April 4, 2025

Yellowstone County is currently soliciting price quotations for supplying the specified precast concrete material and delivery of the products to Yellowstone County Road and Bridge Department located in Billings, MT.

Request for Quotes
Precast Concrete Products for Lockwood Sidewalk

A Scope of Work for the project is attached. Delivery must be made by
May 22, 2025

All quotations must be labeled "Lockwood Sidewalk Precast Supply" and submitted to the Yellowstone County Public Works Department, P.O. Box 35024, Billings, MT 59107 or delivered to the Public Works Department, Room 3201 of the Stillwater Building, 316 North 26th Street, Billings, MT 59101. If it is more convenient, quotes may be faxed (254-7946) or e-mailed (lmcisaac@yellowstonecountymt.gov).
All quotes to be received

No later than 4:00 p.m. April 28th, 2025.

Quotes received after the aforementioned time and date will not be considered.

The selected contractor will be required to provide a copy of their workers compensation coverage and general liability insurance prior to beginning the project.

The Supplier must, in performance of work under this contract, fully comply with all applicable federal, state or local laws, rules, regulations, including the Montana Human Rights Act, Civil Rights Act of 1964, the Age Discrimination Act of 1975 and the American with Disabilities Act of 1990. Any subletting or subcontracting by the Contractor subjects' subcontractors to the same provisions. In accordance with section 49-3-207, MCA, the Contractor agrees that the hiring of persons to perform the contract will be made on the basis of merit and qualifications and there will be no discrimination based upon race, color, religion, creed, political ideas, sex, age, marital status, physical or mental disability, or national origin by the persons performing under the contract.

If you have any questions concerning this project, please contact Logan McIsaac at the Yellowstone County Public Works Department at (406) 256–2735

Yellowstone County reserves the right to reject any or all quotes received and to accept the quote that best serves the interests of Yellowstone County.

Thank you, Logan McIsaac

Request for Quotes
Lockwood Sidewalk Precast Supply and Delivery
Price Quote (BID) Sheet

Please include this sheet with your bid documents.

Line	Description	Bid Qty	Units	Unit Price	Total Price
1	60" Manhole	2	EA		
2	Irrigation Division Box	1	EA		
3	36" RCP Irrigation Pipe	435	LF		
4	Irrigation Inlet Structure w/ Trash Guard	1	EA		
5	Delivery & Freight	1	LS		

Will you be able to deliver the product by May 22nd, 2025? _____ Yes _____No

_____
Company Name

_____
Authorized Representative

_____
Mailing Address

_____
City, State and Zip Code

_____
Telephone and Fax Number

_____
Date

I acknowledge receiving the following addenda, if applicable.

#1_____ #2_____
Initials Initials

95% PLANS

PRELIMINARY

DOWL

0+00 1+00 2+00 3+00 4+00 5+00

9" CMP IN PL.

BOA 0+00.00

LATERAL SEE DETAIL

DB-1

REMOVE CONCRETE STRUCTURES

MH-1

MH-2

MH-3

WL 1A-B

LATERAL SEE DETAIL

EX. R/W

RYKKEN CIR

36" IRR. INLET W/ TRASH GUARD

NEW 36" RCP IRR

NEW 36" RCP IRR

LATERAL SEE DETAIL

NEW 36" RCP IRR

RYKKEN CIR

GRADE TO INLET

NEW 36" RCP IRR

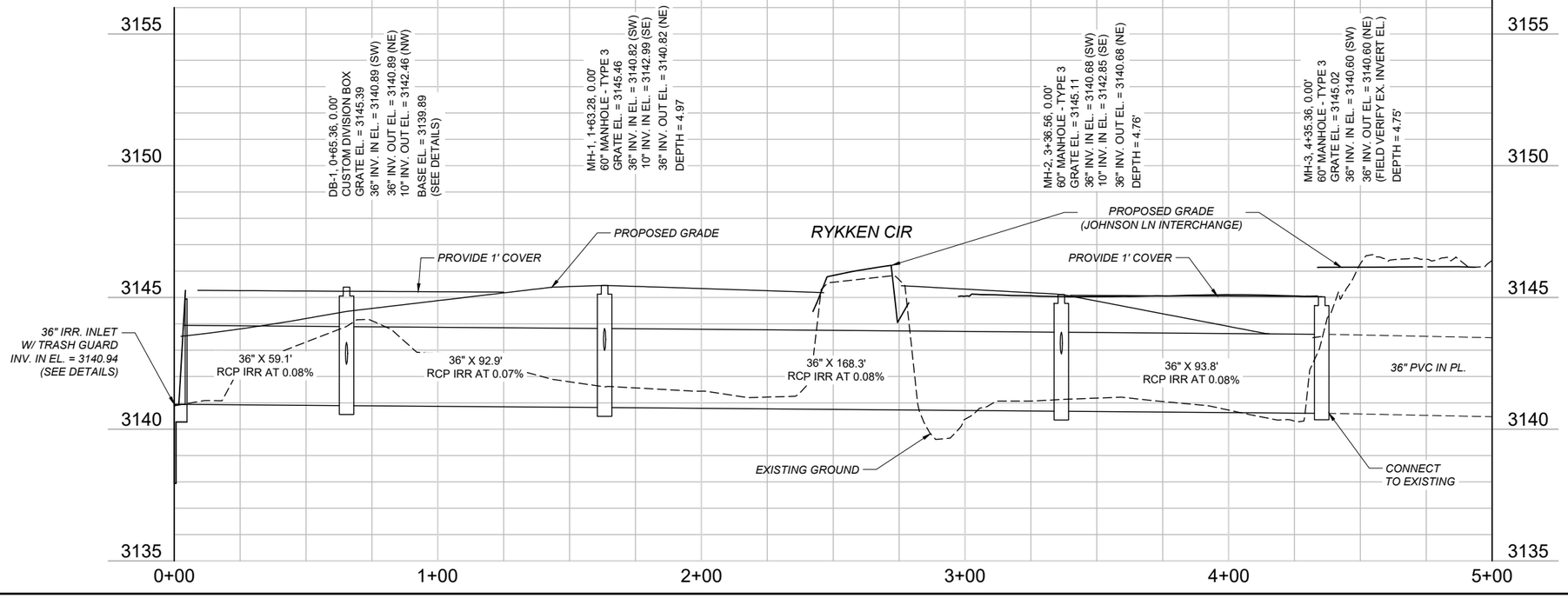
PLUG EX. PIPE INLET

CONNECT TO EXISTING

36" PVC IN PL.

