CONTRACT DOCUMENTS

CITY OF WHITE SALMON, WASHINGTON

MANHOLE IMPROVEMENTS

2023

anderson perry & associates, inc.
engineering · surveying · natural resources

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WALLA WALLA, WA. LA GRANDE, OR. REDMOND, OR. HERMISTON, OR. ENTERPRISE, OR.

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FOR

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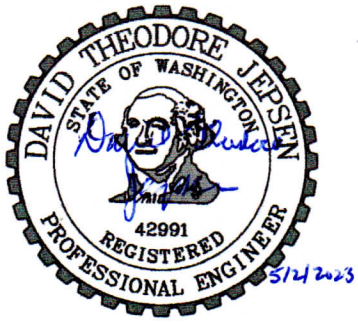

ANDERSON PERRY & ASSOCIATES, INC.

Walla Walla, Washington
La Grande, Redmond, Hermiston, and Enterprise, Oregon

Job No. 250-15

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Contract Documents

AGREEMENT

AGREEMENT BETWEEN OWNER AND CONTRACTOR FOR CONSTRUCTION CONTRACT OF A SMALL PROJECT

This Agreement is by and between City of White Salmon, Washington ("Owner") and _____ ("Contractor"). Owner and Contractor hereby agree as follows:

ARTICLE 1 - THE WORK

1.01 Work

A. Work includes all labor, materials, equipment, services, and documentation necessary to construct the Project defined herein. The Work may include related services such as testing, start-up, and commissioning, all as required by the Contract Documents.

B. The Contractor shall complete all Work as specified or indicated in the Contract Documents. The Project is generally described as follows:

1. **Manhole Improvements 2023** involves the installation of a new manhole concrete cone with lid castings at six manholes; replacement of the manhole lid castings at 13 manholes; installation of approximately 54 vertical linear feet of epoxy-fiberglass cured-in-place liner for manhole rehabilitation; restoration of asphalt concrete pavement; and other miscellaneous work required to complete the Project as shown on the Drawings and specified. The Work may include Additive Alternate 1 that includes the purchase and installation of a new hatch and precast concrete flat top lid for an existing utility vault located in the parking lot on the south side of the Heritage Plaza wastewater lift station and removal of concrete and asphalt concrete pavement and replacement with asphalt concrete, and other miscellaneous work required to complete the Project.

2. The Site of the Work includes property, easements, and designated work areas described in greater detail in the Contract Documents but generally located on West and East Jewett Boulevard, SE 5th Avenue, and Heritage Plaza adjacent to State Highway 14.

ARTICLE 2 - CONTRACT DOCUMENTS

2.01 Intent of Contract Documents

A. It is the intent of the Contract Documents to describe a functionally complete project. The Contract Documents do not indicate or describe all of the Work required to complete the Project. Additional details required for the correct installation of selected products are to be provided by the Contractor and coordinated with the Owner and Engineer. This Agreement supersedes prior negotiations, representations, and agreements, whether written or oral. The Contract Documents are complementary; what is required by one part of the Contract Documents is as binding as if required by other parts of the Contract Documents.

B. During the performance of the Work and until final payment, Contractor and Owner shall submit all matters in question concerning the requirements of the Contract Documents, or relating to the acceptability of the Work under the Contract Documents to the Engineer. Engineer will be the initial interpreter of the requirements of the Contract Documents, and judge of the acceptability of the Work thereunder.

C. Engineer will render a written clarification, interpretation, or decision on the issue submitted, or initiate a modification to the Contract Documents.

D. Contractor, and its subcontractors and suppliers, shall not have or acquire any title to or ownership rights to any of the Drawings, Specifications, or other documents (including copies or electronic media editions) prepared by Engineer or its consultants.

2.02 Contract Documents Defined

A. The Contract Documents consist of the following:

1. This Agreement (pages 1 to 26, inclusive).
2. Exhibit A - Contractor's Bid Form, Article 5 - Bid Schedule (pages 3 to 4, inclusive).
3. Exhibit B - Addenda (if applicable) (____ to ____, inclusive).
4. Performance Bond (not attached but incorporated by reference).
5. Payment Bond (not attached but incorporated by reference).
6. Certificate of Insurance (not attached but incorporated by reference).
7. Specifications listed in the Table of Contents (not attached but incorporated by reference).
8. Figures (not attached but incorporated by reference) consist of Figures 1 to 4, inclusive.
9. The following which may be delivered or issued on or after the Effective Date of the Contract:
    a. Notice to Proceed and Application for Payment
    b. Work Change Directives
    c. Change Orders
    d. Contractor's Notice of Substantial Completion
    e. Certificate of Substantial Completion
    f. Contractor's Completion Certificate
    g. Notice of Acceptability of Work

ARTICLE 3 - ENGINEER

3.01 Engineer

A. The Engineer for this Project is Anderson Perry & Associates, Inc.

ARTICLE 4 - CONTRACT TIMES

4.01 Contract Times

A. The Work for the new and replacement of manhole lids and castings, and final restoration of the asphalt pavement will be substantially completed on or before **September 28, 2023**, and final restoration of the asphalt pavement associated with Additive Alternative No. 1 shall be substantially completed on or before **October 31, 2023**, and all remaining work shall be substantially completed on or before **November 15, 2023,** and completed and ready for final payment on or before **December 1, 2023**.

4.02 Liquidated Damages

A. Contractor and Owner recognize that time is of the essence in the performance of the Contract, and that Owner will suffer financial and/or other losses if Contractor does not complete the Work according to the requirements of Paragraph 4.01 above, plus any extensions thereof allowed in accordance with the Contract. Because such losses for delay would be difficult and costly to determine, Owner and Contractor agree that as liquidated damages for delay (but not as a penalty) Contractor shall pay Owner **$1,500.00** for each day that expires after the Contract Time for substantial completion.

4.03 Delays in Contractor's Progress

A. If Owner, Engineer, or anyone for whom Owner is responsible, delays, disrupts, or interferes with the performance or progress of the Work, then Contractor shall be entitled to an equitable adjustment in the Contract Times and Contract Price. Contractor's entitlement to an adjustment of the Contract Times is conditioned on such adjustment being essential to Contractor's ability to complete the Work within the Contract Times.

B. Contractor shall not be entitled to an adjustment in Contract Price or Contract Times for delay, disruption, or interference caused by or within the control of Contractor or their subcontractors or suppliers.

C. If Contractor's performance or progress is delayed, disrupted, or interfered with by unanticipated causes not the fault of and beyond the control of Owner, Contractor, and those for which they are responsible, then Contractor shall be entitled to an equitable adjustment in Contract Times.

D. Contractor shall not be entitled to an adjustment in Contract Price or Contract Times for any delay, disruption, or interference if such delay is concurrent with a delay, disruption, or interference caused by or within the control of Contractor or Contractor's subcontractors or suppliers.

4.04 Progress Schedules

A. Contractor shall develop a progress schedule and submit to the Engineer for review and comment before starting Work on the Site. The Contractor shall modify the schedule in accordance with the comments provided by the Engineer.

B. The Contractor shall update and submit the progress schedule to the Engineer each month. The Owner may withhold payment if the Contractor fails to submit the schedule.

ARTICLE 5 - CONTRACT PRICE

5.01 Owner shall pay Contractor for completion of the Work in accordance with the Contract Documents the amounts that follow, subject to adjustment under the Contract:

A. For all Work, at the prices stated in Contractor's Bid Form, Article 5 - Bid Schedule, attached hereto as Exhibit A.

ARTICLE 6 - BONDS AND INSURANCE

6.01 Bonds

A. Before starting Work, Contractor shall furnish a performance bond and a payment bond from surety companies that are duly licensed or authorized to issue bonds in the required amounts in the jurisdiction in which the Project is located. Each bond shall be in an amount equal to

the Contract Price, as security for the faithful performance and payment of all of Contractor's obligations under the Contract. These bonds shall remain in effect until the completion of the correction period specified in Paragraph 7.12 but, in any case, not less than one year after the date when final payment becomes due.

B. Bonds, as required in the Contract Documents, shall be written and signed by an approved surety (or sureties) that is registered with the Washington State Insurance Commissioner, appears on the current Authorized Insurance List in the State of Washington published by the Office of the Insurance Commissioner, and is satisfactory to the Owner.

6.02 Insurance

A. Before starting Work, Contractor shall furnish evidence of insurance from companies that are duly licensed or authorized in the jurisdiction in which the Project is located with a minimum AM Best rating of A-VII or better. Contractor shall provide insurance in accordance with the following:

1. Contractor shall provide coverage for not less than the following amounts, or greater where required by Laws and Regulations:

a. Workers' Compensation:

State:	Statutory
Employer's Liability:	
Bodily Injury, each Accident	$ 1,000,000
Each Employee	$ 1,000,000
Policy Limit	$ 1,000,000

b. Commercial General Liability:

General Aggregate	$ 2,000,000
Products - Completed Operations Aggregate	$ 1,000,000
Personal and Advertising Injury	$ 1,000,000
Each Occurrence (Bodily Injury and Property Damage)	$ 1,000,000

c. Automobile Liability herein:

Bodily Injury:	
Each Person	$ 1,000,000
Each Accident	$ 1,000,000
Property Damage:	
Each Accident	$ 1,000,000

d. Excess or Umbrella Liability:

Per Occurrence	$ 5,000,000
General Aggregate	$ 5,000,000

Contractor's Pollution Liability:

Each Occurrence	$ 1,000,000
1,General Aggregate	$ 1,000,000

☐ If box is checked, Contractor is not required to provide Contractor's Pollution Liability insurance under this Contract

f. Additional Insureds: In addition to Owner and Engineer, include as additional insureds the following:

1. Washington State Department of Transportation

g. Contractor's Professional Liability:

Each Claim	$ 1,000,000
Annual Aggregate	$ 1,000,000

☐ If box is checked, Contractor is not required to provide Contractor's Professional Liability insurance under this Contract

B. All insurance policies required to be purchased and maintained will contain a provision or endorsement that the coverage afforded will not be canceled or materially changed or renewal refused until at least 30 days prior written notice has been given to the insured and additional insured.

C. Automobile liability insurance provided by Contractor shall provide coverage against claims for damages because of bodily injury or death of any person or property damage arising out of the ownership, maintenance, or use of any motor vehicle. The automobile liability policy shall be written on an occurrence basis.

D. Contractor's commercial general liability policy shall be written on a 1996 or later ISO commercial general liability occurrence form and include the following coverages and endorsements:

1. Products and completed operations coverage maintained for three years after final payment;
2. Blanket contractual liability coverage to the extent permitted by law;
3. Broad form property damage coverage; and
4. Severability of interest; underground, explosion, and collapse coverage; personal injury coverage.

E. The Contractor's commercial general liability and automobile liability, umbrella or excess, and pollution liability policies shall include and list Owner and Engineer and the respective officers, directors, members, partners, employees, agents, consultants, and subcontractors of each as additional insureds; and the insurance afforded to these additional insureds shall provide primary coverage for all claims covered thereby (including as applicable those arising from both ongoing and completed operations) on a non-contributory basis.

1. Additional insured endorsements will include both ongoing operations and products and completed operations coverage through ISO Endorsements CG 20 10 10 01 and CG

20 37 10 01 (together). If Contractor demonstrates to Owner that the specified ISO endorsements are not commercially available, then Contractor may satisfy this requirement by providing equivalent endorsements.

2. Contractor shall provide ISO Endorsement CG 20 32 07 04, "Additional Insured—Engineers, Architects or Surveyors Not Engaged by the Named Insured" or its equivalent for design professional additional insureds.

F. Umbrella or excess liability insurance shall be written over the underlying employer's liability, commercial general liability, and automobile liability insurance. Subject to industry-standard exclusions, the coverage afforded shall be procured on a "follow the form" basis as to each of the underlying policies. Contractor may demonstrate to Owner that Contractor has met the combined limits of insurance (underlying policy plus applicable umbrella) specified for employer's liability, commercial general liability, and automobile liability through the primary policies alone, or through combinations of the primary insurance policies and an umbrella or excess liability policy.

G. The Contractor shall provide property insurance covering physical loss or damage during construction to structures, materials, fixtures, and equipment, including those materials, fixtures, or equipment in storage or transit.

H. If Contractor has failed to obtain and maintain required insurance, Owner may exclude the Contractor from the Site, impose an appropriate set-off against payment, and exercise Owner's termination rights under Article 15.

I. Contractor shall obtain and keep in force the insurance policies that are required in the Contract Documents. The policies shall be with companies or thorough sources approved by the State Insurance Commissioner pursuant to RCW 48.05 and satisfactory to the Owner.

ARTICLE 7 - CONTRACTOR'S RESPONSIBILITIES

7.01 Supervision and Superintendence

A. Contractor shall supervise and direct the Work competently and efficiently, devoting such attention thereto and applying such skills and expertise as may be necessary to perform the Work in accordance with the Contract Documents. Contractor shall be solely responsible for the means, methods, techniques, sequences, safety, and procedures of construction.

B. Contractor shall assign a competent resident superintendent who is to be present at all times during the execution of the Work. This resident superintendent shall not be replaced without written notice to and approval by the Owner and Engineer except under extraordinary circumstances.

C. Contractor shall at all times maintain good discipline and order at the Site.

D. Except as otherwise required for the safety or protection of persons or the Work or property at the Site or adjacent thereto, and except as otherwise stated in the Contract Documents, all Work at the Site shall be performed during regular working hours, Monday through Friday. Regular working hours will be 10 hours in one day or 40 hours in one week.

E. Contractor shall be responsible for the cost of any overtime pay or other expense incurred by the Owner for Engineer's services (including those of the Resident Project Representative, if any), Owner's representative, and construction observation services, occasioned by the performance of Work on Saturday, Sunday, any legal holiday, or as overtime on any regular work day. If Contractor is responsible but does not pay, or if the parties are unable to agree

as to the amount owed, then Owner may impose a reasonable set-off against payments due under Article 14.

7.02 Other Work at the Site

A. In addition to and apart from the Work of the Contractor, other work may occur at or adjacent to the Site. Contractor shall take reasonable and customary measures to avoid damaging, delaying, disrupting, or interfering with the work of Owner, any other contractor, or any utility owner performing other work at or adjacent to the Site.

7.03 Services, Materials, and Equipment

A. Unless otherwise specified in the Contract Documents, Contractor shall provide and assume full responsibility for all services, materials, equipment, labor, transportation, construction equipment and machinery, tools, appliances, fuel, power, light, heat, telephone, water, sanitary facilities, temporary facilities, and all other facilities and incidentals necessary for the performance, testing, start up, and completion of the Work, whether or not such items are specifically called for in the Contract Documents.

B. All materials and equipment incorporated into the Work shall be new, of good quality and shall be stored, applied, installed, connected, erected, protected, used, cleaned, and conditioned in accordance with instructions of the applicable supplier, except as otherwise may be provided in the Contract Documents.

7.04 Subcontractors and Suppliers

A. Contractor may retain subcontractors and suppliers for the performance of parts of the Work. Such subcontractors and suppliers must be acceptable to Owner.

B. The Contractor shall include the language of this section in each of its first tier subcontracts, and shall require each of its Subcontractors to include the same language of this section in each of their subcontracts, adjusting only as necessary the terms used for the contracting parties. Upon request of the Owner, the Contractor shall promptly provide documentation to the Owner demonstrating that the Subcontractor meets the Subcontractor responsibility criteria below. The requirements of this section apply to all Subcontractors regardless of tier.

C. At the time of subcontract execution, the Contractor shall verify that each of its first tier Subcontractors meets the following Bidder responsibility criteria:

1. Have a current certificate of registration in compliance with Chapter 18.27 RCW, which must have been in effect at the time of subcontract Bid submittal;

2. Have a current Washington Unified Business Identifier (UBI) number;

3. If applicable, have:

a. Have Industrial Insurance (workers' compensation) coverage for the Subcontractor's employees working in Washington, as required in Title 51 RCW;

b. A Washington Employment Security Department number, as required in Title 50 RCW;

c. A Washington Department of Revenue state excise tax registration number, as required in Title 82 RCW;

d. An electrical contractor license, if required by Chapter 19.28 RCW;

e. An elevator contractor license, if required by Chapter 70.87 RCW;

4. Not be disqualified from bidding on any public works contract under RCW 39.06.010 or 39.12.065 (3).

7.05 Quality Management

A. Contractor is fully responsible for the managing quality to ensure Work is completed in accordance with the Contract Documents. Refer to the Quality Control section of the General Requirements.

7.06 Licenses, Fees and Permits

A. Contractor shall pay all license fees and royalties and assume all costs incident to performing the Work or the incorporation in the Work of any invention, design, process, product, or device which is the subject of patent rights or copyrights held by others.

B. Contractor shall obtain and pay for all construction permits and licenses unless otherwise provided in the Contract Documents.

7.07 Laws and Regulations; Taxes

A. Contractor shall give all notices required by and shall comply with all local, state, and federal Laws and Regulations applicable to the performance of the Work. Except where otherwise expressly required by applicable Laws and Regulations, neither Owner nor Engineer shall be responsible for monitoring Contractor's compliance with any Laws or Regulations.

B. Contractor shall bear all resulting costs and losses, and shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them from and against all claims, costs, losses, and damages if Contractor performs any Work or takes any other action knowing or having reason to know that it is contrary to Laws or Regulations.

C. Contractor shall pay all applicable sales, consumer, use, and other similar taxes Contractor is required to pay in accordance with Laws and Regulations.

D. The Contract Price and any agreed variations thereof shall include all taxes imposed by law and properly chargeable to the Project, including sales tax. Sales tax applicable to the Contract Price will be collected from the Owner and shall be paid to the State Department of Revenue by the Contractor in conformance with the law.

E. The Owner will not adjust its payment if the Contractor incorrectly accounted tax liability.

7.08 Record Documents

A. Contractor shall maintain one printed record copy of all Drawings, Specifications, Addenda, Change Orders, Work Change Directives, Field Orders, written interpretations and clarifications, and approved Shop Drawings in a safe place at the Site. Contractor shall annotate them to show changes made during construction. Contractor shall deliver these record documents to Engineer upon completion of the Work.

7.09 Safety and Protection

A. Contractor shall be solely responsible for initiating, maintaining, and supervising all safety precautions and programs in connection with the Work.

B. Contractor shall take all necessary precautions for the safety of, and shall provide the necessary protection to prevent damage, injury, or loss to:

1. All persons on the Site or who may be affected by the Work;

2. All the Work and materials and equipment to be incorporated therein, whether in storage on or off the Site; and

3. Other property at the Site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures, other work in progress, utilities, and underground facilities not designated for removal, relocation, or replacement in the course of construction.

C. All damage, injury, or loss to any property caused, directly or indirectly, in whole or in part, by Contractor, or anyone for whose acts the Contractor may be liable, shall be remedied by Contractor at its expense (except damage or loss attributable to the fault of Contract Documents or to the acts or omissions of Owner or Engineer and not attributable, directly or indirectly, in whole or in part, to the fault or negligence of Contractor).

D. Contractor shall be responsible for coordinating any exchange of material safety data sheets or other hazard communication information required to be made available to or exchanged between or among employers at the Site in accordance with Laws or Regulations.

E. In emergencies affecting the safety or protection of persons or the Work or property at the Site or adjacent thereto, Contractor shall act to prevent threatened damage, injury, or loss. Contractor shall give Engineer prompt written notice if Contractor believes that any significant changes in the Work or variations from the Contract Documents have been caused thereby or are required as a result thereof. If Engineer determines that a change in the Contract Documents is required because of the action taken by Contractor in response to such an emergency, a Work Change Directive or Change Order will be issued.

7.10 Shop Drawings, Samples, and Other Submittals

A. Contractor shall review and coordinate the Shop Drawing and samples with the requirements of the Work and the Contract Documents and shall verify all related field measurements, quantities, dimensions, specified performance and design criteria, installation requirements, materials, catalog numbers, and similar information.

B. Each submittal shall bear a stamp or specific written certification that Contractor has satisfied Contractor's obligations under the Contract Documents with respect to Contractor's review of that submittal, and that Contractor approves the submittal.

C. With each submittal, Contractor shall give Engineer specific written notice, in a communication separate from the submittal, of any variations that the Shop Drawing or sample may have from the requirements of the Contract Documents.

D. Engineer will provide timely review of Shop Drawings and samples. Submittals will be reviewed and returned to the Contractor, with comments noted thereon, within 15 calendar days following receipt at the Engineer's office.

E. Engineer's review and approval will not extend to means, methods, techniques, sequences, or procedures of construction or to safety precautions or programs.

F. Engineer's review and approval of a separate item does not indicate approval of the assembly in which the item functions.

G. Contractor shall make corrections required by Engineer and shall return the required number of corrected copies of Shop Drawings and submit, as required, new samples for review and approval. Contractor shall direct specific attention in writing to revisions other than the corrections called for by Engineer on previous submittals.

H. Shop Drawings are not Contract Documents.

7.11 Warranties and Guarantees

A. Contractor warrants and guarantees to Owner that all Work will be in accordance with the Contract Documents and will not be defective. Engineer and its officers, directors, members, partners, employees, agents, consultants, and subcontractors shall be entitled to rely on Contractor's warranty and guarantee.

7.12 Correction Period

A. If within one year after the date of substantial completion, any Work is found to be defective, or if the repair of any damages to the Site, adjacent areas that Contractor has arranged to use through construction easements or otherwise, and other adjacent areas used by Contractor as permitted by Laws and Regulations, is found to be defective, then Contractor shall promptly and without cost to Owner, correct such defective Work.

7.13 Indemnification

A. To the fullest extent permitted by Laws and Regulations, and in addition to any other obligations of Contractor under the Contract or otherwise, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to the performance of the Work, provided that any such claim, cost, loss, or damage is attributable to bodily injury, sickness, disease, or death, or to injury to or destruction of tangible property (other than the Work itself), including the loss of use resulting therefrom but only to the extent caused by any negligent act or omission of Contractor, any subcontractor, any supplier, or any individual or entity directly or indirectly employed by any of them to perform any of the Work or anyone for whose acts they may be liable.

ARTICLE 8 - OWNER'S RESPONSIBILITIES

8.01 Owner's Responsibilities

A. Except as otherwise provided in the Contract Documents, Owner shall issue all communications to Contractor through Engineer.

B. Owner shall make payments to Contractor as provided in this Contract.

C. Owner shall provide Site access and easements required to construct the Project.

D. If Owner intends to contract with others for the performance of other work at or adjacent to the Site, unless stated elsewhere in the Contract Documents, Owner shall have sole authority and responsibility for such coordination.

E. The Owner shall retain and pay for the required independent inspection or testing services if Contractor cannot legally provide, as stated by applicable building codes or local building officials, the required independent inspection or testing services called for in the Contract Documents.

F. The Owner shall not supervise, direct, or have control or authority over, nor be responsible for, Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work. Owner will not be responsible for Contractor's failure to perform the Work in accordance with the Contract Documents.

G. While at the Site, Owner's employees and representatives shall comply with the specific applicable requirements of Contractor's safety programs of which Owner has been informed.

H. Owner shall furnish copies of any applicable Owner safety programs to Contractor.

ARTICLE 9 - ENGINEER'S STATUS DURING CONSTRUCTION

9.01 Engineer's Status

A. Engineer will be Owner's representative during construction. The duties and responsibilities and the limitations of authority of Engineer as Owner's representative during construction are set forth in this Contract.

B. Neither Engineer's authority or responsibility under this Article 9 or under any other provision of the Agreement, nor any decision made by Engineer in good faith either to exercise or not exercise such authority or responsibility or the undertaking, exercise, or performance of any authority or responsibility by Engineer, shall create, impose, or give rise to any duty in contract, tort, or otherwise owed by Engineer to Contractor, any subcontractor, any supplier, any other individual or entity, or to any surety for or employee or agent of any of them.

C. Engineer will make visits to the Site at intervals appropriate to the various stages of construction. Engineer will not be required to make exhaustive or continuous inspections on the Site to check the quality or quantity of the Work.

D. Engineer has the authority to reject Work if Contractor fails to perform Work in accordance with the Contract Documents.

E. Engineer will render decisions regarding the requirements of the Contract Documents, and judge the acceptability of the Work.

F. Engineer will not supervise, direct, control, or have authority over or be responsible for Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work. Engineer will not be responsible for Contractor's failure to perform the Work in accordance with the Contract Documents.

ARTICLE 10 - CHANGES IN THE WORK

10.01 Authority to Change the Work

A. Without invalidating the Contract and without notice to any surety, Owner may, at any time or from time to time, order additions, deletions, or revisions in the Work.

10.02 Change Orders

A. Owner and Contractor shall execute appropriate Change Orders covering:

1. Changes in the Contract Price or Contract Times which are agreed to by the parties, including any undisputed sum or amount of time for Work actually performed in accordance with a Work Change Directive;

2. Changes in the Work which are: (a) ordered by Owner or (b) agreed to by the parties or (c) resulting from the Engineer's decision, subject to the need for Engineer's recommendation if the change in the Work involves the design (as set forth in the Drawings, Specifications, or otherwise), or other engineering or technical matters; and

3. Changes in the Contract Price or Contract Times or other changes which embody the substance of any final binding results under Article 12.

B. Work for which the Contractor may claim a price adjustment or extension of time shall require an executed Change Order or Work Change Directive in order to be considered authorized. Work performed by the Contractor without an executed Change Order or Work Change Directive shall constitute acceptance of the Work by the Contractor and shall constitute waiver of any claim for adjustment of the Contract Price or Contract Time as a result of said change.

C. If the provisions of any bond require notice to be given to a surety of any change affecting the general scope of the Work or the provisions of the Contract Documents (including, but not limited to, Contract Price or Contract Times), the giving of any such notice will be Contractor's responsibility. The amount of each applicable bond will be adjusted to reflect the effect of any such change.

ARTICLE 11 - DIFFERING SUBSURFACE OR PHYSICAL CONDITIONS

11.01 Differing Conditions Process

A. If Contractor believes that any subsurface or physical condition including but not limited to utilities or other underground facilities that are uncovered or revealed at the Site either differs materially from that shown or indicated in the Contract Documents or is of an unusual nature, and differs materially from conditions ordinarily encountered and generally recognized as inherent in Work of the character provided for in the Contract Documents then Contractor shall, promptly (but in no event later than 5 calendar days) after becoming aware thereof and before further disturbing the subsurface or physical conditions or performing any Work in connection therewith (except in an emergency), notify Owner and Engineer in writing about such condition. Contractor shall not further disturb such condition or perform any Work in connection therewith (except with respect to an emergency) until receipt of a written statement permitting Contractor to do so.

B. After receipt of written notice, Engineer will promptly (but in no event later than 30 calendar days):

1. Review the subsurface or physical condition in question;

2. Determine necessity for Owner obtaining additional exploration or tests with respect to the condition;

3. Determine whether the condition falls within the differing site condition as stated herein;

4. Obtain any pertinent cost or schedule information from Contractor;

5. Prepare recommendations to Owner regarding the Contractor's resumption of Work in connection with the subsurface or physical condition in question and the need for any change in the Drawings or Specifications; and

6. Advise Owner in writing of Engineer's findings, conclusions, and recommendations.

C. After receipt of Engineer's written findings, conclusions, and recommendations, Owner shall issue a written statement to Contractor regarding the subsurface or physical condition in question, addressing the resumption of Work in connection with such condition, indicating whether any change in the Drawings or Specifications will be made, and adopting or rejecting Engineer's written findings, conclusions, and recommendations, in whole or in part.

ARTICLE 12 - CLAIMS AND DISPUTE RESOLUTION

12.01 Claims Process

A. The party submitting a claim shall deliver it directly to the other party to the Agreement and the Engineer promptly (but in no event later than 10 days) after the start of the event giving rise thereto. The Claim shall be in sufficient detail to enable the other party to ascertain the basis and the amount of Claim. As a minimum, the following information must accompany any Claim submitted:

1. A detailed factual statement of the Claim providing all necessary dates, locations, items of Work, price adjustments, Contract Time adjustments, and other relevant and key information.

2. The name of each individual, official, or employee involved in or knowledgeable about the Claim.

3. The specific provisions of the Contract which support the Claim and a statement of the reasons why such provisions support the Claim.

4. If the Claim relates to a decision of the Engineer which the Agreement leaves to the Engineer's discretion or as to which the Agreement provides that the Engineer's decision is final, the claimant shall set out in detail all facts supporting its position relating to the decision of the Engineer.

5. The identification of any documents and the substance of any oral communications that support the Claim.

6. If an adjustment of Contract Time is sought:

   a. The specific days and dates for which it is sought.

   b. The specific reasons the claimant believes a time adjustment should be granted.

7. If price adjustment is sought, the exact amount sought shall be outlined in detail.

B. The party receiving a claim shall review it thoroughly, giving full consideration to its merits. The two parties shall seek to resolve the claim through the exchange of information and direct negotiations. All actions taken on a claim shall be stated in writing and submitted to the other party. The Owner may consult the Engineer on the merits of any claim made by the Contractor.

C. If efforts to resolve a claim are not successful, the party receiving the claim may deny it by giving written notice of denial to the other party. If the receiving party does not take action on the claim within 45 days, the claim is deemed denied.

D. If the dispute is not resolved to the satisfaction of the parties, Owner or Contractor shall give written notice to the other party of the intent to pursue mediation or arbitration as described herein.

E. *Mediation*:

1. At any time after initiation of a Claim, Owner and Contractor may mutually agree to mediation of the underlying dispute. The agreement to mediate shall stay the Claim submittal and response process.

2. If Owner and Contractor agree to mediation, then after 60 days from such agreement, either Owner or Contractor may unilaterally terminate the mediation process, and the Claim submittal and decision process shall resume as of the date of the termination. If

the mediation proceeds but is unsuccessful in resolving the dispute, the Claim submittal and decision process shall resume as of the date of the conclusion of the mediation, as determined by the mediator.

3. Owner and Contractor shall each pay one-half of the mediator's fees and costs.

F. *Partial Approval*: If the party receiving a Claim approves the Claim in part and denies it in part, such action shall be final and binding unless within 30 days of such action the other party invokes the arbitration procedure set forth for final resolution of disputes.

G. *Denial of Claim*: If efforts to resolve a Claim are not successful, the party receiving the Claim may deny it by giving written notice of denial to the other party. If the receiving party does not take action on the Claim within 90 days, then either Owner or Contractor may at any time thereafter submit a letter to the other party indicating that as a result of the inaction, the Claim is deemed denied, thereby commencing the time for appeal of the denial. A denial of the Claim shall be final and binding unless within 30 days of the denial the other party invokes the arbitration procedure set forth for final resolution of disputes.

H. *Final and Binding Results*: If the parties reach a mutual agreement regarding a Claim, whether through approval of the Claim, direct negotiations, mediation, or otherwise; or if a Claim is approved in part and denied in part, or denied in full, and such actions become final and binding; then the results of the agreement or action on the Claim shall be incorporated in a Change Order to the extent they affect the Contract, including the Work, the Contract Times, or the Contract Price.

I. *Arbitration:*

1. All matters subject to final resolution will be decided by arbitration in accordance with the rules of USA&M Arbitration Service of Seattle, Washington subject to the conditions and limitations of this paragraph. This agreement to arbitrate and any other agreement or consent to arbitrate entered into will be specifically enforceable under the prevailing law of any court having jurisdiction.

2. The demand for arbitration will be filed in writing with the other party to the Contract and with the selected arbitrator or arbitration provider, and a copy will be sent to Engineer for information. The demand for arbitration will be made within the specific time required in this Article, or if no specified time is applicable within a reasonable time after the matter in question has arisen, and in no event shall any such demand be made after the date when institution of legal or equitable proceedings based on such matter in question would be barred by the applicable statute of limitations. The demand for arbitration should include specific reference to Paragraph 12.01.I.4 below.

3. No arbitration arising out of or relating to the Contract shall include by consolidation, joinder, or in any other manner any other individual or entity (including Engineer, and Engineer's consultants and the officers, directors, partners, agents, employees or consultants of any of them) who is not a party to this Contract unless:

   a. the inclusion of such other individual or entity is necessary if complete relief is to be afforded among those who are already parties to the arbitration; and

   b. such other individual or entity is substantially involved in a question of law or fact which is common to those who are already parties to the arbitration and which will arise in such proceedings.

4. The award rendered by the arbitrator(s) shall be consistent with the agreement of the parties, in writing, and include a concise breakdown of the award, and a written

explanation of the award specifically citing the Contract provisions deemed applicable and relied on in making the award.

5. The award will be final. Judgment may be entered upon it in any court having jurisdiction thereof, and it will not be subject to modification or appeal, subject to provisions of the Laws and Regulations relating to vacating or modifying an arbitral award.

6. The fees and expenses of the arbitrators and any arbitration service shall be shared equally by Owner and Contractor.

ARTICLE 13 - TESTS AND INSPECTIONS; CORRECTION OF DEFECTIVE WORK

13.01 Tests and Inspections

A. The Contractor shall be responsible for performing all inspections and tests required by applicable codes, those requested by the Owner, and as identified in the "Quality Control" section of the General Requirements.

B. Owner and Engineer will have access to the Site and the Work at reasonable times for their observation, inspection, and testing, if any. Contractor shall provide them proper and safe conditions for such access.

C. Contractor shall give Engineer timely notice of readiness of the Work for all the Owner's required inspections and tests, and shall cooperate with the Owner's personnel to facilitate required inspections and tests.

