



Madison Water Utility

MADISON WATER UTILITY

UNIT WELL 26 BOOSTER PUMP #2 REPLACEMENT

2022

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PLOT SCALE: 1" = 1'

PLOT NAME: MWU SHEETS

REV. DATE: 12/29/2021 4:11 PM

ORIGINATOR: CITY_OF_MADISON

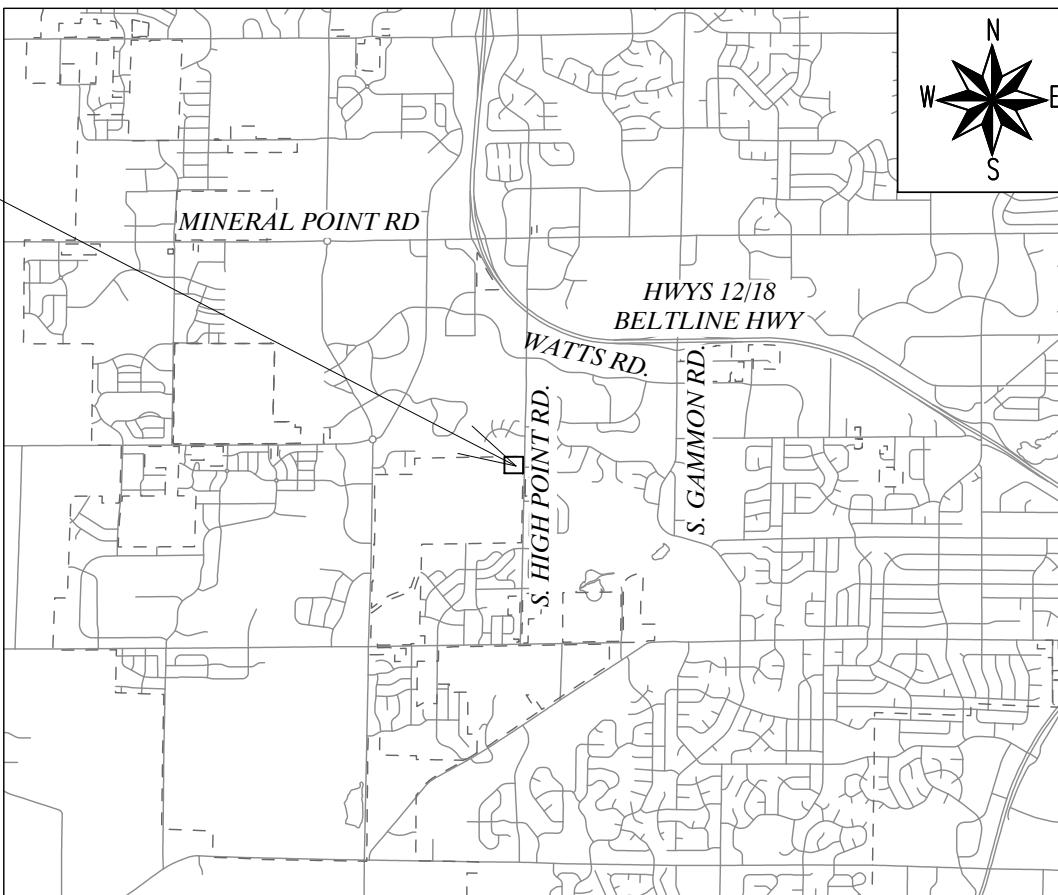
CITY PROJECT NO. 13939

APPROVED BY:



**PETER E. HOLMGREN, PE
MADISON WATER UTILITY**

**PROJECT
LOCATION**
910 S. HIGH POINT RD.



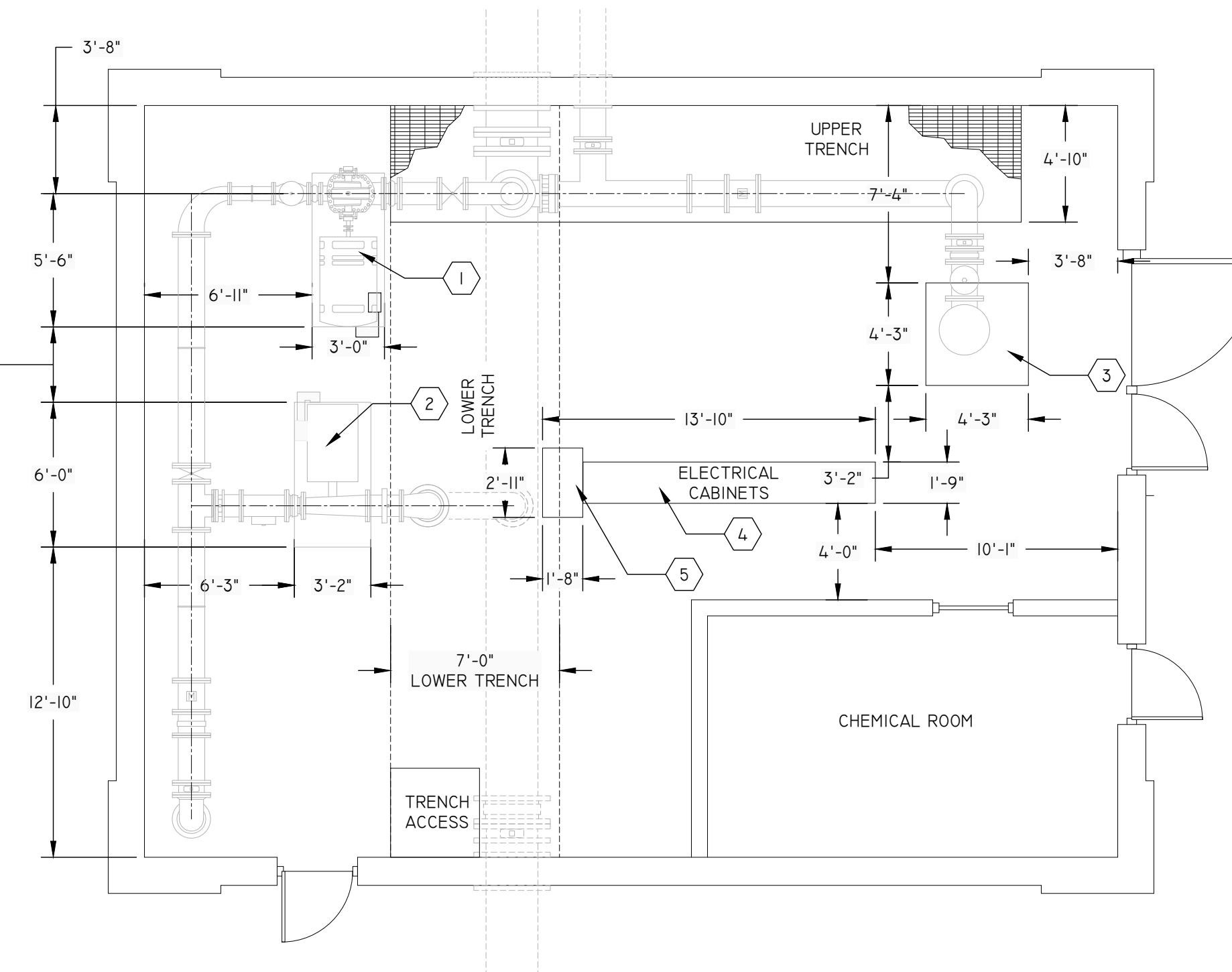
GENERAL NOTES

1. UNLESS OTHERWISE SPECIFIED, ALL CONSTRUCTION SHALL CONFORM TO CITY OF MADISON STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION 2020 EDITION. SEE [HTTPS://WWW.CITYOFMADISON.COM/BUSINESS/PW/SPECS.CFM](https://www.cityofmadison.com/business/pw/specs.cfm)
2. PIPE MATERIAL SHALL BE CLASS 52 DUCTILE IRON PIPE.
3. SEE SEQUENCE OF DEMOLITION AND CONSTRUCTION ON SHEET W-5. WELL 26 SHALL NOT BE OFFLINE (DOWN) FOR MORE THAN SIX HOURS WITHOUT MADISON WATER UTILITY (MWU) WRITTEN APPROVAL.
4. REMOVAL AND PROPER DISPOSAL OF THE OLD PUMP, AND INSTALLATION OF A NEW PUMP IS PART OF THIS CONTRACT. THE NEW PUMP AND UNIT ELECTRICAL WIRING ARE PROVIDED BY MWU. SEE SUGGESTED SEQUENCE OF DEMOLITION AND CONSTRUCTION ON SHEET W-5 FOR ADDITIONAL NOTES.
5. NEW PUMP IS STORED AT THE UTILITY OPERATIONS CENTER AT 110 S. PATERSON ST. ARRANGE WITH UTILITY TO PICK UP PUMP AND TRANSPORT TO JOB SITE.
6. ALL REQUIRED PERMITS ARE THE RESPONSIBILITY OF THE CONTRACTOR.
7. CONTRACTOR IS REQUIRED TO MAINTAIN A SAFE WORKSPACE THROUGHOUT THE PROJECT.
8. WORK SHALL COMMENCE NO MORE THAN 30 DAYS AFTER EXECUTION OF THE CONTRACT AND RECEIPT OF THE START WORK LETTER.
9. PROJECT DURATION IS 30 CALENDAR DAYS FROM START OF WORK.

							MADISON WATER UTILITY UNIT WELL 26 BOOSTER PUMP #2 REPLACEMENT 13939	SHEET NO. W-1/9
APPURTEINANCE SCHEDULE							INSPECTOR: MWU	DRAWN BY: PEH
NUMBER	SIZE	TYPE	DISPOSITION	NORMAL POSITION	FUNCTION	NOTES	CHECKED BY: DVH	DATE: 4/28/2022
V-1	12"	BUTTERFLY	EXISTING	OPEN	DEEP WELL ISOLATION			
V-2	12"	BUTTERFLY	EXISTING	CLOSED	RESERVOIR BYPASS			
V-3	12"	BUTTERFLY	EXISTING	OPEN	RESERVOIR ISOLATION			
V-4	24"	BUTTERFLY	EXISTING	OPEN	RESERVOIR ISOLATION			
V-5	24"	BUTTERFLY	EXISTING	OPEN	SYSTEM ISOLATION			
V-6	10"	GATE	EXISTING	OPEN	PUMP ISOLATION			
V-8	14"	GATE	REPLACE	OPEN	PUMP ISOLATION	REPLACE WITH 14" FLANGED GATE VALVE; SEE GENERAL NOTE #2 BELOW		
V-9	10"	BUTTERFLY	REMOVE	OPEN	PUMP ISOLATION	PROVIDE SPACER AS REQUIRED TO ALIGN WITH NEW PIPING		
V-10	12"	BUTTERFLY	EXISTING	OPEN	PUMP ISOLATION			
V-11	12"	BUTTERFLY	EXISTING	OPEN	SYSTEM ISOLATION			
V-12	12"	BUTTERFLY	EXISTING	OPEN	RESERVOIR ISOLATION/PUMP SUCTION			
CV-1	12"	CHECK VALVE	EXISTING	-	BACKFLOW AT DEEP WELL PUMP			
CV-2	8"	CHECK VALVE	EXISTING	-	PREVENT BACKFLOW AT BOOSTER PUMP #1			
CV-3	10"	CHECK VALVE	REPLACE	-	PREVENT BACKFLOW AT BOOSTER PUMP #2	REPLACE WITH 6" CHECK VALVE; SEE GENERAL NOTE #1 BELOW		
M-1	12"	METER	EXISTING	-	METERS DEEP WELL PUMP DISCHARGE			
M-2	12"	METER	EXISTING	-	METERS FLOW TO ELEVATED RESERVOIR			

GENERAL NOTES

1. CHECK VALVE SHALL BE A FLANGED SWING CHECK VALVE WITH OUTSIDE LEVER AND WEIGHT EQUIPPED WITH AN AIR-CUSHION CHAMBER TO CUSHION THE CLOSING OF THE VALVE DISC. THE VALVE SHALL BE MANUFACTURED IN ACCORDANCE WITH AWWA C508. CHECK VALVE SHALL BE MANUFACTURED BY GA INDUSTRIES OR APPROVED EQUIVALENT.
2. GATE VALVE SHALL BE RESILIENT WEDGE DESIGN PER AWWA C509, FLANGED AND EQUIPPED WITH HANDWHEEL OPERATOR. GATE VALVE SHALL BE MANUFACTURED BY KENNEDY, MUELLER OR CLOW.