CENTERLINE ALIGNMENT COORDINATE TABLE

STATION	DESCRIPTION	N OR Y COORDINATE	E OR X COORDINATE	REMARKS
0+00.00	POB	571,007.036	2,244,235.350	INLET
0+65.36	PI	571,041.547	2,244,290.856	DB-1
1+63.28	PI	571,090.325	2,244,375.765	MH-1
3+36.56	PI	571,170.431	2,244,529.411	MH-2
4+36.36	PI	571,217.559	2,244,616.254	MH-3
6+07.88	POE	571,299.120	2,244,768.276	EX. MH



LOCKWOOD PEDESTRIAN SAFETY DISTRICT

YELLOWSTONE COUNTY
PUBLIC WORKS

ROAD PLANS

1/8/2025 9:52 AM

DESIGNED BY	N PERIUS	12/2024
REVIEWED BY	T SWENSON	12/2024
CHECKED BY	D ENDERSON	12/2024

1043300RDDETT201.DWG

PROJECT NAME: SIDEWALKS - LOCKWOOD

COUNTY: YELLOWSTONE COUNTY

PROJECT ID: TA 56(114)

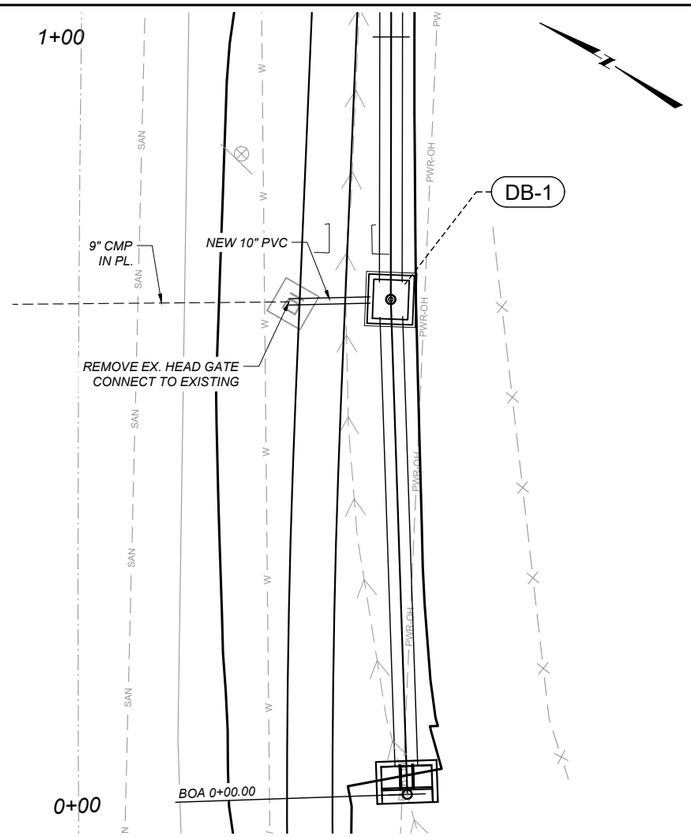
UPN: 10433000

SHEET NO. 6

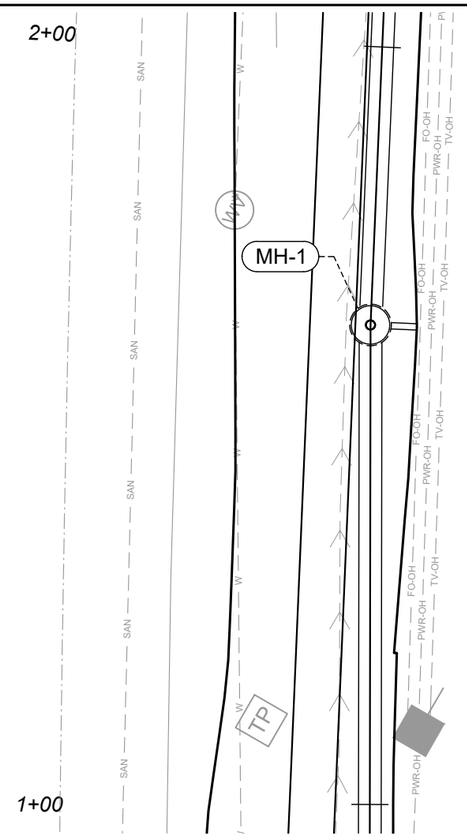
LOCKWOOD IRRIGATION DISTRICT PIPELINE

95% PLANS

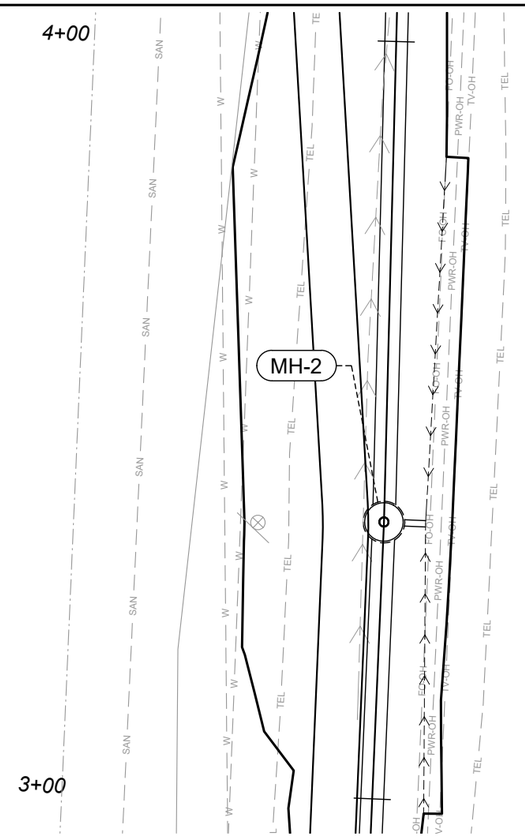
PRELIMINARY



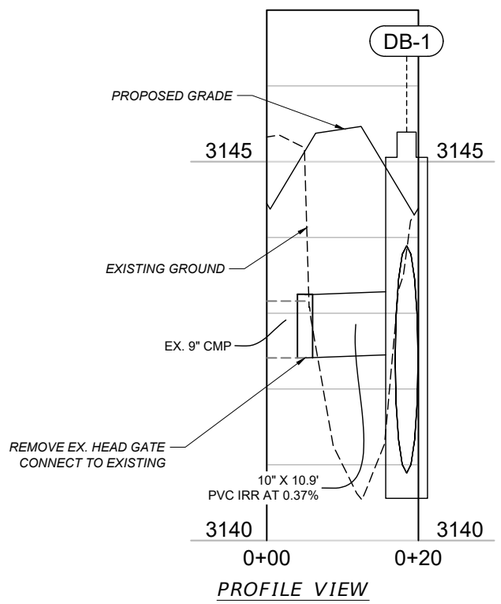
PLAN VIEW



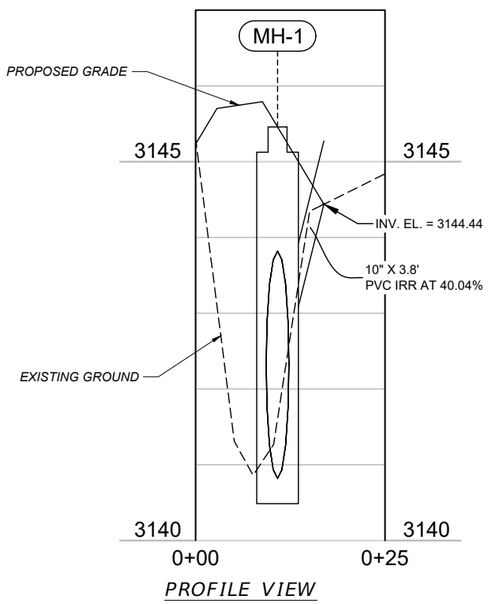
PLAN VIEW



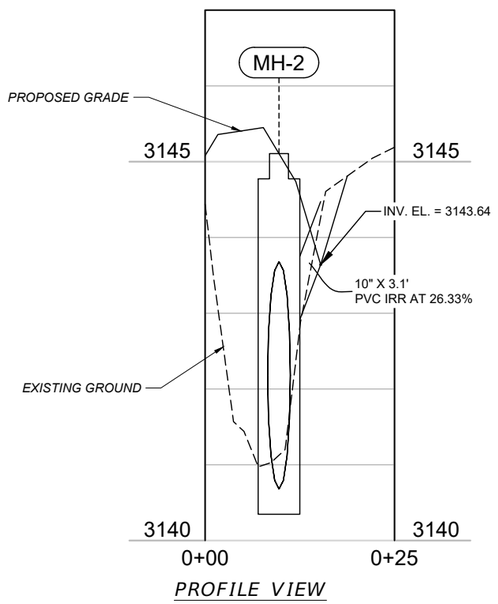
PLAN VIEW



PROFILE VIEW



PROFILE VIEW



PROFILE VIEW

IRRIGATION LATERALS

LOCKWOOD
PEDESTRIAN SAFETY
DISTRICT

YELLOWSTONE COUNTY
