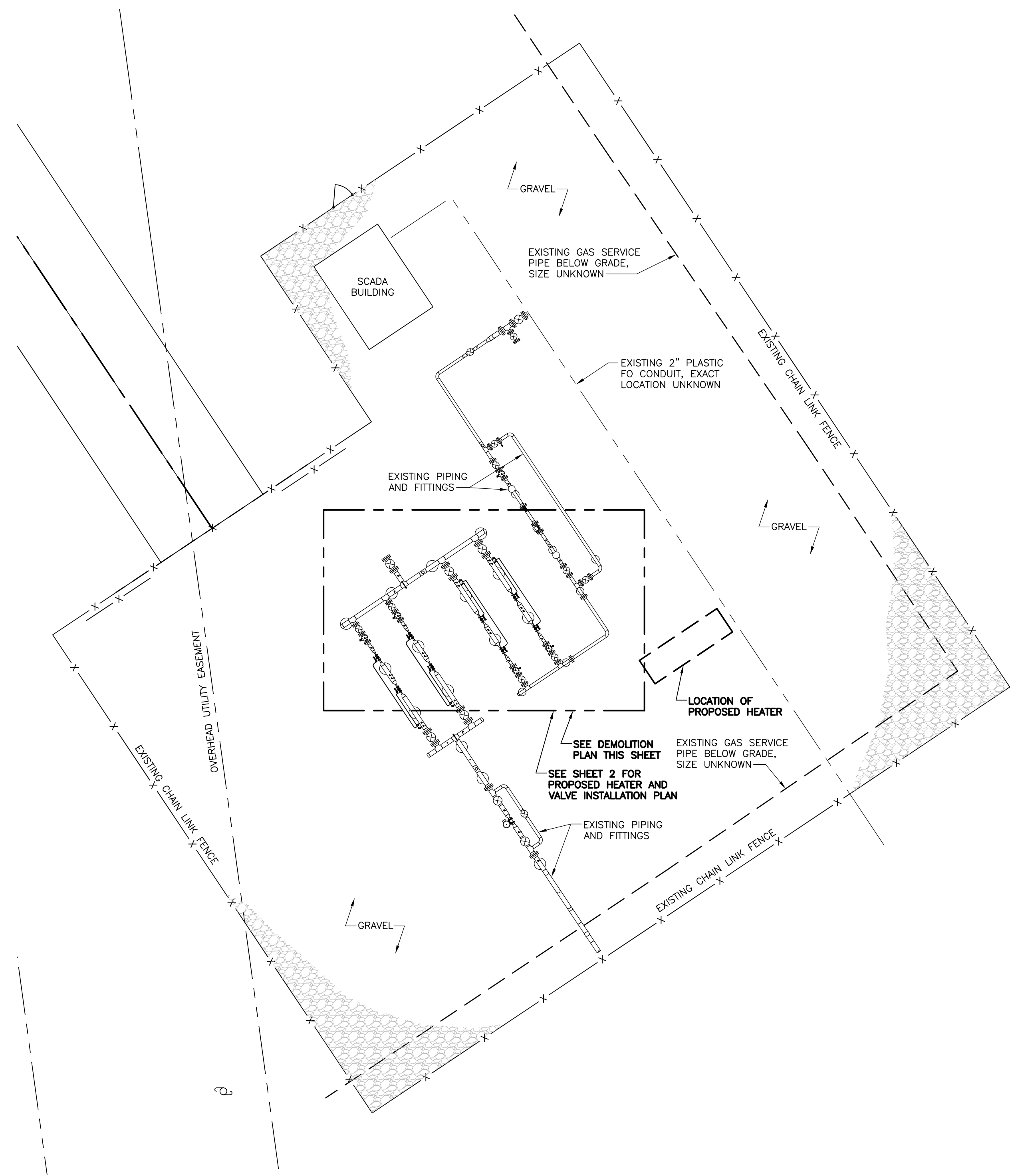
ITEM NO.	QUANTITY	SIZE	DESCRIPTION
1	80	7/8"x5 3/4"	STUD BOLT, GRADE B-7, (ASTM-A193), W/2 GRADE 2-H HEX NUTS (ASTM-A194) (4" ANSI 600, 8 BOLTS PER CONNECTION)
2	10	4"	GASKET, ANSI 600, SPIRAL WOUND, FLEXITALLIC
3	2	4"-5"x1"	THREDOLET, FOR 4" THRU 5" PIPE, 3000#
4	1	6"-10"x1"	THREDOLET, FOR 6" THRU 10" PIPE, 3000#
5	3	1"x3"	NIPPLE, PIPE, STEEL, GRADE B, SMLS, CS, TBE
6	2	1"	PLUG, FORGED STEEL, HEX HEAD, SCREWED, 3000#
7	1	1"	COUPLING, FORGED STEEL, SCREWED, 3000#
7A	1	AS REQ'D	HEX BUSHING - SIZE AS REQUIRED TO ACCOMMODATE THERMOWELL AS PROVIDED BY HEATER MANUFACTURER
8	2	4"	ELL, WELD END, 90 DEG., LONG RADIUS, GRADE B, WT=0.237"
9	2	4"x4"	TEE, WELD END, STRAIGHT, GRADE B, WT=0.237"x0.237"
10	10	4"	FLANGE, WELD NECK, RF, ANSI 600, FORGED ST, WT = 0.237", BORE = 4.02"
11	2	1"	VALVE, BALL, THREADED FEMALE ENDS, SWAGelok SERIES 60, CLASS 3000
12	3	4"	VALVE, BALL, CAMERON, T-31 FULLY WELDED BALL VALVE, R.F. FLANGED ENDS, ANSI 600, LEVER OPERATED
13	1	-	HEATER
14	-	4"	PIPE, WT=0.237", GRADE B, BARE, CS, ERW, BE, SPEC API-5L
15	4	4"	PIPE SUPPORT, EZ-LINE, MODEL NO. 204, FIGURE E, W/ NEOPRENE LINER, PART NO. 204-E, 4" P.S., D=3'-11" (SEE NOTE)
16	16	1/2"x5"	BOLT, HILTI HIT-RE-100 INJECTABLE ADHESIVE WITH CARBON STEEL THREADED ROD
17	4	1"x5"	BOLT, HILTI HIT-RE-100 INJECTABLE ADHESIVE WITH CARBON STEEL THREADED ROD
-	-	-	-
-	-	-	-

NOTE:
CONTRACTOR TO VERIFY HEIGHT OF EXISTING PIPING PRIOR TO CONSTRUCTION. VERIFICATION OF PIPING HEIGHT SHALL GOVERN THE HEIGHT OF HEATER FOUNDATIONS AND PIPE STANDS

