

TOWN OF MOUNTAIN VILLAGE 2026 SKI RANCHES WATERLINE IMPROVEMENTS



BIDDING DOCUMENTS INCLUDING:

CONTRACT DOCUMENTS
&
SPECIFICATIONS

March 2026

Prepared by
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**Town of Mountain Village
INVITATION FOR BID (IFB)**

Solicitation Number: 5022-01

March 2026

2026 SKI RANCHES WATERLINE IMPROVEMENTS

FOR

Town of Mountain Village (TMV)

BIDS DUE:

12:00 PM, Monday, April 27, 2026

Town of Mountain Village

Public Works Office

ATTN: Scott Pittenger

411 Mountain Village Blvd., 2ND Floor

Mountain Village, CO 81435

OPENING OF BIDS:

12:00 PM, Tuesday, April 27, 2026

Town of Mountain Village

411 Mountain Village Blvd., 2ND Floor

Mountain Village, CO 81435

Project Manager

Scott Pittenger

Mountain Village, CO 81435

PHONE (970) 708-8690

FAX (970) 728-6027

Email spittenger@mtnvillage.org

SCHEDULE A

INSTRUCTIONS TO BIDDER

TOWN OF MOUNTAIN VILLAGE 2026 SKI RANCHES WATERLINE IMPROVEMENTS

A.1 Submission of Bids

A.1.1 Bids are to be submitted in a sealed envelope to Town of Mountain Village Public Works Office, Attn: Scott Pittenger, 411 Mountain Village Blvd., 2nd floor, Mountain Village, CO 81435. Bids may also be emailed to JBates@mountainvillage.org or spittenger@mountainvillage.org. Please include "2026 Ski Ranches Waterline Improvements" in subject line so the Town knows not to open the bid prior to the opening time.

A.1.2 Date/Time: Bids shall be received on or before: **12:00 PM, Monday, April 27, 2026**

***** LATE BIDS WILL NOT BE ACCEPTED *****

A.2 Mandatory Pre-Bid Site Walk.

Attendance is Required in order to submit a bid. Bidders who do not have a representative at the pre bid site walk shall have their bids rejected without opening or considering such bids.

Date and time of **mandatory pre-bid site walk: 10:00 AM, Wednesday, April 1, 2026.**

Location: 411 Mountain Village Blvd., Second Floor, Mountain Village, CO 81435

A.3 Late Bids/Late Modifications of Bids

A.3.1 Bids received in the office designated in A.1.1 above, after the exact time set for opening are considered "late bids", and will not be accepted by the Bid Opening Official. Bidders are solely responsible for ensuring their bids arrive on time and to the correct location specified in the IFB.

A.3.2 The TMV will not consider a late bid or late modification of bid unless received prior to contract award, except as follows;

(1) There is conclusive evidence that the bid was submitted to the office designated in A.1.1 above, on time and was mishandled by the TMV (i.e. lost or misplaced) personnel responsible for handling/receiving bids or;

(2) It was the only bid received.

A.4 Mistakes in Bids - Confirmation of Bid

When it appears from a review of the bid that a mistake has been made, the bidder may be requested to confirm their bid. Situations in which the confirmation may be requested include obvious, apparent errors on the face of the bid or a bid unreasonably lower than the other bids submitted. Obvious mistakes in bids may be allowed to be corrected upon a determination by the Town Manager that the bidder unintentionally made a mistake that can be quickly corrected and does not impair the competitive and sealed nature of the bid process.

A.5 Minor Informalities/Irregularities in Bids

A.5.1 A minor informality or irregularity is one that is merely a matter of form and not of substance. It also pertains to some immaterial defect in a bid or variation of a bid from the exact

requirements of the invitation that can be corrected or waived without being prejudicial to other bidders. The defect or variation is considered immaterial when the effect on price, quantity, quality, or delivery is negligible when contrasted with the total cost or scope of the services being acquired.

- A.5.2 If the Director of Public Works (Director) determines that the bid submitted contains a minor informality or irregularity as defined above, then the Project Manager shall give the bidder an opportunity to resolve any deficiency resulting from a minor informality or irregularity in a bid, or waive the deficiency, whichever is to the advantage of the TMV. In no event will the bidder be allowed to change the bid amount; however, the Project Manager may request a clarification or further breakdown of the bid amount.

A.6 Rejection of Bids

Any bid that fails to conform to the essential requirements of the invitation for bids will be rejected.

- A.6.1 Any bid that does not conform to the applicable specifications shall be rejected unless the invitation authorizes the submission of alternate bids and the items or services offered as alternates meet the requirements specified in the invitation for bids.

A.7 Estimated Quantities

If the specifications contain estimated quantities this provision is applicable. The quantities listed for each of the items in the specifications are only estimated quantities. Contractors are required to bid a firm unit price for each item specified. The actual quantities ordered may fluctuate up or down. The unit prices proposed by each bidder will remain firm and will not be re-negotiated if the estimated quantities are not met or are exceeded. For bidding purposes, if there is a conflict between the extended total of an item and the unit price, the unit price shall prevail and be considered as the amount of the bid.

A.8 Number of Copies

Bidder shall submit in its sealed and marked envelope, one (1) copy of its bid, signed in ink.

A.9 Identification of Bid

Bids must be returned in a sealed envelope; project name, solicitation number, and date for submission of offers must be clearly marked on the outside in the lower left hand corner:

Project Name: 2026 Ski Ranches Waterline Improvements

Solicitation Identification: 5022-01

Due Date & Time: 12:00 PM, Monday, April 27, 2026

Any offer that is submitted without being properly marked may be opened for identification prior to the deadline for receipt of offers and then resealed.

A.10 Sales Tax

Contractor shall pay all sales, consumer, use and other similar taxes required to be paid by Contractor in accordance with the Laws and Regulations of the place of the Project which are applicable during the performance of the work.

This is a government funded project and the Contractor shall apply to the Colorado Department of Revenue for a tax-exempt certificate for this project. The Contractor shall utilize the tax-exempt certificate and tax-exempt project number when purchasing all equipment, materials and supplies to be incorporated in this project. Contractors shall reflect this cost savings in their bid.

A.11 Preparation of Bid Offer

- A.11.1 Bidders are expected to examine the drawings, specifications, bid documents, proposed contract forms, terms and conditions, and all other instructions and solicitation documents. Bidders are required to attend the mandatory pre-bid conference and site visit to determine all requirements and conditions that will affect the work. Failure to do so will result in the bid not being considered or accepted.
- A.11.2 The bidder certifies that it has checked all of its figures, and understands that the owner will not be responsible for any errors or omissions on the part of the bidders in preparing its bid.
- A.11.3 All items, (unless the invitation specifically states otherwise) including any additive or deductive alternates on the bid, **must** be completely filled out or the bid will be determined non-responsive and ineligible for consideration for award.
- A.11.4 The bidder declares that the person or persons signing this bid is/are authorized to sign on behalf of the firm listed and to fully bind the bidder to all the requirements of the solicitation.
- A.11.5 The bidder certifies that no person or firm other than the bidder or as otherwise indicated has any interest whatsoever in this bid/offer or the Contract that may be entered into as a result of this bid/offer and that in all respects the offer is legal and firm, submitted in good faith without collusion or fraud.
- A.11.6 By submitting a bid the bidder certifies that it has complied and will comply with all requirements of local, state, and federal laws, and that no legal requirements have been or will be violated in making or accepting this bid.
- A.11.7 If there is a discrepancy between the unit price and the total price, the unit price shall be used to determine the applicable total price.

A.12 Basis of Award

The TMV generally awards a Contract for the lowest responsible and responsive bidder, unless the Town Manager determines that a bid other than the lowest responsible and responsive bidder is to be awarded based on such bid having the best value and being in the best interest of the Town despite not being the lowest dollar amount.

- A.12.1 In addition to other factors, bid/offers will be evaluated on the basis of advantages and disadvantages to the TMV that might result from offers received.
- A.12.2 The TMV reserves the right to reject any or all proposals and to waive informalities and/or irregularities in the bid offer.

A.13 Period of Acceptance

The bidder agrees that its bid offer shall remain open for acceptance by the TMV for a period of forty-five days calendar days from the date specified in the solicitation for receipt of bids.

A.14 Contract Award

The signature of the bidder indicates that within thirty (30) calendar days from acceptance of its bid offer it will execute a Contract with the TMV, furnish a project specific certificate of insurance naming the TMV as additional insured, furnish a performance bond and any other documents required by these instructions, the specifications or Contract Documents. The TMV reserves the right to waive the performance and material bond required in the Contract Documents or allow for alternate performance security. If the Town chooses not to require performance and material bonds, a price reduction will be negotiated with the Contractor.

A.15 Notice to Proceed

Work may not start under any awarded Contract until a written notice to proceed is issued by the TMV. The TMV may issue the notice to proceed any time after the contract is signed and, if required, insurance and bonds have been provided in accordance with A.20 below. In the event the notice to proceed has not been issued by TMV within sixty days of the execution of the awarded Contract, the Contractor may be released from the Contract.

A.16 Amendments to the Solicitation

Amendments are also referred to as addendum or addenda; and these terms shall be considered synonymous. The TMV will provide all bidders with copies of any amendments to the solicitation documents by fax or e-mail as preferred by the bidder.

A.16.1 If this solicitation is amended, then all specifications, terms and conditions, which are not amended, remain unchanged.

A.16.2 Bidders shall acknowledge receipt of any amendment to this solicitation by facsimile or e-mail.

A.16.3 Acknowledged amendments must be received prior to bid opening. Bidders are encouraged to include signed amendments or initialed acknowledgment with returned bids.

A.17 Explanations to Prospective Bidder

Any prospective bidder desiring an explanation or interpretation of the solicitation documents, drawings, specifications, etc., must request it in writing soon enough to allow a reply to reach all prospective bidders before the time for submission of offers. Oral explanations or instructions given before the opening of bids will not be binding. Any information provided to a prospective bidder during the bid preparation stage will be promptly furnished to all other prospective bidders as an amendment to the solicitation if that information is necessary in submitting bid offers or if the lack of it would be prejudicial to other prospective bidders.

A.18 Questions and Other Requests for Information

All questions or requests for information shall be submitted as specified below on or before **April 20, 2026 at 5:00 p.m.** All questions, requests for information and responses shall be sent to all potential bidders via email on April 22, 2026 by 5:00 p.m.

For all technical questions , please direct all questions in writing to:	Scott Pittenger: spittenger@mtnvillage.org AND Paul O'Neil: poneil@sehinc.com
For all contractual questions , please direct all questions in writing to:	Scott Pittenger: spittenger@mtnvillage.org AND Paul O'Neil: poneil@sehinc.com

A.19 Specifications and Drawings

A.19.1 No Deposit solicitations: All interested bidders may upon written request obtain one copy of the project specifications and a set of the project drawings (if applicable) at a cost of \$.50 per page.

A.19.2 Upon award of the contract, the TMV will be responsible for furnishing the selected Contractor a minimum of three (3) sets of both the specifications and drawings (if applicable). The TMV will also provide any returned sets that may be available. However, in no event shall the TMV be required to pay for the reproduction of more than 3 sets of each.

A.19.3 Scope of Services/Plans & Specifications: Included in this solicitation.

A.20 Type of Contract

It is the intent of this IFB to award a firm fixed price Contract based on the prices offered by the successful bidder. Contract prices shall remain firm and fixed throughout the contract performance period. The contract included herein is an example contract only and the terms and conditions may be modified by the TMV prior to the execution of such contract by the successful bidder.

A.21 F.O.B. Destination

Unless otherwise specified in the IFB, all goods, materials, supplies, equipment or services covered by this solicitation shall be delivered F.O.B. destination, all freight charges prepaid and allowed, within the town limits of the TMV, Colorado, at the location indicated in the awarded contract.

A.22 Bid Results

The TMV will e-mail, fax or mail bid results or tabulations only upon request. To request a copy of the bid tabulation, call Jenny Bates at (970) 369-8201.

A.23 Terms, Conditions and Special Provisions

Bidders are advised to pay special attention to Exhibits 1 and Schedules A through C attached hereto. These Exhibits may contain requirements that will have an impact on all potential bidders, such as liquidated damages, indemnification, type of contract, and delivery schedule.

SCHEDULE B

BID FORM FOR SOLICITATION NO: 5022-01 2026 SKI RANCHES WATERLINE IMPROVEMENTS

Read & Complete Carefully

Description: Install waterline as per Plans and Specifications, 2026 Ski Ranches Waterline Improvements, Job No. 5022-01

Term of Contract: Date of Award through Substantial Completion as defined in these bid documents.

