CITY OF HOMER

BID DOCUMENTS

Raw Water Transmission Line Replacement Project

PREPARED BY:

CITY OF HOMER – PUBLIC WORKS DEPARTMENT

3575 HEATH STREET

HOMER ALASKA, 99603

(907) 235-3170

Table of Contents

Raw Water Transmission Line Replacement Project

	Sections	*Pages*
I.	Invitation to Bid	3-4
II.	Instructions to Bidders	5-15
III.	Project Schedule	16
IV.	Special Provisions	17-77
	A. Modifications to the General Provisions	17-18
	B. Modifications to the Standard Specifications	19-77
V.	Bid Form	78-79
VI.	Sample Contract Cover Page	80-81
VII.	Bonds	82-87
	A. Performance Bond	82-83
	B. Payment Bond	84-85
	C. Bid Bond	86-87
VIII.	Contractor Questionnaire	88-89
IX.	Addenda Acknowledgement Form	90
X.	Acknowledgement of Standard Construction Specifications	91
XI.	BABA Acknowledgement Certification	92
XII.	Anti-Lobbying Certification	93
XIII.	Alaska State Labor Rates (Pamphlet 600 Issue 49)	94-132
XIV.	Erosion and Sediment Control Plan	133-187

INVITATION TO BID

By the City of Homer, Alaska
For the Raw Water Transmission Line Replacement Project

Sealed Bids for construction of the Raw Water Transmission Line Replacement Project will be received by the Office of the City Clerk, 491 E. Pioneer Avenue, Homer, Alaska 99603 until **2:00 PM on Monday, September 15, 2025,** at which time they will be publicly opened. Bids received after the time fixed for receipt of the Bid shall not be considered. **All bidders must submit a City of Homer Plan Holders Registration form to be on the Plan Holders List to be considered responsive.** Plan holder registration forms and Plan and Specification are available online at http://www.cityofhomer-ak.gov/rfps

An electronic copy of the Bid Documents and Plan Holder Registration form are available online at https://www.cityofhomer-ak.gov/rfps. Paper copies of the Bid Documents may be purchased at the City Clerk's Office upon payment of $100 per set ($150 for priority mail delivery). All fees are non-refundable.

For Bid Plans and Specifications contact: City Clerk's Office, City of Homer, 491 E. Pioneer Avenue, Homer, Alaska 99603 email: clerk@ci.homer.ak.us or (907) 235-3130.

The project consists of furnishing all labor, materials, equipment, tools, supervision, and other facilities necessary to perform the project in accordance with the plans and specifications. The work includes, but is not limited to the following:

> Replacement of the 12" water line which carries water from the Raw Water Pump Station to the water treatment plant as well as piping, valves and SCADA systems within the raw water pump station.

Please direct all questions in writing regarding this project to: Daniel Kort, Public Works Director, City of Homer - Public Works Dept. 3575 Heath Street, Homer, Alaska 99603 Email: dkort@ci.homer.ak.us Phone: (907) 435-3141

The City of Homer reserves the right to accept or reject any or all bids, and to waive irregularities or informalities in the bids.

Dated this 28th day of July, 2025.

City of Homer

Melissa Jacobsen, City Manager

PUB: Homer News #25-060 8/7 & 14/25
Anchorage Daily News #25-061 8/10/25

INSTRUCTIONS TO BIDDERS
City of Homer, Alaska

Raw Water Transmission Line Replacement Project

The City of Homer, Alaska is requesting bids from qualified firms and individuals for the project described herein.

The following subjects are discussed herein to assist you in the preparation of your bid.

I. Introduction
II. Scope of Services
III. General Bidding Requirements
IV. The Bid Package
V. Tentative Project Schedule
VI. Instructions to Bidders
VII. Prevailing Wages
VIII. Equal Opportunity Employment Certification
IX. Copeland Anti-Kickback Act
X. Work Hours and Safety Standards Act
XI. Clean Air Act & Federal Water Pollution Control Act
XII. Suspension and Debarment
XIII. Byrd Anti-Lobbying Amendment
XIV. Procurement & Recovered Materials
XV. Prohibition on Contracting for Covered Telecommunications Equipment or Services
XVI. Domestic Preference
XVII. Build America Buy America Act

I. Introduction

The City of Homer requests bids for the Raw Water Transmission Line Replacement. The purpose of this project is replace the existing cast iron water line which brings water from the raw water pump station to the water treatment plant with new HDPE pipe.

All work activity associated with the project shall be completed by October 31, 2026.

II. Scope of Services

The proposed work is located within the limits of the City of Homer and is illustrated on the plans entitled Raw Water Transmission Line Replacement.

The project consists of furnishing all labor, materials, equipment, tools, supervision and other facilities necessary for the performance of the work described herein and shown on the project drawings. The work includes, but is not limited to:

- Construction Surveying
- 16 Acres of Grubbing & Clearing
- Provision & Installation of 1,000 tons of Type 1 Classified Fill
- Provision & Installation of 33 tons of Leveling Course

- Dewatering
- Disposal of 5,457 CY of Unsuitable Fill Material
- Compaction Control
- Assorted Demolition
- Disposal of 120 tons of Contaminated Soil
- Foundation Modifications and Repairs
- Provision & Installation of 3,828 LF of 12" HDPE Pipe
- Provision & Installation of 147 LF of 12" Ductile Iron Pipe
- Provision & Installation of 44 LF of 6" Ductile Iron Pipe
- Provision & Installation of 3 12" Gate Valves
- Pump Station Mechanical Piping
- Pump Station Process Mechanical
- Provision of Materials for, Testing, and Installation of Manually Operated Valves, Check Valves, Surge Relief Valves and Process Butterfly Valves for the Raw Water Pump Station, Including Motorized Actuators for Pump Discharge Butterfly Valves
- Pump Station Electrical Demolition, VFD Programming, and SCADA Updates
- Provision & Installation of 888 SY of Geotextile Fabric
- 152 MSF of Type I Seeding
- Provision & Installation of 32 MSF of Soil Stabilization Matting
- Provision & Installation of 3,800 LF of Fiber Optic Cable
- Provision & Installation of 3,800 LF of 2" HDPE Conduit
- Construction of 2 Conduit/Cable Terminations
- Construction of 4 Communications Vaults

III. General Bidding Requirements

The work must be performed by a Contractor skilled and regularly engaged in the type of work called for under the Contract. Bidders must have a current contractor's license issued by the State of Alaska. The license must apply to the work described in the Invitation. The City's local bidder preference requirements apply to this contract. State prevailing wage rates will apply.

An electronic copy of Plans and Specifications is available on the City's website http://www.cityofhomer-ak.gov/rfps or you may purchase hard copies at the Office of the City Clerk upon payment of $100 per set ($150 for overnight delivery). City of Homer Standard Construction Specifications 2011 Edition (containing general contract provisions) may also be downloaded from the city's website. All fees are non-refundable. The City of Homer reserves the right to accept or reject any or all bids, to waive irregularities or informalities in the bids, and to award the contract to the lowest responsive, responsible bidder.

Performance and Payment bonds in the amount of 100 percent (100%) of the bid amount are required.

Bids must be submitted on the Bid Form and be received by **2:00 PM on Monday, September 15, 2025** at the Office of the City Clerk, City of Homer 491 E. Pioneer Avenue, Homer, Alaska, 99603. **A bid bond is required.** Cashier checks in an amount equal to five percent (5%) of the bid are acceptable. Surety bonds are acceptable.

A Pre-Bid Meeting will be held at 2:00 p.m. on August 27, 2025 at the Cowles Council Chamber, City Hall 491 E Pioneer Ave Homer, Alaska 99603. This meeting will be conducted simultaneously via Zoom. Invitations will be distributed to all bidders listed on the Plan Holder's List maintained by the City Clerk's Office.

A Site Visit will be conducted immediately following the meeting.

IV. The Bid Package

The City of Homer requires a two-part Bid Package, Part A and Part B. Each portion of the Bid Package must be submitted in separate envelopes, which shall be combined into one single Bid Package, marked with the name of the project and the time/date of the bid opening.

At the bid opening, Part A is opened first and must be complete or Part B will not be opened and the bid will be rejected.

Part A of the bid contains:

a. Addenda Acknowledgment Form
b. If signature on the Bid is by an agent, other than an Officer of a Corporation, or of a member of a Co-partnership, a Power of Attorney must be submitted in Part A.
c. Anti-Lobbying Certification
d. BABA Acknowledgement Certification
e. Acknowledgement of Standard Construction Specifications

Part A must be submitted, as part of the Bid Package, in a separate envelope marked Part A.

Part B of the bid contains:

a. Bid Form
b. Bid Bond

Part B must be submitted, as part of the Bid Package, in a separate envelope marked Part B.

