

RESOLUTION NO. R16-119

**A RESOLUTION AUTHORIZING THE MAYOR TO SIGN
CHANGE ORDER NO. 9 WITH WILSON BROTHERS CONSTRUCTION
FOR THE WATER TREATMENT PLANT INTAKE PROJECT
CONSTITUTING AN INCREASE OF \$101,210.00.**

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, additional work and compensation is required to finish the project as described in the attached Change Order; and

WHEREAS, Great West Engineering and City Staff reviewed Change Order No. 9 and determined that it is 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. 9, a copy of which is attached, to increase the contract amount by \$101,210.00.

Introduced at a special meeting of the City Council on December 13, 2016, by Council Member
Poehls.

PASSED and APPROVED by the City Council of the City of Laurel this 13th day of December, 2016.

APPROVED by the Mayor this 13th day of December, 2016.

CITY OF LAUREL



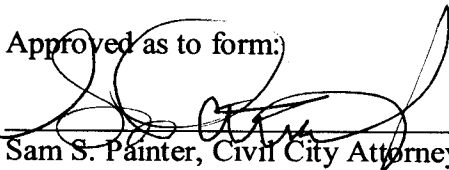
Mark A. Mace, Mayor

ATTEST:



Bethany Keeler, Clerk/Treasurer

Approved as to form:



Sam S. Painter, Civil City Attorney

Date of Issuance: December 13, 2016	Effective Date:	December 13, 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.:	MT16-04
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 bedrock elevation is lower than was anticipated by the geotechnical evaluation, so the transmission mains, air lines, and hot water line need to be supported and protected against scour from the intake structure to a point where they intersect the bedrock (approximately station 26+00 to station 27+00). A lean concrete seal between the bedrock and lean concrete pipeline encasement is proposed per the attached Drawings. The concrete seal will also be keyed into the bedrock.

- Add Item No. 233A – *Temporary Shoring for Concrete Seal (Includes Excavation/Waste)*. Increase in cost: 1 LS x \$44,610.00/LS = \$44,610.00. This item includes: sheet/shoring rental, equipment and labor for installation and additional RPR time, since the Contractor will have to work through the weekends.
- Increase the contract quantity for Item No. 105 – *Cast-in-Place Concrete* from 119 CY to 147 CY. Increase in cost: 28 CY x \$1,000/CY = \$28,000.00. This quantity increase is an estimate, and payments to the Contractor will be made based on actual quantities.
- Increase the contract quantity for Item No. 111 *Lean Concrete Encasement – Transmission Mains/Casing* from 175 CY to 227 CY. Increase in cost = 52 CY x \$550/CY = \$28,600.00. This quantity increase is an estimate, and payments to the Contractor will be made based on actual quantities.

Attachments:

- Itemized cost breakdown from Wilson Bros. Construction
- Revised Construction Plans, sheets G1, P1 and CO9

CHANGE IN CONTRACT PRICE	CHANGE IN CONTRACT TIMES <i>[note changes in Milestones if applicable]</i>
Original Contract Price: <u>\$8,560,901.00</u>	Original Contract Times: Substantial Completion: <u>240</u> Ready for Final Payment: <u>270</u> days
Increase from previously approved Change Orders No. <u>1</u> to No. <u>8</u> : <u>\$351,576.24</u>	Increase from previously approved Change Orders No. <u>1</u> to No. <u>8</u> : Substantial Completion: <u>0</u> Ready for Final Payment: <u>0</u> days
Contract Price prior to this Change Order: <u>\$8,912,654.87</u>	Contract Times prior to this Change Order: Substantial Completion: <u>240</u> Ready for Final Payment: <u>270</u> days

Increase of this Change Order: \$101,210.00	Increase of this Change Order: Substantial Completion: 0 Ready for Final Payment: 0 days
Contract Price incorporating this Change Order: \$9,013,864.87	Contract Times with all approved Change Orders: Substantial Completion: 240 Ready for Final Payment: 270 Days