D. If any Work that is to be inspected, tested, or approved is covered by Contractor without written concurrence of Engineer, Contractor shall, if requested by Engineer, uncover such Work for observation. Such uncovering shall be at Contractor’s expense.

13.02 Defective Work

A. Contractor shall ensure that the Work is not defective.

B. Engineer has the authority to determine whether Work is defective, and to reject defective Work.

C. Prompt notice of all defective Work of which Owner or Engineer has actual knowledge will be given to Contractor.

D. The Contractor shall promptly correct all such defective Work.

E. When correcting defective Work, Contractor shall take no action that would void or otherwise impair Owner’s special warranty and guarantee, if any, on said Work.

F. If the Work is defective or Contractor fails to supply sufficient skilled workers or suitable materials or equipment, or fails to perform the Work in such a way that the completed Work will conform to the Contract Documents, then Owner may order Contractor to stop the Work, or any portion thereof, until the cause for such order has been eliminated.

ARTICLE 14 - PAYMENTS TO CONTRACTOR

14.01 Progress Payments

A. The Contractor shall prepare a schedule of values that will serve as the basis for progress payments. The schedule of values will be in a form of application for payment acceptable to Engineer. The unit price breakdown submitted with the bid will be used for unit price work.

The Contractor shall break lump sum items into units that will allow for measurement of Work in progress.

14.02 Applications for Payments

A. Contractor shall submit to Engineer for review a summary of the Work completed to date for which the Contractor is requesting payment. The Contractor's summary shall be accompanied by such supporting documentation as is required by the Contract Documents.

B. The Engineer will review the summary of Work submitted by the Contractor for which the Contractor is requesting payment. The Engineer will either concur with the Contractor's summary of Work to date or inform the Contractor where the Engineer does not agree with the Contractor's request. In the latter case, the Contractor may make the necessary corrections and resubmit the summary of Work completed to the Engineer.

C. Upon agreement between the Engineer and Contractor on the quantities of Work performed to date, the Engineer will, within 5 days of agreement, prepare the Application for Payment and submit it to the Contractor for Contractor's signature.

D. Beginning with the second Application for Payment, each Application shall include an affidavit of Contractor stating that all previous progress payments received on account of the Work have been applied on account to discharge Contractor's legitimate obligations associated with prior Applications for Payment.

E. The amount of retainage with respect to progress payments will be as stipulated in the Agreement.

14.03 Retainage

A. The Owner shall retain 5 percent of each progress payment until the Work is complete and accepted by the Owner.

14.04 Review of Applications

A. Within 5 days after receipt of each application for payment, the Engineer will either indicate in writing a recommendation for payment and present the application for payment to Owner or return the application for payment to Contractor indicating in writing Engineer's reasons for refusing to recommend payment. The Contractor will make the necessary corrections and resubmit the application for payment.

B. Engineer will recommend reductions in payment (set-offs) which, in the opinion of the Engineer, are necessary to protect Owner from loss because the Work is defective and requires correction or replacement.

C. The Owner is entitled to impose set-offs against payment based on any claims that have been made against Owner on account of Contractor's conduct in the performance of the Work, incurred costs, losses, or damages on account of Contractor's conduct in the performance of the Work, or liquidated damages that have accrued as a result of Contractor's failure to complete the Work.

14.05 Contractor's Warranty of Title

A. Contractor warrants and guarantees that title to all Work, materials, and equipment furnished under the Agreement will pass to Owner free and clear of (1) all liens and other title defects, and (2) all patent, licensing, copyright, or royalty obligations, no later than the time of payment by Owner.

14.06 Substantial Completion

A. When Contractor considers the entire Work ready for its intended use, Contractor shall notify Owner and Engineer in writing, using the "Contractor's Notice of Substantial Completion" form, that the entire Work is substantially complete and request that Engineer issue a certificate of Substantial Completion. Contractor shall at the same time submit to Owner and Engineer an initial draft of punch list items to be completed or corrected before final payment.

B. Promptly after Contractor's notification, Owner, Contractor, and Engineer shall make an inspection of the Work to determine the status of completion. If Engineer does not consider the Work substantially complete, Engineer will notify Contractor in writing giving the reason therefor.

C. If some or all of the Work has been determined not to be at a point of Substantial Completion and will require re-inspection or re-testing by Engineer, the cost of such re-inspection or re-testing, including the cost of time, travel and living expenses, shall be paid by Contractor to Owner. If Contractor does not pay, or the parties are unable to agree as to the amount owed, then Owner may impose a reasonable set-off against payments due under this article.

D. If Engineer considers the Work substantially complete, Engineer will prepare a punch list of items to be completed or corrected before final payment. The Engineer will then confer with the Owner to see if the Owner has any objections as to whether the Project is substantially complete or to the accuracy of the attached punch list. If, after considering any objections the Owner may have, the Engineer concludes that the Work is not substantially complete, Engineer will notify Contractor in writing that the Work is not substantially complete, stating the reasons therefor. If the Owner has no objections, the Engineer will fix the date of Substantial Completion and execute and deliver to Owner and Contractor the Certificate of Substantial Completion with a punch list of items to be completed or corrected.

E. After Substantial Completion the Contractor shall promptly begin work on the punch list of items to be completed or corrected prior to final payment. When the Work has been completed, the Contractor shall submit to the Engineer the "Contractor's Completion Certificate" form.

14.07 Final Inspection

A. Upon receipt of the "Contractor's Completion Certificate" from Contractor that the entire Work, or an agreed portion thereof, is complete, Engineer will promptly make a final inspection with Owner and Contractor and will notify Contractor in writing of all particulars in which this inspection reveals that the Work, or agreed portion thereof, is incomplete or defective. Contractor shall immediately take such measures as are necessary to complete such Work or remedy such deficiencies.

14.08 Final Payment

A. Contractor may make application for final payment after Contractor has satisfactorily completed all Work defined in the Contract Documents, including providing all maintenance and operating instructions, schedules, guarantees, bonds, certificates or other evidence of insurance, certificates of inspection, annotated record documents and other documents.

B. The final application for payment shall be accompanied (except as previously delivered) by:

1. All documentation called for in the Contract Documents;

2. Consent of the surety to final payment;

3. Satisfactory evidence that all title issues have been resolved such that title to all Work, materials, and equipment has passed to Owner free and clear of any liens or other title defects, or will so pass upon final payment;

4. A list of all disputes that Contractor believes are unsettled; and

5. Complete and legally effective releases or waivers (satisfactory to Owner) of all lien rights arising out of the Work, and of liens filed in connection with the Work.

C. The Work is complete (subject to surviving obligations) when it is ready for final payment as established by the Engineer's written recommendation of final payment and issuance of a Notice of Acceptability of Work.

14.09 Waiver of Claims

A. The making of final payment will not constitute a waiver by Owner of claims or rights against Contractor.

B. The acceptance of final payment by Contractor will constitute a waiver by Contractor of all claims and rights against Owner other than those pending matters that have been duly submitted.

ARTICLE 15 - SUSPENSION OF WORK AND TERMINATION

15.01 Owner May Suspend Work

A. At any time and without cause, Owner may suspend the Work or any portion thereof for a period of not more than 60 consecutive days by written notice to Contractor and Engineer. Such notice will fix the date on which Work will be resumed. Contractor shall resume the Work on the date so fixed. Contractor shall be entitled to an adjustment in the Contract Price or an extension of the Contract Times, or both, directly attributable to any such suspension.

15.02 Owner May Terminate for Cause

A. Contractor's failure to perform the Work in accordance with the Contract Documents or other failure to comply with a material term of the Contract Documents will constitute a default by Contractor and justify termination for cause.

B. If Contractor defaults in its obligations, then after giving Contractor and any surety ten days written notice that Owner is considering a declaration that Contractor is in default and termination of the Agreement, Owner may proceed to:

1. Declare Contractor to be in default, and give Contractor and any surety notice that the Agreement is terminated; and

2. Enforce the rights available to Owner under any applicable performance bond.

C. Owner may not proceed with termination of the Agreement under Paragraph 15.02.B if Contractor within seven days of receipt of notice of intent to terminate begins to correct its failure to perform and proceeds diligently to cure such failure.

D. Subject to the terms and operation of any applicable performance bond, if Owner has terminated the Agreement for cause, Owner may exclude Contractor from the Site, take possession of the Work, incorporate in the Work all materials and equipment stored at the Site or for which Owner has paid Contractor but which are stored elsewhere, and complete the Work as Owner may deem expedient.

E. In the case of a termination for cause, if the cost to complete the Work, including related claims, costs, losses, and damages, exceeds the unpaid contract balance, Contractor shall pay the difference to Owner.

15.03 Owner May Terminate for Convenience

A. Upon seven days written notice to Contractor, Owner may, without cause and without prejudice to any other right or remedy of Owner, terminate the Agreement. In such case, Contractor shall be paid for, without duplication of any items:

1. Completed and acceptable Work executed in accordance with the Contract Documents prior to the effective date of termination, including fair and reasonable sums for overhead and profit on such Work;

2. Expenses sustained prior to the effective date of termination in performing services and furnishing labor, materials, or equipment as required by the Contract Documents in connection with uncompleted Work, plus fair and reasonable sums for overhead and profit on such expenses; and

3. Other reasonable expenses directly attributable to termination, including costs incurred to prepare a termination for convenience cost proposal.

B. Contractor shall not be paid on account of loss of anticipated overhead, profits, or revenue, or other economic loss arising out of or resulting from such termination.

15.04 Contractor May Stop Work or Terminate

A. If, through no act or fault of Contractor, (1) the Work is suspended for more than 90 consecutive days by Owner or under an order of court or other public authority, or (2) Owner fails for 30 days to pay Contractor any sum finally determined to be due, then Contractor may, upon seven days written notice to Owner, and provided Owner does not remedy such suspension or failure within that time, either stop the Work until payment is received, or terminate the Agreement and recover payment from the Owner.

ARTICLE 16 - CONTRACTOR'S REPRESENTATIONS

16.01 Contractor Representations

A. Contractor makes the following representations when entering into this Agreement:

1. Contractor has examined and carefully studied the Contract Documents, and any data and reference items identified in the Contract Documents.

2. Contractor has visited the Site, conducted a thorough visual examination of the Site and adjacent areas, and become familiar with and is satisfied as to the general, local, and Site conditions that may affect cost, progress, and performance of the Work.

3. Contractor is familiar with and is satisfied as to all Laws and Regulations that may affect cost, progress, and performance of the Work.

4. Contractor has considered the information known to Contractor itself; information commonly known to contractors doing business in the locality of the Site; information and observations obtained from visits to the Site; the Contract Documents; and the Site-related reports and drawings identified in the Contract Documents, with respect to the effect of such information, observations, and documents on:

a. The cost, progress, and performance of the Work;

b. The means, methods, techniques, sequences, and procedures of construction to be employed by Contractor; and

c. Contractor's safety precautions and programs.

5. Based on the information and observations referred to in the preceding paragraph, Contractor agrees that no further examinations, investigations, explorations, tests, studies, or data are necessary for the performance of the Work at the Contract Price, within the Contract Times, and in accordance with the other terms and conditions of the Agreement.

6. Contractor is aware of the general nature of work to be performed by Owner and others at the Site that relates to the Work as indicated in the Contract Documents.

7. Contractor has given Engineer written notice of all conflicts, errors, ambiguities, or discrepancies that Contractor has discovered in the Contract Documents, and the written resolution thereof by Engineer is acceptable to Contractor.

8. The Contract Documents are generally sufficient to indicate and convey understanding of all terms and conditions for performance and furnishing of the Work.

9. Contractor's entry into this Contract constitutes an incontrovertible representation by Contractor that, without exception, all prices in the Agreement are premised upon performing and furnishing the Work required by the Contract Documents.

ARTICLE 17 - MISCELLANEOUS

17.01 Cumulative Remedies

A. The duties and obligations imposed by this Agreement and the rights and remedies available hereunder to the parties hereto are in addition to, and are not to be construed in any way as a limitation of, any rights and remedies available to any or all of them which are otherwise imposed or available by Laws or Regulations, by special warranty or guarantee, or by other provisions of the Agreement. The provisions of this paragraph will be as effective as if repeated specifically in the Contract Documents in connection with each particular duty, obligation, right, and remedy to which they apply.

17.02 Limitation of Damages

A. Neither Owner, Engineer, nor any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors, shall be liable to Contractor for any claims, costs, losses, or damages sustained by Contractor on or in connection with any other project or anticipated project.

17.03 No Waiver

A. A party's non-enforcement of any provision shall not constitute a waiver of that provision, nor shall it affect the enforceability of that provision or of the remainder of this Agreement.

17.04 Survival of Obligations

A. All representations, indemnifications, warranties, and guarantees made in, required by, or given in accordance with the Agreement, as well as all continuing obligations indicated in the Agreement, will survive final payment, completion, and acceptance of the Work or termination or completion of the Agreement or termination of the services of Contractor.

17.05 Contractor's Certifications

A. Contractor certifies that it has not engaged in corrupt, fraudulent, collusive, or coercive practices in competing for or in executing the Agreement.

17.06 Controlling Law

A. This Agreement is to be governed by the law of the state in which the Project is located.

17.07 Prevailing Wage Rates and Hours of Labor

A. During the performance of Work under this Contract, the Contractor must abide by RCW 39.12 in regards to prevailing wages on public works projects and by RCW 49.28 with respect to hours of labor. The State of Washington prevailing wage rates applicable to this public works project, which is located in Klickitat County, may be found at the following website address of the Department of Labor and Industries: https://fortress.wa.gov/lni/wagelookup/prvWagelookup.aspx. Based on the Bid submittal deadline for this Project, the applicable effective date for prevailing wages for this Project is March 2, 2023. A copy of the applicable prevailing wage rates is also available for viewing during regular office hours at the Office of the Engineer, located at Anderson Perry & Associates, Inc., 214 E Birch Street, Walla Walla, Washington 99362, (509) 529-9260. Upon request, the Engineer will mail a hard copy of the applicable prevailing wages for this Project.

B. Contractor shall post the following information in a location readily visible to workers at the job site in conformance with RCW 39.12.020.

1. A copy of a statement of intent to pay prevailing wages approved by the industrial statistician of the State Department of Labor and Industries per RCW 39.12.040.

2. Address and telephone number of the industrial statistician of the State Department of Labor and Industries, where a complaint or inquiry concerning prevailing wages may be made.

C. Per RCW 39.12.040, Contractor shall compile and submit to the Owner with the first Application for Payment a "Statement of Intent to Pay Prevailing Wages", approved by the industrial statistician of the State Board of Industries, for his employees and that for each and every Subcontractor from the Contractor, or a Subcontractor. No payments to the Contractor until an approved Statement of Intent to Pay Prevailing Wages is submitted to the Owner. The Statement of Intent to Pay Prevailing Wages shall include the following.

1. Contractor's registration certification number.

2. Prevailing rate of wage for each classification of workers entitled to prevailing wages under RCW 39.12.020 and the estimated number of workers in each classification.

D. With the final Application for Payment, Contractor shall provide the following documentation, along with other documentation required by the Contract Documents.

1. A release obtained from the Washington State Department of Revenue.

2. Affidavits of Wages Paid forms (from the State Department of Labor and Industries) for the Contractor and all Subcontractors are on file with the Owner (RCW 39.12.040).

3. Release has been obtained from the Washington State Department of Labor and Industries for payment of unemployment compensation and the Washington State Employment Security Department for payment of industrial insurance and medical aid.

4. A certificate of Payment of Contributions Penalties and Interest on Public Works Contract is received from the Washington State Employment Security Department.

5. The Owner will not release final payment, including retainage, until the above documentation is received and all Claims, as provided by law, against the retainage have been resolved. In the event Claims are filed and provided the above conditions 1, 2, and 3 are met, the Contractor will be paid such retained percentage less an amount sufficient to pay any such Claims together with a sum determined by the Owner sufficient to pay the cost of foreclosing on Claims and to cover attorney's fees.

E. Contractor shall be responsible for requesting the "Intent to Pay Prevailing Wages" and "Affidavit of Wages Paid" forms from the State Department of Labor and Industries and for paying any approval fees required by the State Department of Labor and Industries.

F. Any disputes that arise as to what the prevailing wage rates of wages for work of a similar nature and such dispute cannot be adjusted by the parties in interest, including labor and management representatives, the matter shall be referred for arbitration to the Director of the State Department of Labor and Industries and his or her decision therein shall be final and conclusive and binding on all parties involved in the dispute.

17.08 Definitions and Terminology

A. Wherever used in the Bidding Requirements or Contract Documents, a term printed with initial capital letters, including the term's singular and plural forms, will have the meaning indicated in the definitions below. In addition to terms specifically defined, terms with initial capital letters in the Contract Documents include references to identified articles and paragraphs, and the titles of other documents or forms.

1. Addenda—Written or graphic instruments issued prior to the opening of Bids which clarify, correct, or change the Bidding Requirements or the proposed Contract Documents.

2. Agreement—The written instrument, executed by Owner and Contractor, that sets forth the Contract Price and Contract Times, identifies the parties and the Engineer, and designates the specific items that are Contract Documents.

3. Application for Payment—The form acceptable to Engineer which is to be used by Contractor during the course of the Work in requesting progress or final payments and which is to be accompanied by such supporting documentation as is required by the Contract Documents.

4. Bid—The offer of a Bidder submitted on the prescribed form setting forth the prices for the Work to be performed.

5. Bidder—An individual or entity that submits a Bid to Owner.

6. Bidding Documents—The Bidding Requirements, the proposed Contract Documents, and all Addenda.

7. Bidding Requirements—The advertisement or invitation to bid, Instructions to Bidders, Bid Bond or other Bid security, if any, the Bid Form, and the Bid with any attachments.

8. Change Order—A document which is signed by Contractor and Owner and authorizes an addition, deletion, or revision in the Work or an adjustment in the Contract Price or the Contract Times, or other revision to the Contract, issued on or after the Effective Date of the Contract.

9. Change Proposal—A written request by Contractor, duly submitted in compliance with the procedural requirements set forth herein, seeking an adjustment in Contract Price or Contract Times, or both; contesting an initial decision by Engineer concerning the requirements of the Contract Documents or the acceptability of Work under the Contract Documents; challenging a set-off against payments due; or seeking other relief with respect to the terms of the Contract.

10. Claim—(a) A demand or assertion by Owner directly to Contractor, duly submitted in compliance with the procedural requirements set forth herein: seeking an adjustment of Contract Price or Contract Times, or both; contesting an initial decision by Engineer concerning the requirements of the Contract Documents or the acceptability of Work under the Contract Documents; contesting Engineer's decision regarding a Change Proposal; seeking resolution of a contractual issue that Engineer has declined to address; or seeking other relief with respect to the terms of the Contract; or (b) a demand or assertion by Contractor directly to Owner, duly submitted in compliance with the procedural requirements set forth herein, contesting Engineer's decision regarding a Change Proposal; or seeking resolution of a contractual issue that Engineer has declined to address. A demand for money or services by a third party is not a Claim.

11. Contract—The entire and integrated written contract between the Owner and Contractor concerning the Work.

12. Contract Documents—Those items so designated in the Agreement, and which together comprise the Contract.

13. Contract Price—The money that Owner has agreed to pay Contractor for completion of the Work in accordance with the Contract Documents. .

14. Contract Times—The number of days or the dates by which Contractor shall: (a) achieve Milestones, if any; (b) achieve Substantial Completion; and (c) complete the Work.

15. Contractor—The individual or entity with which Owner has contracted for performance of the Work.

16. Drawings—The part of the Contract that graphically shows the scope, extent, and character of the Work to be performed by Contractor. This term also includes and refers to the term "Figures".

17. Effective Date of the Contract—The date, indicated in the Agreement, on which the Contract becomes effective.

18. Engineer—The individual or entity named as such in the Agreement.

19. Laws and Regulations; Laws or Regulations—Any and all applicable laws, statutes, rules, regulations, ordinances, codes, and orders of any and all governmental bodies, agencies, authorities, and courts having jurisdiction.

20. Liens—Charges, security interests, or encumbrances upon Contract-related funds, real property, or personal property.

21. Notice of Award—The written notice by Owner to a Bidder of Owner's acceptance of the Bid.

22. Notice to Proceed—A written notice by Owner to Contractor fixing the date on which Contractor shall start to perform the Work.

23. Owner—The individual or entity with which Contractor has contracted regarding the Work, and which has agreed to pay Contractor for the performance of the Work, pursuant to the terms of the Contract.

24. Progress Schedule—A schedule, prepared and maintained by Contractor, describing the sequence and duration of the activities comprising the Contractor's plan to accomplish the Work within the Contract Times.

25. Project—The total undertaking to be accomplished for Owner by engineers, contractors, and others, including planning, study, design, construction, testing, commissioning, and start-up, and of which the Work to be performed under the Contract Documents is a part.

26. Project Manual—The written documents prepared for, or made available for, procuring and constructing the Work, including but not limited to the Bidding Documents or other construction procurement documents, geotechnical and existing conditions information, the Agreement, bond forms, and Specifications. The contents of the Project Manual may be bound in one or more volumes.

27. Resident Project Representative—The authorized representative of Engineer assigned to assist Engineer at the Site. As used herein, the term Resident Project Representative or "RPR" includes any assistants or field staff of Resident Project Representative.

28. Samples—Physical examples of materials, equipment, or workmanship that are representative of some portion of the Work and that establish the standards by which such portion of the Work will be judged.

29. Schedule of Submittals—A schedule, prepared and maintained by Contractor, of required submittals and the time requirements for Engineer's review of the submittals and the performance of related construction activities.

30. Schedule of Values—A schedule, prepared and maintained by Contractor, allocating portions of the Contract Price to various portions of the Work and used as the basis for reviewing Contractor's Applications for Payment.

31. Shop Drawings—All drawings, diagrams, illustrations, schedules, and other data or information that are specifically prepared or assembled by or for Contractor and submitted by Contractor to illustrate some portion of the Work. Shop Drawings, whether approved or not, are not Drawings and are not Contract Documents.

32. Site—Lands or areas indicated in the Contract Documents as being furnished by Owner upon which the Work is to be performed, including rights-of-way and easements, and such other lands furnished by Owner which are designated for the use of Contractor.

33. Specifications—The part of the Contract that consists of written requirements for materials, equipment, systems, standards, and workmanship as applied to the Work, and certain administrative requirements and procedural matters applicable to the Work.

34. Subcontractor—An individual or entity having a direct contract with Contractor or with any other Subcontractor for the performance of a part of the Work.

35. Substantial Completion—The time at which the Work (or a specified part thereof) has progressed to the point where, in the opinion of Engineer, the Work (or a specified part thereof) is sufficiently complete, in accordance with the Contract Documents, so that the Work (or a specified part thereof) can be utilized for the purposes for which it is intended. The terms "substantially complete" and "substantially completed" as applied to all or part of the Work refer to Substantial Completion thereof.

36. Successful Bidder—The Bidder whose Bid the Owner accepts, and to which the Owner makes an award of contract, subject to stated conditions.

37. Supplier—A manufacturer, fabricator, supplier, distributor, materialman, or vendor having a direct contract with Contractor or with any Subcontractor to furnish materials or equipment to be incorporated in the Work by Contractor or a Subcontractor.

38. Underground Facilities—All underground pipelines, conduits, ducts, cables, wires, manholes, vaults, tanks, tunnels, or other such facilities or attachments, and any encasements containing such facilities, including but not limited to those that convey electricity, gases, steam, liquid petroleum products, telephone or other communications, fiber optic transmissions, cable television, water, wastewater, storm water, other liquids or chemicals, or traffic or other control systems.

39. Unit Price Work—Work to be paid for on the basis of unit prices.

40. Work—The entire construction or the various separately identifiable parts thereof required to be provided under the Contract Documents. Work includes and is the result of performing or providing all labor, services, and documentation necessary to produce such construction; furnishing, installing, and incorporating all materials and equipment into such construction; and may include related services such as testing, start-up, and commissioning, all as required by the Contract Documents.

41. Work Change Directive—A written directive to Contractor issued on or after the Effective Date of the Contract, signed by Owner and recommended by Engineer, ordering an addition, deletion, or revision in the Work.

IN WITNESS WHEREOF, Owner and Contractor have signed this Agreement.

This Agreement will be effective on _____ (which is the Effective Date of the Agreement).

OWNER:	CONTRACTOR:
City of White Salmon, Washington	
By:	By:
Title:	Title:
	(If Contractor is a corporation, a partnership, or a joint venture, attach evidence of authority to sign.)
Attest:	Attest:
Title:	Title:
Address for giving notices:	Address for giving notices:
	License No.: (where applicable)

(If Owner is a corporation, attach evidence of authority to sign. If Owner is a public body, attach evidence of authority to sign and resolution or other documents authorizing execution of this Contract.)

Exhibit A

Contractor's Bid Form, Article 5 - Bid Schedule

Exhibit B

Addenda *(if issued)*

CONTRACT FORMS

NOTICE OF AWARD

Date of Issuance:

Owner: **City of White Salmon, Washington**

Engineer: **Anderson Perry & Associates, Inc.**

Project: **Manhole Improvements 2023**

Bidder:

Bidder's Address:

You are notified that Owner has accepted your Bid dated **_____** for the above Contract, and that you are the Successful Bidder and are awarded a Contract for: _____

The Contract Price of the awarded Contract is $_____. Contract Price is subject to adjustment based on the provisions of the Contract including, but not limited to, those governing changes and Unit Price Work, as applicable.

You must comply with the following conditions within 15 days of the date you receive this Notice of Award:

1. Notice of Award

Acknowledge acceptance of the Project award in the space provided on this Notice of Award form. Be sure to include the date, as well as the signature and title of the person signing the Award form. ***Return all 3 copies to the Engineer.***

2. Agreement Between Owner and Contractor

Date and sign all ***3*** copies of the attached Agreement form. ***Return all 3 copies*** to the Engineer.

3. Payment and Performance Bonds

Provide the Construction Performance and Payment Bonds. Enclosed are ***3*** copies of the Payment Bond and ***3*** copies of the Performance Bond forms. Include an appropriate Power of Attorney which is properly dated with each of the bonds. **Additionally, note that the date shown on the Payment and Performance Bonds must be on or after the date shown on the Agreement.** The date on the Power of Attorney should be the same as shown on the Bond. These Payment and Performance Bond forms must be used, and no others will be accepted. Return ***3*** completed copies to the Engineer.

4. Certificate of Insurance

Complete the enclosed Certificate of Insurance form. The enclosed Certificate of Insurance form is the only acceptable form to be used for this project. Standard ACORD forms from the insurance company will be required to be attached to this form. Be sure to include Worker's Compensation certificates. Return all ***3*** copies to the Engineer.

5. Other Requirements

Schedule of Values for any lump sum bid prices greater than $5,000 and Progress Schedule shall be submitted to the Engineer at the Pre-Construction Conference.

Failure to comply with these conditions within the time specified will entitle Owner to consider you in default, annul this Notice of Award, and declare your Bid security forfeited.

Within 20 days after you comply with the above conditions, Owner will return to you one fully signed counterpart of the Agreement and Contract Documents.

Owner: **City of White Salmon, Washington**

By *(signature)*: _____

Name *(printed)*: _____

Title: _____

ACCEPTANCE OF NOTICE

Receipt of the above Notice of Award is hereby acknowledged this _____ day of _____, 20__, by:

Contractor:

By *(signature)*: _____

Name *(printed)*: _____

Title: _____

Copy to Owner

EJCDC
ENGINEERS JOINT CONTRACT DOCUMENTS COMMITTEE

PERFORMANCE BOND

CONTRACTOR *(name and address)*:

SURETY *(name and address of principal place of business)*:

OWNER *(name and address)*:
City of White Salmon
P.O. Box 2139/100 N. Main Street
White Salmon, WA 98672

CONSTRUCTION CONTRACT
Effective Date of the Agreement:
Amount:
Description *(name and location)*:

BOND
Bond Number:
Date *(not earlier than the Effective Date of the Agreement of the Construction Contract)*:
Amount:
Modifications to this Bond Form: ☐ None ☐ See Paragraph 16

Surety and Contractor, intending to be legally bound hereby, subject to the terms set forth below, do each cause this Performance Bond to be duly executed by an authorized officer, agent, or representative.

CONTRACTOR AS PRINCIPAL

_____ *(seal)*
Contractor's Name and Corporate Seal

By: _____
Signature

_____
Print Name

_____
Title

Attest: _____
Signature

_____
Title

SURETY

_____ *(seal)*
Surety's Name and Corporate Seal

By: _____
Signature *(attach power of attorney)*

_____
Print Name

_____
Title

Attest: _____
Signature

_____
Title

Notes: (1) Provide supplemental execution by any additional parties, such as joint venturers. (2) Any singular reference to Contractor, Surety, Owner, or other party shall be considered plural where applicable.

1. The Contractor and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors, and assigns to the Owner for the performance of the Construction Contract, which is incorporated herein by reference.

2. If the Contractor performs the Construction Contract, the Surety and the Contractor shall have no obligation under this Bond, except when applicable to participate in a conference as provided in Paragraph 3.

3. If there is no Owner Default under the Construction Contract, the Surety's obligation under this Bond shall arise after:

3.1 The Owner first provides notice to the Contractor and the Surety that the Owner is considering declaring a Contractor Default. Such notice shall indicate whether the Owner is requesting a conference among the Owner, Contractor, and Surety to discuss the Contractor's performance. If the Owner does not request a conference, the Surety may, within five (5) business days after receipt of the Owner's notice, request such a conference. If the Surety timely requests a conference, the Owner shall attend. Unless the Owner agrees otherwise, any conference requested under this Paragraph 3.1 shall be held within ten (10) business days of the Surety's receipt of the Owner's notice. If the Owner, the Contractor, and the Surety agree, the Contractor shall be allowed a reasonable time to perform the Construction Contract, but such an agreement shall not waive the Owner's right, if any, subsequently to declare a Contractor Default;

3.2 The Owner declares a Contractor Default, terminates the Construction Contract and notifies the Surety; and

3.3 The Owner has agreed to pay the Balance of the Contract Price in accordance with the terms of the Construction Contract to the Surety or to a contractor selected to perform the Construction Contract.

4. Failure on the part of the Owner to comply with the notice requirement in Paragraph 3.1 shall not constitute a failure to comply with a condition precedent to the Surety's obligations, or release the Surety from its obligations, except to the extent the Surety demonstrates actual prejudice.

5. When the Owner has satisfied the conditions of Paragraph 3, the Surety shall promptly and at the Surety's expense take one of the following actions:

5.1 Arrange for the Contractor, with the consent of the Owner, to perform and complete the Construction Contract;

5.2 Undertake to perform and complete the Construction Contract itself, through its agents or independent contractors;

5.3 Obtain bids or negotiated proposals from qualified contractors acceptable to the Owner for a contract for performance and completion of the Construction Contract, arrange for a contract to be prepared for execution by the Owner and a contractor selected with the Owners concurrence, to be secured with performance and payment bonds executed by a qualified surety equivalent to the bonds issued on the Construction Contract, and pay to the Owner the amount of damages as described in Paragraph 7 in excess of the Balance of the Contract Price incurred by the Owner as a result of the Contractor Default; or

5.4 Waive its right to perform and complete, arrange for completion, or obtain a new contractor, and with reasonable promptness under the circumstances:

5.4.1 After investigation, determine the amount for which it may be liable to the Owner and, as soon as practicable after the amount is determined, make payment to the Owner; or

5.4.2 Deny liability in whole or in part and notify the Owner, citing the reasons for denial.

6. If the Surety does not proceed as provided in Paragraph 5 with reasonable promptness, the Surety shall be deemed to be in default on this Bond seven days after receipt of an additional written notice from the Owner to the Surety demanding that the Surety perform its obligations under this Bond, and the Owner shall be entitled to enforce any remedy available to the Owner. If the Surety proceeds as provided in Paragraph 5.4, and the Owner refuses the payment or the Surety has denied liability, in whole or in part, without further notice the Owner shall be entitled to enforce any remedy available to the Owner.

7. If the Surety elects to act under Paragraph 5.1, 5.2, or 5.3, then the responsibilities of the Surety to the Owner shall not be greater than those of the Contractor under the Construction Contract, and the responsibilities of the Owner to the Surety shall not be greater than those of the Owner under the Construction Contract. Subject to the commitment by the Owner to pay the Balance of the Contract Price, the Surety is obligated, without duplication for:

7.1 the responsibilities of the Contractor for correction of defective work and completion of the Construction Contract;

7.2 additional legal, design professional, and delay costs resulting from the Contractor's Default, and resulting from the actions or failure to act of the Surety under Paragraph 5; and

7.3 liquidated damages, or if no liquidated damages are specified in the Construction Contract, actual damages caused by delayed performance or non-performance of the Contractor.

8. If the Surety elects to act under Paragraph 5.1, 5.3, or 5.4, the Surety's liability is limited to the amount of this Bond.

9. The Surety shall not be liable to the Owner or others for obligations of the Contractor that are unrelated to the Construction Contract, and the Balance of the Contract Price shall not be reduced or set off on account of any such unrelated obligations. No right of action shall accrue on this Bond to any person or entity other than the Owner or its heirs, executors, administrators, successors, and assigns.

10. The Surety hereby waives notice of any change, including changes of time, to the Construction Contract or to related subcontracts, purchase orders, and other obligations.

