



## **ADDENDUM NO. 1 - OUTLINE AND SUMMARY INFORMATION**

Project Name: AES BART Farm City Water to Buildings PPA: 21-0061 and 21-0088  
Location: Montana State University – Bozeman Date: 04/29/2024  
Owner: State of Montana, MSU - Bozeman  
Plew Building 6<sup>th</sup> and Grant, PO Box 172760  
Bozeman, Montana 59717-2760

To: *All Plan Holders of Record*

*The Plans and Specification prepared by **TD&H Engineering** dated **March 7, 2024** shall be clarified and added as follow. The bidder proposes to perform all the following clarifications or changes. It is understood that the Base Bid shall include any modification of Work or Additional Work that may be required by reason of the following change or clarifications.*

*The Bidders are to acknowledge the receipt of this Addendum by inserting its number and date into their Bid Forms. Failure to acknowledge may subject the Bidder to disqualification and rejection of the bid. This Addendum forms part of the Contract Documents as if bound therein and modifies them as follows:*

### 1. AMENDMENTS TO THE PROJECT MANUAL

- a. Specification Section 011000 1.1.F – Addition: 1.1.F.10 Construction activities to be halted on August 1, 2024, after 12:00 pm & on August 29, 2024, after 12:00 pm for owner activities planned for the afternoon in the area.

### 2. AMENDMENTS TO THE DRAWINGS

- a. Replace sheet C1.0 with attached – Addition: sheet C2.1 to sheet index.
- b. Replace sheet C2.0 with attached – Relocation: Omni Marker notes moved from general notes to water notes.
- c. Add sheet C2.1 attached – Addition: Alternates Overview to sheet set.
- d. Replace sheet C3.0 with attached – Addition of utility location note.
- e. Replace sheet C4.0 with attached – Addition: 50' x 50' laydown yard.
- f. Replace sheet C4.1 with attached – Addition of valve boxes to curb stops.
- g. Replace sheet C4.3 with attached – Addition of valve box to curb stop.
- h. Replace sheet C4.4 with attached – Addition of valve boxes to curb stops.
- i. Replace sheet C4.4 with attached – Addition: 50' x 50' lay down area.
- j. Replace sheet C5.0 with attached – Addition: Curb stop valve box detail.

- k. Replace sheet C5.0 with attached – Change: dimension of depth to bottom of footers.
- l. Replace sheet C5.0 with attached – Addition: dimension of pipe depth beneath footer.
- m. Replace sheet C5.0 with attached – Addition: note addressing second slab in Grad Arts Building.
- n. Replace sheet C5.1 with attached – Addition: hotbox power connection note.
- o. Replace sheet M1.1 with attached – Addition: existing power panel on south wall of building.
- p. Replace sheet M1.1 with attached – Addition: Provide New 20A 1Pole breaker for hot box and heat tape. Breaker to serve as control for heat tape.
- q. Replace sheet M1.1 with attached – Addition: heat tape direct connection, provide heat tape per 2/m1.1.
- r. Replace sheet M1.1 with attached – Addition: provide home run in conduit and 20A circuit to electrical panel.
- s. Replace sheet M1.2 – Addition: provide new domestic hot water expansion tank Amtrol ST-5 140N42 THERM-X-TROL or similar. Install expansion tank near hot water heater on cold water side of heater.

### 3. PRE-BID MEETING INFORMATION

- a. Access to all sites is required per Section 011000 paragraph 1.1.F.9. MSU requires 15-foot-wide minimum single lane for access to all sites.
- b. Work hours and days shall be per Section 011000 paragraph 1.1.F.1
- c. Notice of any potential outages required 72 hours (three working days) prior as per Section 011000 paragraph 1.1.F.2.
- d. MSU does not have a specific bid bond form requirement.
- e. Engineers estimate provided with this addendum.
- f. Temporary toilet units for workers required per Section 015000 paragraph 1.2.B.7
- g. Nutrition Center asbestos insulation in mechanical room will be removed prior to the start of the project. Removal to be coordinated by MSU outside of this contract.
- h. Project meetings are to be held every 2 weeks beginning on the first day of project start. Meetings to be rescheduled or cancelled, if needed, with agreement from all parties.
- i. Sheets C4.2 and C4.3 - Depth of city water main elevation at service to be abandoned and capped at main found to be 4892.63' for service noted on sheet C4.1 and 4890.42' for service noted on sheet C4.3. Depths & approximate location of service tie in to main not surveyed. Depths and location based on January 2017 South University Sewer Main Interceptor & Water Main Extension record drawings. Contractor to verify water main depths & service & curb stop locations.
- j. Contractor will pay for permit fees as per the Permit Notice in the Project Manual.

### 4. PRIOR APPROVALS

### 5. OTHER

6. ATTACHMENTS

- a. Pre-bid meeting attendance list.
- b. Engineers estimate.
- c. Construction Documents with addendum item changes and additions.

# AES BART Farm City Water to Buildings

(PPA 21-0061 and 21-0088)

## Pre-Bid Meeting Sign-In Sheet (4-24-2024)

Name	Company	Email	Phone
TODD COOK	MSU	TODD.COOK1@MONTANA.EDU	406-994-5460
Braden Shrader	TDH	braden.shrader@tdhengr.com	406-261-1380
Bryan Peterson	Central PH	bryan.peterson@centralph.com	406-922-1454
Darrin Boss	MAES-MSU	dboss@montana.edu	406-390-6115
Aubrey Springer	Reveal Excavation	Bozeman@revealexcavation.com	406-595-6176
Clay Carson	Reveal Excavation	clcarson@revealexcavation.com	406-241-6787
Chris Doyle	CDSEngineering	cdoyle@cdsiengineering.com	406-282-7082
Kyle Scarr	TDH	Kyle.scarr@tdhengr.com	406-586-0277
Cody Tebay	MSU	CODY.TEBAY1@MONTANA.EDU	994-2107
DAVID BAUMBAUER	MSU-HORTICULTURE	baumbauer@montana.edu	
Sneekala Bajwa	MSU-AG		994-2231



**B23-075 Bart Farm**  
**Engineer's Opinion of Probable Cost**  
**2024.04.29**



Item No.	Description	Construction Quantity	Units	Unit Price	Construction Amount
<b>General</b>					
101	Mobilization	1	LS	\$ 16,000.00	\$ 16,000.00
102	Surveying	1	LS	\$ 5,000.00	\$ 5,000.00
103	Locate & Protect Public & Private Utilities, Water & Sewer Mains & Service Lines	1	LS	\$ 5,000.00	\$ 5,000.00
<b>General Sub-Total:</b>					<b>\$ 26,000.00</b>
<b>Contingency 20%:</b>					<b>\$ 5,200.00</b>
<b>Total:</b>					<b>\$ 31,200.00</b>

<b>Water Improvements Shared</b>					
104	Gravel Road Restoration	752	SY	\$ 15.00	\$ 11,280.00
206	Connect to Existing 2" Curb Stop	1	EA	\$ 1,500.00	\$ 1,500.00
208	1" 250PSI SIDR7 HDPE	66	LF	\$ 50.00	\$ 3,300.00
210	2" 250PSI SIDR7 HDPE	664	LF	\$ 60.00	\$ 39,840.00
211	2" 250PSI SIDR7 HDPE Fittings	4	EA	\$ 200.00	\$ 800.00
212	2" Curb Stop	5	EA	\$ 2,000.00	\$ 10,000.00
214	1" Curb Stop	1	EA	\$ 1,500.00	\$ 1,500.00
217	Remove and Cap Services at Main	1	EA	\$ 3,000.00	\$ 3,000.00
<b>Water Improvements Sub-Total:</b>					<b>\$ 71,220.00</b>
<b>Contingency 20%:</b>					<b>\$ 14,244.00</b>
<b>Total:</b>					<b>\$ 85,464.00</b>

<b>Water Improvements 21-0088</b>					
104	Gravel Road Restoration	1,076	SY	\$ 15.00	\$ 16,140.00
201	Connect to Buildings/Existing Grad Arts Building	1	EA	\$ 18,000.00	\$ 18,000.00
203	Connect to Buildings/Existing Horticulture Building	1	EA	\$ 15,000.00	\$ 15,000.00
208	1" 250PSI SIDR9 HDPE	383	LF	\$ 50.00	\$ 19,150.00
209	1-1/2" 250PSI SIDR7 HDPE	86	LF	\$ 55.00	\$ 4,730.00
210	2" 250PSI SIDR7 HDPE	543	LF	\$ 60.00	\$ 32,580.00
211	2" 250PSI SIDR7 HDPE Fittings	2	EA	\$ 200.00	\$ 400.00
212	2" Curb Stop	1	EA	\$ 2,000.00	\$ 2,000.00
213	1.5" Curb Stop	1	EA	\$ 1,700.00	\$ 1,700.00
214	1" Curb Stop	1	EA	\$ 1,500.00	\$ 1,500.00
216	Hotbox Above Ground	1	EA	\$ 25,000.00	\$ 25,000.00
217	Remove and Cap Services at Main	1	EA	\$ 3,000.00	\$ 3,000.00
<b>Water Improvements 21-0088 Sub-Total:</b>					<b>\$ 139,200.00</b>
<b>Contingency 20%:</b>					<b>\$ 27,840.00</b>
<b>Total:</b>					<b>\$ 167,040.00</b>

<b>Water Improvements 21-0061</b>					
104	Gravel Road Restoration	1,110	SY	\$ 15.00	\$ 16,650.00
202	Connect to Buildings/Existing Farrier Building	1	EA	\$ 6,000.00	\$ 6,000.00
204	Connect to Buildings/Existing Nutrition Center	1	EA	\$ 6,000.00	\$ 6,000.00
205	Connect to Buildings/Existing Bart Farm Shop Building	1	EA	\$ 15,000.00	\$ 15,000.00
207	3/4" 250PSI SIDR7 HDPE	49	LF	\$ 45.00	\$ 2,205.00
208	1" 250PSI SIDR7 HDPE	80	LF	\$ 50.00	\$ 4,000.00
210	2" 250PSI SIDR7 HDPE	871	LF	\$ 60.00	\$ 52,260.00
211	2" 250PSI SIDR7 HDPE Fittings	5	EA	\$ 200.00	\$ 1,000.00
212	2" Curb Stop	2	EA	\$ 2,000.00	\$ 4,000.00
214	1" Curb Stop	1	EA	\$ 1,500.00	\$ 1,500.00
215	3/4" Curb Stop	1	EA	\$ 1,400.00	\$ 1,400.00
<b>Water Improvements 21-0061 Sub-Total:</b>					<b>\$ 110,015.00</b>
<b>Contingency 20%:</b>					<b>\$ 22,003.00</b>
<b>Total:</b>					<b>\$ 132,018.00</b>

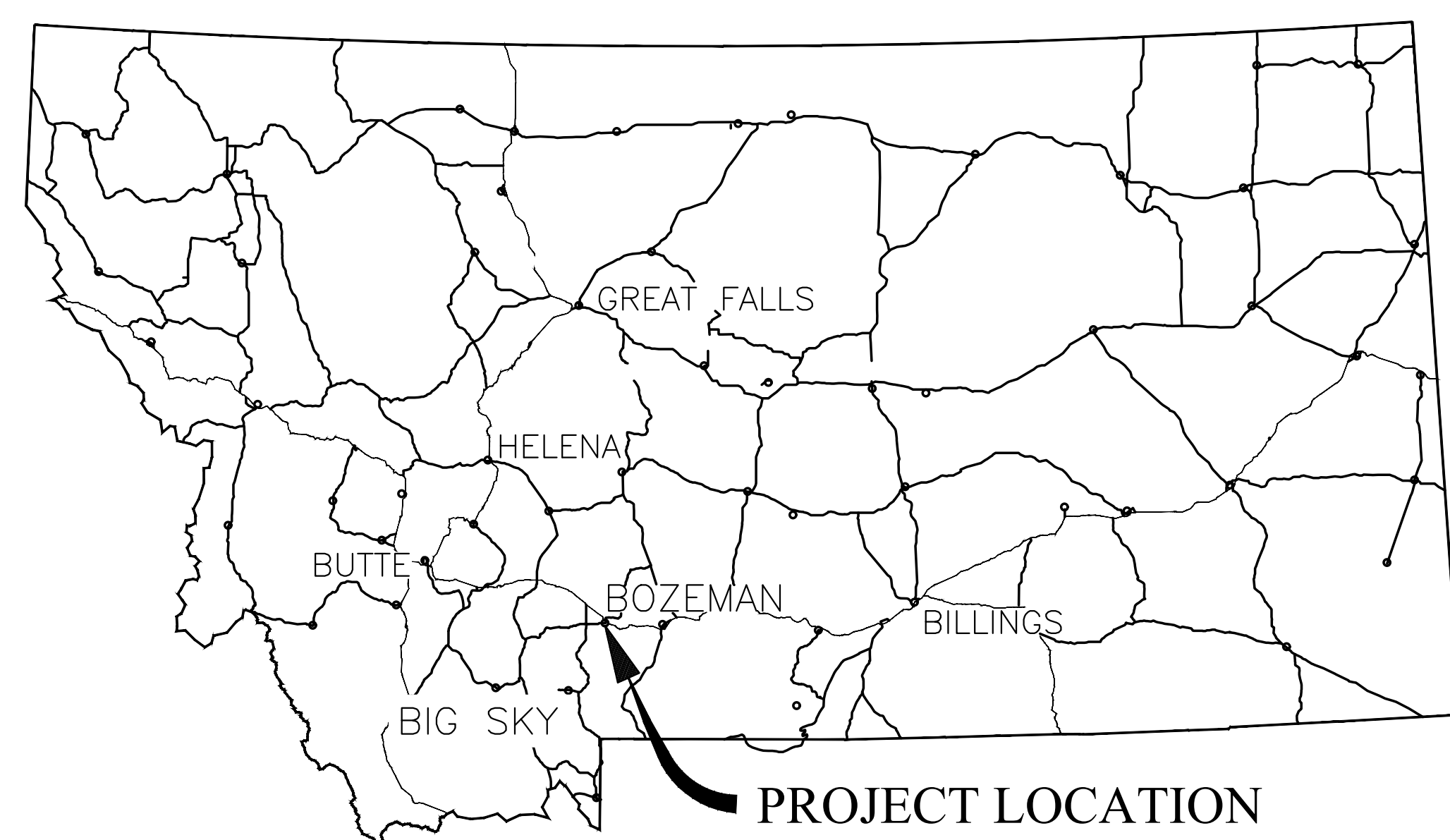
<b>Estimated Total Construction Costs:</b>					<b>\$ 346,435.00</b>
<b>Contingency 20%:</b>					<b>\$ 69,287.00</b>
<b>Total:</b>					<b>\$ 415,722.00</b>