V. Tentative Project Schedule

- Pre-bid Conference 2:00 p.m. on August 27
- Bids Due 2:00 p.m. on September 15
- Notice of Intent to Award 9/16/2026
- Award by City Council 9/22/2025
- Notice to Proceed 9/23/2025
- Pre-Construction Meeting 9/29/0225
- Start Construction 10/1/2025
- Contract Completion 10/31/2026

VI. Instructions to Bidders

The City of Homer intends to award the contract to the lowest responsive, responsible bidder but reserves the right to accept or reject any or all proposals, to waive irregularities or informalities in the bids or bid process, and to award the contract to the bidder that best meets the criteria stated below.

A. Qualification of Bidders

It is the intention of the City of Homer to award this contract to the Bidder who furnishes satisfactory evidence they have the requisite experience, ability and sufficient capital, facilities and plant to prosecute the work successfully (and properly) and to complete it within the time allowed in the Contract at the least cost to the City of Homer for dollars spent for value received. Bidders will be required to fill out a questionnaire attesting to their qualifications.

B. Taxes

Attention is directed to the requirements of the General Conditions regarding the payment of taxes. All taxes that are lawfully assessed against Owner or Contractor in connection with the work shall be paid by the Contractor. The Bid prices shall include all such taxes.

The City of Homer is exempt from local sales taxes. The Contractor shall not include sales tax markup in his bid. However, in order to recoup sales tax the Contractor might pay at local vendors, the Contractor must secure a Tax Exempt card from the Kenai Peninsula Borough Tax Department.

C. Familiarization with the Work

Before submitting its Bid, each prospective Bidder shall familiarize itself with the work, labor conditions and all laws, regulations and other factors affecting performance of the work. Bidders shall carefully correlate their observations with the requirements of the Contract Documents and otherwise satisfy themselves of the expense and difficulties attending performance of the work. The submission of a Bid shall constitute an acknowledgement that the Bidder has thoroughly examined and is familiar with the Contract Documents and the provisions thereof. The failure or neglect of a Bidder to receive or examine any of the Bid Documents shall in no way relieve the bidder from any obligations with the respect to their Bid or to the Contract. Misinterpretation or a reputed lack of knowledge concerning the Bid will not serve as a basis for a claim for additional compensation.

Each Bidder shall visit the site of the work and completely inform themselves relative to construction hazards and procedures, the availability of lands, the character and quantity of surface and subsurface materials and utilities to be encountered, the arrangement and conditions of existing structures and facilities, the procedure necessary for maintenance of uninterrupted operations of existing facilities, the character of construction equipment and facilities needed for performance of the work, and facilities for transportation, handling and storage of materials and equipment. All such factors shall be properly investigated and considered in the preparation of the Bid.

D. Interpretation of Bid Documents

All questions about the meaning or intent of the Contract Documents shall be submitted to the Office of the Director of Public Works in writing. Replies will be issued by Addenda and delivered to all parties recorded by the City Clerk's Office as having received the Bidding documents. **The City of Homer will not be held**

responsible for questions received less than (5) calendar days prior to the date of opening of Bids. Only questions answered by formal written Addenda will be binding. Oral and other interpretations or clarifications will be without legal effect.

The Bidder shall acknowledge receipt of all Addenda on the Addendum Form, which shall be properly signed by the Bidder and placed in Part A.

It shall be the Bidder's responsibility to inquire as to addenda issued. **Failure to include the Addenda Form in Part A of the Bid Package shall result in the Bid being rejected as non-responsive.**

E. Bid Bond

Each Bid shall be accompanied by a Bid Bond duly completed on the suggested form provided by a guaranty company authorized to conduct business in the State of Alaska, along with a General Power of Attorney form, if applicable, for payment to the City in the sum of five percent (5%) of the total amount of the Bid. **Failure to include the Bid Bond in Part B of the Bid Package shall result in the Bid being rejected as non-responsive.**

The amount payable to the City under the Bid Bond or the certified or cashier's check, as the case may be, shall be forfeited to the City in case of a failure or neglect of the Bidder to furnish, execute, and deliver to the City required Performance and Payment Bonds, Evidences of Insurance, necessary forms or material required by the Bid or failure to enter into, execute and deliver to the City the Contract on the form provided therefor, within ten (10) working days after receipt of "Notice of Intent to Award Contract" by the City that the Contract is ready for execution. The "Award of Contract" will be made upon the execution of the Contract by the Bidder and the City.

F. Return of Bid Guarantee

Within thirty (30) days after the Bids are opened, the City will return the Bid Guarantees accompanying the Bids, which are not to be considered in making the award. The bid Guarantees of the three (3) lowest responsive Bids will be held until the Contract has been fully executed after which time the Guarantees will be returned to the respective Bidders whose Bids the Guarantees accompanied.

G. Contract Time

The Contract Time is an essential part of the Contract and it will be necessary for each Bidder to satisfy the City of his ability to complete the work within the time set forth in the Bid form. Provisions for delays, liquidated damages, and extensions of time are set forth in the Standard Construction Specifications. Time is of the essence in this contract.

H. Preparation of Bids

Bids must be submitted on the forms provided by the City and completed in all respects as required by the Bid Documents. Bids shall include all information requested herein, and be manually signed by the Bidder or the Bidder's duly authorized representative, with the Bidder's address and phone number. If the signature is by an agent, other than an Officer of a Corporation, or a member of a Co-partnership, a Power of Attorney must be submitted in Part A of the Bid; otherwise, the Bid will be rejected as non-responsive. **All Bids must be regular in every respect, and no alterations shall be made to the Bid form.**

If erasures or changes appear on the forms, each must be initialed by the person signing the Bid. No oral, telegraphic, electronic or telephone proposals will be considered.

Bid Packages, containing separate envelopes for Part A and Part B of the bid, will be received at the City Clerk's Office located at City Hall 491 East Pioneer Avenue, Homer, Alaska 99603, until the time indicated on the Invitation to Bid. Each Bid shall be submitted enclosed in a sealed, opaque envelope. **The envelope shall have the Bid title and date of Bid opening on the lower left-hand corner of the Bid Package.** The City is not responsible for the premature opening of, or failure to open, a bid not properly addressed and identified.

No consideration will be given by the City to a claim or error unless such claim is made to the City in writing within two (2) hours after the time of Bid opening. Written verification and supporting evidence of the error shall be delivered to the City Clerk within 24 hours of the Bid Opening (not including Saturday, Sunday or legal holidays) to allow consideration of the claim for error. Supporting evidence shall be original documents, including cost breakdown sheets, supplier quotes and other documents used to compute the Bid.

It is the bidder's responsibility to see that Bid Packages are deposited at the time and place set forth for the public opening of Bids. Bids not received by the time will not be considered responsive and shall not be considered.

VII. Labor Rates

This project is covered by the State of Alaska Title 36 Laborer's and Mechanic's Minimum Rate of Pay (AS 36.05.010 & 36.05.050) Pamphlet No. 600, Issue 49, Effective September 1, 2024. It is the responsibility of the bidder to determine the current rates of pay required and to submit the proper certified payrolls to the State Department of Labor.

IX. Copeland Anti-Kickback Act

Contractor. The Contractor shall comply with 18 U.S.C. § 874, 40 U.S.C. § 3145, and the requirements of 29 C.F.R. Part 3 as may be applicable, which are incorporated by reference into this contract.

Subcontracts. The Contractor or Subcontractor shall insert in any subcontracts the clause above and such other clauses as FEMA may by appropriate instructions require, and a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The Prime Contractor shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all these contract clauses.

Breach. A breach of the contract clauses above may be grounds for termination of the contract, and for debarment as a contractor and subcontractor as provided in 29 C.F.R. § 5.12.

X. Work Hours and Safety Standards Act

1. *Overtime Requirements.* No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a

rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek.

2. *Violation; Liability for Unpaid Wages; Liquidated Damages.* In the event of any violation of the clause set forth in paragraph (1) of this section the contractor and any subcontractor responsible therefor shall be liable for the unpaid wages and interest from the date of the underpayment. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchpersons and guards, employed in violation of the clause set forth in paragraph (1) of this section, in the sum of $32 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph (1).
3. *Withholding for Unpaid Wages and Liquidated Damages*
    a. *Withholding Process.* The City of Homer may, upon its own action, or must, upon written request of an authorized representative of the Department of Labor, withhold or cause to be withheld from the contractor so much of the accrued payments or advances as may be considered necessary to satisfy the liabilities of the prime contractor or any subcontractor for any unpaid wages; monetary relief, including interest; and liquidated damages required by the clauses set forth in this paragraph (b) on this contract, any other federal contract with the same prime contractor, or any other federally assisted contract subject to the Contract Work Hours and Safety Standards Act that is held by the same prime contractor (as defined in § 5.2). The necessary funds may be withheld from the contractor under this contract, any other federal contract with the same prime contractor, or any other federally assisted contract that is subject to the Contract Work Hours and Safety Standards Act and is held by the same prime contractor, regardless of whether the other contract was awarded or assisted by the same agency, and such funds may be used to satisfy the contractor liability for which the funds were withheld.
    b. *Priority to Withheld Funds.* The Department has priority to funds withheld or to be withheld in accordance with paragraph (3)(a) of this section, over claims to those funds by:
        i. A contractor's surety(ies), including without limitation performance bond sureties and payment bond sureties;
        ii. A contracting agency for its reprocurement costs;
        iii. A trustee(s) (either a court-appointed or a U.S. trustee, or both) in bankruptcy of a contractor, or a contractor's bankruptcy estate;
        iv. A contractor's assignee(s);
        v. A contractor's successor(s);
        vi. A claim asserted under the Prompt Payment Act, 31 U.S.C. 3901-3907
4. *Subcontracts.* The contractor or subcontractor must insert in any subcontracts the clauses set forth in paragraphs (1) through (5) of this section and a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor is responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs (1) through (5). In the event of any violations of these clauses, the prime contractor, and any subcontractor(s) responsible will be liable for any unpaid wages and monetary relief, including interest from the date of the underpayment or loss, due to any workers of lower-tier subcontractors, and associated liquidated damages and may be subject to debarment, as appropriate.
5. *Anti-Retaliation*. It is unlawful for any person to discharge, demote, intimidate, threaten, restrain, coerce, blacklist, harass, or in any other manner discriminate against, or to cause any person to