11. Any proceeding, legal or equitable, under this Bond may be instituted in any court of competent jurisdiction in the location in which the work or part of the work is located and shall be instituted within two years after a declaration of Contractor Default or within two years after the Contractor ceased working or within two years after the Surety refuses or fails to perform its obligations under this Bond, whichever occurs first. If the provisions of this paragraph are void or prohibited by law, the minimum periods of limitations available to sureties as a defense in the jurisdiction of the suit shall be applicable.

12. Notice to the Surety, the Owner, or the Contractor shall be mailed or delivered to the address shown on the page on which their signature appears.

13. When this Bond has been furnished to comply with a statutory or other legal requirement in the location where the construction was to be performed, any provision in this Bond conflicting with said statutory or legal requirement shall be deemed deleted herefrom and provisions conforming to such statutory or other legal requirement shall be deemed incorporated herein. When so furnished, the intent is that this Bond shall be construed as a statutory bond and not as a common law bond.

14. Definitions

14.1 Balance of the Contract Price: The total amount payable by the Owner to the Contractor under the Construction Contract after all proper adjustments have been made including allowance for the Contractor for any amounts received or to be received by the Owner in settlement of insurance or other claims for damages to which the Contractor is entitled, reduced by all valid and proper payments made to or on behalf of the Contractor under the Construction Contract.

14.2 Construction Contract: The agreement between the Owner and Contractor identified on the cover page, including all Contract Documents and changes made to the agreement and the Contract Documents.

14.3 Contractor Default: Failure of the Contractor, which has not been remedied or waived, to perform or otherwise to comply with a material term of the Construction Contract.

14.4 Owner Default: Failure of the Owner, which has not been remedied or waived, to pay the Contractor as required under the Construction Contract or to perform and complete or comply with the other material terms of the Construction Contract.

14.5 Contract Documents: All the documents that comprise the agreement between the Owner and Contractor.

15. If this Bond is issued for an agreement between a contractor and subcontractor, the term Contractor in this Bond shall be deemed to be Subcontractor and the term Owner shall be deemed to be Contractor.

16. Modifications to this Bond are as follows:

EJCDC
ENGINEERS JOINT CONTRACT DOCUMENTS COMMITTEE

PAYMENT BOND

CONTRACTOR *(name and address)*:

SURETY *(name and address of principal place of business)*:

OWNER *(name and address)*:
City of White Salmon
P.O. Box 2139/100 N. Main Street
White Salmon, WA 98672

CONSTRUCTION CONTRACT
Effective Date of the Agreement:
Amount:
Description *(name and location)*:

BOND
Bond Number:
Date *(not earlier than the Effective Date of the Agreement of the Construction Contract)*:
Amount:
Modifications to this Bond Form: ☐ None ☐ See Paragraph 18

Surety and Contractor, intending to be legally bound hereby, subject to the terms set forth below, do each cause this Payment Bond to be duly executed by an authorized officer, agent, or representative.

CONTRACTOR AS PRINCIPAL

_____ *(seal)*
Contractor's Name and Corporate Seal

By: _____
Signature

_____
Print Name

_____
Title

Attest: _____
Signature

_____
Title

SURETY

_____ *(seal)*
Surety's Name and Corporate Seal

By: _____
Signature *(attach power of attorney)*

_____
Print Name

_____
Title

Attest: _____
Signature

_____
Title

Notes: (1) Provide supplemental execution by any additional parties, such as joint venturers. (2) Any singular reference to Contractor, Surety, Owner, or other party shall be considered plural where applicable.

1. The Contractor and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors, and assigns to the Owner to pay for labor, materials, and equipment furnished for use in the performance of the Construction Contract, which is incorporated herein by reference, subject to the following terms.

2. If the Contractor promptly makes payment of all sums due to Claimants, and defends, indemnifies, and holds harmless the Owner from claims, demands, liens, or suits by any person or entity seeking payment for labor, materials, or equipment furnished for use in the performance of the Construction Contract, then the Surety and the Contractor shall have no obligation under this Bond.

3. If there is no Owner Default under the Construction Contract, the Surety's obligation to the Owner under this Bond shall arise after the Owner has promptly notified the Contractor and the Surety (at the address described in Paragraph 13) of claims, demands, liens, or suits against the Owner or the Owner's property by any person or entity seeking payment for labor, materials, or equipment furnished for use in the performance of the Construction Contract, and tendered defense of such claims, demands, liens, or suits to the Contractor and the Surety.

4. When the Owner has satisfied the conditions in Paragraph 3, the Surety shall promptly and at the Surety's expense defend, indemnify, and hold harmless the Owner against a duly tendered claim, demand, lien, or suit.

5. The Surety's obligations to a Claimant under this Bond shall arise after the following:

    5.1 Claimants who do not have a direct contract with the Contractor,

        5.1.1 have furnished a written notice of non-payment to the Contractor, stating with substantial accuracy the amount claimed and the name of the party to whom the materials were, or equipment was, furnished or supplied or for whom the labor was done or performed, within ninety (90) days after having last performed labor or last furnished materials or equipment included in the Claim; and

        5.1.2 have sent a Claim to the Surety (at the address described in Paragraph 13).

    5.2 Claimants who are employed by or have a direct contract with the Contractor have sent a Claim to the Surety (at the address described in Paragraph 13).

6. If a notice of non-payment required by Paragraph 5.1.1 is given by the Owner to the Contractor, that is sufficient to satisfy a Claimant's obligation to furnish a written notice of non-payment under Paragraph 5.1.1.

7. When a Claimant has satisfied the conditions of Paragraph 5.1 or 5.2, whichever is applicable, the Surety shall promptly and at the Surety's expense take the following actions:

    7.1 Send an answer to the Claimant, with a copy to the Owner, within sixty (60) days after receipt of the Claim, stating the amounts that are undisputed and the basis for challenging any amounts that are disputed; and

    7.2 Pay or arrange for payment of any undisputed amounts.

    7.3 The Surety's failure to discharge its obligations under Paragraph 7.1 or 7.2 shall not be deemed to constitute a waiver of defenses the Surety or Contractor may have or acquire as to a Claim, except as to undisputed amounts for which the Surety and Claimant have reached agreement. If, however, the Surety fails to discharge its obligations under Paragraph 7.1 or 7.2, the Surety shall indemnify the Claimant for the reasonable attorney's fees the Claimant incurs thereafter to recover any sums found to be due and owing to the Claimant.

8. The Surety's total obligation shall not exceed the amount of this Bond, plus the amount of reasonable attorney's fees provided under Paragraph 7.3, and the amount of this Bond shall be credited for any payments made in good faith by the Surety.

9. Amounts owed by the Owner to the Contractor under the Construction Contract shall be used for the performance of the Construction Contract and to satisfy claims, if any, under any construction performance bond. By the Contractor furnishing and the Owner accepting this Bond, they agree that all funds earned by the Contractor in the performance of the Construction Contract are dedicated to satisfy obligations of the Contractor and Surety under this Bond, subject to the Owner's priority to use the funds for the completion of the work.

10. The Surety shall not be liable to the Owner, Claimants, or others for obligations of the Contractor that are unrelated to the Construction Contract. The Owner shall not be liable for the payment of any costs or expenses of any Claimant under this Bond, and shall have under this Bond no obligation to make payments to or give notice on behalf of Claimants, or otherwise have any obligations to Claimants under this Bond.

11. The Surety hereby waives notice of any change, including changes of time, to the Construction Contract or to related subcontracts, purchase orders, and other obligations.

12. No suit or action shall be commenced by a Claimant under this Bond other than in a court of competent jurisdiction in the state in which the project that is the subject of the Construction Contract is located or after the expiration of one year from the date (1) on which the Claimant sent a Claim to the Surety pursuant to Paragraph 5.1.2 or 5.2, or (2) on which the last labor or service was performed by anyone or the last materials or equipment were furnished by anyone under the Construction Contract, whichever of (1) or (2) first occurs. If the provisions of this paragraph are void or prohibited by law, the minimum period of limitation available to sureties as a defense in the jurisdiction of the suit shall be applicable.

13. Notice and Claims to the Surety, the Owner, or the Contractor shall be mailed or delivered to the address shown on the page on which their signature appears. Actual receipt of notice or Claims, however accomplished, shall be sufficient compliance as of the date received.

14. When this Bond has been furnished to comply with a statutory or other legal requirement in the location where the construction was to be performed, any provision in this Bond conflicting with said statutory or legal requirement shall be deemed deleted herefrom and provisions conforming to such statutory or other legal requirement shall be deemed incorporated herein. When so furnished, the intent is that this Bond shall be construed as a statutory bond and not as a common law bond.

15. Upon requests by any person or entity appearing to be a potential beneficiary of this Bond, the Contractor and Owner shall promptly furnish a copy of this Bond or shall permit a copy to be made.

16. **Definitions**

16.1 **Claim:** A written statement by the Claimant including at a minimum:

1. The name of the Claimant;
2. The name of the person for whom the labor was done, or materials or equipment furnished;
3. A copy of the agreement or purchase order pursuant to which labor, materials, or equipment was furnished for use in the performance of the Construction Contract;
4. A brief description of the labor, materials, or equipment furnished;
5. The date on which the Claimant last performed labor or last furnished materials or equipment for use in the performance of the Construction Contract;
6. The total amount earned by the Claimant for labor, materials, or equipment furnished as of the date of the Claim;
7. The total amount of previous payments received by the Claimant; and
8. The total amount due and unpaid to the Claimant for labor, materials, or equipment furnished as of the date of the Claim.

16.2 **Claimant:** An individual or entity having a direct contract with the Contractor or with a subcontractor of the Contractor to furnish labor, materials, or equipment for use in the performance of the Construction Contract. The term Claimant also includes any individual or entity that has rightfully asserted a claim under an applicable mechanic's lien or similar statute against the real property upon which the Project is located. The intent of this Bond shall be to include without limitation in the terms of "labor, materials, or equipment" that part of the water, gas, power, light, heat, oil, gasoline, telephone service, or rental equipment used in the Construction Contract, architectural and engineering services required for performance of the work of the Contractor and the Contractor's subcontractors, and all other items for which a mechanic's lien may be asserted in the jurisdiction where the labor, materials, or equipment were furnished.

16.3 **Construction Contract:** The agreement between the Owner and Contractor identified on the cover page, including all Contract Documents and all changes made to the agreement and the Contract Documents.

16.4 **Owner Default**: Failure of the Owner, which has not been remedied or waived, to pay the Contractor as required under the Construction Contract or to perform and complete or comply with the other material terms of the Construction Contract.

16.5 **Contract Documents:** All the documents that comprise the agreement between the Owner and Contractor.

17. If this Bond is issued for an agreement between a contractor and subcontractor, the term Contractor in this Bond shall be deemed to be Subcontractor and the term Owner shall be deemed to be Contractor.

18. Modifications to this Bond are as follows:

CERTIFICATE OF INSURANCE

Owner: **City of White Salmon, Washington**

Contractor:

Engineer: **Anderson Perry & Associates, Inc.**

Project: **Manhole Improvements 2023**

The Name and Address of Insurers on this Project:

_____

_____

_____

The Contractor certifies that Contractor has obtained and is maintaining the policies, coverages, and endorsements required by the Contract.

Attached to this Certificate are the following:

_X_ Standard ACORD Form

_X_ Listing of Additional Insureds

___ Other: _____

All policies contain a provision or endorsement that the coverage afforded will not be canceled, materially changed, or renewal refused until at least 30 days' prior written notice has been given to Contractor. Within 3 days of receipt of any such written notice, Contractor shall provide a copy of the notice to Owner, Engineer, and each other insured under the policy.

_____
Name of Insurance Company(s)

_____
Insurance Agency

_____ _____
Signature of Authorized Insurance Agency Representative Date

_____ _____
Signature of Contractor Date

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ENGINEERS JOINT CONTRACT DOCUMENTS COMMITTEE

NOTICE TO PROCEED

Owner:	**City of White Salmon, Washington**
Contractor:	
Engineer:	**Anderson Perry & Associates, Inc.**
Project:	**Manhole Improvements 2023**
Effective Date of Contract:	

TO CONTRACTOR:

Owner hereby notifies Contractor that the Contract Times under the above Contract will commence to run on [_____, 20__].

On that date, Contractor shall start performing its obligations under the Contract Documents. No Work shall be done at the Site prior to such date. In accordance with the Agreement, the date of Substantial Completion is September 28, 2023, and the date of readiness for final payment is October 12, 2023.

Before starting any Work at the Site, Contractor must comply with the following:
Submit traffic control plan to Engineer for review and approval.

The Contractor is required to return ***3*** signed copies of this Notice to Proceed to the Engineer within 10 days of the issue date.

Owner**:**	**City of White Salmon, Washington**
Authorized Signature:	_____
By:	_____
Title:	_____
Date Issued:	_____
	Accepted:
Contractor:	_____
Authorized Signature:	_____
By:	_____
Title:	_____
Date:	_____

Copy: Engineer

APPLICATION FOR PAYMENT NO. __
CITY OF WHITE SALMON, WASHINGTON
MANHOLE IMPROVEMENTS 2023

TO **City of White Salmon, Washington** (OWNER)

FROM _____ (CONTRACTOR)

For Work accomplished through the date of: _____

1.	Original Contract Price	
2.	Net Change by Change Orders and Written Amendments (+/-)	$ -
3.	Current Contract Price (1 plus 2)	$ -
4.	Total Work Completed and Materials On Hand to Date*	$ -
5.	Retainage: 5%	$ -
6.	Sales Tax: 7.5%	$ -
7.	Liquidated Damages	($ -)
8.	Less Previous Application for Payments	$ -
9.	**DUE THIS APPLICATION (4 minus 5, plus 6, minus 7 and 8)**	**$ -**

**** Line 4 may not match Line 3 on final Application for Payment due to bid versus constructed quantity differences on unit price work.***

Accompanying Documentation:

Contractor's Certification:

The undersigned Contractor certifies that (1) all previous progress payments received from Owner, if any, 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 Application; (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); (3) all Work covered by this Application for Payment is in accordance with the Contract Documents and not defective; and (4) Record Drawings and required job photos are up-to-date, accurate, and complete for Work performed.

Dated _____ _____
CONTRACTOR

By: _____

Payment of the above AMOUNT DUE THIS APPLICATION is recommended

Dated _____ **Anderson Perry & Associates, Inc.**
ENGINEER

By: _____

APPROVED by Owner: **City of White Salmon, Washington**
OWNER

Dated _____ By: _____

Title: _____

APPLICATION FOR PAYMENT NO. __
CITY OF WHITE SALMON, WASHINGTON
MANHOLE IMPROVEMENTS 2023

Date:

FROM:

TO: **City of White Salmon, Washington**

Date of Completion	Contract Amount		Date of Estimate
Original:	Original Amount of Contract:		From:
Revised:	Change Orders: (+ or -)	$ -	To:
On Schedule: ☐ Yes ☐ No	Current Contract Amount	$ -	

Item No.	CONTRACT ITEMS Description	BID PRICES Qty.	Unit	Unit Price	PREVIOUS Qty.	PREVIOUS Amount	THIS PERIOD Qty.	THIS PERIOD Amount	TOTAL TO DATE Qty.	TOTAL TO DATE Amount
					0%	$0.00	0%	$0.00	0%	$0.00
					0%	0.00	0%	0.00	0%	0.00
					0%	0.00	0%	0.00	0%	0.00
					0%	0.00	0%	0.00	0%	0.00
					0%	0.00	0%	0.00	0%	0.00
					0%	0.00	0%	0.00	0%	0.00
				Total Bid Items	**$**	**0.00**	**$**	**0.00**	**$**	**0.00**

APPLICATION FOR PAYMENT NO. __
CITY OF WHITE SALMON, WASHINGTON
MANHOLE IMPROVEMENTS 2023

Date:

Change Orders:	Qty.	Unit	Unit Price	PREVIOUS		THIS PERIOD		TOTAL TO DATE	
				Qty.	Amount	Qty.	Amount	Qty.	Amount
			Total All Change Orders		$ 0.00		$ 0.00		$ 0.00

Materials on Hand:	Qty.	Unit	Unit Price	PREVIOUS		THIS PERIOD		TOTAL TO DATE	
				Qty.	Amount	Qty.	Amount	Qty.	Amount
			Total Materials on Hand		$ 0.00		$ 0.00		$ 0.00
			TOTAL WORK COMPLETED AND MATERIALS ON HAND		$ 0.00		$ 0.00		$ 0.00

SUMMARY

	PREVIOUS	THIS PERIOD	TOTAL TO DATE
1. Amount Earned	$ 0.00	$ 0.00	$ 0.00
2. Amount Retained (5%)	$ 0.00	$ 0.00	$ 0.00
3. Sales Tax (7.5%)	$ 0.00	$ 0.00	$ 0.00
4. Liquidated Damages	$ 0.00	$ 0.00	$ 0.00
Amount Due for Payment	$ 0.00	$ 0.00	$ 0.00
Amount Due for Payment this Estimate		$ 0.00	
Estimated % Job Completed:	#DIV/0!		

EJCDC
ENGINEERS JOINT CONTRACT DOCUMENTS COMMITTEE

WORK CHANGE DIRECTIVE

Work Change Directive No. _____

Date of Issuance:

Owner: **City of White Salmon, Washington**

Contractor:

Engineer: **Anderson Perry & Associates, Inc.**

Project: **Manhole Improvements 2023**

Contractor is directed to proceed promptly with the following change(s):

Description:

Attachments: *[List documents supporting change]*

Purpose for Work Change Directive:

Directive to proceed promptly with the Work described herein, prior to agreeing to changes on Contract Price and Contract Time, is issued due to: *[check one or both of the following]*

☐ Non-agreement on pricing of proposed change.

☐ Necessity to proceed for schedule or other Project reasons.

Estimated Change in Contract Price and Contract Times (non-binding, preliminary):

Contract Price $ [increase] [decrease].

Contract Time days [increase] [decrease].

Basis of estimated change in Contract Price:

☐ Lump Sum ☐ Unit Price

☐ Cost of the Work ☐ Other

RECOMMENDED:	AUTHORIZED BY:	RECEIVED:
By: _____	By: _____	By: _____
Engineer (Authorized Signature)	Owner (Authorized Signature)	Contractor (Authorized Signature)
Title: _____	Title: _____	Title: _____
Date: _____	Date: _____	Date: _____

Approved by Agency (if applicable)

By: _____ Date: _____

Title: _____

CHANGE ORDER

Change Order No.: _____

Date of Issuance:

Owner: **City of White Salmon, Washington**

Contractor:

Engineer: **Anderson Perry & Associates, Inc.**

Project: **Manhole Improvements 2023**

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

Description of Changes (Supplemental description, Plans and Specifications attached, as applicable)	DECREASE in Contract Price	INCREASE in Contract Price
Subtotal	$0.00	$0.00
Total, Increase Less Decrease	$0.00	
Sales Tax (7.5%)	$0.00	
Net Change in Contract Price for this Change Order	$0.00	

JUSTIFICATION:

The amount of the Contract will be (Decreased) (Increased) (Unchanged) for this Change Order by the sum of: $0.00

Total Contract Price prior to this Change Order: _____

The Contract Price incorporating this Change Order: $0.00

Contract Times prior to this Change Order:

Date of Substantial Completion: _____

Date Ready for Final Payment: _____

The Contract period provided for Substantial Completion will be (Increased) (Decreased) (Unchanged). _____ days

Revised Date of Substantial Completion: _____

Revised Date Ready for Final Payment: _____

RECOMMENDED:

By: _____
Engineer (if required)

Title: _____

Date: _____

ACCEPTED:

By: _____
Owner (Authorized Signature)

Title: _____

Date: _____

ACCEPTED:

By: _____
Contractor (Authorized Signature)

Title: _____

Date: _____

Approved by Agency (if applicable)

By: _____

Title: _____

Date: _____

CHANGE PROPOSAL

(To Be Completed by the Contractor When Requesting a Change Order [see 11.06 of the General Conditions])

Project: **City of White Salmon, Washington - Manhole Improvements 2023**

Proposed Change Order No.: _____ **Date:** _____

By: _____ **Title:** _____

Contractor (Authorized Signature)

Date received by Engineer: _____

Received by: _____

(Print Name)

Change Order Description: _____

Justification: (Provide detailed description):

Labor: (Provide detailed breakdown of all labor cost, i.e., hours, rates, and classification):

Subtotal Labor: _____

_____ Overhead and Profit Labor: $ -

Equipment: (Provide detailed breakdown of all equipment cost, i.e., hours, rates, and classification):

Subtotal Equipment: _____

_____ Overhead and Profit Equipment: $ -

Materials: (Provide detailed breakdown of all materials associated with this Change Order):

Subtotal Materials: _____

_____ Overhead and Profit Materials: $ -

Subcontract Cost: (Attach this form for all subcontract work associated with this Change Order Item):

Subtotal Subcontract Cost: _____

_____ Overhead and Profit Subcontract: $ -

Other: (Provide detailed description): _____

Subtotal Other: _____

_____ Overhead and Profit Other: $ -

TOTAL ESTIMATED COST OF PROPOSED CHANGE ORDER: $ -

UNIT PRICE (If applicable): _____

Proposed Contract Time Change Associated with this Change Order:
____ Days. (*Provide Justification and Description*):

CONTRACTOR'S NOTICE OF SUBSTANTIAL COMPLETION

(Contractor)_____ hereby notifies the Engineer that construction Work on the Project **City of White Salmon, Washington - Manhole Improvements 2023** has been substantially completed in accordance with all requirements of the Project Contract Documents. The Contractor also verifies that Operation and Maintenance Manuals and Record Drawings, as required by the Contract, have been submitted to the Engineer, and all system components have been properly installed, serviced, and lubricated where appropriate, and checked and tested for proper operation, all as recommended by the product manufacturer and as required by the Contract Documents. The Contractor further states that proper training has been given to the Owner's designated representative as to proper operation and service of the Project system and components.

The Contractor requests the Engineer issue a Certificate of Substantial Completion. The attached draft punch list prepared by the Contractor lists items that need to be completed or corrected.

By: _____
(Authorized Signature)

_____
(Name)

_____
(Title)

_____
(Date)

(All items below the dotted line shall be completed by the Engineer.)

Review by Engineer:

☐ An inspection is scheduled for _____ to determine the status of completion.
(Date and Time)

☐ Construction Work was found not to be substantially complete. The Contractor shall complete the necessary Work and resubmit a new "Contractor's Notice of Substantial Completion."

By: _____
(Authorized Signature)

_____
(Name)

_____
(Title)

_____
(Date)

EJCDC
ENGINEERS JOINT CONTRACT DOCUMENTS COMMITTEE

CERTIFICATE OF SUBSTANTIAL COMPLETION

Owner: **City of White Salmon, Washington**
Contractor:
Engineer: **Anderson Perry & Associates, Inc.**
Project: **Manhole Improvements 2023**

This Certificate of Substantial Completion applies to:

☐ All Work ☐ The following specified portions of the Work:

Date of Substantial Completion

The Work to which this Certificate applies has been inspected by authorized representatives of Owner, Contractor, and Engineer, and found to be substantially complete. The Date of Substantial Completion of the Work or portion thereof designated above is hereby established, subject to the provisions of the Contract pertaining to Substantial Completion. The date of Substantial Completion in the final Certificate of Substantial Completion marks the commencement of the contractual correction period and applicable warranties required by the Contract.

A punch list of items to be completed or corrected is attached to this Certificate. This list may not be all-inclusive, and the failure to include any items on such list does not alter the responsibility of the Contractor to complete all Work in accordance with the Contract.

The responsibilities between Owner and Contractor for security, operation, safety, maintenance, heat, utilities, insurance, and warranties upon Owner's use or occupancy of the Work shall be as provided in the Contract, except as amended as follows:

Amendments to Owner's responsibilities: ☐ None ☐ As follows

Amendments to Contractor's responsibilities: ☐ None ☐ As follows:

The following documents are attached to and made a part of this Certificate:

This Certificate does not constitute an acceptance of Work not in accordance with the Contract Documents, nor is it a release of Contractor's obligation to complete the Work in accordance with the Contract.

EXECUTED BY ENGINEER:	RECEIVED:	RECEIVED:
By: _____ (Authorized Signature)	By: _____ Owner (Authorized Signature)	By: _____ Contractor (Authorized Signature)
Title: _____	Title: _____	Title: _____
Date: _____	Date: _____	Date: _____

CONTRACTOR'S COMPLETION CERTIFICATE

(Contractor)_____ hereby certifies that the Contract known as **City of White Salmon, Washington - Manhole Improvements 2023** has been completed in accordance with all requirements of the Project Contract Documents and is ready for final payment. The Contractor further states that information contained in the Record Drawings and Operation and Maintenance Manual is complete, accurate, and properly describes equipment, materials, and system installed as a part of the Work. The Contractor further states that all information required by the Contract Documents has been submitted to the Engineer. The Contractor also certifies that all title and lien issues have been resolved and that full title to all Work, materials, and equipment has passed to the Owner free and clear of any liens or other title defects, or will so pass upon final payment, including materialmen and mechanics liens.

_____
Contractor (Authorized Signature)

_____
(Name)

_____
(Title)

_____
(Date)

(All items below the dotted line shall be completed by the Engineer.)

Review by Engineer:

☐ The Work appears to be complete and a final inspection is scheduled for _____.
(Date and Time)

☐ The Work was found not to be complete. The Contractor shall complete the necessary Work and resubmit a new "Contractor's Completion Certificate."

By: _____
Engineer (Authorized Signature)

_____
(Name)

_____
(Title)

_____
(Date)

Instructions: This form shall be completed by the Contractor when all Work is complete and the Project is ready for final payment.

NOTICE OF ACCEPTABILITY OF WORK

Owner:	**City of White Salmon, Washington**
Contractor:	
Engineer:	**Anderson Perry & Associates, Inc.**
Project:	**Manhole Improvements 2023**

Date Project is Ready for Final Payment

The Engineer hereby gives notice to the above Owner and Contractor that Engineer has recommended final payment of Contractor, and, to the best knowledge and belief of the Engineer, the Work furnished and performed by Contractor under the above Construction Contract is acceptable, expressly subject to the provisions of the related Contract Documents, the Agreement between Owner and Engineer for Professional Services dated _____, and the following terms and conditions of this Notice:

CONDITIONS OF NOTICE OF ACCEPTABILITY OF WORK

The Notice of Acceptability of Work ("Notice") is expressly made subject to the following terms and conditions to which all those who receive said Notice and rely thereon agree:

1. This Notice is given with the skill and care ordinarily used by members of the engineering profession practicing under similar conditions at the same time and in the same locality.

2. This Notice reflects and is an expression of the Engineer's professional opinion.

3. This Notice is given as to the best of Engineer's knowledge, information, and belief as of the Notice Date.

4. This Notice is based entirely on and expressly limited by the scope of services Engineer has been employed by Owner to perform or furnish during construction of the Project (including observation of the Contractor's work) under Engineer's Agreement with Owner, and applies only to facts that are within Engineer's knowledge or could reasonably have been ascertained by Engineer as a result of carrying out the responsibilities specifically assigned to Engineer under such Agreement.

5. This Notice is not a guarantee or warranty of Contractor's performance under the Construction Contract, an acceptance of Work that is not in accordance with the related Contract Documents, including but not limited to defective Work discovered after final inspection, nor an assumption of responsibility for any failure of Contractor to furnish and perform the Work thereunder in accordance with the Construction Contract Documents, or to otherwise comply with the Construction Contract Documents or the terms of any special guarantees specified therein.

6. This Notice does not relieve Contractor of any surviving obligations under the Construction Contract, and is subject to Owner's reservations of rights with respect to completion and final payment.

Anderson Perry & Associates, Inc.

_____
(Authorized Signature)

By:_____
(Name)

Title:_____

Date:_____

The Owner hereby accepts the Work on the above-referenced Project and concurs the Project is ready for final payment.

_____
(Owner)

_____
(Authorized Signature)

By:_____
(Name)

Title:_____

Date:_____

cc: Contractor

SPECIFICATIONS

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GENERAL REQUIREMENTS

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GENERAL REQUIREMENTS

A. SUMMARY OF WORK

1. The Work for this Contract involves the installation of a new manhole concrete cone with lid castings at six manholes; replacement of the manhole lid castings at 13 manholes; installation of approximately 54 vertical linear feet of epoxy-fiberglass cured-in-place liner for manhole rehabilitation; restoration of asphalt concrete pavement; and other miscellaneous work required to complete the Project as shown on the Drawings and specified herein.

2. The following additive alternate may be selected by the Owner to become part of the Work.

    a. Additive Alternate 1 - Replacement of Vault Hatch at Heritage Plaza Lift Station. This Work includes the purchase and installation of a new hatch and precast concrete flat top lid for an existing utility vault located in the parking lot on the south side of the Heritage Plaza wastewater lift station, removal of concrete and asphalt concrete pavement and replacement with asphalt concrete, and other miscellaneous work required to complete the Project. A copy of the original vault hatch submittal is provided as information only in Appendix B.

B. SPECIAL PROJECT REQUIREMENTS

The Contractor's Work and construction schedule shall include the following project requirements and considerations.

1. Manhole Improvements (Base Bid) - The manhole improvements portion of the project will likely require the Work to be completed in two phases for the manholes, which require removal and installation of new manhole cones: 1) removal of portion of the existing manhole structures and installation of new manhole cone with lid castings (including replacement of manhole lid castings on existing manholes) and 2) manhole rehabilitation after completion of the first phase. The removal and installation of new manhole lids and casting for the remaining manholes shall be completed in a timely fashion for proper asphalt concrete restoration. Submit the proposed construction sequencing and schedule to complete the Work within the Contract Time constraints based on the proposed construction phases.

    a. Except for limited instances, temporary asphalt concrete restoration is required until final asphalt concrete restoration can be completed (see below for more complete description). Final asphalt concrete surface restoration is generally limited from the months of April through September of each year depending on weather conditions and if the asphalt concrete production plants are in operation. The timing and extent of any work not within the above time period will depend on how much temporary asphalt concrete the Contractor wishes to maintain until final asphalt concrete restoration can occur.

2. Jewett Boulevard is in the ROW of Washington State Department of Transportation (WSDOT) and as such, there are several specific WSDOT project requirements regarding asphalt concrete pavement restoration for the Work including the following:

   a. End of Each Work Day – All asphalt concrete pavement that has been impacted by the Work and is open to traffic use shall be temporarily restored for traffic use by either backfilling the trench with approved aggregate flush with the road surface, install appropriate sized steel plates that are adequately pinned, or place and compact cold mix or hot mix asphalt in conformance with the Drawings at the end of each work day.

   b. End of Each Work Week – All asphalt concrete pavement that has been impacted by the Work, open to traffic use, and be temporarily restored with either aggregate or steel plates, shall be temporarily restored with cold mix or hot mix asphalt or permanently restored with approved hot mix asphalt by the end of each work week (i.e., Friday for a 5-day work week, Thursday for a 4-day work week) as specified and as shown on the Drawings. The Work may include removal of the aggregate placed in the trench or steel plates and pins, with the holes for the pins properly restored.

   c. If the asphalt concrete pavement restoration is within 3 feet of the curb or edge of pavement, then the asphalt concrete pavement restoration will extend to the curb or edge of pavement.

3. Jewett Boulevard is one of the busiest roads in Klickitat County, especially during the early morning and later afternoon commuters. Traffic control and safety for the Work will require special consideration and effort by the Contractor and coordination with the Engineer and Owner. Refer to Technical Specifications "Traffic Control and Protection" and the Drawings.

4. Special Events in White Salmon

   Coordinate the scheduling and completion of the Work to avoid disrupting, impeding, and creating limitations for the following special events in White Salmon, which typically involve the downtown area of Jewett Boulevard/SR 141.

   a. Spring Fest, 1st weekend in June

   b. Wine, Art and Fusion, last Saturday in July

   c. 4th of July Parade, on July 4, 2023

   d. Halloween Event, on October 31, 2023

5. Vault Improvements (Additive Alternate No. 1)

a. The vault improvements portion of the project will likely require the Work to be completed in two phases: 1) removal of existing vault and installation of the new vault and 2) and surface removal and restoration of the area around the new vault as shown in the Figures after completion of the first phase.

b. Traffic control measures will need to be implemented for the proposed work adjacent to the Heritage Plaza Lift Station. Temporary closure of a section of the Heritage Plaza parking lot near the lift station will likely be required to safeguard the Contractor's personnel, the Work, and the public. Appropriate traffic signage alerting the public of any closures will need to be implemented. Refer to Technical Specifications "Traffic Control and Protection" and the Appendix A.

c. The roadway adjacent to the Heritage Plaza Lift Station shall be open and drivable for public use except when the Contractor is on-site performing Work on the Project that requires closure of the roadway.

d. If needed, a temporary drivable surface for the Work area shall be placed at the end of each day and maintained until permanent asphalt surfacing is placed. The temporary drivable surface may be steel plated that are suitable for the installation and properly pinned, compacted gravel aggregate, or temporary surfacing shall be performed before the final surface restoration work is placed. Traffic signage shall be implemented to notify the public if the temporary surfacing in the roadway.

C. ABBREVIATIONS

The following abbreviations of Associations, units of measurement, and miscellaneous items are defined as they may be used in these Contract Documents or on the Drawings. This list may not be all-inclusive.