MADISON WATER UTILITY UNIT WELL 26 BOOSTER PUMP #2 REPLACEMENT 13939		SHEET NO. W-2/9
EXISTING FLOOR PLAN		
INSPECTOR: MWU	DRAWN BY: PEH	
CHECKED BY: DVH	DATE: 4/28/2022	

PLAN
3/16"=1'

KEYED NOTES

1. CONCRETE BASE FOR BOOSTER PUMP #1
2. CONCRETE BASE FOR BOOSTER PUMP #2
3. CONCRETE BASE FOR DEEP WELL PUMP, CENTERED OVER ROOF HATCH
4. ELECTRICAL CABINET
5. ELECTRICAL CABINET
6. VERIFY ALL DIMENSIONS

EXISTING PIPING PLAN

INSPECTOR: MWU DRAWN BY: PEH
CHECKED BY: DVH DATE: 4/28/2022

KEYED NOTES

1. 10-IN X 14-IN FLANGED 90° REDUCING BEND (VERTICAL DOWN)
2. 10-IN X 10-IN 90° BEND (VERTICAL DOWN) INTO 10-IN X 16-IN REDUCER (VERTICAL)
3. 12-IN X 12-IN VERTICAL BEND
4. DEEP WELL PUMP



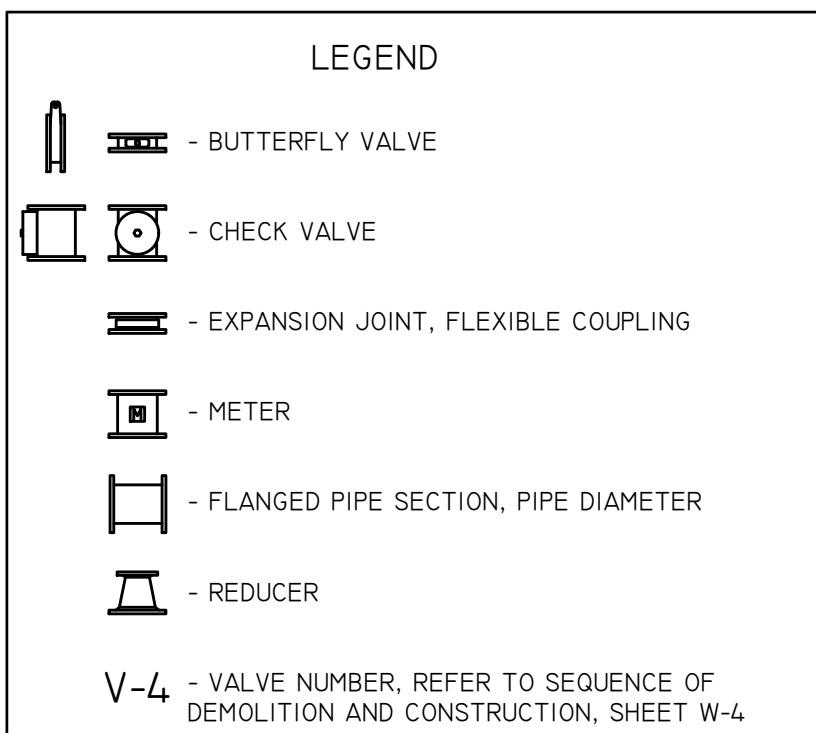
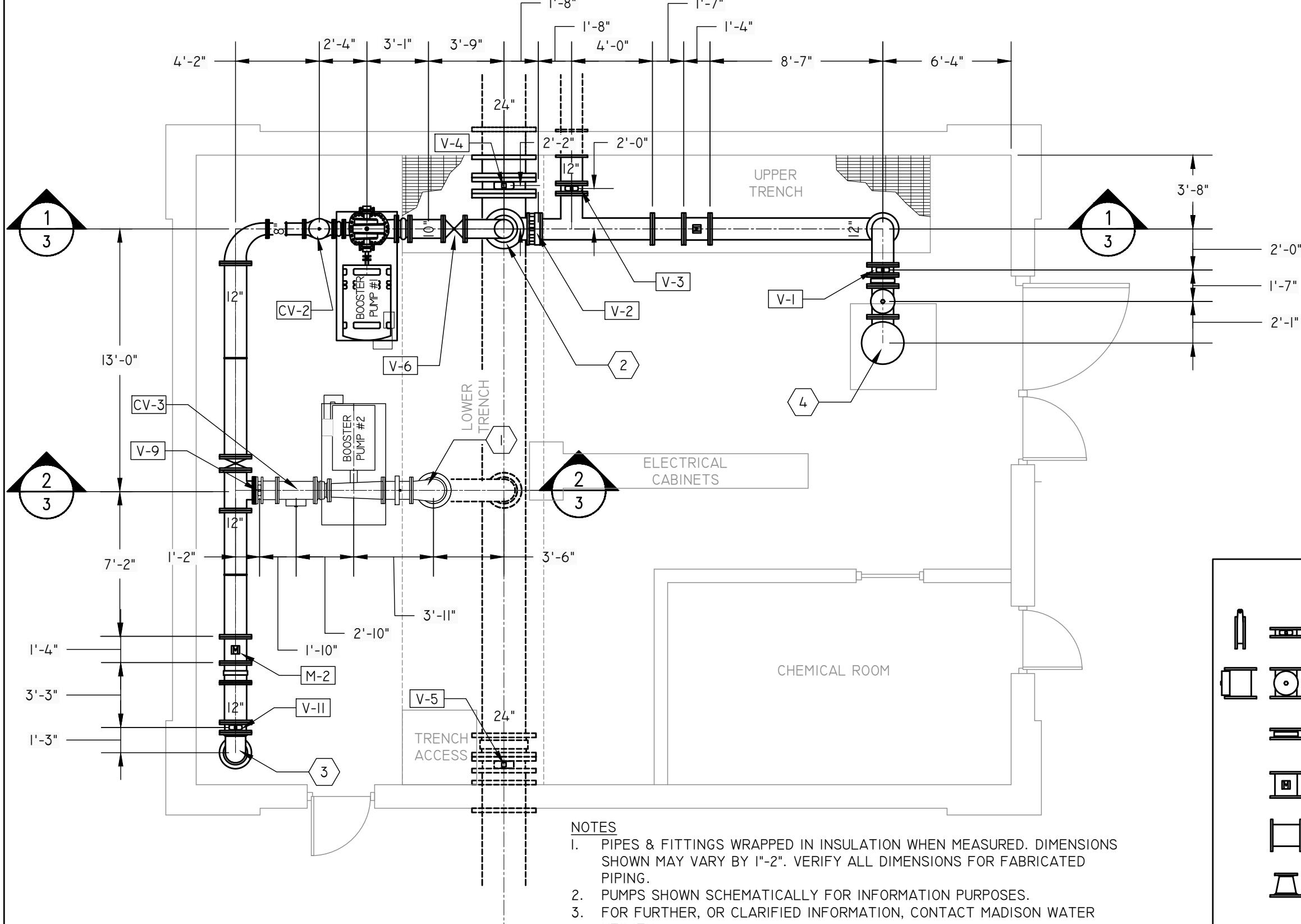
PLAN
3/16"=1'