For Review and Comment

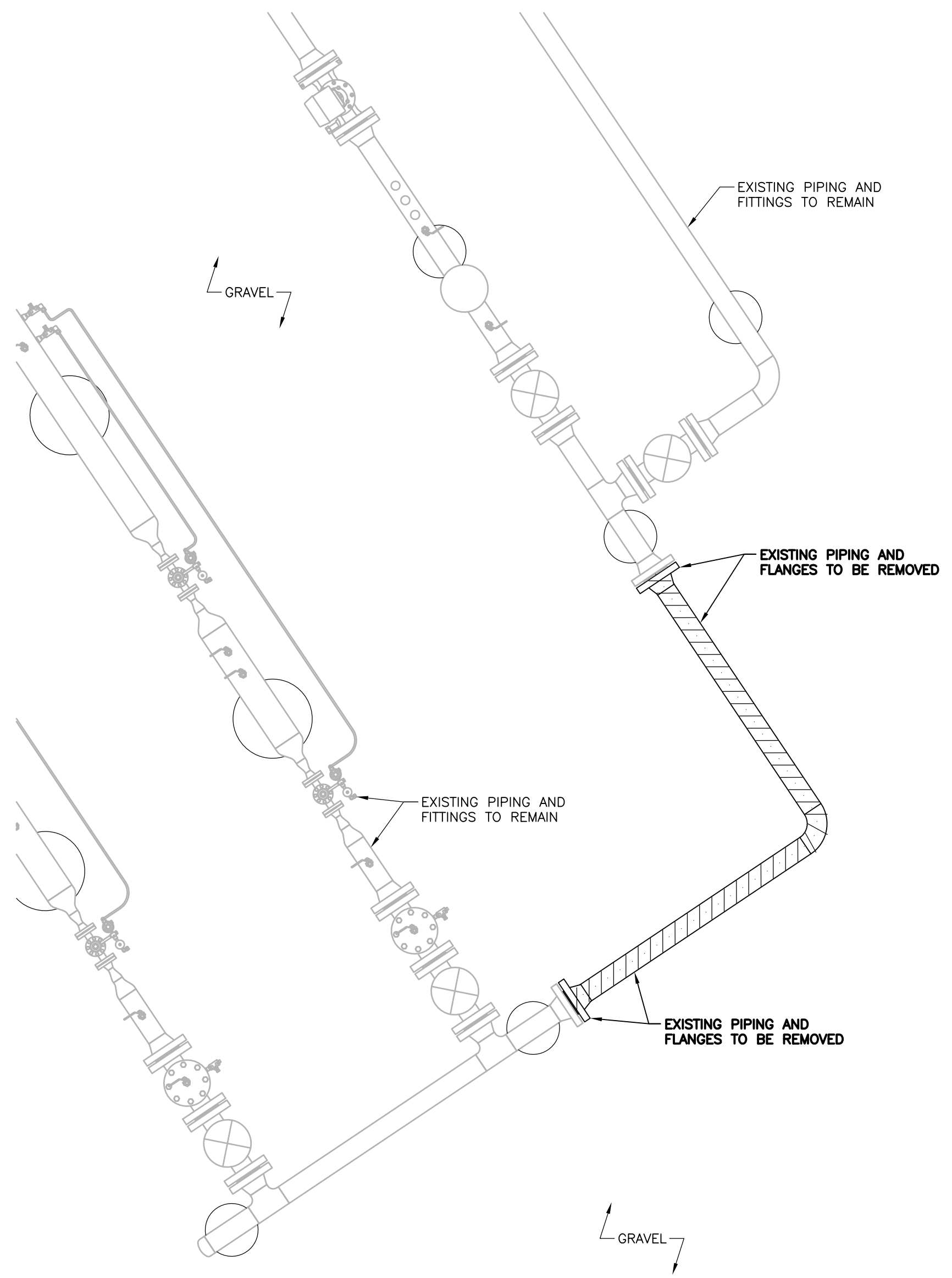
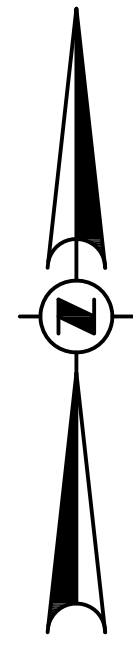


RUMMEL • KLEPPER and KAHL, LLP
ENGINEERS | CONSTRUCTION MANAGERS | PLANNERS | SCIENTISTS
RICHMOND, VIRGINIA



SITE EXISTING CONDITIONS

SCALE: 1" = 10'-0"



DEMOLITION PLAN

SCALE: 1/2" = 1'-0"

For Review and Comment

SUMMARY OF MATERIALS	
QUANTITY	DESCRIPTION

NOTES				
REVISIONS				
REV.	DESIGN	DRAFT	CHECK	DATE

APPROVAL						
SURVEY	PERMITS		BID		CONSTRUCTION	
	INITIALS	DATE	INITIALS	DATE	INITIALS	DATE
C.P.						
DRAFTING & DESIGN - RK&K	-	-	AAL	11/21/17	-	-
ENGINEERING - RK&K	-	-	CJV	11/21/17	-	-

TEST DATA	
TESTED FROM STATION: _____ TO STATION: _____	
MEDIUM: _____ RECORD TEST PRESSURE: _____ psig	
DATE TEST COMPLETED: _____	

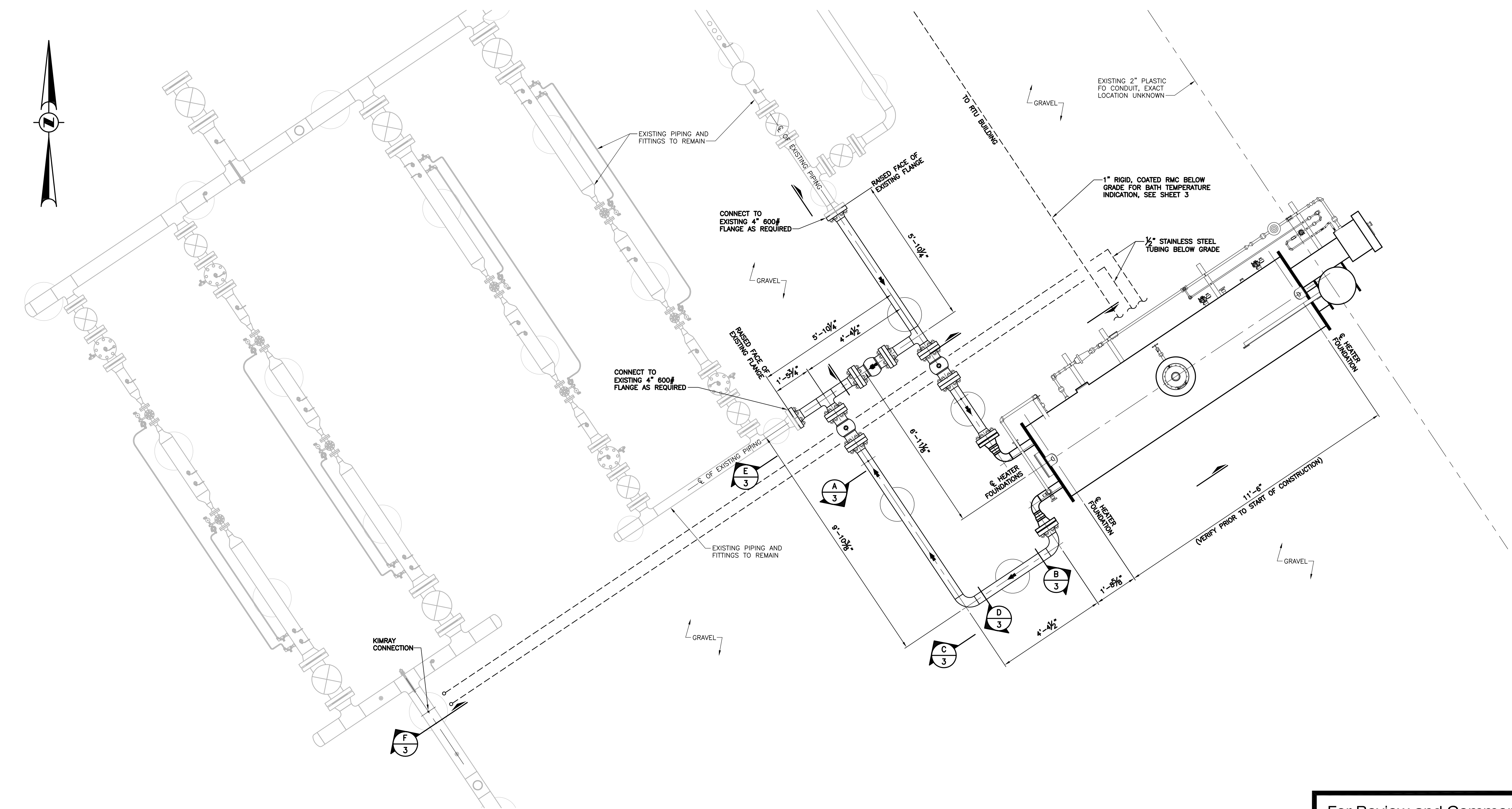
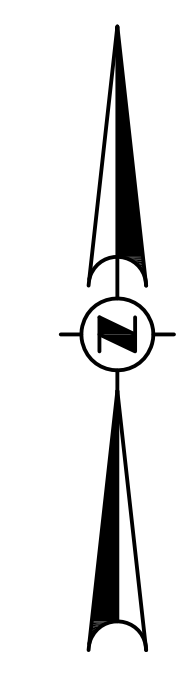
PROJECT	
PROPOSED HEATER INSTALLATION CITY GATE #5 PITT COUNTY, NORTH CAROLINA	
ALIGNMENT SHEET	
RK&K <small>RAMMEL, KLEPPER & KAHN, LLP 1101 S. CAMP STREET, SUITE 300 RICHMOND, VIRGINIA 23229 T-804-782-1800 F-804-782-2142</small>	
SCALE: AS SHOWN	PLAN: AS SHOWN
HOR.:	PROFILE:
VERT.:	