PUBLIC WORKS

ROAD PLANS

1/8/2025 9:52 AM

DESIGNED BY	N.PERIUS	12/2024
REVIEWED BY	T.SWENSON	12/2024
CHECKED BY	D.ENDERSON	12/2024

10433000RDDETZ01.DWG

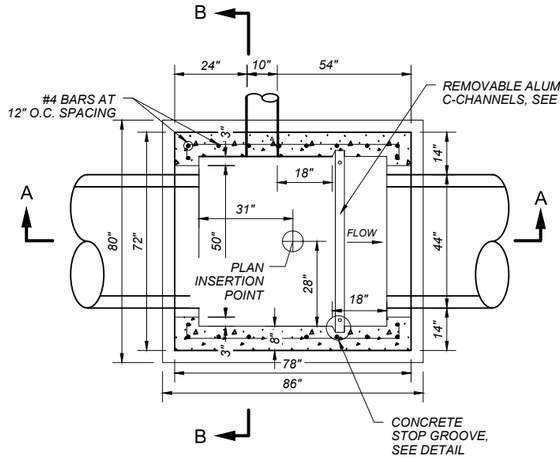
PROJECT NAME: SIDEWALKS - LOCKWOOD
COUNTY: YELLOWSTONE COUNTY
PROJECT ID: TA 56(114)
UPN: 10433000

LOCKWOOD IRRIGATION DISTRICT LATERAL DETAILS

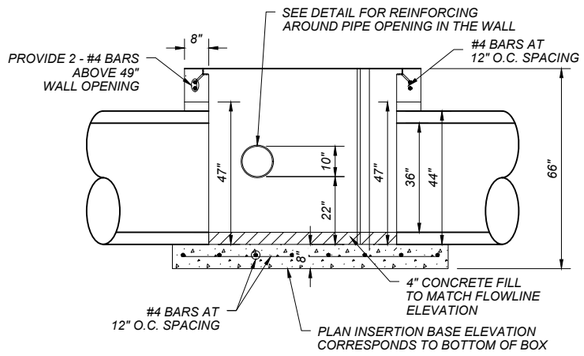
SHEET NO. 7

95% PLANS

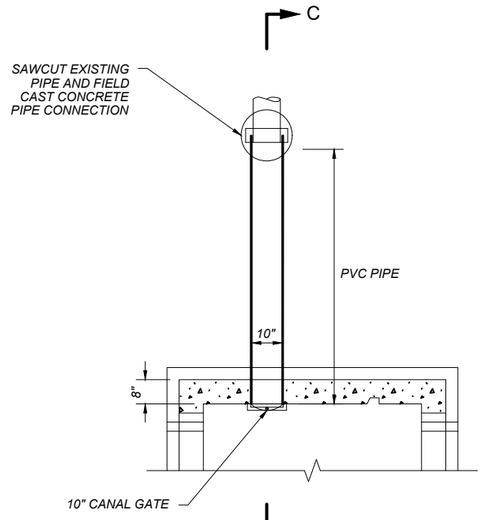
PRELIMINARY



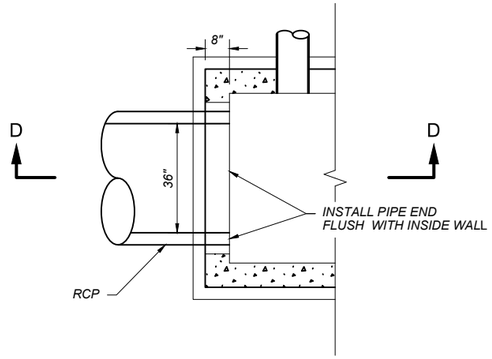
PLAN



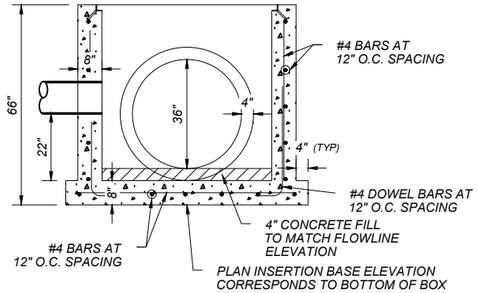
SECTION A-A



PLAN



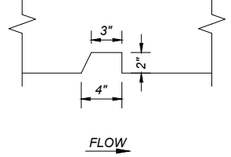
PLAN



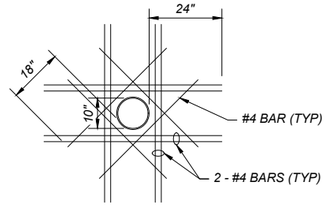
SECTION B-B

DIVISION BOX		CL. GEN. CONCRETE (CY) **
STATION (ft)	OFFSET (ft)	
19+22.16	6.0' RT	4.2

**NOTE: ALL WALLS AND FLOORS ARE 8"

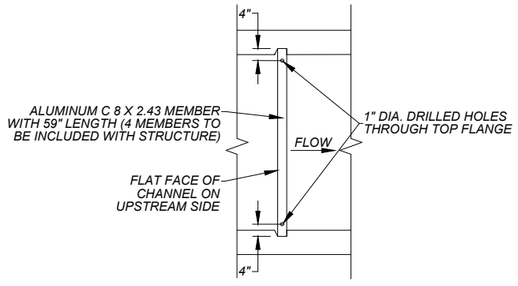


STOP GROOVE



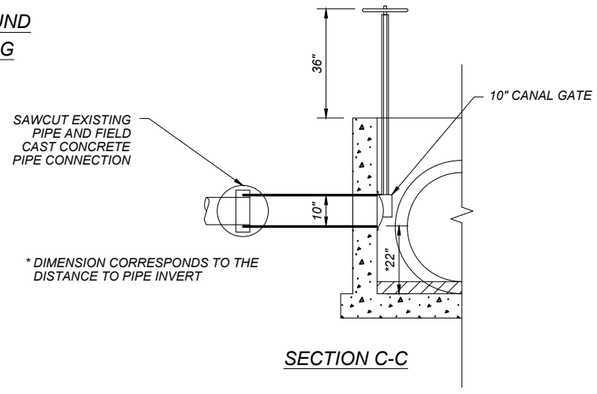
NOTE: BEND REINFORCING AROUND 10" DIAMETER OPENING IN WALL AS NECESSARY AT JOINTS OR OTHER OBSTRUCTIONS

REINFORCEMENT AROUND
30" DIA. WALL OPENING



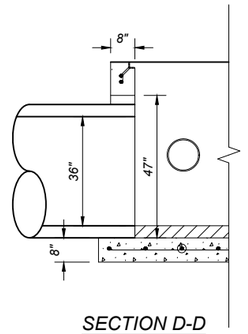
NOTE: USE ALUMINUM C-CHANNELS IN ACCORDANCE WITH ASTM C 221.