<p>RECOMMENDED:</p> <p>By: <u><i>Jonathan Weaver</i></u> Engineer</p> <p>Title: <u>Project Engineer</u> Date: <u>12/9/2016</u></p>	<p>ACCEPTED:</p> <p>By: <u><i>Mark Nee</i></u> Owner (Authorized Signature)</p> <p>Title: <u><i>Mayor</i></u> Date: <u><i>12/13/2016</i></u></p>	<p>ACCEPTED:</p> <p>By: <u><i>Nick Wilson</i></u> Contractor (Authorized Signature)</p> <p>Title: <u>Ops Manager</u> Date: <u>12/9/2016</u></p>
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Approved by Funding Agency (if applicable)

By: _____ Date: _____

Title: _____

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

12/09/16

Laurel Water Treatment Plant Intake
Laurel, MT

Bid Item No.	Item Description	Units	Qty.	Unit Price	Total Price
114	TEMPORARY SHORING FOR CONCRETE SEAL (INCLUDES EXCAVATION/WASTE)	LS	1	\$ 44,610.00	\$ 44,610.00
105	CAST-IN-PLACE CONCRETE - (ESTIMATED ADDITIONAL)	CY	28	\$ 1,000.00	\$ 28,000.00
111	LEAN CONCRETE (ESTIMATED ADDITIONAL)	CY	80	\$ 550.00	\$ 44,000.00
111	LEAN CONCRETE (ESTIMATED DEDUCTION)	CY	-28	\$ 550.00	\$ (15,400.00)
					\$ -
				TOTAL COST	\$ 101,210.00

SHEET INDEX

PROJECT: 2-07128-T036
DATE: MAY 10, 2016

- SHEET 1 G1 COVER
- SHEET 2 G2 GENERAL NOTES, ABBREVIATIONS AND LEGEND
- SHEET 3 G3 OVERALL SITE PLAN, CONTROL AND GEOTECHNICAL BORINGS
- SHEET 4 G4 PROCESS & INSTRUMENTATION DIAGRAM
- SHEET 5 G5 TEMPORARY BYPASS PUMPING AT WATER TREATMENT PLANT

- CIVIL SHEETS
- SHEET 6 C1 INTAKE SITE & DEWATERING PLAN
- SHEET 7 C2 CONTROL BUILDING SITE GRADING PLAN
- SHEET 8 C3 WATER TREATMENT PLANT PIPING DEMOLITION PLAN
- SHEET 9 C4 WATER TREATMENT PLANT PIPING CONNECTION PLAN

- PIPELINE SHEETS
- SHEET 10 P1 INTAKE CONNECTION MAIN PLAN & PROFILE, STA 23+00 TO STA 33+00
- SHEET 11 P2 INTAKE TRANSMISSION MAIN #1 PLAN & PROFILE, STA 30+00 TO STA 40+00
- SHEET 12 P3 INTAKE TRANSMISSION MAIN #1 PLAN & PROFILE, STA 40+00 TO STA 50+00
- SHEET 13 P4 INTAKE TRANSMISSION MAIN #1 PLAN & PROFILE, STA 50+00 TO STA 60+00
- SHEET 14 P5 INTAKE TRANSMISSION MAIN #1 PLAN & PROFILE, STA 60+00 TO STA 70+00
- SHEET 15 P6 INTAKE TRANSMISSION MAIN #1 PLAN & PROFILE, STA 70+00 TO STA 80+00
- SHEET 16 P7 INTAKE TRANSMISSION MAIN #1 PLAN & PROFILE, STA 80+00 TO STA 90+00
- SHEET 17 P8 INTAKE TRANSMISSION MAIN #1 PLAN & PROFILE, STA 90+00 TO STA 100+00
- SHEET 18 P9 INTAKE TRANSMISSION MAIN #1 PLAN & PROFILE, STA 100+00 TO STA 110+00
- SHEET 19 P10 INTAKE TRANSMISSION MAIN #1 PLAN & PROFILE, STA 110+00 TO STA 120+00
- SHEET 20 P11 INTAKE TRANSMISSION MAIN #1 PLAN & PROFILE, STA 120+00 TO STA 130+00
- SHEET 21 P12 INTAKE TRANSMISSION MAIN #1 PLAN & PROFILE, STA 130+00 TO STA 140+00
- SHEET 22 P13 INTAKE TRANSMISSION MAIN #1 PLAN & PROFILE, STA 140+00 TO STA 150+00
- SHEET 23 P14 INTAKE TRANSMISSION MAIN #1 PLAN & PROFILE, STA 150+00 TO STA 160+00
- SHEET 24 P15 INTAKE TRANSMISSION MAIN #1 PLAN & PROFILE, STA 160+00 TO STA 170+00
- SHEET 25 P16 INTAKE TRANSMISSION MAIN #1 PLAN & PROFILE, STA 170+00 TO STA 180+00
- SHEET 26 P17 INTAKE TRANSMISSION MAIN #1 PLAN & PROFILE, STA 180+00 TO STA 190+00
- SHEET 27 P18 AIR & HOT WATER TRENCH PLAN & PROFILE, STA 200+00 TO STA 210+00
- SHEET 28 P19 AIR & HOT WATER TRENCH PLAN & PROFILE, STA 200+00 TO STA 210+00
- SHEET 29 P20 WTP RELOCATING AND CONNECTION PLAN & PROFILE, STA 400 TO STA 5400