Important: **ALL pages of this form, Sections 1 through 3 must be completed, signed and returned by the bidder as part of the bid package. Failure to submit all pages of this form constitutes grounds for rejection of your bid.**

Section 1 of 3 - Bidder Information			
Complete Bidder Legal Business Name		Taxpayer ID# (TIN): ☐ SSN ☐ FEIN Write/Type SSN/FEIN Number Above	
Business Name, Trade Name, Doing Business As (If Different From Above)			
Business Entity: ☐ Corporation ☐ LLC Corporation ☐ LLC Partnership ☐ LLC Single Member Entity			
NOTE: If Individual /Sole Proprietor, Individual's Name (As Owner) Must Appear In The Legal Business Name Block Above			
NOTE: If Your Business is a Partnership You MUST Attach The Names And Titles Of All Partners to Your Bid Submission			
NOTE: If Your Business is a Corporation , In Which State Are You Incorporated?			
Bidder Address:		Street	
City		State	Zip Code
Bidder E-Mail Address		Bidder Web Site (If Applicable)	
Remittance Information: Indicate Below The Remittance Address Of Your Business: ☐ Same As Bidder Address Above			
Does your business currently qualify as a Disadvantaged Business Enterprise(s)? ☐ YES ☐ NO			
Length of time in Business: ____ Years ____ Months		Annual Gross Receipts of Business: \$_____.	

Section 1 of 3 – Bidder Information (Continued)		
Name (Type or Print):		
Business Phone:	Ext:	Home Phone:
Fax Number:		Cellular:
Please Select Preferred Distribution Method: 1) Check Only One Box Below		
☐ E-Mail	☐ Fax	☐ USPS Mail

⇐SIGN HERE

Section 2 of 3 - Important Information For Bidders

Affirmation of Bidder: The above-signed bidder affirms and declares:

1. Bidder declares that it has carefully examined the bid information and complete solicitation (the term Solicitation means the complete IFB) in submitting a bid for “2026 Ski Ranches Waterline Improvements”. The bidder’s signature will be considered the bidder’s acknowledgment of understanding and ability to comply with all items in this solicitation. If a bidder makes any changes or corrections to the bid documents (such as white out, or writing over a figure, etc.) such changes or corrections must be initialed and dated by the person signing the offer prior to its submittal.
2. **Total bid will be on the basis of a line item, unit price bid and** will be evaluated and awarded as follows:

The TMV generally awards a Contract for the lowest responsible and responsive bidder, unless the Town Manager determines that a bid other than the lowest responsible and responsive bidder is to be awarded based on such bid having the best value and being in the best interest of the Town despite not being the lowest dollar amount. Failure to provide pricing in all areas of the bid schedule will result in the determination that your bid is non-responsive.

3. Bidder hereby proposes and agrees that he will enter into and perform as indicated in a form of agreement similar to that of the Contractor's Agreement attached hereto within Exhibit 1 and of which this proposal forms a part, and will do the construction work therein described under the terms and conditions therein set forth, and will furnish all the labor, materials, tools, equipment, transportation and services for said construction in strict conformity with the drawings and specifications and other documents forming a part of the Contract Documents, which the bidder proposed to execute at the price set on the attached bid.
4. Bidders will be considered only for all of the items included in the "2026 Ski Ranches Waterline Improvements". TMV reserves the right to reject any or all bids. Bidders must qualify for required licenses before commencing work.

ENTER BID TOTAL HERE

**SCOPE OF WORK
2026 SKI RANCHES WATERLINE IMPROVEMENTS**

General Notes

1. All work will be performed as per Plans and Specifications, 2026 Ski Ranches Waterline Improvements Job No. 5022-01. See attached copy. Full sized copies are available at 411 Mountain Village Blvd, Second Floor, Mountain Village CO or at the mandatory site walk.
2. Work hours to follow the TMV construction code 7:00 am- 6:00 pm Mon. thru Sat.
3. The bidder awarded this contract must have a 2026 TMV business license and proof of insurance prior to start of construction.
4. All surveying for the project shall be the responsibility of the successful bidder.
5. All staging for the project shall be on site.
6. Civil work scheduled shall be substantially completed no later than 60 days from the Notice to Proceed for each Project.
7. Contactor to pay TMV \$500 per day until completion, if substantial completion exceeds 60 days from the Notice to Proceed for the Project.
8. The contractor may choose the approximate start date for the project but shall establish Substantial Completion no later than October 1, 2026.

**SIGNATURE OF AUTHORIZED PERSON IN SECTION 1 CONSTITUTES
AGREEMENT WITH ALL PROCEDURES CONTAINED WITHIN THIS SOLICITATION
PACKET.**

**TOWN OF MOUNTAIN VILLAGE
2026 SKI RANCHES WATERLINE IMPROVEMENT PROJECT**

ITEM #	ITEM DESCRIPTION	UNIT	QUANTITY	UNIT COST	TOTAL COST
General					
101	Mobilization	Lump Sum	1		
102	Erosion Control/Storm Water Management	Lump Sum	1		
103	Traffic Control	Lump Sum	1		
Subtotal (A):					
Civil Phase 1 - Waterline Installation					
201a	HDPE Pipe in Trench (6-inch)	Linear Feet	10		
201b	HDPE Pipe in Trench (8-inch)	Linear Feet	1395		
202a	HDPE Pipe Bend	Each	2		
202b	HDPE Pipe Tee	Each	3		
202c	HDPE Pipe Reducer	Each	6		
202d	Hymax Coupler	Each	4		
203a	Kennedy Gate Valve on HDPE Pipe (6-inch)	Each	1		
203b	Kennedy Gate Valve on HDPE Pipe (8-inch)	Each	6		
204a	Waterline Pipe Connections - Connection #1	Each	1		
204b	Waterline Pipe Connections - Connection #2	Each	1		
205	Service Line Connections	Each	1		
206	3/4-inch Pure-Core HPDE Service Line in Trench	Linear Feet	20		
207	Purchase and Install Fire Hydrant Assembly	Each	1		
210	Install 4-in Electrical Conduit (materials provided by SMPA) in W	LF	1160		
401	Potholing	Each	3		
402	Unsuitable Material Excavation	Cubic Yards	70		
403	Fill for Unsuitable Material	Cubic Yards	70		
404	Stabilization Geotextile Fabric (nonwoven)	Square Yards	70		
405	Trench Dewatering	Linear Feet	210		
406	Cut and Remove Existing Asphalt	Square Yards	341		
407	Asphalt Patchback	Square Yards	341		
408	3/4-inch Gravel Shouldering Material	Linear Feet	410		
409	Flowfill Backfill in Roadway	Linear Feet	70		
410	Tree Removal Greater than 2-In Diameter	Each	28		
Subtotal (B):					

Total Cost (A + B):

SCHEDULE C

EXHIBIT 1

TOWN OF MOUNTAIN VILLAGE 2026 SKI RANCHES WATERLINE IMPROVEMENTS

List of Exhibits

This section includes Exhibits to the solicitation packet and by inclusion herein are incorporated into and made part of the solicitation packet:

Contractor Agreement (Pages. 1 to 8, inclusive)
Bidder's Qualification Statement (Pages. 1 to 4, inclusive)
Notice of Intent to Award (Pages. 1 to 1, inclusive)
Performance and Payment Bond (Pages. 1 to 2, inclusive)
Notice to Proceed (Pages. 1 to 1, inclusive)
Application For Payment (Pages. 1 to 2, inclusive)
Lien Release Forms (Pages. 1 to 1, inclusive)
Change Order Form (Pages. 1 to 2, inclusive)
Special Provisions– (Pages. 1 to 13, inclusive)
Specifications
Drawings

CONTRACTOR AGREEMENT

This Agreement is made and entered into this ____ day of June 2026, by and between the **Town of Mountain Village**, a political subdivision of the state of Colorado, (the “Owner”) and _____, (the “Contractor”).

RECITALS

- A. The Owner owns and operates a municipal infrastructure within the Town of Mountain Village.
- B. The Owner desires to have the Contractor perform general waterline improvements for the Town of Mountain Village.
- C. The Contractor has the expertise and knowledge to perform the work described in the IFB and Scope of Work

Now, therefore, in consideration of the mutual promises and conditions set forth herein, the parties agree as follows:

1. Contract Documents. The Contract Documents are defined as:

a. Standard Contract Forms

- i) Instructions to Bidder
- ii) Bid Form (Pages. 1 to 3, inclusive)
- iii) Bid Schedule
- iv) Bidder's Qualification Statement (Pages. 1 to 4, inclusive)
- v) Notice of Intent to Award (Pages. 1 to 1, inclusive)
- vi) Contractor Agreement (This document)
- vii) Performance and Payment Bond (Pages. 1 to 2, inclusive)
- viii) Notice to Proceed (Pages. 1 to 1, inclusive)
- ix) Application For Payment (Pages. 1 to 2, inclusive)
- x) Lien Release Forms (Pages. 1 to 1, inclusive)
- xi) Change Order Form (Pages. 1 to 2, inclusive)

b. Special Provisions – (Pages. 1 to 13, inclusive)

c. Specifications

d. Drawings

The Contractor acknowledges that it is fully familiar with all of the terms of the Contract Documents, as defined herein, the location of the job site, and the conditions under which the contract work is to be performed. The Contract Documents are incorporated into this Agreement.

2. Work. The Contractor agrees to perform the work in a good and workmanlike manner as set forth in the Contract Documents. Contractor agrees to furnish all labor, materials (not including the materials provided by the Owner as outlined in the IFB), equipment, tools and other facilities required for the prompt and efficient execution of the work described herein and to perform the work necessary or normally performed by the Contractor's trade or incidental to complete the work as described in the Contract Documents (the “Project”).

3. Contract Price. The Owner shall pay the Contractor the lump sum of \$_____ for completion of the Project (the “Contract Price”) subject to Change Orders as directed by the Owner in accordance with section 8 of this Agreement. The Contract Price includes the cost of all required materials at Unit Prices specified in Contractor’s Bid and based on estimated quantities as shown in the specifications. To the extent that actual quantities used to complete the Project differ from the quantities in the specifications, the Contract Price shall be increased or decreased to conform to the actual quantities used, provided, however, the Unit Prices will remain firm and will not be re-negotiated if the estimated quantities are not met or are exceeded.
4. Progress Payments. The Contractor shall submit requests for payment to Owner on a bi-weekly basis for progress payments in accordance with the percentage of work completed. The Owner shall review the request for payment and either make payment or notify the Contractor of the rejection of the request for payment within twenty (20) days of receipt of the request for payment. Rejection of a request for payment shall not constitute a default of this Agreement, nor shall it constitute a reason to suspend work on the Project. The Owner shall retain ten percent (10%) of each invoice prior to completion of fifty percent (50%) of the Project and five percent (5%) thereafter. Such retainage shall be included in the final payment made under section 5 of this Agreement.
5. Final Payment. Upon substantial completion of the Project, Contractor shall submit a final request for payment. Upon submission of the final request for payment by the Contractor, Owner shall conduct a thorough inspection of the Project (the “Final Inspection”). Upon completion of the Final Inspection, Owner shall prepare a punch list (the “Punch List”) of items to be completed by Contractor. After completion of the Punch List items, Owner shall publish a notice of final payment in accordance with C.R.S. 38-26-107 and make final payment in accordance with the procedures set forth in C.R.S. 38-26-107.
6. Time of Completion. The commencement date of the Project and the **completion date of the Project shall be as stipulated in the Notice to Proceed (within 60 days of the Notice to Proceed or by October 1, 2026, whichever comes first).** Work hours shall be from 7:00 a.m. to 6:00 p.m. Monday through Saturday. No work shall be allowed during other hours and is prohibited on holidays as set forth in the Town’s Community Development Code. Time is of the essence of all obligations of Owner and Contractor hereunder. Failure to complete the Project by the Completion Date shall subject the Contractor to a Five Hundred Dollar (\$500.00) a day penalty to be deducted from the Contract Price. Contractor shall submit to Owner, prior to commencement of the Project, a schedule of completion.
7. Delay. In the event Contractor is delayed in the prosecution or completion of the Project by the act, neglect or default of Owner or should Contractor be delayed waiting for materials, if required by this Agreement to be furnished by Owner, or by damage caused by fire or other

casualty for which Contractor is not responsible, then the time herein fixed for the completion of the work shall be extended the number of days that Contractor has thus been delayed, but no allowance or extension shall be made unless a claim is presented in writing to Owner within forty-eight (48) hours of the commencement of such delay, and under no circumstances shall the time of completion be extended beyond two (2) weeks per occurrence. Whether the Contractor is entitled to an extension of time shall be determined at the sole discretion of the Owner. In the event that the Contractor is awarded an extension pursuant to this section 7, the Contractor shall be entitled to an equitable adjustment of the Contract Price.

