RESOLUTION NO. R16-94

A RESOLUTION AUTHORIZING THE MAYOR TO SIGN CHANGE ORDER NO. 1 WITH WILSON BROTHERS CONSTRUCTION FOR THE WATER TREATMENT PLANT INTAKE PROJECT CONSTITUTING A DECREASE OF $3,217.12.

WHEREAS, the City Council of the City of Laurel previously authorized the Mayor to approve a contract with Wilson Brothers Construction for the Water Treatment Plant Intake Project through Resolution No. R16-45 on June 21, 2016; and

WHEREAS, the original contract price was $8,560,901.00 to complete the project; and

WHEREAS, the contract was modified as a result of the shift in the control building site, lengthening the access road to the west and shortening the pipelines to the east as described in the attached Change Order; and

WHEREAS, Great West Engineering and City Staff reviewed Change Order No. 1 and determined that it was correct, reasonable and necessary to complete the project and recommend the Council's approval of the same.

NOW, THEREFORE, BE IT RESOLVED by the City Council of the City of Laurel, Montana, that the Mayor is authorized to sign Change Order No. 1, a copy of which is attached, to decrease the contract amount by $3,217.12.

Introduced at a regular meeting of the City Council on September 6, 2016, by Council Member Stokes.

PASSED and APPROVED by the City Council of the City of Laurel this 6th day of September, 2016.

APPROVED by the Mayor this 6th day of September, 2016.

CITY OF LAUREL

Mark A Mace

Mark A. Mace, Mayor

ATTEST:

Shirley Ewan

Shirley Ewan, Clerk/Treasurer

Approved as to form:

Sam S. Painter, Civil City Attorney

R16-94 CO#1 – Wilson Bros. WTP Intake

EJCDC

Change Order No. 1

Date of Issuance:	September 6, 2016	Effective Date:	September 6, 2016
Owner:	City of Laurel, Montana	Owner's Contract No.:	FEMA: 1996-DR-MT-PW 01679 SRF: EQ 16-1684
Contractor:	Wilson Bros. Construction, Inc.	Contractor's Project No.:	N/A
Engineer:	Great West Engineering, Inc.	Engineer's Project No.:	2-07128-TO26
Project:	Water Treatment Plant Intake	Contract Name:	N/A

The Contract is modified as follows upon execution of this Change Order:

Description:

The following changes are a result of the shift in the control building site approximately 108 feet to the east, lengthening the access road to the west and shortening the pipelines to the east.

- *Item No. 301 – Unclassified Excavation & Embankment for Building Foundation, Driveway, Parking Area.* Excavation quantity will increase from 70 CY to 75 CY, embankment quantity will increase from 450 CY to 482 CY and an additional 50 CY of 3" minus pitrun will be required. Increase in cost = $1,300.
- The contract quantity for *Item No. 312 - 1 ½" Minus Crushed Aggregate for Driveway and Parking Area* will be increased from 205 CY to 218 CY. Increase in cost = 13 CY x $40/CY = $520.
- The contract quantity for *Item No. 317 – 2" Diameter Air Purge Line from Control Building to Intake* will be decreased from 39,520 LF to 37,792 LF. Decrease in cost = 1,728 LF x $2/LF = ($3,456).
- The contract quantity from *Item No. 320 – 4" Pre-Insulated Hot Water Line from Control Building to Intake* will be decreased from 2,470 LF to 2,362 LF. Decrease in cost = 108 LF x $45/LF = ($4,860).
- Because the material for *Item No. 320* has already been ordered and cut to length, the material cost is not refundable. Increase in cost = 108 LF x $30.36/LF = $3,278.88.

Attachments: Revised Plans, sheets C2, P18, P19, S9, A1, A2, A3 and D3

Cost tabulation from Wilson Bros. Construction, dated 8/22/2016

EJCDC

CHANGE IN CONTRACT PRICE	CHANGE IN CONTRACT TIMES *[note changes in Milestones if applicable]*
Original Contract Price: $8,560,901.00	Original Contract Times: Substantial Completion: 240 Ready for Final Payment: 270 days
Increase from previously approved Change Orders No. __ to No. __: N/A $0.00	Increase from previously approved Change Orders No. __ to No. __: N/A Substantial Completion: 0 Ready for Final Payment: 0 days
Contract Price prior to this Change Order: $8,560,901.00	Contract Times prior to this Change Order: Substantial Completion: 240 Ready for Final Payment: 270 days
Decrease of this Change Order: $ 3,217.12	Increase of this Change Order: Substantial Completion: 0 Ready for Final Payment: 0 days
Contract Price incorporating this Change Order: $ 8,557,683.88	Contract Times with all approved Change Orders: Substantial Completion: 240 Ready for Final Payment: 270 days

RECOMMENDED:	ACCEPTED:	ACCEPTED:
By: Jonathan Weaver	By: Mark A Mace	By: Nick Wilson
Engineer	Owner (Authorized Signature)	Contractor (Authorized Signature)
Title: Project Engineer	Title Mayor	Title Operations Manager
Date: 8/25/2016	Date 9/6/16	Date 8/25/16

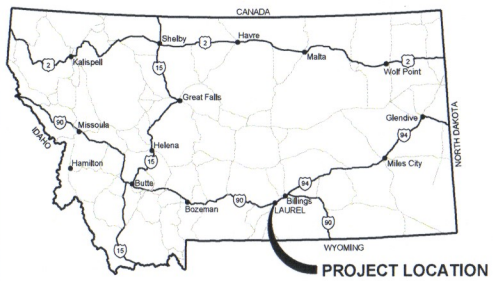
Approved by Funding Agency (if applicable)

By: _____ Date: _____

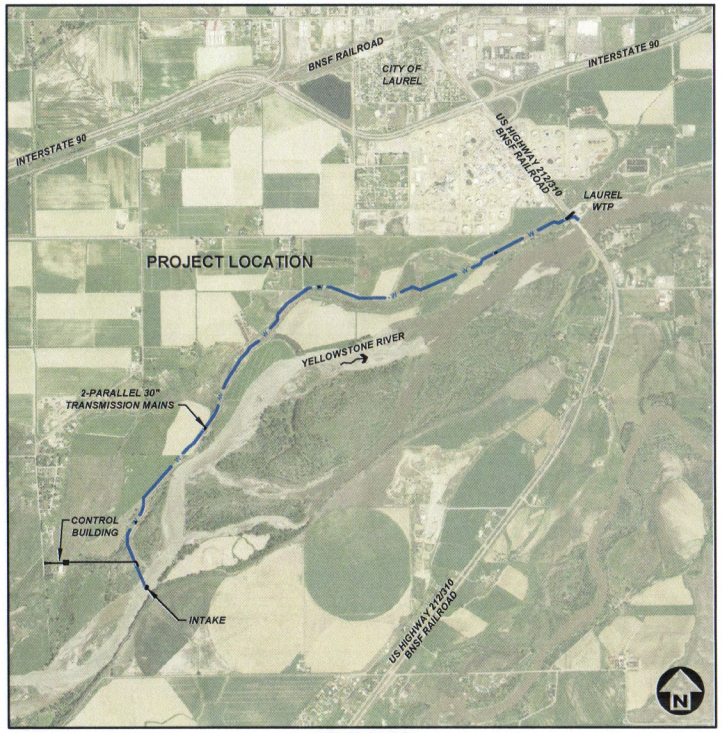
Title: _____

CITY OF LAUREL, MONTANA WATER TREATMENT PLANT INTAKE

CONSTRUCTION PLANS



SECTIONS 15, 16, 20, 21, 29 & 30, TOWNSHIP 2 SOUTH, AND RANGE 24 EAST



NOT TO SCALE

PLANS PREPARED FOR:

KURT MARKEGARD, DIRECTOR OF PUBLIC WORKS
CITY OF LAUREL, MONTANA

APPROVED BY:

JEREMIAH THEYS, P.E.
GREAT WEST ENGINEERING

QA/QC BY:

CHAD E. HANSON, P.E.
GREAT WEST ENGINEERING

PLANS PREPARED BY:

LISA WALTON
JIM McGOWAN
DANIEL KARLIN, P.E.
JEREMY MORRIS
JONATHAN WEAVER, P.E.