discharge, demote, intimidate, threaten, restrain, coerce, blacklist, harass, or in any other manner discriminate against, any worker or job applicant for:

a. Notifying any contractor of any conduct which the worker reasonably believes constitutes a violation of the Contract Work Hours and Safety Standards Act (CWHSSA) or its implementing regulations in this part;
b. Filing any complaint, initiating, or causing to be initiated any proceeding, or otherwise asserting or seeking to assert on behalf of themselves or others any right or protection under CWHSSA or this part;
c. Cooperating in any investigation or other compliance action, or testifying in any proceeding under CWHSSA or this part; or
d. Informing any other person about their rights under CWHSSA or this part.

XI. Clean Air Act & Federal Water Pollution Control Act

Clean Water Act

The contractor agrees to comply with all applicable standards, orders or regulations issued pursuant to the Clean Air Act, as amended, 42 U.S.C. § 7401 et seq.

The contractor agrees to report each violation to the City of Homer and understands and agrees that the City of Homer will, in turn, report each violation as required to assure notification to the Federal Emergency Management Agency, and the appropriate Environmental Protection Agency Regional Office.

The contractor agrees to include these requirements in each subcontract exceeding $150,000 financed in whole or in part with federal assistance provided by FEMA.

Federal Water Pollution Control Act

The contractor agrees to comply with all applicable standards, orders, or regulations issued pursuant to the Federal Water Pollution Control Act, as amended, 33 U.S.C. § 1251 et seq.

The contractor agrees to report each violation to the City of Homer and understands and agrees that the City of Homer will, in turn, report each violation as required to assure notification to the Alaska Department of Military and Veterans' Affairs, Federal Emergency Management Agency, and the appropriate Environmental Protection Agency Regional Office.

The contractor agrees to include these requirements in each subcontract exceeding $150,000 financed in whole or in part with federal assistance provided by FEMA.

XII. Suspension and Debarment

This contract is a covered transaction for purposes of 2 C.F.R. Part 180 and 2 C.F.R. Part 3000. As such, the contractor is required to verify that none of the contractor's principals (defined at 2 C.F.R. § 180.995) or its affiliates (defined at 2 C.F.R. § 180.905) are excluded (defined at 2 C.F.R. § 180.940) or disqualified (defined at 2 C.F.R. § 180.935).

The contractor must comply with 2 C.F.R. Part 180, subpart C and 2 C.F.R. Part 3000, subpart C, and must include a requirement to comply with these regulations in any lower tier covered transaction it enters.

This certification is a material representation of fact relied upon by City of Homer. If it is later determined that the contractor did not comply with 2 C.F.R. Part 180, subpart C and 2 C.F.R. Part 3000, subpart C, in addition to remedies available to City of Homer, the Federal Government may pursue available remedies, including but not limited to suspension and/or debarment.

The bidder or proposer agrees to comply with the requirements of 2 C.F.R. Part 180, subpart C and 2 C.F.R. Part 3000, subpart C while this offer is valid and throughout the period of any contract that may arise from this offer. The bidder or proposer further agrees to include a provision requiring such compliance in its lower tier covered transactions.

XIII. Byrd Anti-Lobbying Amendment

Contractors who apply or bid for an award of more than $100,000 shall file the required certification. Each tier certifies to the tier above that it will not and has not used federal appropriated funds to pay any person or organization for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, officer or employee of Congress, or an employee of a Member of Congress in connection with obtaining any federal contract, grant, or any other award covered by 31 U.S.C. § 1352. Each tier shall also disclose any lobbying with non-federal funds that takes place in connection with obtaining any federal award. Such disclosures are forwarded from tier to tier up to the recipient who in turn will forward the certification(s) to the federal agency. The required certification is included in the bid package.

XIV. Procurement and Recovered Materials

In the performance of this contract, the Contractor shall make maximum use of products containing recovered materials that are EPA-designated items unless the product cannot be acquired—

a. Competitively with in a timeframe providing for compliance with the contract performance schedule;
b. Meeting contract performance requirements; or
c. At a reasonable price.

Information about this requirement, along with the list of EPA-designated items, is available at Comprehensive Procurement Guideline (CPG) Program | US EPA. The Contractor also agrees to comply with all other applicable requirements of Section 6002 of the Solid Waste Disposal Act. The Contactor should, to the greatest extent practicable and consistent with the law, purchase, acquire, or use products and services that can be reused, refurbished, or recycled; contain recycled content, are biobased, or are energy and water efficient; and are sustainable.

XV. Prohibition on Contracting for Covered Telecommunications Equipment or Services

A. Definitions. As used in this clause, the terms backhaul; covered foreign country; covered telecommunications equipment or services; interconnection arrangements; roaming; substantial or essential component; and telecommunications equipment or services have the meaning as defined

in FEMA Policy 405-143-1, Prohibitions on Expending FEMA Award Funds for Covered Telecommunications Equipment or Services, as used in this clause.

B. *Prohibitions.*
    a. Section 889(b) of the John S. McCain National Defense Authorization Act for Fiscal Year 2019, Pub. L. No. 115-232, and 2 C.F.R. § 200.216 prohibit the head of an executive agency on or after Aug.13, 2020, from obligating or expending grant, cooperative agreement, loan, or loan guarantee funds on certain telecommunications products or from certain entities for national security reasons.
    b. Unless an exception in paragraph (C) of this clause applies, the contractor and its subcontractors may not use grant, cooperative agreement, loan, or loan guarantee funds from the Federal Emergency Management Agency to:
        i. Procure or obtain any equipment, system, or service that uses covered telecommunications equipment or services as a substantial or essential component of any system, or as critical technology of any system;
        ii. Enter, extend, or renew a contract to procure or obtain any equipment, system, or service that uses covered telecommunications equipment or services as a substantial or essential component of any system, or as critical technology of any system;
        iii. Enter, extend, or renew contracts with entities that use covered telecommunications equipment or services as a substantial or essential component of any system, or as critical technology as part of any system; or
        iv. Provide, as part of its performance of this contract, subcontract, or other contractual instrument, any equipment, system, or service that uses covered telecommunications equipment or services as a substantial or essential component of any system, or as critical technology as part of any system.

C. *Exceptions*
    a. This clause does not prohibit contractors from providing-
        i. A service that connects to the facilities of a third-party, such as backhaul, roaming or interconnection; or
        ii. Telecommunications equipment that cannot route or redirect user data traffic or permit visibility into any user data or packets that such equipment transmits or otherwise handles.
    b. By necessary implication and regulation, the prohibitions also do not apply to-
        i. Covered telecommunications equipment or services that:
            1. Are <u>not used</u> as substantial or essential components of any system; <u>and</u>
            2. Are <u>not used</u> as critical technology of any system.
        ii. Other telecommunications equipment or services that are not considered covered telecommunications equipment or services.

D. *Reporting Requirement*
    a. In the event the contractor identifies covered telecommunications equipment or services used as a substantial or essential component of any system, or as critical technology as part of any system, during contract performance, or the contractor is notified of such by a subcontractor at any tier or by any other source, the contractor shall report the information in paragraph (D)(b) of this clause to the recipient or subrecipient, unless elsewhere in this contract are established procedures for reporting the information.
    b. The Contractor shall report the following information pursuant to paragraph (D)(a) of this clause:

i. Within one business day from the date of such identification or notification: The contract number; the order number(s), if applicable; supplier name; supplier unique entity identifier (if known); supplier Commercial and Government Entity (CAGE) code (if known); brand; model number (original equipment manufacturer number, manufacturer part number, or wholesaler number); item description; and any readily available information about mitigation actions undertaken or recommended.
ii. Within 10 business days of submitting the information in paragraph (D)(b)(i) of this clause: Any further available information about mitigation actions undertaken or recommended. In addition, the contractor shall describe the efforts it undertook to prevent use or submission of covered telecommunications equipment or services, and any additional efforts that will be incorporated to prevent future use or submission of covered telecommunications equipment or services.

E. *Subcontracting.* The Contractor shall insert the substance of this clause, including this paragraph (E), in all subcontractor and other contractual instruments.