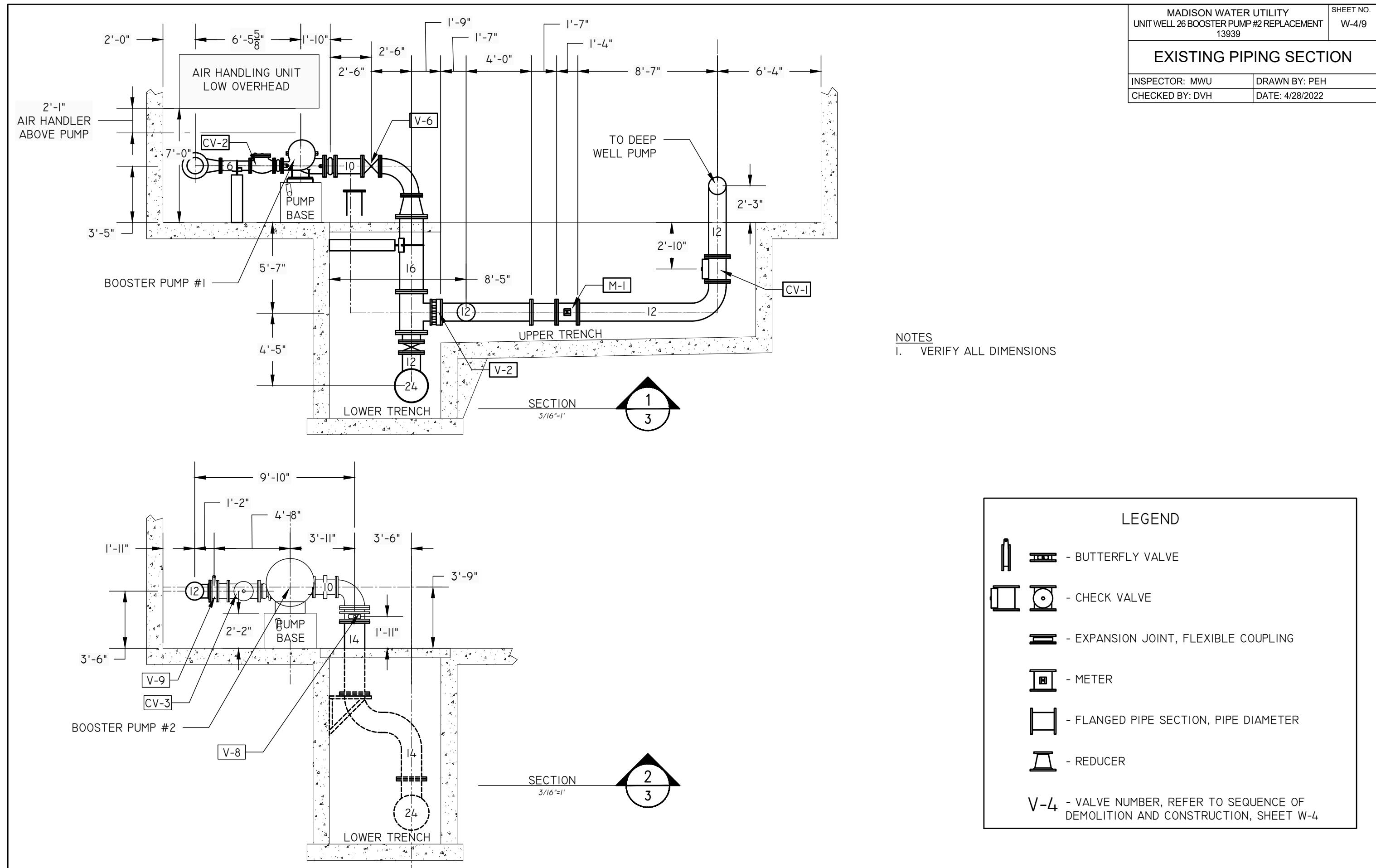
PLOT SCALE: 1" = 40'

PLOT NAME: -----

REV. DATE: -----

ORIGINATOR: CITY_OF_MADISON_WATER.Utility





ORIGINATOR: CITY_OF_MADISON_WATER.Utility

REV. DATE: --

PLOT SCALE: 1" = 40'