GreatWest engineering
115 N. BROADWAY, SUITE 500
BILLINGS, MT 59101
(406)652-5000

SHEET INDEX

PROJECT: 2-07128, TO 26
DATE: MAY 10, 2016

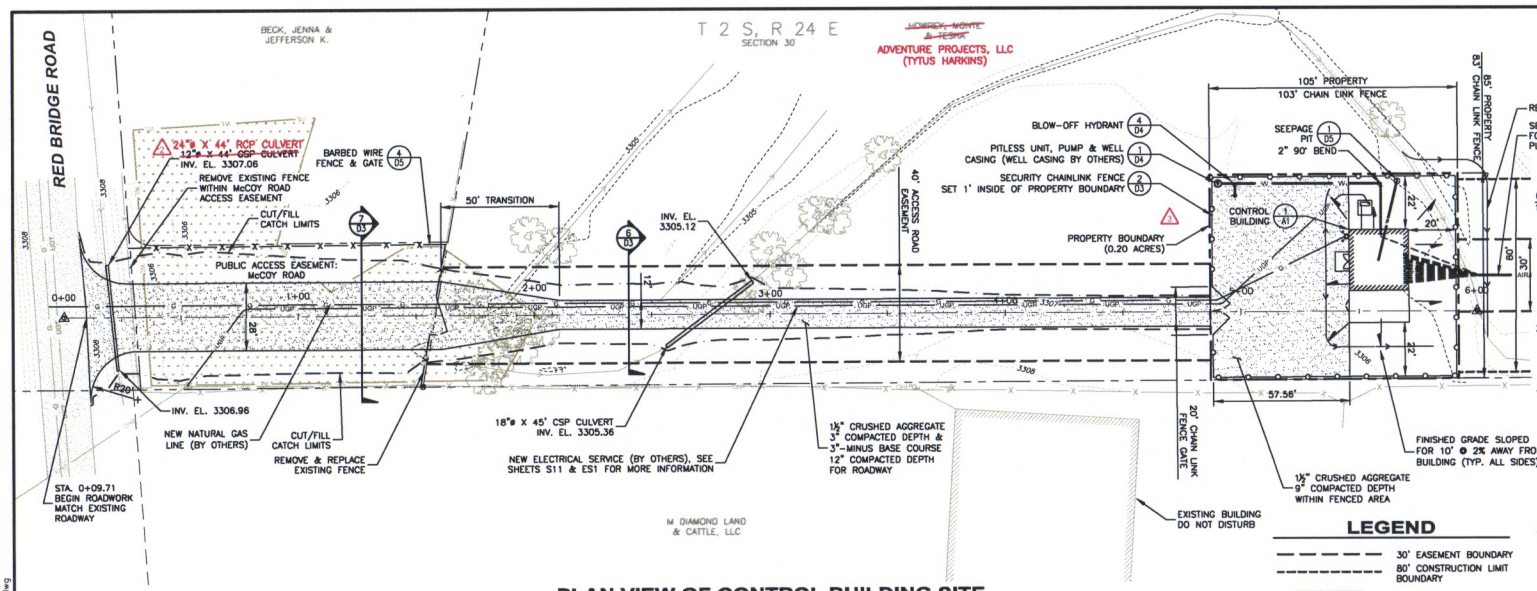
NO.	REVISION DESCRIPTION	BY	DATE
1	ADDENDUM NO. 1: BEDDING AND AIR RELEASE VAULT REVISIONS	LMW	5-20-16
2	ADDENDUM NO. 2: MISCELLANEOUS REVISIONS	LMW	6-2-16
3	CHANGE ORDER NO. 1: CONTROL BUILDING RELOCATION	LMW	6-28-16

SET NO.

SHEET NO.
G1
1 OF 74

FEMA Project #: 1996-DR-MT-PW 01679
SRF Project #: E.Q. #16-1684

F:\2-07128-Laurel On-Call\TO 26 - New WTP Intake Study\CADD 2-07128-TO26\Sheets\2-07128-TO26-01-COVER.dwg

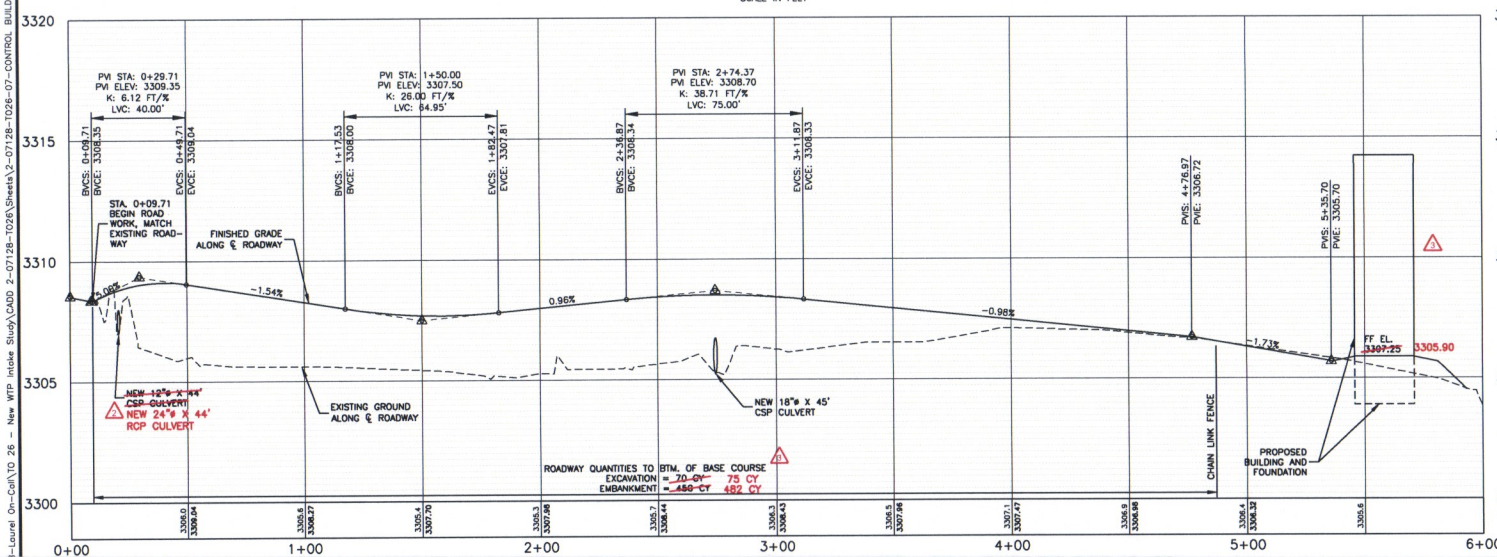


PLAN VIEW OF CONTROL BUILDING SITE

0 25 50
SCALE IN FEET

LEGEND

- 30' EASEMENT BOUNDARY
- 80' CONSTRUCTION LIMIT BOUNDARY
- FIELD-VERIFIED WETLAND AREA



PROFILE VIEW OF DRIVEWAY-CONTROL BUILDING - STA. 0+00 TO STA. 6+00

HORIZONTAL SCALE: 1" = 50'
VERTICAL SCALE: 1" = 5'

GENERAL NOTES:

1. UTILITY INFORMATION SHOWN ON THE DRAWINGS IS APPROXIMATE AND MAY BE INCOMPLETE. FOR ACCURATE LOCATION, THE CONTRACTOR SHALL CONTACT, PRIOR TO EXCAVATION, THE UTILITIES UNDERGROUND LOCATION CENTER:

   UNDERGROUND LOCATION CENTER 1-800-424-5555

2. WELL TO BE DRILLED AND CASED BY OTHERS. CONTRACTOR IS RESPONSIBLE FOR PITLESS UNIT AND PUMP SUPPLY AND INSTALLATION.
3. NATURAL GAS SERVICE WILL BE PAID FOR BY THE CITY AND INSTALLED BY MONTANA-DAKOTA UTILITIES (MDU). COORDINATION WITH MDU FOR THE EXTENSION OF THE GAS SERVICE TO THE SITE/BUILDING WILL BE THE RESPONSIBILITY OF THE CONTRACTOR. NO SEPARATE PAYMENT WILL BE MADE FOR THIS WORK. PAYMENT WILL BE MADE UNDER OTHER APPLICABLE BID ITEMS.
4. 3-PHASE ELECTRICAL SERVICE WILL BE PAID FOR BY THE CITY AND INSTALLED BY YELLOWSTONE VALLEY ELECTRIC COOPERATIVE (YVEC). COORDINATION WITH YVEC FOR THE EXTENSION OF THE ELECTRICAL SERVICE TO THE SITE/BUILDING WILL BE THE RESPONSIBILITY OF THE CONTRACTOR. NO SEPARATE PAYMENT WILL BE MADE FOR THIS WORK. PAYMENT WILL BE MADE UNDER OTHER APPLICABLE BID ITEMS.
5. AIR AND HOT WATER LINES FROM CONTROL BUILDING TO RIVER TRENCH CASING PIPE TO BE INSTALLED IN A SINGLE TRENCH. MANUFACTURER'S PIPE INSTALLATION GUIDELINES SHALL BE FOLLOWED. SEE DETAIL 3, SHEET D4.
6. A SEPARATE CONDUIT FOR ANY SENSOR WIRING MUST BE INSTALLED IN THE SAME TRENCH AS THE AIR & HOT WATER LINES. SEE DETAIL 3, SHEET D4.
7. PRESERVE AND PROTECT EXISTING TREES AND WILLOWS TO THE EXTENT POSSIBLE. NO SEPARATE PAYMENT WILL BE MADE FOR TREES AND OTHER VEGETATION THAT ARE REQUIRED TO BE REMOVED FOR THE CONSTRUCTION OF THE ROADWAY AND BUILDING. PAYMENT WILL BE MADE UNDER OTHER APPLICABLE BID ITEMS.
8. PIPE BOLLARDS TO BE PLACED IN FRONT OF NEW GAS METER. SEE DETAIL 2, SHEET S11 FOR PIPE BOLLARD DETAIL AND SHEET ES1 FOR GENERAL LOCATION OF METER AND PIPE BOLLARDS.