- ~~SHEET 29 P21 ONE LINE DIAGRAM - CONTROL BUILDING~~
- SHEET 31 P22 INTAKE STRUCTURE PIPING & SCREEN CONFIGURATION DETAIL
- SHEET 32 P23 INTAKE STRUCTURE AIR & HOT WATER LINES CONFIGURATION DETAIL
- SHEET 33 P24 WATER TREATMENT PLANT DEMOLITION PLAN
- SHEET 34 P25 WATER TREATMENT PLANT CONNECTION DETAIL

- MECHANICAL SHEETS
- SHEET 35 M1 INTAKE LOW PROFILE HALF SCREEN DETAILS
- SHEET 36 M2 CONTROL BUILDING HVAC AND PLUMBING PLAN
- SHEET 37 M3 CONTROL BUILDING BOILER SYSTEM HYDRONIC PIPING FLOW DIAGRAM AND SCHEDULES

- STRUCTURAL SHEETS
- SHEET 38 S1 INTAKE ISOMETRIC VIEWS
- SHEET 39 S2 INTAKE FOUNDATION PLAN AND DETAILS
- SHEET 40 S3 INTAKE SHAFT DETAILS
- SHEET 41 S4 INTAKE FOOTING REINFORCEMENT
- SHEET 42 S5 INTAKE BASE & CIP LID REINFORCEMENT
- SHEET 43 S6 INTAKE WALL REINFORCEMENT
- SHEET 44 S7 INTAKE ROOF PANEL DETAILS AND NOTES
- SHEET 45 S8 INTAKE ROOF PANEL DETAILS AND NOTES
- SHEET 46 S9 CONTROL BUILDING FOUNDATION PLAN
- SHEET 47 S10 CONTROL BUILDING STRUCTURAL NOTES
- SHEET 48 S11 STRUCTURAL DETAILS

- ARCHITECTURAL SHEETS
- SHEET 49 A1 CONTROL BUILDING FLOOR PLAN
- SHEET 50 A2 CONTROL BUILDING ELEVATIONS
- SHEET 51 A3 CONTROL BUILDING SECTIONS
- SHEET 52 A4 CONTROL BUILDING ROOF FRAMING PLAN AND DETAILS
- SHEET 53 A5 CONTROL BUILDING SCHEDULES & TYPICAL DETAILS

- DETAIL SHEETS
- SHEET 54 D1 STANDARD DETAILS
- SHEET 55 D2 STANDARD DETAILS
- SHEET 56 D3 STANDARD DETAILS
- SHEET 57 D4 STANDARD DETAILS
- SHEET 58 D5 STANDARD DETAILS
- SHEET 59 D6 SHORING DETAILS
- SHEET 60 D7 REMOVAL OF EXISTING 1995 INTAKE