C-CHANNEL DETAIL



SECTION C-C

TURNOUT PIPE CONNECTION DETAIL



SECTION D-D

MAIN PIPE CONNECTION DETAIL

DIVISION BOX DETAIL

LOCKWOOD
PEDESTRIAN SAFETY
DISTRICT

YELLOWSTONE COUNTY
PUBLIC WORKS
ROAD PLANS

DESIGNED BY	N PERIUS	12/2024
REVIEWED BY	T SWENSON	12/2024
CHECKED BY	D ENDERSON	12/2024

1/8/2025 9:52 AM

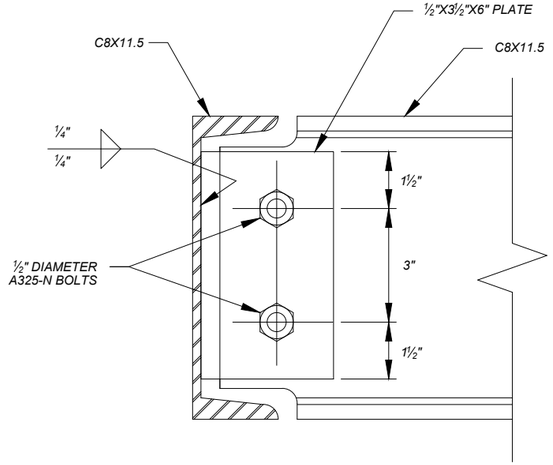
PROJECT NAME: SIDEWALKS - LOCKWOOD
COUNTY: YELLOWSTONE COUNTY
PROJECT ID: TA 56(114)
UPN: 10433000
10433000RDDET201.DWG

SHEET NO.
8

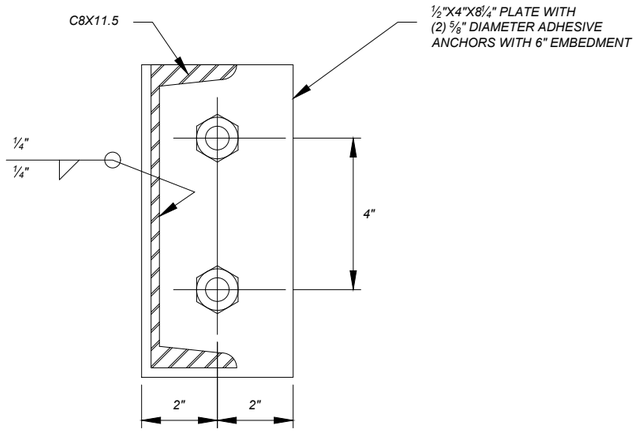
DIVISION BOX DETAILS

PRELIMINARY

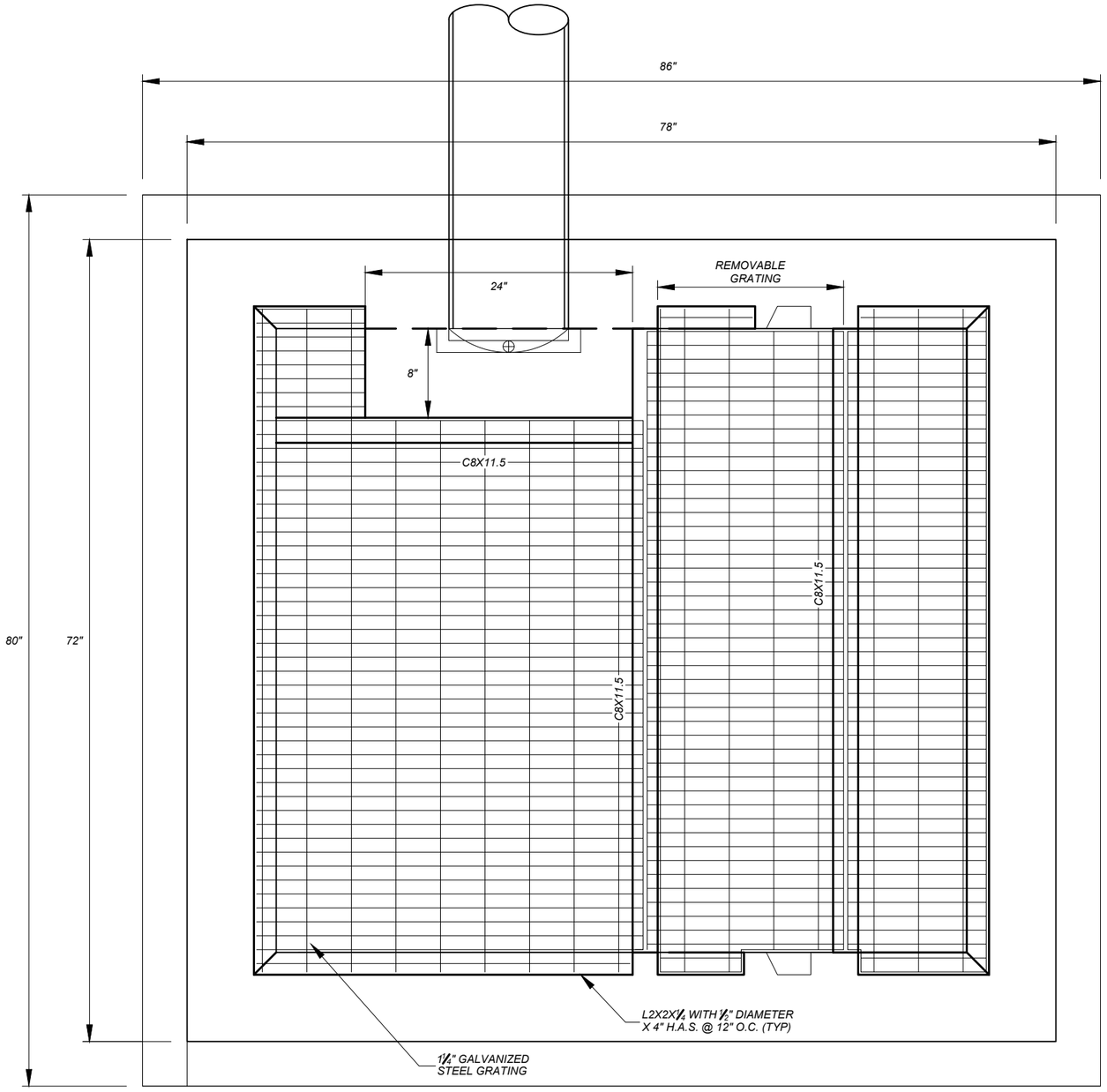
95% PLANS



C8X11.5 TO C8X11.5 CONNECTION DETAIL



C8X11.5 WALL CONNECTION DETAIL



NOTE: BAR GRATING TO BE SUBDIVIDED INTO SECTIONS NOT EXCEEDING 40 LBS PER SECTION.