8. Change Orders. Contractor may be requested in writing by Owner, without invalidating this Agreement, to make changes to the Project within the general scope of this Agreement consisting of additions, deletions or other revisions (Change Order). Contractor's written response for each Change Order shall indicate the adjustments which it will make to the Contract Price to be made for the Change Order and the Time of Completion. Contractor will undertake no additions, deletions or other revisions to the Project, which is not provided for in this Agreement unless requested by Owner with a Change Order and written approval of any adjustments in the Contract Price and Time of Completion
9. Contractor's Default. If Contractor should default in performance of its work or should otherwise commit any act which causes delay to the Project, Contractor shall be liable for all losses, costs, expenses, liabilities and damages, including consequential damages and liquidated damages, sustained by the Owner or for which Contractor may be liable to any other party because of Contractor's default.
10. Bonding. Concurrently with the execution of this Agreement, Contractor shall execute a bid bond in an amount equal to five percent (5%) of the Contractor's Bid and a performance bond, in an amount equal to fifty percent (50%) of the Contract Price. The bonds required by this Agreement shall be executed by a corporate surety acceptable to Owner and shall be in a form satisfactory to Owner. Contractor shall pay the premium on said bonds unless otherwise provided herein. No change, alteration, or modification to or deviation from this Agreement whether made in the manner provided in this Agreement or not, shall release or exonerate, in whole or in part, any bond or any surety on any bond given in connection with this Agreement, and no notice is required to be given to such surety of any such change, alteration, modification, or deviation.
11. Liens. Contractor shall promptly pay all bills for labor and material performed and furnished by others in connection with the construction, furnishing and equipping of the improvements and performance of the work. Provided that Contractor has been paid by Owner all sums (or the applicable portion thereof) due to Contractor pursuant to this Agreement. Colorado Statutes do not provide for any right of liens against public entities and structures. In lieu thereof, C.R.S. 38-26-107 provides for adequate relief for any claimant.

12. Conformance of Work. The Contractor agrees that the Owner will have the authority to supervise, inspect and approve or reject the Contractor's work, which does not conform to this Agreement and/or any Change Orders issued by the Owner. Contractor represents, warrants and agrees, for the benefit of Owner, it will promptly repair or replace, whichever is necessary as reasonably determined by Owner, (i) any rejected Contractor's work, (ii) any defect in Contractor's work, including defects in materials and workmanship, and (iii) any Contractor's work that does not meet the Governmental Requirements, first-class workmanship, and the applicable warranty specifications, with which Contractor hereby represents that it is familiar.
13. Notice to Cure. If Contractor at any time refuses or neglects to supply enough properly skilled workers and proper materials, or fails to correct non-conforming work or defects in the work, or fails to properly and diligently prosecute the work covered by this Agreement, or fails to make prompt payment to its workers, subcontractors or suppliers or is otherwise guilty of a material breach of a provision of this Agreement, and fails within five (5) business days after receipt of written notice to commence and continue satisfactory correction of such default with diligence and promptness, then Owner, without prejudice to any rights or remedies, shall have the right to declare a default of this Agreement by Contract and proceed with any remedy available to the Owner including contracting with another entity to perform the work.
14. Termination. If Contractor fails to commence and satisfactorily continue correction of a default within five (5) business days after receipt by Contractor of the notice issued under section 13, then Owner may terminate Contractor's right to perform under this Agreement and use any materials, implements, equipment, appliances or tools furnished by or belonging to Owner or complete Contractor's work without any further compensation to Contractor for such use. In such case, Contractor shall be entitled to no further payment until the balance of Contractor's work has been completed. At that time, all of the costs incurred by Owner in performing Subcontractor's work, including a markup of fifteen percent (15%) for overhead and profit on such expense, plus actual attorneys' fees, shall be deducted from any monies due or to become due to Contractor. Contractor shall be liable for the payment of any amount by which such expenses may exceed the unpaid balance of the Contract Price.
15. Termination for Convenience. Owner may at any time and for any reason terminate Contractor's services and work at Owner's convenience. Cancellation shall be by service of written notice to Contractor's place of business. Upon receipt of such notice, Contractor shall, unless the notice directs otherwise, immediately discontinue the work and placing of orders for materials, facilities and supplies in connection with the performance of this Agreement, and shall, if requested, make every reasonable effort to procure cancellation of all existing orders or contracts upon terms satisfactory to Owner or, at the option of Owner, give Owner the right to assume those obligations directly, including all benefits to be derived therefrom. Contractor shall thereafter do only such work as may be necessary to preserve and protect the work already in progress and to protect material and equipment on the job site or in transit thereto. Upon

such termination, Contractor shall be entitled to payment only as follows: (1) the actual cost of the work completed in conformity with this Agreement, plus (2) such other costs actually incurred by Contractor and approved by Owner, plus (3) ten percent (10%) of the cost of the work referred to in items (1) and (2) above for overhead and profit. There shall be deducted from such sums as provided in this subparagraph the amount of any payments made to Contractor prior to the date of the termination of this Agreement. In no event shall payment due hereunder exceed the amount due in relation to the percentage of completion of the Project.

16. Grounds for Withholding Payment. Owner may withhold or, on account of subsequently discovered evidence, nullify the whole or part of any payment to the extent necessary to protect Owner from loss, including costs and actual attorneys' fees, on account of (1) defective work not remedied; (2) claims filed or reasonable evidence indicating probable filing of claims by third parties; (3) failure of Contractor to make payments properly to its subcontractors or for material, labor or fringe benefits; (4) a reasonable doubt that this Agreement can be completed for the balance then unpaid; (5) damage to Owner; (6) penalties assessed against Contractor or Owner for failure of Contractor to comply with state, federal or local laws and regulations; or (7) any other ground for withholding payment allowed by state or federal law, or as otherwise provided in this Agreement. When the above matters are rectified, such amounts as then due and owing shall be paid or credited to Contractor.
17. Bankruptcy. In the event that Contractor declares bankruptcy, or any similar event such as the appointment of a receiver for Contractor or upon Contractor making an assignment for the benefit of creditors, or if Contractor seeks protection under the Bankruptcy Code or commits any other act of insolvency, Owner may, absent any applicable legal limitation, terminate this Agreement upon giving two (2) business days written notice, by certified mail, to Contractor, its trustee, and its surety, if any.
18. Indemnification. The Contractor agrees to indemnify, defend and hold harmless, the Owner, Telluride Ski Ranches Association, their partners, subsidiaries and affiliates, their respective agents, officers, directors, servants, employees, owners, successor and assigns of and from any and all liability, claims, liens, demands, actions and causes of action whatsoever and including reasonable attorney's fees and costs arising out of or related to any loss, cost damage or injury, including death of any person or damage to property of any kind caused by the Contractor, its employees, agents suppliers or subcontractors, while engaged in any activity associated with the Project whether contractual or otherwise.
19. Risk of Loss. All work on the Project covered by this Agreement done on site or in preparing or delivering materials, excluding materials supplied by Owner under this Agreement, or equipment, or any or all of them, to the site shall be at the risk of Contractor until the completed work is accepted by the Owner.

20. Insurance. Before any Work at the site is started, Contractor shall deliver to TMV certificates of insurance (and other evidence of insurance or any additional insured TMV may reasonably request) which Contractor is required to purchase and maintain as set forth below:

1. Workers' Compensation and Employer's Liability as required by statute. Employer's Liability coverage is to be carried for a minimum limit of \$100,000 for each accident.
2. Automobile Liability for limits not less than \$500,000 combined single limit for bodily injury and property damage for each occurrence. Coverage shall include owned, non-owned and hired automobiles.
3. Commercial General Liability for limits not less than \$2,000,000 single limit for bodily injury and property damage for each occurrence. Coverage shall include blanket contractual, broad form property damage, products and completed operations Contractor's protective endorsements.
4. Contractor must include as additional insureds TMV, and Telluride Ski Ranches Association their agents, employees and assigns.

"Policies are primary and non-contributory for all claims arising from Contractor's work

21. Compliance. The Contractor shall comply with all applicable safety precautions used in the industry or imposed by applicable laws and regulations in order to adequately protect the Project and avoid injury and damage to persons or property. The Contractor shall be solely responsible for any damage to persons or property resulting from Contractor's failure to exercise safety precautions, negligence or misconduct of Contractor or Contractor's employees, agents, subcontractors and suppliers. Contractor shall notify Owner within twenty-four (24) hours of the occurrence of any injury or property which may occur on the Project. Contractor accepts sole responsibility for providing a safe place to work for its employees, for adequacy of and required use of all safety equipment and for full compliance with any applicable laws and regulations.

22. Hazardous Materials. Contractor shall not cause or permit "Hazardous Materials" (as defined herein) to be brought, kept or used in or about the Project except to the extent such Hazardous Materials: (i) are necessary for prosecution of the Work; (ii) are required by this Agreement; and (iii) have been approved in writing by Contractor. Hazardous Materials allowed on the Project shall be used, stored and disposed of in compliance with all laws relating to such Hazardous Materials. Unused or surplus Hazardous Materials, as well as other Hazardous Materials placed, released or discharged on the Project by Contractor or its employees, agents, suppliers or subcontractors, shall be removed from the Project at the earlier of: (i) completion of the Work requiring the use of Hazardous Materials; (ii) completion of the Work as a whole or (iii) within twenty-four (24) hours of Contractor's demand for removal. The removal shall

be undertaken by Contractor at its sole cost and expense and shall be performed in accordance with all laws.

Damage to the Project or any adjacent property resulting from improper use, or any discharge or release of Hazardous Materials shall be remedied by Contractor at its sole cost and expense, and in compliance with all laws. Contractor shall indemnify Owner for any and all damage, without limitation arising from the use, or misuse of Hazardous Materials. Contractor shall immediately notify Contractor of any release or discharge of Hazardous Materials on the Project.

The term "Hazardous Materials" means any hazardous or toxic substances, materials and wastes listed in the United States Department of Transportation Hazardous Materials Table (19 CFR 172.101) or listed by the Environmental Protection Agency as hazardous substances (40 CFR part 302) and any amendments thereto, and any substances, materials or wastes that are or become regulated under federal, state or local law, including but not limited to petroleum asbestos and PCB's.

23. Warranty. Contractor warrants to Owner that all materials (excepting the materials provided by Owner) and equipment furnished shall be new unless otherwise specified and that all work under this Agreement shall be performed in a good and workmanlike manner, shall be of good quality, free from faults and defects, and shall be in conformance with this Agreement. All work not conforming to these requirements, including substitutions not properly approved and authorized, may be considered defective. The warranty provided in this section 23 shall be in addition to and not in limitation of any other warranty or remedy required by law this Agreement or from a third party manufacturer.

Contractor hereby expressly warrants its work for a period of two (2) years from the date of acceptance by Owner of Contractor's work, or from the date of the Final Payment, whichever is later in time. In the event that during the express warranty period, any faulty or defective materials, excepting materials provided by Owner under this Agreement, or faulty or defective workmanship is discovered, Owner may give written notice thereof to Contractor with the request that Contractor immediately repair or remedy such defects and any and all damages caused by such defects at the sole cost and expense of Contractor. Contractor covenants that it shall commence and pursue diligently the repair and remedy of such defects and resultant damage within ten (10) business days after receipt of said notice. In the event that Contractor fails to commence such corrective work within said period, or fails to diligently pursue to completion such corrective work, then, the Owner may correct or repair the work, with reimbursement to be made to Owner within ten (10) days of Contractor's receipt of Owner's invoice of reasonable costs, fees, expenses related to correction of the work.

24. Assignment. Contractor shall not, without the written consent of the Owner, assign or transfer any portion of this Agreement or the work required by this Agreement to a third party.

25. Independent Contractor. Both parties expressly agree and acknowledge that Contractor is an independent contractor and this Agreement shall not be construed in any way to create any type of employee/employer relationship, master/servant relationship, partnership or joint venture.
26. Clean Job Site. At all times during the course of work on the Project, Contractor shall maintain the site in a clean, safe and orderly condition. Upon completion of the work, Contractor shall remove from the site all hazardous materials, temporary structures, debris and waste incident to its operation to the condition existing prior to the start of work, relative to the performance of this Agreement.
27. Costs and Attorney's Fees. In the event of any dispute, including but not limited to litigation, arbitration or mediation, the prevailing party shall be entitled to receive all reasonable costs, including reasonable attorney's fees.
28. Amendment. This Agreement shall only be amended by a writing signed by both parties. Verbal amendments shall not be valid under any circumstances.
29. Binding. This Agreement shall be binding upon and inure to the benefit of both parties successors and assigns.
30. Venue and Choice of Law. This Agreement shall be construed and interpreted according to the laws of the State of Colorado. The parties hereby consent to venue lying exclusively with the courts of San Miguel County, Colorado.

Executed the date first written above:

OWNER:

TOWN OF MOUNTAIN VILLAGE, a home-rule municipality and political subdivision of the state of Colorado.

By: _____

Date: _____

CONTRACTOR:

By: _____

Date: _____

BIDDER'S QUALIFICATION STATEMENT
Town of Mountain Village,
2026 Ski Ranches Waterline Improvements

THIS DOCUMENT HAS IMPORTANT LEGAL CONSEQUENCES: CONSULTATION WITH AN ATTORNEY IS ENCOURAGED WITH RESPECT TO ITS COMPLETION OR MODIFICATION.

The Undersigned certifies under oath that the information provided herein is true and sufficiently complete so as not to be misleading.