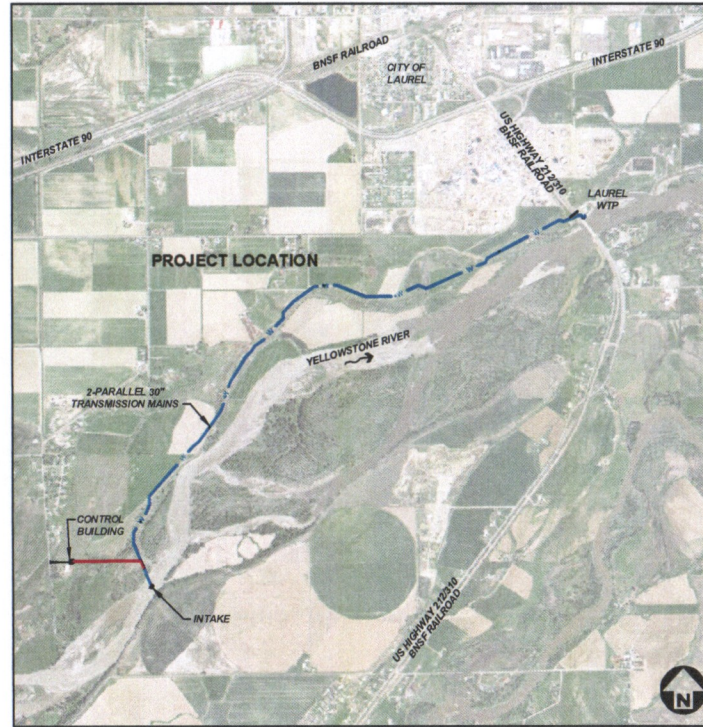
- ELECTRICAL SHEETS
- SHEET 61 E1 ELECTRICAL SITE PLAN - CONTROL BUILDING
- SHEET 62 E2 ELECTRICAL SITE PLAN - INTAKE STRUCTURE
- SHEET 63 E3 CONTROL BUILDING LIGHTING PLAN
- SHEET 64 E4 CONTROL BUILDING POWER PLAN
- SHEET 65 E5 ONE LINE DIAGRAM - CONTROL BUILDING
- SHEET 66 E6 HYDROBUST FIELD WIRING DIAGRAM
- SHEET 67 E7 SCADA SYSTEM NETWORK AND I/O DIAGRAM
- SHEET 68 E8 MOTOR CONTROL SCHEMATICS - MCC PHASE MONITOR
- SHEET 69 E9 MOTOR CONTROL SCHEMATICS - BOILER PUMP AND WELL PUMP
- SHEET 70 E10 EQUIPMENT SCHEDULE
- SHEET 71 E11 MOTOR CONTROL CENTER SCHEDULE AND EMERGENCY GENERATOR SCHEDULE
- SHEET 72 E12 ELECTRICAL SCHEDULES
- SHEET 73 E13 PLO I/O LIST
- SHEET 74 E14 ELECTRICAL DETAILS AND LEGEND

- ~~SHEET 75 G06 REVISED DEBRISK ELEVATION AND DRILLED SHIPT PER DEPTHS~~
- ~~SHEET 76 G07A BURED WATER STORAGE TANK SITE PLAN~~
- ~~SHEET 77 G07B BURED WATER STORAGE TANK DETAILS AND SECTIONS~~
- ~~SHEET 78 G07C BOOSTER PUMP AT TRANSMISSION MAIN~~