DIVISION BOX GRATE COVER DETAIL

LOCKWOOD
PEDESTRIAN SAFETY
DISTRICT

SHEET NO.
9

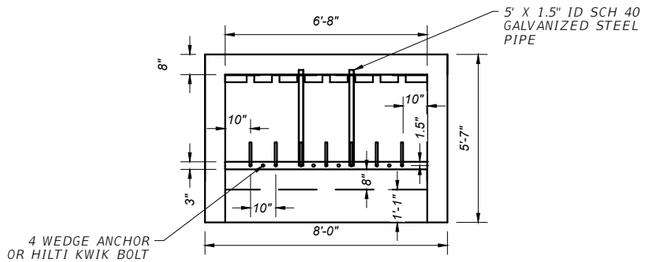
DIVISION BOX
GRATE COVER
DETAILS

DESIGNED BY	12/2024	PROJECT NAME	SIDEWALKS - LOCKWOOD
N PERIUS		COUNTY	YELLOWSTONE COUNTY
REVIEWED BY	12/2024	PROJECT ID	TA 56(114)
T SWENSON		UPN	10433000
CHECKED BY	12/2024		
D ENDERSON		10433000RDDETZ01.DWG	

YELLOWSTONE COUNTY
PUBLIC WORKS

ROAD PLANS

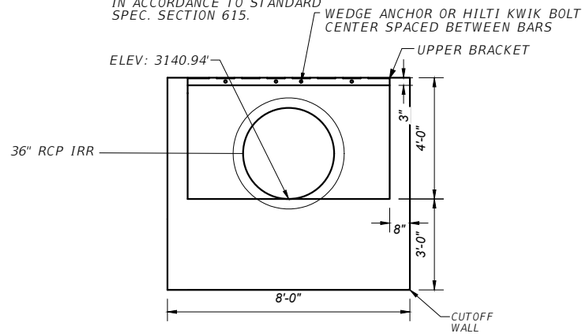
1/8/2025 9:52 AM



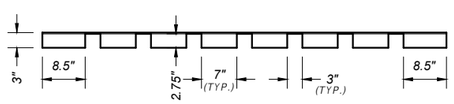
IRRIGATION INLET STRUCTURE
PLAN VIEW

NOTES:

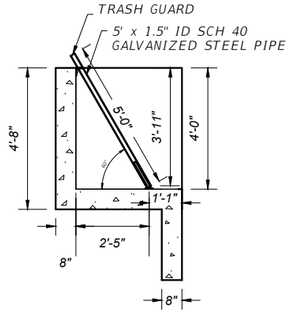
#5 BARS @ 12" ON CENTER EACH WAY FOR ALL FLOOR, CUTOFF WALLS, SIDES, AND BACK WALL FABRICATED IN ACCORDANCE TO STANDARD SPEC. SECTION 615.



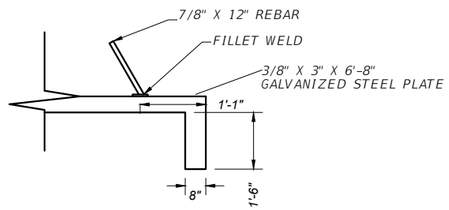
IRRIGATION INLET STRUCTURE
SECTION VIEW



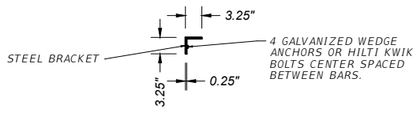
UPPER BRACKET
PLAN VIEW



IRRIGATION INLET STRUCTURE
PROFILE VIEW



REBAR ANCHORS



UPPER BRACKET
PROFILE VIEW

IRRIGATION INLET STRUCTURE

PRELIMINARY

95% PLANS

DOWL

LOCKWOOD PEDESTRIAN SAFETY DISTRICT

YELLOWSTONE COUNTY
PUBLIC WORKS

ROAD PLANS

1/8/2025 9:52 AM

DESIGNED BY	N PERIUS	12/2024
REVIEWED BY	T SWENSON	12/2024
CHECKED BY	D ENDERSON	12/2024

1043300RDDET201.DWG

PROJECT NAME: SIDEWALKS - LOCKWOOD
COUNTY: YELLOWSTONE COUNTY
PROJECT ID: TA 56(114)
UPN: 10433000

IRRIGATION INLET STRUCTURE DETAIL

SHEET NO. 10

B. Process and Format

1. Unless otherwise required in an individual specification section, make all submittals electronically using Newforma InfoExchange™. Newforma InfoExchange™ is a web-enabled server that enables project team members (both internal and external to the host) to easily and securely exchange project files using a website. It provides email notifications, reminders, a history log, and all other necessary submittal handling features. The Engineer will host the site and provide the Contractor with all necessary access and processing information at the pre-construction conference or at such earlier time as required to transmit initial submittals.

SP-4. BUILD AMERICA, BUY AMERICA (BABA)

Furnish construction materials manufactured in the United States. Construction materials include articles, materials, or supplies that are or consist primarily of:

- Non-ferrous metals.
- Plastic and polymer-based products (including polyvinylchloride, composite building materials, and polymers used in fiber optic cables).
- Glass (including optic glass).
- Fiber optic cable (including drop cable).
- Optical fiber.
- Lumber.
- Drywall, and
- Engineered wood.

Construction materials exclude cement and cementitious materials, aggregates including stone, sand, or gravel, or aggregate binding agents (e.g., asphalt binder) or additives (e.g., polymer modifiers and admixtures).

Manufacturing processes for the construction material must occur in the United States. Manufacturing processes for each of the bulleted construction materials above are defined in 2 CFR 184.6 and are summarized below.

a) Non-ferrous metals: Initial smelting or melting through final shaping, coating, and assembly.
b) Plastics: Initial combination of plastic, polymer-based, or composite materials until the item is in its final form.
c) Glass: Initial batching and melting, annealing, cooling, and cutting.
d) Fiber Optic Cable: Initial ribboning, buffering, and fiber stranding and jacketing.
e) Optical Fiber: Initial preform fabrication through completion of draw.
f) Lumber: Initial debarking, treatment, and planing.
g) Drywall: Initial blending of gypsum, cutting, and drying of sandwiched panels.
h) Engineered Wood: Initial combination of constituents until item is in its final form.

BABA preference applies to articles, materials, and supplies that are consumed in, incorporated into, or affixed to a project. It does not apply to tools, equipment, and supplies brought to the construction site and removed at or before the completion of the project (e.g., temporary aluminum scaffolding). Buy America preference does not apply to equipment and furnishings that are used at or within the finished infrastructure project but are not permanently affixed to the structure (e.g., movable chairs, desks, or computer equipment used at or within the project but are not integral or permanently affixed to a structure).

2 CFR 184 applies to all construction materials on projects receiving federal financial assistance funds. Submit Form MDT-MAT-407, "Manufacturer's Certificate of Compliance," for every material identified as a construction material in the Department's Materials Manual Section MT 601 furnished to the project. For all other materials, documentation will be required upon request. Do not incorporate construction materials into the project until all required documentation is submitted to the Department. Ensure that suppliers and manufacturers understand the BABA and contract requirements to supply the required documentation.

The Department will not accept items installed until all supporting documentation has been reviewed and is found to be in accordance with the contract requirements. Insufficient or unavailable documentation or documentation showing products containing construction materials of foreign origin are grounds for removal and replacement at the contractor's expense.

The Department has designated contract materials as "construction materials" by their respective 9-digit material codes in section MT 601 of the Montana Materials Manual. However, the Department recognizes there will be situations where a product or material may not fit the designation indicated in section MT 601. In these cases, submit documentation demonstrating or justifying the supplier or manufacturer's position that their specific item has been misclassified to the Project Manager at least 10 business days in advance of installation. the Department, in conjunction with FHWA, will review the submitted documentation and decide as to how that specific product or material will be classified. These determinations will be final and will require the appropriate necessary documentation as defined above.

The US DOT has found that it is in the public interest to issue a waiver of BABA's domestic preferences in certain situations. For Construction Materials, the domestic preference may be waived if the total value of non-compliant material is under $1,000,000 or 5% of the total applicable project costs, whichever is less. Submit actual individual material costs, minus manufacturing costs outside the defined manufacturing processes outlined above, along with justification in the form of invoices, bills of lading, or other appropriate documents to the Department if requesting the waiver.

The above waiver does not apply to iron and steel, and the existing de minimis standard for iron and steel under 23 CFR 635.410(b)(4) continues to apply.