Greenville Utilities
City of Greenville, NC

SHEET DESCRIPTION
SITE EXISTING CONDITIONS AND DEMOLITION PLAN

SHEET NO: 1

REVISION:



For Review and Comment

QUANTITY	SUMMARY OF MATERIALS
	DESCRIPTION

NOTES			
REVISIONS			
REV.	DESIGN	DRAFT	CHECK
DESCRIPTION			DATE

APPROVAL					
SURVEY	PERMITS		BID		CONSTRUCTION
	INITIALS	DATE	INITIALS	DATE	INITIALS
C.P.					
DRAFTING & DESIGN - RK&K	-	-	AAL	11/21/17	-
ENGINEERING - RK&K	-	-	CJV	11/21/17	-

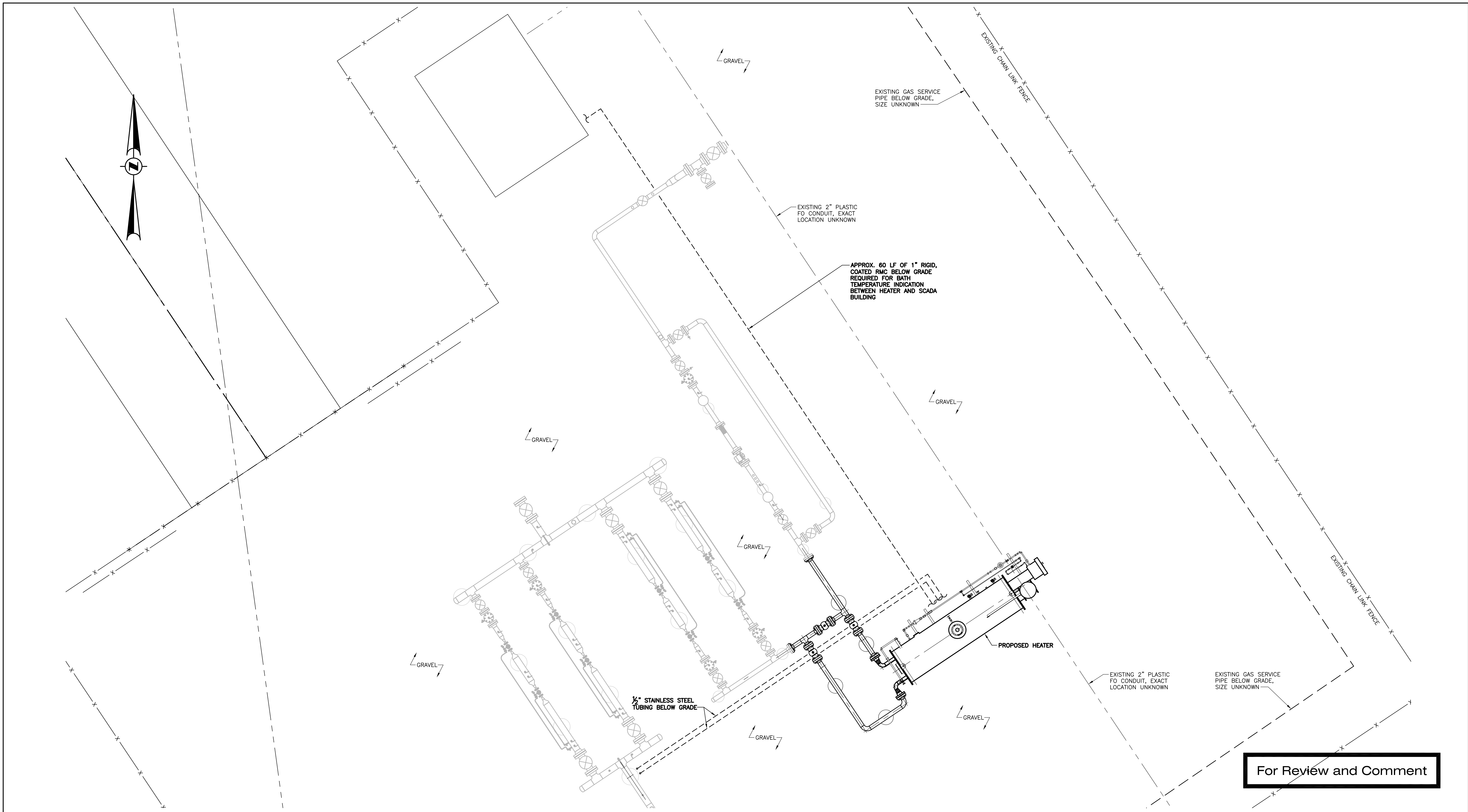
TEST DATA	
TESTED FROM STATION: _____	TO STATION: _____
MEDIUM: _____	RECORD TEST PRESSURE: _____ psig
DATE TEST COMPLETED: _____	

PROJECT	
PROPOSED HEATER INSTALLATION CITY GATE #5 PITT COUNTY, NORTH CAROLINA	
ALIGNMENT SHEET	
RK&K	RANMEL, KLEPPER & KAHN, LLP 1101 S. CAMP STREET, SUITE 200 RICHMOND, VIRGINIA 23222 T: 804.782.1903 F: 804.782.2142

Greenville Utilities

City of Greenville, NC

SHEET DESCRIPTION	
PROPOSED HEATER AND VALVE INSTALLATION PLAN	
SHEET NO: 2	REVISION: _____




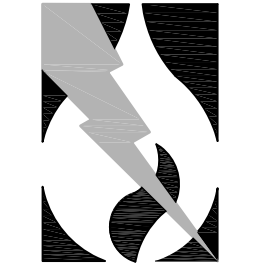
For Review and Comment

SUMMARY OF MATERIALS	
QUANTITY	DESCRIPTION

NOTES				
REVISIONS				
REV.	DESIGN	DRAFT	CHECK	DATE

APPROVAL					
PERMITS		BID		CONSTRUCTION	
INITIALS	DATE	INITIALS	DATE	INITIALS	DATE
SURVEY					
C.P.					
DRAFTING & DESIGN - RK&K		-	-	AAL	11/21/17
ENGINEERING - RK&K		-	-	CJV	11/21/17
TEST DATA					
TESTED FROM STATION: _____ TO STATION: _____					
MEDIUM: _____ RECORD TEST PRESSURE: _____ psig					
DATE TEST COMPLETED: _____					