# CONSTRUCTION DRAWINGS FOR AES BART FARM ACADEMIC BUILDINGS CITY WATER PPA 21-0088 AES BART FARM WATER TO BUILDINGS PPA 21-0061 BOZEMAN, MT MARCH, 2024

## SHEET INDEX

SHEET	DESCRIPTION
C1.0	COVER SHEET
C2.0	NOTES, ABBREVIATIONS, AND LEGEND
C2.1	ALTERNATES OVERVIEW
C3.0	EXISTING CONDITIONS
C4.0	WATER OVERVIEW
C4.1	EAST-WEST WATER P&P 1+07 TO 8+00
C4.2	EAST-WEST WATER P&P 8+00 TO 13+86
C4.3	HORTICULTURE WATER P&P 0+50 TO 4+44
C4.4	NORTH-SOUTH WATER P&P 0+50 TO 9+13
C5.0	CIVIL DETAILS
C5.1	CIVIL DETAILS
M1.1	HORTICULTURE BARN PLAN - PLUMBING
M1.2	NUTRITION CENTER PLAN - PLUMBING
M1.3	BART FARM SHOP PLAN - PLUMBING
M1.4	FARRIER BUILDING PLAN - PLUMBING
M1.5	MARVIN ARTS PLAN - PLUMBING DEMO
M1.6	MARVIN ARTS PLAN - PLUMBING
<b>TOTAL</b>	<b>15 SHEETS</b>



**SITE LOCATION MAP**  
NO SCALE



MSU-CAMPUS PLANNING,  
 DESIGN, AND CONSTRUCTION  
 MONTANA STATE UNIVERSITY  
 PHONE: 406/924-5413  
 FAX: 406/924-5660

**100% CONSTRUCTION DRAWINGS**  
**AES BART FARM CITY WATER TO BUILDINGS**  
**BOZEMAN, MONTANA**



DRAWN BY: BAS	
REVIEWED BY: KJS	
REV.	DESCRIPTION
1	ADDENDUM 1
DATE	4/29/24



PPA#21-0061  
 PPA#21-0088  
 TD&H#B23-075

COVER PAGE

SHEET  
**C1.0**

DATE  
03/07/2024



## GENERAL NOTES

1. THE CONTRACTOR SHALL NOTIFY ALL UTILITY COMPANIES IN WRITING AND SHALL BE RESPONSIBLE FOR SECURING THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE BEGINNING EXCAVATION. NOTE THAT NOT ALL UTILITIES ARE SHOWN ON THE PLANS. MANY EXISTING UTILITIES AT THE SITE ARE PRIVATE. SOME UTILITY LOCATIONS ARE ASSUMED, AND UTILITIES MAY EXTEND OR EXTEND BEYOND WHAT IS SHOWN.
2. ALL GAS, POWER, TELECOMMUNICATION, AND OTHER UNDERGROUND/OVERHEAD UTILITY LINES, POLES, OR GUY WIRES WHICH INTERFERE WITH THE CONSTRUCTION SHALL BE REMOVED OR RELOCATED BY THE UTILITY COMPANY. CONTRACTOR SHALL BE RESPONSIBLE COORDINATE ALL UTILITY RELOCATIONS AND REMOVALS WITH UTILITY COMPANIES AND NOTIFY ADJACENT PROPERTIES OF POTENTIAL OUTAGES.
3. THE CONTRACTOR SHALL EXCAVATE ALL WATER, SEWER, AND STORM DRAIN LINES PRIOR TO BEGINNING UTILITY INSTALLATION TO ENSURE CROSSING CLEARANCE AND VERIFY LINE AND GRADE OF EXISTING CONNECTIONS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR EXCAVATING FITTINGS AND CONFIRMING REQUIREMENTS PRIOR TO ORDERING NEW FITTINGS.
4. THE CONTRACTOR SHALL BE RESPONSIBLE TO POT HOLE FOR ALL UNDERGROUND GAS, UNDERGROUND ELECTRIC, COMMUNICATIONS, AND PRIVATE UTILITY LINES AND NEAR NEW UTILITY CROSSINGS AND CONNECTIONS TO LOCATE AND ENSURE NO CONFLICTS EXIST.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING AND COMPLYING WITH ALL NECESSARY PERMITS REQUIRED FOR THE WORK.
6. THE CONTRACTOR WILL BE RESPONSIBLE TO OBTAIN, ADMINISTER, CLOSEOUT, OR OTHERWISE DELEGATE RESPONSIBILITIES TO MAINTAIN A COMPLIANT STORM WATER DISCHARGE ASSOCIATED WITH CONSTRUCTION ACTIVITY PERMIT (SWPPP) FOR THE DURATION OF THE PROJECT THROUGH FINAL SITE STABILIZATION.
7. ALL CULVERTS, SIDEWALKS, SOD, LANDSCAPING, ASPHALT, DRAINAGE DITCHES, FENCES, AND OTHER EXISTING SITE FEATURES AFFECTED BY CONSTRUCTION SHALL BE RESTORED TO ORIGINAL CONDITION, UNLESS OTHERWISE NOTED ON PLANS.
8. ALL STREET & TRAFFIC SIGNS THAT INTERFERE WITH CONSTRUCTION SHALL BE REMOVED & RESET BY CONTRACTOR UNLESS SPECIFICALLY NOTED OTHERWISE.
9. CONTRACTOR SHALL REMOVE ANY OBSTACLE (TREES, BUSHES, FENCES, CONCRETE SLABS, ETC.) THAT INTERFERES WITH CONSTRUCTION UPON APPROVAL OF PROJECT ENGINEER.
10. ALL CIVIL WORK SHALL BE CONDUCTED IN CONFORMANCE WITH THE SEVENTH EDITION OF THE MONTANA PUBLIC WORKS STANDARD SPECIFICATIONS AND THE CITY OF BOZEMAN MODIFICATIONS TO THE MONTANA PUBLIC WORKS STANDARD SPECIFICATIONS, INCLUDING ALL ADDENDA.
11. ANY EXISTING OR NEW VALVES WHICH CONTROL THE MSU WATER SUPPLY SHALL BE OPERATED BY MSU PERSONNEL ONLY.
16. THE MONTANA STATE UNIVERSITY CAMPUS PLANNING, DESIGN AND CONSTRUCTION DEPARTMENT PROJECT MANAGER SHALL BE NOTIFIED 72 HOURS PRIOR TO ANY WATER SHUT DOWNS OR POWER OUTAGES.
17. CONTRACTOR SHALL PROVIDE ROUTINE CLEANING/SWEEPING OF MATERIAL THAT IS DRAGGED OFF-SITE OR ONTO ADJACENT STREETS.
18. THE CONTRACTOR SHALL PROVIDE ALL TRAFFIC CONTROL NECESSARY FOR WORK WITHIN THE RIGHT-OF-WAY IN ACCORDANCE WITH MUTCD AND MSU STANDARDS.
19. ALL SIDEWALKS, RAMPS, AND SIGNAGE SHALL BE CONSTRUCTED IN ACCORDANCE WITH CURRENT MUTCD AND ADA REQUIREMENTS.

## SCALING NOTE

DRAWING SHEETS PRINTED FROM ADOBE PDF ELECTRONIC FILES ARE NOT TO SCALE. VERIFY PRINTED SHEET SCALES FROM THE BAR SCALES LOCATED ON THE PLAN SHEETS.

## WATER NOTES

1. ALL WATER MAINS AND SERVICES TO MAINTAIN A MINIMUM OF 6.5' OF COVER TO TOP OF PIPE.
2. ¾", 1", 1½", AND 2" LINES SHALL BE 250PSI SIDR7 AWWA C901 HDPE
3. ANY EXISTING WATER SERVICES TO BE ABANDONED SHALL BE REMOVED AND CAPPED AT THE MAIN.
4. ANY EXISTING OR NEW VALVES WHICH CONTROL MSU'S WATER SUPPLY SHALL BE OPERATED BY MSU PERSONNEL ONLY.
5. THE CONTRACTOR SHALL NOTIFY MSU CAMPUS PLANNING, DESIGN AND CONSTRUCTION DEPARTMENT A MINIMUM OF 24-HOURS PRIOR TO BEGINNING ANY WORK.
6. CONTRACTOR SHALL FIELD VERIFY LINE AND GRADE OF EXISTING CONNECTIONS.
7. CONTRACTOR SHALL INSTALL DETECTABLE WARNING TAPED CENTERED OVER ALL NEW WATER LINES & SERVICES. INSTALL TAPE A MINIMUM OF 18" AND A MAXIMUM OF 24" BELOW FINISH GRADE.
8. CONTRACTOR SHALL INSTALL LOCATOR WIRE ON ALL NEW MAINS AND SERVICES. IN ADDITION TO LOCATOR WIRE, ALL UTILITY LINES AND SERVICES SHALL BE MARKED USING OMNI MARKER ELECTRONIC MARKERS BY TEMPO. AN OMNI MARKER SHALL BE PLACED AT EACH FITTING AND BEND AND AT INTERVALS NOT TO EXCEED 100 FEET. THE OMNI MARKER SHALL BE AFFIXED TO THE PIPE USING PLASTIC ZIP TIES AND AT A DEPTH NOT TO EXCEED 5 FEET FROM FINISHED GROUND. THE MARKER SHALL BE ANCHORED TO THE PIPE DIRECTLY VERTICAL ABOVE THE PIPE BUT DOES NOT HAVE TO BE DIRECTLY ON THE PIPE. ENSURE CORRECT COLORS ARE USED FOR THE RESPECTIVE UTILITY. SEE TABLE BELOW.

APPLICATION	COLOR
POWER	RED
WATER	BLUE
SANITARY SEWER	GREEN
COMMUNICATION	ORANGE
GAS	YELLOW
IRRIGATION	PURPLE



Know what's below.  
Call before you dig.

## LEGEND

NEW	EXISTING	DESCRIPTION
		ASPHALT LINE
		BUILDING
		CONTOUR
		CONTROL POINT
		CURB
		DITCH
		EASEMENT
		FIRE HYDRANT
		GRAVEL EDGE/SHOULDER
		MANHOLE
		OVERHEAD ELECTRIC
		PROPERTY LINE
		SANITARY SEWER
		SANITARY SEWER FORCEMAIN
		STORM DRAIN CULVERT
		STORM DRAIN PIPE
		TELEPHONE RISER
		TRAFFIC SIGN
		UNDERGROUND ELECTRIC
		UNDERGROUND FIBER OPTIC
		UNDERGROUND GAS
		UNDERGROUND TELECOMMUNICATIONS
		VALVE
		WATERLINE
		WELL

1-  
C2.0

SECTION OR DETAIL DESIGNATION

SHEET NUMBER WHERE SECTION OR DETAIL IS SHOWN

DETAIL KEY



MSU-CAMPUS PLANNING,  
DESIGN, AND CONSTRUCTION  
MONTANA STATE UNIVERSITY  
PHONE: 406/994-5415  
FAX: 406/994-5665

100% CONSTRUCTION DRAWINGS

AES BART FARM CITY WATER TO BUILDINGS  
BOZEMAN, MONTANA



DRAWN BY: BAS  
REVIEWED BY: KJS  
REV. DESCRIPTION DATE

1 ADDENDUM 1 4.29.24



PPA#21-0061  
PPA#21-0088  
TD&H#B23-075

NOTES  
ABBREVIATIONS  
& LEGEND

SHEET  
C2.0

DATE  
03/07/2024





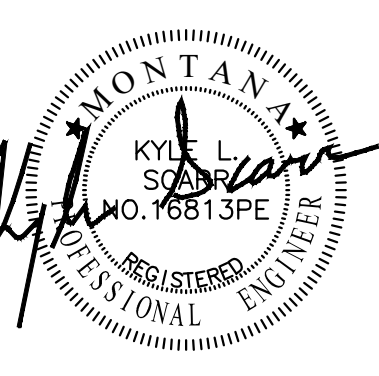
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BOZEMAN, MONTANA