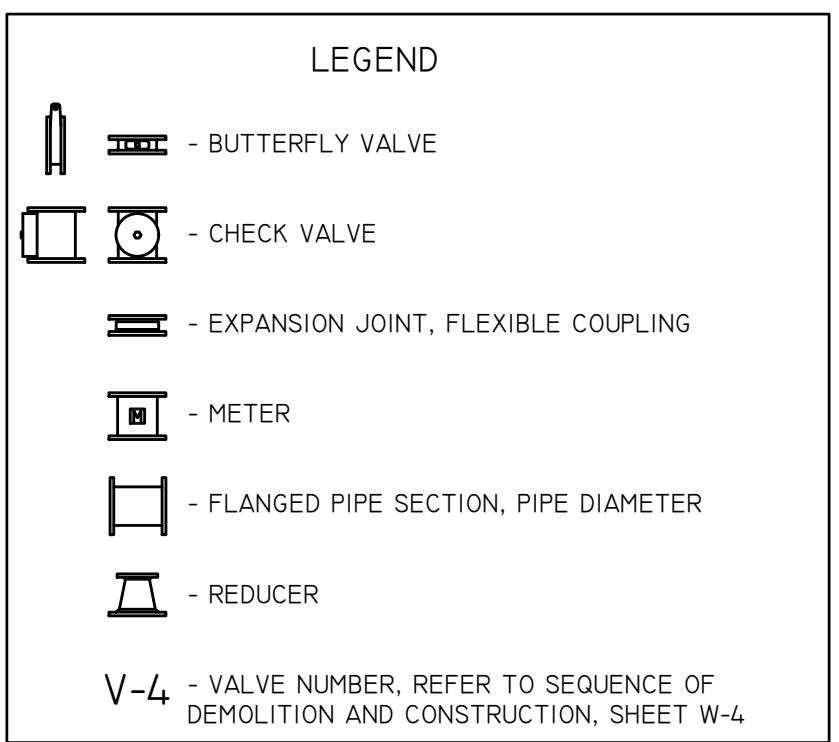
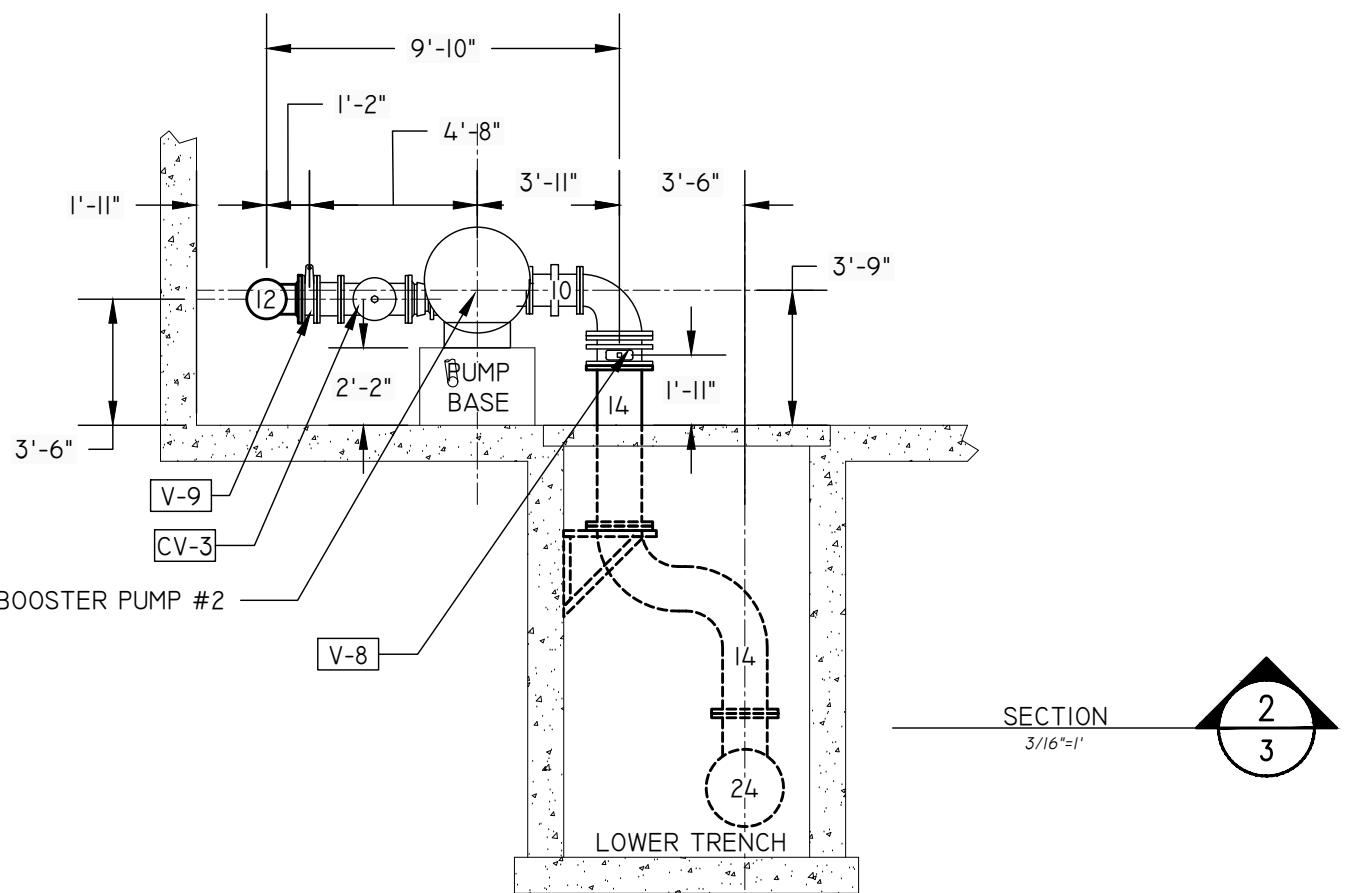