GRADING & ROAD CONSTRUCTION NOTES:

1. STRIP TOPSOIL, ROOT ZONE, AND ORGANIC MATERIAL IN ROADWAY CONSTRUCTION LIMITS AND GRAVEL AREAS ADJACENT TO BUILDING. SCARIFY SUBGRADE AND ADJUST MOISTURE CONTENT TO NEAR OPTIMUM, AND COMPACT TO A MINIMUM OF 95% STANDARD PROCTOR.
2. GRADE CONTROL BUILDING PROPERTY TO PROVIDE POSITIVE DRAINAGE AWAY FROM THE BUILDING FOR A MINIMUM DISTANCE OF 10' AT A 2% SLOPE. GRADE THE REMAINDER OF THE SITE UNIFORMLY TO MATCH BACK INTO THE EXISTING ELEVATION AT THE SIDES OF THE PROPERTY.

NO.	REVISION DESCRIPTION	BY	DATE
1	ADDENDUM NO. 2	LMW	5-2-16
2	CHANGE ORDER NO. 1	LMW	6-28-16
3			
4			

PROJECT: 2-07128, TO 26
DESIGNED: JRW, SKH, CEB, KFY
DRAWN: LMW, DJK, JDM, JM
CHECKED: JJT & CEH
APPROVED: JJT & CEH
DATE: MAY 10, 2016

MONTANA JEREMIAH J. TREYSIS 15402 P.E. LICENSED PROFESSIONAL ENGINEER

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BILLINGS, MT 59101
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CITY OF LAUREL, MONTANA
WATER TREATMENT PLANT INTAKE
CONTROL BUILDING SITE GRADING PLAN

SHEET NO.
C2
7 OF 74

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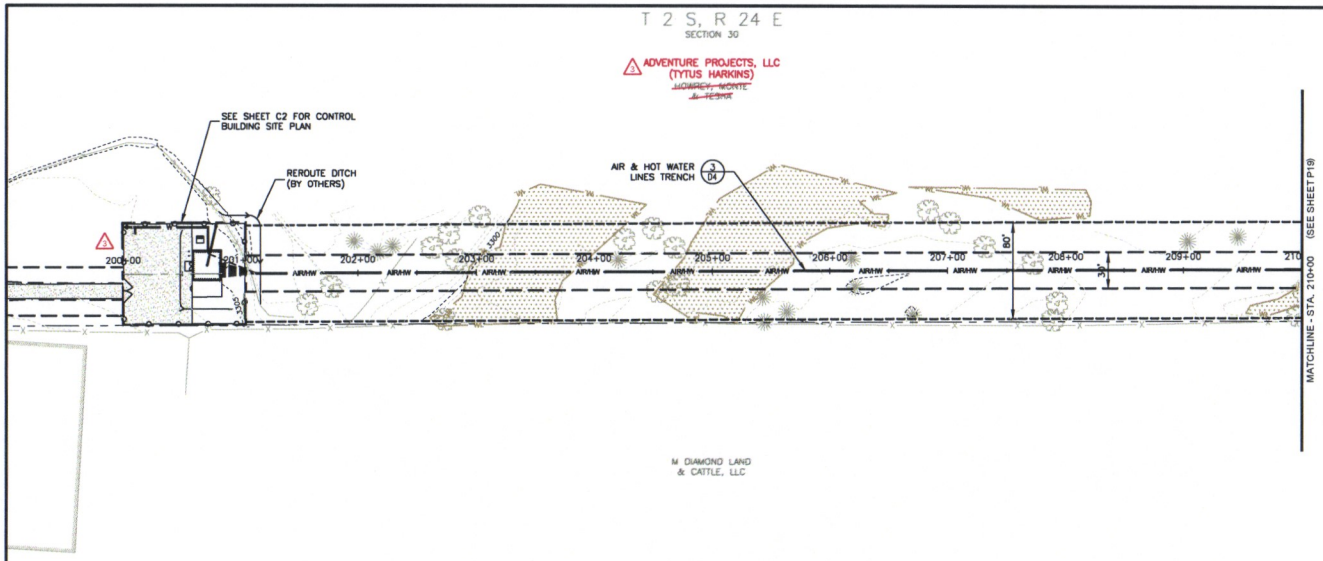
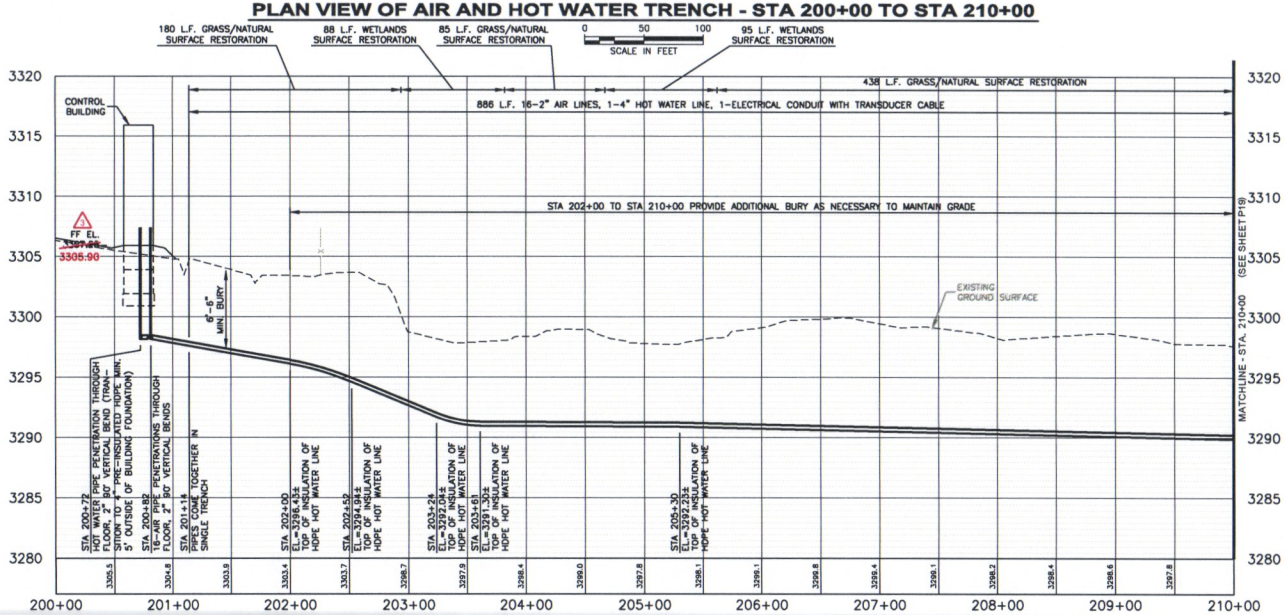


PLAN VIEW OF AIR AND HOT WATER TRENCH - STA 200+00 TO STA 210+00



PROFILE VIEW OF AIR AND HOT WATER TRENCH - STA. 200+00 TO STA. 210+00

HORIZONTAL SCALE: 1" = 100'
VERTICAL SCALE: 1" = 10'

LEGEND

- SURVEYED WATER EDGE
- 30' EASEMENT BOUNDARY
- 80' CONSTRUCTION LIMIT BOUNDARY
- FIELD-VERIFIED WETLAND AREA

*FLOW IN YELLOWSTONE RIVER AT TIME OF SURVEY WAS 3000 CFS.

PIPELINES ARE NOW APPROXIMATELY 100 L.F. SHORTER, STATIONS ADJUSTED ACCORDINGLY

GENERAL NOTES:

1. UTILITY INFORMATION SHOWN ON THE DRAWINGS IS APPROXIMATE AND MAY BE INCOMPLETE. FOR ACCURATE LOCATION, THE CONTRACTOR SHALL CONTACT, PRIOR TO EXCAVATION, THE UTILITIES UNDERGROUND LOCATION CENTER:

   UNDERGROUND LOCATION CENTER 1-800-424-5555

2. AIR LINES TO BE 2"ø PE4710, DR 9 WITH NO JOINTS, HOT WATER LINE TO BE 4"ø PRE-INSULATED HDPE AND ELECTRICAL CONDUIT WITH TRANSDUCER CABLE.
3. FIELD-VERIFIED WETLAND AREAS SHALL NOT BE DISTURBED OUTSIDE OF THE 30 FOOT EASEMENT BOUNDARY WITHOUT PRIOR APPROVAL OF OWNER AND ENGINEER.
4. AS AN ALTERNATIVE TO OPEN TRENCHING FOR INSTALLATION OF THE AIR/HOT WATER LINES, A SINGLE 18"ø CASING MAY BE INSTALLED VIA HORIZONTAL DIRECTIONAL DRILL WITH THE AIR/HOT WATER LINES PULLED THROUGH. NO ADDITIONAL COMPENSATION SHALL BE ALLOWED IF THIS ALTERNATIVE IS SELECTED BY THE CONTRACTOR.