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1	ADDENDUM 1	4.29.24

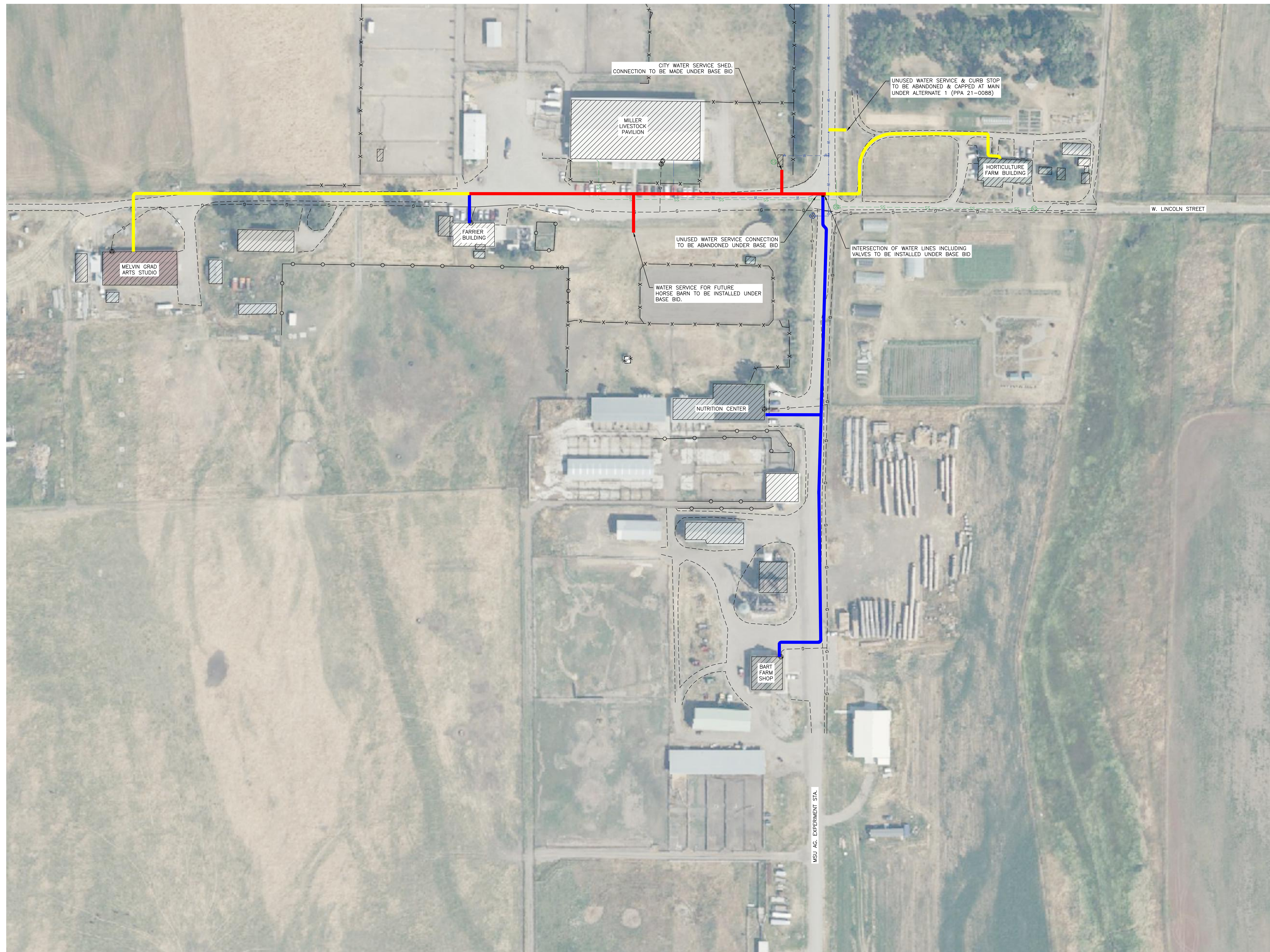


PPA#21-0061  
PPA#21-0088  
TD&H#B23-075

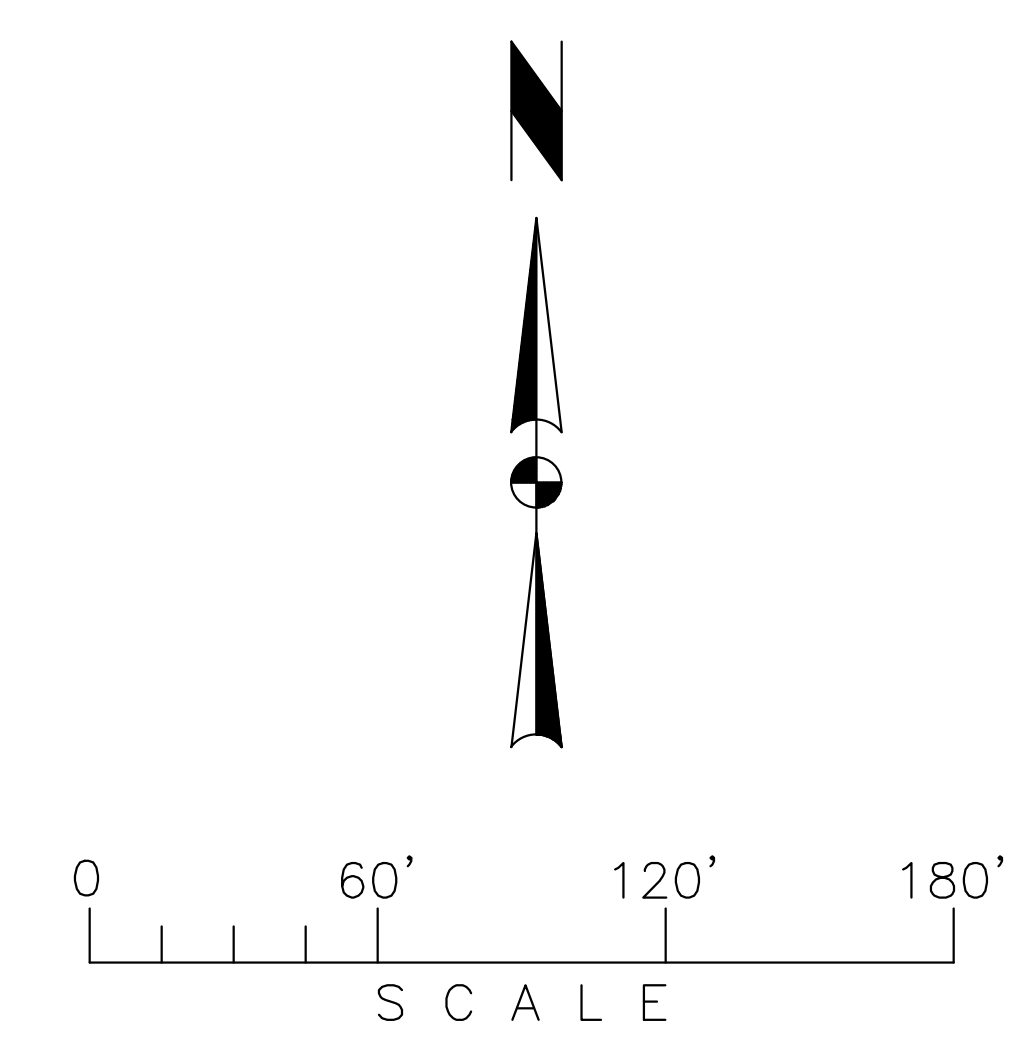
ALTERNATES  
OVERVIEW

SHEET  
**C2.1**

DATE  
03/07/2024



BASE BID:   
ALTERNATE 1 (PPA 21-0088):   
ALTERNATE 2 (PPA 21-0061):

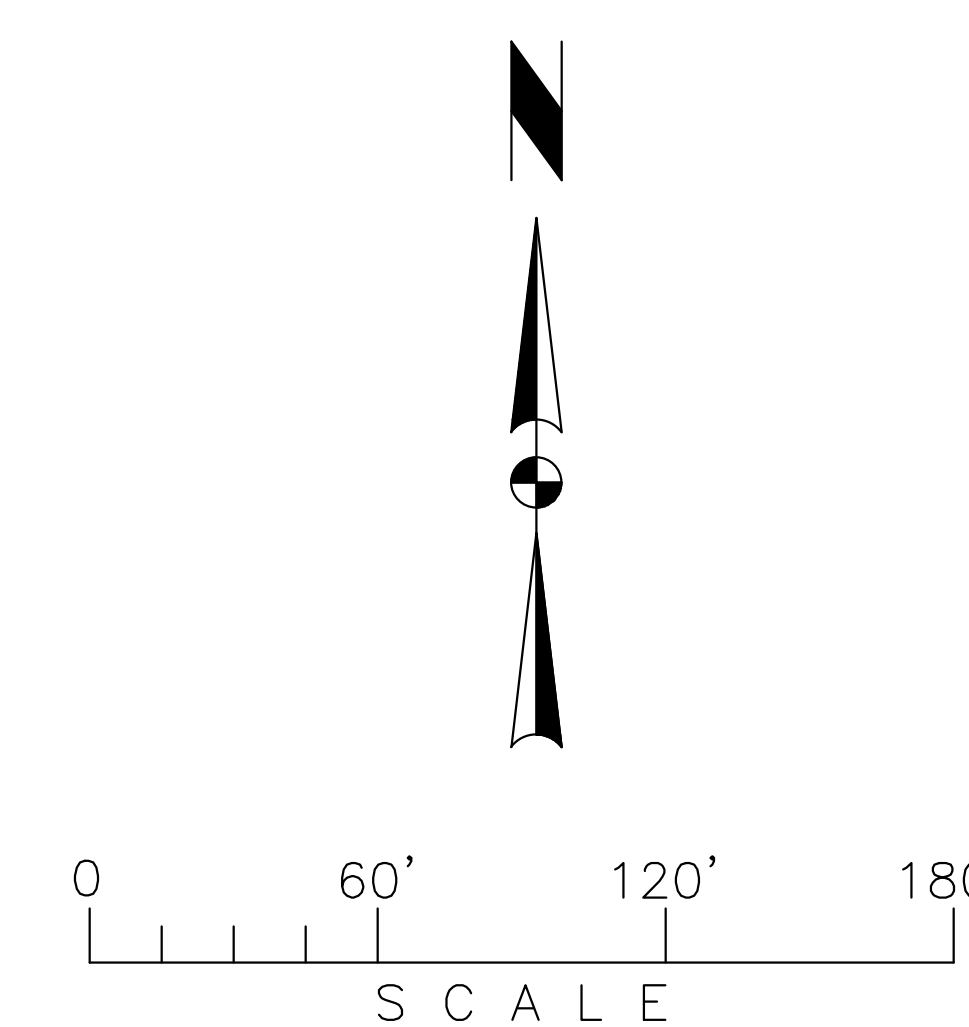






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BOZEMAN, MONTANA**

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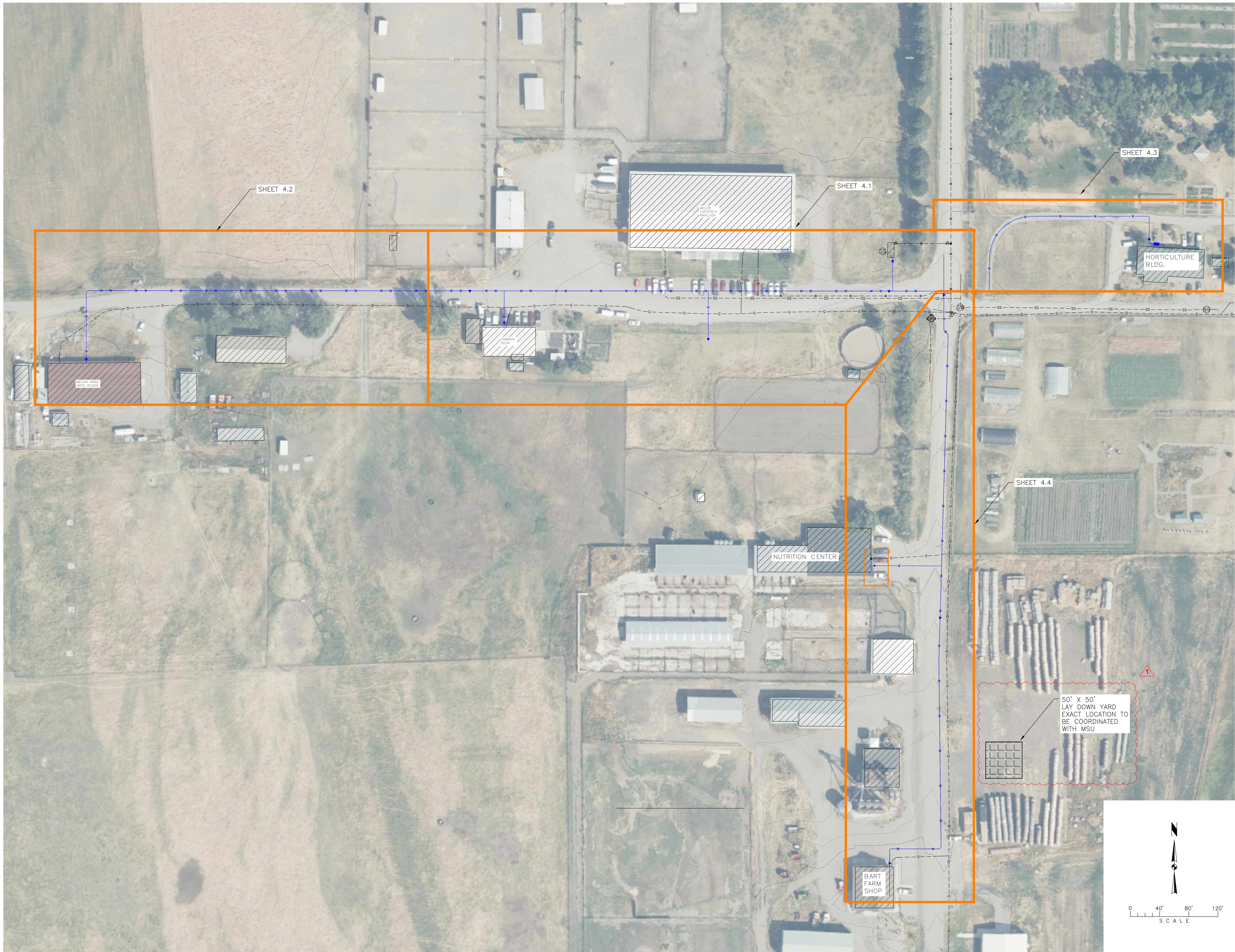
PPA#21-0061  
PPA#21-0088  
TD&H#B23-075