XVI. Domestic Preference

The Contractor should, to the greatest extent practicable and consistent with law, provide a preference for the purchase, acquisition, or use of goods, products, or materials produced in the United States. This includes, but is not limited to, iron, aluminum, steel, cement, and other manufactured products. For purposes of this clause: Produced in the United States means, for iron and steel products, that all manufacturing processes, from the initial melting stage through the application of coatings, occurred in the United States.

XVII. Build America Buy America (BABA)

Contractors and their subcontractors who apply or bid for an award for an infrastructure project subject to the domestic preference requirement in the Build America, Buy America Act shall file the required certification to City of Homer with each bid or offer for an infrastructure project, unless a domestic preference requirement is waived by FEMA. Contractors and subcontractors certify that no federal financial assistance funding for infrastructure projects will be provided unless all the iron, steel, manufactured projects, and construction materials used in the project are produced in the United States. BABAA, Pub. L. No. 117-58, §§ 70901-52. Contractors and subcontractors shall also disclose any use of federal financial assistance for infrastructure projects that does not ensure compliance with BABAA domestic preference requirements. Such disclosures shall be forwarded to the recipient who, in turn, will forward the disclosures to FEMA, the federal agency; subrecipients will forward disclosures to the pass-through entity, who will, in turn, forward the disclosures to FEMA.

It is the bidder's responsibility to fully familiarize themselves with BABA requirements. Bidders must submit a BABA Acknowledgement Certification with their bids. The BABA Acknowledgement Certification must also be forwarded and filled out by all subcontractors. Subcontractor BABA Acknowledgement Certifications must be submitted to the City with other required submittals before the start of construction. This certification will be provided in the bid package.

Project Schedule

Raw Water Transmission Line Replacement Project

Advertise	Homer News	August 7, August 14
	Anchorage Daily News	August 10
Pre-Bid Site Meet via Zoom Cowles Council Chambers followed immediately by Site Visit		2:00 p.m. August 27, 2025
Bids Due		2:00 p.m. September 15, 2025
Notice of Intent to Award		September 16, 2025
Council Award		September 22, 2025
Notice to Proceed		September 23, 2025
Pre-Construction Meeting		September 29, 2025
Start Construction		October 1, 2025
Construction Complete		October 31, 2026

SPECIAL PROVISIONS

Raw Water Transmission Line Replacement

The construction contract for this project will be administered in accordance with the General Provisions of the City's Standard Construction Specifications (2011).

MODIFICATIONS TO GENERAL PROVISIONS

SP - 1: Section 10.04 – Add Article 4.6 – Scope of Work

The Work included under this Contract consists of furnishing all labor, materials, equipment, supervision, and other facilities necessary to successfully complete the Work set forth in the drawings, specifications, and the terms of the Contract, including, but not limited to the following work:

- Construction Surveying
- 16 Acres of Grubbing & Clearing
- Provision & Installation of 1,000 tons of Type 1 Classified Fill
- Provision & Installation of 33 tons of Leveling Course
- Dewatering
- Disposal of 5,457 CY of Unsuitable Fill Material
- Compaction Control
- Assorted Demolition
- Demolition of Existing Communications Infrastructure to Accommodate new Fiber Optic Line
- Disposal of 120 tons of Contaminated Soil
- Foundation Modifications and Repairs
- Provision & Installation of 3,828 LF of 12" HDPE Pipe
- Provision & Installation of 147 LF of 12" Ductile Iron Pipe
- Provision & Installation of 44 LF of 6" Ductile Iron Pipe
- Provision & Installation of 3 12" Gate Valves
- Pump Station Mechanical Piping
- Pump Station Process Mechanical
- Provision of Materials for, Testing, and Installation of Manually Operated Valves, Check Valves, Surge Relief Valves and Process Butterfly Valves for the Raw Water Pump Station, Including Motorized Actuators for Pump Discharge Butterfly Valves
- Pump Station Electrical Demolition, VFD Programming, and SCADA Updates
- Provision & Installation of 888 SY of Geotextile Fabric
- 152 MSF of Type I Seeding
- Provision & Installation of 32 MSF of Soil Stabilization Matting
- Provision & Installation of 3,800 LF of Fiber Optic Cable

- Provision & Installation of 3,800 LF of 2" HDPE Conduit
- Construction of 2 Conduit/Cable Terminations
- Construction of 4 Communications Vaults

SP - 2: Article 5.19 – Easement and Rights-of-way

Add the following language:

"The Contractor will be provided access to a laydown area for material storage, job shack, and other uses. This will be on adjacent City property."

SP – 3: Section 10.07 – Modify Article 7.6 – Progress Payments

Remove the following language:
"Until such time as the work is accepted by the City, retainage shall be withheld in accordance with the following schedule:

Contract Completion Percentage	Retainage Percentage
0-75%	10%
76-95%	5%*
Over 95%	5%*

*May be reduced to these percentages depending upon satisfactory performance and adherence to the Contractor's progress schedule, clean-up, Contract completion cost and other factor, in the judgement of the Engineer."

And replace with:
"Until such time as the work is accepted by the City, 10% of the final payment application shall be withheld as retainage."

MODIFICATIONS TO STANDARD SPECIFICATIONS

DIVISION 100

SP - 4: Modify Section 102 – Construction Surveying by Contractor

Remove item **f** from subsection 102.3.

SP - 5: Add Section 104 – Construction Sequence

104.1 General

The following suggested construction sequence provides a general work plan for installation and testing of the new raw water transmission main, valves, and appurtenances, decommissioning of the existing 8-inch main, and connection to the existing 10-inch main while maintaining a minimum of 1.2 MGD pumping capability at the pump station. The exact sequence detailed in this section is subject to the Contractor's discretion and can be modified in accordance with a work plan and schedule submitted for review by the Engineer. This construction sequence is not all-inclusive of steps to be taken by the Contractor during construction but outlines general steps to facilitate continued operation of the pump station during construction of the transmission main, and to minimize excavations at the pump station site.

The existing 10-inch and 8-inch transmission mains are the sole source of raw water conveyance to the water treatment plant (WTP). The Contractor shall take extreme care when working in the proximity of the existing mains to avoid damaging the active mains.

A City of Homer (COH) operator shall operate any existing valves necessary for isolation of either of the pipelines with adequate Contractor notice in accordance with Specification 2.03.2 Paragraph 10.

104.2 Execution

a. Pipeline Draining

1. A COH operator shall advise and assist the Contractor with operation of the valves within the pump station and the transmission main yard valves.
2. Drain existing 8-inch main
    a. The approximate volume of water in 4,000 linear feet of 8-inch pipe is 10,500 gallons.
3. Maintain pumping operations using only the 10-inch main (northern main at the pump station site) throughout the decommissioning process and installation of the new 12-inch HDPE main (south main at the pump station site).
    a. COH operators shall follow lock out and tag out procedures for the two southernmost pumps (closest the surge tank) in the pump station. Pump station operations shall continue through the 10-inch main with the third (northernmost) pump running.
    b. Raw water pumping operations shall continue throughout construction. During summer months (June-August) average raw water demands are higher than in winter months (September-May). The pump station shall meet the flow demands detailed in the following table.
        i. The 10-inch line can convey up to 860 gpm (1.24 MGD) with one pump running. Seasonal head conditions in the reservoir and pipeline may reduce the pump performance.

Use	GPM	GPD	MGD

Average Winter	243	350,000	0.35
Peak Winter	347	500,000	0.50
Average Summer	556	800,000	0.80
Peak Summer	694	1,000,000	1.00

b. Installation, Disinfection, and Testing of New 12-inch HDPE RWTM

1. Drain the existing 8-inch transmission main.
2. Disconnect and remove discharge header from two southernmost pumps and surge tank.
    a. Shutdown of all three pumps at the pump station can occur for 24 – 48 hours depending on the time of year construction is taking place. Duration of shutdown is at the discretion of COH and shall be coordinated with COH Operators.
3. Install new 10-inch discharge header and connect to two southernmost pumps
    a. Blind flange the end of the header at the branch of the "north line" tee to be connected to the third pump discharge
4. Construct the two (2) new 12-inch ductile iron mains from the pump station discharge header, beneath the station, and extending into the yard, including the hydrant legs and assembly. Cap and protect the two 12-inch DIP main stub-outs for the duration of HDPE main installation between the pump station yard and the WTP.
5. Install the new 12-inch HDPE main (south line) from the DIP transition extents shown on the Drawings to the WTP.
    a. Not more than 400' of trench shall be open in advance of pipe installation unless otherwise specified by the Engineer. No more than 100' of trench shall be left open at the end of the workday, unless otherwise approved by the Engineer.
6. Flush, pressure test, and disinfect new HDPE main per Homer Standard Construction Specification, Section 602.4.
    a. Flushing and filling of the main shall be supplied through a temporary connection. This temporary connection will follow the standards presented in AWWA 651.
7. Drain and dechlorinate discharge water.
8. Refill pipeline with potable water.
9. Complete bacteriological sampling/testing in accordance with AWWA 651.
10. Drain the pipeline, swab disinfect the final connection fittings (DIP long sleeves between DIP and HDPE) and pipe in accordance with AWWA 651, make final connections between DIP and HDPE segments of transmission main at the treatment plant and the pump station, and complete pipe installation and backfill activities.