NO.	REVISION DESCRIPTION	BY	DATE
1	CHANGE ORDER NO. 1	LMW	6-28-16

PROJECT: 2-07128, TO 26
DESIGNED: JRV, SKH, CEB, KFY
DRAWN: LMW, DJK, JDM, JM
CHECKED: JJT & CEH
APPROVED: JJT & CEH
DATE: MAY 10, 2016

MONTANA JEREMIAH J. THEYSIS 15402 P.E. LICENSED PROFESSIONAL ENGINEER

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CITY OF LAUREL, MONTANA
WATER TREATMENT PLANT INTAKE
AIR & HOT WATER TRENCH PLAN & PROFILE
STA 200+00 TO STA 210+00

SHEET NO.
P18

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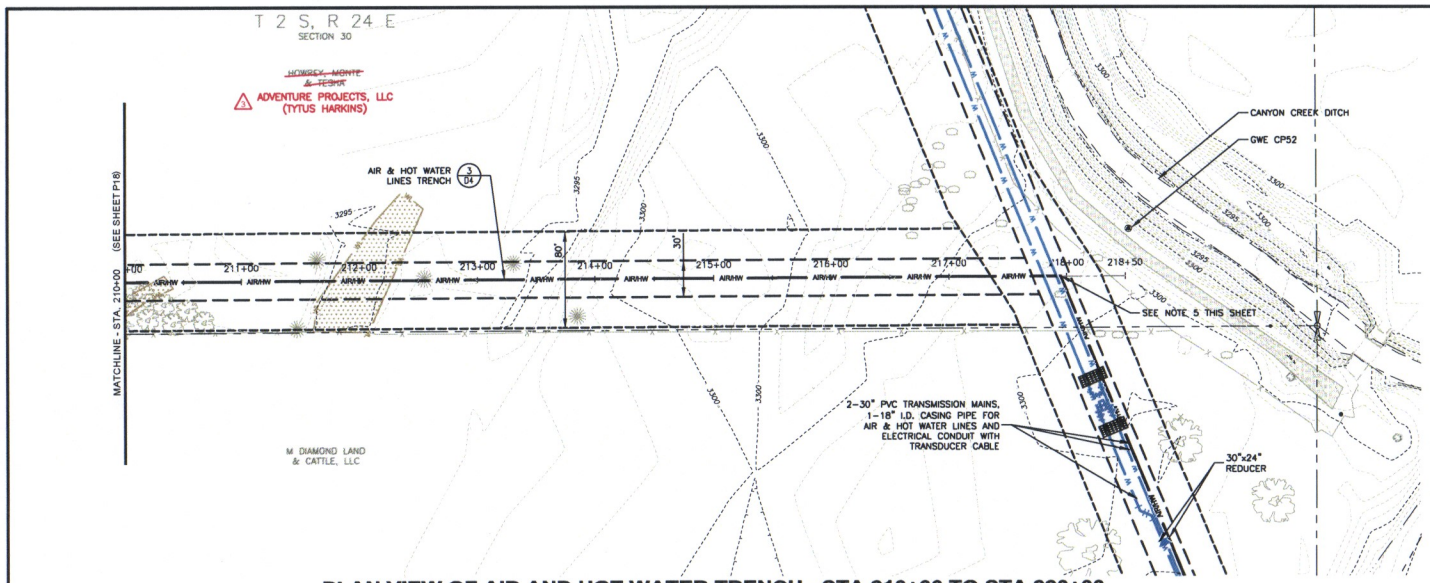
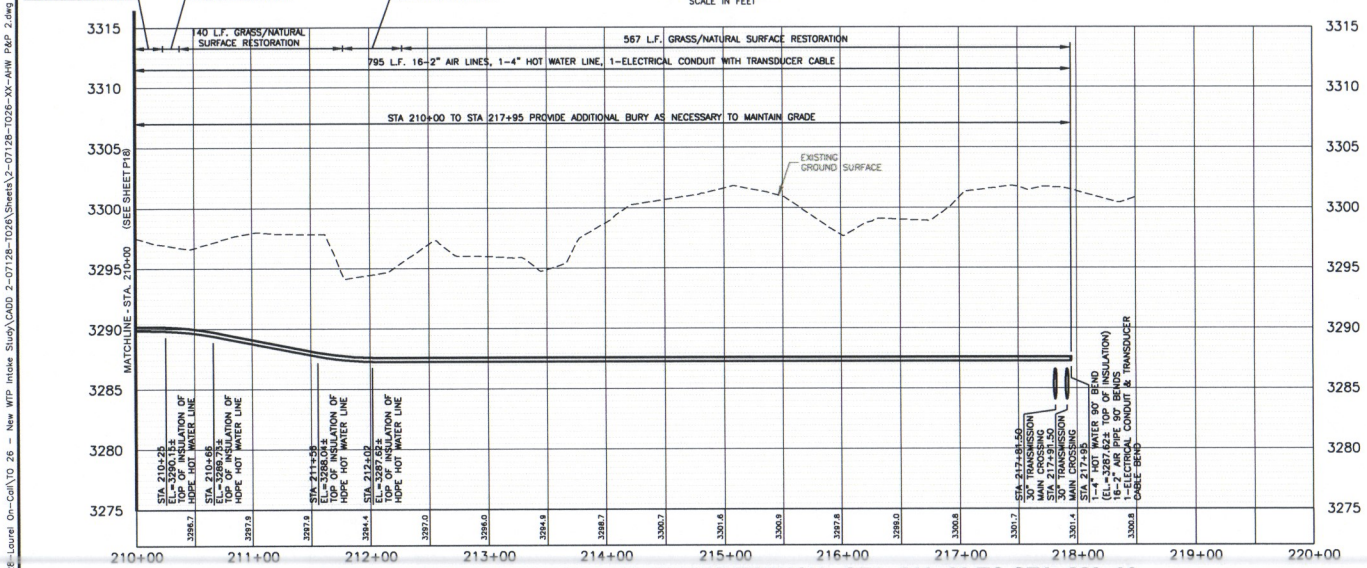


PLAN VIEW OF AIR AND HOT WATER TRENCH - STA 210+00 TO STA 220+00

0 50 100
SCALE IN FEET



PROFILE VIEW OF AIR AND HOT WATER TRENCH - STA. 210+00 TO STA. 220+00

HORIZONTAL SCALE: 1" = 100'
VERTICAL SCALE: 1" = 10'

LEGEND

- SURVEYED WATER EDGE
- 30' EASEMENT BOUNDARY
- 80' CONSTRUCTION LIMIT BOUNDARY
- FIELD-VERIFIED WETLAND AREA

*FLOW IN YELLOWSTONE RIVER AT TIME OF SURVEY WAS 3000 CFS.

PIPELINES ARE NOW APPROXIMATELY 100 L.F. SHORTER, STATIONS ADJUSTED ACCORDINGLY △1

GENERAL NOTES:

1. UTILITY INFORMATION SHOWN ON THE DRAWINGS IS APPROXIMATE AND MAY BE INCOMPLETE. FOR ACCURATE LOCATION, THE CONTRACTOR SHALL CONTACT, PRIOR TO EXCAVATION, THE UTILITIES UNDERGROUND LOCATION CENTER:

   UNDERGROUND LOCATION CENTER 1-800-424-5555

2. AIR LINES TO BE 2"ø PE4710, DR 9 WITH NO JOINTS, HOT WATER LINE TO BE 4"ø PRE-INSULATED HDPE AND ELECTRICAL CONDUIT WITH TRANSDUCER CABLE.
3. FIELD-VERIFIED WETLAND AREAS SHALL NOT BE DISTURBED OUTSIDE OF THE 30 FOOT EASEMENT BOUNDARY WITHOUT PRIOR APPROVAL OF OWNER AND ENGINEER.
4. AS AN ALTERNATIVE TO OPEN TRENCHING FOR INSTALLATION OF THE AIR/HOT WATER LINES, A SINGLE 18"ø CASING MAY BE INSTALLED VIA HORIZONTAL DIRECTIONAL DRILL WITH THE AIR/HOT WATER LINES PULLED THROUGH. NO ADDITIONAL COMPENSATION SHALL BE ALLOWED IF THIS ALTERNATIVE IS SELECTED BY THE CONTRACTOR.
5. AIR AND HOT WATER LINES AND MISCELLANEOUS CONDUITS WILL TRANSITION INTO 18"ø I.D. CASING PIPE AFTER BENDS AT STA ~~218+58~~. △1

NO.	REVISION DESCRIPTION	BY	DATE
△1	CHANGE ORDER NO. 1	LMW	6-28-16
△			
△			
△			
△			

PROJECT: 2-07128, TO 26
DESIGNED: JRW, SKH, CEB, KFY
DRAWN: LMW, DJK, JDM, JM
CHECKED: JJT & CEH
APPROVED: JJT & CEH
DATE: MAY 10, 2016