NO.	REVISION DESCRIPTION	BY	DATE	NO.	REVISION DESCRIPTION	BY	DATE	SET NO.
△	CHANGE ORDER NO 7 WATER STORAGE TANK AT CONTROL BUILDING	LJM	11-11-16	△	ADDENDUM NO 1 BEDDING AND AIR RELEASE VAULT REVISIONS	LJM	5-20-16	SHEET NO G1 1 OF 4
△	CHANGE ORDER NO 8 #1 1/2" UNLITLED SHAP 1 PIEK REVISIONS	LJM	11-04-16	△	ADDENDUM NO 2 MISCELLANEOUS REVISIONS	LJM	6-2-16	
△	CHANGE ORDER NO 9 1" TRANSMISSION MAIN PIPING REINFORCEMENT	LJM	12-2-16	△	CHANGE ORDER NO 1 CONTROL BUILDING RELOCATION	LJM	6-28-16	
△				△	CHANGE ORDER NO 2 WTP BYPASS LINE CLARIFICATIONS SHEET P17	LJM	7-21-16	
△				△	REQUEST FOR INFORMATION - 003	JCM	7-22-16	
△								
△								

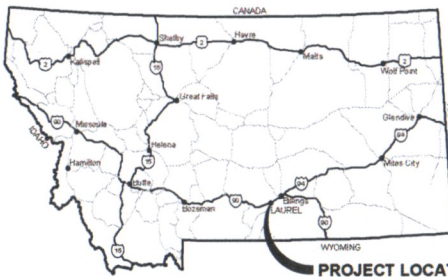
CITY OF LAUREL, MONTANA WATER TREATMENT PLANT INTAKE CONSTRUCTION PLANS

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



NOT TO SCALE

- △ SHEET 75 G06 REVISED DEBRISK ELEVATION AND DRILLED SHIPT PER DEPTHS
- △ SHEET 76 G07A BURED WATER STORAGE TANK SITE PLAN
- △ SHEET 77 G07B BURED WATER STORAGE TANK DETAILS AND SECTIONS
- △ SHEET 78 G07C BOOSTER PUMP AT TRANSMISSION MAIN