EXISTING  
CONDITIONS

SHEET  
**C3.0**

DATE  
03/07/2024





DRAWN BY:	BAS	DATE:	
REVIEWED BY:	KJS	DATE:	
REV.	DESCRIPTION	DATE	
1	ADDENDUM 1	4.29.24	



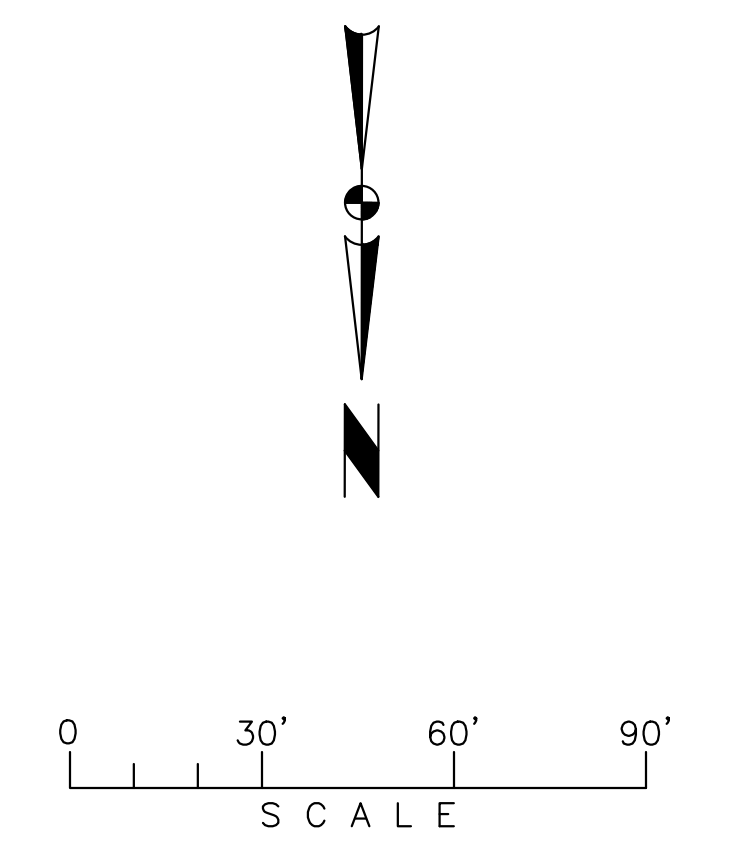
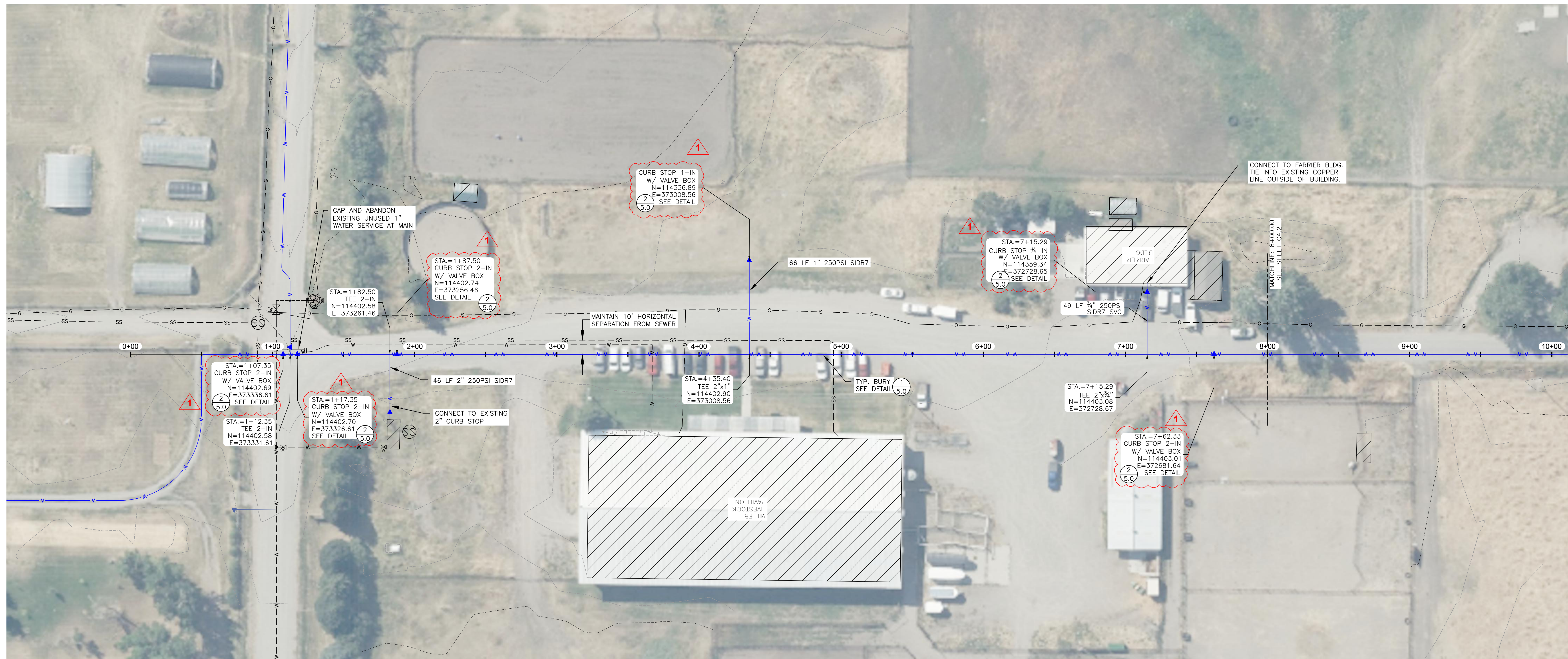
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PPA#21-0088  
TD&H#B23-075

WATER OVERVIEW

SHEET  
**C4.0**

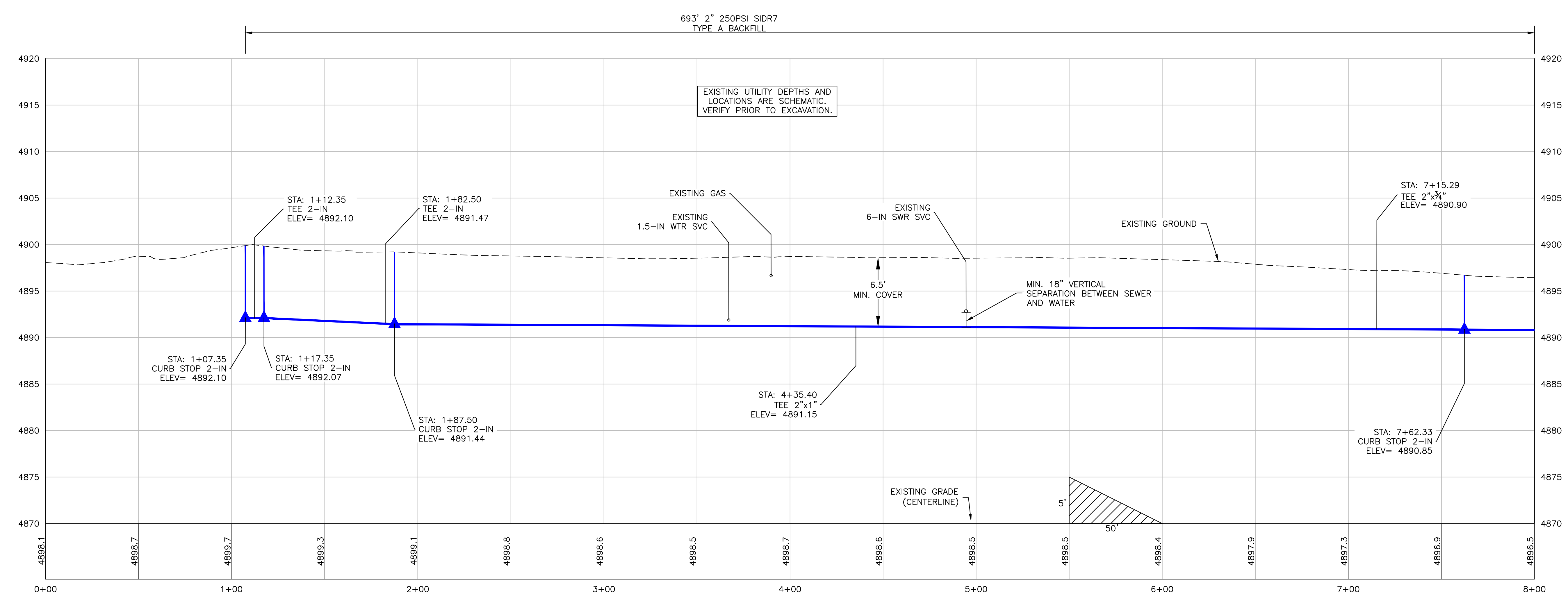
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03/07/2024



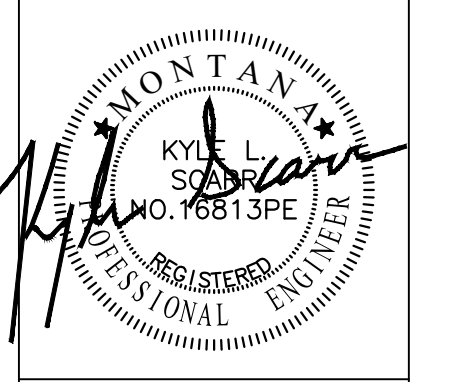


**LEGEND**  
SEE SHEET C1.1 FOR FULL LEGEND.

	EXISTING WATER VALVE
	EXISTING FIRE HYDRANT
	EXISTING WATER METER
	EXISTING WATER LINE
	EXISTING WATER SERVICE LINE
	PROPOSED WATER VALVE
	PROPOSED WATER METER
	PROPOSED WATER LINE
	PROPOSED WATER SERVICE LINE
	EXISTING SAN SEWER MANHOLE
	EXISTING SAN SEWER CLEANOUT
	EXISTING SAN SEWER MAIN
	EXISTING SAN SEWER SERVICE



DRAWN BY: BAS		
REVIEWED BY: KJS		
REV.	DESCRIPTION	DATE
1	ADDENDUM 1	4.29.24



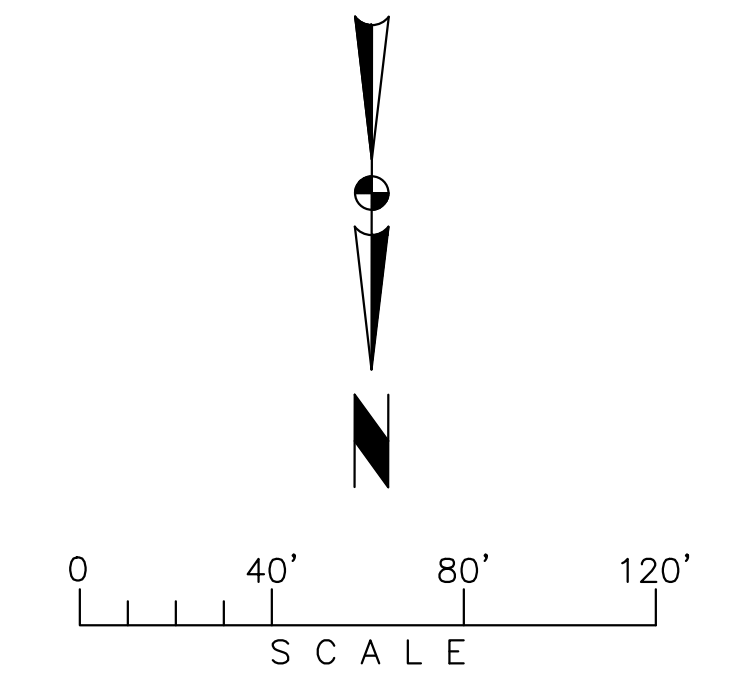
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PPA#21-0088  
TD&H#B23-075

EAST - WEST  
WATER P&P  
STA. 1+07 - 8+00

SHEET  
**C4.1**

DATE  
03/07/2024

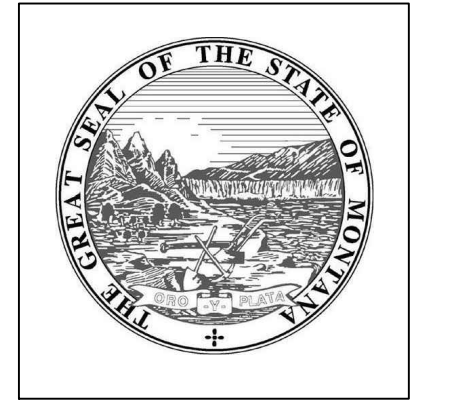
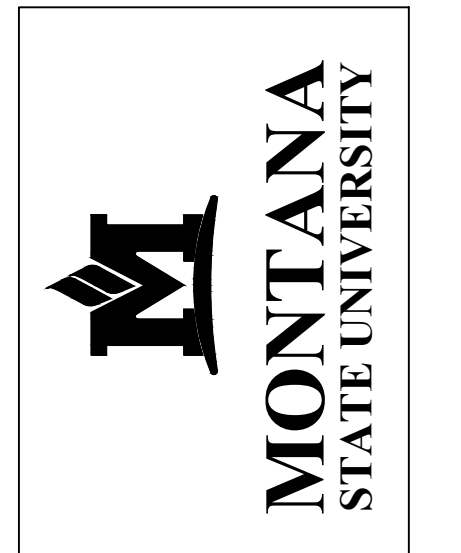
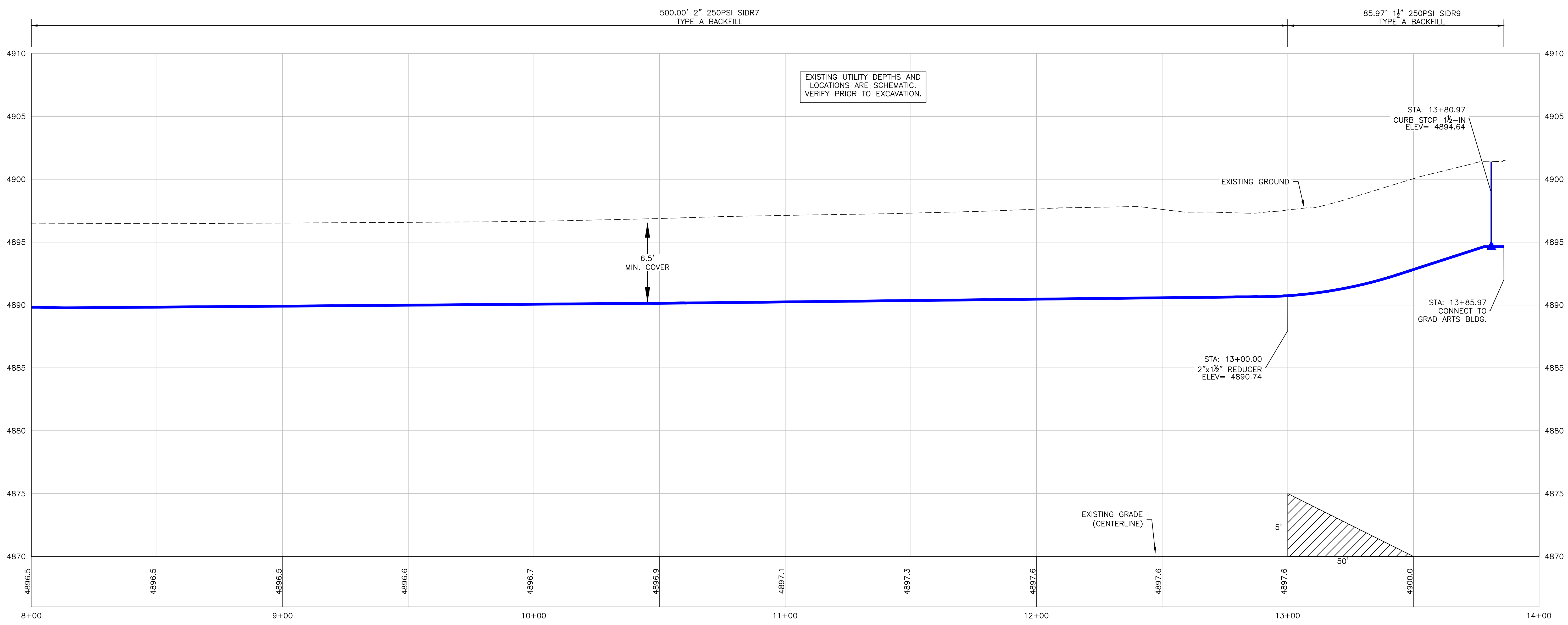




**LEGEND**

SEE SHEET C1.1 FOR FULL LEGEND.