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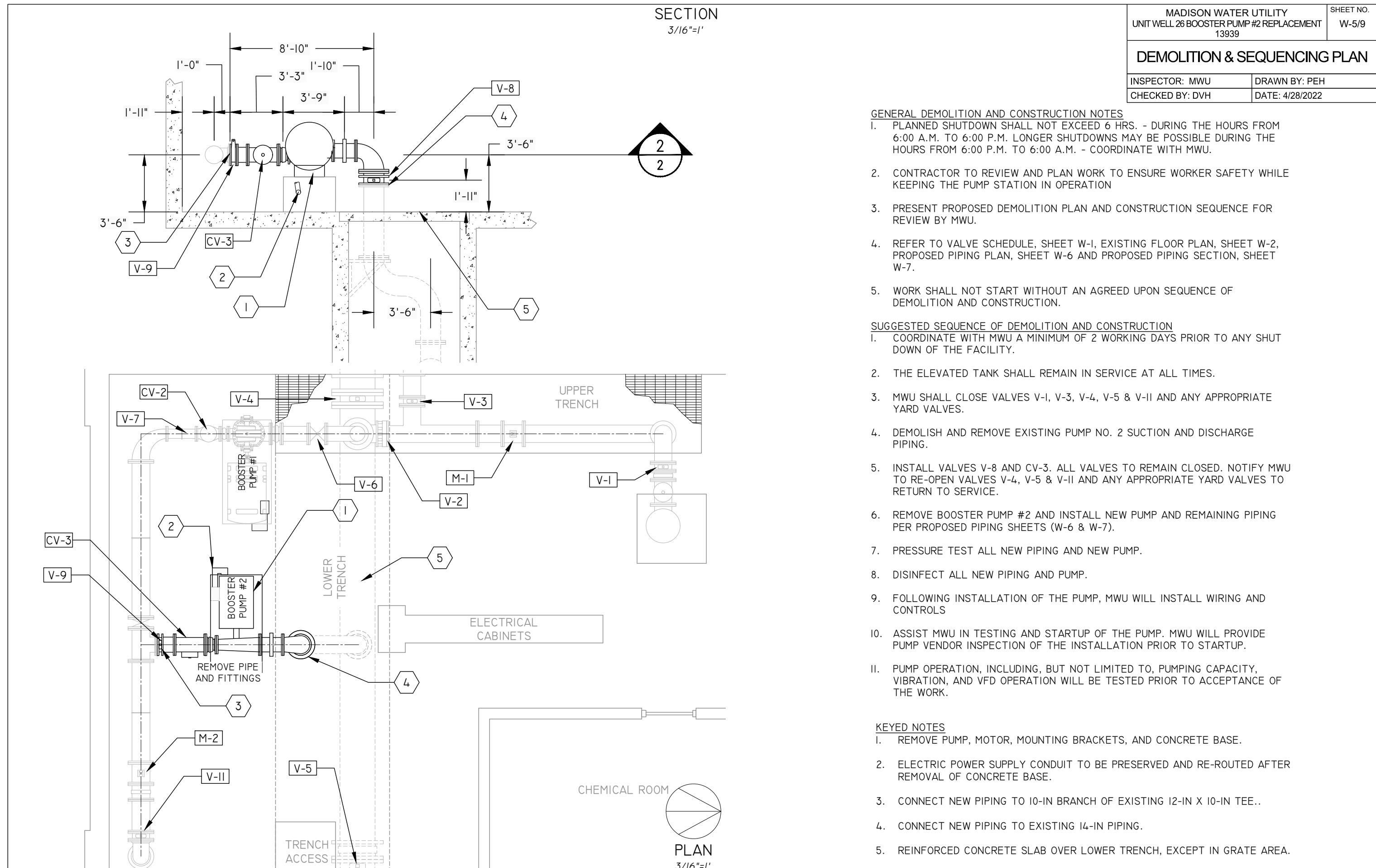
SHEET NO.
W-4/9