SUBMITTED TO: Scott Pittenger, Public Works Director

ADDRESS: 411 Mountain Village Blvd., 2ND Floor
Mountain Village, CO 81435

SUBMITTED BY:

NAME:

ADDRESS:

PRINCIPAL OFFICE:

NAME OF PROJECT (if applicable):

TYPE OF WORK (file separate form for each Classification of Work):

- | | |
|--|---|
| ☐ General Construction | ☐ Paving |
| ☐ Earthwork/Mass Grading | ☐ Concrete (Curb/Gutter, Flatwork) |
| ☐ Dry Utilities (Power/Gas/Cable/Fiber) | ☐ Landscaping |
| ☐ Wet Utilities (Water/Sewer lines & related) | ☐ Fencing |
| ☐ Drainage (storm sewer, culverts & related) | ☐ Other (describe) |

ORGANIZATION

1.1 How many years has your organization been in business as a Contractor?

1.2 How many years has your organization been in business under its present business name?

1.2.1 Under what other or former names has your organization operated?

1.3 If your organization is a corporation, answer the following:

1.3.1 Date of incorporation:

1.3.2 State of incorporation:

1.3.3 President's name:

1.3.4 Vice-president's name(s):

1.3.5 Secretary's name:

1.3.6 Treasurer's name:

1.4 If your organization is a partnership, answer the following:

1.4.1 Date of organization:

1.4.2 Type of partnership (if applicable):

1.4.3 Name(s) of general partner(s):

1.5 If your organization is individually owned, answer the following:

1.5.1 Date of organization:

1.5.2 Name of owner:

1.6 If the form of your organization is other than those listed above, describe it and name the principals:

2. LICENSING

2.1 List jurisdictions and trade categories in which your organization is legally qualified to do business, and indicate registration or license numbers, if applicable.

2.2 List jurisdictions in which your organization's partnership or trade name is filed.

3. EXPERIENCE

3.1 List the categories of work that your organization normally performs with its own employees and equipment.

3.2 Claims and Suits. (If the answer to any of the questions below is yes, please attach details.)

- 3.2.1** Has your organization ever failed to complete any work awarded to it?
- 3.2.2** Are there any judgments, claims, arbitration proceedings or suits pending or outstanding against your organization or its officers?
- 3.2.3** Has your organization filed any lawsuits or requested arbitration with regard to construction contracts within the last five years?
- 3.3** Within the last five years, has any officer or principal of your organization ever been an officer or principal of another organization when it failed to complete a construction contract? (If the answer is yes, please attach details.)
- 3.4** On a separate sheet, list major construction projects your organization has in progress, giving the name of project, owner, architect, contract amount, percent complete and scheduled completion date.
- 3.4.1** State total worth of work in progress and under contract:
- 3.5** On a separate sheet, list the major projects your organization has completed in the past five years; giving the name of project; owner, architect, contract amount, date of completion and percentage of the cost of the work performed with your own employees and equipment.
- 3.5.1** State average annual amount of construction work performed during the past five years:
- 3.6** On a separate sheet, list the construction experience relating specifically to areas within the scope of this project and present commitments of the key individuals of your organization.

4. REFERENCES

- 4.1** Trade References:
- 4.2** Bank References
- 4.3** Surety:
- 4.3.1** Name of bonding company:
- 4.3.2** Name, address and telephone number of agent:

4.3.3 Maximum available bonding capacity as of this date

5. SIGNATURE

5.1 Dated this _____ day of _____

Name of Organization:

By: _____

Title:

5.2

_____ being duly sworn deposes and says that the information provided herein is true and sufficiently complete so as not to be misleading.

Subscribed and sworn before me this _____ day of _____

Notary Public: _____

My Commission Expires: _____

NOTICE OF INTENT TO AWARD
Town of Mountain Village,
2026 Ski Ranches Waterline Improvements

Date: June __, 2026

TO: _____

The Owner, having duly considered the Bid submitted on DATE for the work covered by the Bidding Documents titled **Town of Mountain Village, 2026 Ski Ranches Waterline Improvements** in the amount of \$_____, for the completion of the Project, and it appearing that the Price and other information in your Bid Form is fair, equitable and to the best interest of the Owner, the offer in your Bid Form is hereby accepted.

In accordance with the terms of the Bidding Documents, you are required to execute the Agreement and Performance and Payment Bond in three counterparts within ten (10) calendar days from and including the date of this Notice of Award.

In addition, you are required to furnish at the said time Certificates of Insurance evidencing compliance with the requirements for insurance as stated in the Bidding Documents.

The Bid Security submitted with your Bid will be returned upon execution of the Agreement, furnishing of the required Performance and Payment Bond and Certificates of Insurance within the time limit specified. In the event that you should fail to execute the Agreement and Performance and Payment Bond within the time limit specified, said Security will be retained by the Owner as liquidated damages and not as a penalty for the delay and extra work caused thereby.

Sincerely,
Town of Mountain Village.

ACCEPTANCE OF NOTICE OF INTENT TO AWARD

Receipt of the Notice of Intent to Award is hereby acknowledged on this ____ day of June 2026.

By _____

Title _____

Company _____

Please complete and return this form with the Agreement, Certificates of Insurance, bonds, and completed W-9 in one envelope to offices of the Town of Mountain Village within ten (10) calendar days.

PERFORMANCE AND PAYMENT BOND
Town of Mountain Village, 2026 Ski Ranches Waterline Improvements

THE STATE OF _____)
) ss. KNOW ALL MEN BY THESE PRESENTS:
COUNTY OF _____)

That we _____, of the City of _____, County of _____, and State of _____ (hereinafter called "Principal") as Principal, and _____ (hereinafter called "Surety") as Surety, authorized under the laws of the State of Colorado to act as surety on bonds for principals, are held and firmly bound unto the Town of Mountain Village, (hereinafter called "Owner") as obligee, in the penal sum of _____ (\$ _____) in lawful money of the United States for payment by Principal and Surety, and bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally and firmly by these presents.

WHEREAS, Principal has, on _____, 20____, entered into a written Agreement with Owner for construction of the Project as defined in said Agreement, which Agreement is by reference made a part hereof and is hereinafter referred to as the Agreement.

NOW, THEREFORE, the conditions of this obligation are that if the Principal shall: (1) faithfully perform said Agreement on Principal's part and satisfy all claims and demands incurred for the same; (2) fully indemnify and save harmless the Owner from all costs and damages which said Owner may suffer by reason of Principal's failure so to do; (3) fully reimburse and repay said Owner all outlay and expenses which said Owner may incur in making good any default; (4) pay all persons, firms and corporations all just claims due them for the payment of all laborers and mechanics for labor performed, for all materials and equipment furnished, and for all materials and equipment used or rented in the performance of Principal's Agreement; and (5) keep the Work constructed under this Agreement in good repair for a period of one year from date of final acceptance by said Owner, then this obligation is null and void; otherwise it shall remain in full force and effect

The Principal shall protect, defend, indemnify and save harmless the Owner, the Engineer, and their officers, agents, servants and employees, from and against suits, actions, claims, losses, liability or damage of any character, and from and against costs and expenses including, in part, attorney fees incidental to the defense of such suits, actions, claims, losses, damages or liability on account of injury, disease, sickness, and death to any person or damage to property, including in part the loss of use resulting therefrom, based upon or allegedly based upon any act, omission or occurrence of the Principal, or his employees, servants, agents, subcontractors or suppliers, or anyone else under the Principal's direction and control, and arising out of, occurring in connection with, resulting from, or caused by the performance or failure of performance of any work or services called for by the Agreement, or from conditions created by the performance or non-performance of said work or services.

PERFORMANCE AND PAYMENT BOND

This indemnity shall not extend to liability arising out of the preparation by the Engineer of the design or specifications for the Owner or the giving of written directions or instruction by the Engineer as may be required by the Bidding Documents, provided the giving of such written instructions or directions is the proximate cause of the injury or damage should it occur.

Whenever Principal shall be, and is declared by Owner to be, in default under the Agreement, the Owner having performed Owner's obligations thereunder, the Owner may avail itself of the provisions of the General Conditions which are incorporated by reference in the Agreement and the Surety shall promptly pay the amounts, if any, due Owner by Principal.

Any suit under this Bond must be instituted before the expiration of one year from the date on which final payment under the Agreement falls due. In the event of a dispute as to the terms and conditions of the Bidding Documents, the prevailing party in any such action shall collect all reasonable costs and expenses incurred in such action, including, but not limited to, reasonable attorney's fees.

No right of action shall accrue on this Bond to or for the use of any person or corporation other than the Owner named herein or the successors and assigns of Owner and to all persons, firms and corporations for all just claims due them for the payment of all laborers and mechanics for labor performed, for all materials and equipment furnished, and for all materials and equipment used or rented in the performance of Principal's Agreement.

The Surety hereby waives the right to special notification of any notification of or alterations, omissions or reductions, extra or additional work, extensions of time, Change Orders, Field Orders or any other act or acts of Owner or its authorized agents under the terms of the Agreement; and failure to notify Surety of such shall in no way relieve Surety of its obligations.

Signed and sealed this _____ day of _____, 20____.

PRINCIPAL: _____

Witness By: _____

(Address)

SURETY: _____

Witness By: _____

(Address)

NOTICE TO PROCEED

Date:

Re: **Town of Mountain Village, 2026 Ski Ranches Waterline Improvements**

Dear _____,

The date of Notice to Proceed for the above project is:

In accordance with the Agreement dated _____, you are hereby notified to commence work within seven (7) calendar days after this Notice to Proceed, hence on or before _____.

You are to complete the work by the date shown in Schedule B: Bid Form of the contract documents or within 60 days of this Notice to Proceed.

Cordially,

Town of Mountain Village

ACCEPTANCE OF NOTICE TO PROCEED

Receipt of the Notice to Proceed is hereby acknowledged on this _____ day of _____, 2026.

By _____

Title _____

Company _____

Please complete and return this form within ten days to:

Scott Pittenger
Public Works Director
Town of Mountain Village
411 Mountain Village Blvd., 2nd Floor
Mountain Village, CO 81435

APPLICATION FOR PAYMENT NO. _____
Town of Mountain Village, 2026 Ski Ranches Waterline Improvements

To: _____ (OWNER)
From: _____ (CONTRACTOR)
Contract: _____
Project: _____
OWNER's Contract No. _____ ENGINEER's Project No. _____
For Work accomplished through the date of: _____.

1.	Original Contract Price:	\$ _____
2.	Net change by Change Orders and Written Amendments (+ or -):	\$ _____
3.	Current Contract Price (1 plus 2):	\$ _____
4.	Total completed and stored to date:	\$ _____
5.	Retainage (per Agreement):	
	_____ % of completed Work: \$ _____	
	_____ % of stored material: \$ _____	
	Total Retainage:	\$ _____
6.	Total completed and stored to date less retainage (4 minus 5):	\$ _____
7.	Less previous Application for Payments:	\$ _____
8.	DUE THIS APPLICATION (6 MINUS 7):	\$ _____

Accompanying Documentation:

CONTRACTOR'S Certification:

The undersigned CONTRACTOR certifies that (1) all previous progress payments received from OWNER on account of Work done under the Contract referred to above have been applied on account to discharge CONTRACTOR's legitimate obligations incurred in connection with Work covered by prior Applications for Payment numbered 1 through _____ inclusive; (2) title of all Work, materials and equipment incorporated in said Work or otherwise listed in or covered by this Application for Payment will pass to OWNER at time of payment free and clear of all Liens, security interests and encumbrances (except such as are covered by a Bond acceptable to OWNER indemnifying OWNER against any such Lien, security interest or encumbrance); and (3) all Work covered by this Application for Payment is in accordance with the Bidding Documents and not defective.

Dated _____ CONTRACTOR

By: _____
State of _____
County of _____
Subscribed and sworn to before me this _____
day of _____, _____

Notary Public
My Commission expires: _____

Payment of the above AMOUNT DUE THIS APPLICATION is recommended.

Dated _____ ENGINEER
By: _____

A. GENERAL INFORMATION

Pay Request #1, Town of Mountain Village, 2026 Ski Ranches Waterline Improvements											
Date:											
		CONTRACT				PREVIOUS PAYMENTS		TOTAL TO DATE		DUE THIS PERIOD	
ITEM#	ITEM DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL COST	AMOUNT	TOTAL AMT	AMOUNT	TOTAL AMT	AMOUNT	TOTAL AMT
Change Order #1											
Change Order #2											
				Total		Total					

B. COMPLETING THE FORM

The form is suitable for use in the Final Application for Payment as well as for Progress Payments; however, the required accompanying documentation is usually more extensive for final payment. All accompanying documentation should be identified in the space provided on the form.

All accompanying documentation of a legal nature, such as Lien waivers, should be reviewed by an attorney, and Engineer should so advise Owner.

CONTRACTOR'S AFFIDAVIT AND PARTIAL RELEASE OF LIENS
Town of Mountain Village, 2026 Ski Ranches Waterline Improvements

OWNER: Town of Mountain Village

CONTRACTOR: _____

1. Affiant is duly authorized to make this affidavit agreement on behalf of Contractor and is fully and personally cognizant of all facts and matters herein stated.