MONTANA JEREMIAH J. THEYSOHN 15402 P.E. REGISTERED PROFESSIONAL ENGINEER

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CITY OF LAUREL, MONTANA
WATER TREATMENT PLANT INTAKE
AIR & HOT WATER TRENCH PLAN & PROFILE
STA 210+00 TO STA 220+00

SHEET NO.
P19
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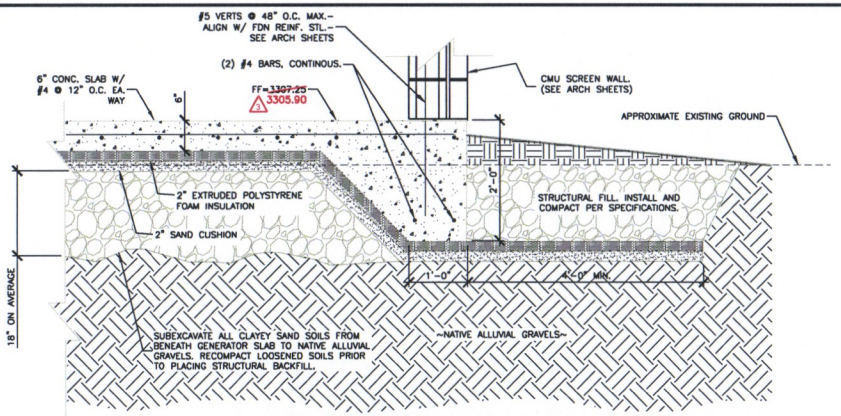
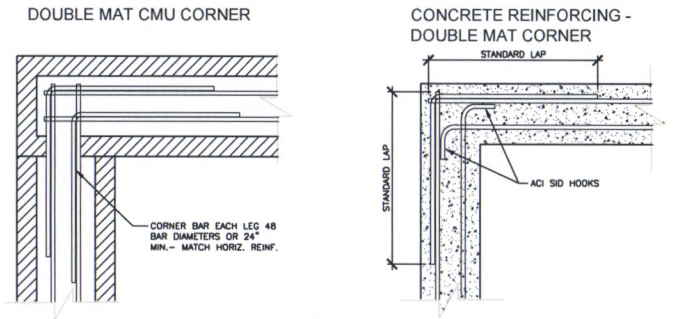
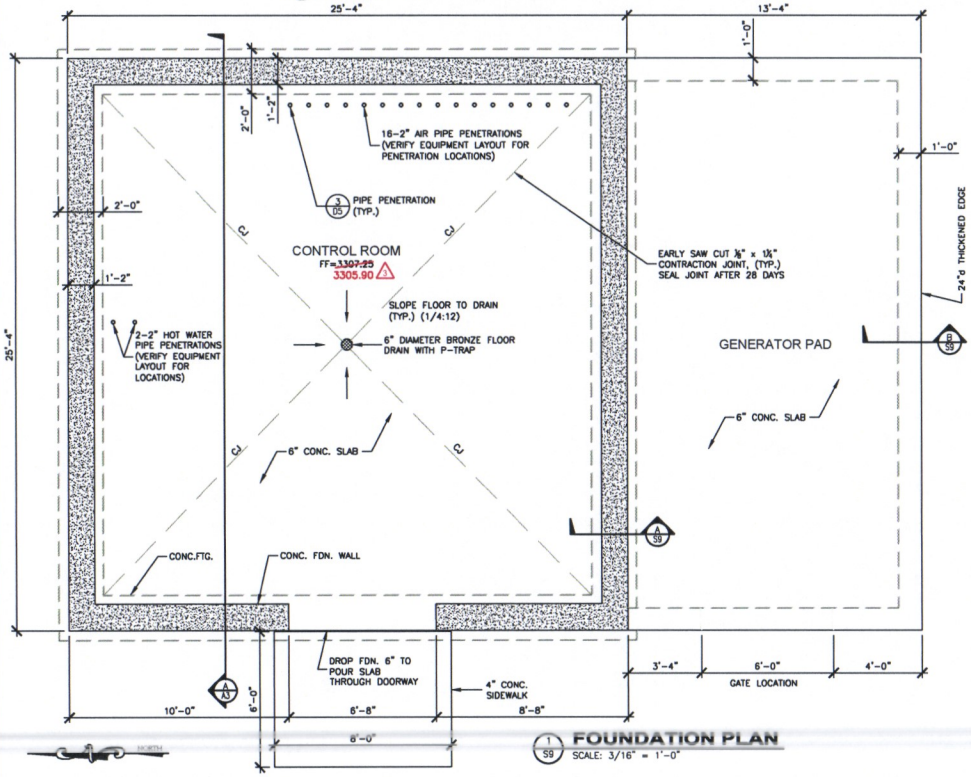


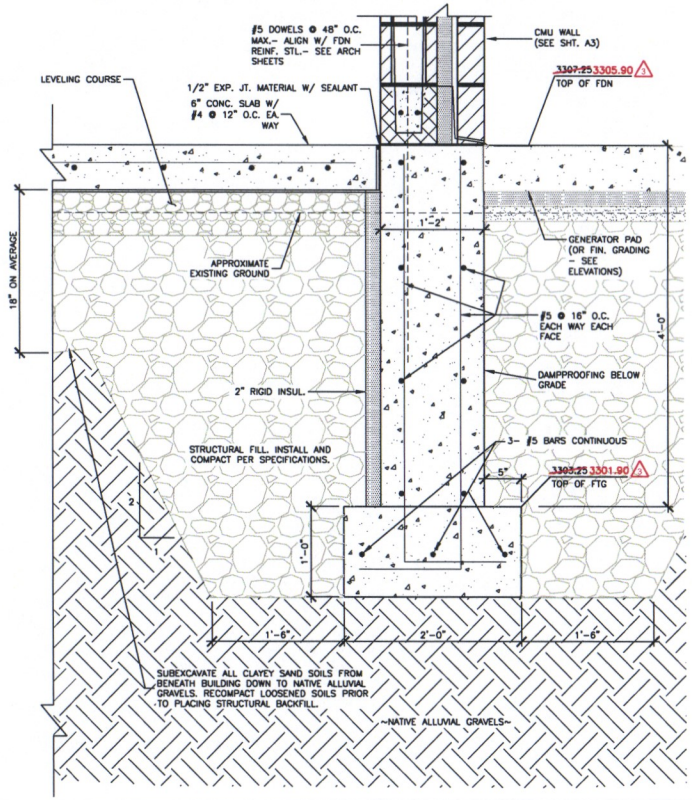
B/S9 **THICKENED EDGE SECTION**
SCALE: 1/2" = 1'-0"



C/S9 **TYPICAL REINFORCING AT CORNERS**
NO SCALE



1/S9 **FOUNDATION PLAN**
SCALE: 3/16" = 1'-0"



A/S9 **FOUNDATION SECTION**
SCALE: 3/4" = 1'-0"

NO.	REVISION DESCRIPTION	BY	DATE
1	CHANGE ORDER NO. 1	MW	6-28-16

PROJECT: 2-07128, TO 26
DESIGNED: JRW, BKH, CEB, KFY
DRAWN: LMW, DJK, JDM, JM
CHECKED: JJT & CEH
APPROVED: JJT & CEH
DATE: MAY 10, 2016

MONTANA JEREMIAH J. THEYSEN 15402 P.E. 6-28-16 LICENSED PROFESSIONAL ENGINEER

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CITY OF LAUREL, MONTANA
WATER TREATMENT PLANT INTAKE
CONTROL BUILDING FOUNDATION PLAN