Projects with a total contract value of $500,000 or less are exempt from all domestic preference regulations, including steel and iron.

SP-5. CONTRACTOR QUALITY CONTROL AND OWNER QUALITY ASSURANCE

The requirements of this Special Provision shall supplement Section 01400 of MPWSS, as modified by the City of Billings Standard Modifications.

A. Definitions

1. Quality Control: Planned and specific actions or operations necessary to produce a product that complies with the Contract Documents. Quality Control consists of actions, inspections, sampling, and testing necessary to ensure the Work is in compliance with the Contract Documents and to control production and construction processes. Quality Control is keyed to the construction sequence to quickly determine when the Work is out of compliance with the Contract Documents and to respond to correct the situation and bring the Work into compliance. Quality Control is the responsibility of the Contractor.

SECTION 02720

STORM DRAIN SYSTEMS

PART 1: GENERAL

1.1 DESCRIPTION

A. Furnish and install all storm drains, including manholes, inlets, service lines and other appurtenant structures as specified in the Contract and this section. Pipe strength classifications are specified on the plans, listed in the Contract Documents or herein.

1.2 CERTIFICATION BY MANUFACTURER

A. Furnish a manufacturer's certification on all pipe, certifying that the pipe and fittings meet the contract requirements.

1.3 REFERENCES

AASHTO M36	Corrugated Galvanized Steel Pipe and Pipe Arches
AASHTO M196	Corrugated Aluminum Pipe and Pipe Arches
AASHTO M245	Pre-Coated Galvanized, Corrugated Steel Pipe and Pipe Arches
AASHTO M274	Type II Aluminized Corrugated Steel Pipe and Pipe Arches
AASHTO M294	Corrugated Polyethylene Pipe (HDPE)
ASTM C76	Reinforced Concrete Pipe
ASTM D361	Low Head Pressure RCP
ASTM C443	O-ring Rubber Gaskets
ASTM C478	Precast Reinforced Concrete Manhole Sections
ASTM C506	RCP - Arch Pipe
ASTM C507	RCP - Elliptical Pipe
ASTM C655	RCP - Tongue & Groove Pipe
ASTM C665	RCP – D-Load Pipe
ASTM C789	RCP – Concrete Box Section
ASTM C850	RCP – Concrete Box Sections
ASTM D1784	Rigid Polyvinyl Chloride Compounds
ASTM D3034	Polyvinyl Chloride Sewer Pipe and Fittings
ASTM 3350	High Density Polyethylene Pipe
AWWA C151	Bituminous Coated Ductile Iron Pipe
ASTM F949	PVC Open Profile Pipe

1.4 STANDARD DRAWINGS

A. Standard drawings in Appendix A applicable to this section are as follows:

Standard Drawing No. 02720-1	30" (76 cm) Standard Storm Drain Inlet
Standard Drawing No. 02720-2	24" (61 cm) Standard Riser Inlet
Standard Drawing No. 02720-3	Sanitary Sewer and Storm Drain Manhole
Standard Drawing No. 02720-4	Standard Straight Manhole
Standard Drawing No. 02720-5	48" (122 cm) Standard Manholes Showing Two Types of Cone Sections
Standard Drawing No. 02720-6	Pre-cast Manhole Bases
Standard Drawing No. 02720-7	Typical Manhole Channel Details
Standard Drawing No. 02720-8	Standard Cast Iron Cover
Standard Drawing No. 02720-9	Standard 24" (61 cm) Cast Iron Ring Manhole Frame
Standard Drawing No. 02720-10	Storm Drain Service Line

PART 2: PRODUCTS

2.1 GENERAL

A. Furnish all storm drain piping as specified in the Contract Documents and meeting the materials and testing requirements of this Section. Furnish wye and tee branches of the same material and design as the specified storm drain pipe. Furnish the pipe sizes and strength classifications shown in the Contract documents.

B. References to ASTM, ANSI or AASHTO designation, means the latest revision at the time of call for bids.

C. Assure all pipe is clearly marked with type, class and/or thickness as applicable. Assure lettering is legible and permanent under normal handling and storage conditions.

D. Furnish the joint type, class, thickness designation, casting, lining, marking, testing, etc. as specified.

2.2 PIPE MATERIALS

A. Concrete Pipe

1. Furnish concrete storm drain and culvert pipe meeting ASTM C76 or C655. Use round reinforced pipe having O-ring rubber gasket joints

meeting ASTM C443 with the O-ring gasket confined in the pipe tongue groove.

B. Polyvinyl Chloride (PVC) Pipe

1. Furnish PVC pipe produced by a continuous extrusion process employing a prime grade of unplasticized polyvinyl chloride. Assure the grade used is highly resistant to hydrogen sulfide, sulfuric acid, gasoline, oil, detergents and other chemicals found in sewage and industrial wastes. Assure the material meets "Rigid Polyvinyl Chloride Compounds", ASTM D1784 requirements. Assure the pipe has self-extinguishing flammability characteristics. Assure the pipe meets ASTM D3034, "Standard Specifications for Polyvinyl Chloride Sewer Pipe and Fittings", with an SDR of 35 4"-15" (10 cm - 38 cm) ASTM F679, "Standard Specification for PVC Large Diameter Plastic Gravity Sewer Pipe and Fittings: 18" – 36" (46 cm – 91 cm), or ASTM F949, "Standard Specification for PVC Corrugated (Open Profile) Sewer Pipe With a Smooth Interior and Fittings", 12" – 36" (10 cm – 91 cm).

2. The nominal laying length is a minimum 12.5 feet (3.8 meters), 13 feet (4 meters) or 20 feet (6.1 meters)except shorter lengths are permitted adjacent to manholes, lampholes or other appurtenances. Assure each pipe length is marked with size, SDR, "Sewer Pipe" and Code Number. Assure each pipe length has a bell providing a watertight joint when jointing the bell and spigot with a rubber ring. Make the rubber gasket joint using a rubber gasket compressed between the outer surface of the spigot and the inner surface of the bell. Assure the joint is completely sealed by the gasket providing a watertight joint under all service conditions, including expansion, contraction, settlement and pipe deformation. Assemble the rubber ring joint assembly following the manufacturer's recommendations.

3. Furnish wye or tee fittings of the same material, construction and joint design as the main sewer pipe.

C. An Owner may allow 'ULTRA FLO' or approved equivalent steel pipe. Connections must be made with minimum coupling band width of 10-1/2" and appropriate gasketing material. When specified by the Engineer, materials shall meet the following standards:

ASTM A760 (AASHTO M36)	Specifications for Corrugated Steel Pipe, Metallic-coated for Sewers and Drains
ASTM A762 (AASHTO M245)	Specifications for Corrugated steel Pipe, Polymer Pre-coated for Sewers and Drains

ASTM A742 (AASHTO M246)	Specifications for Steel Sheet, Metallic Coated and Polymer Pre-coated for Corrugated Steel Pipe
ASTM A929 (AASHTO M274)	Specifications for Steel Sheet Metallic Coated by the Hot Dip Process for Corrugated Steel Pipe.