Associations

AASHTO	-	American Association of State Highway and Transportation Officials	CRSI	-	Concrete Reinforcing Steel Institute
ACI	-	American Concrete Institute	DFPA	-	Douglas Fir Plywood Association
AGC	-	Associated General Contractors of America	DIPRA	-	Ductile Iron Pipe Research Association
AIA	-	American Institute of Architects	IBC	-	International Building Code
AISC	-	American Institute of Steel Construction	ICEA	-	Insulated Cable Engineers Association
AISI	-	American Iron and Steel Institute	IEEE	-	Institute of Electrical and Electronics Engineers
AITC	-	American Institute of Timber Construction	IPC	-	International Plumbing Code
ANSI	-	American National Standards Institute	IPCEA	-	Insulated Power Cable Engineers Association
APA	-	American Plywood Association	ITE	-	Institute of Transportation Engineers
APWA	-	American Public Works Association	NEMA	-	National Electrical Manufacturer's Association
AREA	-	American Railway Engineering Association	NFPA	-	National Fire Protection Association
ASCE	-	American Society of Civil Engineers	SAE	-	Society of Automotive Engineers
ASME	-	American Society of Mechanical Engineers	SDI	-	Steel Door Institute
ASTM	-	American Society for Testing and Materials	SSPC	-	Steel Structures Painting Council

Associations (cont.)

AWS	-	American Welding Society	WWPA	-	Western Wood Products Association
AWWA	-	American Water Works Association			

Codes and Acts

MUTCD	-	Manual on Uniform Traffic Control Devices	RCW	-	Revised Code of Washington (Laws of the State)
NEC	-	National Electrical Code	SEPA	-	State Environmental Policy Act
NEPA	-	National Environmental Policy Act	UL	-	Underwriters Laboratories, Inc.
OAR	-	Oregon Administrative Rules	WAC	-	Washington Administrative Code

Federal Agencies

BIA	-	Bureau of Indian Affairs	NRCS	-	Natural Resources Conservation Service
BLM	-	Bureau of Land Management	OSHA	-	Occupational Safety and Health Administration
BOR	-	Bureau of Reclamation	USDA	-	U.S. Department of Agriculture
DOD	-	Department of Defense	USEPA	-	U.S. Environmental Protection Agency
FHWA	-	Federal Highway Administration	USFS	-	U.S. Forest Service
LCDC	-	Land Conservation and Development Commission	USFWS	-	U.S. Fish and Wildlife Service
NMFS	-	National Marine Fisheries Service			

State Agencies

WISHA	-	Washington Industrial Safety and Health Administration	WSDOT	-	Washington State Department of Transportation

Units of Measurement and Abbreviation
(Partial Listing)

AC	-	Asbestos Cement or Asphalt Concrete	L	-	Liter
ACP	-	Asphalt Concrete Pavement	Lb.	-	Pound(s)
BST	-	Bituminous Surface Treatment	L.F. or Lin. Ft.	-	Linear Foot (Feet)
CDR	-	Controlled Density Fill	LS or L.S.	-	Lump Sum
C.I.	-	Cast Iron	Max.	-	Maximum
CL	-	Centerline	MH	-	Manhole
C.O.	-	Clean Out	MJ	-	Mechanical Joint
Cl.	-	Class	Min.	-	Minimum
cfm	-	Cubic Feet Per Minute	MPH	-	Miles Per Hour
Conc.	-	Concrete	NBR	-	Nitrile Butadiene Rubber
Culv.	-	Culvert	N.T.S.	-	Not to Scale
CY, C.Y., or Cu. Yd.	-	Cubic Yard(s)	O.C.	-	On Center
			O.D.	-	Outside Diameter
DI	-	Ductile Iron	PL	-	Plate
Dia.	-	Diameter	PVC	-	Polyvinyl Chloride
Ea.	-	Each	psi	-	Pounds Per Square Inch
Elev., EL, or El.	-	Elevation	Q	-	Flow Rate
Est.	-	Estimate or Estimated	R	-	Radius
Extg.	-	Existing	REQD.	-	Required
F	-	Fahrenheit	RPM	-	Revolutions Per Minute
F.F.	-	Finished Floor	R/W	-	Right-of-Way

Units of Measurement and Abbreviation
(Partial Listing, cont.)

FLG	-	Flange	SS	-	Sanitary Sewer
Fpc	-	Specified Tensile Strength of Prestressed Tendon.	SBR	-	Styrene Butadiene Rubber
			SCH	-	Schedule
fps	-	Feet Per Second	SD	-	Storm Drain
Ft.	-	Foot or Feet	SF, S.F., or Sq. Ft.	-	Square Foot
gpm	-	Gallons Per Minute	Sht.	-	Sheet
HDPE	-	High Density Polyethylene	Stl.	-	Steel
HMAC	-	Hot-Mix Asphalt Concrete	SWL	-	Static Water Level
Hp	-	Horsepower	SY, S.Y., or Sq. Yd.	-	Square Yard
I.D.	-	Inside Diameter	TDH	-	Total Dynamic Head
I/I	-	Infiltration/Inflow	TM	-	Test Method
In.	-	Inch or Inches	Typ.	-	Typical
Incl.	-	Including	W	-	Water
Inv. El.	-	Invert Elevation			
Irr	-	Irrigation			

D. OTHER WORK AT THE SITE

Washington Department of Transportation (WSDOT) is planning on initiating and completing an overlay project of Jewett Boulevard / State Route 141 in 2024. The work for WSDOT's project will include asphalt removal and overlay of the travel lanes and construction of ADA compliant ramps. Given the WSDOT construction timeframe, the Work should not conflict with the WSDOT project unless there is a significant contract time extension approved.

E. PROJECT WORK MEETINGS

1. Preconstruction Conference

   a. A preconstruction conference shall be held prior to the Work commencing on the project. The Contractor, Owner, Engineer, agencies, utilities, and other appropriate parties shall attend. The Engineer shall prepare a draft agenda and coordinate the time and place of the meeting. The meeting shall be held to discuss general contracting procedures, communications, roles and responsibilities, quality control, work schedule, agency requirements, and other topics that relate to the Work as appropriate.

   b. Prior to the Preconstruction Conference, submit a preliminary progress schedule, schedule of submittals, and schedule of values to the Engineer as required in the General Conditions and in conformance to Technical Specifications – "Measurement and Payment".

c. Attend and participate in preconstruction conference(s) for other Work at the Site to discuss the topics described in the preceding paragraph and discuss the Contractor's authority and responsibilities on the Site.

2. Progress Meetings

a. Meet with the Owner and Engineer as needed to review the progress of the Work, Work schedule, Project concerns, etc., as may be appropriate. The intent of this meeting will be to keep communication channels open and to keep all parties informed as to the status of the Work. Generally, the meeting shall be held weekly; however, it may be scheduled at other times if needed.

b. In addition to these meetings, the Contractor and Resident Project Representative shall meet monthly, in a Record Drawing Review meeting, prior to submitting the monthly Application for Payment. This meeting will be used to review Record Drawings being kept on the Project by the Contractor.

F. EASEMENTS, PERMITS, AND LICENSES

1. Easements

The Work is on public right-of-way.

2. Permits

No permits are required for the Work.

3. Licenses

Obtain all necessary licenses for performance of the Work and assume all costs incidental to the obtained licenses.

G. MOBILIZATION/DEMOBILIZATION

1. Mobilization shall consist of preparatory work and operations including, but not limited to, those necessary for the movement of personnel, equipment, supplies, and incidentals to the Project Site for the establishment of offices, staging areas, and other facilities necessary for Work on the Project, for premiums on bond and insurance for the Project, special fees, and for other work and operations which the Contractor must perform or costs the Contractor must incur before beginning Work on the Project.

2. Demobilization shall consist of work and operations including, but not limited to, those necessary for the movement of personnel, equipment, and incidentals from the Project Site, final disposition of demolished items, Project closeout, etc.

H. PROJECT SAFETY

1. Be solely responsible for initiating, maintaining, and supervising all safety precautions and programs in connection with the Work, including excavation safety. Comply with all

applicable Laws and Regulations, ordinances, rules, and orders of any public body having jurisdiction as it relates to Project and Work safety. See applicable provisions of the General Conditions, as well as all other provisions of the Contract relative to Project and Work safety.

2. Maintain local access to area residents and emergency traffic throughout the life of the Project and coordinate construction activities closely with area residents to keep them informed of operations that may impact their use of any streets or roadways.

3. All signs, barricades, barriers, lights, cones, trench boxes, shoring/bracing, and other such "devices" required to warn, protect, or direct the public and workmen during the life of the Contract shall be furnished, installed, moved, and removed by the Contractor. When conditions warrant their use, flagpersons shall also be provided by the Contractor. The determination of what measures are required, in addition to those specifically called for by the Drawings and Specifications, shall be solely the responsibility of the Contractor.

4. The Engineer and Owner are not responsible for determining whether proper safety precautions, etc., are being utilized. Should the Contractor fail to furnish the necessary protective measures, the Owner or Engineer may, but shall not be required to, bring to the Contractor's attention by written notice of such failure and the Contractor shall undertake such corrective measures as is proper.

5. All construction Work shall be performed in accordance with the provisions of the Industrial Safety Health Administrative Safety Standards of the State of Washington Department of Labor and Industry, and other applicable regulations. It shall be the Contractor's responsibility to meet all requirements of Chapter 296 of the State of Washington Administrative Rules.

6. The materials used for and the installation of all warning and traffic control devices shall conform to the Standard Specifications for Road, Bridge, and Municipal Construction - current edition, Washington State Department of Transportation, and the Manual of Uniform Traffic Control Devices for Streets and Highways, U.S. Department of Transportation, Federal Highway Administration, current edition.

7. Workers exposed to public vehicular traffic shall be provided with and shall wear warning vests or other suitable garments marked with, or made of, reflectorized or highly visible material. No worker shall be permitted underneath loads handled by lifting or digging equipment. Workers shall be required to stand away from any vehicle being loaded or unloaded to avoid being struck by any spillage or falling materials. Operators may remain in the cabs of vehicles being loaded or unloaded when the vehicles are equipped in accordance with the regulations to provide adequate protection for the operator during loading and unloading operations.

8. Excavation Safety

a. It shall be the Contractor's sole responsibility to provide a "competent person" as defined in the regulations to be on the Project Site during all trenching operations. The "competent person" appointed by the Contractor shall fulfill all requirements of the regulations.

b. Prior to opening an excavation, arrange for field location of utility installations such as sewer, telephone, fuel, electric, gas, water lines, or any other underground installations that reasonably may be expected to be encountered during the excavation work. When excavation operations approach the estimated location of underground installations, the Contractor shall determine the exact location of the installations by safe and acceptable means. While the excavation is open, underground installations shall be protected, supported, or removed as necessary to safeguard workers.

c. Ensure that structural ramps that are used by workers as a means of access or egress from an excavation shall be designed by a competent person, in accordance with all requirements of the regulations.

d. Do not allow work in excavations in which there is accumulated water or in excavations where water is accumulating, unless adequate precautions have been taken to protect workers against the hazards posed by water accumulations. The precautions necessary to protect workers adequately vary with each situation, but include special support or shield systems to protect from cave-ins, water removal to control the level of accumulating water, or use of a safety harness and life line. If the Contractor is controlling water or preventing it from accumulating by the use of water removal equipment, the water removal equipment and operation shall be monitored by a competent person to ensure proper operation. If excavation work interrupts the natural drainage of surface water, such as streams, then diversion ditches, dikes or other suitable means shall be used to prevent surface water from entering the excavation and to provide adequate drainage of the area adjacent to the excavation.

e. In situations where the Contractor feels their trench operations pose a risk to the stability of adjoining buildings, walls, or other structures, notify the Engineer and shall provide adequate support systems per the requirements of the regulations. Excavation below the level of the base or footing of any foundation or retaining wall that could be reasonably expected to pose a hazard to workers shall not be permitted except when the Contractor has retained a Registered Professional Engineer and said Registered Professional Engineer has approved the determination that the structure is sufficiently removed from the excavation so as to be unaffected by the excavation activity, or said Registered Professional Engineer has approved the determination that such excavation will not pose a hazard to workers.

f. Sidewalks, pavements, and appurtenant structures shall not be undermined unless a support system or other method of protection is provided to protect workers from the possible collapse of such structures. The Contractor shall provide adequate protection to all persons from loose rock or soil that could pose a hazard by falling or rolling from an excavation face. The Contractor shall also provide protection by placing and keeping excavated materials or equipment at least two feet from the edge of excavations, or by the use of retaining devices that are sufficient to prevent materials or equipment from falling or rolling into excavations or by a combination of both, if necessary.

g. Ensure that daily inspections of excavations, the adjacent areas, and protective systems shall be made by a competent person appointed by the Contractor for evidence of a situation that could result in possible cave-ins, indications of failure of protective systems, hazardous atmospheres, or other hazardous conditions. An inspection shall be conducted by the competent person prior to the start of Work and as needed throughout the shift. Inspection shall also be made after every rain storm or other hazard increasing occurrence. These inspections are only required when worker exposure can be reasonably anticipated. Where the competent person finds evidence of a situation that could result in a possible cave-in, indications of failure of protective systems, hazardous atmospheres, or other hazardous conditions, remove workers from the hazardous area until the necessary precautions have been taken to ensure their safety.

h. It shall be the Contractor's responsibility to provide all physical barrier protection at all excavations. All wells, pits, shafts, etc., shall be barricaded or covered. Further, no trenches shall be left open at any time unless guarded with adequate barricades, warning lamps, and signs. Proper traffic and pedestrian control shall be provided by the Contractor.

i. Ensure that each worker in an excavation shall be protected from cave-ins by an adequate protective system designed in accordance with the regulations.

j. It shall be the Contractor's responsibility to design the sloping and benching systems for trench excavation in accordance with the requirements of the regulations stated herein. Where the Contractor takes the option to not utilize one of the standard tables or trench excavation designs contained in WAC Chapter 296, then it is the Contractor's responsibility to retain a Registered Professional Engineer to design said sloping and benching system. When the Contractor chooses this option, the design shall be in written form and shall include at least the following information:

    1) The magnitude of the slopes that were determined to be safe for the particular Project.

2) The configurations that would determine to be safe for the particular Project.

3) The stamp and signature of the Registered Professional Engineer approving the design.

k. At least one copy of the design shall be maintained at the Job Site while the slope is being constructed. After that time the design need not be at the Job Site, but a copy shall be made available to the Owner upon request.

l. Where the design of a support system, shield system, or other protective system is required, it shall be the Contractor's responsibility to meet all requirements of the regulations. It shall be the Contractor's responsibility to have on site at least one copy of the manufacturer's tabulated data which identifies the Registered Professional Engineer who approved the data or, when a support system or shield system or other protective system is not a standard manufactured item but is designed by a Registered Professional Engineer, at least one copy of the design shall be maintained at the Job Site during construction of the protective system. After that time, the design may be stored off the Job Site, but a copy of the design shall be made available upon request.

9. Take adequate precautions, in accordance with the regulations, to prevent exposure to harmful levels of atmospheric contaminants and to assure acceptable atmospheric conditions. These precautions include providing proper respiratory protection or ventilation and, when controls are used that are intended to reduce the level of atmospheric contaminants to acceptable levels, provide testing as often as necessary to ensure that the atmosphere remains safe. Provide emergency rescue equipment, such as breathing apparatus, safety harness, etc., where hazardous atmospheric conditions exist or may reasonably be expected to develop during work in an excavation. This equipment shall be attended when in use.

I. SHOP DRAWINGS

1. Submit Shop Drawings or manufacturer's data sheets in accordance with the Schedule of Shop Drawings and Sample submittals. It should be noted that the Engineer may require Shop Drawings for other items as may be deemed necessary. The Contractor should review the requirements for Shop Drawings in Article 7.10 of the Agreement. A minimum of five paper copies or an electronic file in PDF format of each item shall be submitted, unless approved otherwise by the Engineer. Provide paper copies of submittals when requested by the Engineer. Up to three additional paper copies of any submittal may be requested at the discretion of the Engineer at no additional cost to the Owner.

2. All submittals or resubmittals shall be accompanied by and furnished in accordance with the "Transmittal of Shop Drawings, Equipment Data, Material Samples, or

Manufacturer's Certificates of Compliance" form provided at the end of these General Requirements or approved equal. All submittals shall be submitted at a time sufficiently early to allow review of same by the Engineer and to accommodate the rate of construction progress required under this Contract.

3. When paper copies are submitted, the Engineer will return two prints of each Shop Drawing to the Contractor, with comments noted thereon, within 15 calendar days following their receipt at the Engineer's office. Electronic submittals will also be returned electronically within 15 calendar days. Compile the electronic (PDF) submittal file as a single, complete document. Name the electronic submittal file specifically according to its contents. Electronic files must be of sufficient quality that all information is legible. Generate PDF files from original documents so that the text included in the PDF file is both searchable and can be copied. If documents are scanned. Optical Character Resolution (OCR) routines are required.

4. Make any corrections required by the Engineer and shall return the required number of corrected copies of Shop Drawings and resubmit new Samples for review. The Contractor shall direct specific attention in writing to revisions other than the corrections called for by the Engineer on previous submittals. It is considered reasonable that the Contractor shall make a complete and acceptable submittal to the Engineer by the second submission of the Drawing. The Owner reserves the right to withhold monies due the Contractor to cover additional costs of the Engineer's review beyond the second submission.

    a. If Shop Drawings are returned to the Contractor marked "NO EXCEPTIONS NOTED," formal revision and resubmittal of said Shop Drawings will not be required.

    b. If Shop Drawings are returned to the Contractor marked "NO EXCEPTIONS, PROVIDED THE FOLLOWING CONDITIONS ARE MET," formal revision and resubmittal of said Shop Drawings will not be required.

    c. If Shop Drawings are returned to the Contractor marked "MAKE CORRECTIONS NOTED," formal revision and resubmittal of said Shop Drawings will not be required.

    d. If Shop Drawings are returned to the Contractor marked "REVISE AND RESUBMIT," the Contractor shall revise said Shop Drawings and shall resubmit five paper copies or an electronic copy of said revised Shop Drawings to the Engineer.

    e. If Shop Drawings are returned to the Contractor marked "REJECTED," the Contractor shall revise said Shop Drawings and resubmit five paper copies or an electronic copy of said revised Shop Drawings to the Engineer.

f. If Shop Drawings are returned to the Contractor marked "SUBMIT SPECIFIED ITEM," the Contractor shall submit material requested but shall not be required to resubmit all previous material.

5. For each resubmittal necessary, an additional 15 calendar days shall be allowed for review. Include copies of all approved submittal information in the Contractor's submitted Record Drawings and O&M Manual. A copy of each Shop Drawing and Sample shall also be kept in good order by the Contractor at the job Site and shall be available to the Engineer.

6. See the Individual Technical Specification sections for the Shop Drawings and other submittal requirements.

J. QUALITY CONTROL

1. Be responsible for providing their own construction monitoring and quality control program to ensure the materials used on the Project and in the Contractor's operations are in compliance with the Contract Documents. If requested by the Engineer, a written quality control program shall be provided to the Engineer for their review prior to any Work being performed. The plan shall describe how the Contractor will monitor and ensure quality control throughout the Work. Materials, equipment, or Work that fails to meet the Contract requirements shall not be used in the Work.

2. The Engineer and their representatives will at all times have access to the Work. In addition, authorized representatives and agents of any participating federal or state agency shall be permitted to review all Work, materials, invoices of materials, and other relevant data and records. The Contractor will provide proper facilities for such access and observation of the Work and also for any review or testing thereof.

3. Notify testing personnel, including testing personnel provided by the Owner or Engineer, at least 24 hours in advance of operations to allow for personnel assignments and test scheduling. All materials to be tested shall be provided by the Contractor at their expense. After tests are completed, be responsible for repairing test areas to match original conditions. Pay for all additional reviews and retesting required because of defective Work or ill-timed notices.

4. Tests or reviews by the Engineer or others shall not relieve the Contractor from their obligations to perform the Work in accordance with the requirements of the Contract Documents and does not make the Engineer, or others, an insurer of the Contractor's Work.

5. Submit samples of the material to be utilized on the Project to the Engineer for their review. The Engineer or their representative may take additional samples and provide check tests on material being incorporated into the Work to verify compliance with the requirements of the Contract Documents. Materials or workmanship found to be

outside of the specification limits shall be replaced with suitable material at no expense to the Owner.

K. COOPERATION WITH OTHERS

Cooperate with the residents and business owners in the area to provide good access to private property whenever possible. Sidewalks shall be kept clear at all times of any construction materials. Barricades, traffic cones, blinkers, and signing shall be used to direct the public through the Work area safely.

L. CONSTRUCTION STAKING

1. Carefully preserve property corners, benchmarks, reference points, and stakes set by others. In the case of willful or careless destruction by the Contractor, the Contractor shall be charged with the resulting expense of replacement and shall be responsible for any mistakes or liability that may be caused by the loss or disturbance.

2. Be responsible for setting, maintaining, and resetting all alignment stakes, slope stakes, and grades necessary for the construction of the Work including, but not limited to, manholes, paving, and other miscellaneous work. Except for the survey control data to be furnished by the Owner via the Engineer, calculations, surveying, and measuring required for setting and maintaining the necessary lines and grades shall be the Contractor's responsibility.

3. Inform the Engineer when monuments are discovered that were not identified in the Plans and constructing activity may disturb or damage the monuments.

M. EXISTING SURVEY MONUMENTATION

1. Be responsible for the protection and perpetuation of existing land survey, property, or construction monuments shown on the Drawings, which are marked or are clearly visible on the ground.

2. Provide the Engineer a minimum of 48 hours' notice prior to working in the vicinity of any such monument that the Contractor may disturb so the Owner can arrange for such monuments to be referenced. When proper notice is provided, the Owner shall have any disturbed monuments restored following construction. Should the Contractor fail to provide adequate notice to the Engineer, the Contractor shall be responsible for the expense of having the disturbed monument restored by a qualified surveyor.

N. EXISTING UTILITIES

1. See applicable provisions of the General Conditions, as well as all other provisions of the Contract relative to Existing Utilities. The following utilities may be affected by the Contractor's Work:

a. Power
Klickitat Public Utilities District (PUD)
110 NE Estes Avenue, White Salmon, WA 98672
Mark Pritchard, Operations Manager
(509) 773-7629

b. Telephone
CenturyLink
Phone Repair (24 hours a day, 7 days a week): (800) 788-3600
David Sisson, Engineer
(360) 699-3696 (office); (360) 991-8916 (cellular)

c. Gas
Williams Pipeline
One Williams Center, Tulsa, OK 74172
(800) 945-5426
Rod Johnson
(360) 608-3422

Northwest Natural Gas
220 NW 2nd Avenue, Portland, OR 97209
Locate Compliance Center
(503) 220-2415
24 hrs. notice required

d. Cable
Charter Communications
Support: (800) 892-4357

e. Water/Sewer/Sewer/City Streets
City of White Salmon (Owner), Public Works Department
220 NE Tohomish, White Salmon, WA 98672
Telephone No.: (509) 493-1133

2. Known utilities and structures expected to be adjacent to or encountered in the Work are shown on the Drawings. Information on existing utilities may be provided by others and existing records may not be complete or accurate. It is expected there may be discrepancies and omissions in the location, size, and quantities of utilities and structures shown. Those shown are for convenience of the Contractor only, and no responsibility is assumed by either the Owner or Engineer for their accuracy. Work closely with the owner of any utilities or structures affected by the Work to avoid any damage.

3. Be responsible for the actual locating and protecting of existing utilities. Prior to commencement of Work, contact existing Utility Companies such as water, sewer,

power, telephone, gas, etc., to have the Utility Companies locate all utilities which will be affected by the Work to be performed. Provide notification at least two business days but not more than 10 business days before commencing excavation in accordance with RCW 19.122. The "call before you dig" number is 811 or 1-800-424-5555. Perform all necessary coordination work with the Utility Companies in performing the Work and be fully responsible for any damage to existing utilities caused by the Contractor's operations. Make any advance exploration necessary to protect all existing utilities and to properly plan the installation of pipelines or other work to the design line and grade. No payment shall be made for this work for up to two hours of advanced backhoe excavation work necessary to locate each existing utility at each specific site. The Work shall include all labor, equipment, etc., necessary to perform the location work. These costs shall be understood to be included in the Contract Prices. Should the Contractor be unable to locate the existing utility after its location has been marked by the appropriate utility company and diligent effort made by the Contractor to locate the utility including up to two hours of backhoe excavation work for each utility at each location site, the Contractor may be entitled to additional compensation.

4. If a conflict develops between the design line and grade of a pipeline or Project improvement and an existing utility, the Engineer may adjust the pipeline grade or have the existing utility relocated. The existing utility may be relocated by the owner of the utility or its designated representative or by the Contractor upon the approval of the utility owner and the Engineer. Perform all relocation work required by the Engineer. If the Contractor performs the relocation work, a Change Order shall be negotiated prior to any actual work unless payment for the work is specified otherwise.

5. Receive prior approval from the appropriate authority or utility owner before any public or private utility service is interrupted.

    a. Provide a minimum of four hours' notice to all utility customers who will be affected by the Contractor's operations. No utility service shall be disconnected or interrupted for more than nine hours or as required by the utility owner, whichever is less, in any 24-hour period. When disruption of service will be longer than nine hours in any one day, provide safe and appropriate temporary service. All temporary service shall be coordinated with the utility owner.

    b. When regular utility service interruption is required during the course of the Work, submit a written plan to the Engineer and utility owner which details proposed Work plan notification procedures, and estimated extent of service interruption. Obtain written approval of their plan from the utility owner prior to interrupting the utility service. As a minimum, notification shall include door hangers and public notification in the newspaper and radio, as appropriate. Personal contact shall be made where practical.

    c. Make every effort possible to provide continuous utility service to all utility customers. When special conditions exist where an interruption of utility service

would create an extra hardship on the utility customer or create a hazardous condition, provide continuous service. Particular care and planning must be arranged to provide continuous service of existing services or temporary services as approved by the utility owner and the Engineer.

d. If inadvertently damage or interruption is made to an existing utility, immediately notify the affected utility company, Owner, Engineer, and utility users and make arrangements to provide temporary service to the parties affected.

e. The Contractor shall, as requested by the Engineer, either immediately arrange for the utility company to make the needed repairs or immediately make the repair to the damaged utility.

f. Pay the full cost of repair and damages when the utility was previously located and was within four feet on either side of the marked location as required by the Call Before You Dig notification system, or where negligence of the Contractor occurred.

g. The Contractor will be paid for the cost of repair and damages when existing utilities encountered during the performance of the Work were not previously located by the utility as required by the Call Before You Dig notification system, where existing utilities were farther than four feet away on either side of the marked location, and where damage to the utilities occurred due to no negligence of the Contractor.

h. If the Contractor fails to make immediate repairs and provide service as required, the Owner may have said Work performed by others and deduct the cost of said Work from payment to the Contractor.

6. Support and otherwise protect all pipes, conduits, cables, poles, and other existing services inside the Work area or are otherwise undermined or affected by their Work. Restore the support of an undermined existing utility using structural fill or aggregate base backfill in conformance with the Technical Specifications - "Site Work".

O. UTILITIES COST DURING CONSTRUCTION

1. Water During Construction

a. Water from the Owner is available for construction purposes from a hydrant meter obtained from the Owner. A copy of the Owner's "Operate Fire Hydrant Permit", with the cost of the hydrant use, deposit, and cost of water, is provided at the end of the General Requirements. Water shall be available at locations designated by the Owner. Comply with the Owner's permit requirements and reimburse the Owner for water used. Review with the Owner the proposed water filling procedures and equipment prior to the first acquisition of water to

ensure proper air gaps and other cross-connection requirements are being implemented.

b. Pay for all costs associated with the acquisition, transport, and use of water for construction purposes.

P. PROGRESS OF THE WORK - CLEANUP

1. Arrange their work schedule such that all phases of Work, once started, shall be diligently pursued until completed. The intent is that the work area shall not be disturbed for undue periods of time. Work shall not be left uncompleted. If the Engineer determines that Work is not being diligently completed, the Engineer shall request the Contractor to complete said Work.

2. Cleaning up shall be a continuing process from the start of the Work to final acceptance of the Project. The Contractor shall, at all times, at their own expense and without further order, keep property on which Work is in progress free from accumulations of waste material or rubbish caused by employees or by the Work, and at all times during the construction period shall maintain structure sites, rights-of-way, easements, adjacent property, and the surfaces of streets and roads on which Work is being done in a safe condition for the Contractor's workers and the public.

   a. Accumulations of waste materials that might constitute a fire hazard will not be permitted.

   b. Spillage from the Contractor's hauling vehicles on traveled public or private roads or bypass pumping system shall be promptly cleaned up. The Contractor shall take appropriate action to control dust caused by their operations. This shall include, but not be limited to, watering of exposed areas, cleaning of roadways, etc. This is considered a normal part of the construction Project.

   c. Upon completion of the Work, the Contractor shall, at their own expense, remove all temporary structures, rubbish, waste material, equipment, and supplies resulting from their operations. They shall leave such lands in a neat and orderly condition that is at least as good as the condition in which they found them prior to their operations.

   d. Should the Contractor fail to provide said cleanup upon 24-hour written notice, the Owner shall have the right to perform such Work at the expense of the Contractor and withhold the cost from the Contractor's payments.

3. Replace or restore, equivalent to their original condition, all surfaces or existing facilities disturbed by their Work, whether within or outside of the Work areas. Restoration work will include, but is not limited to, roadways, utilities, structures, etc. Refer to Technical Specifications – "Demolition and Abandonment", Site Work" and "Surface Restoration".

Q. EXISTING EQUIPMENT REMOVAL AND SALVAGE

1. Existing equipment or materials removed by the Contractor during the course of the Work, which the Owner requests to be salvaged, shall remain the property of the Owner. The equipment and materials shall be removed with care to prevent unnecessary damage and shall be neatly stored at a location directed by the Engineer.

2. Refer to Technical Specifications - "Demolition and Abandonment".

R. PARTIAL UTILIZATION OF PROJECT COMPONENTS

The existing wastewater collection system must stay in service during the installation of the proposed project improvements. Sewage conveyed through the system manholes can bypass the immediate work area temporarily in accordance with Technical Specifications - “Bypass Pumping”.

S. STARTUP AND TRAINING

It shall be the Contractor's responsibility to install all system components in accordance with the manufacturer's recommendations. All equipment shall be lubricated and adjusted as components prior to testing the system as a whole. Arrange with the Engineer to witness a test of the system and equipment after installation is completed. Provide the services of manufacturers' representatives to assist with the startup of major components and to provide training to the Owner's personnel. These tests shall demonstrate the complete facility operates in accordance with the Drawings and Specifications and the required functions. It is anticipated that minor adjustments may occur after the system has been started up. Make adjustments and correct deficiencies as required so the system can be kept in operation once it is placed into service. These adjustments, etc., shall be completed before final acceptance. Pay all costs associated with manufacturer's representatives and startup work.

As part of this Work, provide startup training to the Owner and Engineer in sufficient detail so the Owner and Engineer are fully familiar with the proper operation and maintenance of Project components and systems. The startup training shall occur after the construction Work is complete and properly functioning.

T. RECORD DRAWINGS

1. Maintain on the Job Site an up-to-date, complete, and accurate set of Record Drawings. These Drawings shall include all Work performed by the Contractor and shall note any changes or deviations made from the details shown on the Construction Drawings. Such deviations would include, but not be limited to, dimensional changes, location, grade changes, elevation changes, material type, configuration, etc. All changes shall be neatly and accurately shown on the Record Drawings.

2. All buried improvements shall be described in detail including location, type, size, depth, brand name, model numbers, etc. Buried improvements shall include precast manhole cone, castings, fittings, etc. All offsets shall be appropriately noted on the Drawings.

3. Note the locations, types, size, depth, etc., of any existing utilities encountered during the performance of the Work. The Record Drawings shall be available for inspection during the Project by the Owner and Engineer. Keep the Record Drawings current each day to avoid loss of critical or important information.

4. Certify, by signing the Application for Payment, that their Record Drawings are up to date, accurate, and complete.

5. Prior to submitting the Contractor's Notice of Substantial Completion, submit the Record Drawings to the Engineer.

U. OPERATION AND MAINTENANCE INSTRUCTIONS

If Bid Option No. 1 - Replacement of Vault Hatch at Heritage Plaza Lift Station is awarded, provide an electronic copy of the operation and maintenance instructions for the new vault hatch. The information furnished shall pertain specifically to the vault hatch. Manufacturers' O&M manuals that deal with more than one product line shall have the non-relevant information crossed or blocked out. Also, in addition to the two bound copies and one electronic PDF copy due prior to final completion of the Project, furnish one copy of O&M material to the Engineer for all major equipment when it arrives on the Job Site. Furnish the vault hatch Supplier's name, address, and telephone number. The O&M data furnished shall include detailed manufacturer's O&M information on each component, function description of operation, a complete parts list, and a separate parts list for parts not readily available.