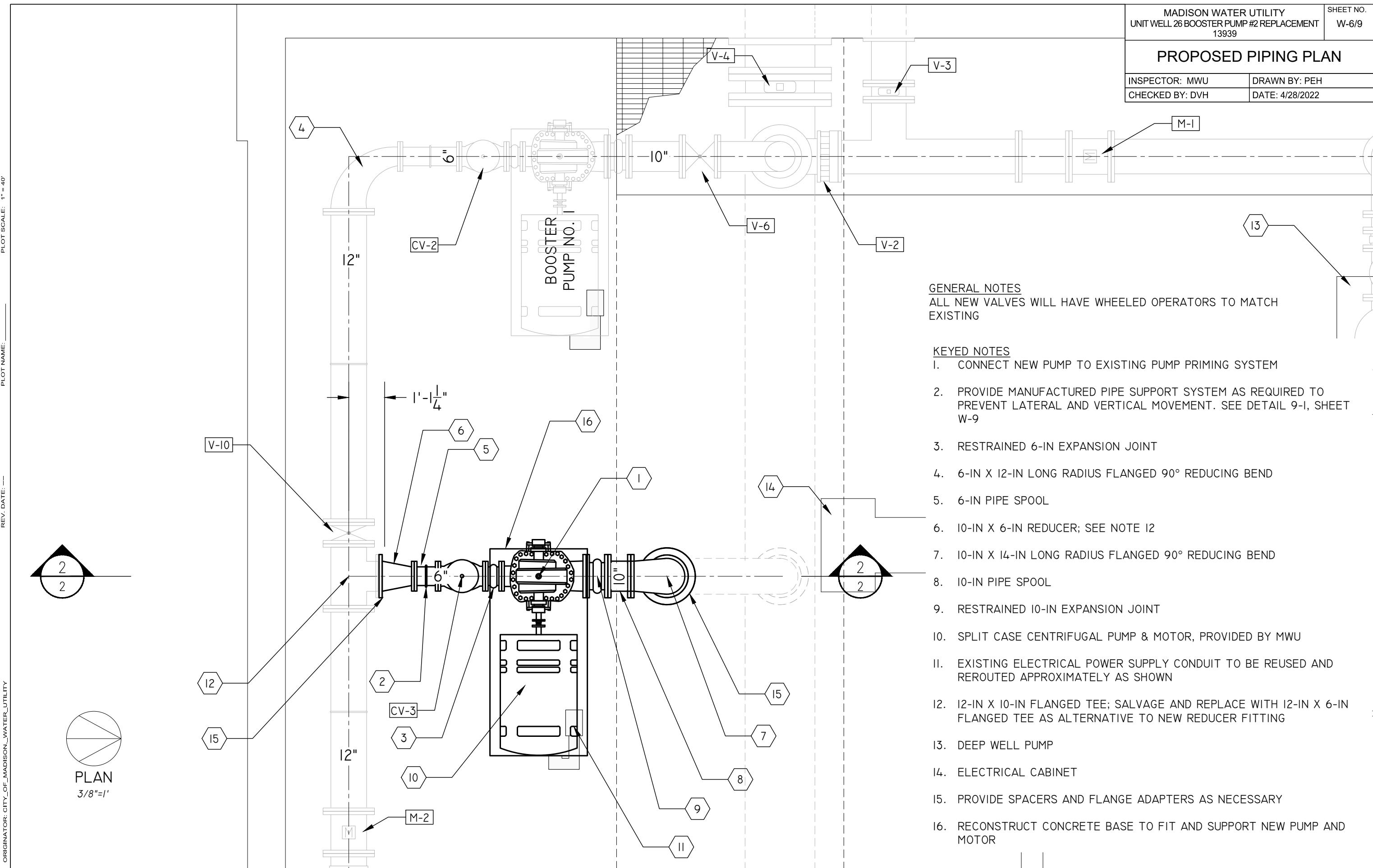
EXISTING PIPING SECTION

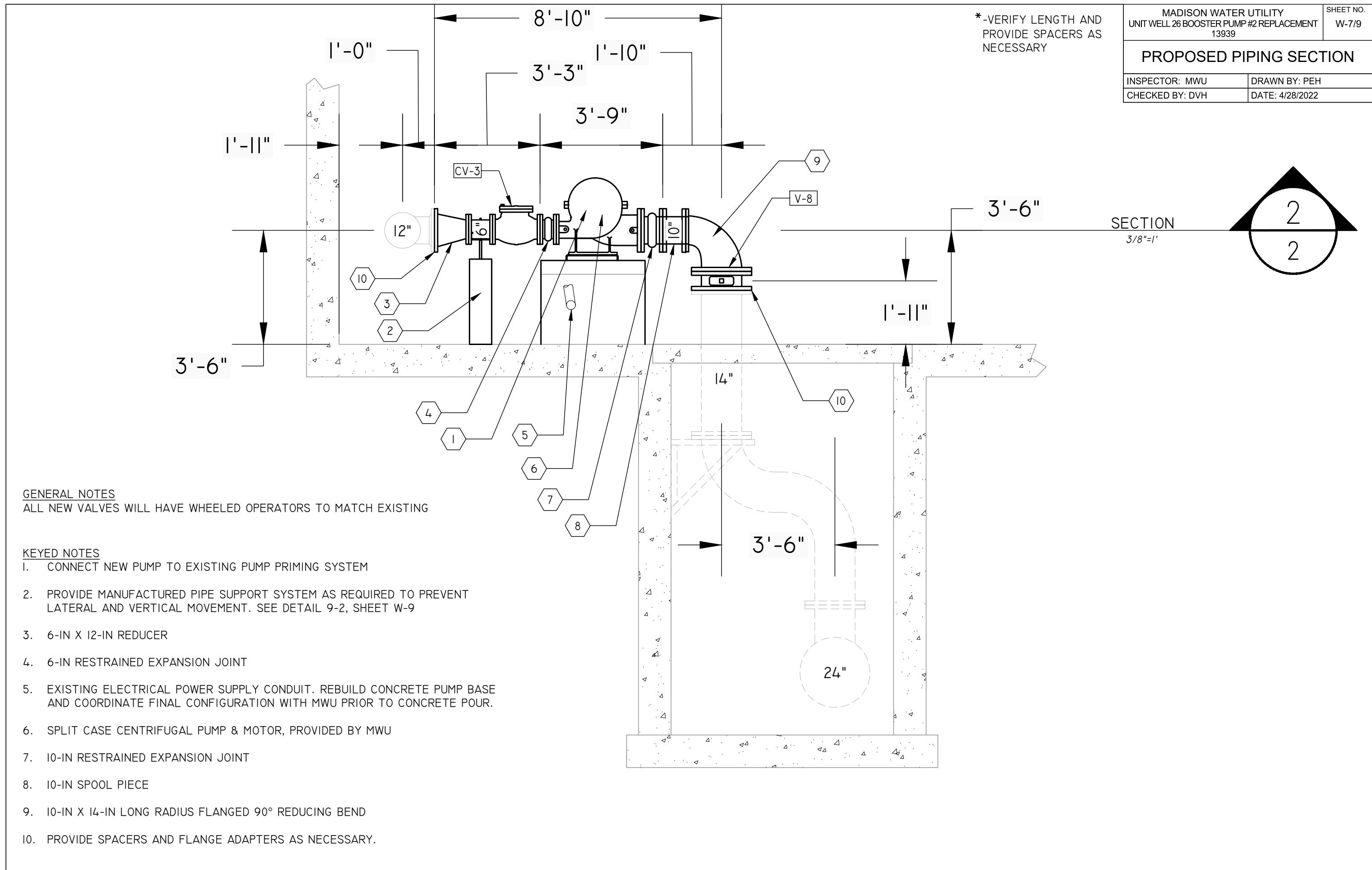
CTOR: MWU	DRAWN BY: PEH
ED BY: DVH	DATE: 4/28/2022