PROJECT LOCATION

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



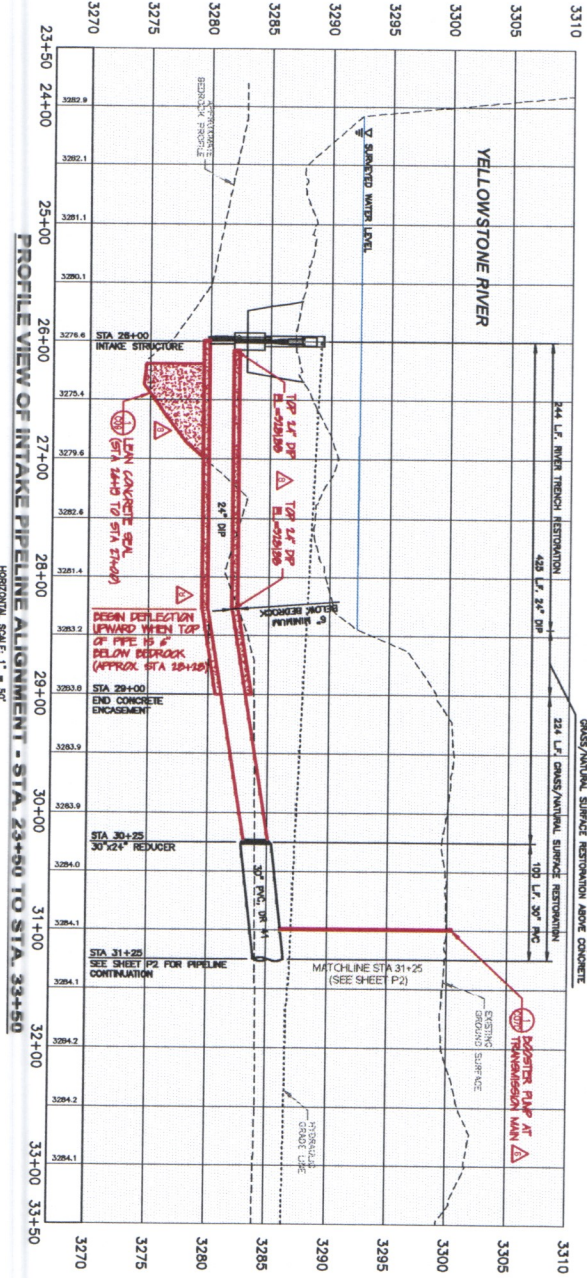
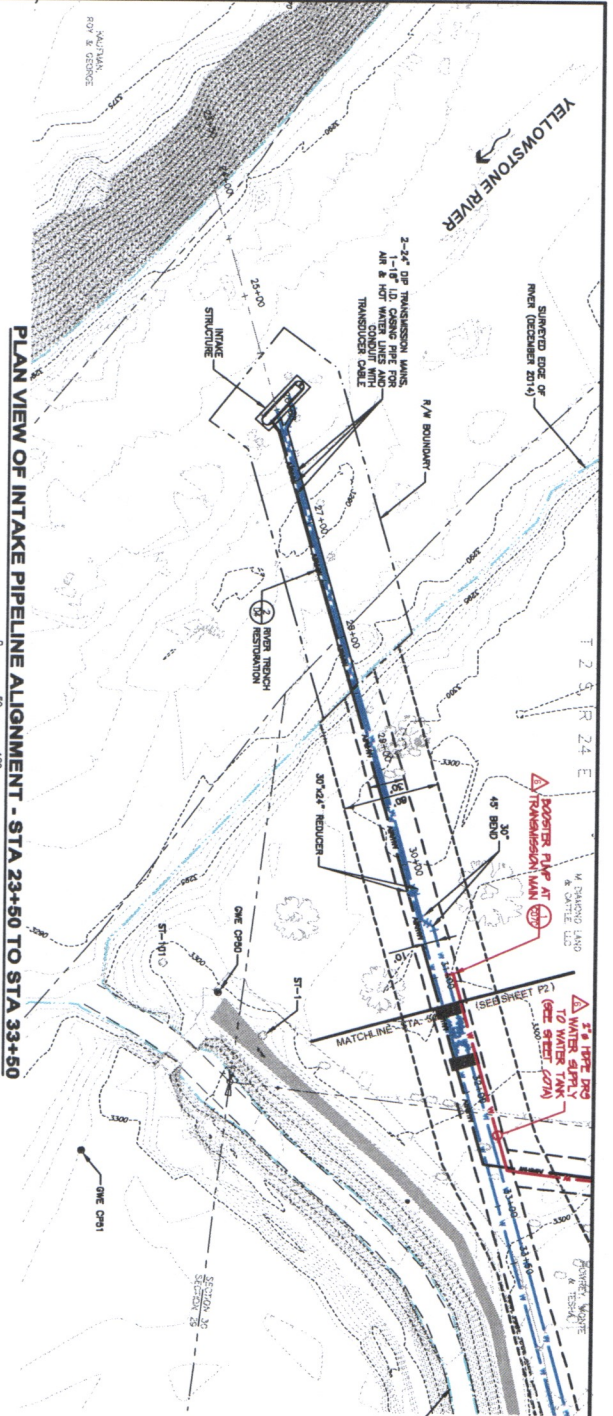
PLANS PREPARED BY:

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



115 N. BROADWAY, SUITE 500
BILLINGS, MT 59101
(406) 252-5000

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



SCALE IN FEET
0 50 100

97 L.F. CONCRETE ENCASING, SEE DETAIL 2, SHEET 04
GRADES/PIPELINE SURFACES, SEE DETAIL 1, SHEET 04

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

PROFILE VIEW OF INTAKE PIPELINE ALIGNMENT - STA. 23+50 TO STA. 33+50

LEGEND

— SANDAGED WATER EDGE
--- EXISTING BOUNDARY BOUNDARY
--- FIELD-DERIVED WETLAND AREA
--- FIELD-DERIVED NON-WETLAND WATERSHEDS
--- +1' LOW N. YELLOWSTONE RIVER AT TIME OF SURVEY WAS 2000 CHS.