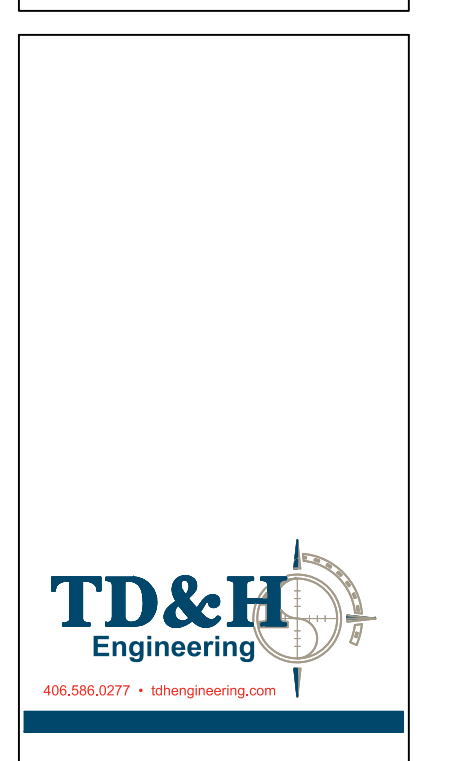
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- EXISTING FIRE HYDRANT
- EXISTING WATER METER
- EXISTING WATER LINE
- EXISTING WATER SERVICE LINE
- PROPOSED WATER VALVE
- PROPOSED WATER METER
- PROPOSED WATER LINE
- PROPOSED WATER SERVICE LINE
- EXISTING SAN SEWER MANHOLE
- EXISTING SAN SEWER CLEANOUT
- EXISTING SAN SEWER MAIN
- EXISTING SAN SEWER SERVICE



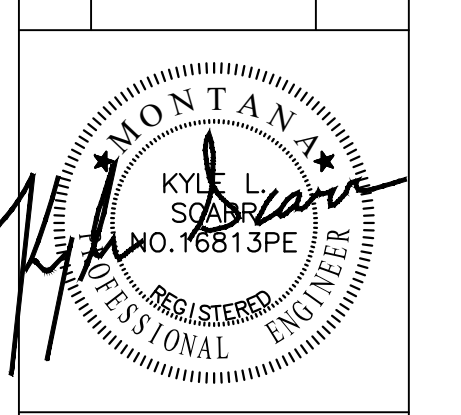
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MONTANA STATE UNIVERSITY  
PHONE: 406/924-5413  
FAX: 406/924-5663

100% CONSTRUCTION DRAWINGS

**AES BART FARM CITY WATER TO BUILDINGS**  
BOZEMAN, MONTANA



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REVIEWED BY: KJS		
REV.	DESCRIPTION	DATE
1	ADDENDUM 1	4.29.24



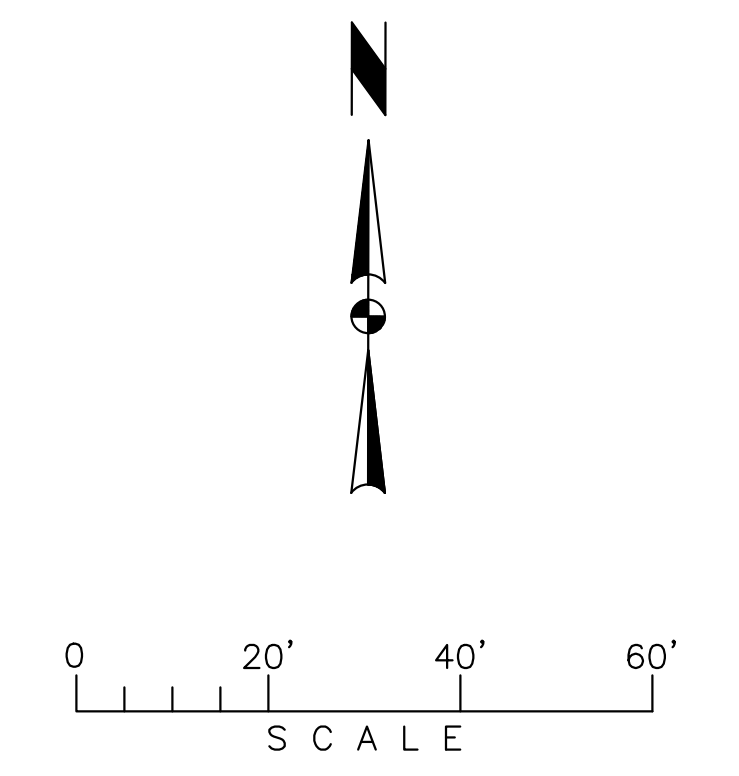
PPA#21-0061  
PPA#21-0088  
TD&H#B23-075

EAST - WEST  
WATER P&P  
STA. 8+00 - 13+86

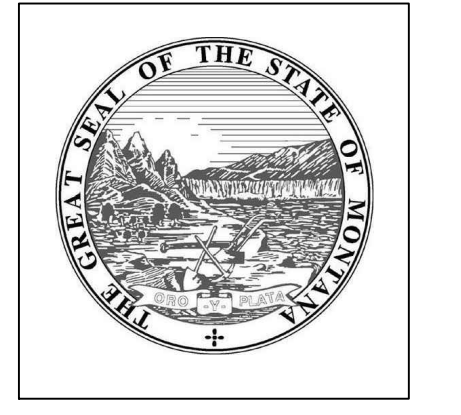
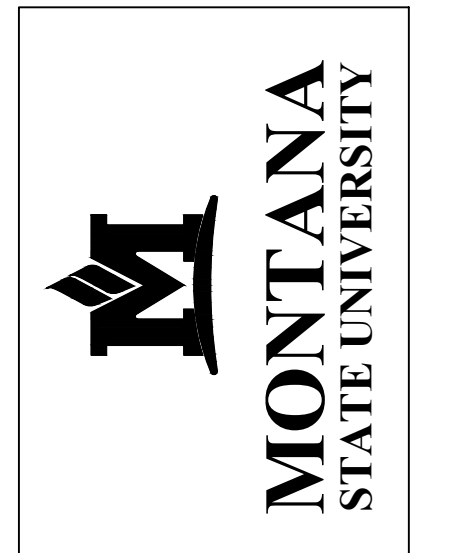
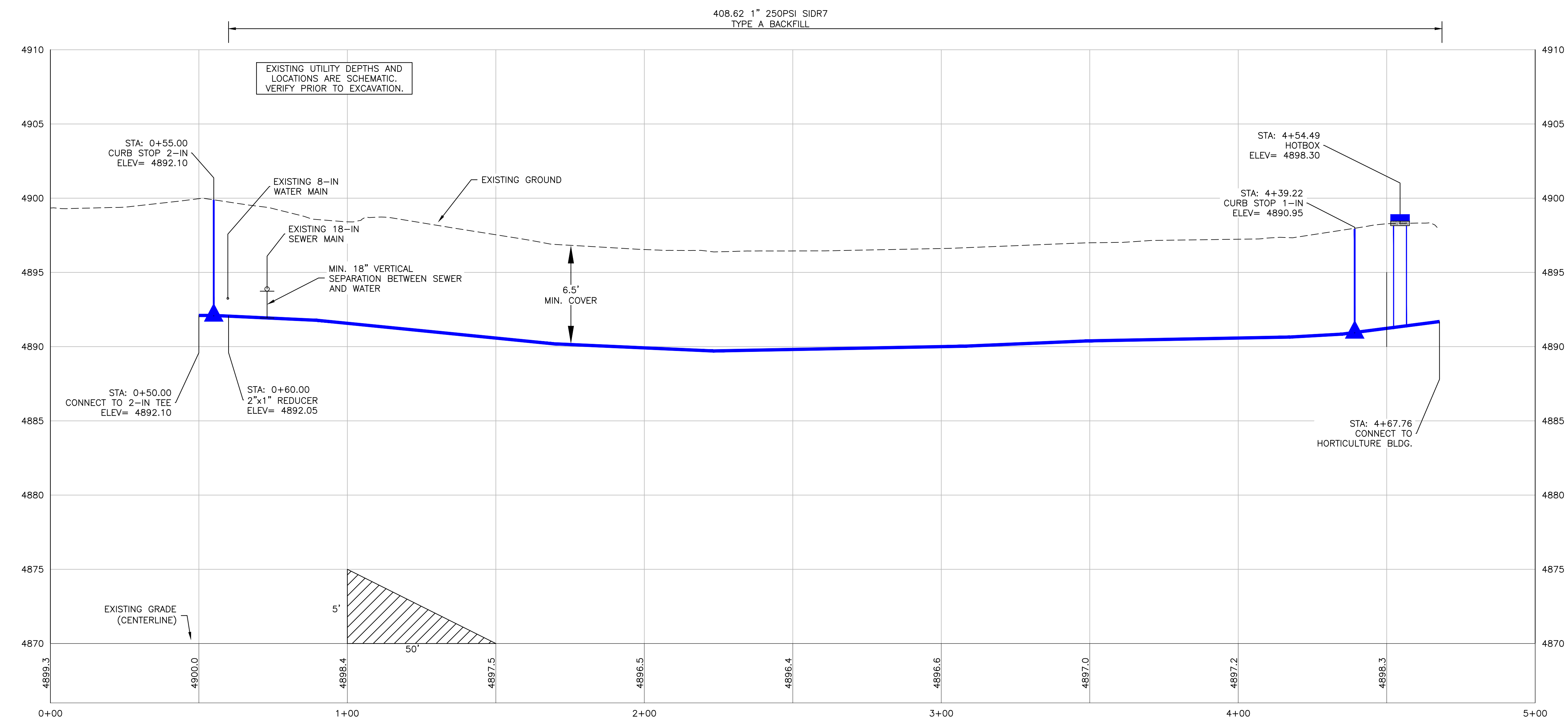
SHEET  
**C4.2**

DATE  
03/07/2024





- LEGEND**  
SEE SHEET C1.1 FOR FULL LEGEND.
- EXISTING WATER VALVE
  - EXISTING FIRE HYDRANT
  - EXISTING WATER METER
  - EXISTING WATER LINE
  - EXISTING WATER SERVICE LINE
  - PROPOSED WATER VALVE
  - PROPOSED WATER METER
  - PROPOSED WATER LINE
  - PROPOSED WATER SERVICE LINE
  - EXISTING SAN SEWER MANHOLE
  - EXISTING SAN SEWER CLEANOUT
  - EXISTING SAN SEWER MAIN
  - EXISTING SAN SEWER SERVICE



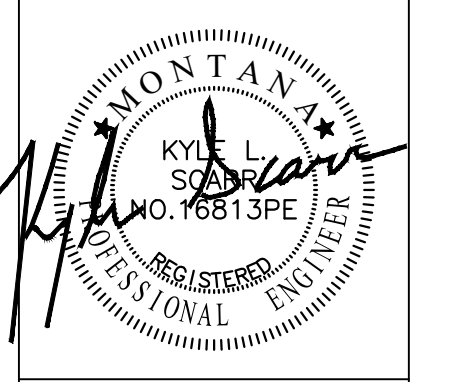
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1	ADDENDUM 1	4.29.24

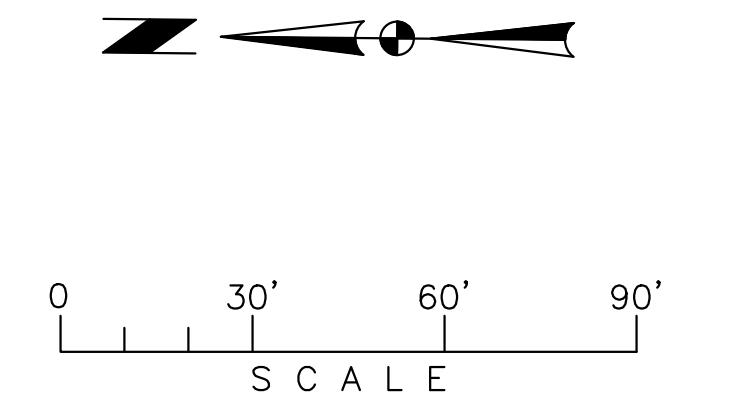
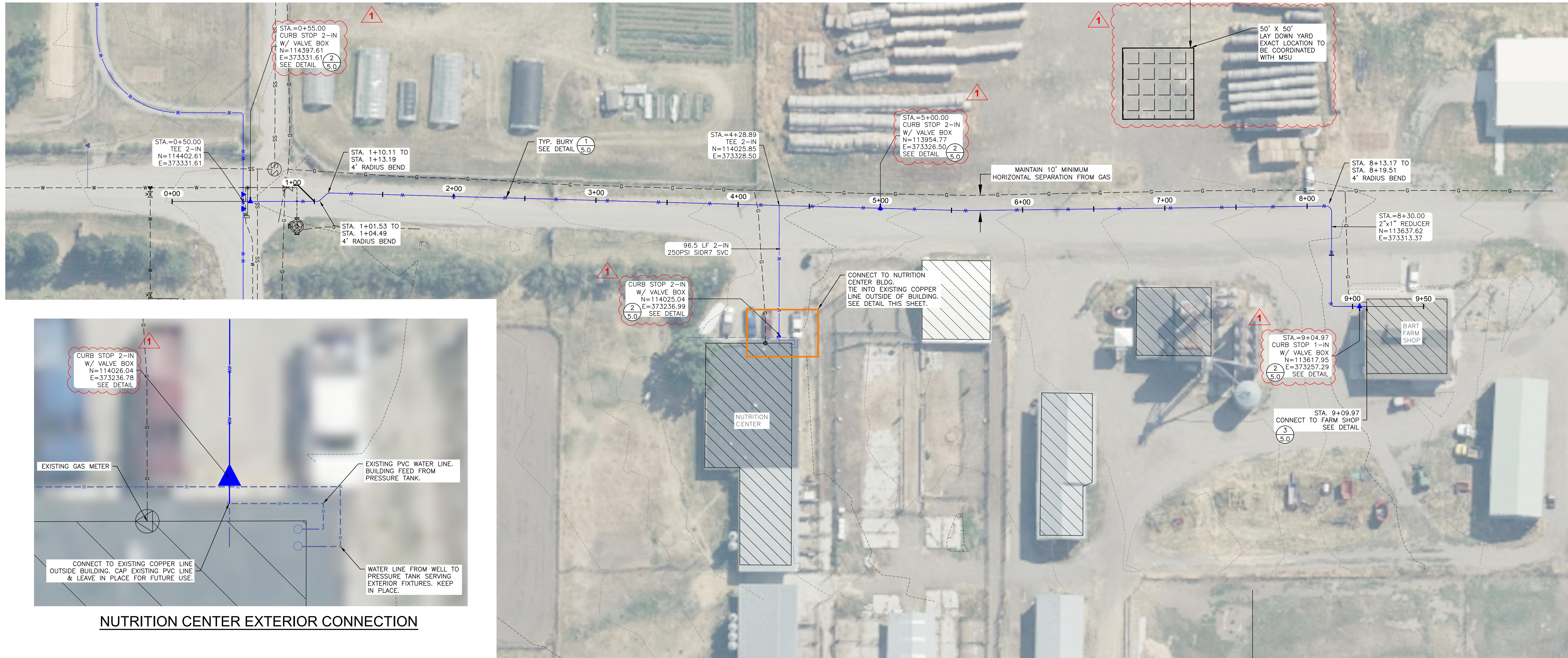