2. Pursuant to that certain Construction Contract between ("Owner") and Contractor dated _____, materials, services and supplies for use in connection with the **Town of Mountain Village, 2026 Ski Ranches Waterline Improvements**. AT the property ("Property") located in San Miguel County, Colorado.

3. All bills, debts, claims or accounts now due which Contractor has incurred to any person, firm or corporation for work or labor performed for equipment rental, or for materials, specially fabricated materials, services or supplies furnished in connection with work under such Contract thru _____, (which date is the last day covered by the Affidavit and Release and is herein called the "payment date") have been paid, settled or discharged in full or are included in the amount requested in Contractor's current payment application, and no basis exists for affixation of liens against the above-described Property and improvements thereon by virtue of any work performed under such Contract to and including the payment date, except for retainage. Contractor has not received any notice or communication that any subcontractor, material man, laborer or other party has not been fully paid for all labor performed or materials heretofore furnished in connection with work performed under such Contract to and including the payment date, except for retainage.

4. This agreement constitutes a partial release and waiver of all liens to which Contractor may be entitled against the above described Property, all improvements thereon and any fixtures, chattels or other property of Owner, thereon on account of all work performed and all materials furnished under such Contract to and including the payment date.

5. Affiant understands that this affidavit is made for the purpose of inducing Owner to make payments under the Contract and that, in making any such advance. Owner will rely upon the accuracy of the matters stated in this affidavit. Contractor therefore agrees to indemnify and hold Owner and Owner's lender, and their respective successors and assigns, harmless from any loss, cost or expense incurred by virtue of any claims made against them on account of any unpaid bills for labor heretofore performed or for materials, specially fabricated materials, services or other supplies furnished under such Contract to and including the payment date.

EXECUTED THIS _____ day of _____, 202__.

By: _____
Name: _____
Title: _____

CHANGE ORDER
Town of Mountain Village, 2026 Ski Ranches Waterline Improvements
No. 5022-01

Project: TMV 2026 Ski Ranches Waterline Imp. Owner: Town of Mountain Village

Date of issuance:

Effective Date:

Contractor is hereby instructed to proceed with the following changes:

Description of changes

Purpose of the Change Order:

Original Contract Price	\$
Net change by previous Change Orders	\$
Contract Sum prior to this Contract Modification	\$
Contract Sum will have decreased (per itemization above)	\$
New Contract Sum including this Contract Modification	\$

Change in contract time: _____

Recommended:

By: _____
(Authorization signature)

Engineer

By: _____
(Authorization signature)

Accepted:

Contractor

By: _____
(Authorization signature)

Accepted:

Owner

SPECIAL PROVISIONS

Town of Mountain Village,

2026 Ski Ranches Waterline Improvements

A. Project Description

The scope of work for this project includes installing approximately 1400 feet of 8-inch HDPE waterline by connecting at one end to the existing 6-inch DIP line along Saddle Horn Rd and connecting to the existing 6-inch DIP line along Vance Creek Rd at the other end. This Project also includes the installation of one new fire hydrant and service line. The run of ductile iron pipe and its service lines that this project will be replacing are to be abandoned in place.

Other work shall include:

1. Excavating existing waterlines at specified tie-in locations.
2. Install 6-inch, 8-inch, and 10-inch HDPE pipe and appurtenances.
3. Install 1 new hydrants and appurtenances as shown on plans.
4. Connection of new HDPE lines to existing ductile iron waterlines.
5. Abandon specified waterline sections and hydrant laterals in place.
6. Installing 2-in communications roll-pipe and 4-in electric conduit in water line trench.
7. Seeding and mulching disturbed project area.
8. Removal and patching of asphalt.
9. Placement of ¾ inch base gravel shouldering along asphalt patching.

B. General Items

1. **Contact** – Scott Pittenger, Public Works Director will be the Project Manager and he or his designee shall be main point of contact for this project. SEH, Inc. may also serve as Mountain Village designee, Mountain Village Public Works Department designee, or Town Representative in the contract documents. Designated members of the Mountain Village Public Works Department may also serve as inspectors on the project.
2. **Schedule** – **All bidders shall submit a detailed schedule for project completion with their bid.** Time is of the essence for completion of this project. Contractor shall have 60 days from issuance of the Notice to Proceed to establish Substantial Completion of the Project. The contractor may choose the approximate start date for the project but shall establish Substantial Completion by no later than October 1, 2026.
3. **Submittals** - Contractor shall provide the following submittals (as well as any other submittals deemed necessary during the course of the project) to SEH, Inc.:
 - Name and qualifications of anticipated on-site supervisor
 - HDPE Pipe – main line and hydrant laterals (pipe and appurtenances for the project shall meet a pressure class and rating of 200 psi)
 - Pipe appurtenances (valves, bends, etc.)
 - Hydrant Assembly
 - Service line material
 - Pipe bedding material
 - Flow fill material
 - ¾ inch gravel base
 - Traffic Control Plan

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- De-Watering plan (if deemed necessary by the Town)

Cost for these, and any other required submittals shall be incidental to the proposal items they are associated with.

C. Method of Measurement and Payment

This section describes the bid line items for the project and shall be used in conjunction with the Bid Schedule to determine the measurement of quantities and the method of payment. The various bid line items and the items included with them are described more fully as follows:

101. Mobilization

Description: Includes all labor, materials, and equipment costs to mobilize for the project including such items as moving equipment, trucks, and personnel both to the site and off the site upon completion of the work. All expenses for which there are no specific pay items such as permits, bonds, project coordination, materials and quality control testing coordination, storage of materials, removal and disposal of construction debris and temporary supplies, including power, telephone, and temporary offices necessary for the execution of the work, shall be included in this proposal item. All work and testing for the work shall conform to the Project's Standard Specifications and these Special Provisions. The staging area and surrounding disturbed areas are to be returned to their original condition. Selection and payment of a firm for materials and quality control testing shall be the responsibility of the Town of Mountain Village. Any required United States Forest Service Permitting shall be paid for by the Town.

Town of Mountain Village will process and pay for necessary County Permit. Contractor will be required to meet the permit requirements which are included in the bid package.

The Town of Mountain Village will perform leak detection testing using a Subsurface LC-2100 between every gate valve installed, and contractor will be responsible for repairing any leaks detected. Contractor will be responsible for disinfecting and flushing the line.

Pay Item: Payment shall be based on the percentage completion of the entire job as determined by the total amount paid to date for all line items excluding items 101 through 103 divided by the total contract amount including change orders.

102. Erosion Control/Storm Water Management (pre-construction, during construction, and post-construction)

Specifications: Per CDPHE permit requirements and in accordance with Town of Mountain Village Community Development Code and these Special Provisions.

Description: Includes all labor, materials, and equipment costs associated with standard methods of protection from erosion and stormwater management. Although the project should disturb less than an acre and a State of Colorado Department of Health and Environment (CDPHE) Stormwater Discharge Permit may not be required, the contractor will be expected to protect adjacent areas to the project site from erosion and deposition due to impacts of the project.

Requirements for revegetation shall be part of a County issued right-of-way permit. The Town shall obtain the permit, but the Contractor will be required to meet the conditions of the permit. General requirements for revegetation are stated below.

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Topsoil identified in areas to be excavated will be selectively removed from unsuitable sub-soils, whenever practical. Salvaged topsoil shall be re-spread over the disturbed areas prior to re-vegetation. In areas where topsoil is not available, the top cover material (if present) will be saved and spread over the surface after re-grading and backfilling is complete. Replacing cover material will assist in the natural re-vegetation of the area.

The Contractor shall make every attempt to minimize the area of disturbance for the project. Work shall include the cost of loading, hauling, placing, compacting, soil preparation, including dicing, raking, spreading, and fine grading; furnishing and installation of seed and mulch materials; temporary protection by fencing or other means; watering and all other required maintenance until Final Acceptance of the work.

Contractor shall hydro-mulch all disturbed areas utilizing the following procedure:

1. Seed by hand or mechanically after final contouring of ground. Keep seed separate from hydro mulch mixture.
2. Hydro mulch should be a combination of water, organic fiber mulch, tackifiers, colored dye. (Soil conditioner optional depending on soils).
3. Mix together in a specifically designed hydro seeding/hydro mulching machine which will agitate the contents to an even consistency.
4. The mix will be pumped and sprayed on top of seed already spread on the ground.

Straw in such advanced stages of decomposition as to smother or retard the normal growth of grass will not be accepted. Old dry straw, which breaks in the crimping process in lieu of bending will not be accepted. Work shall include the cost of dust control, and watering.

Seed mix shall be as follows:

(a) Native Grass Seed Mix (General Revegetation)

Western Yarrow 5%
Tall Fescue 10%
Arizona Fescue 5%
Hard Fescue 5%
Creeping Red Fescue 10%
Alpine Bluegrass 15%
Canada Bluegrass 10%
Perennial Ryegrass 15%
Slender Wheatgrass 10%
Mountain Brome 15%

Contractor shall, at all times, have materials for BMP's (erosion logs, silt fencing, etc.) on site and ready to use. Contractor is responsible for maintaining and repairing erosion control BMP's at his expense during construction.

Dewatering if necessary shall be done in accordance with all relevant Codes, Standards, and a dewatering plan approved by the Town and the Project Engineer and shall be paid under its respective pay item.

Contractor shall be responsible for dust and mud control of his construction activity. During dry weather conditions, Contractor shall wet down his Work area and roads leading to Work area as needed to keep airborne dust generated by his activities to an absolute minimum. Vehicles leaving site shall take proper

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measures to clean excess mud from vehicle before entering improved street areas. Contractor shall clean mud and debris tracking off asphalt roads immediately.

In addition to the Contractor's responsibility to perform inspections per the State Permit, Owner's Designated Representative will perform stormwater inspections and direct the contractor to perform necessary maintenance to BMPs during construction.

Pay Item: Payment shall be based on the percentage completion of the entire job as determined by the total amount paid to date for all line items excluding items 101 through 103 divided by the total contract amount including change orders.

103. Traffic Control

Specifications: Per Town of Mountain Village Requirements, *CDOT Standard Specifications for Road and Bridge Construction* and the *Manual on Uniform Traffic Control Devices*.

Description: Includes all labor, materials, and equipment costs associated with all necessary traffic control for construction of the proposed improvements along the proposed waterline design route where existing roads are crossed or impacted. Traffic control shall meet all CDOT and *Manual on Uniform Traffic Control Devices* requirements. **A traffic control plan shall be provided to the Town of Mountain Village for approval prior to the start of work.**

A minimum of one lane shall be maintained and open at all times, with the exception of up to 20 minute delays if a two day notice is given to the Town so they can notify residents of the delays. With two day notice, under unique circumstances the contractor may request that the road be closed with proper notice for up to 2 hours during paving operations.

Pay Item: Payment shall be based on the percentage completion of the entire job as determined by the total amount paid to date for all line items excluding items 101 through 103 divided by the total contract amount including change orders.

201. HDPE Pipe in Trench (8-inch and 6-inch)

Specifications: Per AWWA, CDOT Standard Specifications for Road and Bridge Construction, Town of Mountain Village Water and Sewer Operations Rules and Regulations (WSORR) and attached specification Section 200.

Description: Includes all labor, materials, and equipment costs associated with the installation of HDPE waterline per the construction drawings. Work shall include the cost of materials, loading, hauling, excavation, legal disposal of the excavated material, placement of bedding material, placement of the pipeline to grade, tracer wire, warning tape, soil conditioning and/or screening, backfilling, and compacting the trench backfill up to the level of the surrounding ground. Bedding shall be compacted to at least 90% of the maximum dry density as determined by AASHTO T-180. All material used for backfill above the bedding shall meet CDOT specifications for Class 2 structure backfill which shall be compacted to at least 90% of the maximum dry density as determined by AASHTO T-180. Pipe shall be DR-11 with a pressure rating of 200 psi.

All waterlines and appurtenances shall be installed with a minimum 6 feet of cover from final grade to top of pipe.

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All waterlines must have locate wire installed at the depth of the pipe and brought up on all valves. A warning ribbon must also be installed at approximately 1 foot above pipe.

The Town of Mountain Village will perform leak detection testing using a Subsurface LC-2100 between every gate valve installed, and contractor will be responsible for repairing any leaks detected. Contractor will be responsible for disinfecting and flushing the line.

For saturated areas use Bid Item for unsuitable material excavation and fill for unsuitable material. Asphalt removal, flowfill, and asphalt patching shall be paid separately under their respective bid items.

Staking and layout by the contractor shall be included in this bid item and shall not be paid separately.

Except where allowed in these Special Provisions, or permitted in writing by the Town of Mountain Village, all waterline appurtenances shall be butt fusion welded connections. PTFE gaskets shall be used on all allowed flanged connections.

Pay Item: Measurement shall be in linear feet. Payment shall be made based on the number of linear feet installed.