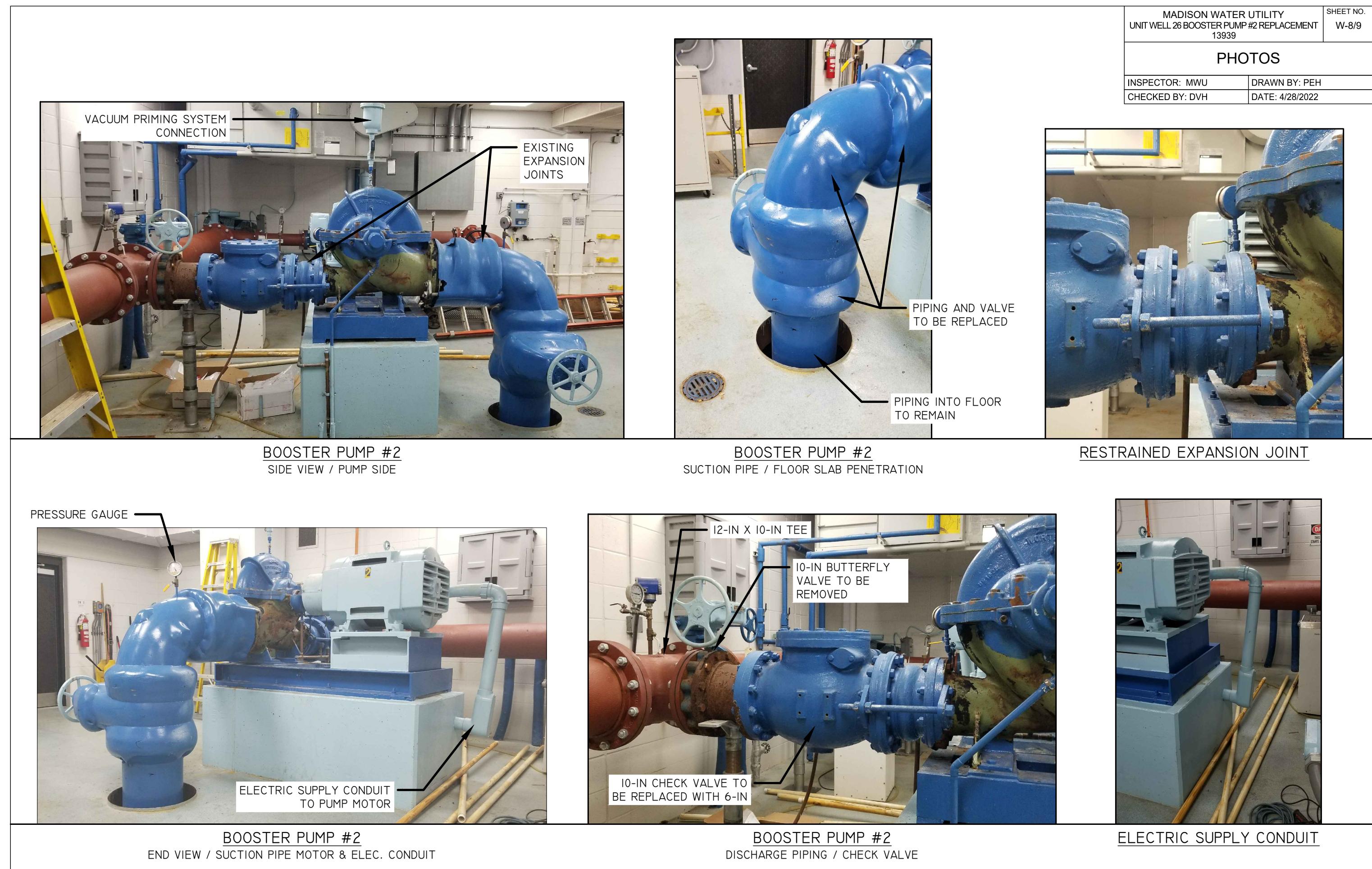
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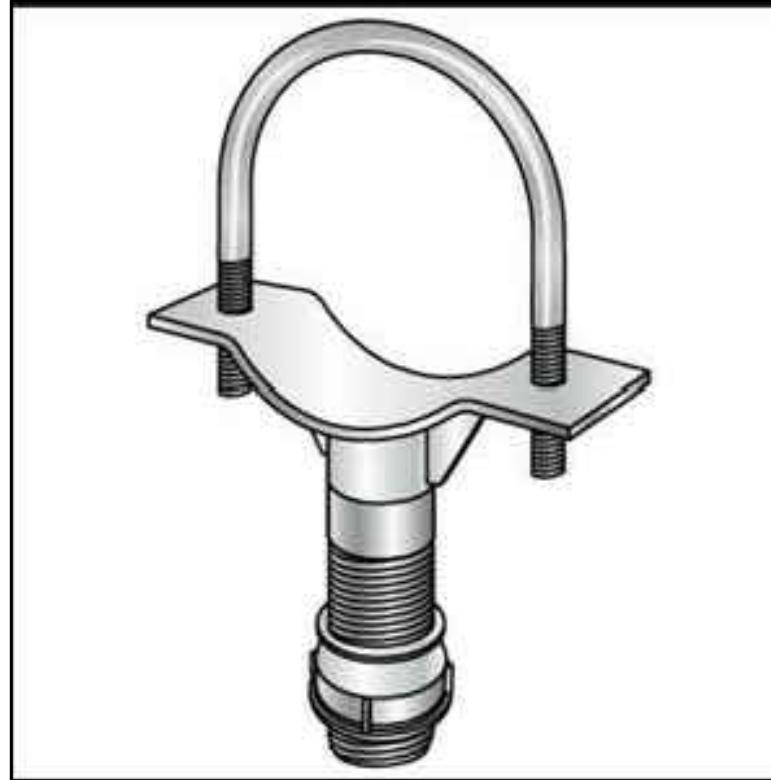












DETAIL 9-I: TYPICAL MANUFACTURED PIPE SUPPORT COMPONENT

MANUFACTURED PIPE SUPPORT SYSTEM REQUIRED TO PREVENT LATERAL AND VERTICAL PIPE MOVEMENT (AS APPROPRIATE).
SUBMIT SHOP DRAWINGS OF PIPE SUPPORT SYSTEMS TO MWU FOR REVIEW AND APPROVAL PRIOR TO INSTALLATION.



VIEW OF PUMPS FROM DEEP WELL



ELECTRICAL CABINETS TOWARD DEEP WELL (OBSCURED)



ELEVATED RESERVOIR SUPPLY PIPE
DOWNSTREAM OF BOOSTER PUMP #2
DISCHARGE PIPE

MADISON WATER UTILITY UNIT WELL 26 BOOSTER PUMP #2 REPLACEMENT 13939		SHEET NO. W-9/9
PHOTOS & DETAILS		
INSPECTOR: MWU	DRAWN BY: PEH	
CHECKED BY: DVH	DATE: 4/28/2022	