SHEET NO.
S9

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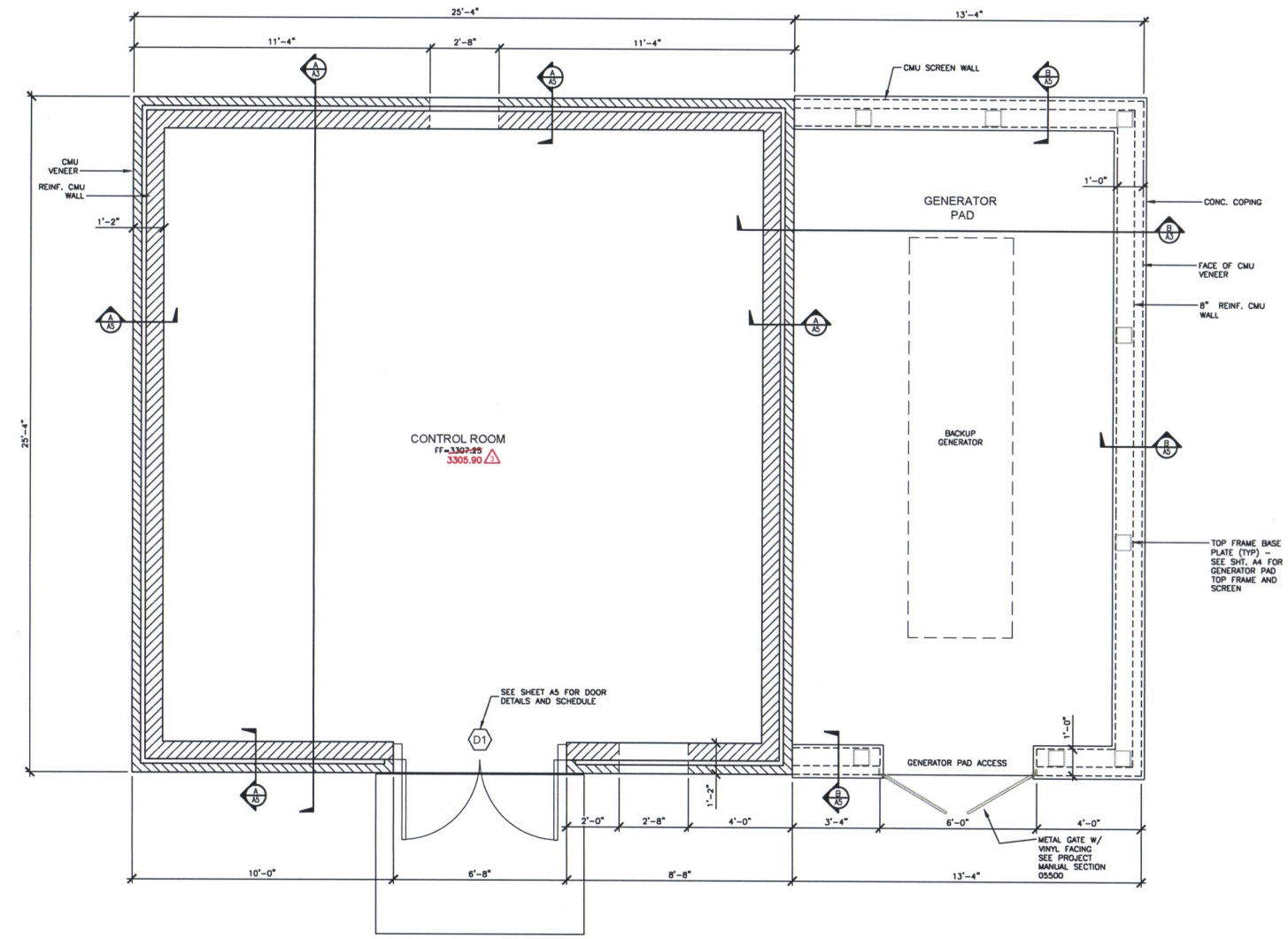

1 A1 CONTROL BUILDING FLOOR PLAN

SCALE: 1/4" = 1'-0"

NO.	REVISION DESCRIPTION	BY	DATE
1	CHANGE ORDER NO. 1	LMW	6-28-16
2			
3			
4			
5			

PROJECT: 2-07128, TO 26
DESIGNED: JRW, SKH, CEB, KFY
DRAWN: LMW, DJK, JDM, JM
CHECKED: JJT & CEH
APPROVED: JJT & CEH
DATE: MAY 10, 2016

MONTANA JEREMIAH J. THEYSOE 15402 PROFESSIONAL ENGINEER

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CITY OF LAUREL, MONTANA
WATER TREATMENT PLANT INTAKE
CONTROL BUILDING FLOOR PLAN

SHEET NO.
A1
49 OF 74

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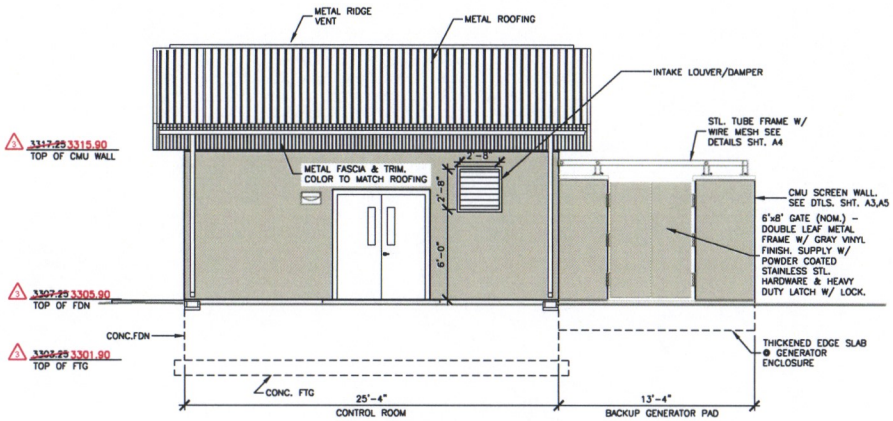
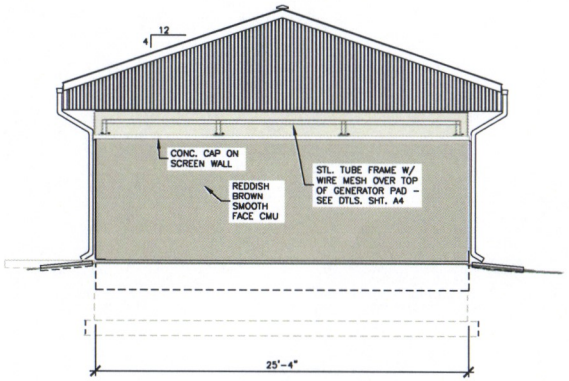
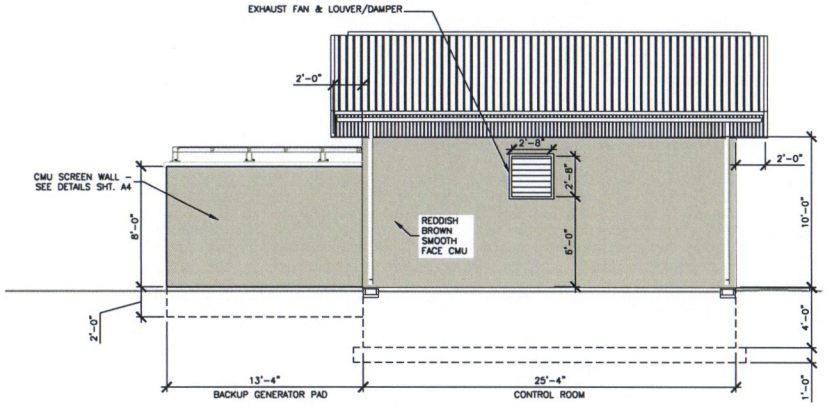


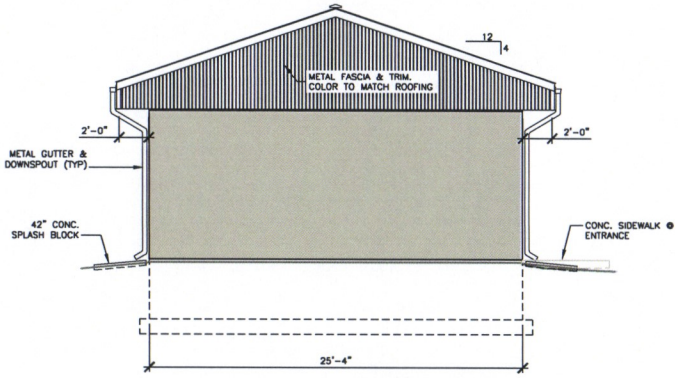
1 A2 **WEST ELEVATION**
SCALE: 1/8" = 1'-0"



2 A2 **SOUTH ELEVATION**
SCALE: 1/8" = 1'-0"



3 A2 **EAST ELEVATION**
SCALE: 1/8" = 1'-0"



4 A2 **NORTH ELEVATION**
SCALE: 1/8" = 1'-0"

NO.	REVISION DESCRIPTION	BY	DATE
1	CHANGE ORDER NO. 1	JMW	6-28-16

PROJECT: 2-07128, TO 26
DESIGNED: JRW, SKH, CEB, KFY
DRAWN: LMW, DJK, JDM, JM
CHECKED: JJT & CEH
APPROVED: JJT & CEH
DATE: MAY 10, 2016

MONTANA JEREMIAH J. HEYSER 15402 P.E. 5-10-2016 LICENSED PROFESSIONAL ENGINEER

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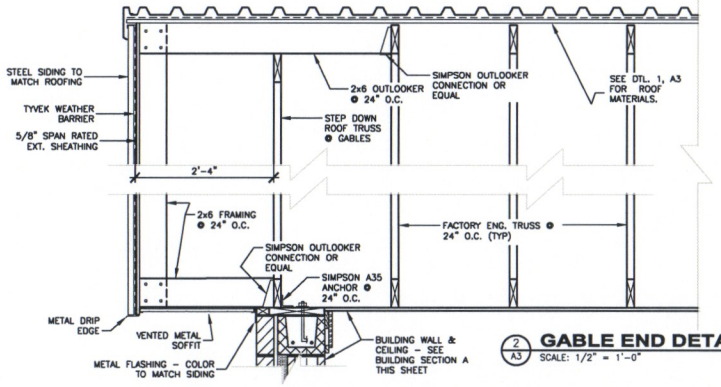
BILLINGS, MT 59101
406.652.3060