PPA#21-0061  
PPA#21-0088  
TD&H#B23-075  
HORTICULTURE  
WATER P&P  
STA. 0+50 - 4+68

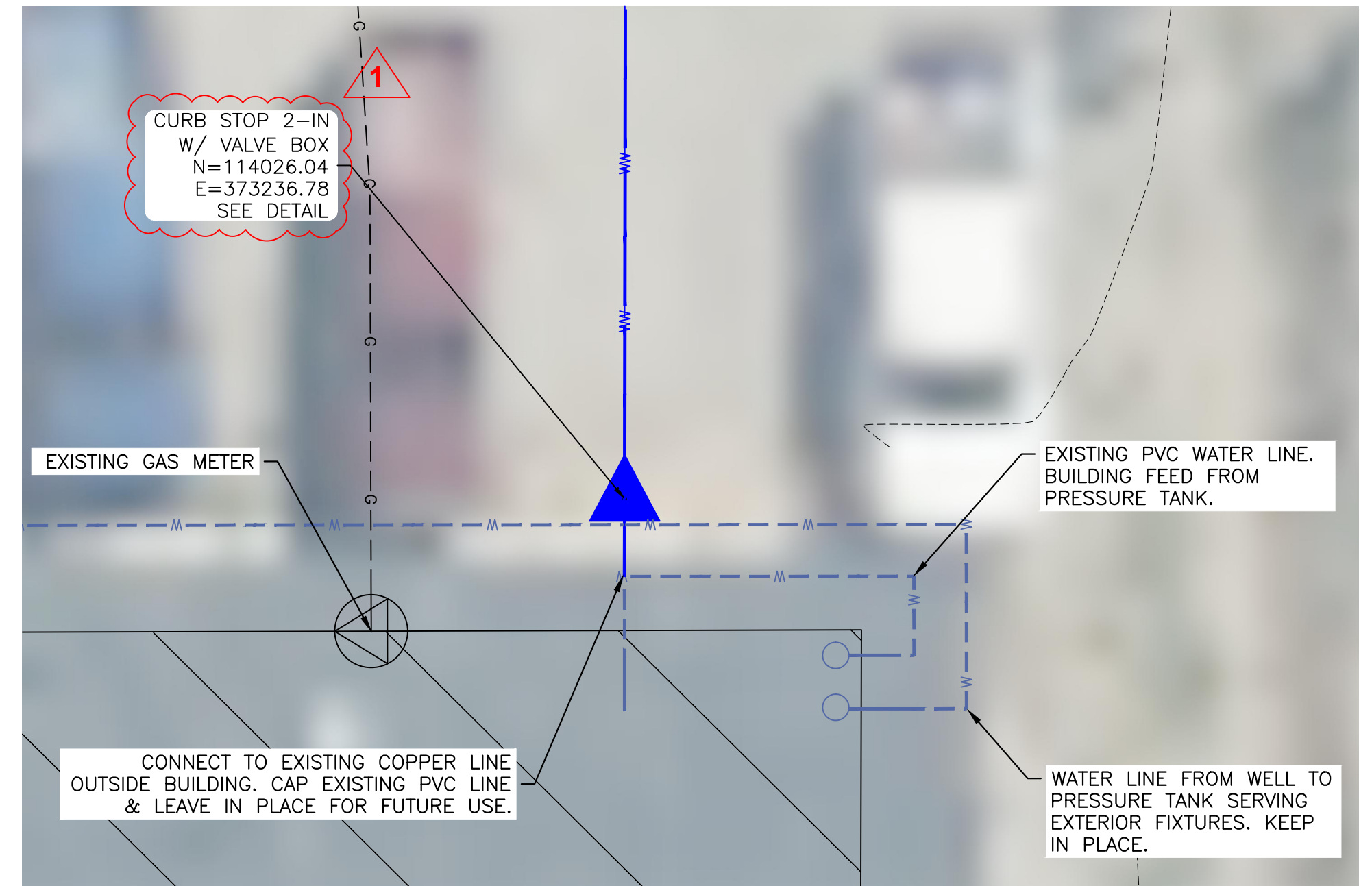
SHEET  
**C4.3**

DATE  
03/07/2024



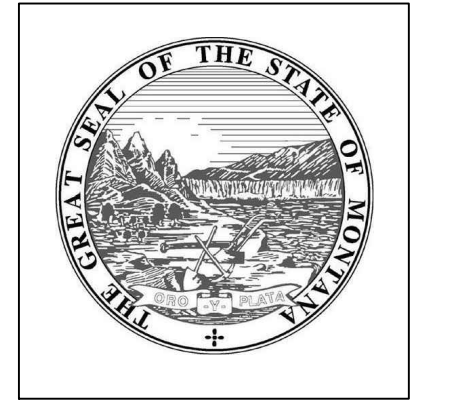
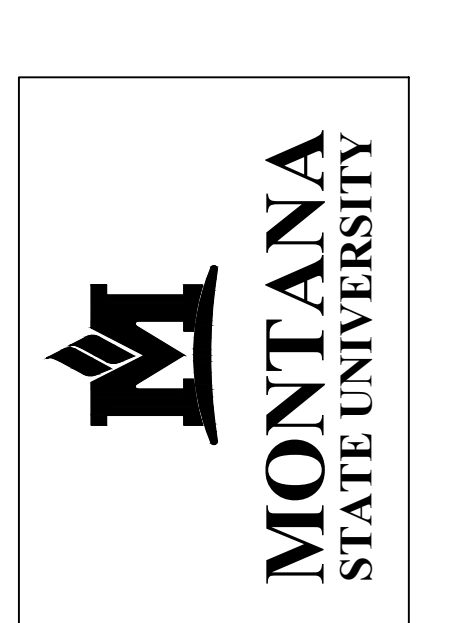


- LEGEND**  
SEE SHEET CT.1 FOR FULL LEGEND.
- EXISTING WATER VALVE
  - EXISTING FIRE HYDRANT
  - EXISTING WATER METER
  - EXISTING WATER LINE
  - EXISTING WATER SERVICE LINE
  - PROPOSED WATER VALVE
  - PROPOSED WATER METER
  - PROPOSED WATER LINE
  - PROPOSED WATER SERVICE LINE
  - EXISTING SAN. SEWER MANHOLE
  - EXISTING SAN. SEWER CLEANOUT
  - EXISTING SAN. SEWER MAIN
  - EXISTING SAN. SEWER SERVICE



**NUTRITION CENTER EXTERIOR CONNECTION**

50' X 50'  
LAY DOWN YARD  
EXACT LOCATION TO  
BE COORDINATED  
WITH MSU

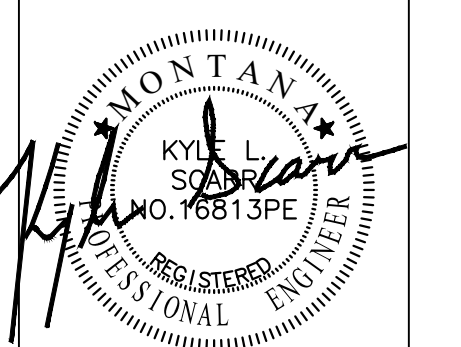


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**AES BART FARM CITY WATER TO BUILDINGS**  
BOZEMAN, MONTANA



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REVIEWED BY: JKS	DATE
1	ADDENDUM 1 4.29.24

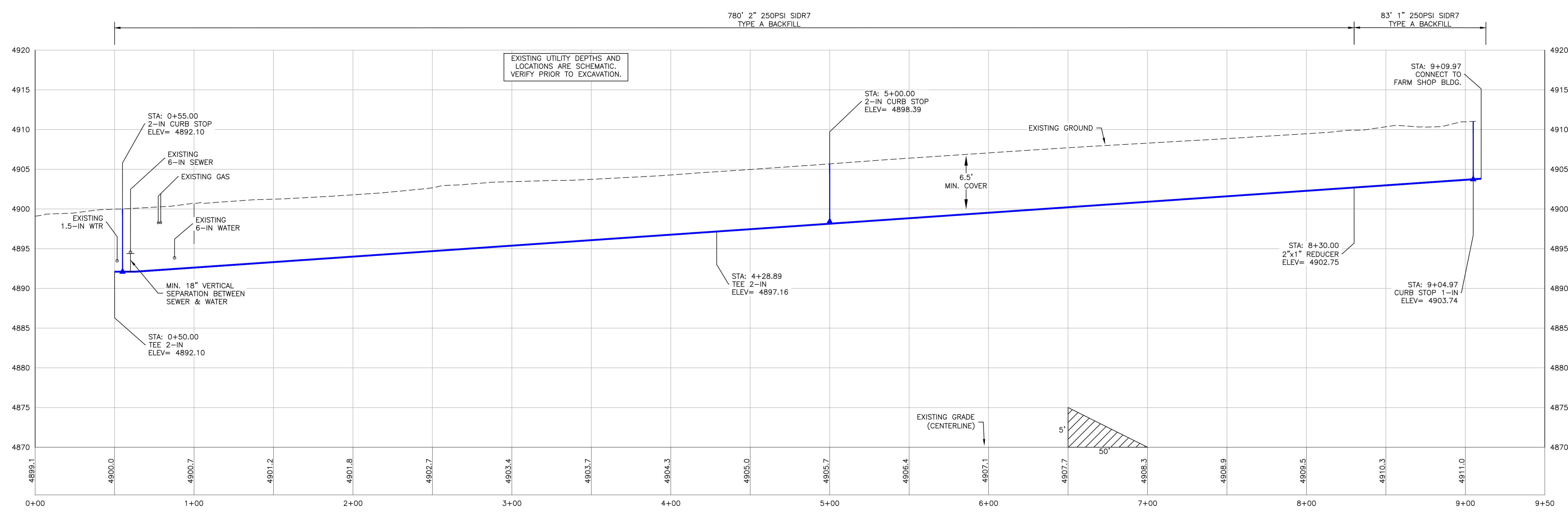


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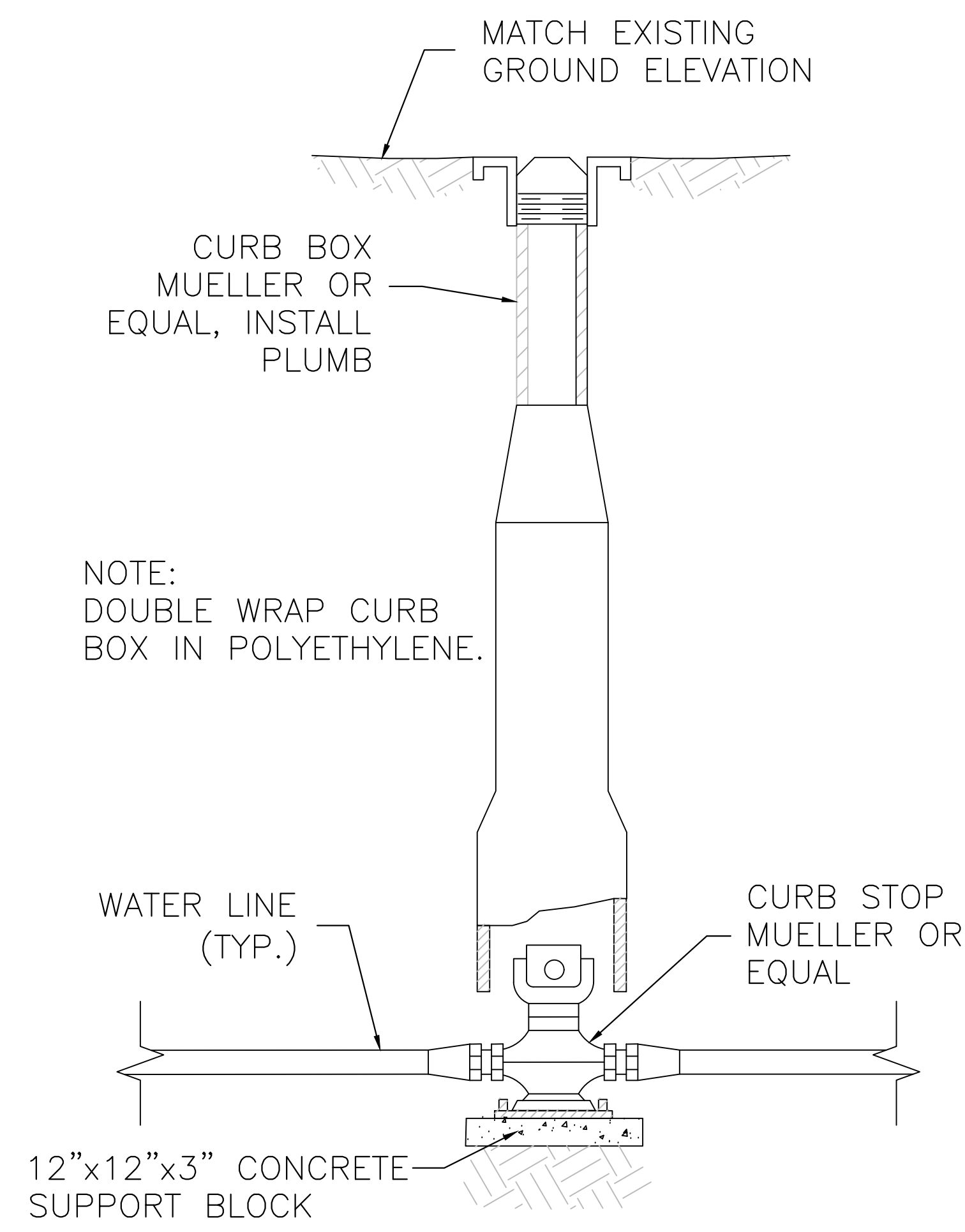
NORTH - SOUTH  
WATER P&P  
STA. 0+50 - 9+05