11. Place the 12-inch HDPE main in service.

c. Connection to Existing 10-inch DIP RWTM

1. When the 12-inch line (south line) is operational, COH operators shall isolate the 10-inch line by closing the existing 10-inch gate valve in the pump station.
    a. The approximate volume of water in 4,000 linear feet of 10-inch pipe is 16,300 gallons.
2. Disconnect and demolish the existing 10-inch main from the pump station building footprint to the 10-inch gate valve in the yard. Grout plug and abandon the remaining 10-inch pipe beneath the footprint of the pump station in accordance with the Plans.
3. Disconnect the remaining existing discharge header from the northernmost raw water pump and remove the existing 10-inch and 12-inch piping, pig launchers, and gate valves (HV-102 and HV-103).
4. Install the 12-inch HDPE between the pump station and new 12-inch gate valve
5. Flush, pressure test, and disinfect the new 12-inch HDPE (north main) per Homer Standard Construction Specification, Section 602.4.
    a. Flushing and filling of the main should be supplied through a temporary connection. This temporary connection will follow the standards presented in AWWA 651.05.
6. Drain and dechlorinate discharge water.
7. Refill pipeline with potable water.
8. Complete bacteriological sampling/testing on north line.
9. Drain the pipeline, swab disinfect the final connection fittings (DIP long sleeves between DIP and HDPE) and pipe in accordance with AWWA 651.
10. Connect the new HDPE main to the new 12-inch DIP stub out in the pump station yard and the existing 10-inch DIP main at the new 12-inch gate valve. Field verify the condition of the existing 10-inch ductile iron pipe is suitable for restrained joint connection prior to making the connection. Adjust the tie-in point up or downstream if necessary.
11. Complete pipeline installation and backfill activities, commission the main (north main).

d. Contingency Plan

1. In case of pump failure or pipe rupture that compromises the ability of the pump station to supply water to the Water Treatment Plant for longer than 24 – 48 hours during reconstruction of the new pump house header, Contractor shall:
    a. Notify COH Public Works Department immediately

b. With help and supervision of COH, Contractor shall install temporary bypass piping from one of the other three existing pumps to the transmission main still in operation.

2. During construction efforts when the existing surge tank is decommissioned and the new surge relief valve is not yet operational, the entire system will not be surge protected. The Contractor shall work with COH prior to demolition and construction efforts to check that the variable frequency drives (VFDs) on all three existing pumps are properly set to turn up and down slowly. Refer to Section 611 of these specifications.

SP - 6: Add Section 105 – Create Record Drawings

105.1 General

This work in this section covers all efforts necessary by the Contractor and/or relevant subcontractors to create record drawings.

105.2 Execution

Survey measurements shall be taken, field notes shall be kept, and accuracy shall be attained in accordance with Section 102. As-built information shall be marked on a clean set of full-size paper copy Drawings and be submitted to the Engineer at the completion of construction activity. The Drawings shall be clearly stamped "Record Drawings." No final project payment will be made to the Contractor until the Record Drawings have been submitted to and approved by the Engineer.

The following abbreviations shall be used on the Record Drawings to denote a deviation from the Drawings:

- ASB "As-Built" - The actual horizontal, vertical, dimension, or quantity measured by survey after it has been constructed.
- F.C. "Field Change" - Revision or change of original design made in the field. "DELETED" - Not constructed.

Minimum Requirements for construction of Record Drawings:

- When paper copies are used for Record Drawing purposes, As-built Work shall be marked in red ink or red pencil to clearly identify the changes to the original design. If the As-built record drawings are prepared and submitted in pdf format the work shall be marked in red.
- A straight line drawn through stationing, elevations, and notes shall show a change, deletion, or omission and shall be followed with the appropriate symbol.
- Storm sewer, water, sanitary sewer, gas lines, or any construction that has been deleted or relocated will be crosshatched.
- Crossed out information should still remain legible.

- The scale of new gas lines, water, sewer, or any new construction not shown should conform to the scale of the drawings.
- Reference information used to prepare Record Drawings, such as change orders, and field books, shall be noted on the drawings.
- Profile changes will be made with elevations or stationing only. The profile line need not be re-drawn unless the change is significant.
- As-builts for water, sewer, gas lines, and storm drain systems shall be accurate within five hundredths of a foot (0.05') vertically and one-half foot (0.5') horizontally. As-built information shall be referenced to existing subdivision survey control and/or centerline of the right-of-way.
- As-builts for structures shall be accurate to within one-half inch (1/2") vertically and horizontally.
- The name of the Record Drawing preparer, the employer, and the date of the preparation shall appear in the appropriate title block on each Record Drawing sheet.

105.3 Method of Measurement

No measurement will be made for this item of work.

105.4 Basis of Payement

Payment shall be made under the following units:

Bid Item	Description	Unit
105	Create Record Drawings	EA

DIVISION 200

SP - 7: Modify Section 205 – Classified Fill and Backfill

Add the following language to Subsection 205.1:

Where material is removed from the excavation and determined unsuitable for use as fill or backfill by the Engineer, the Contractor shall import Classified Fill and Backfill.

Replace Subsection 205.5 with the following:

205.5 Basis of Payment

Payment shall be made under the following units:

Bid Item	Description	Unit
205	Type (I) Fill and Backfill	Ton

SP – 8: Modify Section 207 – Trench Excavation and Backfill

Add the following language:

207.2 Description

a. Trench Section

Contractor shall slope trench walls to conform to the prevailing safety requirements. Sheeting and shoring methods shall be used if necessary and are considered incidental in the cost of this section.
In the case of two pipes in the trench, the distance between the parallel pipes should be equal to the distance between the pipe and the trench wall.

207.3 Construction

a. Trench Excavation

In wetland areas stockpile excavated material on geotextile fabric (see Division 700, Section 702). Return organics to original location.

In the event that contaminated soils are encountered during excavation under the pump station building, Contractor shall stockpile and transport soils to a designated disposal site in accordance with the Soil and Water Management Plan and 18 AAC 75.370 including lined and covered storage. The City of Homer shall provide the Soil and Water Management Plan. The soils beneath the pump station are to be replaced with flowable fill per Structural Plans regardless of the presence of soil contamination, and shall not be returned to the excavation. Non-contaminated soils being replaced with flowable fill in the vicinity of the pump station as detailed by the Structural Plans, or imported fill shall be disposed of in accordance with Section 204.5.

b. Dewatering of Trench

It is expected dewatering will be necessary in the northern 2,600 linear feet of the pipe alignment beginning at the pump house and possibly throughout the entirety of the alignment.

1. The Contractor shall prepare and submit a dewatering plan reviewed and stamped by a Professional Engineer a minimum of seven (7) days prior to beginning dewatering operations.

2. The Contractor is not relieved of the responsibility for providing additional dewatering work if implementation of approved dewatering plan does not result in a dry and stable construction environment throughout the project.

3. Contractor shall obtain a General Permit for Excavation Dewatering (AKG002000) in compliance with the provisions of the Clean Water Act (CWA) issued under provisions of the Alaska Statutes and Administrative Code as amended.

4. The dewatering system shall be of sufficient size and capacity required to lower and maintain groundwater to an elevation below the lowest excavation required to install the utility piping and building foundations, maintain stability of sides and bottom of excavation, and allow construction to occur in dry ground.

5. Water resulting from Contractor's dewatering effort may not be pumped or otherwise diverted into an existing sewer unless required permits, including, but not limited to, the Alaska Department of Environmental Conservation, are obtained by Contractor. Under no circumstances will Contractor be allowed to divert water from the excavation onto roadways. Contractor shall provide disposal site for excess water and shall be responsible for securing all necessary permits and approvals. Contractor shall provide copies of permits and approvals to the Engineer.

6. Remove dewatering system at the completion of the project when backfill of excavations is completed and facilities installed per plans and specifications. Return site to existing conditions, and dispose of all materials, waste, and equipment resulting from dewatering efforts.

207.4 Method of Measurement

Measurement will be made for Dewatering on a Lump Sum Basis in accordance with Section 10.07. The Contractor shall assume dewatering of the excavation from Station 160+00 to 186+00 (2600 linear feet) at a rate between 20 and 75 gallons per minute per 100 linear feet of open trench.
Measurement for the disposal of unsuitable Fill and Backfill shall be made by cubic yards upon the Engineer direction to "Furnish" Type (I) Fill and Backfill for placement where unsuitable native material is encountered. Cubic Yards of trucks used to remove unsuitable material shall be verified by the Engineer and Contractor record of loads shall match Engineer record of loads.