END OF SECTION

TRANSMITTAL OF SHOP DRAWINGS, EQUIPMENT DATA, MATERIAL SAMPLES, OR MANUFACTURER'S CERTIFICATES OF COMPLIANCE				DATE	NO.
SECTION 1 – REQUEST REVIEW OF THE FOLLOWING ITEMS *(This section will be initiated by the Contractor)*					
TO ENGINEER:		FROM CONTRACTOR:		PROJECT	CHECK ONE: ☐ THIS IS A NEW TRANSMITTAL ☐ THIS IS A RESUBMITTAL OF TRANSMITTAL
ITEM No.	DESCRIPTION OF ITEM SUBMITTED *(Type, size, model number, etc.)*	MFR. OR CONTR. CAT. CURVE DRAWING OR BROCHURE NO.	No. OF COPIES	CONTRACT REFERENCE DOCUMENT SPEC. SECTION NO. / DRAWING SHEET NO.	COMMENTS
REMARKS NOTE: Contractor shall note any variations from requirements of the Contract Documents.				I certify that the above-submitted items have been reviewed in detail as required by the Contract Documents (see General Conditions 7.16) and have been approved by the Contractor. NAME AND SIGNATURE OF CONTRACTOR	

CITY OF WHITE SALMON
OPERATE FIRE HYDRANT PERMIT

Date: _____ Applicant: _____

Representing: _____

Address: _____

Telephone: _____

Location of Hydrant: _____

Date/ Duration for Hydrant Use

Dates: _____ Expected Duration: _____

Size of Water Tank (Gallons): _____

Application must be completed and fees paid prior to meter installation.

Invoiced at the completion of the fire hydrant use for consumption.

Refundable Deposit Fee $200.00 + Connection Fee $20.00 + RP/Meter Rental $5.00 (a day)

Consumption (per 1,000 Gal): 1,000 – 5,000 Gal $1.09 / 6,000 – 15,000 Gal $2.76 / Anything over 16,000 Gal $3.69

Notification Required:

Authorized users of any City Fire Hydrant shall notify the City Public Works Department prior to activating any fire hydrant for discharge, and upon completing of use of any fire hydrant for filling water tank trucks, public or private. Any unauthorized use of a City Fire Hydrant will be subject to criminal water theft and denial of a hydrant valve use permit. Kevin English, City Public Works Dept: (509) 493-1133 ext. 500

Hydrant Number/Location: _____

Water Meter Reading

Start: _____ Finish: _____ Water Use: _____

Veh. equipped with approved Air Gap?
YES ☐ NO ☐

If no, DCVA need shall be used.

CCS _____

APPROVAL

Signature: _____

Date: _____

TECHNICAL SPECIFICATIONS

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Technical Specifications

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SECTION 1

DEMOLITION AND ABANDONMENT

TECHNICAL SPECIFICATIONS

SECTION 1

DEMOLITION AND ABANDONMENT

PART 1 - GENERAL

1.1 Scope

A. These specifications cover the demolition, removal, and abandonment of existing manhole lid and castings, manhole chimney, existing manhole bricks (as needed), vault hatch, and other items as needed to access and perform the Work. The purpose of this section is to provide an overview of the work required. Refer to the General Requirements for specific construction sequencing and its relationship with demolition and abandonment.

B. Manhole Lids and Castings

1. Remove and salvage the existing manhole lids, castings, and appurtenances as shown in the Drawings/Figures and as specified.

2. Expose, remove, and dispose of any existing asphalt concrete pavement and concrete collars around the manhole castings, manhole chimney materials, manhole bricks, and other miscellaneous items as needed to perform the Work.

C. Existing Vault Hatch

Remove and salvage the existing aluminum vault hatch located outside the Heritage Plaza Lift Station building. The existing concrete vault top will remain.

1.2 Salvage and Disposal of Equipment and Material

It is the intention of these specifications that the Owner has the right to retain any equipment or materials (e.g.: manhole lids and castings, vault hatch, etc.) removed from service and that the Contractor will transport and place any equipment or material to the Owner's shop or storage yard. Material or equipment removed as part of the work under this contract which the Owner does not desire to retain, shall be removed, and recycled or disposed of properly in accordance with all Local, State, and Federal regulations.

1.3 Existing System Pipe Materials

Owner's wastewater collection system is primarily comprised of polyvinyl chloride (PVC) pipe and concrete pipe. Take appropriate measures to identify and protect the Owner's existing wastewater collection system.

TECHNICAL SPECIFICATIONS

SECTION 1

DEMOLITION AND ABANDONMENT

1.4 Submittals

If requested by the Engineer, prepare, and submit a demolition and abandonment schedule that includes descriptions on the proposed methods, sequence of operations, coordination for shut-off and continuation of utility services as required.

PART 2 - MATERIALS

2.1 Backfill

Backfill shall comply with the Technical Specifications – "Site Work" and "Surface Restoration."

PART 3 - EXECUTION

3.1 Removal, Disposal, and Salvaging of Existing Manhole Castings, Vault, and Appurtenances

A. Remove manhole lid and castings, utility vault hatch and appurtenances as required to properly perform the work or as shown in the Drawings or as required to permit proper connections.

B. Manhole lid and castings, and utility vault hatch and appurtenances that are determined by the Engineer and Owner shall be salvaged, removed in their entirety, and delivered to the Owner's shop. Salvage material shall remain the property of the Owner.

C. All materials removed, except those determined reusable in the above paragraph shall be disposed of by the Contractor in conformance with all laws, regulations, and rules legally imposed on such activities.

3.2 Removal and Disposal of Asphalt Concrete Pavement, Concrete, and Other Items

A. Expose, remove, and dispose of any existing asphalt concrete pavement and concrete collars around the manhole castings, manhole chimney materials, manhole bricks, and other miscellaneous items as needed to perform the Work.

B. See Technical Specifications – "Measurement and Payment" for the extend of payment for asphalt concrete pavement and concrete collar removal work.

3.3 Excavation and Backfill

Excavation and backfill for structures and related appurtenances removal shall comply with Technical Specifications – "Site Work".

PART 4 - MEASUREMENT AND PAYMENT

4.1 Basis

See Technical Specifications – "Measurement and Payment" for a description of the basis of measurement and payment for Work performed under this Contract.

END OF SECTION

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SECTION 2

BYPASS PUMPING

TECHNICAL SPECIFICATIONS

SECTION 2

BYPASS PUMPING

PART 1 - GENERAL

1.1 Scope

Under this section, furnish all materials, labor, equipment, power, and maintenance to implement a temporary pumping system for the purpose of diverting the existing flow around the work area for the duration of the project.

1.2 System Design, Installation, and Operation

A. The design, installation, and operation of the temporary pumping system shall be the Contractor's responsibility. The Contractor assumes all liability for operation of the bypass system and shall supervise and staff the system during its operation. The bypass system shall meet the requirements of all codes and regulatory agencies having jurisdiction of the system operation.

B. Average and peak sewer flows for the area (Basin 3) served by the manholes being reconstructed and/or lined are estimated to be 24 and 144 gpm (Cities of Bingen and White Salmon General Sewer/Wastewater Facility Plan, December 2015). These flows are likely to be observed at MHs J-8 and I-1. From MH J-8 and moving upstream in the collection system (west on Jewett Boulevard), the sewer flow will be less. The percentage of the total flow for specific locations is as follows: MH J-4: 24 percent; MH J-6: 45 percent; and MH J-7: 82 percent.

1.3 Submittals

Prior to performing any work, submit a bypass pumping plan to the Engineer for review. The submittal shall include the proposed bypass system design, installation, and operation; specific areas of the Owner’s system to be bypassed; and anticipated time the bypass system would be in operation at each proposed location. This submittal should include traffic control plans proposed for the bypass system.

PART 2 - MATERIALS

2.1 Pumps

A. All bypass pumps shall be fully automatic self-priming units.

B. All pumps shall be electric or diesel powered and constructed to allow for dry running for long periods of time to accommodate the cyclical nature of sewage flows.

C. Supply all necessary stop/start controls for each pump.

D. Provide one standby pump of each size to be maintained on site. Back-up pumps shall be on-line and isolated from the primary system by valve.

E. The bypass system including pumps and piping shall have sufficient capacity to handle existing flows.

2.2 Piping

A. Provide temporary discharge piping constructed of rigid pipe with positive restrained joints.

B. No aluminum irrigation type piping to be allowed.

C. Discharge hose may be allowed for short sections with prior Engineer's review and approval.

D. Provide watertight pipe system.

2.3 Sewer Line Plugs

Sewer line plugs shall be specifically designed and constructed to stop all or any portion of upstream sewage within a section of pipe and shall not damage the pipe.

2.4 Vactor or Sewer Pump Trucking

A. Provide sewer pumper trucks to control sewage flows by pumping sewage from upstream manholes and transporting contents around work areas to downstream manholes.

B. Pumper trucks shall have pumps sized for suction lift required to remove sewage from various manholes and deposit sewage into the truck.

C. Temporary suction leg with quick disconnect coupling may be installed at various manholes to allow trucks to expedite removal of sewage.

D. Pumper truck holding tank shall be sealed and suitable for transport of fluid without spillage onto property, roadways, or street surfaces.

E. Use of pumper trucks shall require Contractor to provide additional traffic control to allow trucking without delay from routine traffic.

F. Provide one additional standby pumper truck for emergencies or high flows conditions.

PART 3 - EXECUTION

3.1 General

A. Plan and perform the work in such a manner that will allow for continuous sewer service, unless otherwise approved by the Owner. Where necessary, make temporary connections and/or pump sewage around work areas as required in order to provide continuous service.

B. Provide, maintain, and operate all temporary facilities such as dams, plugs, primary pumping equipment, back-up pumping equipment, conduits, all necessary power, and all other labor and equipment necessary to intercept the sewage flow before it interferes with the work, convey flows past the work area, and return it to the existing sewer downstream of the work.

C. Prior to beginning of the work, develop a work plan that will be followed in handling the sewer flows around the work areas. This plan will be discussed and reviewed with the Owner and the Engineer.

D. Should sewer service become restricted during the Contractor's operations, it shall be the Contractor's sole responsibility to take whatever measures are necessary to restore sewer service on all lines affected by his operations. Any damage that occurs to private property or to the sewage system due to the Contractor's operations, will be the total responsibility of the Contractor and shall be repaired at the Contractor's expense.

E. Operation of bypass facilities shall maintain sewer flow around the work area in a manner that will not cause surcharging of sewers, damage to sewers, and will protect public property and private property from damage and flooding.

F. Protect water resources, wetlands, and other natural resources.

G. Notify the Engineer and Owner of any planned bypass pumping at least 48 hours prior to initiation of the bypassing system.

H. Coordinate proposed bypass system setup and operation with the approved Traffic Control Plan for the Work – see Technical Specifications “Traffic Control and Protection”.

3.2 Flow Control Methods

When sewer line flows are above the minimum requirement called for to effectively conduct the testing, sealing, or other work, one or more of the following methods of flow control shall be used:

A. Plugging and Blocking

Sewer line plugs shall be inserted into the line at the manhole upstream from the section to be inspected, tested, repaired, and/or sealed. The plug shall be so designed that a portion of the sewerage flows can be released. During the inspection portion of the operation, flows shall be shut off or substantially reduced in order to properly inspect the pipe. Proper care shall be used to prevent damage to private property if this method is utilized.

B. Pumping and Bypassing

Furnish the necessary labor and supervision to set up and operate the pumping and bypassing system. If pumping is required, all engines shall be equipped in a manner to keep the pump noise to a minimum. Pumping and bypassing shall only be utilized when plugging and blocking cannot be utilized.

3.3 Operating Requirements

A. Bypass pumping systems may be required to operate 24 hours per day. Proposed bypass pumping in excess of 8 hours in a day must be approved by the Engineer before initiating the bypass operation.

B. Provide all pipeline plugs, pumps of adequate size to handle peak flow, alarm systems to indicate pump failure and temporary discharge piping to ensure that the total flow of the main can be safely diverted around the section requiring work.

C. Provide adequate standby equipment available and ready for immediate operation and use in the event of an emergency or breakdown. One standby pump for each size pump utilized shall be installed at the mainline flow bypassing locations, ready for use in the event of primary pump failure.

D. Bypass pumping system shall be capable of bypassing the flow around the work area and of releasing any amount of flow up to full available flow into the work area as necessary for satisfactory performances of work.

E. Make all arrangements for bypass pumping during the time when the main is shut down for any reason and for each segment of the work.

3.4 Field Quality Assurances

A. Perform leakage and pressure tests on all of the bypass pumping discharge lines prior to actual operation.

B. Inspect bypass pumping system every two hours to ensure that the system is working correctly.

C. Provide maintenance services to ensure that the temporary pumping system is properly operating.

D. Provide spare parts for pumps and piping on site.

E. Provide adequate housing equipment for each pump and accessories on site.

F. Provide alarm systems on all pumps to indicate pump failures.

3.5 Bypass Installation

A. Locate any existing utilities in the area for the proposed bypass pipeline alignment. Assume all costs associated with relocating utilities and obtaining approvals from respective owner of utility.

B. Minimize disturbances to existing utilities. Engineer or Owner shall approve all pipeline locations prior to installation.

C. At all times provide access to private property driveways crossed by the temporary pipeline.

D. Provide all thrust restraint, excavation, pipe, backfill, and surface restoration required to install and remove temporary piping after completion of work.

E. During bypassing operations, protect the pumping equipment, main, all sewer lines, and new work from damage inflicted by the Contractor's operation or failure of the bypass pumping system.

F. Make connections to the existing forcemain and construct temporary bypass pumping system as may be required to provide for the performance of work.

G. All plugging of sewers shall incorporate primary and temporary plugging devices. When installed plugging is no longer required, remove plugging in a manner that permits sewage flow to slowly return to normal without surge.

H. Prevent surcharging of upstream and downstream sewers.

I. Perform all work in accordance with OSHA requirements.

J. Obtain prior written permission and release for placement and removal of bypassing facilities on private property.

3.6 Vactor or Sewer Pump Trucking Operations

A. Provide additional traffic control required to maintain truck transportation to and from discharge points.

B. Provide trucks in sufficient number, size, and capacity to pump (vacuum), store, transport, and discharge sewage without causing surcharging of the upstream sewers.

C. Provide for sufficient travel time from each removal point to each discharge point when utilizing vactor or pumper trucks for hauling wastewater.

D. Transport sewage to discharge points in accordance with all State, County, and Federal regulations.

PART 4 - MEASUREMENT AND PAYMENT

4.1 Basis

A. See Technical Specifications - “Measurement and Payment” for a description of the basis of measurement and payment for Work performed under this Contract.

B. Plugging or blocking of the sewer flow shall be considered incidental to the Work for which no additional compensation to be allowed.

END OF SECTION

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SECTION 3

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SECTION 3

TRAFFIC CONTROL AND PROTECTION

PART 1 - GENERAL

1.1 Scope

A. General

1. These Technical Specifications cover temporary protection and direction of traffic, including accommodations for public traffic and work zone traffic control. The Work includes, but is not limited to, preparing and following a Traffic Control Plan (TCP); providing temporary traffic control measures (TCM); and furnishing, installing, and maintaining temporary traffic control devices (TCD).

2. The Contractor shall be responsible for all pedestrian and vehicular traffic control. Appropriate methods of pedestrian and vehicular traffic control, including flaggers, shall be used by the Contractor to the extent deemed necessary by the Contractor or Engineer to protect the public, workers, or third parties. The measures, plans, and schedules shown in the Contract Documents and in the Washington State Department of Transportation (WSDOT) Standard Specifications for Road, Bridge, and Municipal Construction 2021 (M 41-10) are the minimum required and shall be supplemented with additional TCM as required during the course of the Work.

B. Work Zone Traffic Control

1. This work consists of providing temporary TCM and furnishing, installing, moving, operating, maintaining, inspecting, and removing TCD throughout the Project area according to the Project Drawings and Specifications, WSDOT M 41-10, the WSDOT Standard Drawings, the TCP for the Project, or as described.

2. All TCD such as temporary signing, barricades, barriers, guardrail, attenuators, pedestrian fencing, lights, cones, temporary pavement striping, etc., required to warn, protect, or direct the public for the duration of the Work shall be furnished, installed, moved, and removed by the Contractor.

3. When conditions warrant their use, flaggers and/or pilot cars shall also be provided by the Contractor. The determination of what measures are required, in addition to those specifically called for by the Drawings and Specifications, shall be solely the responsibility of the Contractor.

4. The Engineer and Owner are not responsible for determining whether proper TCD are being utilized. Should the Contractor fail to furnish, maintain, and replace the necessary TCD, the Owner or Engineer may, but shall not be required to, bring to the Contractor's attention, by written notice, such failure, and the Contractor shall undertake such corrective measures as is proper.

1.2 Abbreviations

ADT	Average Daily Traffic
WSDOT	Washington State Department of Transportation
QPL	Qualified Products List (WSDOT)
TCD	Traffic Control Devices
TCM	Traffic Control Measures
TCP	Traffic Control Plan
TCS	Traffic Control Supervisor
TSS	Temporary Sign Support
PCMS	Portable Changeable Message Sign
MUTCD	Manual on Uniform Traffic Control Devices

1.3 Definitions

A. Traffic Control Devices (TCD)

Signs, signals, markings, and other devices placed on or adjacent to a road to regulate, warn, or guide traffic.

B. Traffic Control Measures (TCM)

Elements of the TCM including, but not limited to, TCD, personnel, materials, and equipment used to control traffic through a work zone.

C. Traffic Control Plan (TCP)

A written and drawn plan for handling traffic on a specified roadway through a work zone.

D. Work Zone

An area within highway construction, maintenance, or utility work activities.

TECHNICAL SPECIFICATIONS

SECTION 3

TRAFFIC CONTROL AND PROTECTION

1.4 Standards

Use and follow the current edition of the WSDOT "Sign Policy and Guidelines for the State Highway System," the latest edition of the "Manual on Uniform Traffic Control Devices (MUTCD)" including the Washington State Modifications to the MUTCD, these Specifications, WSDOT M 41-10, and the WSDOT Standard Drawings listed below in designing, applying, installing, maintaining, inspecting, and removing traffic control devices. Copies of WSDOT Standard Plans TC1 and TC5 are included in the Appendices.

1.5 Applicability

Items specified in this Technical Specification are intended to be broad in scope and may not always apply to all items of Work to be constructed. All applicable sections, as determined by the Engineer, shall control the Work outlined in the Contract Documents.

1.6 Submittals

A. All submittals shall be provided in conformance with the General Requirements.

B. Traffic Control Plan (TCP)

1. The traffic control provided in the Drawings are conceptual in nature. Prepare and submit a written detailed TCP specifically suited to the roadway the Work is being performed and the Contractor's proposed means of construction. WSDOT Standard Plans and the TCP, included in the Contract Documents, shall be used as a guide for preparing and implementing the TCP. The TCP shall show all TCM and TCD and describe the order and duration of TCM for all phases and stages of the Work.

2. The Contractor is advised to submit the TCP to the Engineer for review and approval as soon as possible. The TCP shall be forwarded to WSDOT for approval. Their approval process can take up to 30 days. Obtain approval from the Engineer before initiating any Work on site.

1.7 Traffic Control Requirements

A. The construction area in one lane may be closed temporarily each workday between 6:00 a.m. and 6:00 p.m., local time, utilizing one-lane, two-way traffic control with flaggers per WSDOT Standard Plan TC-1.

B. Specific Traffic Detours

1. Due to the location of the existing manholes, the north side of the following intersections will need to be closed to provide suitable access for the Work: 1) N. Main Avenue and Jewett Boulevard and 2) NE Estes Avenue and E. Jewett Boulevard intersections. Traffic detours will need to be established around these closed intersections.

2. N. Estes Avenue is designated as a truck route. To detour truck traffic around this intersection, parking would need to be restricted along portions of NE Wauna Avenue, NE Tohomish Street, and NE Estes Avenue will be required. The Contractor shall coordinate any parking restrictions with adjacent businesses and the Owner.

3. Pedestrian crossings on the north side of Jewett Boulevard at these intersections would also need to be closed; alternate pedestrian crossings would need to be identified with appropriate signage.

C. The intersection of E. Jewett Boulevard and Skyline Drive is the only entrance/exit to the area's regional hospital. One lane of the E. Jewett Boulevard/Skyline Drive intersection and Skyline Drive must be always kept open to provide access to this facility.

D. Specific detour TCP shall be submitted to the Engineer for approval at least 14 calendar days prior to starting Work within the stage area. All TCD shall be in place according to the approved Plan(s) prior to closure.

E. Local access shall be provided as specified herein. Access shall be provided to businesses at all times during normal operating hours, without prior approval by the Engineer. Business access signage shall be provided along the one-way west bound lane and for the detour route to the businesses.

F. Traffic may be temporarily closed for work requiring full road closure; otherwise, one-way traffic shall be allowed. Access to private properties shall be provided at all times, except during urgent stages of construction when it is impractical to carry on the construction and maintain traffic simultaneously.

G. Provide for adjustments to TCM and devices for the various stages of the Contractor's work.

PART 2 - MATERIALS

All materials shall conform to WSDOT M 41-10, Section 9-35, unless otherwise approved by the Engineer.

PART 3 - EXECUTION

3.1 Accommodations for Public Traffic

A. Scope

The Work consists of maintaining facilities to accommodate public traffic through and within the Project area. Public traffic includes motor vehicles, bicycles, and pedestrians. The Contractor's responsibilities for accommodating public traffic begin on the day any on-site work begins within the Project limits. Provide for the safety and convenience of the public and:

1. Be responsible for damages to property, injury to persons, loss, expense, inconvenience, and delay caused by or resulting from any act, omission, or neglect of the Contractor, the Contractor's subcontractors and suppliers, or their employees while performing the Work.

2. Conduct Work at all times for the least possible interference with or hazard to the traveling public and residents affected by the Project.

3. Do not perform Work that would restrict or interrupt traffic movement on opposite sides of the traveled way at the same time.

4. Keep the existing lanes of traffic open and in operation through the Project at all times, except one lane may be closed to traffic in the immediate Work area, but only during hours Work is actually being performed. All lanes may be closed to traffic on a limited basis when approved by the Owner.

5. Do not stop or hold vehicles more than 20 minutes or block driveways, intersections, or connections for more than 2 hours unless otherwise authorized in writing.

6. Submit proposed methods and lane closure times in each instance to the Engineer for approval with ample time to allow the traveling public to be notified through the news media.

7. Obtain the Engineer's approval before closing any lanes.

8. Do not close any lane until the area is signed according to the requirements of this Section.

9. Park construction equipment and vehicles and stockpile material at least 30 feet from the traveled way. If this is not possible, protect the equipment, vehicles, and stockpiled material with barriers or other satisfactory means.

10. Provide and maintain in a safe condition temporary access to business and residence driveways, temporary intersections, and temporary connections with roads, streets, bikeways, sidewalks, and footpaths.

11. Provide protection from work areas.

12. Allow emergency vehicles immediate passage at all times.

B. General Requirements

Provide the following for public traffic in all construction areas:

1. Traffic Nuisance Abatement

   a. If loose rock or dust exists on roadway surfaces and shoulders, the Contractor shall do one or more of the following:

      1) Use pilot cars and/or flaggers.

      2) Apply a fine spray of water to the surface.

      3) Broom paved surfaces with power brooms.

   b. A pickup broom for use within the traveled way shall always be available on-site for use on the Work. Debris in the traveled way generated by construction activities shall be removed as needed and within 2 hours of the Owner's requests.

2. Detours and Stage Construction

   Construct and remove, if required, detours, stage construction roadways, shoulders, and temporary bridges, including accessory features shown on the Drawings.

3. Driveways

   While working on subgrade and other construction, provide adequate access to businesses, residences, intersections, and connections as follows:

a. Replace and maintain temporary aggregate driveways, approaches, crossings, and intersections as needed.

b. Use reasonably well-graded aggregate material.

c. Before placing the permanent base, do one of the following:

1) Uniformly spread the temporary aggregate material over the subgrade.

2) Remove and place the temporary aggregate material in the shoulder slope area if it meets quality requirements.

3) Dispose of the temporary aggregate material in a satisfactory manner.

4. Adjacent to Excavations

Where paved shoulders adjacent to excavations are less than 4 feet wide, protect the traffic as follows:

a. At the end of each working day, backfill pavement edge excavations to the elevation of the existing pavement with permanent aggregate base material or with temporary asphalt restoration as shown on the Drawings.

b. Do not excavate along both edges of the pavement adjacent to traffic at the same time. Before excavating at the edge of the pavement on the opposite side of the roadway, complete the construction to existing pavement elevation on the side that was excavated first.

c. Remove the aggregate material and/or temporary asphalt restoration, if used, before placing permanent base material. The aggregate material and temporary asphalt base shall be utilized elsewhere in the project (if suitable material and location), recycled, or properly disposed off site.

C. Surface Maintenance Responsibilities

Always maintained adequate accommodations for public traffic through and within the Project.

1. Surfacing shall be maintained during construction at the Contractor's expense, including the following:

    a. Keep surfaces being used by public traffic free of dirt, mud, or other harmful materials.

    b. Repair damage to surfaces caused by the Contractor's operations.

    c. Maintain any detour or stage construction surfacing not constructed as specified or directed.

    d. Maintain temporary surface restoration of the Work area until final pavement restoration can be completed. This Work includes restoring and maintaining aggregate base and temporary asphalt in the pipe trench construction area to maintain safe driving conditions.

2. The Owner will be responsible for the following during construction at Owner's expense:

    a. Maintain surfacing and shoulders in existence at the start of the Project that have not been damaged by Contractor operations.

    b. Maintain surfaces of detours and intermediate stage construction during the time they are being used by public traffic, but only if constructed according to the Drawings or as directed.

    c. Sand icy pavements and remove the sand residue.

    d. Remove snow from traveled ways as required to accommodate public traffic.

3. Work Suspensions

    During Work suspensions, maintain surfacing for which the Contractor is responsible and maintain work zone traffic control.

    a. Suspensions Due to Fault of the Contractor.

        If the suspension is due to any cause within the control or responsibility of the Contractor, including failure to perform any provisions of the Contract or correct conditions unsafe for the general public, workers, or Owner's employees, then the Contractor shall do the following:

1) Assume sole responsibility for making provisions for traffic acceptable to the Engineer.

2) Be solely responsible for the costs of maintaining surfaces under traffic, the Work, and work zone traffic control during the suspension.

b. Suspensions Due to Other Causes

1) If the Work is suspended due to winter seasonal conditions or any cause not related to any fault or negligence of the Contractor:

a) Place uncompleted traveled ways, shoulders, driveways, approaches, connections, and detours necessary for traffic in a maintainable, acceptable condition.

b) Be responsible for the Work.

c) Be responsible for work zone traffic control.

2) The Owner will then assume responsibility for maintenance of the roadway surfaces during "Suspensions Due to Other Causes."

D. Opening Sections to Traffic

1. When it is in the public interest, the Owner may request any portion of the Work be opened to traffic.

a. If the portion opened to traffic has been finished in an acceptable manner, it will be designated as "accepted for traffic," and the Contractor will be relieved of maintaining it for legal, public traffic.

b. If the portion of the Work to be opened to traffic has not been finished in an acceptable manner, it shall be maintained by the Contractor in a condition serviceable and adequate for traffic until it is finished in an acceptable manner except when the Work is suspended due to winter seasonal conditions or any cause not related to any fault or negligence of the Contractor.

2. The Owner may request the Contractor maintain portions of the Work designated "accepted for traffic" via a Change Order. Maintain portions of the Work open to traffic but not "accepted for traffic" at no additional compensation.

3. The "accepted for traffic" portion(s) of the Work will:

    a. Be accepted only to the extent the Contractor is relieved of maintaining these portions for legal public traffic after acceptance.

    b. Not entitle the Contractor to reduction of retainage.

    c. Not relieve the Contractor's responsibility for damages to the Work from causes other than legal public traffic.

    d. Not constitute a waiver of any provision of the Contract.

4. If the completion of shoulders, drainage structure, or other features of the Work is delayed, the Owner may request all or any portion of the Work to be opened to traffic. In this case, the Contractor shall be responsible for maintenance during the period the Work is open to traffic until final acceptance. Conduct the remaining operations to cause the least obstruction to traffic and bear all additional costs caused by the presence of traffic.

5. In addition, no payment will be made for costs incurred by the Contractor because of:

    a. Inconvenience,

    b. Additional length of travel to conform to established traffic patterns and planned access features, or

    c. Compliance with laws governing traffic regulations and load limitations.

6. Costs anticipated because traffic will be using portions of the Work will be included in the Contract prices for the various items of Work involved.

E. Local Access

1. Except when approved by the Engineer, access shall be provided at all times to emergency vehicles, mail delivery, sanitation, property owners, and businesses within the Project limits.

2. Local traffic, solid waste disposal, local deliveries, schools, and local emergency services shall be accommodated at all times during street closures.

3. Mark and move all garbage cans on garbage collection day to an area accessible by the garbage truck. The collection areas shall be coordinated in advance with the garbage collection entity. The garbage cans shall be returned to the appropriate residence/business at the end of the workday after garbage is collected.

3.2 Work Zone Traffic Control Management

A. General Requirements

1. Install, inspect, move, operate, maintain, and remove temporary TCD according to the Drawings, these Specifications, approved TCP, and Division 1-10 of the WSDOT M 41-10, latest edition.

2. Provide and maintain all TCM. The Engineer may verbally or in writing require immediate changes to the TCM being used on the Project. Immediately make these changes and submit all proposed TCM revisions to the Engineer for review.

   a. The Work shall not be started on any stage of construction until the TCP has been reviewed, all TCM are in place, and the TCP is operating satisfactorily. If additional TCD are required to those in place, immediately notify the Engineer. Immediately make changes as required, but shall not place or remove devices without prior notice to the Engineer.

   b. After TCD have been accepted in place on the Project, inspect and maintain the condition of the devices.

   c. Immediately correct any unsafe conditions. TCM may be performed by the Owner if the Contractor fails to correct an unsafe condition. Costs for Work performed by the Owner will be deducted from monies due the Contractor. In any case, the Contractor has sole responsibility for public safety.

   d. Provide TCM outside the Contract limits when required.

   e. All electrical equipment, materials, and Work shall conform to NEC requirements and any other laws that apply.

B. Routing Traffic Over Surfacing

When allowed by the TCP, control traffic being routed over newly constructed surfacing as follows:

1. Aggregates and Temporary Asphalt Restoration

Traffic shall be allowed on newly constructed manhole and utility vault construction area with gravel surfacing and temporary or final asphalt concrete restoration once the surfaces have been compacted and brought up to the proper grade, and with appropriately sized steel plates that are adequately pinned into the asphalt surface to prevent shifting or other movement.

2. Hot Mix Asphalt

Traffic shall be allowed onto recently completed asphalt concrete in accordance with the requirements of the Technical Specifications - "Surface Restoration."

C. Flaggers

Refer to Section 1-10.3(1)A, WSDOT M 41-10.

D. Traffic Control Supervisor

Refer to Section 1-10.2(1)B, WSDOT M 41-10.

PART 4 - MEASUREMENT AND PAYMENT

4.1 Basis

See Technical Specifications - "Measurement and Payment" for a description of the basis of measurement and payment for Work performed under this Contract.

END OF SECTION

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SECTION 4

SITE WORK

TECHNICAL SPECIFICATIONS

SECTION 4

SITE WORK

PART 1 - GENERAL

1.1 Scope

These Specifications cover the site improvements, including earthwork, excavation and backfill, and other miscellaneous site work required for the manhole and vault hatch defined in these Specifications, as shown on the Drawings, or as required by the Engineer. Work shall include furnishing all equipment, materials, labor, etc., as required to complete the required improvements.

1.2 Earthwork

A. Excavation

1. Excavation shall consist of the excavation, haul, placement and/or satisfactory disposal of all materials taken from within the work area for the construction of embankments, subgrade, ditches, entrances, approaches, structures, and incidental work to the lines, grades, and cross sections shown on the Drawings.

2. Excavation of any material encountered regardless of nature, character, or condition, to the limits shown on the Drawings. All excavation is unclassified. Boulders and solid rock are included as common excavation materials.

B. Site Conditions

Contractor shall assure full responsibility to estimate the amount, kind, and extent of all excavation and fill, materials, both on site and imported, to construct the improvements.

C. Erosion and Sediment Control

Implement erosion and sediment control to prevent sediment from impacting roadways and pedestrian crossing and discharging into the Owner's storm drainage system.

1.3 Submittals

A. Submittals shall be made in accordance with the General Requirements and this section.

B. Reports and test results which demonstrate the materials comply with the specifications are required for the gravel surfacing, structural fills, aggregate base, and other fill materials being used. Samples shall be submitted of on-site materials and all imported fill materials 10 days in advance of material use to allow check by the Engineer for

compliance with the specifications. No imported materials shall be delivered to the site until the proposed source and materials test have been accepted in writing by the Engineer.

C. All tests and cost necessary for the Contractor to locate an acceptable source of imported material shall be made and borne by the Contractor.

D. If tests conducted by the Contractor or Engineer indicate that the material does not meet the requirements of this specification, material placement shall terminate until corrective measures are taken. Material which does not conform to this specification described herein and is placed in work shall be removed and replaced at the Contractor's sole expense. Sampling and testing performed by the Contractor shall be done at the Contractor's sole expense.

PART 2 - MATERIALS

2.1 Foundation Stabilization

Material shall be 2 1/2"-0 or 1 1/2"-0 crushed rock unweathered, hard durable, free draining, visibly well graded from coarse to fine. Authority to place foundation stabilization material shall only be issued by the Engineer.

2.2 Structural Fill

Material shall conform to 9-03.9(3), Base Course, WSDOT M41-10.

2.3 Gravel Surfacing

Material shall conform to 9-03.9(3), Top Course, WSDOT M41-10.

2.4 Water for Compaction

Refer to the General Requirements.

2.5 Concrete

Concrete used for concrete collars shall be Portland Cement with a minimum 28-day compressive strength of 3,000 psi. Concrete shall be poured in place.