--- DRAINAGE CREEK
--- OPEN CHANNEL

- GENERAL NOTES:**
1. UTILITY INFORMATION SHOWN ON THIS DRAWING IS APPROXIMATE AND MAY BE INCOMPLETE FOR CONTRACT. CONTRACTOR SHALL VERIFY ALL UTILITIES AND LOCATIONS PRIOR TO CONSTRUCTION. THE UTILITIES UNDERGROUND LOCATION CENTER.
 2. FOR CLARITY, ONLY ONE PRELIMINARY PROFILE HAS BEEN SHOWN, WHICH IS THE EASTERN MOST PROFILE. THE EASTERN MOST PROFILE IS THE LOWEST PROFILE WITH A 10 FOOT HORIZONTAL OFFSET FROM CENTERLINE. CONTRACTOR SHALL VERIFY THE EXACT LOCATION OF UTILITIES AND FIELD-DERIVED WATERSHEDS WHICH CROSSE UNDER OR OVER THE PIPELINE, SEE DETAIL 2, SHEET 04.
 3. 18" TO 12.0 INCHES PIPE FOR AIR, HOT WATER & CONDENSATE FOR CLARITY, ONLY ONE PIPELINE PROFILE HAS BEEN SHOWN ON THIS DRAWING. CONTRACTOR SHALL VERIFY THE EXACT LOCATION OF UTILITIES AND FIELD-DERIVED WATERSHEDS WHICH CROSSE UNDER OR OVER THE PIPELINE, SEE DETAIL 2, SHEET 04.
 4. THE HORIZONTAL CENTER LINE DATA SHOWN ON THE PLAN SHEETS IS THE LOWEST AND SHOWN ON THE PROFILE SHEETS IS THE HIGHEST. CONTRACTOR SHALL VERIFY THE EXACT LOCATION OF UTILITIES AND FIELD-DERIVED WATERSHEDS WHICH CROSSE UNDER OR OVER THE PIPELINE, SEE DETAIL 2, SHEET 04.
 5. THE ELEVATION OF BENCHMARK SHOWN ON THIS SHEET IS INTERPOLATED BASED ON BENCHMARK DATA ON OTHER SHEETS. CONTRACTOR SHALL VERIFY THE EXACT LOCATION OF UTILITIES AND FIELD-DERIVED WATERSHEDS WHICH CROSSE UNDER OR OVER THE PIPELINE, SEE DETAIL 2, SHEET 04.
 6. CONTRACTOR SHALL VERIFY THE EXACT LOCATION OF UTILITIES AND FIELD-DERIVED WATERSHEDS WHICH CROSSE UNDER OR OVER THE PIPELINE, SEE DETAIL 2, SHEET 04.
 7. CONTRACTOR SHALL VERIFY THE EXACT LOCATION OF UTILITIES AND FIELD-DERIVED WATERSHEDS WHICH CROSSE UNDER OR OVER THE PIPELINE, SEE DETAIL 2, SHEET 04.