PROJECT	
PROPOSED HEATER INSTALLATION CITY GATE #5 PITT COUNTY, NORTH CAROLINA	
ALIGNMENT SHEET	
	
<small> ENGINEERS CONSTRUCTION MANAGERS PLANNERS SCIENTISTS RICHMOND, VIRGINIA 23223 T-804-562-1503 F-804-762-2142 </small>	



Greenville Utilities
City of Greenville, NC

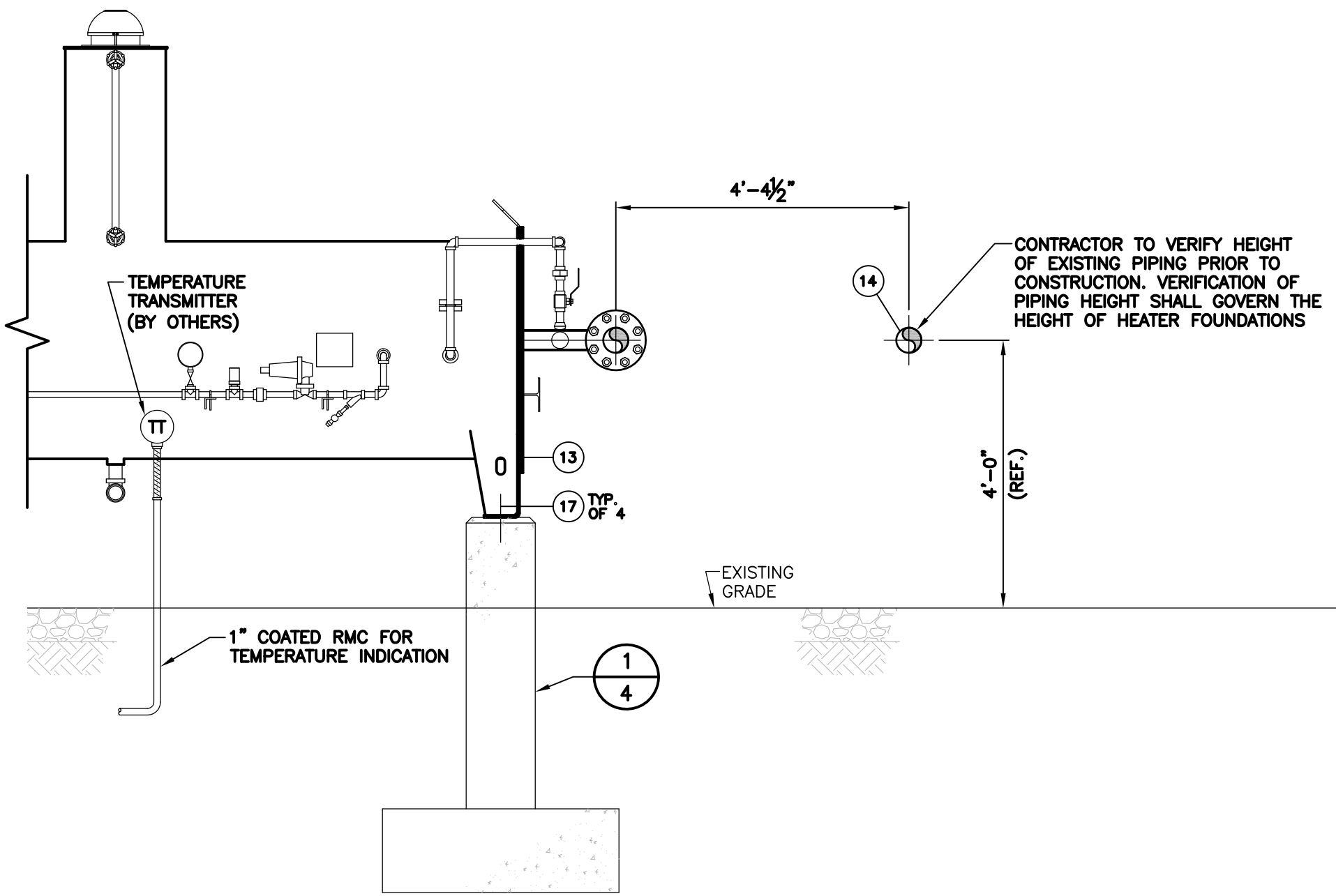
SHEET DESCRIPTION

ELECTRICAL BELOW GRADE CONDUIT PLAN

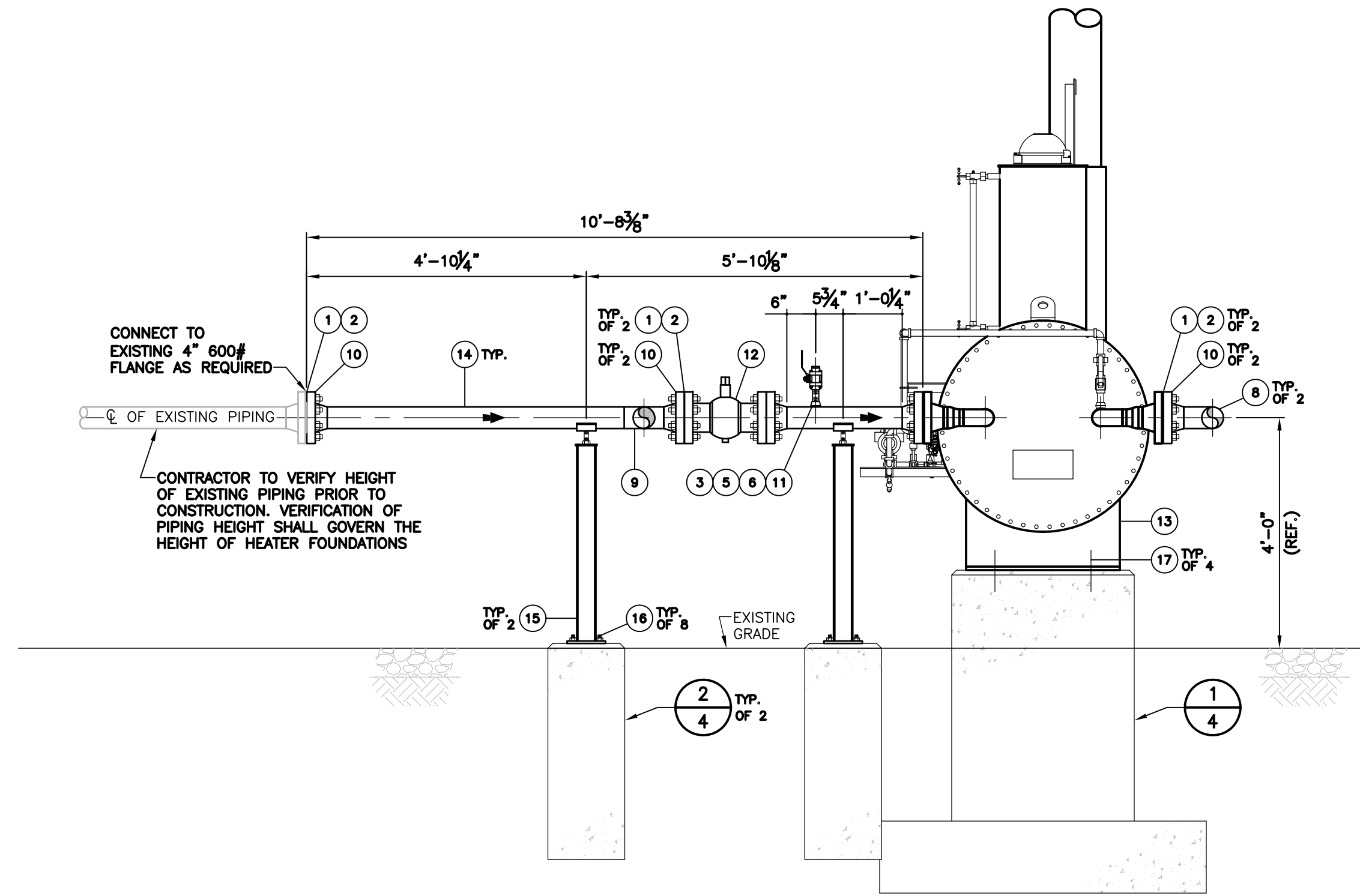
SHEET NO: 3

REVISION:

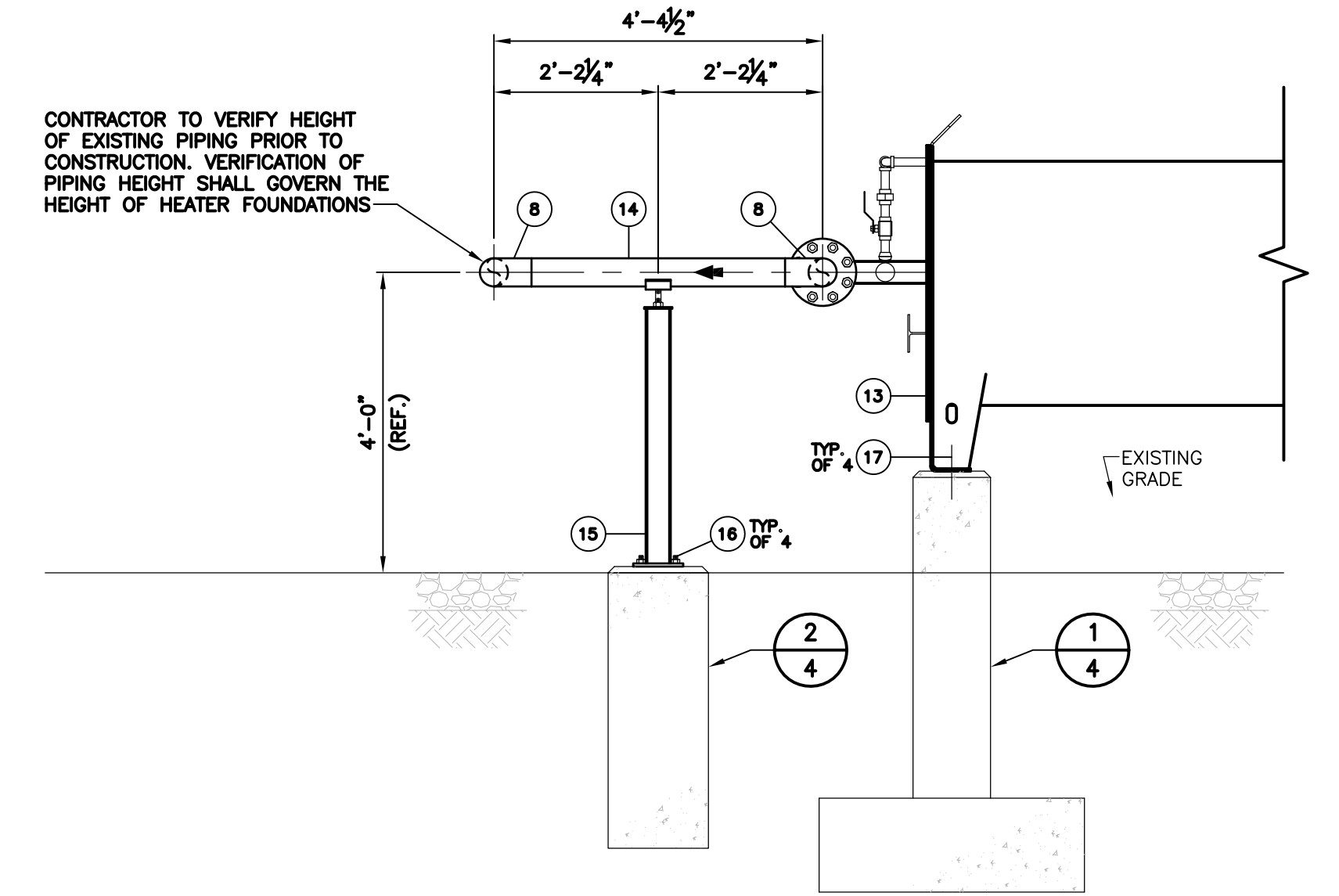
SCALE	PLAN 1/4"=1'-0"
PROFILE	
HOR. :	
VERT. :	