202. HDPE Pipe Fittings

Specifications: Per AWWA, CDOT Standard Specifications for Road and Bridge Construction, Town of Mountain Village Water and Sewer Operations Rules and Regulations (WSORR), and attached specification Section 200.

Description: Includes all labor, materials, and equipment costs associated with the installation of HDPE waterline tees and bends per the construction drawings. Work shall include the cost of materials, loading, hauling, excavation, legal disposal of the excavated material, placement of bedding material, assembly of the tee or cross, installation of the tee or cross to grade, thrust block, tracer wire, warning tape, backfilling, and compacting the embankment up to the level of the surrounding ground.

For saturated areas use bid Item for unsuitable material excavation and fill for unsuitable material. Asphalt removal, flowfill, and asphalt patching shall be paid separately under their respective bid items.

Thrust blocks are required at pipe tees and crosses per the plan detail.

Gate valves at pipe intersections are accounted for separately from this line item and shall be paid under their respective bid item. Valve clusters at tees and crosses may be flanged directly to tee. PTFE gaskets shall be used on all flanged connections.

Pay Item: Measurement shall be on an each basis. Payment shall be made based on the number of tees and crosses installed.

203. Kennedy Gate Valve on HDPE Pipe (8-inch and 6-inch)

Specifications: Per AWWA, CDOT Standard Specifications for Road and Bridge Construction, Town of Mountain Village Water and Sewer Operations Rules and Regulations (WSORR), and attached specification Section 200.

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Description: Includes all labor, materials, and equipment costs associated with the installation of a double flanged waterline Kennedy Model 8561A gate valve per the construction drawings. Only valves manufactured by Kennedy can be used on this project. Work shall include the cost of materials, loading, hauling, excavation, legal disposal of the excavated material, placement of bedding material, assembly of the valve, installation of the valve to grade, installation of flanges on both adjacent pipes, thrust blocks, tracer wire, warning tape, backfilling, and compacting trench backfill up to the level of the surrounding ground. Work shall also include valve boxes and stems, raising or lowering valve boxes as required by final grade and installation of a minimum of two 3-inch grade rings leaving the top of the valve box with grade rings a minimum of 2-inches below grade. All main line valves must have a valve box adapter installed between the valve and first section of the standpipe to help keep standpipe straight and contaminant free.

Valve stems shall have extensions installed to bring the top of the valve stem to within one foot of the surface of the valve box so a shorter key may be used.

PTFE gaskets shall be used on all of the flanged connections.

Thrust blocks are required at gate valves per the plan detail.

The pressure ratings on all valves should be 150 psi.

Pay Item: Measurement shall be on an each basis. Payment shall be made based on the number of gate valves installed.

204. Waterline Pipe Connections

Specifications: Per Requirements of these Special Conditions.

Description: Includes all labor, materials, and equipment costs associated with connecting new Project infrastructure to existing water mains as described below:

Main Connection #1: Installation of new 8x8x8 tee and reducers to connect to existing line in Saddle Horn Ln. Involves connection of the new 8-inch HPDE line into the existing 6-inch line along Saddle Horn. Connection to be made with one 8x8x8 tee, three valves, and two reducers.

All labor and equipment necessary for this connection will be included in this line item. The 10-inch and 8-inch pipe in trench, potholing, asphalt removal and patching, valves, reducers, and 8x8x8 tee required for this connection shall be paid under their respective line items. Asphalt removal shall be limited to the greatest extent possible.

Main Connection #2: Installation of new 8x8x8 tee and reducers to connect to existing line in Vance Creek Rd. Involves connection of the new 8-inch HPDE line into the existing 6-inch line along Vance Creek Rd, Southwest of the Park Ln intersection. Connection to be made with one 8x8x8 tee, three valves, and two reducers. Existing hydrant to also be connected to new section of 8-inch HDPE line with valve and reducer.

All labor and equipment necessary for this connection will be included in this line item. The 10-inch and 8-inch pipe in trench, potholing, asphalt removal and patching, valves, reducers, and 8x8x8 tees

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required for this connection shall be paid under their respective line items. Asphalt removal shall be limited to the greatest extent possible.

205. Service Line Connections

Specifications: Town of Mountain Village Water and Sewer Operations Rules and Regulations (WSORR), and attached specification Section 200.

Description: Includes the installation of fused taps into the 10-IN HDPE water main by means of an electrofusion saddle with threaded insert and connecting the specified service line by means of copper tube size (CTS) compression fittings as well as connection of new service line to existing curb stop. Includes all labor, materials, and equipment costs associated with the installation of taps and connection to existing curb stop.

The installation of service lines by means of either boring or trenching and its associated work shall be paid under item 206.

Pay Item: Payment and measurement shall be on an each basis as described above under each connection.

206. 3/4-inch Pure-Core HDPE Service Line in Trench

Specifications: Per AWWA, CDOT Standard Specifications for Road and Bridge Construction, Town of Mountain Village Water and Sewer Operations Rules and Regulations (WSORR), and attached specification Section 200.

Description: Includes installation of SDR 9 Pure Core HDPE from the water main connection to the existing curb stop by means of trenching. Includes all labor, materials, and equipment costs associated with the installation of service line per the construction drawings. Work shall include the cost of materials, loading, hauling, excavation, legal disposal of the excavated material, placement of bedding material, placement of the pipeline to grade, tracer wire, warning tape, rock screening, backfilling, and compacting the trench backfill up to the level of the surrounding ground. Bedding shall be compacted to at least 90% of the maximum dry density as determined by AASHTO T-180. All material used for backfill above the bedding shall meet CDOT specifications for Class 2 structure backfill which shall be compacted to at least 90% of the maximum dry density as determined by AASHTO T-180.

Pure-Core pipe shall be “copper tube size”.

Connection at the waterline main and curb stop shall be paid under item 205.

All waterlines and appurtenances shall be installed with a minimum 6 feet of cover from final grade to top of pipe.

All waterlines must have locate wire installed at the depth of the pipe and brought up at the curb stop. A warning ribbon must also be installed at approximately 1 foot above pipe.

All service lines must use full lengths of pipe without intermediate joints between the corporation stop and curb stop.

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For saturated areas use bid Item for unsuitable material excavation and fill for unsuitable material. Asphalt removal, flowfill, and asphalt patching shall be paid separately under their respective bid items.

Pay Item: Measurement shall be in linear feet. Payment shall be made based on the number of linear feet installed.

207. Purchase and Install Fire Hydrant Assembly

Specifications: Per AWWA and Requirements of these Special Conditions.

Description: Kennedy Model K821 fire hydrants conforming to AWWA and town specifications are to be installed in the general location shown on plans and in the exact location as directed by the Town of Mountain Village. Two hydrants have already been purchased by the Town of Mountain Village for use on this project. Work shall include the cost of all materials and installation requirements shown on the plan detail unless otherwise noted below. Loading, hauling, excavation, legal disposal of the excavated material, placement of bedding material, assembly of tees and bends, tracer wire, warning tape, thrust blocks, backfilling, and compacting the embankment up to the level of the surrounding ground shall be included in this bid item.

The 6" Kennedy gate valve, 6" HDPE pipe in trench, and 10x10x6 tee shall be paid under their respective bid items.

Pay Item: Measurement shall be on an each basis. For 207a. Install Fire Hydrant Assembly, payment shall be made based on the number of fire hydrants installed. For 207b. Purchase and Install Fire Hydrant Assembly, payment shall be made based on the number of fire hydrants purchased and installed.

210. Install Two 4-inch Electrical Conduit (materials provided by SMPA) in Waterline trench

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Specifications: Per AWWA, CDOT Standard Specifications for Road and Bridge Construction, Town of Mountain Village Water and Sewer Operations Rules and Regulations (WSORR).

Description: Includes all labor, materials, and equipment costs associated with the installation of two 4-inch schedule 40 PVC conduit, in the same trench as the new 10-inch HDPE Mountain Village waterline, with a horizontal off-set of 3-feet from center of waterline pipe, total offset of 3-feet, and minimum cover of 30 inches. Work shall include the loading, hauling, and placement of the conduit to grade, placing warning tape, bedding material, and any *additional* anticipated costs above those for only the waterline installation. Costs for excavation, backfilling, and compacting the trench backfill up to the level of the surrounding ground is included in the line item for 10-inch HDPE pipe. Contractor shall provide bedding per the plans.

San Miguel Power Association will provide 4-inch conduit material to the contractor. Contractor shall install conduit to San Miguel Power Association specifications and subject to SMPA trench inspections during construction. Contractor shall notify SMPA a minimum of 48 hours prior to installation so inspections can be scheduled.

Pay Item: Measurement shall be in linear feet. Payment shall be made based on the number of linear feet installed. This item may be removed from the Contract with the Town of Mountain Village, and the contractor asked to negotiate a contract directly with San Miguel Power (SMPA) for the unit price bid by the contractor.

401. Potholing

Specifications: Per Requirements of these Special Conditions

Description: Potholes are to be dug by contractor to verify the depths and waterline sizes at all proposed waterline and service connections. Work performed under this pay item shall include backfilling according to specifications outlined in item 201.

Pay Item: Measurement and payment shall be on an each basis.

402. Unsuitable Material Excavation

Specifications: Per Requirements of these Special Conditions.

Description: In areas of unstable or saturated conditions, the Owner's Representative may require removal of unsuitable materials from the bottom of the trench. This includes all labor, materials, and equipment costs necessary for the removal of unsuitable material from the trench bottom and legal disposal at a nearby location designated by the owner's representative. Material caused to be unsuitable due to precipitation and/or runoff is NOT payable under this item and is the contractor's responsibility. The amount of material to be removed shall be determined by the Owner's Representative and will not be paid for if not approved in writing prior to the work being completed.

Pay Item: **Pay Item:** Measurement shall be in cubic yards of unsuitable material excavated measured in place in the field by the Owner's Representative. Estimated bid quantity may or may not be accurate or necessary.

403. Fill for Unsuitable Material

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Specifications: Colorado Department of Transportation Standard Specifications for Road and Bridge Construction

Description: Includes all labor, materials, and equipment costs associated with the placement of washed rock or other approved material to be used to stabilize trench with an unstable trench bottom. The necessity for the use of stabilization material and the amount of material necessary shall be determined by the Owner's Representative. Work shall include the cost of material, loading, hauling, placing, compacting, and grading of the required material. This item IS NOT INDICATED ON THE CONSTRUCTION DRAWINGS, but rather is provided as a provision for unforeseen conditions in the field.

Pay Item: Measurement shall be in cubic yards of stabilization material placed measured in place in the field by the Owner's Representative. Estimated bid quantity may or may not be accurate or necessary.

404. Stabilization Geotextile Fabric (nonwoven)

Specifications: Colorado Department of Transportation Standard Specifications for Road and Bridge Construction, and Manufacturers Recommendations

Description: Includes all labor, materials, and equipment costs associated with the installation of nonwoven geotextile fabric, for trench bottom stabilization as determined in the field by ENGINEER. Material shall be non-woven geotextile fabric (Tytar 3401 or approved equal) and shall be placed as directed to separate fill used for stabilization from unsuitable base materials below. Installation shall be per "Colorado Department of Transportation Standard Specifications for Road and Bridge Construction" and manufacturers recommendations.

Pay Item: Measurement and payment shall be on a square yard basis measured in the field by the Owner's Representative. Square yard quantity for pay shall include necessary overlap. This line item is only for geotextile fabric used in trench bottom stabilization.

405. Trench Dewatering

Specifications: Per these Special Provisions, in accordance with all relevant Codes, Standards, and a dewatering plan approved by the Town and the Project Engineer.

Description: Includes all labor, materials, and equipment costs associated with dewatering the trench where deemed necessary by the Owner's Representative. All dewatering must meet the requirements of the SWMP and the USFS Operating Plan.

Pay Item: Measurement shall be in linear feet. Payment shall be made based on the number of linear feet dewatering is deemed necessary by the Town's Representative.

406. Cut and Remove Existing Asphalt

Specifications: Per Requirements of these Special Conditions.

Description: Where required the existing asphalt is to be sawcut to a true line with a vertical face and removed to the dimensions shown on the trench details. Work shall include the cost of equipment, removal, loading, hauling, and legal disposal of removed asphalt.

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Pay Item: Measurement shall be on a square yard basis as measured in the field. Additional removal beyond the extents shown on the trench details shall be the responsibility of the contractor and not paid separately.

407. Asphalt Patchback

Specifications: Colorado Department of Transportation Standard Specifications for Road and Bridge Construction, and Manufacturers Recommendations and the Requirements of these Special Conditions.

Description: Upon completion of the waterline replacement, any previously paved roadway surface is to be patched and with asphalt meeting CDOT specifications to the dimensions shown in the plan details.

If asphalt replacement due to trenching parallel with the road extends across the wheel path, it shall either be to the middle of the lane or the middle of the road.