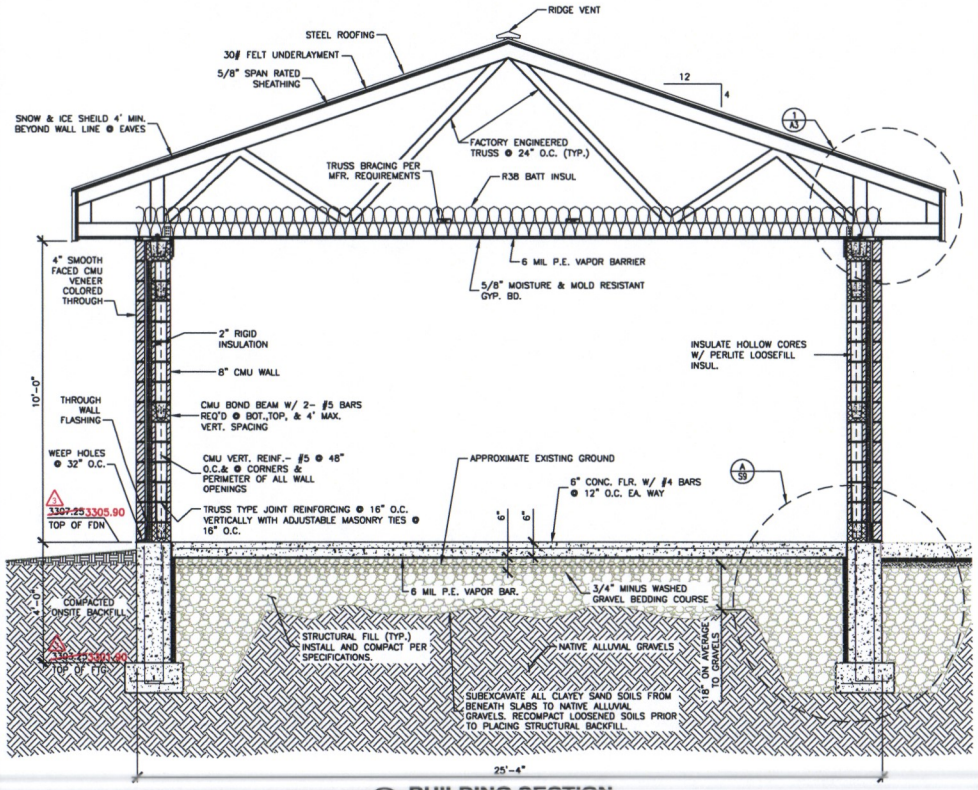
CITY OF LAUREL, MONTANA
WATER TREATMENT PLANT INTAKE
CONTROL BUILDING ELEVATIONS

SHEET NO.
A2
50 OF 74

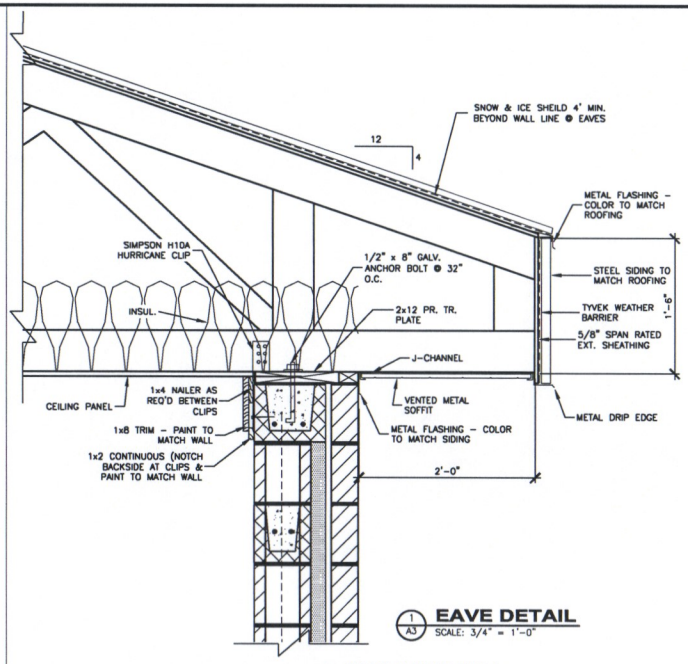
F:\2-07128-Laurel On-Call\TO 26 - New WTP Intake Study\CADD 2-07128-TO26\Sheets\2-07128-TO26-XX-CB ELEVATIONS.dwg



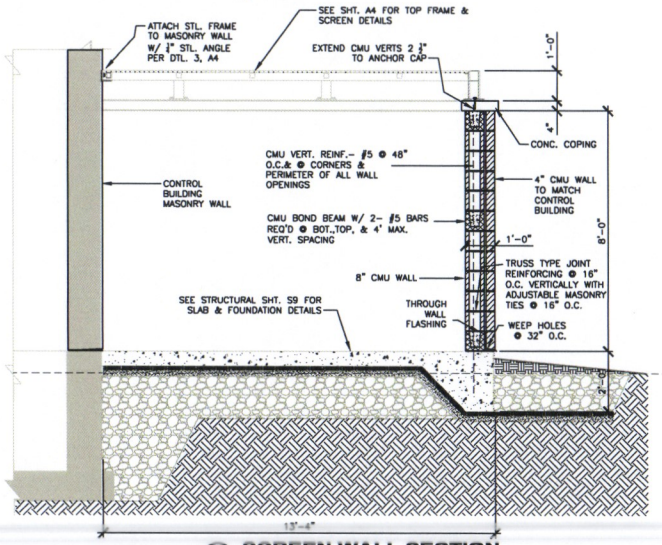
2/A3 GABLE END DETAIL
SCALE: 1/2" = 1'-0"



A/A3 BUILDING SECTION
SCALE: 1/4" = 1'-0"



1/A3 EAVE DETAIL
SCALE: 3/4" = 1'-0"



B/A3 SCREEN WALL SECTION
SCALE: 1/4 = 1'-0"

NO.	REVISION DESCRIPTION	BY	DATE
1	CHANGE ORDER NO. 1	LMW	6-28-16

PROJECT: 2-07128, TO 26
DESIGNED: JRW, SKH, CEB, KFY
DRAWN: LMW, DJK, JDM, JM
CHECKED: JJT & CEH
APPROVED: JJT & CEH
DATE: MAY 10, 2016

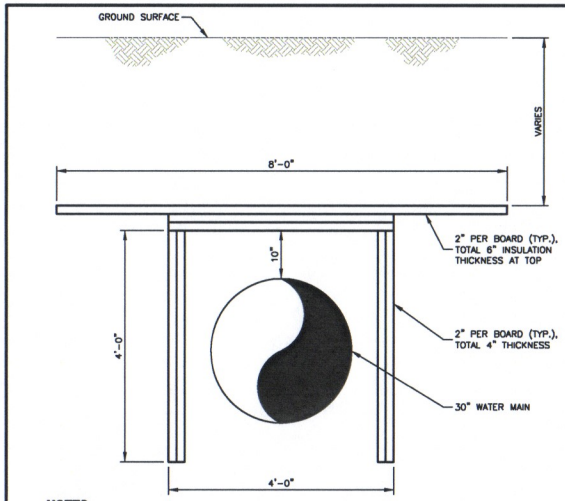
MONTANA JEREMIAH J. THEYSOHN 15402 P.E. REGISTERED PROFESSIONAL ENGINEER

GreatWest engineering®
115 N. BROADWAY SUITE 600
BILLINGS, MONTANA 59101
(406)652-5000

CITY OF LAUREL, MONTANA
WATER TREATMENT PLANT INTAKE
CONTROL BUILDING SECTIONS

SHEET NO.
A3
51 OF 74

F:\2-07128-Laurel On-Call\TO 26 - New WTP Intake Study\CADD 2-07128-T026\Sheets\2-07128-T026-XX-CB SECTIONS.dwg

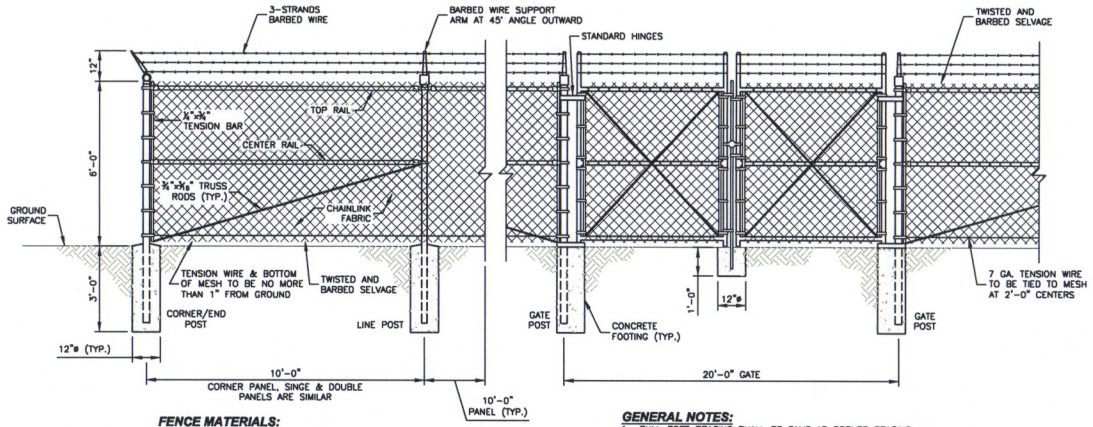


NOTES:

1. PROVIDE INSULATION BOARDS OF SP FORMULAR 250 EXTRUDED POLYSTYRENE FOAM INSULATION OR APPROVED EQUAL.
2. STAGGER LAYERS SO THAT EACH JOINT OF INSULATION BOARD IS COUNTERED BY AT LEAST 1 FOOT OF JOINT FREE BOARD EITHER ABOVE OR BELOW (IN FRONT OR BEHIND) THE JOINT IN EACH DIRECTION.