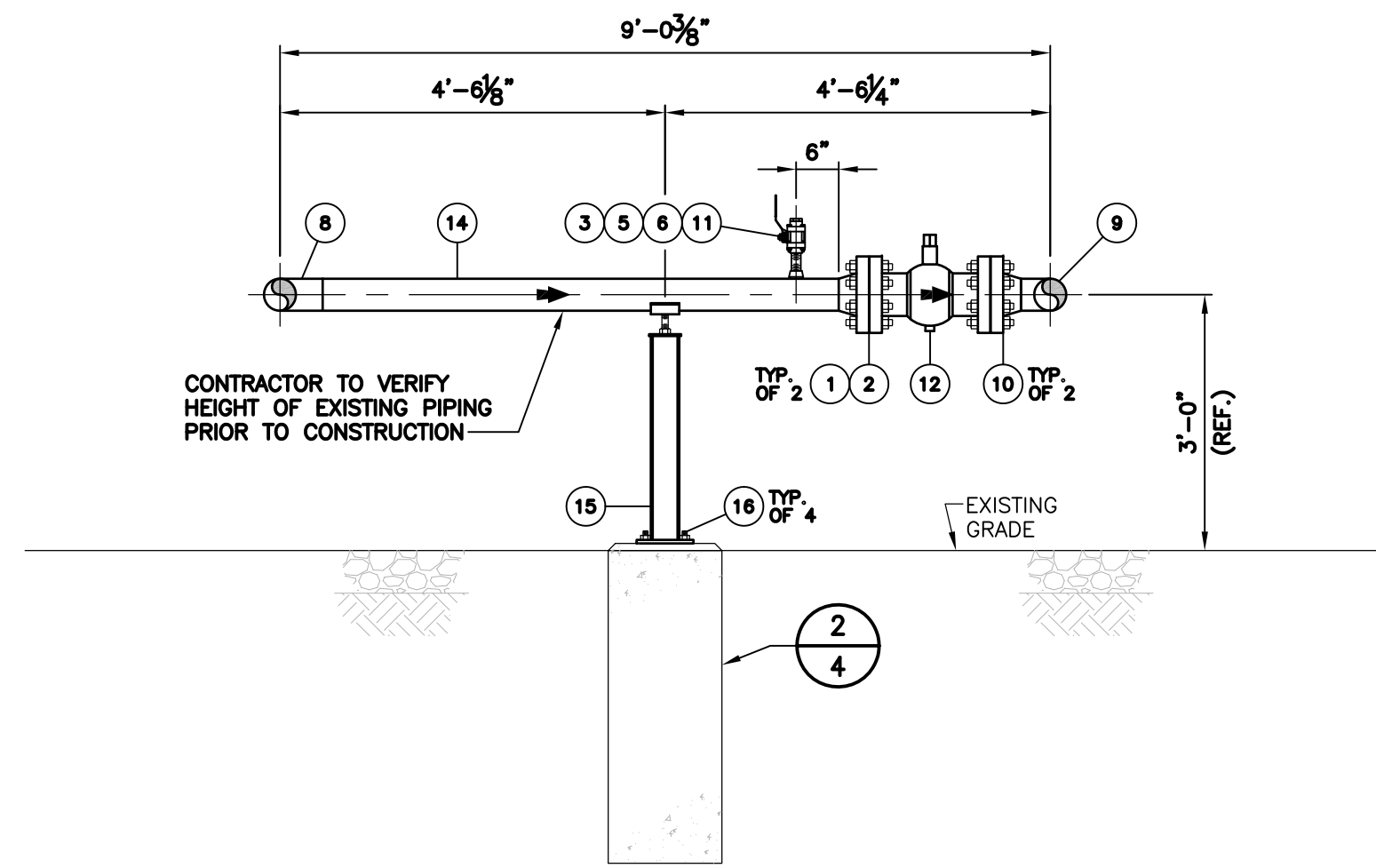
**HEATER INLET
SECTION A-A**



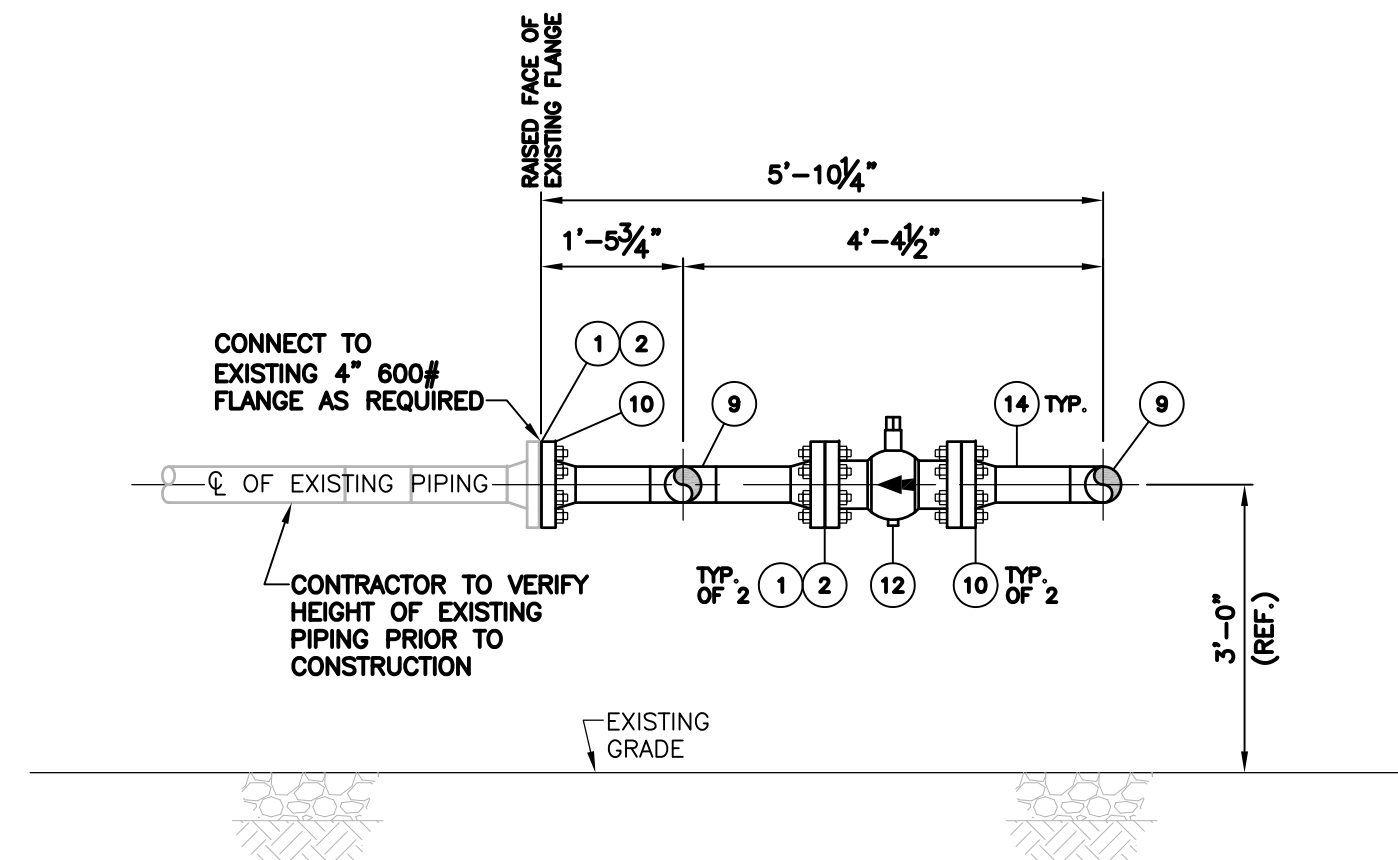
**HEATER INLET AND OUTLET
SECTION B-B**



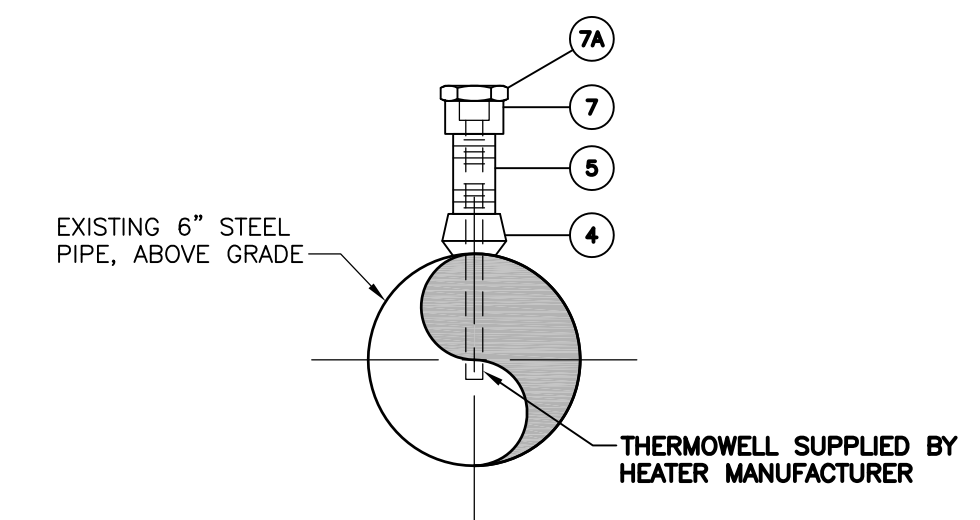
**HEATER OUTLET
SECTION C-C**



**HEATER OUTLET VALVE
SECTION D-D**



**HEATER BYPASS VALVE
SECTION E-E**



**KIMRAY CONNECTION
SECTION F-F**

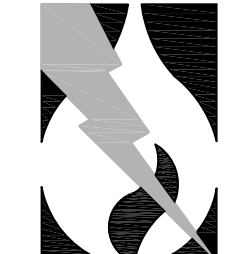
For Review and Comment

SUMMARY OF MATERIALS	
QUANTITY	DESCRIPTION

NOTES			
REVISIONS			
REV.	DESIGN	DRAFT	CHECK

APPROVAL					
PERMITS		BID		CONSTRUCTION	
INITIALS	DATE	INITIALS	DATE	INITIALS	DATE

PROJECT	
PROPOSED HEATER INSTALLATION CITY GATE #5 PITT COUNTY, NORTH CAROLINA	
ALIGNMENT SHEET	
SCALE PLAN 1/2"=1'-0" PROFILE HOR. - VERT. -	