207.5 Basis of Payment

Payment shall be made under the following unit:

Bid Item	Description	Unit
207	Dewatering	EA
207a	Disposal of Unsuitable Fill and Backfill	CY

SP – 9: Modify Subsection 208.1

Add the following language:

The frequency of in-place density testing may be reduced at the Engineer's discretion upon the Contractor demonstrating adequate and consistent means and methods to meet the minimum density requirements. The frequency of in-place density testing may be increased at the Engineer's discretion due to changes in compaction means and methods or variability among the material used as bedding or backfill.

SP – 10: Add Section 209 – Demolition

209.1 General

The work in this section covers the furnishing of materials, labor, and equipment required to partially remove and/or demolish those items identified on the Drawings; transport, salvage, or dispose of said items; and restore any disturbed areas.

a. Job Conditions

1. Conditions of structures: The Owner assumes no responsibility for actual condition of structures to be salvaged or demolished.
2. Explosives: Use of explosives will not be permitted.
3. Protection: Ensure safe passage of persons around area of demolition. Conduct operations to prevent injury to adjacent buildings, structures, and persons.
4. Damages: Promptly repair damages caused to adjacent structures by demolition operations at no cost to the Owner.

209.2 Material

Not applicable.

209.3 Execution

a. Site Conditions

Determine the location and extent of demolition required by the contract documents and verify the work required by a careful site examination; examine the areas and conditions under which work for this section will be performed. Expected items to be demolished include the following:

b. Demolition

1. Buried Structures:
    a. Buried pipes identified on the Drawings to be removed shall be excavated, removed, and transported to the salvage or disposal area furnished by the Contractor.
    b. Pipe not shown to be removed shall be plugged securely and abandoned in place.
2. Excavation Backfill:
    a. Completely fill below-grade areas and voids resulting from the removal of pipe.
    b. Backfill and compact excavated trench immediately after removal of pipe where new pipe is not called for placement in the same trench. Use native excavated material compacted in lifts of 12-inches or less to 90% maximum density as stated in Division 200, Section 207, TRENCH EXCAVATION AND BACKFILL. Where new pipe is to be located in place of the removed pipe, follow the provisions of this contract for Furnish and Install Pipe, and Trench Excavation and Backfill.
    c. Seed excavated area as per Division 700, Section 708, SEEDING.
3. Miscellaneous Site Improvements: Removal of miscellaneous items such as signs, fences, bollards, etc. shown to be removed on the Drawings shall be transported to and disposed of at the Contractor-furnished disposal area and/or replaced with new or existing structures.

c. Disposal of Demolished Materials

1. All debris, garbage, and other miscellaneous materials resulting from demolition that is identified as unsalvageable by the Owner shall be removed and transported to a disposal site furnished by the Contractor.
2. Burning of materials resulting from demolition operations will not be permitted on site.
3. Owner shall contract with a qualified third-party environmental consultant to be present at the time of excavation of suspected contaminated soil to ensure proper contaminated soil assessment, management, storage and disposal practices are followed and in accordance with the DEC approved Soil and Water Management Plan.

4. Soils contaminated by fuel that are discovered during excavations shall be temporarily stockpiled by the Contractor in the City's designated disposal site in accordance with the Soil and Water Management Plan and 18 AAC 75.370 including lined and covered storage.
5. Any contaminated soil not returned to the excavation must be stored, transported, and disposed of in accordance with 18 AAC 75.370 following DEC approval. The Contractor shall coordinate with the third-party environmental consultant to prepare and submit the Contaminated Media Transport and Treatment or Disposal Approval Form.
6. Contractor shall coordinate with the third-party environmental consultant to prepare the Kenai Peninsula Borough Special Waste Disposal Request Application and execute the transport of soil to the approved landfill upon receipt of approval.

209.4 Method of Measurement

Disposal of Contaminated Soil shall be measured by tons removed and delivered to the receiving waste service. Delivery tickets provided by the receiving waste service shall be returned to the Engineer. Copies of the written disposal authorization with recorded truck weights shall be provided to the Engineer.

Demolition and salvage items are shown on the Mechanical Sheets of the drawings. Demolition and disposal of the 8-inch cast iron main shall be the responsibility of the Contractor.

209.5 Basis of Payment

Payment shall be made under the following unit:

Bid Item	Description	Unit
209	Demolition	EA
209a	Disposal of Contaminated Soils	TON
209b	Demolition of Existing Communications	EA

SP – 11: Add Section 212 – Storm Water Pollution Prevention Plan

212.1 General

The work in this section shall consist of providing all labor, equipment, materials, and services to prepare, implement, and maintain a Storm Water Pollution Prevention Plan (SWPPP). The Contractor shall provide project administration and work relating to control of erosion, sedimentation, and discharge of pollutants, according to this section and applicable local, state and federal requirements, including the Alaska Pollution Discharge Elimination System (ADPES) Construction General Permit (CGP). Section 301(a) of the Clean Water Act

(CWA) and 18 AAC 83.015 provide that the discharge of pollutants to water of the U.S. is unlawful except as allowed by the CGP.

212.2 Definitions

These definitions apply only to Section 212.

Alaska Certified Erosion and Sediment Control Lead (AK-CESCL). Certification documenting the person has completed training, testing and other requirements recognized by the City to satisfy the APDES Construction General Permit for "qualified personnel". An AK-CESCL certification must be recertified every three years. CPESC: Certified Professional in Erosion and Sediment Control and CISEC: Certified Inspector in Sediment and Erosion Control are the only other recognized substitution for the AK-CESCL certification.

Alaska Department of Conservation (ADEC). The state agency authorized by EPA to administer the Clean Water Act's National Pollutant Discharge Elimination System.

Alaska Pollutant Discharge Elimination System (APDES). The Alaska Pollutant Discharge Elimination System, administered by ADEC.

Area of Land Disturbance. The area of land (soil) that will be disturbed by Construction Activity.

Best Management Practices (BMPs). Temporary or permanent structure and non-structural devices, schedules of activities, prohibition of practices, maintenance procedures and other management practices to prevent or reduce the discharge of pollutants to waters of the United States. BMPs also include but are not limited to, treatment requirements, operating procedures, and practices to control site runoff, spillage or leaks, sludge or waste disposal.

Clean Water Act (CWA). United States Federal Water Pollution Control Act (33 U.S.C. 1251 et seq.)

Construction Activity. Physical activity by the Contractor or any Subcontractor that may result in land disturbance, erosion, sedimentation, or a discharge of pollutants in storm water. Construction activity includes, but is not limited to, grubbing, excavation, constructing embankment, grading, stockpiling erodible material, processing material and installation or maintenance of BMP's.

Construction General Permit (CGP). The Alaska Pollutant Discharge Elimination System General Permit for Discharges from Large and Small Construction Activities.

Electronic Notice of Intent (eNOI). The Electronic Notice of Intent submitted to ADEC, to begin Construction Activities under the CGP.

Electronic Notice of Termination (eNOT). The Electronic Notice of Termination submitted to ADEC, to end coverage under the CGP.

Erosion and Sediment Control Plan (ESCP). A project-specific document that illustrates measures to control erosion and sediment problems on a project. The ESCP normally consists of a general narrative and a map or site plan. It is developed by the City and may be included in the project plans and specifications. It serves as a resource for bid estimation and a framework from which the Contractor develops the project SWPPP.

Final Stabilization. Soil disturbing activities at the site have been completed and one of the following methods, as identified in the contract, has been completed:

- Establish a uniform and evenly distributed perennial vegetative cover with a density of 70 percent of the native background vegetative cover, or
- Construct non-erodible permanent stabilization measure such as riprap, gabions, geotextiles, pavement, or crushed aggregate base course where vegetative cover is not required or practical.

Hazardous Material Control Plan (HMCP). The Contractor's detailed project-specific plan for the prevention of pollution from storage, use, transfer, containment, cleanup, and disposal of hazardous material, including but not limited to, petroleum products related to construction activities and equipment. The HMCP is included as an appendix to the SWPPP.

Operator(s). The party or co-parties associated with a regulated activity that has responsibility to obtain storm water permit coverage. "Operator" for the purpose of CGP and in context of stormwater associated with construction activity, means any party associated with a construction project that meets either of the following two criteria:

1. The party has operational control over construction plans and specifications, including the ability to make modifications to those plans and specifications; or
2. The party has day to day operational control of those activities at a project which are necessary to ensure compliance with a SWPPP for the site or other permit conditions (e.g. they are authorized to direct workers at a site to carry out activities required by the SWPPP or comply with permit conditions).

Pollutant. Any substance or item meeting the definition of pollutant contained in 40 CFR 122.2

Project Area. The physical limits of the construction site, City furnished project staging and equipment areas, City furnished haul routes where deposition of sediments or erodible materials may result from material hauling activities and City furnished material and disposal sites directly related to the Contract. Contractor or Commercial Operator furnished material

sites material processing sites, disposal sites, haul routes, staging areas and equipment storage are not included in the Project Area.

Storm Water Pollution Prevention Plan (SWPPP). The Contractor's detailed project - specific plan to minimize erosion and contain sediment within the Project site and to prevent discharge of pollutants that exceed applicable water quality standards. The SWPPP includes, but may not be limited to, amendments, records of activities, inspection schedules and reports, qualifications of key personnel and all other documentation required by the CGP and this specification.