SHEET  
**C4.4**

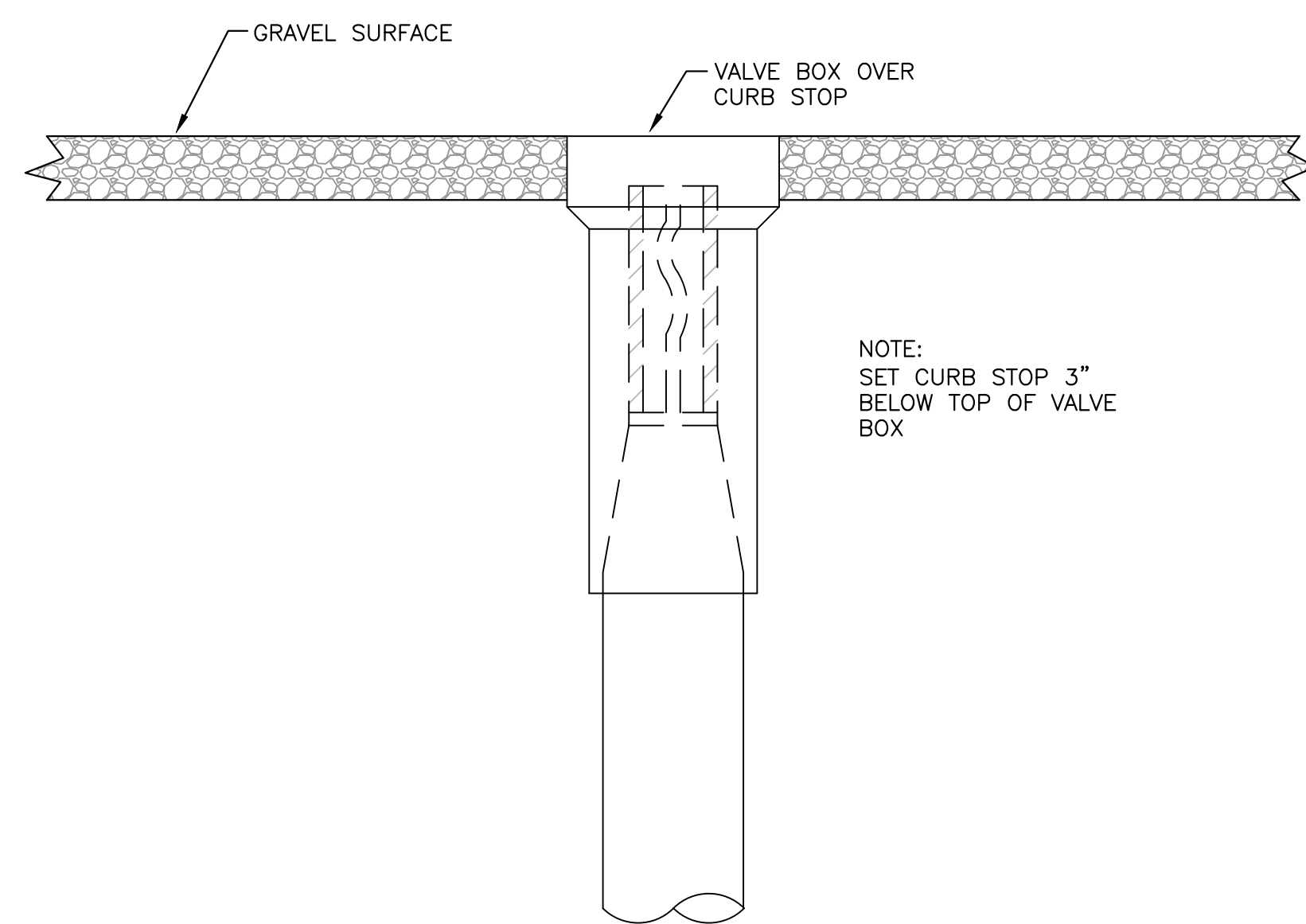
DATE  
03/07/2024





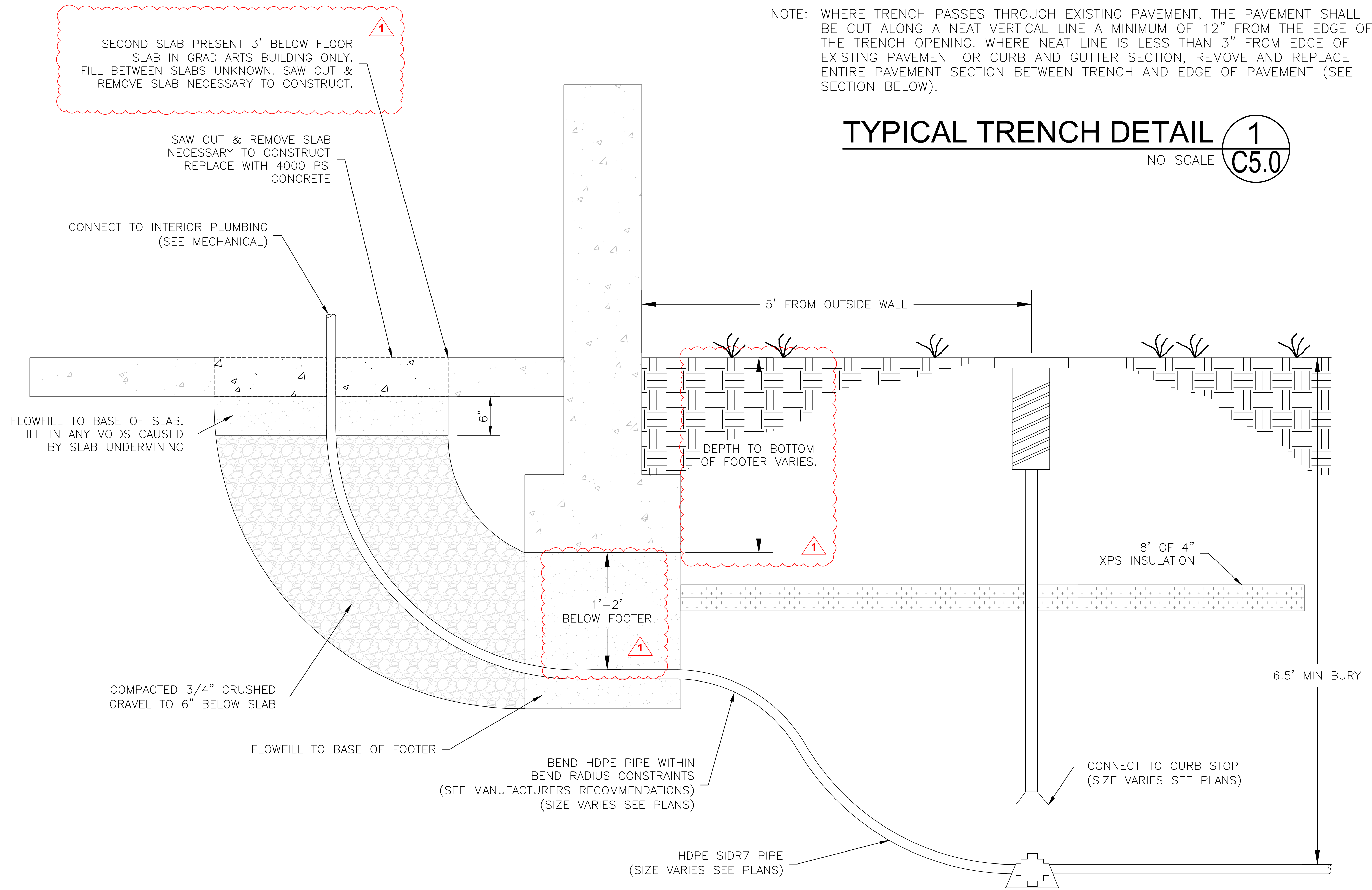


**TYPICAL INSTALLATION**



**DRIVEWAY INSTALLATION**

**CURB STOP DETAIL 2**  
NO SCALE C5.0



**EXTERIOR TO INTERIOR CONNECTION DETAIL 3**  
NO SCALE C5.0

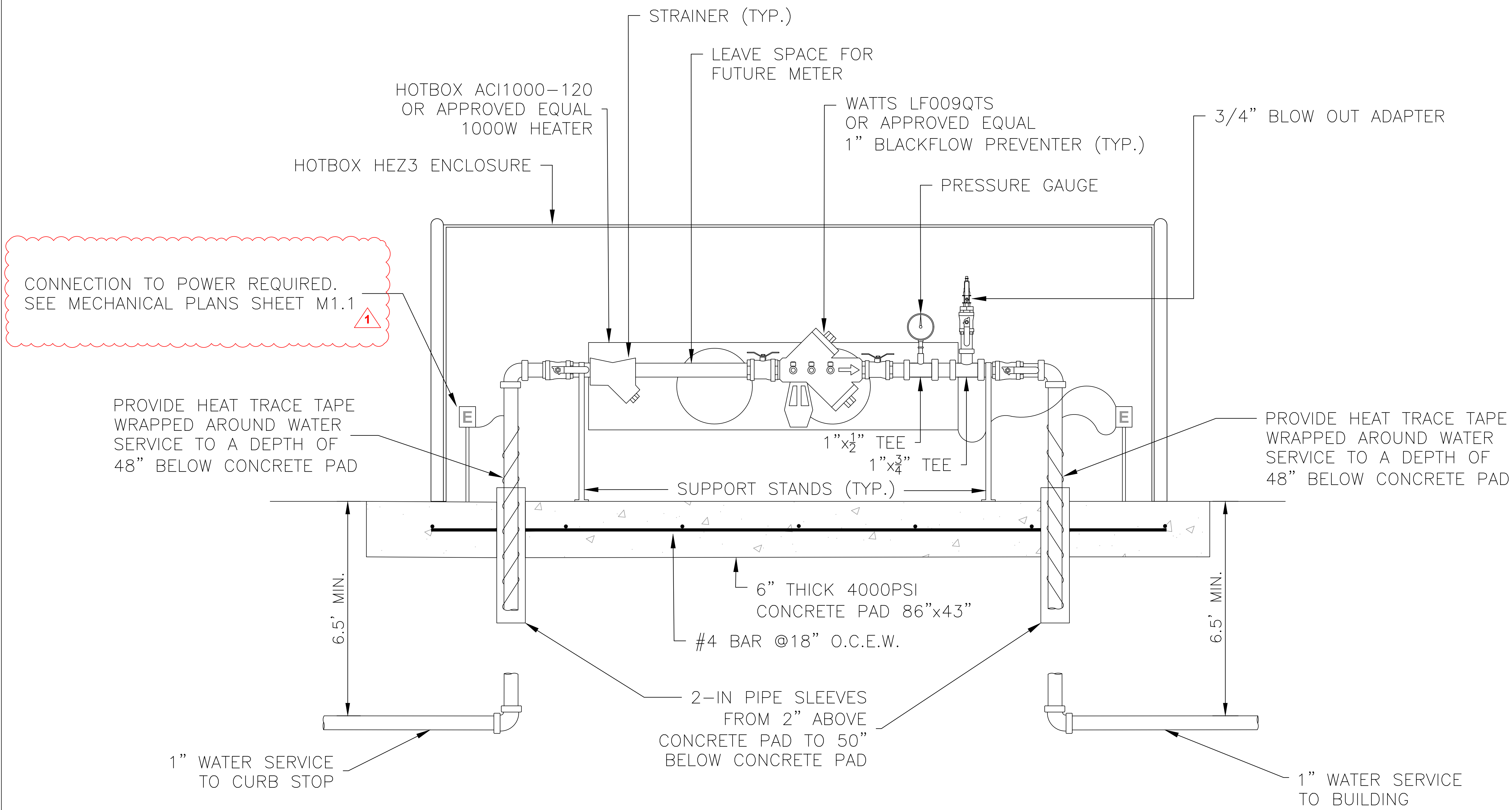
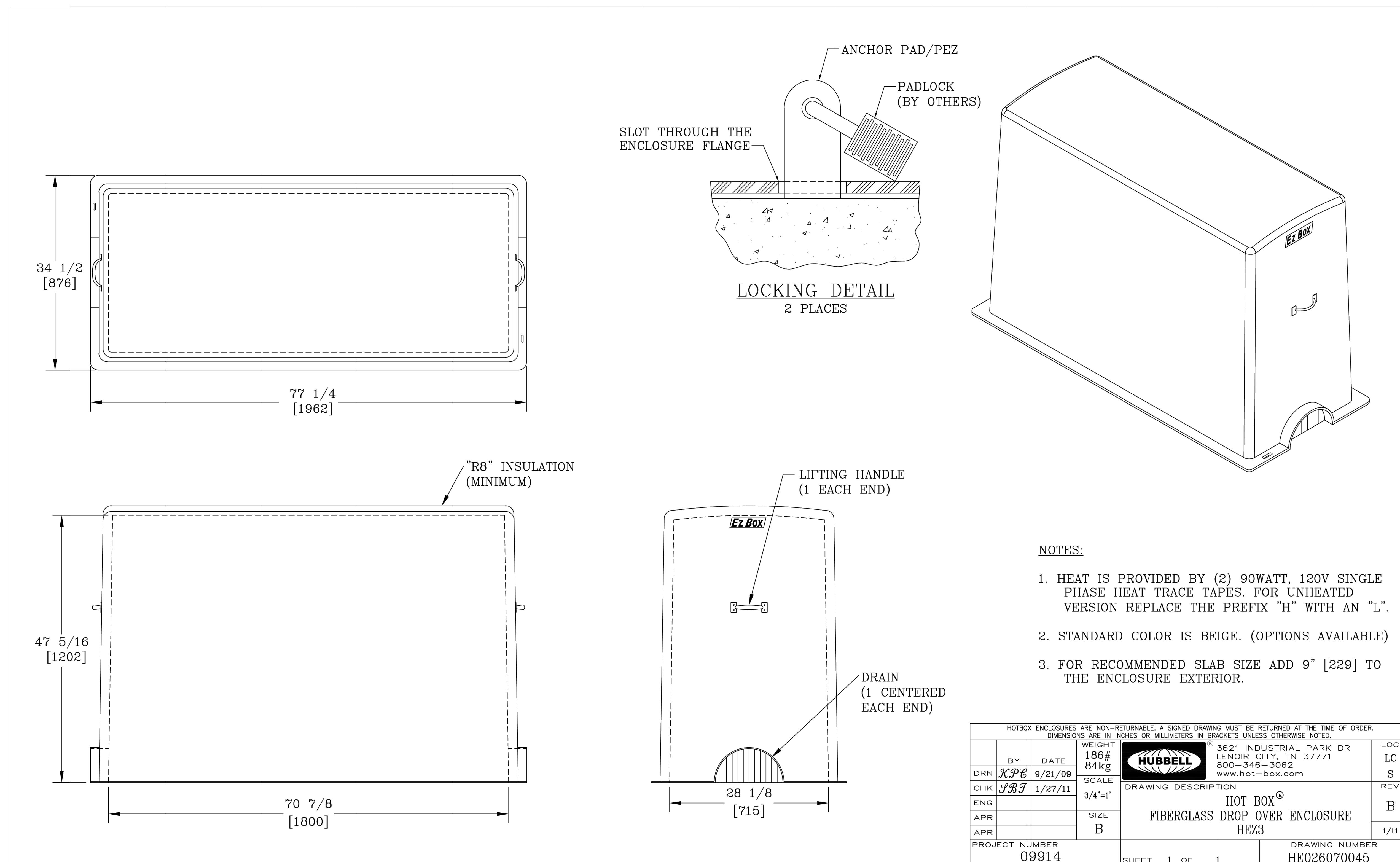
**NOTE:** WHERE TRENCH PASSES THROUGH EXISTING PAVEMENT, THE PAVEMENT SHALL BE CUT ALONG A NEAT VERTICAL LINE A MINIMUM OF 12" FROM THE EDGE OF THE TRENCH OPENING. WHERE NEAT LINE IS LESS THAN 3" FROM EDGE OF EXISTING PAVEMENT OR CURB AND GUTTER SECTION, REMOVE AND REPLACE ENTIRE PAVEMENT SECTION BETWEEN TRENCH AND EDGE OF PAVEMENT (SEE SECTION BELOW).