D. Other Pipe Material

1. An Owner may select other materials as appropriate for applications where an Engineer has reviewed the circumstances and provided specifications for installation. When specified by and Engineer, materials shall meet the following standards:

ASTM C 76	Reinforced Concrete Pipe – Tongue & Grove Joint
ASTM C 506	Reinforced Concrete Pipe – Arch Pipe
ASTM C 507	Reinforced Concrete Pipe – Elliptical Pipe
ASTM C 665	Reinforced Concrete Pipe – D-Load Pipe
ASTM C 789	Precast Reinforced Concrete Box Sections
ASTM C 850	Precast Reinforced Concrete Box Sections
ASTM 3350	High Density Polyethylene Pipe (HDPE)
AASHTO M 36	Corrugated Galvanized Steel Pipe and Pipe Arches
AASHTO M 196	Corrugated Aluminum Pipe and Pipe Arches
AASHTO M 245	Pre-Coated Galvanized, Corrugated Steel Pipe and Pipe Arches
AASHTO M 274	Type II Aluminized Corrugated Steel Pipe and Pipe Arches
AASHTO M 294	Corrugated Polyethylene Pipe (HDPE)

E. MANHOLES

a. General

1. Furnish manholes constructed of precast concrete sections with frames, covers and steps meeting Standard Drawing Details.

b. Precast Concrete Sections

1. Furnish manholes meeting ASTM C478: “Precast Reinforced Concrete Manhole Sections”.

c. Steps

1. Furnish non-corrosive type, 12 inches (30 cm) in width, of 1/2-inch (13 mm) steel rod encased with polypropylene. Assure steps withstand 400 pound (180 kg) vertical loads and 1,000 pound (450 kg) pull-out resistance.

d. Frames and Covers

1. Furnish frames and covers meeting Standard Drawings 02720-8 and 02720-9. Furnish 2 hole type covers unless noted or specified otherwise.

e. Concrete Bases

1. Concrete bases may be precast or field-poured on undisturbed earth. Use concrete meeting Section 03310: STRUCTURAL CONCRETE.

F. INLETS AND CATCH BASINS

a. Furnish standard cast iron inlet frames and grates meeting standard drawing requirements or as specified.

PART 3: EXECUTION

3.1 PIPE AND SERVICE LINE INSTALLATION

A. Excavation and Backfill

1. Excavate and backfill pipelines meeting the applicable portions of SECTION 02221: TRENCH EXCAVATION AND BACKFILL FOR PIPELINES AND APPURTENANT STRUCTURES.

B. Responsibility for Materials

1. Be responsible for all material furnished. Replace all material found defective in manufacture or damaged in handling after delivery by the manufacturer. This includes furnishing all material and labor required for the replacement of installed material discovered defective before final acceptance of the work or during the guarantee period.

2. Be responsible for the safe storage of material for the work until it has been incorporated in the completed project.

C. Handling of Pipe

1. Deliver and distribute all Contractor furnished pipe. Load and unload pipe, fittings and accessories by lifting with hoists or skidding so as to avoid shock or damage. Do not drop the materials. Do not skid or roll pipe handled on skidways against pipe already on the ground.

2. In distributing the material at the work site, unload each piece opposite or near the place where it is to be laid in the trench. Keep the pipe interior and other accessories free from dirt and foreign matter at all times.

3. Handle pipe to prevent coating or lining damage. Repair or replace all coating or lining damage in a manner satisfactory to the Engineer.

D. Laying Pipe

1. Lay and maintain all pipe to the specified lines and grades with fittings, tees and manholes at the specified locations.

2. Install wye or tee fittings in the mainline sewer for service line connections. Furnish wye or tee fittings of the same material, design and specifications as the sewer main pipe. Joint service pipe to tee branches or main line pipe other than PVC using special joint adapters manufactured specifically for jointing the two types of pipe.

3. Use tools and equipment meeting Engineer approval for the safe and convenient prosecution of the work. Carefully lower all pipe and fittings into the trench preventing damage to pipe materials and protective coatings and linings. Do not dump or drop materials into the trench.

4. Exercise care to prevent foreign material from entering the pipe as it is installed. When pipe laying is not in progress, close the open ends of pipe using a plug or other means approved by the Engineer. Remove and clean all sand, gravel, concrete and cement grout that has entered the lines during construction.

E. Tolerances

1. Install pipe within 1/2-inch (13 mm) of the specified alignment and within 1/4-inch (6 mm) of the specified grade for pipe 15-inch (38 cm) in diameter and smaller and 1/2-inch (13 mm) of specified grade for pipe larger than 15-inch (38 cm) diameter. These tolerances apply to any point along the entire pipe length.

3.2 MANHOLES

A. Construction

1. Construct manholes to the specified dimensions. Assure invert channels are smooth and semi-circular in shape conforming to the inside of the adjacent pipe section. Make flow direction changes with a smooth curve of as large a radius as the size of the manhole will permit. Make changes in channel size and grade gradually and evenly. Form the invert channels directly in the manhole base concrete or by laying a half-pipe in the concrete. Smooth and slope the manhole floor outside the channel toward the channel at one inch per foot (8 cm per meter).

2. Joint all connections between manhole walls and base and between wall sections making the manhole watertight.

3. Install adjusting rings on each manhole to adjust the manhole top elevation to the existing or specified ground elevations, with the total ring height of 2-inch (5 cm) minimum and 12-inch (30 cm) maximum. Assure adjusting rings are reinforced with the same percentage of steel as the riser and top.

3.3 INLETS AND CATCH BASING

A. Construct inlets and catch basins meeting the standard drawing for the type specified.

B. Construct inlet structures to the line, cross-section and dimensions specified. Furnish concrete and reinforcing steel meeting Section 03310: STRUCTURAL CONCRETE and Section 03210: REINFORCING STEEL. Inlet structures may be precast or cast-in-place.

3.4 STORM DRAIN SERVICE LINES

A. Construct service lines meeting Standard Drawing 02720-10. Install the service line to the property line. Plug the end of the service line with a stopper and gasket, using a gasket of the same type used for pipe jointing. Do not grout the plugs.

B. Mark the sanitary sewer and storm drain service line ends at the property line using a steel fence post 5 feet (1.5 m) long, buried at least 2 feet (0.6 m). Place a 2" X 2" (5cm X 5 cm) wood marker extending from the pipe invert to ground line. Wire the 2" X 2" (5cm X 5 cm) marker to the steel fence post. Where applicable, mark the concrete curb to identify the service locations. Paint sanitary sewer service markers green and storm drain service markers gray.

3.5 TESTS

A. Light Test (Visual)

1. Once the trench is backfilled, perform a light test between manholes to check alignment and grade for pipe displacement. Except for specified curved alignments, the completed pipeline must permit a true circle of light to be seen from manhole to manhole.

2. If alignment or grade does not meet specifications, correct alignment or grade at Contractor expense.

B. Leakage Test

1. Unless specified, a leakage test will not be required. Obvious and concentrated leaks, such as open joints, pinched gaskets, cracked barrels or bells, are not allowed.

C. Deflection Test

1. The Engineer may require deflection testing of all flexible pipe installations to assure the construction quality.

2. Conduct deflection tests meeting ASTM D3034 and satisfy either of the following deflection limitations:

TABLE 3.1
DEFLECTION TESTING LIMITATIONS

Minimum Period Between Trench Backfilling & Testing	Minimum Mandrel Diameter as a Percent of Inside Pipe Diameter
7 Days	95.0
30 Days	92.5

3. Mandrels must have at least nine arms. Perform the mandrel test without mechanical pulling devices.

PART 4: MEASUREMENT AND PAYMENT

4.1 GENERAL

A. The following are pay items for the work covered under this section. Payment for these items is full compensation for providing all materials, tools, labor and

equipment necessary to complete the item and all incidental work related thereto, whether specifically mentioned herein or not.