Storm Water Pollution Prevention Plan Two (SWPPP2). The Contractor's plan for compliance with both the CGP and MSGP construction activities outside the Project Area.

Temporary Stabilization. The protection of exposed soils (disturbed land) from wind, and water erosion during construction process, until final stabilization is established.

212.3 Plan and Permit Submittals

Partial and incomplete submittals will not be accepted for review. Any submittal that is re-submitted or revised after submission, but before the review is complete, will restart the submittal review timeline. No additional Contract time or additional compensation will be allowed due to delays caused by partial or incomplete submittals, or required re-submittals.

a. Storm Water Pollution Prevention Plan

1. Submit an electronic copy and one hard copy of the SWPPP to the Engineer for approval. Deliver these documents to the Engineer at least 21 days before construction activity. Organize the SWPPP and related documents for submittal according to the requirements of section 212.7.
2. The COH will review the SWPPP submittal within 10 days after they are received. Submittals will be returned to the Contractor, and marked as either "rejected" with reasons listed or as "approved" by the COH. When the submittal is rejected, the Contractor must revise and resubmit the SWPPP.
3. The approved SWPPP must contain certification, and be signed according to Standard Permit Conditions of the CGP.
4. After the SWPPP is approved by the COH, the Contractor shall submit an eNOI for the Project to ADEC with the required fee. Submit a copy of the eNOI to the Engineer following submission. The COH will submit the COH's eNOI to the ADEC and provide a copy to the Contractor for inclusion in the SWPPP.

b. Hazardous Material Control Plan

1. Submit an electronic copy and hard copy of the HMCP, as an appendix to the SWPPP, to the Engineer for approval.

c. CGP Coverage and Ending CGP Coverage

1. The Contractor is responsible for permitting of Contractor and subcontractor construction activities related to the Project. Do not use the SWPPP for construction activities outside the Project Area where the COH is not an operator. For construction activities outside the Project Area, the Contractor must use a SWPPP2, if applicable. COH approval is not needed for a SWPPP2
2. Do not begin construction activity until the conditions in section 212.11.a are completed.
3. Submit an eNOT to ADEC within 30 days after the Engineer has determined the conditions listed in section 212.11.h

212.4 Personnel Qualifications

The Superintendent and any designated Relief Superintendent must meet the following qualifications:

1. Current certification as AK-CESCL
2. Duly authorized representative, as defined in Appendix F of the CGP.

The following certifications are considered equivalent to AK-CESCL:

1. CPESC, Certified Professional in Erosion and Sediment
2. CISEC, Certified Inspector in Sediment and Erosion Control

212.5 Signature/Certification Requirements and Delegations

a. eNOI and eNOT

1. The eNOI and eNOT must be signed and certified by a responsible corporate officer according to CGP Appendix A, Part 1.12.
2. Signature and certification authority for the eNOI and eNOT cannot be delegated.

b. Delegation of Signature Authority for Other SWPPP Documents and Reports

1. Delegate signature and certification authority to the Superintendent, in accordance with the CGP Appendix A, for SWPPP inspections and other reports required by the CGP. Include a copy of the written delegation in the SWPPP. Delegation is not required if the Superintendent is a responsible corporate officer for the Contractor.

c. Subcontractor Certification

1. Subcontractors must certify that they have read and will abide by the CGP and conditions of the project SWPPP.

d. Signature and Initials

1. Certify or initial on the CGP documents and SWPPP forms, wherever a signature or initial is required.

212.6 Responsibility for Storm Water Permit Coverage

The Contractor is responsible for permitting and permit compliance for construction support activity in the Project Area and outside the Project Area. The Contractor has sole responsibility compliance with ADEC and other applicable federal, state, and local requirements, and for securing all necessary clearances, rights, and permits.

The COH is not responsible for permitting or permit compliance, and is not liable for fines resulting from noncompliance with permit conditions:

(1) For areas outside the Project Area;
(2) For construction activity and support activities outside the Project Area; and
(3) For commercial plants, commercial material sources, and commercial disposal sites.

212.7 Storm Water Pollution Prevention Plan (SWPPP) Requirements

1. The Contractor shall prepare a Storm Water Pollution Prevention Plan.
2. When provided in the plan set use the COH's ESCP to develop a SWPPP based on scheduling, equipment, and use of alternate BMPs.
3. The plan must include both erosion control and sediment control measures. The plan must first address preventing erosion, then minimizing erosion and finally trapping sediment before it leaves the project site.
4. The SWPPP must follow the format presented in Appendix A of Developing Your Storm Water Pollution Prevention Plan: A Guide for Construction Sites (EPA 833- 060-04 May 2007). An electronic copy of the Alaska DEC SWPPP template is available at https://dec.alaska.gov/water/wastewater/stormwater/permits-approvals/construction/
5. The SWPPP must address the site-specific controls and management plan for the construction site as well as for material sites, waste disposal sites, haul roads and other affected areas, public or private. The SWPPP shall include copies of and incorporate the requirements of the project permits.
6. The Contractor is responsible for identifying in the SWPPP any other work that is ongoing or will be undertaken within or adjacent to the project during the contract period and to coordinate erosion and sediment control measures with other operators.

212.8 Hazardous Materials Control Plan (HMCP) Requirements

1. Prepare a HMCP for handing, storage, cleanup, and disposal of petroleum products and other hazardous substances. See 40 CFR 117 and 302 for a listing of hazardous materials.
2. Compile Material Safety Data Sheets in one location and reference in the HMCP. List and provide location of hazardous materials, including office materials, to be used and/or stored on site, and estimated quantities. Detail a plan for storing these materials as well as disposing of waste petroleum products and other hazardous materials generated on the project. Identify haul routes and final disposal areas. Assure final disposal areas are appropriately permitted.
3. Identify the locations where storage, fueling and maintenance activities will take place, describe the maintenance activities and list controls to prevent the accidental spillage of oil, petroleum products, and other hazardous materials.
4. Detail procedures for containment and cleanup and disposal of soil and water contaminated by accidental spills. Detail a plan for dealing with unexpected contaminated soil and water encountered during construction.
5. Specify the line of authority and designate a field representative for spill response and one representative for each subcontractor. Include their names and contact information in the SWPPP.

212.9 Responsibilities and Authority of the Superintendent

The Superintendent is responsible for the overall operations of the Project and all Contractor-furnished sites and facilities directly related to the project. The Superintendent shall sign and certify the SWPPP, SWPPP inspection reports, and other reports required by the CGP, except the NOI and NOT. If the Superintendent is unavailable, a relief Superintendent may sign and certify reports required by the CGP. If the relief Superintendent is used, document the personnel change including a copy of their AK-CESCL certification with beginning and ending dates in the SWPPP.

212.10 Materials

1. Comply with material requirements described in the Plans and Specifications.
2. Use materials suitable to withstand hydraulic, wind, and soil forces, and to control erosion and trap sediments in accordance with the requirements of the CGP.
3. Use the seed mixture specified in the Contract or as directed by the Engineer.
4. Use the soil stabilization material as specified in the BMP details included in the approved project SWPPP.
5. Use straw or straw products certified weed free of prohibited and restricted noxious weed seed and quarantined pests according to Alaska Administrative Code, Title 11, Chapter 34 (11 AAC 34). When straw or straw products according to 11 AAC 34 are not

available, use non-certified products manufactured within Alaska before certified products manufactured outside Alaska.

6. Grass, legumes, or any other herbaceous plants produced as hay, shall not be substituted for straw or straw products.

212.11 Construction Requirements

Comply with the SWPPP and the requirements of the CGP Part 5.0.

a. Before Construction

The following actions must be completed before Construction Activity begins:

1. Prepare a project-specific, CGP-compliant SWPPP.
2. Submit SWPPP to COH and through the review process obtain COH approval.
3. Provide main entrance signage and postings. Do not used retroreflective signs for the SWPPP posting. Do not locate SWPPP signs in locations where the signs may be confused with traffic control signs or devices.

b. During Construction

1. Delineate the site according to CGP Part 4.2.1.
2. Install required BMPs according to the SWPPP prior to the initiation of ground disturbing activities.
3. Document subcontractors.
4. Provide ongoing training to all employees and subcontractors in accordance with the CGP Part 4.14.
5. Implement good housekeeping measures to comply with the SWPPP and CGP Part 4.8.
6. Control measures. Comply with the SWPPP and CGP Part 5.3.6 including:
    a. Maintain BMPs.
    b. Comply with the requirements of the HMCP an if applicable all local, state and federal regulations that pertain to the handling, storage, containment, cleanup, and disposal of petroleum products or other hazardous materials.
    c. Perform fueling operations in a safe and environmentally responsible manner.
    d. Contain, cleanup, and dispose of discharges of petroleum products or other hazardous materials to the land, air, water and organic life forms.
    e. Comply with all requirements of 18 AAC 75 and AS 46, Oil and Hazardous Substance Pollution Control.
    f. Keep the SWPPP and the HMCP current.