Pay Item: Measurement shall be on a square yard basis as measured in the field. Additional patching beyond the extents shown on the trench details shall be the responsibility of the contractor and not paid separately.

Preparation, grading, and/or compaction of the underlying base course or flowfill shall be considered incidental to this pay item.

408. ¾-inch Base Gravel Shouldering Material

Specifications: Colorado Department of Transportation Standard Specifications for Road and Bridge Construction, and Manufacturers Recommendations and the Requirements of these Special Conditions.

Description: Includes all labor, materials, and equipment costs for Contractor to shoulder asphalt pavement along all longitudinal asphalt patch areas with CDOT Class 6 road gravel. Shouldering shall match the asphalt thickness at the edge of asphalt and gently taper to the drainage ditch.

Pay Item: Measurement and payment shall be on a linear foot basis as measured in the field.

409. Flowfill Backfill in Roadway

Specifications: Colorado Department of Transportation Standard Specifications for Road and Bridge Construction.

Description: Includes all labor, materials, equipment, and testing costs associated with the installation of flowfill trench backfill in the top 2 feet of the trench only for areas where the trench is located under existing pavement. Work shall include the *additional* cost of materials, loading, hauling, and placement associated with using flowfill for 2 feet of trench backfill instead of standard backfill materials, and placement of plant mixed flowable fill.

Pay Item: Measurement shall be in linear feet. Payment shall be made based on the number of linear feet of trench that is flowfilled as required by the Town of Mountain Village.

410. Tree Removal Greater than 2-In Diameter

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Specifications: Per Requirements of these Special Conditions.

Description: Includes all labor, materials, equipment, and legal disposal costs associated with the removal of trees. All trees to be removed should be at the direction of and in coordination with the Town of Mountain Village. No tree removal work shall be undertaken prior to consulting with the Town of Mountain Village. Care should be taken not to damage surrounding trees or shrubs during removal operations. Existing trees, shrubs, bushes or grass, outside the designated work areas but inside project limits that are damaged due to the Contractor's operations shall be replaced in kind at the Contractor's expense.

Removal of trees less than 2-Inch diameter shall be considered incidental to the trenching work associated with the waterline installation and shall not be paid separately.

Pay Item: Measurement shall be on an each basis. Payment shall be made based on the number of trees removed as required by the Town of Mountain Village.

SECTION 200

HDPE (High Density Polyethylene) Pipe and Fittings

Specification for Buried Potable Water

HIGH DENSITY POLYETHYLENE PIPE AND FITTINGS

PART 1 – GENERAL

1.1 DESCRIPTION:

- A. Scope – This section specifies high density polyethylene pipe (HDPE) and fittings for water utility use as indicated on the Drawings, and as specified herein.
- Furnish, Install, and Test HDPE pipe as indicated and specified in this section, and as referred to in related sections, and the Drawings.
 - The primary installation method is burial. The means and methods, including the testing for acceptance shall conform to all applicable standards as noted herein with the intention of providing a leak-free system to the owner.
- B. Special Instructions: None

1.2 RELATED WORK

- A. The following sections are incorporated by reference, *see the special provisions for additional information and the basis of payment for bid items.*
- a. CDOT Standard Specifications for Road and Bridge Construction
 - b. Town of Mountain Village Water and Sewer Operations Rules and Regulations (WSORR)

1.3 REFERENCES

- A. To the extent referenced in this specification section, the standards and documents listed below are included, and made a part of this specification.
- B. In the event of a conflict, the requirements of this specification section prevail.
- C. Unless otherwise specified, references to documents shall mean the latest published edition of the referenced document in effect at the bid date of the project.

ANSI/AWWA www.awwa.org

- ANSI/AWWA C901-08 Polyethylene (PE) Pressure Pipe and Tubing, ½ In. (13 mm) Through 3 In. (76 mm) for Water Service
- ANSI/AWWA C906-07 Polyethylene (PE) Pressure Pipe and Fittings, 4 In. (100 mm) Through 63 In. (1,600 mm), for Water Distribution and Transmission
- ANSI/AWWA C651 Standard for Disinfecting Water Mains
- AWWA M55 Manual of Water Supply Practices, PE Pipe–Design and Installation

Plastics Pipe Institute, PPI www.plasticpipe.org

- PPI Handbook of Polyethylene Pipe – 2009 (2nd Edition)
- PPI TR-33 Generic Butt Fusion Joining Procedure for Polyethylene Gas Pipe
- PPI TR-34 Disinfection of Newly Constructed Polyethylene Water Mains
- PPI TR-41 Generic Saddle Fusion Joining Procedure for Polyethylene Gas Piping
- PPI TN-42 Recommended Minimum Training Guidelines for PE Pipe Butt Fusion Joining Operators for Municipal and Industrial Projects (2009)

NSF www.nsf.org

- NSF / ANSI 61 Drinking Water System Components–Health Effects

ASTM www.astm.org

- ASTM F 714 Standard Specification for Polyethylene (PE) Plastic Pipe (SDR- PR) Based on Outside Diameter
- ASTM F905 Standard Practice for Qualification of Polyethylene Saddle-Fused Joints
- ASTM F 1055 Standard Specification for Electrofusion Type Polyethylene Fittings for Outside Diameter Controlled Polyethylene Pipe and Tubing
- ASTM F 1290 Standard Practice for Electrofusion Joining Polyolefin Pipe and Fittings
- ASTM F 1412 Standard Specification for Polyolefin Pipe and Fittings for Corrosive Waste Drainage Systems
- ASTM F1417 Standard Test Method for Installation Acceptance of Plastic Gravity Sewer Lines Using Low-Pressure Air
- ASTM F 2164 Standard Practice for Field Leak Testing of Polyethylene (PE) Pressure Piping Systems Using Hydrostatic Pressure
- ASTM F2206 Standard Specification for Fabricated Fittings of Butt-Fused Polyethylene (PE) Plastic Pipe, Fittings, Sheet Stock, Plate Stock, or Block Stock
- ASTM D 2239 Standard Specification for Polyethylene (PE) Plastic Pipe (SIDR- PR) Based on Controlled Inside Diameter
- ASTM D 2321 Standard Practice for Underground Installation of Thermoplastic Pipe for Sewers and Other Gravity-Flow Applications
- ASTM F 2620 Standard Practice for Heat Fusion Joining of Polyethylene Pipe and Fittings
- ASTM D 2683 Standard Specification for Socket-Type Polyethylene Fittings for Outside Diameter-Controlled Polyethylene Pipe and Tubing
- ASTM D 2737 Standard Specification for Polyethylene (PE) Plastic Tubing

- ASTM D 2774 Standard Practice for Underground Installation of Thermoplastic Pressure Piping
- ASTM D 3261 Standard Specification for Butt Heat Fusion Polyethylene (PE) Plastic Fittings for Polyethylene (PE) Plastic Pipe and Tubing
- ASTM D 3350-08 Standard Specification for Polyethylene Plastics Pipe and Fittings Materials

1.4 SYSTEM DESIGN PARAMETERS

- A. The *polyethylene* system working pressure rating *accommodates* the normal operating pressure and the repetitive surges. The pressure rating applies at $80^{\circ}F$ or less.
- B. Per AWWA 901 and C906, the repetitive surge pressure allowance is one half the pressure class of the pipe, and the occasional surge over pressure allowance is equal to the pressure class of the pipe. Allowable Total Pressure during Recurring Surge conditions equals 1.5 times the pipe's pressure class. Allowable Total Pressure during Occasional Surge conditions equals 2.0 times the pipe's pressure class.

Table 1 gives the Pressure Class per AWWA C901, Pressure Rating and Allowable Total Pressure During Recurring and Occasional Surge for **PE4710** pipe at $80^{\circ}F$ or less. For PE 3608, refer to Table 2.

Table 1. Pressure Class per AWWA C901 for PE 4710 at $80^{\circ}F$ or less

<i>Pipe Dimension Ratio (DR)</i>	<i>Pressure Class</i>	<i>Pressure Rating</i>	<i>Allowable Total Pressure During Recurring Surge</i>	<i>Allowable Total Pressure During Occasional Surge</i>
<i>DR 9</i>	<i>250 psi</i>	<i>250 psi</i>	<i>375 psi</i>	<i>500 psi</i>
<i>DR 11</i>	<i>200 psi</i>	<i>200 psi</i>	<i>300 psi</i>	<i>400 psi</i>
<i>DR 14.3</i>	<i>150 psi</i>	<i>150 psi</i>	<i>225 psi</i>	<i>300 psi</i>
<i>DR 17</i>	<i>125 psi</i>	<i>125 psi</i>	<i>185 psi</i>	<i>250 psi</i>
<i>DR 21</i>	<i>100 psi</i>	<i>100 psi</i>	<i>150 psi</i>	<i>200 psi</i>

Table 2 gives the Pressure Class per AWWA C901 and C906 , Pressure Rating and Allowable Total Pressure During Recurring and Occasional Surge for **PE3608** pipe at $80^{\circ}F$ or less.

Table 2. Pressure Class per AWWA C901 and C906 for **PE 3608** at 80°F or less

Pipe Dimension Ratio (DR)	Pressure Class	Pressure Rating	Allowable Total Pressure During Recurring Surge	Allowable Total Pressure During Occasional Surge
<i>DR 9</i>	<i>200 psi</i>	<i>200 psi</i>	<i>300 psi</i>	<i>400 psi</i>
<i>DR 11</i>	<i>160 psi</i>	<i>160 psi</i>	<i>240 psi</i>	<i>320 psi</i>
<i>DR 14.3</i>	<i>120 psi</i>	<i>120 psi</i>	<i>180 psi</i>	<i>240 psi</i>
<i>DR 17</i>	<i>100 psi</i>	<i>100 psi</i>	<i>150 psi</i>	<i>200 psi</i>
<i>DR 21</i>	<i>80 psi</i>	<i>80 psi</i>	<i>120 psi</i>	<i>160 psi</i>

1.5 SUBMITTALS

A. Quality Assurance / Control Submittals

1. Affirmation that product shipped meets or exceeds the standards set forth in this specification. This shall be in the form of a written document from the manufacturer attesting to the manufacturing process meeting the standards.
2. Manufacturers recommended fusion procedures for the products.

1.6 DELIVERY – STORAGE – HANDLING

- A. Handle the pipe in accordance with the PPI *Handbook of Polyethylene Pipe (2nd Edition)*, Chapter 2 using approved strapping and equipment rated for the loads encountered. Do not use chains, wire rope, forklifts or other methods or equipment that may gouge or damage the pipe or endanger persons or property. Field storage is to be in compliance with AWWA Manual of Practice M55 Chapter 7.
- B. If any gouges, scrapes, or other damage to the pipe results in loss of 10% of the pipe wall thickness, cut out that section *or* do not use.

PART 2 A– PRODUCTS FOR 3 INCH AND SMALLER PIPE PER AWWA C901

2A.01 PIPE

- A. Polyethylene pipe shall be made from a HDPE material having a minimum material designation code of PE 4710 or PE 3608. The material shall meet the requirements of ASTM D 3350 and shall have a minimum cell classification of PE445474C for PE 4710 and PE345464C for PE 3608. In addition, the pipe shall be listed as meeting NSF-61.
- B. The pipe shall meet the requirements of AWWA C901
- C. HDPE pipe shall be rated for use at a pressure class of 200 psi. *[The specifier chooses the pressure class from Table 1 or Table 2 in Section 1.04 above]*. The outside diameter of the pipe shall be based upon the IPS, CTS, or SIDR sizing system. *[User to specify the*

appropriate sizing system on the plans.]

- D. Approved manufacturers are: *[The specifier is referred to the list of manufacturers as shown on the PPI website http://plasticpipe.org/municipal_pipe/mi_members.html]*

2A.02 FITTINGS

- A. Butt Fusion Fittings - Fittings shall be made of either PE4710 or PE 3608, with a minimum Cell Classification as noted in 2A.01A. Butt Fusion Fittings shall meet the requirements of ASTM D3261. Molded and fabricated fittings shall have a pressure rating equal to the pipe unless otherwise specified in the plans.

Markings for molded fittings shall comply with the requirements of ASTM D 3261. Fabricated fittings shall be marked in accordance with ASTM F 2206. Socket fittings shall meet ASTM D 2683.

- B. Electrofusion Fittings - Fittings shall be PE4710 or PE 3608, with a minimum Cell Classification as noted in 2A.01A. Electrofusion Fittings shall have a manufacturing standard of ASTM F1055. Fittings shall have a pressure rating equal to the pipe unless otherwise specified on the plans.

- C. Flanges and Mechanical Joint Adapters (MJ Adapters) – Flanges and Mechanical Joint Adapters shall be PE4710 or PE 3608, with a minimum Cell Classification as noted in 2A.01A. Flanged and Mechanical Joint Adapters can be made to ASTM D 3261 or if machined, must meet the requirements of ASTM F 2206. Flanges and MJ Adapters shall have a pressure rating equal to the pipe unless otherwise specified on the plans. Markings for molded or machined

flange adapters or MJ Adapters shall be per ASTM D 3261. Fabricated (including machined) flange adapters shall be per ASTM F 2206.