CITY OF LAUREL, MONTANA

WATER TREATMENT PLANT INTAKE

INTAKE CONNECTION MAIN PLAN & PROFILE
STA 23+50 TO STA 33+50

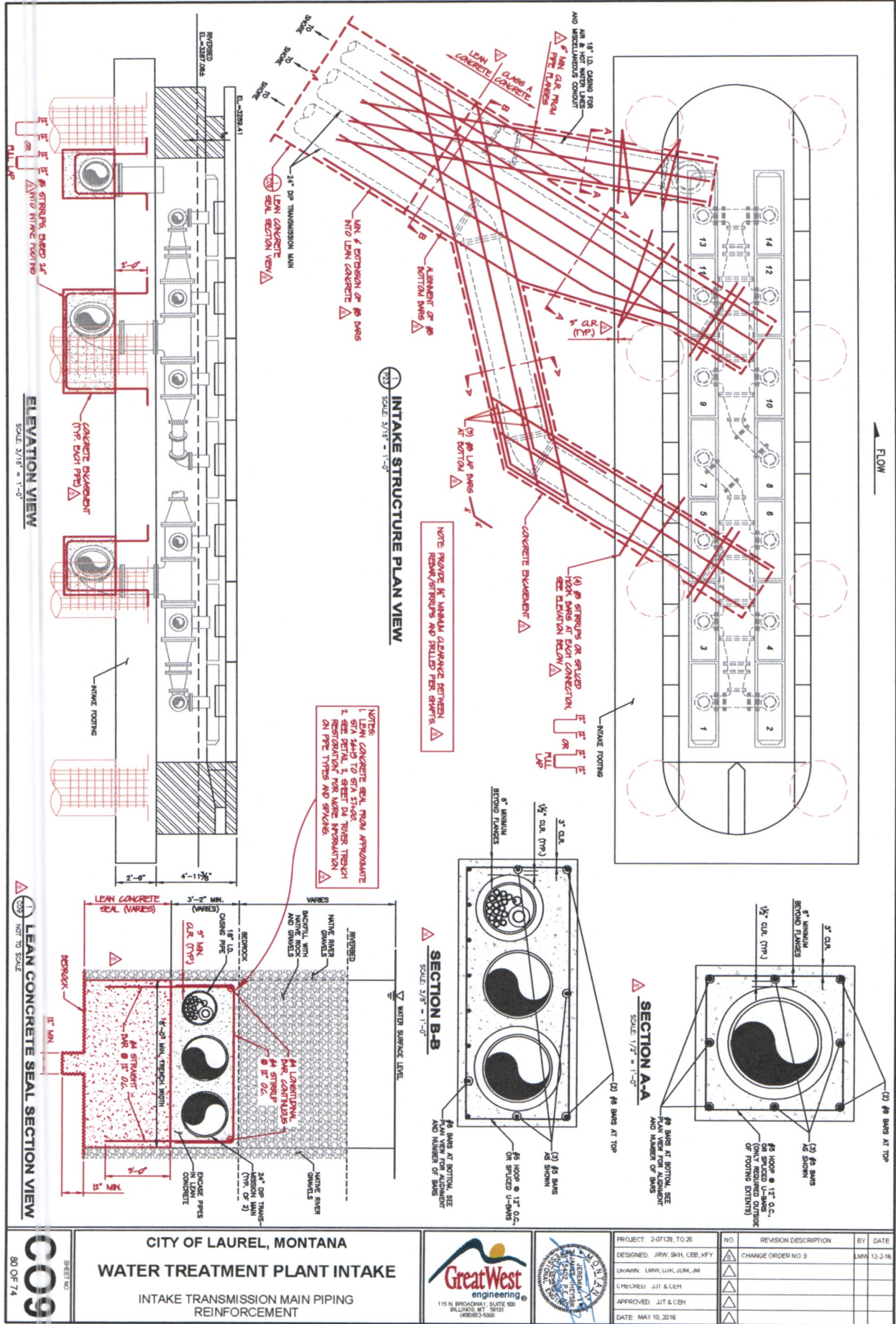
GreatWest
engineering

115 N. BROADWAY, SUITE 500
BILLINGS, MT 59101
(406)252-5000

PROJECT: 2-07128, TO 26	NO.	REVISION DESCRIPTION	BY	DATE
DESIGNED: JRW, SKH, CEB, KFV	1	CHANGE ORDER NO 7	JMN	11-11-16
CHK'D: LMM, LUK, JUM, JM	2	CHANGE ORDER NO 9	JMN	12-2-16
CHECKED: JLT & CEH	3			
APPROVED: JLT & CEH	4			
DATE: MAY 10, 2016	5			

SHEET NO. **P1**

10 OF 74



C09
SHEET NO.
80 OF 74

CITY OF LAUREL, MONTANA
WATER TREATMENT PLANT INTAKE
INTAKE TRANSMISSION MAIN PIPING REINFORCEMENT



NO.	REVISION DESCRIPTION	BY	DATE
1	DESIGNED: JRW, SKH, CEB, KFY	LMW	12-3-16
2	CHANGE ORDER NO 3		
3	DRAWN: LMW, LUK, JUM, JM		
4	CHECKED: JJI & CEB		
5	APPROVED: JJI & CEB		
6	DATE: MAY 10, 2016		