**TYPICAL TRENCH DETAIL 1**  
NO SCALE C5.0

\* SEE O.S.H.A. CONSTRUCTION STANDARDS FOR EXCAVATIONS, SEC. 1926, SUBPART P

DRAWN BY: BAS	REVIEWED BY: KJS	DATE
REV. 1	DESCRIPTION	DATE
1	ADDENDUM 1	4.29.24





**HOTBOX DETAIL** **1**  
NO SCALE **C5.1**





**COORDINATION NOTE:**  
 IT IS ABSOLUTELY NECESSARY FOR ALL TRADES INCLUDING EQUIPMENT SUPPLIERS TO COORDINATE WITH EACH OTHER AND TO VERIFY THAT THERE ARE NO CONFLICTS IN LOCATIONS OF DUCTS, CONDUITS, SPRINKLER HEADS, SPRINKLER PIPING, DIFFUSERS, ELECTRICAL BOXES AND OTHER ITEMS THROUGHOUT THIS PROJECT BEFORE FINAL PLACEMENT OF MATERIALS.



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 BOZEMAN, MONTANA  
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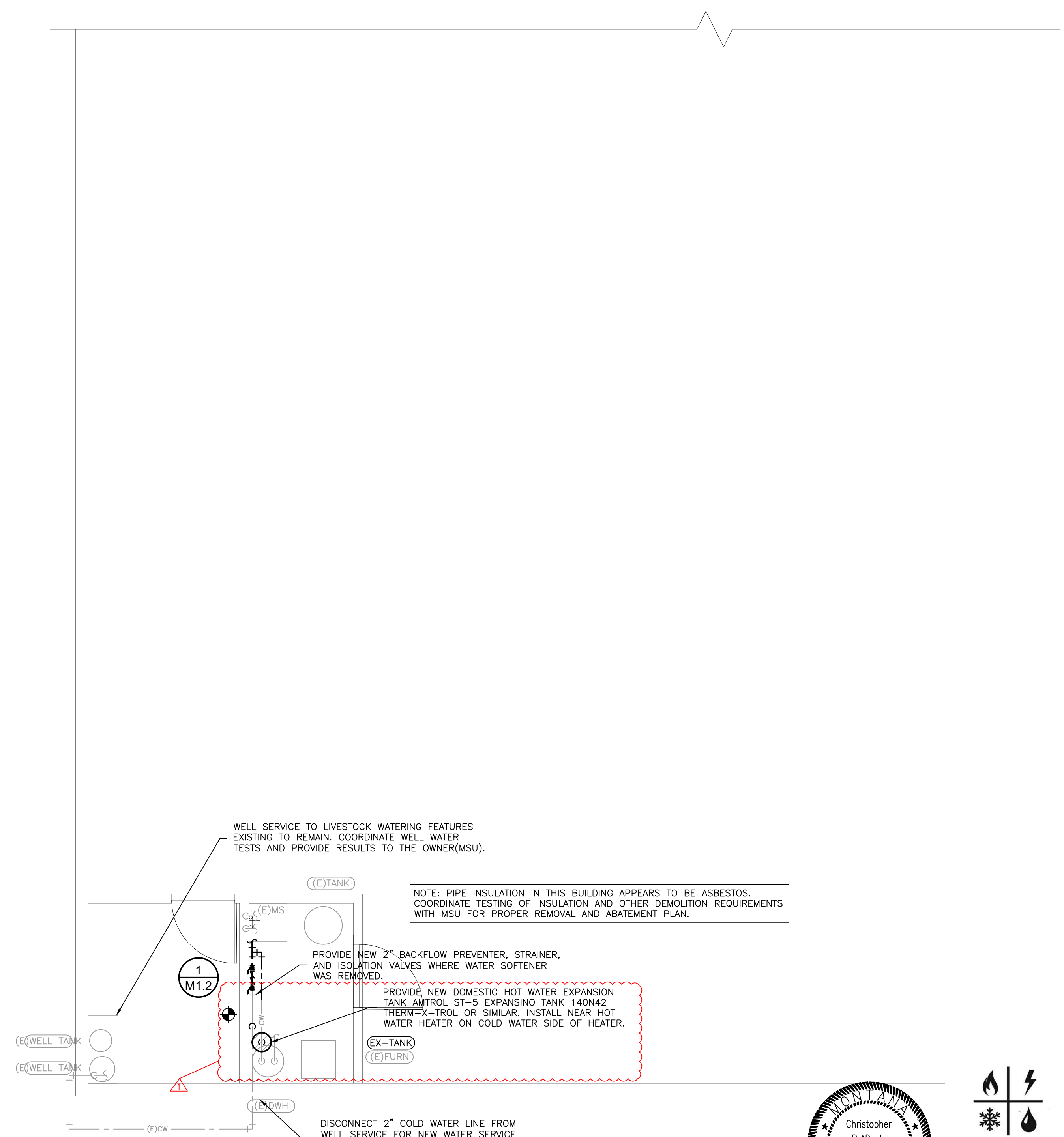
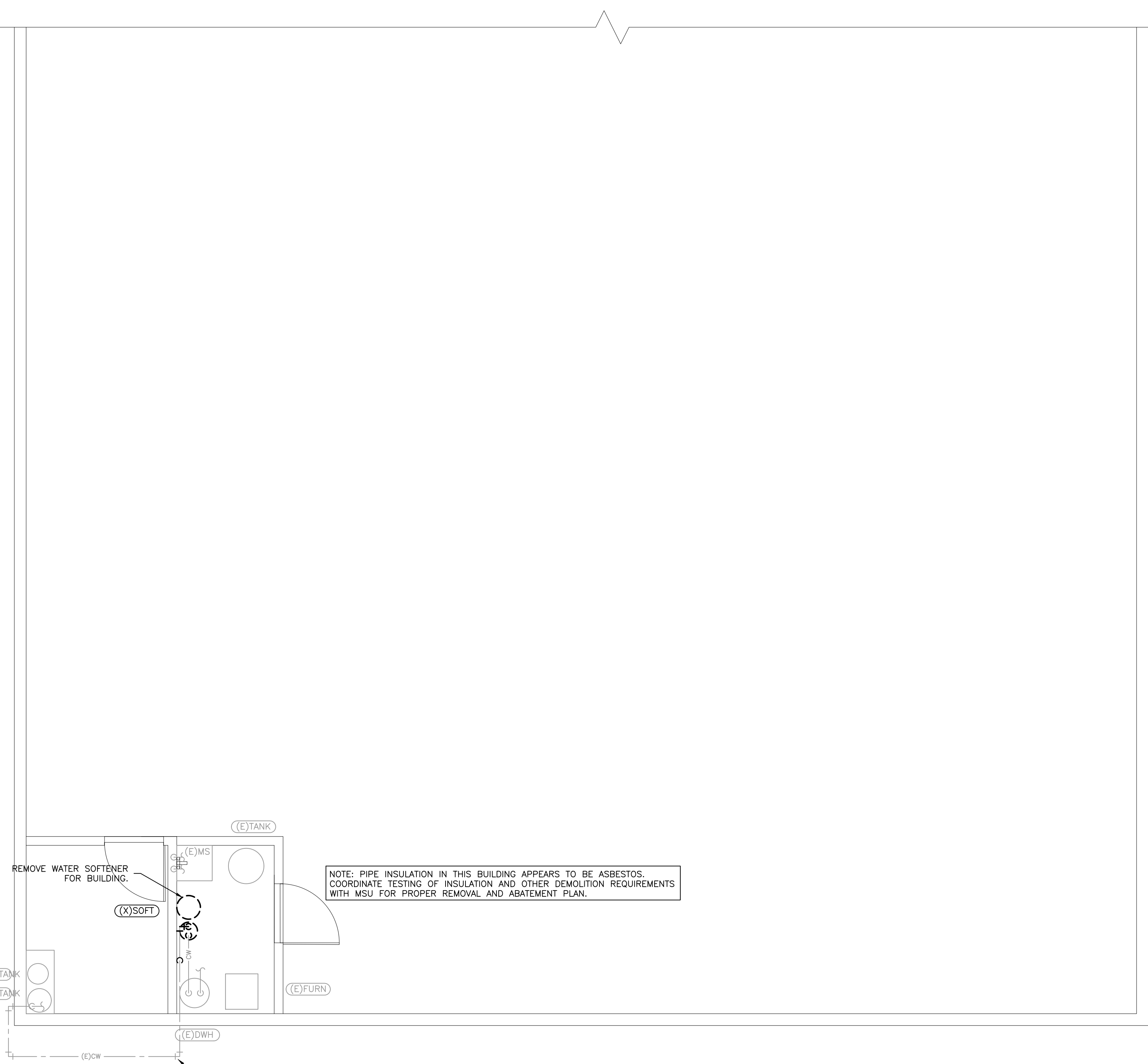
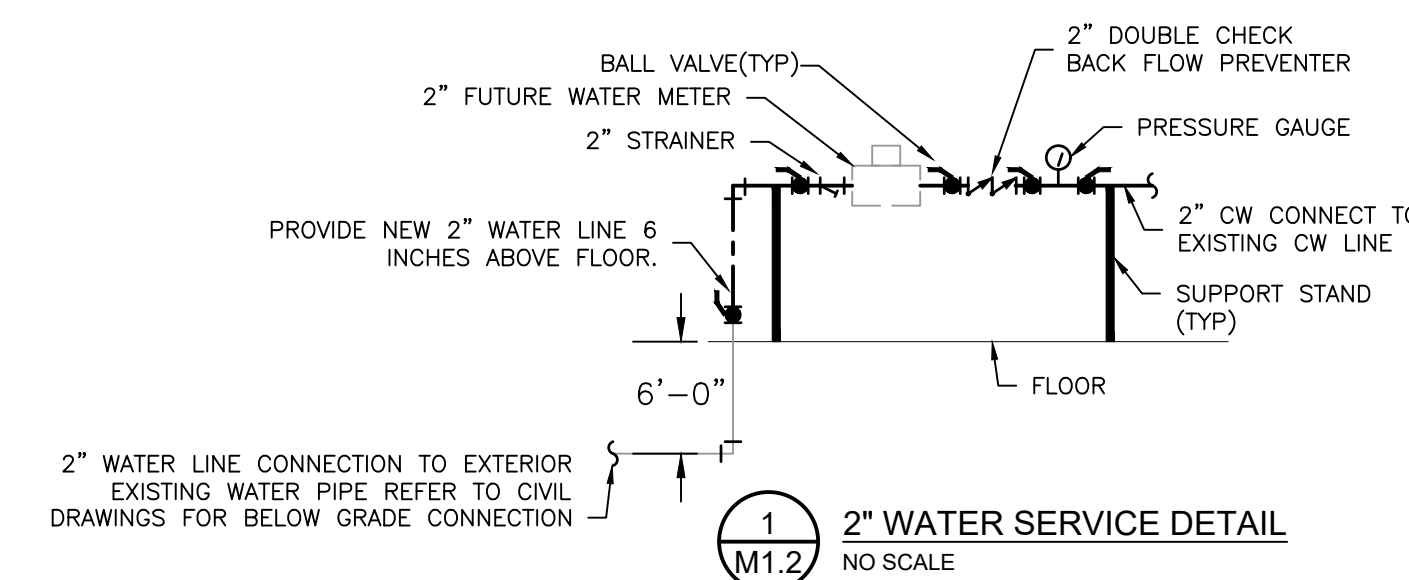
**100% CONSTRUCTION DOCUMENTS**  
**AES BART FARM CITY WATER TO BUILDINGS**  
 BOZEMAN, MONTANA

**GENERAL DEMO NOTES**

- COORDINATE ALL UTILITY INTERRUPTIONS WITH THE OWNER AND PROVIDE 5 WORKING DAYS NOTIFICATION PRIOR TO ANY UTILITY SHUT DOWN.
- ITEMS SHOWN DARK AND DASHED AND/OR NOTED WITH (X) ARE TO BE REMOVED. ITEMS SHOWN IN LIGHT LINE AND/OR NOTED WITH (E) ARE EXISTING TO REMAIN. ITEMS SHOWN IN HEAVY LINE AND/OR NOTED WITH (N) ARE NEW.
- DISPOSE OF ALL DEMOLISHED ITEMS OFF SITE. OWNER HAS THE FIRST RIGHT TO SALVAGE ANY EQUIPMENT SCHEDULED FOR DEMOLITION.
- EXACT ROUTING AND SIZES OF EXISTING PLUMBING AND PIPING IN THE BUILDING IS DIFFICULT TO DETERMINE DUE TO CONCEALMENT IN OR BEHIND EXISTING CONSTRUCTION. DRAWINGS SHOW APPROXIMATE EXISTING CONDITIONS, HOWEVER, FIELD VERIFICATION WILL BE REQUIRED.

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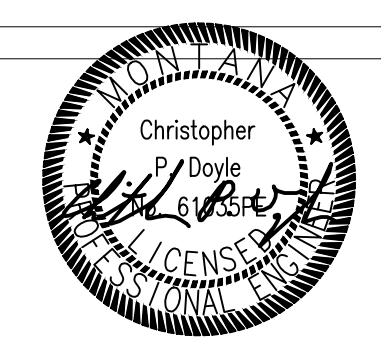
NOTE: PIPE INSULATION IN THIS BUILDING APPEARS TO BE ASBESTOS. COORDINATE TESTING OF INSULATION AND OTHER DEMOLITION REQUIREMENTS WITH MSU FOR PROPER REMOVAL AND ABATEMENT PLAN.

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CONNECT NEW WATER SERVICE OUTSIDE OF BUILDING. REFER TO CIVIL DRAWINGS FOR CONNECTION.

**NUTRITION CENTER PLAN - PLUMBING DEMO**  
 SCALE: 1/4" = 1'-0"

**NUTRITION CENTER PLAN - PLUMBING**  
 SCALE: 1/4" = 1'-0"



DRAWN BY: CPD		
REVIEWED BY: CPD		
REV #	DESCRIPTION	DATE

**PPA#21-0061**  
**PPA#22-0088**  
**CDS# 2342**  
**SHEET TITLE**  
**NUTRITION CENTER**  
**PLAN - PLUMBING**

**SHEET**  
**M1.2**  
**DATE**  
**03/07/2024**