1/D3 INSULATION BOARD

NOT TO SCALE



FENCE MATERIALS:

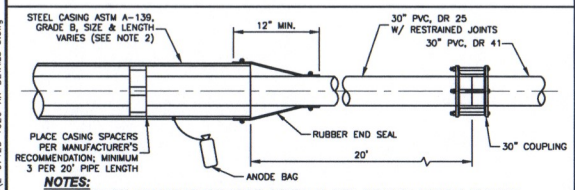
1. TOP & CENTER RAILS TO BE 1⅝" O.D.
2. FABRIC TO BE 9 GAUGE 2" MESH.
3. CORNER POSTS TO BE 2⅞" O.D.x0.160" WALL THICKNESS.
4. GATE POSTS TO BE 2⅞"x0.160" WALL THICKNESS.
5. LINE POSTS TO BE 1⅞"x2.28 LB./FT. FORMED STL SECTION.
6. POST SPACING NOT TO EXCEED 10'-0".

GENERAL NOTES:

1. PULL POST BRACING SHALL BE SAME AS CORNER BRACING.
2. A DROP BAR LOCKING DEVICE IS REQUIRED FOR DOUBLE GATE. THE DROP BAR SHALL BE ABLE TO BE INSERTED INTO THE CONCRETE BLOCK AT LEAST 6 INCHES.
3. AT LEAST ONE POST WILL BE EXTENDED 3' INTO THE GROUND FOR LIGHTNING PROTECTION.
4. CHAINLINK MESH TO BE TIED TO TOP & CENTER RAILS AT 2'-0" CENTERS.
5. GATE CHAINLINK FABRIC SHALL MATCH FENCE CHAINLINK FABRIC.
6. GATE FRAMES SHALL BE WELDED & BRACES FURNISHED AS REQUIRED.

2/D3 SECURITY CHAINLINK FENCE

NOT TO SCALE



NOTES:

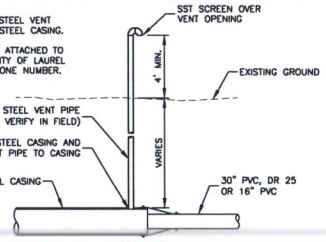
1. MANGANESE ANODE TO BE SPOT WELDED DIRECTLY TO STEEL CASING ON EACH END OF CASING.
2. LENGTH OF (2) MINIMUM 42" I.D. STEEL CASINGS UNDER BNSF RAILROAD AND MDT HIGHWAY 212/310 EQUALS 225 L.F. EACH, SEE SHEET P17 FOR FURTHER INFORMATION. ADDITIONAL MINIMUM 24" I.D. STEEL CASING FOR CHS REFINERY UNDER BNSF RAILROAD AND MDT HIGHWAY 212/310 EQUALS 220 L.F., SEE SHEET P21 FOR FURTHER INFORMATION.
3. RESTRAINED JOINT CARRIER PIPE TO EXTEND 5' MINIMUM PAST CASING PIPE ON EACH END.
4. SEE DETAIL 4 THIS SHEET FOR VENT CASING DETAIL.

3/D3 STEEL CASING/ BORING DETAIL

NOT TO SCALE

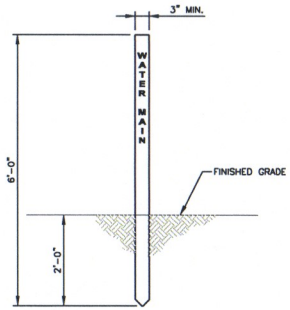
NOTES:

1. CONTRACTOR TO PLACE STEEL VENT PIPE ON EACH END OF STEEL CASING.
2. MARKER OR SIGN TO BE ATTACHED TO EACH VENT PIPE WITH CITY OF LAUREL NAME, ADDRESS AND PHONE NUMBER.



4/D3 STEEL CASING VENT DETAIL

NOT TO SCALE

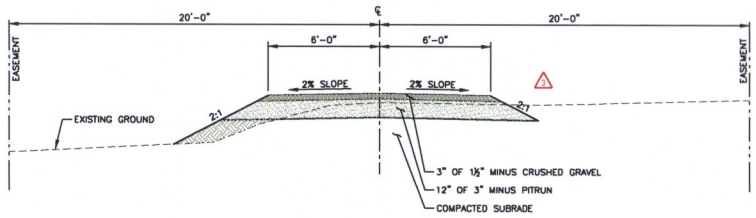


GENERAL NOTES:

1. FLEXIBLE LINE MARKING POSTS ARE TO HAVE A MINIMUM 3" (7.5CM) WIDTH AND 6' (1.8M) LENGTH.
2. POSTS TO BE CONSTRUCTED OF FIBERGLASS REINFORCED COMPOSITE MATERIALS THAT ARE UV RESISTANT AND TEMPERATURE STABLE.
3. POSTS ARE TO BE LABELED FOR WATER LINES AND COLORED TO COMPLY WITH APWA/ULCC COLOR CODE REQUIREMENTS.
4. PLACE MARKERS ON EACH SIDE OF THE CANYON CREEK & CLARKS FORK DITCH CROSSINGS AND BORINGS UNDER BNSF RAILROAD & US HIGHWAY 212/310.
5. MARKERS ON EACH SIDE OF DITCHES SHALL BE WIRED TO STEEL T-POST.

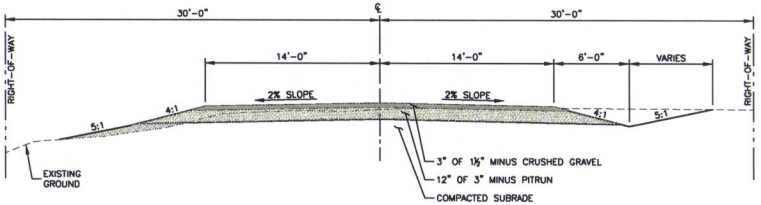
5/D3 WATER MARKER POST

NOT TO SCALE



6/D3 TYPICAL ACCESS ROAD SECTION

NOT TO SCALE



7/D3 TYPICAL COUNTY ROAD SECTION

NOT TO SCALE

NO.	REVISION DESCRIPTION	BY	DATE
1	CHANGE ORDER NO. 1	BD	6-28-16

PROJECT: 2-07128, TO 26
DESIGNED: JRW, SKH, CEB, KFY
DRAWN: LMW, DJK, JDM, JM
CHECKED: JJT & CEH
APPROVED: JJT & CEH
DATE: MAY 10, 2016

MONTANA JEREMIAH J. THEYSE 15402 P.E. 30-2016 PROFESSIONAL ENGINEER

GreatWest engineering® 115 N. BROADWAY, SUITE 500 BILLINGS, MT 59101 (406)252-5202

CITY OF LAUREL, MONTANA
WATER TREATMENT PLANT INTAKE
STANDARD DETAILS

SHEET NO.
D3
56 OF 74

F:\2-07128 Laurel On-Call\TO 26 - New WTP Intake Study\CADD 2-07128-TO26\Sheets\2-07128-TO26-XX-DETAILS 3.dwg

WILSON BROS. CONSTRUCTION, INC.
P.O. BOX 636
COWLEY, WY 82420
TELEPHONE AND FAX 307-548-6559

08/22/16

Laurel Water Treatment Plant Intake
Laurel, MT

CO#1

Bid Item No.	Item Description	Units	Qty.	Unit Price	Total Price
301	Unclassified Excavation & Embankment for Building Foundation, etc.	LS	*1*	$ 1,300.00	$ 1,300.00
312	1 1/2" Minus Crushed Aggreagte for Driveway and Parking Area	CY	*13*	$ 40.00	$ 520.00
317	2" Diameter Air Purge Line	LF	*-1728*	$ 2.00	$ (3,456.00)
320	4" Pre-Insulated Hot Water Line	LF	*-108*	$ 45.00	$ (4,860.00)
320	Material Cost for 4" Pre-Instulated Water Line	LF	*108*	$ 30.36	$ 3,278.88
				TOTAL COST	**$ (3,217.12)**