2.6 Concrete Manholes

Concrete manhole materials shall conform to the requirements of Technical Specifications - “Manhole and Vault Improvements”.

2.7 Manhole Castings

Manhole castings shall conform to the requirements of Technical Specifications – "Manhole and Vault Improvements".

2.8 Asphalt Concrete, Tack Seal, and Sand Slurry

Cold-mix and hot-mix asphalt concrete, tack seal, and sand slurry shall conform to the requirements of Technical Specifications – "Surface Restoration".

2.9 Aggregate Base Rock

Aggregate base rock shall conform to the requirements of Technical Specifications – "Surface Restoration".

PART 3 - EXECUTION

3.1 Excavation

A. All excavation is unclassified. All excavation of every description, regardless of type, nature, or condition of material encountered, as specified, shown, or required, shall be performed to accomplish the construction. Every precaution should be taken not to damage existing or new structures when excavating. The Contractor will be held liable for any damage to such structure resulting from such excavation.

B. Excavation for manholes shall be taken to the lines and grades shown on the Drawings in a workman like manner within plus or minus 0.10 feet of the required grade.

1. Any soft or undesirable materials discovered during the excavation shall be removed and replaced with suitable fill material as defined hereafter and as reviewed by the Engineer. The Engineer will make the determination as to whether foundation stabilization is warranted.

2. Where rock, hard pan or other unyielding materials are encountered, unless it is to be used as a foundation, it shall be removed to the designated grade.

3. Over-excavation shall be avoided.

C. All excavation shall be carefully made to avoid disturbance of natural terrain or adjacent structures outside the limits of excavation. Shoring and bracing shall be used as required to prevent such disturbance and to provide appropriate safety protection. Tops of permanent cut slopes shall be rounded. Excavations shall extend to a sufficient

distance from the work to allow for removal of forms, inspection, etc., except where concrete is authorized by the Engineer to be deposited directly against the excavated surface.

D. Excess excavated material not used for backfill or fill shall be disposed of as shown on the Drawings, or disposed of on site as approved by the Engineer. Material disposed of on the site shall be uniformly graded and sloped so as to blend into the surrounding terrain. Material removed from the site shall be the Contractor's responsibility unless specified otherwise.

E. Furnish, install, and operate all necessary machinery and equipment to keep excavations free of all water which would be detrimental to the work, and shall dispose of any water so as not to cause damage to property, the environment, or cause a hazard to the public. All water disposal shall be in accordance with appropriate regulations controlling such work. No additional payment will be made for this work regardless of the amount of water encountered in excavations. All grading around excavated areas shall be done in such a manner so as to provide adequate surface drainage during construction.

F. Utilize whatever methods and equipment to excavate to the limits designated by the Drawings, Specifications, and authorized by the Engineer, expect that no equipment or method may be utilized which because of its action deteriorates the subgrade making additional excavation necessary beyond the limits originally authorized.

G. All soft areas shall be noted. Excavate and/or compact all soft areas in order to provide a firm base that conforms to the requirements of the Technical Specifications. This shall be done at the Contractor's expense.

3.2 Shoring, Sheet, Bracing, and Sloping

A. Install and maintain shoring, sheeting, bracing, and sloping necessary to support the sides of the excavation, to keep and to prevent any movement which may damage adjacent pavements, utilities, or structures, damage or delay the work, or endanger life and health. Install and maintain shoring, sheeting, bracing, and sloping as required by OSHA, and other applicable governmental regulations and agencies.

B. Unless otherwise approved by the Engineer, fill slopes shall be steeper than two horizontal to one vertical, and cut slopes shall be no steeper than 1.5 horizontal to one vertical.

3.3 Compacted Fills

A. Fills shall be constructed at the locations and to the lines and grades indicated on the Drawings. The completed fill shall correspond to the shape of the typical sections on the Drawings or shall meet the requirements for the particular case.

B. All fill material shall be placed in horizontal layers and compacted with power operated tampers, rollers, or vibratory equipment. Material type, maximum layer depth, and general application as shown in Table A, unless otherwise specified or shown.

TABLE A
Fill and Backfill Classification

Material Type	Max. Uncompacted Layer Depth, Inches
Foundation Stabilization	12
Structural Fill (See Note 2)	6-9
Gravel Surfacing	6

Notes:

1 – All structural fill shall be spread in maximum 8-inch loose lifts for compaction by heavy, self-propelled or tractor-towed compactors and maximum 6-inch lifts for light, manually-guided compactors.

C. Compaction

1. Each lift of fill should be thoroughly compacted to the required criterion, for the application and material used, with equipment suitable to the soil types being compacted.

2. Prior to compacting each lift, the fill should be properly moisture-conditioned by uniformly drying or adding water, as required, to achieve a moisture content which is within ±two (2) percent of the optimum moisture content pursuant to Section 2-03.3(14)D of WSDOT M41-10.

3. All fill surfaces should be firm and defect only slightly beneath rubber-tired construction equipment. Fills that rut, pump, or weave should be considered to possess excess moisture and are not acceptable. If the Engineer should determine that the Contractor is failing to meet the minimum requirements, the Contractor shall stop operations and make whatever adjustments are necessary to produce a satisfactorily compacted fill including removal and replacement of

fill material of proper moisture content or moisture-conditioned as specified herein.

4. Application, material, and minimum relative compactions pursuant to Section 2-03.3(14)D of WSDOT M41-10,as applicable, are specified in Table B, unless otherwise specified or shown.

TABLE B
Compaction Specifications Min Relative Compaction %

Application/Material	Percent Compaction
Foundation Stabilization	N/A
Structural Fill	95
Gravel Surfacing	95

5. Compaction by flooding, ponding of jetting will not be permitted.

6. Where the moisture content is not suitable and/or sufficient compaction has not been obtained, the fill shall be reconditioned to an approved moisture content and recompacted to the minimum required relative compaction, unless recommended otherwise by the Engineer, prior to placing any additional fill material.

3.4 Concrete Structures

Manhole shall be constructed to the line, grade, and detail as shown on the Drawings per Technical Specifications – "Manhole and Vault Improvements" and as approved by the Engineer. Backfill shall be brought up evenly on all sides of the manhole.

3.5 Erosion and Sediment Control

A. Implement Construction Best Management Practices (BMP) for temporary erosion and sedimentation controls and stormwater pollution prevention controls during construction of the project. Applicable controls include, but are not limited to, those described in Chapter 7 - Construction Stormwater Pollution Prevention of the Stormwater Management Manual for Eastern Washington, published by the Washington State Department of Ecology, August 2019, or latest edition.

B. Erosion and sediment controls shall be maintained as necessary to ensure continued effectiveness through the construction period and one-year correction period.

C. Implemented measures need to adequately control and prevent the discharge of sediment to existing roadways and storm drainage system along Jewett Blvd through catch basins and drains.

3.6 Site Cleanup

The Site shall be left in a clean, neat, and presentable condition. All debris, construction materials, unsightly rocks, tree roots, or other material which detracts from the appearance of the Site shall be disposed of in a satisfactory manner.

PART 4 - MEASUREMENT AND PAYMENT

4.1 Basis

See Technical Specifications - "Measurement and Payment" for a description of the basis of measurement and payment for Work performed under this Contract.

END OF SECTION

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SECTION 5

SURFACE RESTORATION

TECHNICAL SPECIFICATIONS

SECTION 5

SURFACE RESTORATION

PART 1 - GENERAL

1.1 Scope

Perform all work and furnish all materials to restore the work area including any gravel, asphalt, pavement markings or any other surfaces or items damaged or disturbed by his construction operation. Surface restoration shall follow as closely as possible the backfill and compaction of excavations.

1.2 Submittals

A. Cold-Mix Asphalt

The Contractor shall deliver to the project a sample load of cold-mix asphalt concrete he proposes to use on the project. The mix shall be placed at locations which will be typical to its use on the project. The Engineer and Contractor shall review its performance in the field. If its performance appears satisfactory, the mix may be used on the project. If its performance is not satisfactory, a revised mix shall be provided until a satisfactory mix is determined. Quality control of the mix will be based upon field performance. It will take some time to evaluate field performance. Therefore, the same mix shall be delivered to the Project early in the work.

B. Hot-Mix Asphalt

Submit for review by the Engineer data on the asphalt concrete mix to be used. Data shall include aggregates, gradation and tolerances, aggregate suitability, asphalt concrete, mix proportions and tolerances, etc.

PART 2 - MATERIALS

2.1 Cold-Mix Asphalt Concrete

Cold-mix asphalt concrete shall consist of a mixture of asphalt cement cut back with No. 2 fuel oil, and well-graded aggregate and plant mixed. The cold-mix asphalt concrete shall remain alive in the stockpile until it is placed and compacted. After the No. 2 fuel oil evaporates, the remaining asphalt and aggregate mix shall remain stable and durable under traffic.

2.2 Hot-Mix Asphalt Concrete

Hot-mix Asphalt concrete shall be Class 1/2-inch PG 64H-28 conforming to the current WSDOT M41-10 for asphalt concrete pavement or approved equal.

2.3 Aggregate Base Rock

Aggregate base rock shall be top course or base course conforming to the requirements of WSDOT M41-10, Section 9-03.9(3).

2.4 Tack Seal

Tack seal shall be CSS-1 or CSS-1h emulsified asphalt per Section 9-02.1(6) of WSDOT M41-10 or approved equal.

2.5 Sand Slurry

Sand slurry for crack sealing shall be per Section 5-03.3(1)D of WSDOT M41-10 or approved equal.

2.6 Pavement Markings

Pavement marking materials shall be in conformance with Section 9-34, Pavement Marking Material, WSDOT M41-10.

2.7 Gravel Aggregate

Gravel aggregate shall substantially conform to 9.03.9(3) Top Course, WSDOT M41-10.

PART 3 - EXECUTION

3.1 Asphalt Concrete Removal and Disposal

A. Existing asphalt surfaces shall be cut on each side of the trench prior to excavation to provide a vertical, neat, straight-line joint in the surface. Should any asphalt surface be undermined or damaged during construction, the undermined or damaged asphalt shall be similarly cut and removed prior to backfill. This work shall be performed along neat, continuously straight lines to provide a pleasing finished appearance. Irregular lines will not be allowed.

B. After backfill is completed and just prior to placement of the final asphalt concrete pavement restoration, a final sawcut shall be made at the distance outside the trench excavation as shown in the Drawings.

C. In roadways and traffic areas, the Contractor shall be responsible for maintaining a road surface suitable for travel by the public from the time of excavation until the road surface has been restored. Such work includes dust control, temporary patching, signing, grading, and filling of potholes on temporary street surfaces, etc. The

Contractor shall be responsible for all claims and damages resulting from their failure to maintain a suitable surface.

D. All asphalt concrete removed shall be properly and legally transported from, reused, recycled, or disposed of off the Site.

3.2 Temporary Asphalt Concrete Pavement Restoration

The asphalt concrete pavement removed from trench and other construction shall be temporarily restored for traffic use at the end of each traffic day and the end of each work week in accordance with the General Requirements. The temporary restored asphalt concrete pavement measures shall be monitored and maintained by the Contractor to ensure traffic flow and public safety in the areas impacted by the Work until such time that final asphalt concrete pavement restoration has been completed.

3.3 Asphalt Concrete Pavement Restoration

A. Existing asphalt surfaces shall be cut on each side of the trench prior to excavation to provide a vertical, neat, straight-line joint in the surface. Should any asphalt surface be undermined or damaged during construction, the undermined or damaged asphalt shall be similarly cut and removed prior to backfill. This work shall be performed along neat, continuously straight lines to provide a pleasing finished appearance. Irregular lines will not be allowed.

B. Backfill shall be made in accordance with Technical Specifications – “Site Work”.

C. The base rock under the asphalt pavement shall be replaced to a compacted depth equal to the existing base rock depth plus the depth of granular subbase, if any, or 6 inches, whichever is greater, unless specified otherwise on the Drawings or in these Specifications. The base rock shall be compacted to 95 percent of the laboratory density pursuant to Section 2-03.3(14)D of WSDOT M41-10, as applicable.

D. Immediately following backfill and compaction of backfilled area, and until the hot-mix asphalt concrete is placed, the base rock course or cold-mix asphalt shall be placed and compacted flush with the existing asphalt surface and maintained in a good condition. The installation of a pinned steel plate over an excavated and backfilled area may also be utilized on a short-term basis.

E. At the end of each work week, any base rock backfilled and compacted to the surface or steel plated on an excavated area shall be replaced maintained with a temporary cold-mix asphalt patch until asphalt surface restoration is accomplished. The cold-mix asphalt concrete delivered to the project shall be fresh and workable.

F. Just prior to placing the asphalt concrete, the base rock course and any temporary patch shall be excavated to the depth equal to that of the asphalt concrete to be placed.

G. Preparation, Placement and Compaction of Hot-Mix Asphalt Concrete

1. Asphalt concrete for all areas shall be 6 inches in depth after compaction or a depth equal to the existing pavement, whichever is greater, unless specified otherwise on the Drawings or in the Specifications.

2. See Section 5-04 of WSDOT M41-10 for preparation, placement, and compaction of final asphalt concrete pavement restoration.

3.4 Asphalt Concrete Joint Sealing

A. After a minimum of 30 days following completion of asphalt concrete restoration, the Contractor shall clean joints between new asphalt concrete and the existing pavement.

B. A sand slurry shall be placed in the joint flush with the surface to make a watertight seal.

3.5 Pavement Markings

A. Surface preparation, placement and installation of pavement markings shall confirm to the requirements of Section 8-22, Pavement Markings, WSDOT M41-10.

1. All crosswalk pavement markings and patterns shall be the same as existing. The entire pavement markings for the crosswalk shall be restored as part of the Work. Contact the Owner’s Public Works Department about using the "Salmon" crosswalk template for restoration of crosswalks in downtown White Salmon.

2. All other pavement markings disturbed shall be restored the same pattern as existing.

B. Protection

1. The Contractor shall be responsible for all protection of the pavement markings. Should irregularities or contaminates disrupt the continuity of the pavement markings, the Contractor shall correct the defects to meet the requirements of the specifications. Any additional materials, labor, or equipment necessary to make the repairs shall be furnished by the Contractor at no additional cost to the Owner.

2. Provide for the safety and convenience of the public. Protect applied markings from traffic until sufficiently dry so as not to be damaged or tracked by normal

traffic movements. At a minimum, place tubular markers or conical markers next to all markings, and place barricades by all areas where cross traffic is anticipated. Additional protection, as required by the Engineer, may be necessary and will be considered incidental to the pavement markings.

3. Conduct work at all times for the least possible interference with the traveling public. Do not open any work area to traffic that is not adequately striped and cured. Do not perform any work or close any lane to traffic until the area is adequately signed and protected according to the Traffic Control Plan and when approved by the Engineer.

4. Waste material is the property of the Contractor. Remove all waste materials, including grindings and old markings, from the Site and dispose of according to applicable Federal, State, and Local regulations. The cost of disposal will be incidental to the Work under this Section.

5. Remove or repair all unacceptable work and dispose of it at the Contractor's expense. Repair or replace unacceptable work immediately if it causes a safety problem. The removed material becomes the property of the Contractor. If additional traffic control is required for removal of unacceptable material, provide it as directed and at no cost of the Owner.

3.6 Gravel Surface Restoration

A. During excavation, the Contractor shall minimize the disturbance of adjacent gravel surfaces.

B. Backfill shall be in accordance with Technical Specifications – "Site Work", or other applicable requirements.

C. In gravel streets, parking areas or driveways disturbed by the work, the Contractor shall resurface the areas with surface aggregate, as required on the Drawings.

D. In gravel streets, shoulders, parking strips and driveways, a 4-inch minimum compacted depth shall be required or a compacted depth equal to the existing depth of gravel plus the depth of granular subbase, if any, whichever is greater, unless otherwise specified on the Drawings or in these Specifications.

E. The resurfacing aggregate shall be compacted to 95 percent of laboratory density pursuant to Section 2-03.3(14)D of WSDOT M41-10, as applicable.

3.7 Cleanup

A. Cleaning up shall be a continuing process from the start of the work to final acceptance of the project. Keep the work area free from accumulations of waste material or rubbish.

B. Spillage from the Contractor's hauling vehicles on traveled public or private roads shall be promptly cleaned up. Upon completion of the work the remove all temporary structures, rubbish, and waste material, equipment and supplies, resulting from the Contractor's operations. Leave such lands in a neat and orderly condition which is at least as good as the condition in which the Contractor found them prior to the Contractor's operations.

C. In roadways and traffic areas, the Contractor shall be responsible for maintaining a road surface suitable for travel by the public from the time of excavation until the road surface has been restored. Such work includes dust control, temporary patching, signing, grading, and filling of potholes on temporary street surfaces, etc. The Contractor shall be responsible for all claims and damages resulting from his failure to maintain a suitable surface.

PART 4 - MEASUREMENT AND PAYMENT

4.1 Basis

See Technical Specifications – “Measurement and Payment” for a description of the basis of measurement and payment for Work performed under this Contract. Unless specifically listed in the Bid Schedule, there will be no measurement or payment made for general surface restoration. All costs shall be included in other appropriate bid items listed in the Bid Schedule.

END OF SECTION

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SECTION 6

MANHOLE AND VAULT IMPROVEMENTS

TECHNICAL SPECIFICATIONS

SECTION 6

MANHOLE AND VAULT IMPROVEMENTS

PART 1 - GENERAL

1.1 Scope

A. These Specifications cover the furnishing and installation of manhole casting and lids for various sites identified and a new aluminum hatch and concrete flat top for the vault outside of the Heritage Plaza Lift Station building, and miscellaneous appurtenances. The work includes, unless otherwise specified, furnishing all labor, materials, tools, equipment, and incidentals required to construct complete manhole and utility vault improvements ready as outlined in the Drawings and Specifications. Requirements for demolition and abandonment, bypass pumping, traffic control, sitework, surface restoration, and cured-in-place liner are specified under separate sections.

B. Items included in this Technical Specification are intended to be broad in scope and may not always apply to all items of work to be constructed.

C. A copy of the original submittal sheet for the existing vault hatch and structure is provided as reference in the Appendix.

1.2 Specification References

Specification references made herein for manufactured materials such as manhole rings and covers refer to designations for the American Public Works Association (APWA) or the American Society for Testing and Materials (ASTM) as they are effective on the date of call for bids.

1.3 Submittals

A. All submittals shall be provided in accordance with the General Requirements.

B. Manufacturer's technical data, cutsheet, and proposed dimensions and layout for vault hatch improvements including concrete flat slab and vault hatch cover and frame.

1.4 Care and Handling of Materials

A. Adequate precautions shall be taken to prevent damage to pipes, fittings, manhole components, and all other materials used in construction of the Work.

B. All manhole and vault hatch components shall be loaded and unloaded in a manner to prevent shock or damage. Under no circumstances shall such material be dropped. All materials on the ground shall be protected from damage. All other materials used in the construction of the Work shall be carefully inspected by the Contractor prior to installation. All defective materials shall be rejected. All materials which are delivered

considerably in advance of their installation shall be stored in a satisfactory manner. The Contractor will receive no payment for materials on hand that are not so protected.

C. Proper materials, tools and equipment shall be used by the Contractor for safe and convenient prosecution of the work. Under no circumstances shall manhole or vault hatch materials be dropped or dumped in the Owner's sewer system.

1.5 Restoration, Finishing, and Cleanup

Restore or replace all paved surfaces, graveled surfaces, and other existing facilities to their original condition. See Technical Specifications – "Sitework" and "Surface Restoration" for specific requirements.

PART 2 - MATERIALS

2.1 Manholes

A. Precast Concrete Manhole Sections

1. Precast concrete manhole sections shall conform to ASTM C478, consist of circular sections in the standard 48-inch diameter, unless otherwise noted, and shall be fabricated as Keylock type suitable for placement of gasket material. No more than two lift holes shall be cast into each section. Holes shall be located as to not damage reinforcing or expose it to corrosion. All lift holes shall be patched to prevent water seepage into the manhole, utilizing an approved, non-shrink grout. Slabs, cones, and ring sections shall be free from fractures, cracks, rock pockets, or exposed reinforcement.

2. Precast manhole cones shall be eccentric unless otherwise specified and shall meet ASTM C478.

3. Manholes shall utilize a 48-inch diameter section unless otherwise specified or shown on the drawings. and flat slab cover.

4. Flat slab covers for manholes shall conform to ASTM C478. The flat top section of the manhole shall have the same thickness and reinforcement as manhole section and traffic rated. Joint seal material shall be O-ring rubber gasket conforming to ASTM C443; Hamilton Kent Tylox Super Seal Gaskets, or approved equal.

B. Manhole Rings and Covers (i.e.: Castings)

1. Castings shall be tough, close-grained, gray iron free from blow holes, shrinkage and cold sheets.

2. Manhole rings and covers shall conform to ASTM A48 and shall be smooth, sound, clean and free from blisters and defects. Castings and covers shall be planed and ground when necessary to ensure flat and true surfaces. Covers shall be true and shall seat within the ring at all points.

3. Manhole rings and covers shall be watertight covers: Olympic Foundry Model MH30A D/T single hole cover or approved equal. The word "sewer" shall be printed on the cover. Castings shall be tough, close-grained, gray iron free from blow holes, shrinkage and cold sheets.

4. Provide two extra gaskets for each watertight cover furnished.

C. Adjustment Rings

Adjustment rings shall be precast concrete specifically designed and used for adjusting the final manhole structure height to match finish grade. Adjustment rings shall have an inside diameter of 24 inches and shall be minimum 4 inches thick and no more than 12 inches in height.

D. Concrete for Placement in Manholes

Concrete for placement in manholes shall be Class C mix design in conformance with Technical Specifications - “Site Work” or approved equal.

2.2 Vault Hatch

A. Vault hatch frame and cover shall be furnished and installed on a new concrete flat slab for installation to replace the existing structure adjacent to the Heritage Plaza Lift Station as shown on the Drawings. The concrete flat slab shall be in accordance with this Section.

B. The vault hatch shall be of the nominal dimensions and type shown on the Drawings or as approved by the Engineer. Access hatches shall be designed to support a minimum live load of AASHTO H-20-44 (AASHTO) wheel load with a maximum deflection of 1/150th of the span. The access hatch shall also comply with ASTM C1802-18a, Level 5 (Off-Street Truck Traffic) loading and allowable deflections. Access hatches shall be constructed of steel with aluminum with mill finish or approved equal.

C. Door leafs shall be minimum 1/4-inch thick reinforced steel or aluminum diamond plate with a stainless-steel slam lock and weather plug, lift handles which sits flush with cover,

recede pad lock clip, hold arm to lock cover in 90 degree position (or equal), release handle, and heavy duty, Type 316 stainless steel hinges that are tamper resistant. The door shall have Type 316 stainless steel open vertical springs to assist in operating the cover and reducing the force during closing. A 1 1/2-inch NPT drain port or aluminum coupling is integrated into the framework for appropriate water drainage.

D. The flat concrete slab portion of the vault hatch shall conform to the requirements in Paragraph 2.1 of this Section.

2.3 Concrete

Concrete shall conform to the requirements in Technical Specifications “Site Work”.

2.4 Non-Shrink Grout

A. Grout shall be fluid grout capable of satisfactorily meeting the baseplate test and shall be non-metallic, unless specified for special use hereinafter. The grout shall be a non-gas-liberating type, cement base product, premixed, requiring only the addition of water for the required consistency. All components shall be inorganic.

B. The grout product shall satisfy all of the above requirements even though the project use calls for a dry pack consistency and use.

C. Grout type and procedure shall be as recommended by the manufacturer for the specific application.

D. The grout used shall be cured with a curing compound sprayed on, or as recommended by the grout manufacturer.

PART 3 - EXECUTION

3.1 Manhole Construction

A. Installation

1. Where indicated on the Drawings, top sections of brick, concrete, and other material from the existing manhole structure and chimney are to be removed and replaced with new cone section and adjustment rings. The Contractor shall review the existing structures to be improved and determine the replacement cone height and length of required adjustment rings.

2. Manhole sections, rings and covers shall be constructed to the line, grade and detail as shown on the Drawings, as recommended by the manufacturer, and as approved by the Engineer. Excavation and backfill of the manhole shall be

performed in the same manner as specified in Technical Specifications – "Site Work", where applicable. Backfill shall be brought up evenly on all sides of the manhole.

3. All connections and joints made at manholes shall be watertight. All manholes are to be watertight and any leakage shall be corrected in an approved manner.

4. The Contractor shall excavate and either replace unsuitable material or properly compact all soft areas in order to provide a firm base that conforms to the Specifications. Any soft areas that occur as part of the Project because of overwatering, improper compaction, weather, etc., shall be replaced at no cost to the Owner.

5. Adjustment rings shall be installed as required to match finish grade. Maximum adjustment height of adjustment rings shall be 16 inches, unless otherwise approved by the Engineer. Provide and install watertight gasket material between rings.

B. Connection to Existing Manhole

1. Connections to existing manholes when required on the Drawings shall be made by the Contractor. All connections shall be made in such a manner as to leave the existing manhole watertight.

2. All flow lines shall be properly shaped, and all new concrete shall be placed against a clean and sound surface.

3. An approved bonding agent shall be used on all existing surfaces to be bonded to new concrete or mortar. All applicable conditions for new manholes described previously shall apply.

3.2 Manhole Rehabilitation

A. Repair Base/Channel

1. Manhole bases shall be hand troweled with grout to provide flow channels with a smooth surface. Grout shall conform to paragraph 2.6 of Section 11, Reinforced Concrete and shall be suitable for the application.

2. Shape flow channels to conform to connecting pipe radius.

3. Remove all rough sections or sharp edges that might obstruct flow or cause snags.

B. Cured-in-place liner (CIPL) shall be specified in Section 7, Cured-In-Place (CIPL) Manhole Rehabilitation

1. If a manhole is scheduled for a number of rehabilitation activities, manhole lining shall be the last rehabilitation activity performed.

2. The manhole lining product shall form a continuous new surface over the entirety of the inside of the manhole, sealing all cracks and voids.

C. Grout workmanship shall be placed in accordance with manufacturer's recommendations. Surfaces shall be cleaned prior to grout placement and roughened by brushing or other methods to allow adhesion of the grout.

D. The Engineer shall witness the acceptance test.

3.3 Cleaning of Completed Manholes

Prior to final inspection of the sewer system by the Engineer, the Contractor shall flush and all parts of the manhole. All accumulated construction debris, rocks, gravel, sand, silt, and other foreign material shall be removed from manhole. Discharge to the Owner's sewer system should be avoided. If necessary, mechanical rodding or bucketing equipment shall be used to clean debris out of the Owner's sewer system of construction materials discharged into the system.

3.4 Vault Hatch Installation

Vault hatch shall be constructed and installed to the existing line and grade of the existing vault structure and in accordance with the manufacturer's recommendations.

PART 4 - MEASUREMENT AND PAYMENT

4.1 Basis

See Technical Specifications – "Measurement and Payment" for the description of the basis of measurement and payment for Work under this Contract.

END OF SECTION

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SECTION 7

CURED-IN-PLACE LINER (CIPL) MANHOLE REHABILITATION

TECHNICAL SPECIFICATIONS

SECTION 7

CURED-IN-PLACE LINER (CIPL) MANHOLE REHABILITATION

PART 1 - GENERAL

1.1 Scope

A. This section covers the lining and rehabilitation of sanitary sewer manholes with the use of a cured-in-place liner (CIPL) that forms a laminated multi-layer composite bonded to the host structure.

B. Furnish all labor, materials, tools, equipment, and incidentals required to complete the manhole rehabilitation as outlined on the Drawings and in the specifications. Omission of a specific item or component obviously necessary for the proper installation and functioning of the system shall not relieve the Contractor from the responsibility of supplying that specific item or component at no additional expense to the Owner.

1.2 Performance Requirements

A. Liner material and components shall have been custom fabricated to fit the specific configuration of each structure prior to the commencement of the liner installation. Liner shall be of the type that allows rehabilitation of concentric, eccentric, or flat top manholes without removing manhole ring, top section, flat-top, or corbel.

B. Cured-in-place liner (CIPL) shall completely seal the manhole, shelf, pipe inlet and outlets, chimney, and the lid ring frame in a monolithic method, as required, or as shown on the Drawings, and that no holes, cracks, or seams in the liner are left unsealed, which would allow gases or fluids to flow behind the installed manhole liner.

C. The CIPL shall be designed and installed to protect concrete, brick, and other manhole surfaces from corrosion. The CIPL product shall be designed to stop infiltration, root intrusion, and further deterioration in the structure. The interior surfaces to be protected shall include the walls, shelves, pipe junctions, and the lid ring frame.

D. Any product used must provide warranty that infiltration, further deterioration, and root intrusion shall be prevented for the warranty period.

E. The CIPL system shall be flexible and have an elongation sufficient to bridge up to a 1/4-inch settling crack, without damage to the lining. The liner shall be able to bridge expansion cracks that may occur.

F. The cured-in-place liner system shall be repairable at any time during the life of the structure, with the same type of liner system materials used in the original installation, including repair or lining of the upper chimney portion where grade adjustments have been made. Repair/lining materials shall be of the type that will bond to the original liner materials.

G. Installer of the CIPL system shall certified by the CIPL manufacturer for CIPL installation and have a minimum of two years' experience installing the proposed CIPL system. If the certified installer does not have a minimum of two years' experience then a representative of the CIPL manufacturer that has a minimum of two years' experience shall be on-site during the CIPL installations.

1.3 Warranty

Contractor, through the manufacturer and installer, shall warrant the performance of the CIPL materials and labor to repair or replace any failing conditions of the liner in the structure for 10 years (non-prorated).

1.4 Submittals

A. All submittals shall be made and submitted in accordance with the General Requirements.

B. Submit for review, complete detailed shop drawings showing structure configuration, diameter and length; technical data sheets, safety data sheets and published physical properties on resin and liner; stamped design for all thickness; and schedule for all materials furnished under this section.

C. Submit Manufacturer's certification that the materials supplied are in compliance with this specification and suitable for the proposed installation.

D. Submit the Licensee Certification for the Manufacturer's Authorized Installer for the CIPL system and number of years' experience installing CIPL.

E. Submit the Manufacturer's affidavit, with the accompanying third party test data, showing that the product meets or exceeds the physical properties named herein on Table 2, Structural Test Property Values, and that the CIPL material has passed a 30-day chemical immersion test in 20 percent sulfuric acid concentration with less than a 20 percent loss in flexural modulus.

F. Submit manufacturer and installer non-prorated warranty on the performance of the CIPL materials and labor to repair or replace any failing conditions of the liner in the structure. Certification of the conforming warranty shall be provided prior to approval of the submittals.

G. Provide written certification from the Manufacturer's Authorized Installer that all the manholes have been properly prepared prior to initiating the CIPL installation.

H. Provide written certification from the Manufacturer's Authorized Installer that the CIPL installation of all manholes has been successfully completed according to the approved shop drawings, Drawings, and specifications, and that the finished work shall be covered by the Manufacturer's and Manufacturer's Authorized Installer's warranty. Starting date of the warranty will be the substantial completion date for the CIPL work.

PART 2 - MATERIALS

2.1 Cured-in-Place Liner (CIPL) System

The CIPL shall consist of not less than a three-layered composite system constructed with an inner, non-porous PVC inner membrane protected with a structural fiberglass and epoxy layer on both sides.

A. The fiberglass/epoxy liner next to the manhole wall must provide sufficient bond between the structure wall and the non-porous PVC membrane to prevent the liner from being pushed off the wall from hydrostatic head pressure.

B. The non-porous PVC membrane shall be impervious and without pinholes that will allow hidden corrosion on the concrete behind the liner, which can cause the eventual failure of the liner and the manhole. The membrane shall not be exposed on the inside of the manhole.

C. The inside fiberglass/epoxy surface protective layer is to protect the CIPL from impact damage e.g. nicks from rodders and root cutters, hydro-vacuum nozzles, inspection cameras, survey equipment, and construction techniques used in pipeline rehabilitation. The importance of this protective layer cannot be overemphasized to protect the manhole from sulfides and other gases penetrating through nicks and cuts in an unprotected membrane.

D. The CIPL system shall be Poly-Triplex Technologies Poly-Triplex Liner, Terre Hill Concrete Products MultiPlexx Liner (meeting material requirements specified herein), or approved equal.

2.2 Layer and Liner Properties

The three-layered composite system shall consist of the following layers with varying thicknesses depending on site conditions and the depth of the manhole. The types of liner system for different manhole depths, and thickness of Layers No. 1 and No. 3 depending on liner type is shown in Table 1. Each liner type shall have the minimum structural properties given in Table 2.

A. Layer No. 1 is structural fiberglass impregnated with a modified epoxy resin and bonded to the existing substructure; see Table 1 for pre-saturated fabric weight.

B. Layer No. 2 is to be a gas and liquid impermeable PVC membrane of special non-porous materials with felt embedded on both sides, bonded to layer No. 1 and layer No. 3. The non-porous water and gas shield shall be imbedded between the structural layers of epoxy fiberglass to guard against nicks, tears, and damage to the gas protection membrane.

C. Layer No. 3 will consist of structural fiberglass saturated with epoxy and bonded to the non-porous membrane, forming a smooth interior wall to the host structure; see Table 1 for pre-saturated fabric weight.