4.2 STORM DRAINS

A. Measurement of storm drain pipe is in lineal feet (meters) of the various sizes and classes along the centerline of pipe from center to center of manholes, or center of inlet to center of manhole. Payment for storm drain pipe is made at the contract unit price bid per lineal foot (meters) of the various sizes and classes called for, which includes furnishing and installing pipe, trench excavation and backfill, furnishing and placing Type 1 pipe bedding, specials required for connection to manholes and inlets, testing and all other work necessary or incidental for completion of the item.

4.3 MANHOLES

A. Measurement of each manhole for payment is made in two parts: (1) for a basic manhole, and (2) for any additional vertical height over and above the basic depth. A basic manhole is defined as 5 feet (1.5 m) deep from the lowest invert to the top of the manhole frame and cover. Any manhole less than 5 feet (1.5 m) deep is considered as one basic manhole. Any manhole over 5 feet (1.5 m) deep is considered as one basic manhole plus a vertical height measurement to the nearest 0.1 foot (0.03 m). Basic manholes are measured by numerical count and the additional vertical feet (meters) of manhole. The measurement of the additional vertical height of manhole is the vertical height of the manhole from the lowest invert to the top of the cast iron frame minus 5 feet (1.5 m).

B. Payment for furnishing and installing a basic manhole complete, is made at the contract unit price bid per each for “Basic Manholes”, 5.0 feet deep (1.5 meters). Payment includes base, manhole sections, steps, cast iron ring and cover, joint sealer and all other incidentals required to complete the item.

C. Payment for furnishing and installing manholes deeper than the basic manhole depth is made at the contract unit price bid per vertical foot (meters) for “Additional Manhole Depth” and includes manhole sections, steps, joint sealer and all other incidentals to complete the item.

1. Payment is made under:

   a. Basic Manhole, 5’0” (1.5 m) Depth - Per each
   b. Additional Manhole Depth - Per vertical foot (meter)

4.4 STORM DRAIN INLETS

A. Storm drain inlets shall be measured and paid for by the number of drain inlets installed, complete in place, at the contract unit price bid for the various types of inlets listed in the Contract documents, which price and payment shall constitute full compensation for all excavation and backfill, furnishing and installing all materials required (including grates), compaction, labor, tools and incidentals necessary to complete the item.

4.1 STORM DRAIN SERVICE LINES

A. Measurement is made along the pipe from the tee or wye of the main sewer through tees, wyes and other fittings to the street margin or right-of-way margin. Measurement is to the nearest foot (0.3m).

1. Payment for services is based on the following bid items as specified in the contract:

a. Trench excavation and backfill is included in the linear foot price bid for sewer service pipe.
b. (size) (class) Sewer Service Pipe in Place," per linear foot.

4.2 GENERAL

A. The contract bid prices are full payment for all labor, materials, tools and other incidentals as maybe required to complete the items of work in the Contract.

END OF SECTION

***Add the following subsection*:**
2.1.E Reinforced Concrete Pipe is the only approved product for storm drain mains with an internal diameter larger than 36".

HDPP shall not be installed when pipe grades are below 0.4%.

2.2.A ***Revise paragraph to read:***
A. Reinforced Concrete Pipe

1. Furnish concrete storm drain and culvert pipe meeting ASTM C76 or C655. Use round reinforced pipe having O-ring rubber gasket joints meeting ASTM C443 with the O-ring gasket confined in the pipe tongue groove.
2. Use a City approved prequalified supplier of precast concrete products.
3. Use Type V Cement.
4. Do not cast lift holes except for circular pipe that has a nominal diameter greater than 54 inches or for any elliptical pipe.
    a. Plug and seal lift holes in a manner such that the pipe section will meet testing and inspection requirements.
5. Use a mastic joint sealant for elliptical reinforced concrete pipe. Refer to ASTM C 990.

2.2.B.2 ***Add the following at end of paragraph:*** The elastomeric rubber gasket shall conform to ASTM F 477.

2.2.D ***Revise paragraph to read:***

1. An Owner may approve other materials as appropriate for applications where a licensed Professional Engineer has reviewed the site-specific circumstances and provided specifications for installation. When specified, additional materials shall meet the following standards:

ASTM C506/C507/C665	RCP Arch, Elliptical, D-Load Pipe
ASTM C789/C850	Precast Reinforced Concrete Box Sections
ASTM F2764	Polypropylene Pipe and Fittings
ASTM F2435	Steel Reinforced Polyethylene Corrugated Pipe
ASTM F2881	Polypropylene Pipe and Fittings
AASHTO M330	Polypropylene Pipe and Fittings
AASHTO M304	PVC Profile Wall Pipe and Fittings

The above list includes references to pipe material only. The appropriate ASTM and AASHTO standards shall be used when considering gaskets, joints and installation. Generally, any pipe used for storm drainage systems must have a minimum pipe stiffness of 46 psi when tested in accordance with ASTM D2412. All pipe must meet all applicable ASTM and AASHTO standards.

Montana Department of Transportation
PO Box 201001
Helena, MT 59620-1001

Memorandum

To: Kelly Williams, P.E.
Consultant Design Engineer

From: Dave Holien, P.E. DTH
TA Engineer

Date: February 28, 2025

Subject: TA 56(113)
Sidewalks - Lockwood
UPN 10433000
Work Type 620 - Bicycle & Pedestrian Facilities
Finding of Public Interest: Manholes, Division Box, Pipes, and Inlet

Pursuant to 23 CFR 635 Subpart D, we are requesting your Finding of Public Interest for Yellowstone County's use of precast manholes (3-60"), division box (1-80"x86"x66"), irrigation pipe (36"-435 LF), and irrigation inlet structure (1-96"x67"x84") that will be invoiced after project letting.

Project Information:

The Sidewalks – Lockwood project is a locally administered Transportation Alternatives (TA) project that Yellowstone County is managing. The project consists of approximately 2,200 feet of new sidewalk on the south side of Old Hardin Road between Woodland Road and Rykken Circle. Work includes a new 6-foot wide sidewalk, connection to existing approaches, piping the Lockwood irrigation ditch on the east end of the project with the existing right-of-way, addressing changes in drainage patterns, and installing new signage within the project limits.

The project is in the final design phase and the County will tentatively be given the go ahead to advertise the project on April 1, 2025. The project will be advertised for a minimum of 21 days with two separate advertisements. A successful contractor will be determined at the end of advertising and given a notice to proceed.

Justification

In order to provide an opportunity for the contractor to complete the work before the Lockwood Irrigation District needs to use water for irrigation purposes, the new manholes, division box, irrigation pipe, and irrigation inlet structure will need to be ordered as soon as possible. Ordering these materials ahead of the project letting will improve efficiencies and decrease the chances of water not being available for the irrigation ditch users or delaying the project until after the irrigation season.

Once the notice to proceed is issued, currently estimated as May 27, 2025, the contractor will have a maximum of two weeks to install the materials. The irrigation district would like to turn water on May 27th, 2025, but is willing to wait an additional two weeks if needed. This does not provide enough time for the contractor to order the materials and install them. Therefore, it is necessary to allow Yellowstone County to order the materials as soon as possible and provide them to the contractor once a notice to proceed is issued so they can install them before the irrigation district needs to turn the water on.

State Furnished Material

The concrete materials will meet all requirements for Buy-America Act, including the reinforcing steel. Material delivery is expected to coincide with the anticipated notice to proceed date for the contract allowing the contractor to begin immediately. The manholes, division box, irrigation pipe, and irrigation inlet structure will be advertised for bid for three weeks.

Approved: Kelly M Williams Date: 03/06/2025

Kelly Williams, P.E.
Consultant Design Engineer

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