**Greenville
Utilities**
City of Greenville, NC

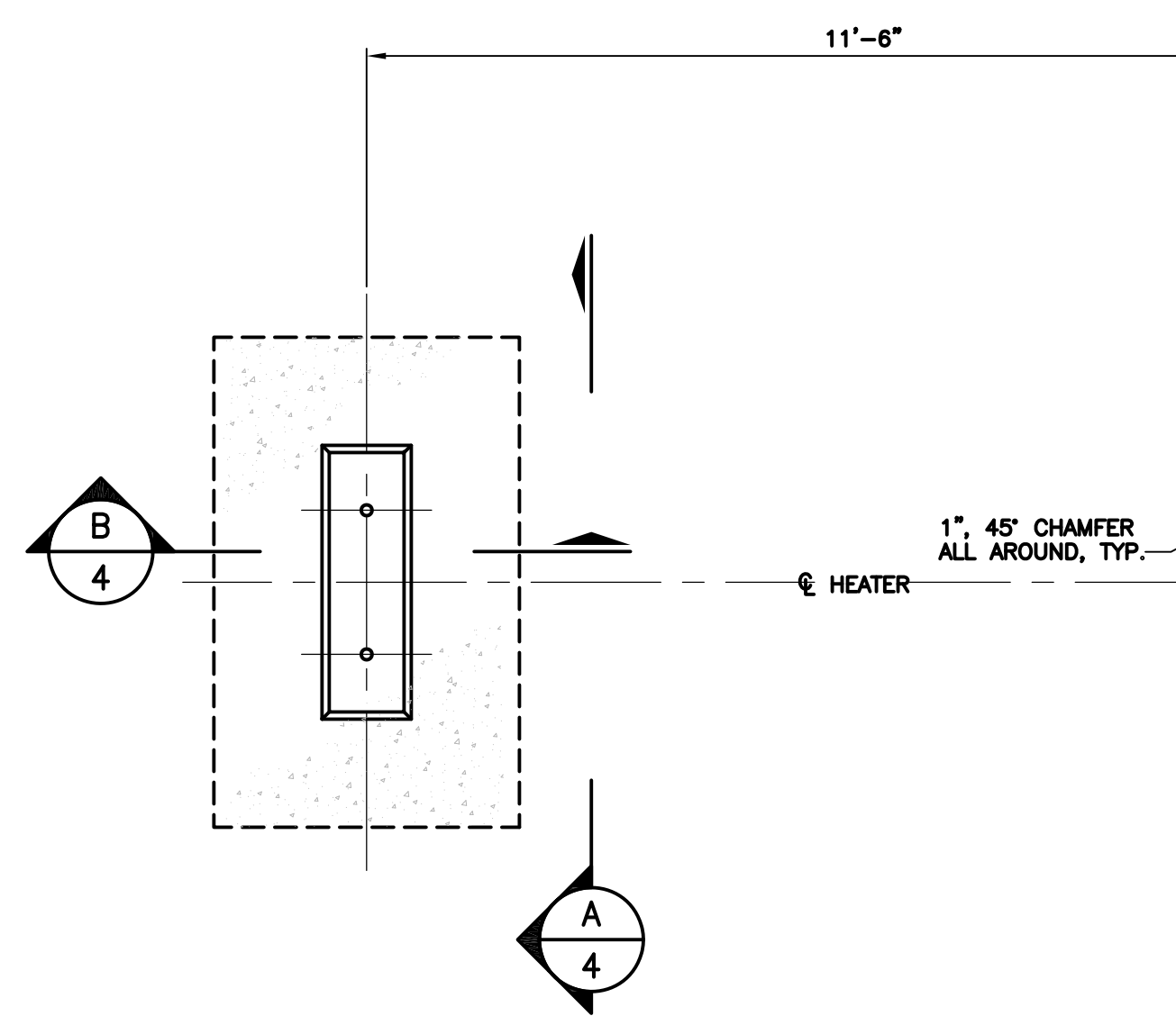
SHEET DESCRIPTION
**HEATER AND VALVE
INSTALLATION DETAILS**

SHEET NO: 4

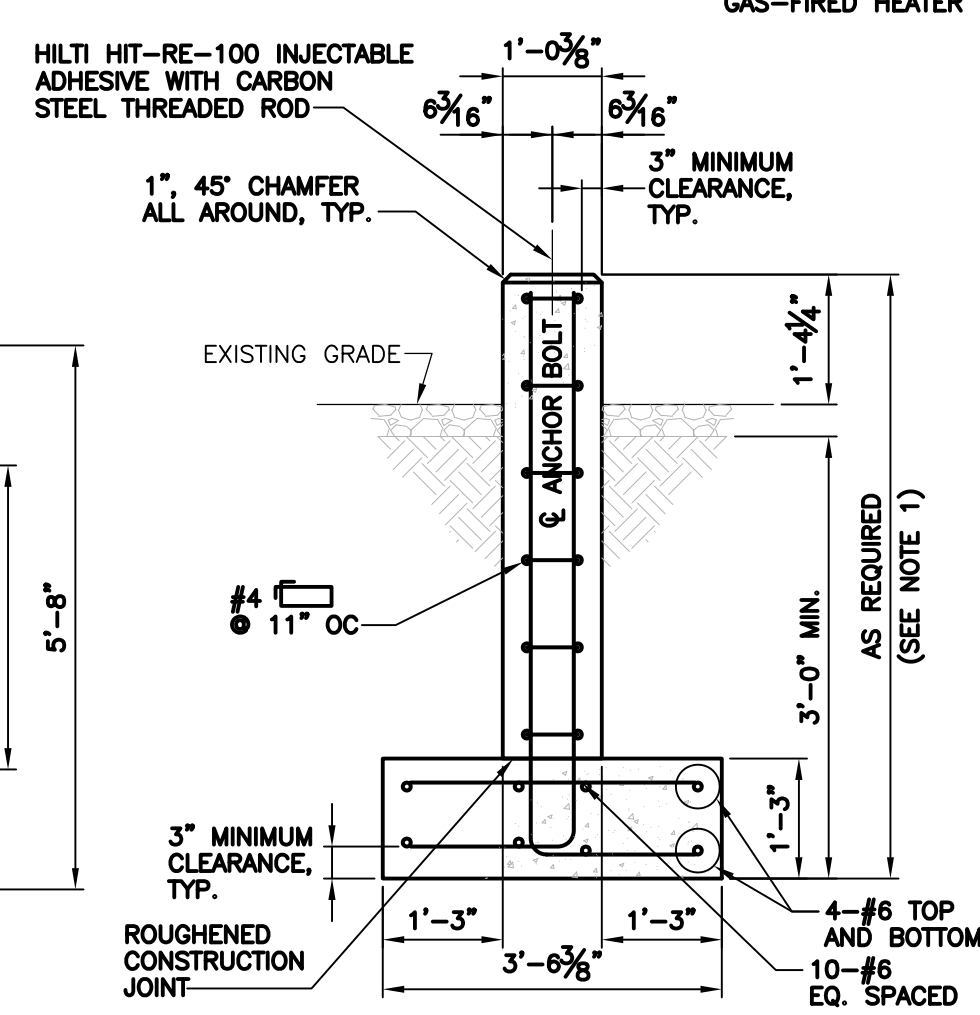
REVISION:

NOTES

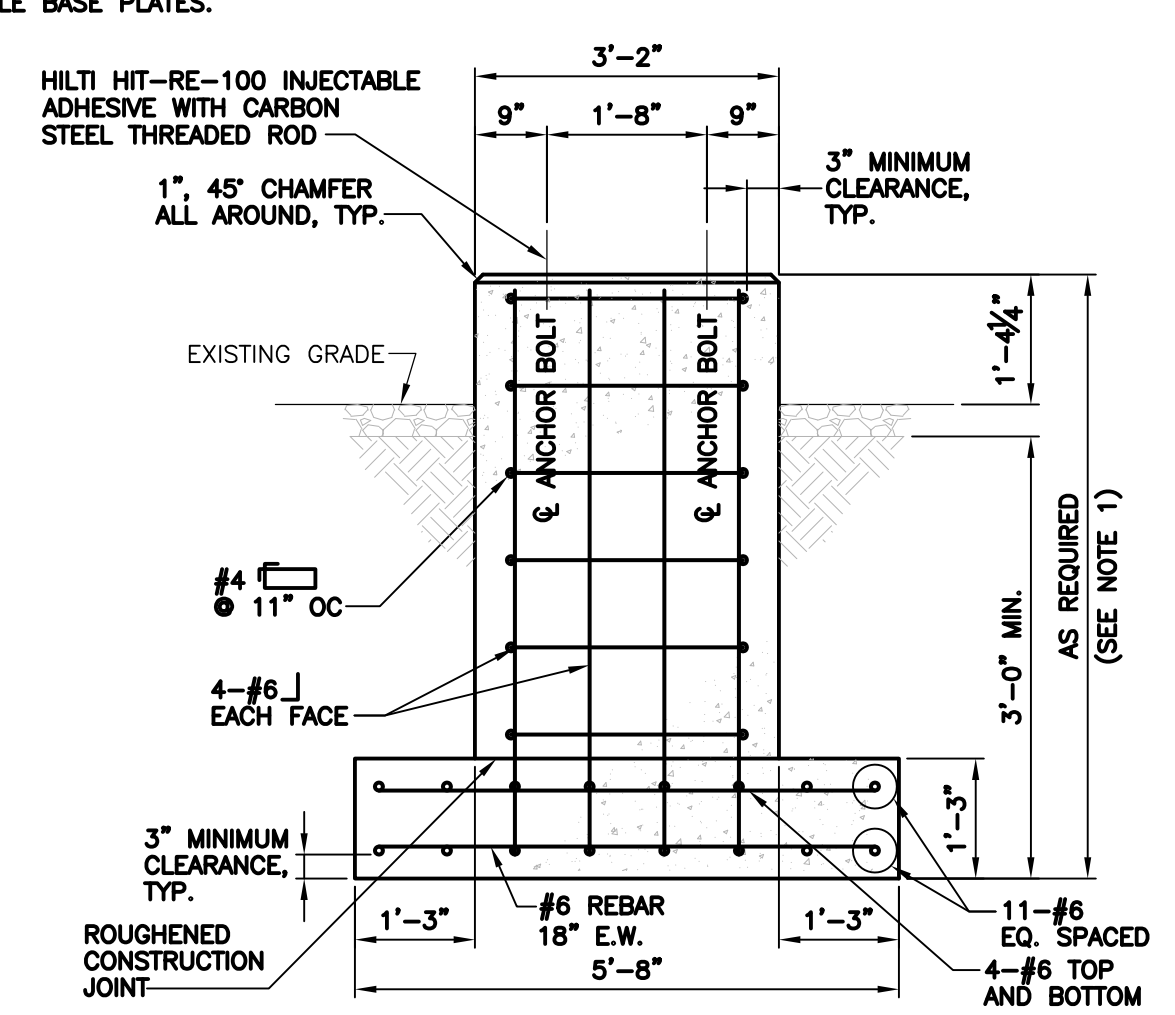
- CONTRACTOR TO VERIFY HEIGHT OF EXISTING PIPING PRIOR TO CONSTRUCTION. VERIFICATION OF PIPING HEIGHT SHALL GOVERN THE HEIGHT OF HEATER FOUNDATIONS
- AN 1/8" THICK NEOPRENE PAD SHALL BE INSTALLED BETWEEN THE TOP OF CONCRETE AND THE BOTTOM OF INDIRECT GAS-FIRED HEATER SADDLE BASE PLATES.



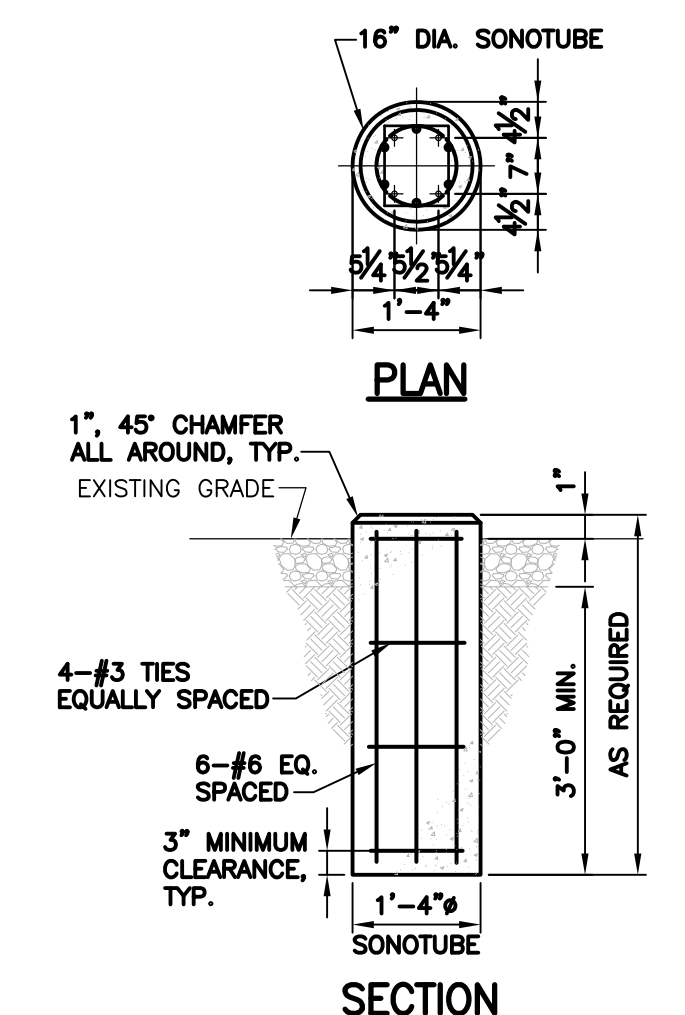
**HEATER FOUNDATIONS - PLAN VIEW
DETAIL 1**



**HEATER FOUNDATION PIER
SECTION A-A**



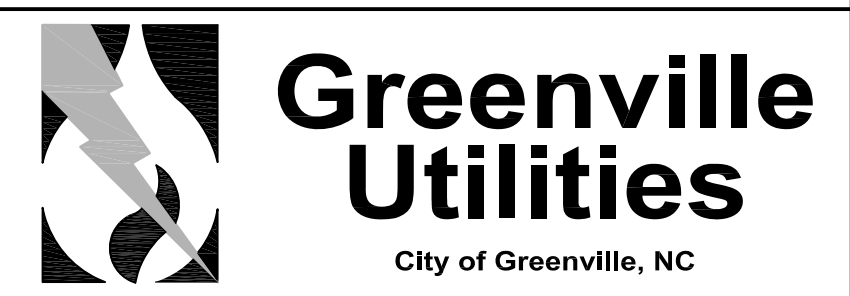
**HEATER FOUNDATION PIER
SECTION B-B**



**PIPE STAND FOUNDATION
DETAIL 2**

For Review and Comment

SUMMARY OF MATERIALS		NOTES		APPROVAL						PROJECT	
QUANTITY	DESCRIPTION			PERMITS		BID		CONSTRUCTION		PROPOSED HEATER INSTALLATION CITY GATE #5 PITT COUNTY, NORTH CAROLINA	
		REV.	DESIGN DRAFT CHECK	INITIALS	DATE	INITIALS	DATE	INITIALS	DATE		
										ALIGNMENT SHEET	
				REVISIONS						SCALE PLAN 1/2"=1'-0" PROFILE HOR. - VERT. -	
								TEST DATA		TESTED FROM STATION: _____ TO STATION: _____ MEDIUM: _____ RECORD TEST PRESSURE: _____ psig DATE TEST COMPLETED: _____	
								TESTED FROM STATION: _____ TO STATION: _____ MEDIUM: _____ RECORD TEST PRESSURE: _____ psig DATE TEST COMPLETED: _____		SHEET NO: 5 REVISION:	



ENGINEERS | CONSTRUCTION MANAGERS | PLANNERS | SCIENTISTS
 RK&K COMM. NO. 1216-087.003