TABLE 1
CIPL Design

Parameter	Liner Types			
	I	II	III	IV
Depth of Manhole	≤8	8 - 13	13 - 24	No depth limit
Pre-Saturated Fabric Weight / Layer No. 1	12 oz	18 oz	24 oz	2-24 oz.
Pre-Saturated Fabric Weight / Layer No. 3	12 oz	18 oz	24 oz	2-24 oz

TABLE 2
Structural Test Property Values

Property/Standard or Layer	Liner Type			
	I	II	III	IV
Flexural Strength / ASTM D790	16,000 psi	20,000 psi	22,000 psi	29,000 psi
Flexural Modulus / ASTM D790	700,000 psi	800,000 psi	900,000 psi	1,000,000 psi
Tensile Strength / ASTM D638	7,000 psi	9,000 psi	12,000 psi	20,000 psi

D. The design given above is intended as a general guide for the CIPL products, and is not intended to limit the manufacturer's and authorized installer's judgment to vary liner pre saturated fabric weight and type of liners for individual structures based upon the specific conditions encountered in each structure. Any variation of the liner pre-

saturated fabric weight and structural test property requirements detailed in Tables 1 and 2, shall be approved by the Contractor and manufacturer in writing, and approved by the Engineer, prior to commencement of the work. Variation in liner pre-saturated fabric weight by the manufacturer or authorized installer will not affect the warranty requirement.

PART 3 - EXECUTION

3.1 General

A. The structure preparation and installation of the approved liner system shall be in strict accordance with the manufacturer's written instructions. The work shall include re grouting all inlet and outlet lines and benches, as needed, including all preparation, installation, curing, and finish operations for the complete rehabilitation process.

B. The CIPL System shall be applied by a manufacturer certified Licensed Installer and shall be installed in strict accordance with Manufacturer's specifications. Liner Installer shall be trained in handling and application of the materials, and will custom fit the liner to the manhole in order to protect the concrete and brick surfaces from sewer gases.

C. The CIPL system installed shall result in a monolithic structure, bonded to the contours of the existing host structure. The liner shall be adequately bonded to the interior structure surface, and be completely water tight from the ring and cover area to the transition area where the shelf and invert channel connects, including completely sealing the manhole wall and shelf areas to the inlet and outlet pipes.

D. Contractor may submit alternate thicknesses as per the manufacturer's recommendations.

E. Qualification testing of the CIPL materials shall have been completed prior to installation. The initial structural properties shall meet or exceed the properties shown in Table 2. Any pertinent qualification testing shall be completed according to ASTM D5813 as agreed upon between the Contractor and Engineer.

F. Resin Quantity - The liner manufacturer shall provide a tag on each CIPL indicating the amount of catalyzed resin necessary for impregnation purposes. In order to meet structural requirements, this will be acceptable with a tolerance variation of plus or minus 5 percent.

G. Throughout the installation of the CIPL, the Contractor shall adhere to NASSCO's "Guidelines for the Use and Handling of Styrenated Resins in Cured-in-Place Pipe."

3.2 Structure Preparation

A. The pH of the original substrate will be determined and documented. Results shall be provided to the Owner and Engineer.

B. Perform preliminary cleaning the structure with a high-pressure water jet blast at a minimum of 4,000 psi to prepare the structure for any necessary grouting or other preparation.

C. Contractor shall remove the existing manhole steps. The metal portion of all steps will be removed flush to within 1/2-inch of the manhole interior wall surface, and any remaining holes or minor protrusions are to be filled or grouted over prior to applying the CIPL manhole rehabilitation system. The final coated surface shall have a smooth uniform appearance.

D. Prior to patching severe defects in the manhole, all loose and deteriorated material shall be removed and disposed of by the Contractor. The bench areas shall be repaired as and contoured to promote hydraulic flow. The prepared surface of the shelves shall be smooth and shall be sloped to allow for all bench areas to drain to the pipe invert.

E. Manhole chimney, wall, and shelf repair shall include plugging, and/or patching as necessary, with specified grout, plugging or patching compounds, hydraulic and/or Type II portland cement or equal.

F. All active hydrostatic water leakage shall be stopped within 4 inches of where the liner will end around pipes or the shelf area in accordance with manufacturer's instruction.

G. Plug the inlet pipe, inspect for infiltration leaks around the inlet and outlet pipes as well as in the invert channel. All leaks present shall be stopped by the use of chemical foam grout injection with Avanti 202 or equal and/or by the use of hydraulic cement. After stopping leaks with chemical grout, hydraulic cement shall be used to refinish the surface where the leak was occurring.

H. All cracked or disintegrated material shall be removed from the area to be patched exposing a sound substrate. Patches of filling of voids shall be allowed to cure according to the manufacturer's specifications before continuing with the manhole rehabilitation process.

I. Remove any drop pipes to within 2 inches of the wall. All other incoming laterals shall be trimmed within 2 inches of the interior wall and sewer main line inlet and outlet openings shall be properly trimmed within 4 inches of the wall in areas where such pipes protrude above the benches that form the invert channel. All incoming and outgoing lines shall be grouted with an approximate 60 degree taper with hydraulic

cement, Portland type II cement, or 50/50 combination of hydraulic and Portland, forming a filet (not less than a 4-inch radius) between the structure wall and each pipe. Such application of grout shall extend at least four inches from the outlet onto the wall area making a smooth transition for the liner connection to the pipe openings.

J. Prior to liner installation, clean all surfaces of the host structure with a high pressure sprayer having an operating pressure of at least 4,000 psi. After pressure cleaning, installer may clean structure with degreaser or other solvents as needed to remove any film or residue on the surface. Structure shall then be pressure rinsed with clean water.

K. All surfaces of the host structure shall be clean to the concrete substrate, acceptable to the Manufacturer's Authorized Installer and ready to receive the liner.

3.3 CIPL Installation

A. Prior to the CIPL installation, the Manufacturer's Authorized Installer shall inspect each manhole surface to determine whether the surfaces have been properly prepared and are suitable for the CIPL installation. Provide written certification from the Manufacturer's Authorized Installer that all the manholes have been properly prepared prior to initiating the CIPL installation.

B. Manufacturer's Authorized Installer shall install CIPL with simultaneously combined air pressure and steam heat injection (or other manufacturer approved process), except where jobsite conditions restrict use. Hand applied fiberglass and epoxy application shall not be accepted, except in areas or conditions as recommended by the CIPL manufacturer.

C. Installer shall line manhole shelf/bench areas and pump station floors with CIPL System materials that have been saturated with the epoxy resin and placed in the bottom to extend approximately three inches up the wall section, so as to overlap with the liner wall section. The CIPL shall be made longer than the structure to overlap and reinforce the bench/floor transition area, providing overlap and double liner thickness in the critical corner section where the wall meets the bench.

D. The curing process will be typically completed in manholes in approximately four hours. Inlet and outlet lines must be reopened within one hour from the time the curing process is completed.

3.4 Final Inspection and Acceptance

A. The completed installation should be visually inspected by the Contractor and Manufacturer's Authorized Installer to assure that dry spots or structural defects are not present in the finished liner.

1. No infiltration of groundwater should be observed coming through the CIPL or coming out at any place where the liner ends.

2. No structural defects shall be present in the finished liner installation.

B. If groundwater infiltration, wet spots or structural defects are present, the Contractor shall submit the following.

1. Documentation of the location and type of defect in the CIPL with the manhole number, schematic, and photographs or video of the defect.

2. A Liner Repair Plan for approval by the Engineer detailing the repair steps and materials based on the manufacturer's approved repair techniques and instructions.

3. Upon completion of the repairs, the Contractor shall provide additional documentation of the finished repairs with an explanation of when it was completed and photographs or video of the completed finish.

C. Submit written certification that the CIPL installation of all the manholes has been successfully completed according to the approved shop drawings, Drawings, and specifications, and that the finished work shall be covered by the Manufacturer's and Manufacturer's Authorized Installer's warranty.

PART 4 - MEASUREMENT AND PAYMENT

4.1 Basis

See Technical Specifications – “Measurement and Payment” for a description of the basis of measurement and payment for Work performed under this Contract.

TECHNICAL SPECIFICATIONS

SECTION 7

PAINTING

Table 2
Protective Coatings – Substitution List

System No.	Specified Coating		Substitute Coating Manufacturer's Name, Generic, Performance, Percent Solids, Surface Preparation, No. Coats, Industrial Use, Standards
	Generic	Coating Name[1]	
1	Modified Aromatic Polyurethane (Primer) Aliphatic Acrylic Polyurethane (Finish)	Series 1 Series 73	
2	Modified Aromatic Polyurethane (Primer) Alkyd (Finish)	Series 1 Series 2H	
3	Modified Aromatic Polyurethane (Primer) Polyamidoamine Epoxy (Intermediate) Polyamidoamine Epoxy (Finish)	Series 1 Series N69 Series N69	
4	Modified Aromatic Polyurethane (Primer) Polyamidoamine Epoxy (Finish)	Series 1 Series N69	
5	Modified Alkyd (Primer) HDP Acrylic Polymer (Finish)	Series 10 Series 1029	
6	Epoxy Modified Cementitious Mortar (Surface Filler) Polyamidoamine Epoxy (Primer) Polyamidoamine Epoxy (Finish)	Series 218 Series N69 Series N69	
7	Polyamide Epoxy (Primer and Finish)	Series 20	
8	Coal Tar	Series 46-465	
9	Acrylate (Primer and Finish)	Series 156	
10	Water Repellent Sealer	Degussa Protectosil Chem-Trete 40 VOC	
11	Acrylate (Primer and Finish)	Series 156	
12	Modified Polyamine Epoxy (Primer and Finish)	Series 280	
13	Vinyl Acrylic (Primer) Self-Crosslinking Hydrophobic Acrylic (Finish)	Series 51-792 PVA Series 115	
14	Vinyl Acrylic (Primer) Self-Crosslinking Hydrophobic Acrylic (Intermediate) Waterborne Acrylic Epoxy (Finish)	Series 51-792 PVA Series 115 Series 113	
15	Polyamidoamine Epoxy (Primer and Finish)	Series N69	
16	Waterborne Modified Polyamine Epoxy (Primer) Acrylic Emulsion (Finish)	Series 151-1051 Series 6	

[1] All listed coating names are TNEMEC products, except System No. 10.

TECHNICAL SPECIFICATIONS

SECTION 7

PAINTING

Table 3 - Painting Schedule			
Paint System No., Type, and Location	**Surface Preparation**	**Prime Coat ([1,2])**	**Intermediate/Finish Coat ([1,2])**
Ferrous Surfaces			
No. 1 - MC Polyurethane and Polyurethane Protective Coating - Exterior non-immersed ferrous surfaces such as exterior pipes, valves, supports, handrails, braces, covers, fabrications, etc.	**New** - Blast clean per SSPC-SP 6. Dry abrasive blasting performed with media that provides 1 to 2 mil anchor profile. **Touchup** - SSPC 1, 2, or 3	TNEMEC Series 1 Omnithane, 2.5 to 3.5 mils DFT	**Finish** - TNEMEC Series 73 Endurashield, 3 to 5 mils DFT
No. 2 - Alkyd Protective Coating - Interior non-immersed ferrous surfaces such as interior pipes, valves, flowmeters, pumps, motors, supports, braces, lids, fabrications, etc.	**New** - Cleaned with SSPC-SP3. Spot blast to SSPC-SP6 for highly corroded areas or areas in poor condition as determined by Engineer. **Touchup** - SSPC 1, 2, or 3	TNEMEC Series 1 Omnithane, 2.5 to 3.5 mils DFT	**Finish** - TNEMEC 2H Hi Build TNEMEC gloss, 2.5 to 3.5 mils DFT
No. 3 - Epoxy Protective Coating - Immersed or below grade ferrous surfaces that are shop primed and field finished such as flood gates, sewage plant equipment, non-potable water applications, etc.	**New** - Blast clean per SSPC-SP 5. Dry abrasive blasting performed with media that provides 2 to 3 mil anchor profile. **Touchup** - same as New.	TNEMEC Series 1 Omnithane, 2.5 to 3.5 mils DFT	**Intermediate -** TNEMEC Series N69 Hi Build Epoxoline, 3 to 5 mils DFT **Finish** - TNEMEC Series N69 Hi Build Epoxoline, 8 to 10 mils DFT
No. 4 - Epoxy Protective Coating - Immersed or below grade ferrous surfaces that are field primed and finished such as flood gates, sewage plant equipment, non-potable water applications, etc.	**New** - Blast clean per SSPC-SP 5. Dry abrasive blasting performed with media that provides 2 to 3 mil anchor profile. **Touchup** - same as New.	TNEMEC Series 1 Omnithane, 2.5 to 3.5 mils DFT	**Finish** - TNEMEC Series N69 Hi Build Epoxoline, 8 to 10 mils DFT
No. 5 - Acrylic Protective Coating - Interior and exterior architectural ferrous surfaces such as structural steel, metal roofing, siding, sashes, trim, doors, etc.	**New** - Prepared in accordance with SSPC –SP 6. **Touchup** - same as New.	TNEMEC Series 10 Primer, 2 to 3 mils DFT	**Finish** - TNEMEC Series 1029 Enduratone, 2 to 3 mils DFT
Masonry and Concrete Surfaces			
No. 6 - Epoxy Protective Coating Immersed masonry and concrete surfaces, non-potable such as storage tanks, basins, flumes, wetwells, etc.	**New** - Allow concrete to cure for 28 days or until passing the ASTM D4263 plastic mat test. Remove dirt, grease, oil, loose masonry, efflorescence, or any other contamination. Brush off blasting to provide anchor profile similar to medium grit sandpaper. **Touchup** - spot blast as described under New.	TNEMEC Series 218 Mortar Clad at 1/16-inch to fill surface voids flush to plane to ensure finish is monolithic and pinhole free; TNEMEC Series N69 Hi Build Epoxoline, 3 to 5 mils DFT	**Finish** - TNEMEC Series N69 Hi Build Epoxoline, 8 to 10 mils DFT

Table 3 - Painting Schedule (cont.)

Masonry and Concrete Surfaces (cont.)			
No. 7 - Epoxy Protective Coating - Immersed masonry and concrete, potable application such as water tanks, basins, wetwells, etc.	**New** - Allow concrete to cure for 28 days or until passing the ASTM D4263 plastic mat test. Remove dirt, grease, oil, loose masonry, efflorescence, or any other contamination. Brush off blasting to provide anchor profile similar to medium grit sandpaper. **Touchup** - spot blast as described under New.	TNEMEC Series 20 POTA-POX, 4 to 6 mils DFT.	TNEMEC Series 20 POTA-POX, 4 to 6 mils DFT.
No. 8 - Coal Tar Protective Coating - Damp Proofing of masonry surfaces such as below grade vapor barrier for walls of buildings, pump stations, and other structures, etc.	**New** – Allow concrete to cure for 28 days or until passing the ASTM D4263 plastic mat test. Remove dirt, grease, oil, loose masonry, efflorescence, or any other contamination. Brush off blasting to provide anchor profile similar to medium grit sandpaper. **Touchup** - spot blast as described under New.		TNEMEC 46-465 H.B. TNEMECOL, 12 mils DFT
No. 9 - Exterior Acrylic/Latex Protective Coating - Non-immersed, non-colored masonry concrete block such as visible walls	**New** - Remove dirt, grease, oil, loose masonry, efflorescence, or any other contamination.	TNEMEC Series 156 ENVIRO-CRETE, 6 to 8 mils DFT	TNEMEC Series 156 ENVIRO-CRETE, 8 to 9 mils DFT
No. 10 - Water Repellent Sealer - Non-immersed colored masonry concrete block such as outside walls	**New** - Remove dirt, grease, oil, loose masonry, efflorescence, or any other contamination.	Same as Finish Coat	Degussa Protectosil Chem-Trete 40 VOC applied according to manufacturer's recommendations
No. 11 - Exterior Acrylic/Latex Protective Coating - poured or precast concrete, stucco such as outside walls	**New** - Remove dirt, grease, oil, loose masonry, efflorescence, or any other contamination. **Touchup** same as New	TNEMEC Series 156 ENVIRO-CRETE, 6 to 8 mils DFT	TNEMEC Series 156 ENVIRO-CRETE, 8 to 9 mils DFT
No. 12 - Modified Polyamine Epoxy Protective Coating - concrete Floors	**New** - Remove dirt, grease, oil, loose masonry, efflorescence, or any other contamination. Brush off blasting to provide anchor profile similar to medium grit sandpaper. **Touchup** - spot blast as described under New.	TNEMEC Series 280 TNEME-GLAZE, 6-8 mils DFT. Broadcast aggregate into wet primer per manufacturer's recommendations	TNEMEC Series 280 TNEME-GLAZE, 8 to 12 mils DFT with anti-skid sand per manufacturer's recommendations

Table 3 - Painting Schedule (cont.)

Drywall and Plaster Board Surfaces			
No. 13 - Hydrophobic Acrylic - normal interior conditions.	**New** - Remove dirt, grease, oil or any other contamination. **Touchup** - same as New.	TNEMEC Series 51-792 PVA Sealer, 1.5 to 2 mils DFT	TNEMEC Series 115 Uni-Bond DF, 3 to 4 mils DFT
No. 14 - Acrylic Epoxy - interior humid conditions.	**New** - Remove dirt, grease, oil or any other contamination. **Touchup** - same as New.	TNEMEC Series 51-792 PVA Sealer, 1.5 to 2 mils DFT	**Intermediate** - TNEMEC Series 115 Uni-Bond DF, 2 to 3 mils DFT **Finish** - TNEMEC Series 113 H.B. TNEMEC-Tufcoat, 4 to 6 mils DFT
Aluminum			
No. 15 - Polyamidoamine Epoxy - aluminum in contact with concrete or masonry	**New** - Remove dirt, grease, oil or any other contamination. **Touchup** - same as New.	Same as Finish coat	TNEMEC Series N69 Epoxoline, 8 to 10 mils DFT
Interior and Exterior Wood			
No. 16 - Penetrating Alkyd Acrylic Emulsion - wood surfaces, trim etc.	**New** - Remove dirt, grease, oil, loose masonry, efflorescence, or any other contamination. Brush off blasting to provide anchor profile similar to medium grit sandpaper.	TNEMEC Series 151-1051, 1.0 to 1.5 mils DFT	TNEMEC Series 6 TNEMEC CRYL A7, 2 to 3 mils DFT, two coats required.
No. 17 - Wood Penetrating Alkyd Resin Sealer - Primer - exposed roof deck and beams.	**New** - Remove dirt, grease, oil, loose masonry, efflorescence, or any other contamination.	Same as Finish Coat	TNEMEC Chemprobe Wood Saver Plus at 150 to 200 square feet per gallon
Other Surfaces not defined herein requiring painting for protection or finished appearance	Per Engineer's approval	Per Engineer's approval	Per Engineer's approval

(1) – Prime and finish coats for touch-up or spot work shall be of the same system and dry film thickness (DFT) as the specified coating system.
(2) – DFT = dry film thickness

TECHNICAL SPECIFICATIONS

SECTION 7

PAINTING

Table 4 - Color Pipe Coding	
Type of Pipe	**Color**
Water Lines	
Raw	Olive Green
Finished or Potable	Dark Blue
Other	
Other Lines	Light Gray

END OF SECTION

TABLE OF CONTENTS

SECTION 8

MEASUREMENT AND PAYMENT

TECHNICAL SPECIFICATIONS

SECTION 8

MEASUREMENT AND PAYMENT

PART 1 - GENERAL

1.1 Measurement of Quantities

The method of measurement and computations to be used in determination of quantities of materials furnished and of Work performed under the Contract will be those methods generally recognized as conforming to good engineering practices. The Work completed under this Contract will be measured in accordance with the Contract Documents using U.S. Customary Units of Measurement.

1.2 Scope of Payment

A. General

The basis for measurement and payment for all Work performed under this Contract shall be as listed in the "Bid Schedule." Unless the Work to be performed is specifically called out to be measured and paid for in the Bid Schedule, payment for such Work shall be included in other applicable items of the Bid Schedule. There shall be no separate measurement and payment for any such Work not specifically listed in the Bid Schedule.

B. Lump Sum Items

1. Scope

Items listed in the Bid Schedule as lump sum shall be on a lump sum, all required basis. No direct measurement will be made for lump sum bid items. The term "Lump Sum," when used as an item of payment, will mean full compensation for the Work described in the Contract Documents. When a complete structure or structural unit (in effect, "lump sum" Work) is specified as the unit of measurement, the unit will be construed to include all necessary components, fittings, accessories, etc.

2. Schedule of Values

A schedule of values shall be provided for all lump sum values with prices greater than or equal to $5,000, or as requested by the Engineer. This schedule of values for each lump sum item will form the basis for partial payments of these lump sum items.

a. For the Base Bid mobilization/demobilization, a schedule of values should be compiled separately for the manhole cone with lid castings work and for the manhole rehabilitation work.

C. Unit Price Items

Bid items calling for unit prices show estimated quantities of Work to be performed. These quantities, although shown with as much accuracy as possible, are approximate only and are for bidding purposes only. The Owner reserves the right to increase or decrease the amount of these quantities as may be deemed necessary. Payment to the Contractor shall be made on the quantity of Work actually performed by the Contractor.

D. Scope of Payment and Prices

Payment shall be made at the Contract unit bid or lump sum prices listed in the Bid Schedule. The prices listed therein shall be payment in full for all labor, tools, equipment, materials, superintendence, and incidentals necessary to perform and complete the work, including profit, overhead costs, permit and license fees, royalties, and applicable taxes and fees, etc., which are required to construct respective bid items according to the Contract Documents, including all Work and materials incidental thereto.

E. Payment for Partially Completed Work

Payment for unit bid items and lump sum bid items only partially completed at the end of monthly pay periods shall be based on a percentage of Work completed as determined by the Engineer, unless otherwise specified.

1. Manholes, Vault Hatches, and Other Similar Work

For valves, meters, and other similar work items, the partial payment for Work not completed will be as shown in the following table unless otherwise determined by the Engineer.

Partial Payment for Manholes, Vault Hatches, and Other Similar Work Items	
Description of Work	**Percentage of Each Installed**
Uncovering, excavation, and removal of Existing Items	20%
Installation of Work Item, Including Backfill	60%
Installation of Work Item to Finished Grade and Final Restoration	20%
Total	100%

F. Payment for Materials on Hand

Partial payments may be made for materials and equipment on hand per Article 14 of the Agreement.

G. Application for Payment

Application for Payment, with respect to completed Work, shall be made in accordance with this section and applicable portions of the Agreement and General Requirements.

H. Tools

There will no direct payment for any tools called for in the Specifications or Drawings. Payment for these tools shall be included in other bid items.

I. Excavation and Backfill

Unless specifically listed in the Bid Schedule, there will be no measurement or payment made for general excavation, backfill, including structural fill, aggregate base, and concrete. All costs shall be included in other appropriate bid items listed in the Bid Schedule.

J. Grade Adjustments

Grade adjustments to accommodate existing utilities shall be considered a normal part of the Work and no additional payment will be made for this work when the general locations of existing utilities are shown on the Drawings.

1.3 Payment Items

A. Numbering

The numbering of the payment items listed below may not be the same as the numbering for bid items in the Bid Schedule..

B. Method of Payment – Base Bid

1. Mobilization/Demobilization

a. Measurement for payment for mobilization/demobilization shall be on a lump sum all required basis. There shall be no measurement of payment for this Work.

b. Payment shall be made at the lump sum price stated in the Base Bid for "Mobilization/Demobilization" and shall include all Work described in the General Requirements, with exception to Work covered under "Construction Facilities and Temporary Controls", and specific safety measures related to "Excavation Safety System". Specific items to be included in "Mobilization/Demobilization" payment item includes bond and insurance costs, overall supervision, planning, training, coordination, construction staking, project documentation including record drawings and operation and maintenance (O&M) material, and all other equipment, materials, and labor to complete the Work as specified and detailed in the Drawings.

c. Payment shall be based on the following percentage of the Contract (Bid) price of mobilization/demobilization to the original Contract amount.

1) If the Contract price for mobilization/demobilization is 10 percent or less of the original Contract price for the Base Bid, then 75 percent of the Contract price for "Mobilization/Demobilization" will be made on the first payment request, and the remaining 25 percent of the Base Bid Contract price will be paid as part of the final payment request.

2) If the Contract price for "Mobilization/Demobilization" exceeds 10 percent of the original Contract price of the Base Bid, then the amount in excess of 10 percent will be paid as part of the final payment request.

2. Construction Facilities and Temporary Controls

a. Measurement for payment of construction facilities and temporary controls shall be on a lump sum all required basis. There shall be no measurement of work for payment purposes.

b. Payment shall be made at the lump sum price stated in the Base Bid for "Construction Facilities and Temporary Controls" and shall include implementation and management of environmental controls, temporary fencing, barricades, signs, signs, lights, cones, portable message boards, flag persons, and such materials, devices, and work for the project safety requirements, traffic control, environmental controls, maintenance of temporary asphalt restoration, replacement of any signs, and public

convenience that are required by the General Requirements, bypass pumping as required during the execution and completion of the Work.

1) A maximum of 30 percent of the original Contract Price for "Construction Facilities and Temporary Controls" can be made on the first payment request. Subsequent payments will be made on partial payment requests in proportion to the percentage of work completed to date.

3. Excavation Safety System

a. Measurement for payment for trench excavation safety system shall be on a lump sum basis for all excavation over 4 feet in depth. The type of safety system to be used for the Work is the Contractor's decision and shall not affect payment. There will be no measurement of the work for payment purposes.

b. Payment shall be made on a lump sum price stated in the Base Bid for "Excavation Safety System" and shall include all supervision, planning, equipment, materials, labor, and certifications required for adequate safety systems for execution of the Work. Payment shall be made on a partial payment request in proportion to the percentage of Work completed to date.

4. New Manhole Cone with Lid Castings

a. Measurement for payment of new manhole cone with lid castings shall be on a per each basis, as shown on the Drawings and described in the specifications. There is no specified pay depth for the new manhole cone, adjustment rings, and manhole lid castings. The depth shall be as shown on the Drawings and as required in the field for proper installation. No field measurement will be made for depth.

b. Payment shall be made on a unit price basis stated in the Base Bid for "New Manhole Cone with Lid Castings" and shall include excavation, demolition of existing portions of the manhole, chimney, and castings; furnishment and installation of new manhole cone, adjustment rings, grout, concrete collar, manhole lid castings, backfill, and all other equipment, materials, and labor to complete the Work as specified and detailed in the Drawings.

5. Replacement of Manhole Lid Castings

   a. Measurement for payment of replacement of existing manhole lid castings shall be on a lump sum all required basis. Except for the depth of manhole adjustment rings installed, there shall be no measurement of the work for payment purposes.

   b. Payment shall be made on a unit price basis stated in the Base Bid for Replacement of Manhole Lid Castings" and shall include excavation, removal and demolition of manhole lid and castings; and installation of new manhole adjustment rings (up to and equal to six inches in thickness), lid castings, concrete collar, backfill, and all other equipment, materials, and labor to complete the Work as specified and detailed in the Drawings.

   c. Payment for installation of manhole adjustment rings greater than six inches in depth shall be approved by Change Order before installation.

6. Temporary Asphalt Installation and Removal

   a. Measurement for payment for temporary asphalt installation and removal shall be on a square yard basis as measured in the field and shall exclude the area for the manhole lid castings. The area for payment will be limited to the area listed in the Drawings, unless otherwise specifically shown on the Drawings or approved in writing by the Engineer. The temporary asphalt installation shall have a minimum thickness of 2-inches. No measurement of the asphalt thickness will be made for payment.

   b. Payment shall be made at the unit bid price as stated in the Base Bid for “Temporary Asphalt Installation and Removal” and shall include all removal and disposal of any temporary aggregate base or backfill required for the temporary asphalt installation; furnishing, placement, and compacting the existing crushed aggregate base and temporary asphalt concrete; removal of temporary asphalt concrete for preparation of final asphalt pavement restoration as shown on the Drawings and specified; and providing temporary pavement markings to restore damaged pavement markings as specified.

7. Asphalt Removal and Restoration

    a. Measurement for payment for asphalt removal and restoration shall be on a square yard basis as measured in the field and shall exclude the area for the manhole lid castings. The area for payment will be limited to the area listed in the Drawings, unless otherwise specifically shown on the Drawings or approved in writing by the Engineer.

    b. Payment for "Asphalt Removal and Restoration" will be made at the unit bid price as stated in the Base Bid and shall include all demolition, saw-cutting (initial and final), removing and asphalt removed and disposed of; furnishing, placing, and compacting of aggregate base, concrete collar, permanent hot mix asphalt, tack seal, and sand slurry; and as shown on the Drawings and specified.

8. Pavement Marking and Restoration

    a. Measurement for payment of pavement marking restoration shall be on a lump sum all required basis. There shall be no measurement of the work for payment purposes.

    b. Payment shall be made on the lump sum price stated in the Base Bid for "Pavement Marking Restoration" and shall include all materials, labor, and equipment to restore existing pavement markings damaged during the construction of the Work.

9. Manhole Rehabilitation

    a. Measurement for payment of manhole rehabilitation shall be on a vertical linear foot basis. The pay limits shall be the vertical length of the manhole rehabilitated from the manhole bench to the rim elevation rounded to the nearest one-quarter (0.25) foot.

    b. Payment shall be made on a unit price basis stated in the Base Bid for “Manhole Rehabilitation” and shall include cleaning, surface preparation, removal of ladder rungs and other protrusions, sealing any holes or areas of infiltration, application and curing of the manhole coating/liner, bypass pumping, and all other equipment, materials, and labor to complete the Work as specified, and detailed in the Drawings.

C. Method of Payment - Additive Alternate 1

1. Mobilization/Demobilization

a. Measurement for payment for mobilization/demobilization shall be on a lump sum all required basis. There shall be no measurement of payment for this Work.

b. Payment shall be made at the lump sum price stated in the Additive Alternate 1 for "Mobilization/Demobilization" and shall include all Work described in the General Requirements as well as Work from other specifications. Specific items in this payment item include bond and insurance costs, overall supervision, planning, training, coordination, construction staking, barricades; signs, lights, and cones; flag persons and such materials, devices, traffic control, placement and removal and disposal of temporary drivable surface for the Work area, project documentation including record drawings and operation and maintenance (O&M) material, and all other equipment, materials, and labor to complete the Work as specified and detailed in the Drawings.

2. Replacement of Vault Hatch at Heritage Plaza Lift Station

a. Measurement for payment for replacement of the vault hatch at Heritage Plaza Lift Station shall be on a lump sum all required basis. There shall be no measurement of the work for payment purposes.

b. Payment shall be made at the unit price stated in Additive Alternate 1 for "Replacement of Vault Hatch at Heritage Plaza Lift Station" and shall include removal of the existing vault hatch, protection of the existing items in the existing vault, furnishment and installation of the new vault hatch, repairs to the existing concrete vault caused by the Work, and all other equipment, materials, and labor to complete the Work as specified, and detailed in the Drawings.

3. Asphalt Removal and Restoration at Heritage Plaza Lift Station

a. Measurement for payment for asphalt removal and restoration at the Heritage Lift Station shall be on a square yard basis as measured in the field and shall exclude the area for the exiting utility vault. The area for payment will be limited to the area listed in the Drawings, unless

otherwise specifically shown on the Drawings or approved in writing by the Engineer.

b. Payment for "Asphalt Removal and Restoration at Heritage Plaza Lift Station" will be made at the unit bid price as stated in Additive Alternate 1 and shall include all demolition, saw-cutting (initial and final), removing concrete sidewalk and asphalt removed and disposed of; furnishing, placing, and compacting of aggregate base, adjustments to valve boxes and other structures, permanent hot mix asphalt, and tack seal; and all other equipment, materials, and labor to complete the Work as specified, and detailed in the Drawings.