Van-Stone style, metallic (including stainless steel), convoluted or flat-plate, back-up rings and bolt materials shall follow the guidelines of Plastic Pipe Institute Technical Note # 38, and shall have the bolt-holes and bolt-circles conforming to one of these standards: ASME B-16.5 Class 150, ASME B-16.47 Series A Class 150, ASME B-16.1 Class 125, or AWWA C207 Class 150 Series B, D, or E. The back-up ring shall provide a long-term pressure rating equal to or greater than the pressure-class of the pipe with which the flange adapter assembly will be used, and such pressure rating shall be marked on the back-up ring. The back-up ring, bolts, and nuts shall be protected from corrosion by a system such as paint, coal-tar epoxy, galvanization, polyether or polyester fusion bonded epoxy coatings, anodes, or cathodic protection, as specified by the project engineer.

- D. Service connections shall be electrofusion saddles with a brass or stainless steel threaded outlet, electrofusion saddles, sidewall fusion branch saddles, tapping tees, or mechanical saddles.

For electrofusion saddles with threaded outlet the size of the outlet shall be one inch IPS unless a larger size is shown on the plans. Electrofusion saddles shall be made from materials required in part 2A.02 B. Electrofusion Fittings.

For sidewall fusion saddles, the size of the saddle shall be as indicated on the plans. The saddle can be made in accordance to ASTM D 3261 or ASTM F 2206. After installation, approximately ¼” of the PE pipe shall be visible beyond the saddle to confirm that proper surface preparation occurred. Saddle faces that do not provide ¼ inch of area beyond the saddle are not acceptable.

Tapping tees shall be made to ASTM D3261 or D2683.

Mechanical strap-on saddles can only be used where their use on PE pipe is approved by the mechanical saddle manufacturer. The body of the saddle shall be stainless steel, epoxy coated cast iron or brass. The gasket material and design must be acceptable for PE pipe. The outlet shall be threaded for one inch IPS unless a larger size is shown on the plans. Mechanical strap-on saddles will be installed per the manufacturer's instructions.

2A.03 PIPE AND FITTING IDENTIFICATION

- A. The pipe shall be marked in accordance with the standards to which it is manufactured.
[or alternative as above]
- B. Color identification by the use of stripes on pipe to identify pipe service shall be optional. If used, stripes or colored exterior pipe product shall be blue for potable water.
- C. Tracing wire shall be placed parallel and above, but separate from the pipe and shall be 10 AWG or engineer approved equal. *[The specifier can change this to the preferred material or method, all pipes should have a methodology to be locatable]*
- D. Marking tape shall be approved by the engineer and placed between 6 and 12 inches above the crown of pipe.

PART 2 B– PRODUCTS FOR 4 INCH AND LARGER PIPE PER AWWA C906

2B.01 – PIPE

- A. Polyethylene pipe shall be made from HDPE material having a material designation code of PE3608 or higher. The material shall meet the requirements of ASTM D 3350 and shall have a minimum cell classification of PE345464C. In addition, the material shall be listed as meeting NSF-61.
- B. The pipe and fittings shall meet the requirements of AWWA C906.
- C. HDPE pipe shall be rated for use at a pressure class of 200 psi. *[The specifier chooses the pressure class from Table 2 in Section 1.04 above]*. The outside diameter of the pipe shall be based upon the IPS or DIPS sizing system. *[User to specify the*

appropriate sizing system on the plans.]

D. Approved manufacturers are: *[The specifier is referred to the list of manufacturers as shown on the PPI website http://plasticpipe.org/municipal_pipe/mi_members.html]*

2B.02 FITTINGS

- A. Butt Fusion Fittings - Fittings shall be made of HDPE material with a minimum material designation code of PE3608 and with a minimum Cell Classification as noted in 2B.01A. Butt Fusion Fittings shall meet the requirements of ASTM D3261. Molded and fabricated fittings shall have a pressure rating equal to the pipe unless otherwise specified on the plans. All fittings shall meet the requirements of AWWA C906.

Markings for molded fittings shall comply with the requirements of ASTM D 3261. Fabricated fittings shall be marked in accordance with ASTM F 2206. Socket fittings shall meet ASTM D 2683.

- B. Electrofusion Fittings - Fittings shall be made of HDPE material with a minimum material designation code of PE 3608 and with a minimum Cell Classification as noted in 2B.01A. Electrofusion Fittings shall have a manufacturing standard of ASTM

F1055. Fittings shall have a pressure rating equal to the pipe unless otherwise specified on the plans. All electrofusion fittings shall be suitable for use as pressure conduits, and have nominal burst values of four times the Working Pressure Rating (WPR) of the fitting. Markings shall be according to ASTM F 1055.

- C. Flanges and Mechanical Joint Adapters (MJ Adapters) – Flanges and Mechanical Joint Adapters shall have a material designation code of PE3608 or higher and a minimum Cell Classification as noted in 2B.01A. Flanged and Mechanical Joint Adapters can be made to ASTM D 3261 or if machined, must meet the requirements of ASTM F 2206. Flanges and MJ Adapters shall have a pressure rating equal to the pipe unless otherwise specified on the plans. Markings for molded or machined flange adapters or MJ Adapters shall be per ASTM D 3261. Fabricated (including machined) flange adapters shall be per ASTM F 2206.

Van-Stone style, metallic (including stainless steel), convoluted or flat-plate, back-up rings and bolt materials shall follow the guidelines of Plastic Pipe Institute Technical Note # 38, and shall have the bolt-holes and bolt-circles conforming to one of these standards: ASME B-16.5 Class 150, ASME B-16.47 Series A Class 150, ASME B-16.1 Class 125, or AWWA C207 Class 150 Series B, D, or E. The back-up ring shall provide a long-term pressure rating equal to or greater than the pressure-class of the pipe with which the flange adapter assembly will be used, and such pressure rating shall be marked on the back-up ring. The back-up ring, bolts, and nuts shall be protected from corrosion by a system such as paint, coal-tar epoxy, galvanization, polyether or polyester fusion bonded epoxy coatings, anodes, or cathodic protection, as specified by the project engineer.

- D. Service connections shall be electrofusion saddles with a brass or stainless steel threaded outlet, electrofusion saddles, sidewall fusion branch saddles, tapping tees, or mechanical saddles.

For electrofusion saddles with threaded outlet the size of the outlet shall be one inch IPS unless a larger size is shown on the plans. Electrofusion saddles shall be made from materials required in part B. Electrofusion Fittings.

For sidewall fusion saddles the size of the saddle shall be as indicated on the plans. The saddle can be made in accordance to ASTM D 3261 or ASTM F 2206. After installation, approximately ¼” of the PE pipe shall be visible beyond the saddle to confirm that proper surface preparation occurred. Saddle faces that do not provided ¼ inch of area beyond the saddle are not acceptable. Tapping tees

shall be made to ASTM D3261 or D2683.

Mechanical strap-on saddles can only be used where there use on PE pipe is approved by the mechanical saddle manufacturer. The body of the saddle shall be stainless steel, epoxy coated cast iron or brass. The gasket material and design must be acceptable for PE pipe. The outlet shall be threaded for one inch IPS unless a larger size is shown on the plans. Mechanical strap-on saddles will be installed per the manufacturer’s instructions.

2B.03 PIPE AND FITTING IDENTIFICATION

- A. The pipe shall be marked in accordance with the standards to which it is manufactured.
[or alternative as above]
- B. Color identification by the use of stripes on pipe to identify pipe service shall be optional. If used, stripes or colored exterior pipe product shall be blue for potable water, or green for wastewater/sewage, or purple (lavender) for reclaimed water.
- C. Tracing wire shall be placed parallel and above, but separate from the pipe and shall be 10 AWG or engineer approved equal. *[The specifier can change this to the preferred material or method, all pipes should have a methodology to be locatable]*
- D. Marking tape shall be approved by the engineer and placed between 6 and 12 inches above the crown of pipe.

PART 3 – EXECUTION

3.1 JOINING METHODS

- A. Butt Fusion: The pipe shall be joined by the butt fusion procedure outlined in ASTM F 2620 or PPI TR-33. All fusion joints shall be made in compliance with the pipe or fitting manufacturer’s recommendations. Fusion joints shall be made by qualified fusion technicians per PPI TN-42.
- B. Saddle fusion: Saddle fusion shall be done in accordance with ASTM F 2620 or TR-41 or the fitting manufacturer’s recommendations and PPI TR-41. Saddle fusion joints shall be

made by qualified fusion technicians. Qualification of the fusion technician shall be demonstrated by evidence of fusion training within the past year on the equipment to be utilized on this project. *[Saddle fusion is used to fuse branch saddles, tapping tees, and other HDPE constructs onto the wall of the main pipe]* (ASTM F905).

- C. Electrofusion: Electrofusion joining shall be done in accordance with the manufacturers recommended procedure. Other sources of electrofusion joining information are ASTM F 1290 and PPI TN 34. The process of electrofusion requires an electric source, a transformer, commonly called an electrofusion box that has wire leads, a method to read electronically (by laser) or otherwise input the barcode of the fitting, and a fitting that is compatible with the type of electrofusion box used. The electrofusion box must be capable of reading and storing the input parameters and the fusion results for later download to a record file. Qualification of the fusion technician shall be demonstrated by evidence of electrofusion training within the past year on the equipment to be utilized for this project.
- D. Mechanical:
1. Mechanical connection of HDPE to auxiliary equipment such as valves, pumps, and fittings shall use mechanical joint adapters and other devices in conformance with the PPI Handbook of Polyethylene Pipe, Chapter 9 and AWWA Manual of Practice M55, Chapter 6.
 2. Mechanical connections on small pipe under 3" are available to connect HDPE pipe to other HDPE pipe, or a fittings, or to a transition to another material. The use of stab-fit style couplings is allowed, along with the use of metallic couplings of brass and other materials. All mechanical and compression fittings shall be recommended by the manufacturer for potable water use. When a compression type or mechanical type of coupling is used, the use of a rigid tubular insert stiffener inside the end of the pipe is recommended.
 3. Mechanical couplings that wrap around the pipe and act as saddles are made by several manufacturers specifically for HDPE pipe. All such saddles, tapping saddles, couplings, clamps etc. shall be recommended by the manufacturer as being designed for use with HDPE pipe at the pressure class listed in this section.
 4. Unless specified by the fitting manufacturer, a restraint harness or concrete anchor is recommended with mechanical couplings to prevent pullout.
 5. Mechanical coupling shall be made by qualified technicians. Qualification of the field technician shall be demonstrated by evidence of mechanical coupling training within the past year. This training shall be on the equipment and pipe components to be utilized for this project.
- E. Joint Recording - The critical parameters of each fusion joint, as required by the manufacturer and these specifications, shall be recorded either manually or by an electronic data logging device. All fusion joint data shall be included in the Fusion Technician's joint report.
- F. The specifier is referred to the list of manufactures as shown on the PPI website

3.2 INSTALLATION

- A. Buried HDPE pipe and fittings shall be installed in accordance with ASTM D2321 or ASTM D2774 for pressure systems and AWWA Manual of Practice M55 Chapter 7.
- B. Pipe embedment - Embedment material should be Class I, Class II, or Class III , materials as defined by ASTM D-2321 Section 6. The use of Class IV and Class V materials is not recommended, however it may be used only with the approval of the engineer and appropriate compaction.
- C. Bedding: Pipe bedding shall be in conformance with ASTM D2321 Section 8. Compaction rates should be as specified in ASTM D2321. Deviations shall be approved by the engineer.
- D. Haunching and backfill shall be as specified in ASTM D 2321 Section 9 with Class I, II, or III materials. Compaction shall be in excess of 85% Proctor [*Specifier to put in the percent compaction and other site specific information as needed*]

3.3 TESTING

- A. Hydrostatic leakage testing is recommended and shall comply with ASTM F 2164, ASTM F 1412, AWWA Manual of Practice M55 Chapter 9, and PPI Handbook of Polyethylene Pipe Chapter 2 (2nd Edition). If the test section fails this test, the Contractor shall repair or replace all defective materials and/or workmanship at no additional cost to the Owner.
- B. Pneumatic (compressed air) leakage testing of HDPE pressure piping is prohibited for safety reasons.

3.4 CLEANING AND DISINFECTING

- A. Cleaning and disinfecting of potable water systems shall be in accordance with AWWA C651 and AWWA Manual of Practice M55 Chapter 10, and PPI Handbook of Polyethylene Pipe Chapter 2 (2nd Edition).
- B. After installation and pressure testing, new water mains should be disinfected according to AWWA C651.
- C. The disinfection chemicals should be limited to less than 12% active chlorine. The duration of the disinfection should not exceed 24 hours.
- D. Upon completion, the system should be thoroughly flushed with fresh water, and retested to verify the disinfectant chlorine level has been reduced to potable drinking water concentrations in all service water tubing and branch lateral pipes.

End