1.4 Bid Quantities

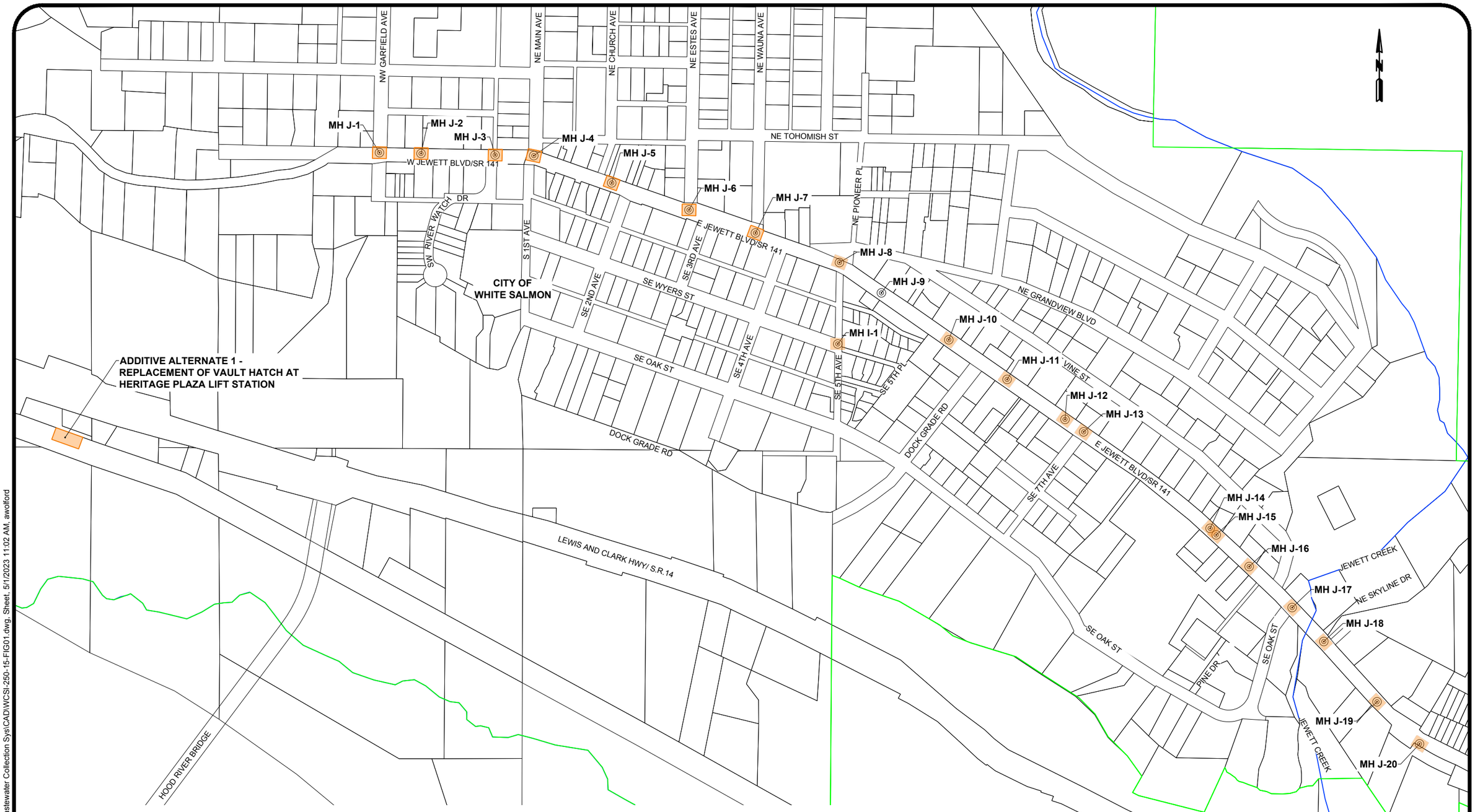
It shall be clearly understood that actual quantities shown in the Bid Schedule are estimates only and may vary significantly from those shown in the Bid. The quantities shown are only to establish unit prices. The Owner shall have the option of decreasing or increasing the depth of the well and increasing or decreasing the depth of the hole to be cased. Modified Work, if required, will be performed by Change Order utilizing unit prices outlined in the Bid. Should additional work be authorized, additional contract time may be appropriate and shall be requested by the Contractor.

PART 2 - MATERIALS - NOT USED

PART 3 - EXECUTION - NOT USED

END OF SECTION

FIGURES



LEGEND

= WORK AREAS

200 0 200 400 600
SCALE IN FEET

SUMMARY OF MANHOLE WORK AND REHABILITATION

ITEM/MANHOLE (MH)	MH J-1	MH J-2 THRU MH J-5	MH J-6	MH J-7	MH J-8	MH J-10 THRU MH J-20	MH I-1
NEW MH CONE, LID, AND CASTING		X		X			X
REPLACEMENT OF MH LID AND CASTING	X		X			X	
MH REHABILITATION		X	X	X	X		X

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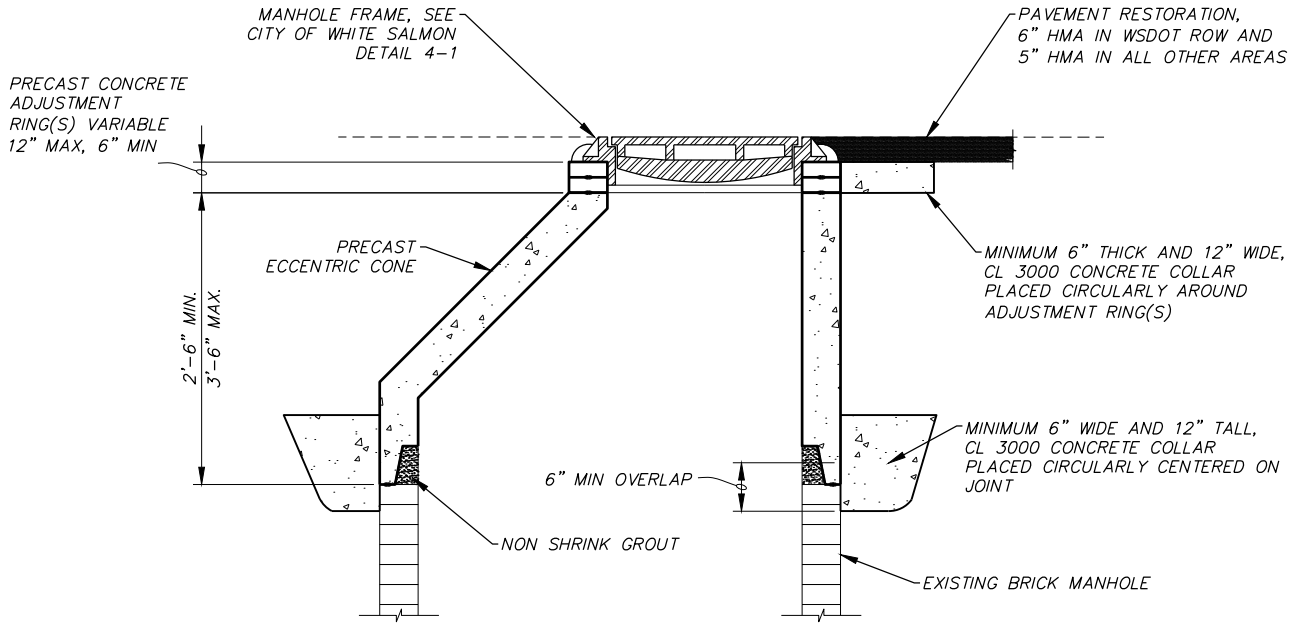
MANHOLE IMPROVEMENTS 2023

IMPROVEMENT PLAN

FIGURE
1

X:\Clients\White Salmon WA\250-15 Wastewater Collection Sys\CAD\WCSI-250-15-FIG01.dwg, Sheet, 5/1/2023 11:02 AM, awolford



CONSTRUCTION NOTES

1. PRECAUTIONS MUST BE TAKEN TO PREVENT DEBRIS FROM ENTERING THE MANHOLE DURING THE ENTIRE REMOVAL AND RECONSTRUCTION PROCESS. THE CONTRACTOR WILL BE REQUIRED TO CLEAN THE SEWER AT NO ADDITIONAL COST TO THE OWNER.
2. CUT AND REMOVE ASPHALT PAVEMENT AROUND THE EXISTING MANHOLE AND CASTING IN STRAIGHT LINES WITH A MAXIMUM OF 25 SQUARE FEET REMOVED CENTERED ON EXISTING MANHOLE UNLESS OTHERWISE APPROVED BY THE ENGINEER.
3. REMOVE AND DISPOSE OF ASPHALT, CASTING, AGGREGATE/NATIVE MATERIAL AROUND THE MANHOLE, AND EXISTING BRICK MASONRY CHIMNEY TO AT LEAST THE DEPTH NEEDED FOR INSTALLATION OF NEW PRECAST ECCENTRIC CONCRETE CONE TO A SOLID STRUCTURE.
4. REMOVE THE MATERIAL TO A MINIMUM OF 6" BELOW THE LEVEL OF THE TOP OF THE REMAINING MASONRY. CLEAN THE TOP SURFACE OF THE REMAINING MASONRY MANHOLE. THE OWNER/ENGINEER SHALL REVIEW THE MASONRY MANHOLE FOR STRUCTURAL INTEGRITY PRIOR TO RECONSTRUCTION.
5. PROVIDE A GROUT LEVELING COURSE OF NO LESS THAN 1/2" PRIOR TO PLACEMENT OF THE NEW PRECAST ECCENTRIC CONCRETE CONE AND A WATERTIGHT SEAL BETWEEN THE EXISTING WALL AND NEW CONE. A CONCRETE COLLAR SHALL BE POURED AROUND THE JOINT. COLLAR TO BE MINIMUM 6" WIDE AND 12" HIGH CENTERED ON THE JOINT.
6. BACKFILL THE NEW CONE WITH WELL-GRADED 3/4-0" CRUSHED ROCK CONFORMING TO THE REQUIREMENTS OF SECTION 9-03.9(3) CRUSHED SURFACING TOP COURSE, WSDOT M41-10 CURRENT EDITION. THE CRUSHED SURFACING SHALL BE COMPACTED TO 95% OF THE MODIFIED PROCTOR.
7. MANHOLE STEPS NOT REQUIRED.
8. SEAL INSIDE OF CONE/BRICK JOINT WITH NON-SHRINK GROUT, COMPLETELY FILLING JOINT AND EXTENDING A MINIMUM OF 6" EACH SIDE OF JOINT ALL AROUND.

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MANHOLE CHIMNEY REHABILITATION DETAIL

FIGURE

2

PHOTOGRAPH – HERITAGE PLAZA PUMP STATION EXISTING VAULT HATCH.

CONSTRUCTION NOTES

1. PROVIDE PRECAST REPLACEMENT MANHOLE LID WITH HALLIDAY H2R FRAMED ACCESS COVER WITH H–20 LOAD RATING AND X2S RETRO GRATE. USE NON–SHRINK GROUT TO SET AND SEAL.
2. ALL PRECAST PRODUCT SHALL CONFORM TO THE REQUIREMENTS OF ASTM C478.

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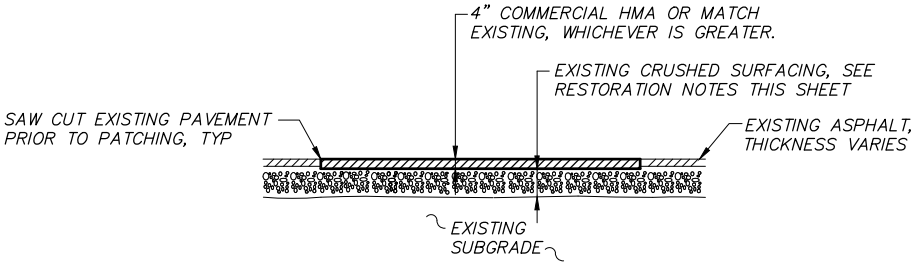
VAULT HATCH REPLACEMENT
ADDITIVE ALTERNATE 1

FIGURE
3

PHOTOGRAPH – HERITAGE PLAZA LOOKING WEST IN FRONT OF WASTEWATER PUMP STATION.



ASPHALT RESTORATION

CONSTRUCTION NOTES

1. SAW CUT AND REMOVE EXISTING UNSUITABLE BASE, SURFACING, AND PAVEMENT, 60'x16'.
2. RESHAPE, WATER, PROCESS, AND PREPARE THE UPPER LAYER OF EXISTING CRUSHED SURFACING TOP COURSE. COMPACT TO DENSITIES REQUIRED BY THE TECHNICAL SPECIFICATIONS.
3. PLACE HMA IN ACCORDANCE WITH TECHNICAL SPECIFICATIONS, MATCH TO EXISTING GRADES.

anderson perry & associates, inc.

CITY OF
WHITE SALMON, WASHINGTON
MANHOLE IMPROVEMENTS 2023

ASPHALT RESTORATION AREA
ADDITIVE ALTERNATE 1

FIGURE
4

APPENDICIES

APPENDIX A

WSDOT Standard Plans TC1 and TC5

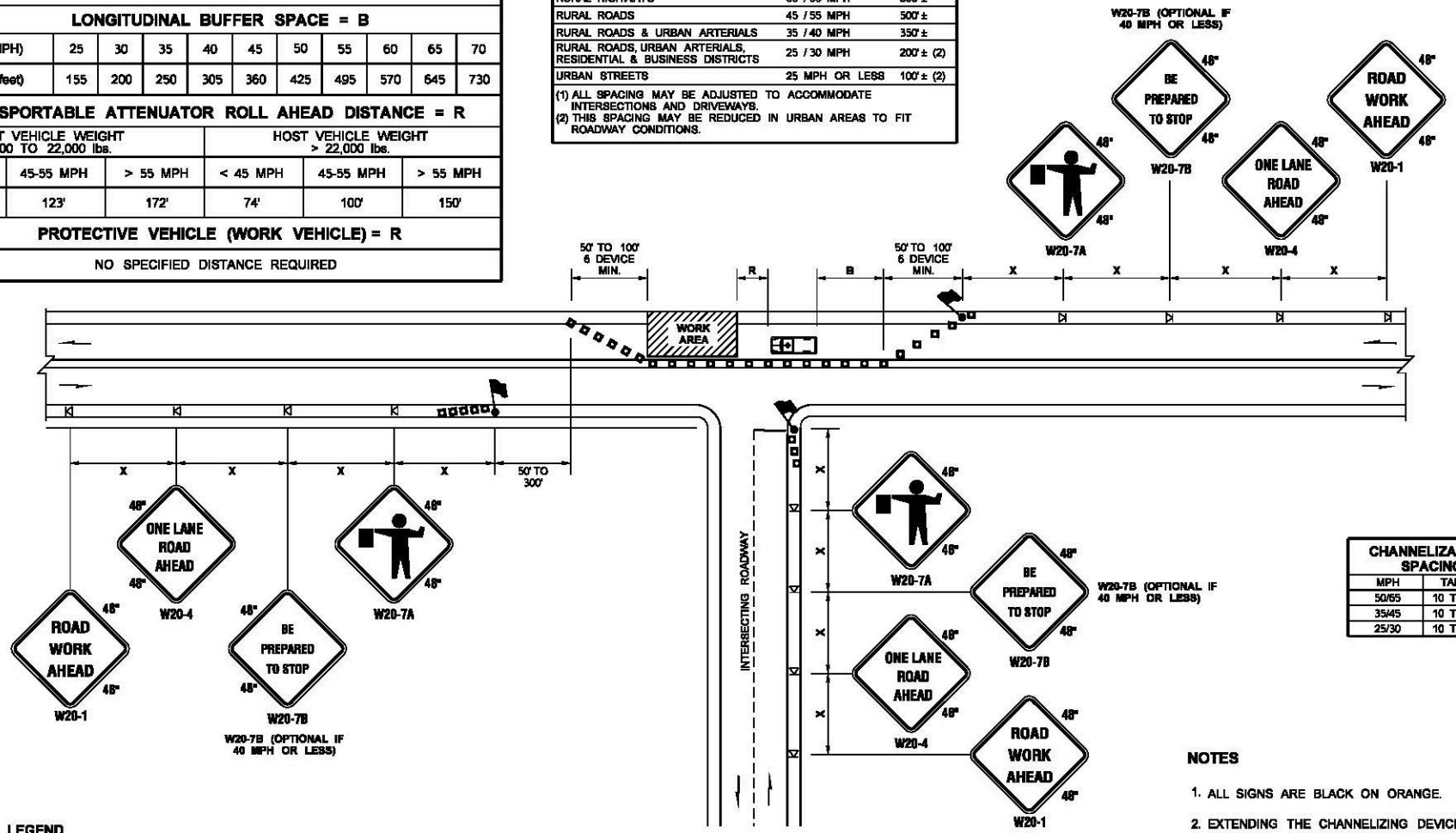
BUFFER DATA										
LONGITUDINAL BUFFER SPACE = B										
SPEED (MPH)	25	30	35	40	45	50	55	60	65	70
LENGTH (feet)	155	200	250	305	360	425	495	570	645	730

TRANSPORTABLE ATTENUATOR ROLL AHEAD DISTANCE = R					
HOST VEHICLE WEIGHT 9,900 TO 22,000 lbs.			HOST VEHICLE WEIGHT > 22,000 lbs.		
< 45 MPH	45-55 MPH	> 55 MPH	< 45 MPH	45-55 MPH	> 55 MPH
100'	123'	172'	74'	100'	150'

PROTECTIVE VEHICLE (WORK VEHICLE) = R
NO SPECIFIED DISTANCE REQUIRED

SIGN SPACING = X (1)		
RURAL HIGHWAYS	60 / 65 MPH	800' ±
RURAL ROADS	45 / 55 MPH	500' ±
RURAL ROADS & URBAN ARTERIALS	35 / 40 MPH	350' ±
RURAL ROADS, URBAN ARTERIALS, RESIDENTIAL & BUSINESS DISTRICTS	25 / 30 MPH	200' ± (2)
URBAN STREETS	25 MPH OR LESS	100' ± (2)

(1) ALL SPACING MAY BE ADJUSTED TO ACCOMMODATE INTERSECTIONS AND DRIVEWAYS.
(2) THIS SPACING MAY BE REDUCED IN URBAN AREAS TO FIT ROADWAY CONDITIONS.



CHANNELIZATION DEVICE SPACING (FEET)		
MPH	TAPER	TANGENT
50/65	10 TO 20	80
35/45	10 TO 20	60
25/30	10 TO 20	40

LEGEND

- FLAGGING STATION
- TEMPORARY SIGN LOCATION
- CHANNELIZING DEVICES
- PROTECTIVE VEHICLE

ONE-LANE, TWO-WAY TRAFFIC CONTROL WITH FLAGGERS

NOT TO SCALE

NOTES

1. ALL SIGNS ARE BLACK ON ORANGE.
2. EXTENDING THE CHANNELIZING DEVICE TAPER ACROSS SHOULDER IS RECOMMENDED.
3. NIGHT WORK REQUIRES ADDITIONAL ROADWAY LIGHTING AT FLAGGING STATIONS. SEE THE **STANDARD SPECIFICATIONS** FOR ADDITIONAL DETAILS.
4. SEE **SPECIAL PROVISIONS** FOR WORK HOUR RESTRICTIONS.

FILE NAME	S:\Design R P& SM-Standards\2-Plan Sheet Library\01-Published PSL\(TC) Work Zone Traffic Control\(TC-1) One Lane, Two Way Traffic Control with Flaggers\TC-1.dgn							Plot 1
TIME	3:05:14 PM			REGION NO.	STATE	FED.AID PROJ.NO.		PLAN REF NO TC1
DATE	1/2/2018				WASH			
PLOTTED BY	tiddelf			JOB NUMBER				
DESIGNED BY				CONTRACT NO.		LOCATION NO.		SHEET OF SHEETS
ENTERED BY								
CHECKED BY								
PROJ. ENGR.								
REGIONAL ADM.		REVISION	DATE	BY				

P.E. STAMP BOX — DATE

P.E. STAMP BOX — DATE

Washington State Department of Transportation

TRAFFIC CONTROL PLAN

SIGN SPACING = X (1)		
RURAL ROADS & URBAN ARTERIALS	35 / 40 MPH	350' ±
RURAL ROADS, URBAN ARTERIALS, RESIDENTIAL & BUSINESS DISTRICTS	25 / 30 MPH	200' ± (2)
URBAN STREETS	25 MPH OR LESS	100' ± (2)

(1) ALL SPACING MAY BE ADJUSTED TO ACCOMMODATE INTERSECTIONS AND DRIVEWAYS.
(2) THIS SPACING MAY BE REDUCED IN URBAN AREAS TO FIT ROADWAY CONDITIONS.

MINIMUM SHOULDER TAPER LENGTH = L/3 (feet)										
SHOULDER WIDTH (feet)	Posted Speed (mph)									
	25	30	35	40	45	50	55	60	65	70
8'	40	40	60	90	-	-	-	-	-	-
10'	40	60	90	90	-	-	-	-	-	-

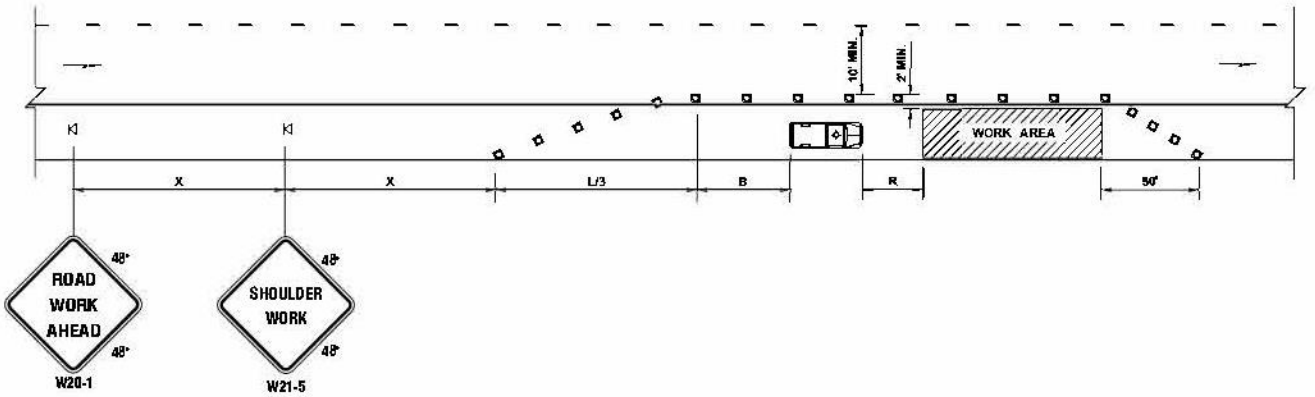
USE A 3 DEVICES TAPER FOR SHOULDERS LESS THEN 8'

BUFFER DATA										
LONGITUDINAL BUFFER SPACE = B										
SPEED (MPH)	25	30	35	40	45	50	55	60	65	70
LENGTH (feet)	155	200	250	305	360	425	495	570	645	730

TRANSPORTABLE ATTENUATOR ROLL AHEAD DISTANCE = R					
HOST VEHICLE WEIGHT 9,900 TO 22,000 lbs.			HOST VEHICLE WEIGHT > 22,000 lbs.		
< 45 MPH	45-55 MPH	> 55 MPH	< 45 MPH	45-55 MPH	> 55 MPH
100'	123'	172'	74'	100'	150'

PROTECTIVE VEHICLE (WORK VEHICLE) = R
NO SPECIFIED DISTANCE REQUIRED

CHANNELIZATION DEVICE SPACING (feet)		
MPH	TAPER	TANGENT
35/40	30	60
25/30	20	40



LEGEND

- KI — TEMPORARY SIGN LOCATION
- CHANNELIZING DEVICES
- PROTECTIVE VEHICLE

SHOULDER CLOSURE - LOW SPEED

(40 MPH OR LESS)

NOT TO SCALE

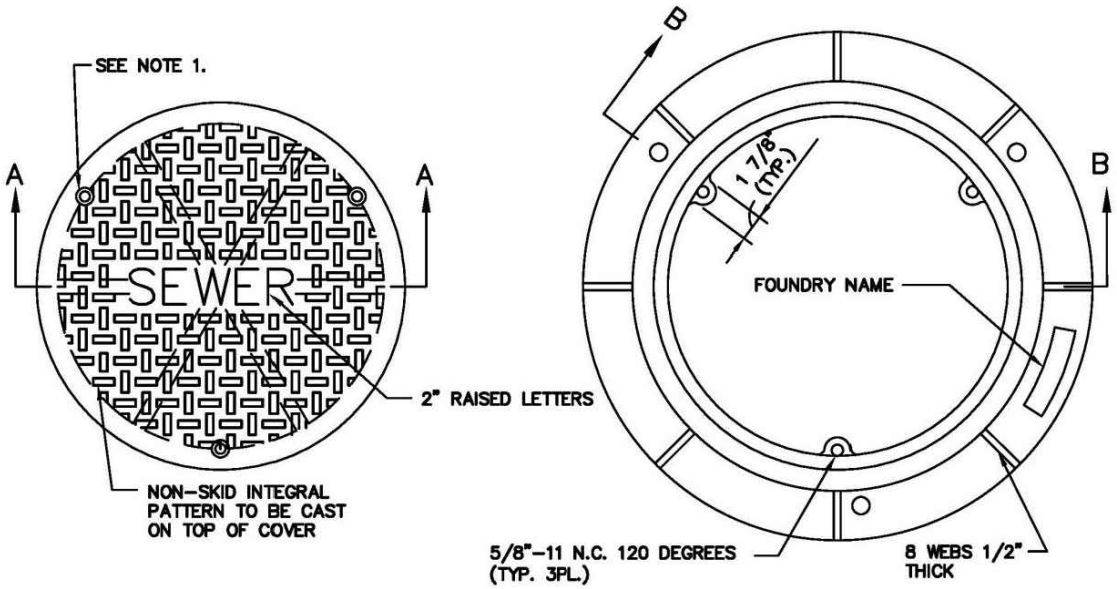
NOTES

1. DEVICE SPACING FOR THE DOWNSTREAM TAPER SHALL BE 20' (FT).
2. ALL SIGNS ARE BLACK ON ORANGE.

FILE NAME	S:\Design R P& S\4-Standards\2-Plan Sheet Library\01-Published PSL\(TC) Work Zone Traffic Control\(TC-5) Shoulder Closure - Low Speed (40 MPH or Less)\TC-5.dgn			REGION NO. / STATE: WASH	FED.AID PROJ.NO.		Plot 1
TIME	2:59:41 PM			JOB NUMBER		Washington State Department of Transportation	PLAN REF NO. TC5
DATE	1/2/2015			CONTRACT NO.	LOCATION NO.		SHEET OF SHEETS
PLOTTED BY	liddelf						
DESIGNED BY							TRAFFIC CONTROL PLAN
ENTERED BY							
CHECKED BY							
PROJ. ENGR.							
REGIONAL ADM.	REVISION	DATE	BY	P.E. STAMP BOX / DATE	P.E. STAMP BOX / DATE		

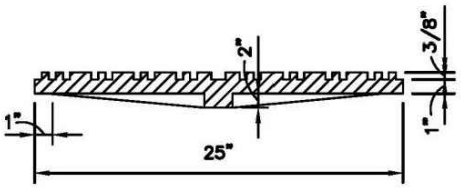
APPENDIX B

Details

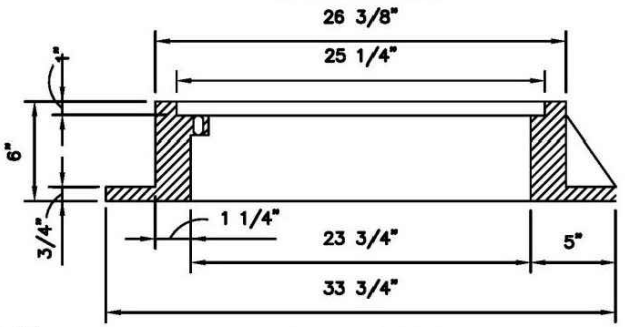


COVER PLAN

RING PLAN



SECTION A–A



SECTION B–B

GENERAL NOTES:
MANHOLE RING AND COVER SHALL BE OLYMPIC FOUNDRY MH30A D/T, OR EQUAL.

COVER NOTES:

1. USE WITH THREE LOCKING BOLTS 5/8"-11 NC STAINLESS TYPE 304 STEEL SOCKET HEAD (ALLEN HEAD) BOLTS, 3" LONG.
2. COVER MATERIAL IS DUCTILE IRON ASTM A536 GRADE 80-55-06.
3. SHALL CONFORM TO PARAGRAPH 2.5.C OF SECTION 3, SANITARY SEWER LINES, STANDARD SPECIFICATIONS, AS MODIFIED HEREIN.
4. APPROXIMATE WEIGHT OF COVER IS 150 LBS.
5. RATING - H30.

RING NOTES:

1. RING SHALL HAVE THREE 5/8"-11 NC HOLES THROUGH RING AT 120°.
2. RING MATERIAL IS GREY IRON, ASTM A-48 CLASS 30.
3. SHALL CONFORM TO PARAGRAPH 2.5.C OF SECTION 3, SANITARY SEWER LINES, STANDARD SPECIFICATIONS, AS MODIFIED HEREIN.
4. APPROXIMATE WEIGHT OF RING IS 215 LBS.
5. RATING - H30.

CITY OF WHITE SALMON

STANDARD MANHOLE FRAME AND COVER

NTS

AUGUST 2022
REVISION DATE

STANDARD PLAN 4-1

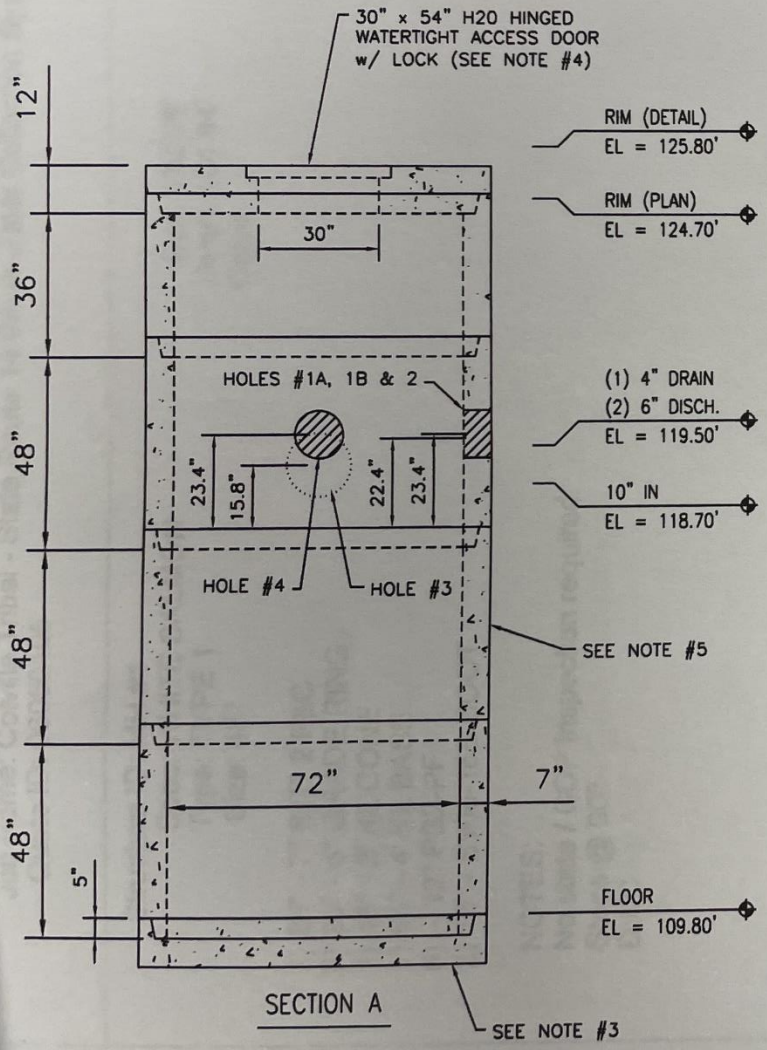
PAGE 1-1

72"ø WET WELL #1

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

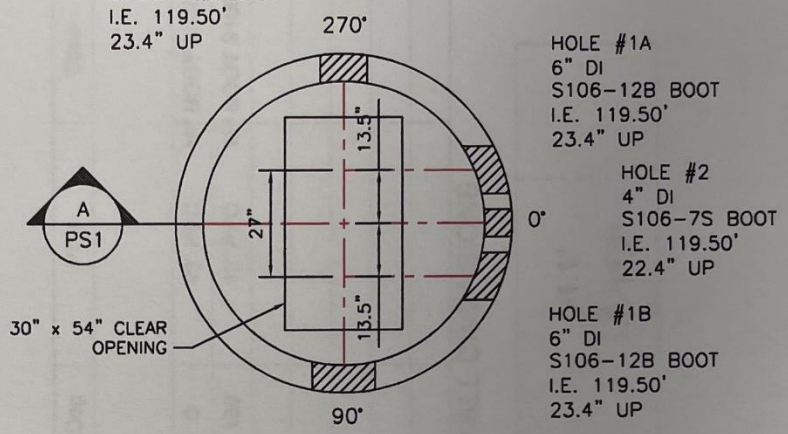
NOTES:

1. NO STATE / COP INSPECTION REQUIRED.
2. NO STEPS REQUIRED.
3. 12" THICK BASE WITH 5" EMBEDMENT.
4. HATCH TO BE CAST FLUSH WITH TOP EDGE OF SLAB.
5. ALL SECTIONS MEET ASTM C-478.

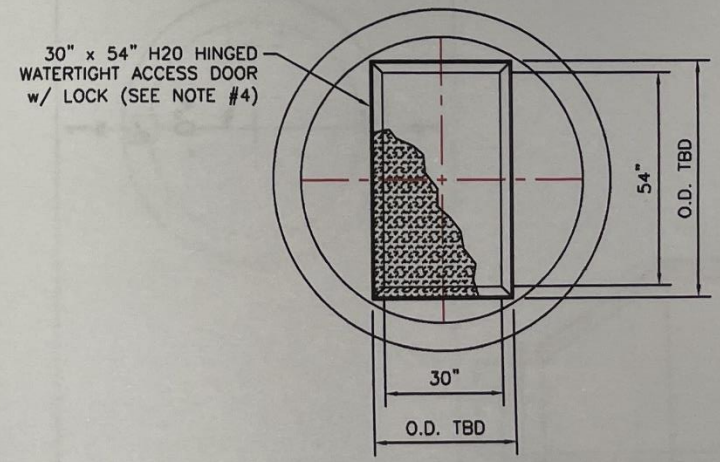


SECTION A

PLAN VIEW



HATCH PLACEMENT



PROJECT: STATE ROUTE 14 WASTEWATER COLLECTION SYSTEM

CONTRACTOR: COLVILLE TRIBAL

CONTRACTOR APPROVAL

DRAWN DWC 05/05/06

CHECKED

PS1

Hanson

Hanson Pipe & Products

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