c. Winter Construction

1. If winter construction activities occur, the project must have appropriate BMPs in place as specified in CGP Part 4.12.2. The Contractor shall stabilize the project prior to freeze-up.
2. Inspections may be reduced to once per month if the project meets the requirements in the CGP Part 6.2.4

d. Storm Water Discharge Pollutant Reporting Requirements

1. Contractor shall immediately report incidents of non-compliance with the CGP that may endanger health or the environment to the ADEC.
2. The incident report shall conform to the CGP, Appendix A, Part 3.0.
3. A permit non-compliance is considered any type of pollutant, such as turbidity or petroleum that enters storm water runoff and flows into a receiving water body, MS4, or wetland that is connected to waters of the U.S.

e. Hazardous Materials Reporting Requirements

1. Any release of hazardous substance must be reported immediately to the Engineer as the person has knowledge of the discharge.
2. Report spills of petroleum products or other hazardous materials to the Engineer and the ADEC according to CGP Part 9.3.

f. Corrective Action and Maintenance of BMPs

1. Implement maintenance as required by the CGP, SWPPP, and manufacturer's specifications, whichever is more restrictive.
2. Implement corrective action to comply with CGP Part 8.0 and the approved project SWPPP. Implement correction actions within the deadlines specified by the CGP Part 8.2.
3. Document corrective actions in the Corrective Action Log according to the SWPPP and the CGP Part 8.3 and Part 5.9.2.

g. Stabilization

1. The Contractor shall stabilize disturbed areas using temporary or permanent BMPs.
2. All soil stabilization requirements must be met in accordance with the CGP Part 4.5 and the SWPPP.
3. The Contractor shall coordinate work to minimize the amount of disturbed soil at any one time. They Contractor shall not disturb more soil than they can stabilize with the resources available.
4. The Contractor shall temporarily stabilize from wind and water erosion those portions of disturbed soils, portions of stockpiles, and portions of disposal sites that are not in active construction.

5. Before applying temporary or permanent seeding, the Contractor shall prepare the surface to be seeded to reduce erosion potential and to facilitate germination and growth of vegetative cover.

h. Ending CGP Coverage

1. The Engineer will determine the date that all the following conditions for ending CGP coverage have been met within the Project Area:
   a. Land disturbing activities have ceased;
   b. Temporary BMPs have been removed, and;
   c. Final stabilization has been achieved on all portions of the Project Area, according to the CGP Part 4.5.2 (including disposal sites, staging areas, and equipment areas, etc.)
2. The Contractor is responsible for BMP maintenance and SWPPP updates until permit coverage has ended.
3. If the Contractor's eNOI acreage includes Support Activities and any other areas where the COH is not an Operator, the Contractor may not be able to file an eNOT at the same time as the COH.
4. The Contractor must indicate in the SWPPP the areas that have reached Final Stabilization, and the dates land disturbing activities ended and Final Stabilization was achieved.
5. The Contractor shall end permit coverage within the Project Area by submitting and eNOT to ADEC within thirty (30) days of meeting the conditions for ending CGP coverage. The Contractor shall insert copies of their eNOT and the COH's NOT with ADEC's acknowledgment letters in the appendix of the SWPPP.

i. Transmit Final SWPPP

1. The Contractor shall transmit one electronic copy of the final SWPPP, including all SWPPP documents, to the Engineer when both eNOTs are filed, or within thirty (30) days of the COH's eNOT being filed, whichever is sooner.

212.12 SWPPP Inspections, Inspection Reports, and Amendments

The Contractor shall perform inspections, prepare reports, and prepare SWPPP Amendments in compliance with the SWPPP and the CGP.

a. SWPPP Inspections

1. The Contractor shall conduct periodic inspections according to the schedule and requirements of the SWPPP and CGP.
2. The Superintendent shall review the project site, material sites, waste sites and the SWPPP for conformance with the CGP at least once per month and after every major change in earth disturbing activities.

b. Inspection Reports

1. Prepare an inspection report within three days of each inspection.

2. Each report shall minimally include:
    a. A summary of the scope of the inspection
    b. Name and title of person conducting the inspection.
    c. The date of the inspection.
    d. Observations relating to implementation of the SWPPP.
    e. Any action taken as a result of the inspection.
    f. Incidents of non-compliance.
3. The Contractor shall keep the SWPPP current and up-to-date throughout construction. Inspection reports shall be arranged chronologically and located in a SWPPP appendix.

c. Amendments

1. The Contractor shall modify the SWPPP, including site map(s) in response to any of the following:
    a. Whenever changes are made to the plans and specifications, control measures, good housekeeping measures, or other activities at the site that are no longer accurately reflected in the SWPPP.
    b. If inspections by site staff or by local, state, tribal, or federal officials determine that SWPPP modifications are necessary for CGP compliance.
2. The Contractor shall keep a log showing:
    a. Dates of SWPPP amendments.
    b. Name of person authorizing the change.
    c. A brief summary of each specific modification / change to the SWPPP
    d. Observations relating to implementation of the SWPPP.
    e. Any action taken as a result of the inspection.
    f. Incidents of non-compliance.
3. Revisions to the SWPPP shall be completed within seven (7) days of the inspection that identified the need for a SWPPP modification or within seven (7) days of substantial modifications to the plans or changes in site conditions.

212.13 SWPPP Documents, Location On-site, Availability, and Record Retention

a. SWPPP Documents

1. The SWPPP and related documents maintained by the Contractor are the record for demonstrating CGP-compliance.
2. Copies of SWPPP documents transmitted to the Engineer under Section 212 are informational and to not relieve the Contractor's responsibility to maintain complete records.

b. Location On-site and Availability

1. Keep the SWPPP and HMCP at the on-site project office. If there is not an on-site project office, keep the documents at a locally available location that meets CGP requirements and is approved by the Engineer.
2. The SWPPP and related documents must be made available for review and copy by regulatory agencies upon request.

c. Record Retention

1. The Contractor shall retain records and a copy of the SWPPP for at least three years after the date of eNOT according to the CGP Part 9.4.
2. If ADEC inspects the project, issues a Notice of Violation (NOV), or begins investigation for a potential NOV before the retention period expires, retain the SWPPP and all records related to the SWPPP and CGP until at least three years after the ADEC has determined all issues related to the investigation are settled.

212.14 Failure to Perform Work

1. The Engineer has the authority to suspend work and withhold monies according to Section 10.05 Control of Work, Article 5.1 and Article 5.30 of the Contract General Provisions for an incident of noncompliance with the CGP or SWPPP that may endanger health or the environment or for failure to perform work related to Section 212.
2. An incident of noncompliance includes, but is not limited to, the Contractor's failure to:
    a. Obtain appropriate permits before Construction Activity occur;
    b. Perform SWPPP administration;
    c. Perform timely inspections;
    d. Update the SWPPP;
    e. Maintain effective BMPs to control erosion, sedimentation, and pollution in accordance with the SWPPP, the CGP, and applicable local, state, and federal requirements;
    f. Perform duties according to the requirements of Item 212;
    g. Meet requirements of the CGP, SWPPP, or other permits, laws, and regulations related to erosion, sediment, or pollution control, or;
3. Any other requirements established or included in the Contract.
4. No additional Contract time or compensation will be allowed due to delays caused by the Engineer's suspension of work.

212.15 Method of Measurement

1. No measurements will be made for Section 212 bid items.

2. Bid Item 212 Erosion and Pollution Control Administration: includes, but is not limited to, plan preparation, plan amendments and updates, inspections, monitoring, reporting, and recordkeeping.
3. Bid Item 212a Temporary Erosion and Pollution Control: includes the installation and maintenance of temporary erosion, sedimentation and pollution control measures required to complete the project according to the Plans and with the current SWPPP and HMCP.

212.16 Liquidated Damages

Liquidated Damages assessed according to Table 212-1 are not an adjustment to the Contract amount. These damages are charges related to Contract performance but are billed by the COH to the Contractor, independent of the Contract amount. An amount equal to the Liquidated Damages may be withheld for unsatisfactory performance, from payment due under the Contract, until the Contractor remits payment for Liquidated Damages

TABLE 212-1
EROSION, SEDIMENT AND POLLUTION CONTROL – LIQUIDATED DAMAGES

Code	Specification Section number & Description	Deductible Amount in Dollars	Cumulative Deductible Amounts in Dollars
A	212.4 Failure to have a qualified (AK-CESCL or equivalent) Superintendent.	$750 per Inspection	
B	212.12 Failure to conduct and record CGP inspections.	$750 per omission	Addition $750 for every additional 7-day period without completing the required inspection.
C	212.11.c. Failure to stabilize a Project prior to fall freeze-up.	$5,000 per Project per year	
D	212.11.f. Corrective action, failure to timely accomplish BMP maintenance and/or repairs. In effect until BMP maintenance and/or repairs is completed.	$500 per Project per day	
E	212.11.e.1. Failure to provide to the Engineer and DEC a timely oral noncompliance report of violations or for a deficient oral noncompliance report.	$750 for the first day the report is late or deficient	Additional $750 for every 14-day period without the required information.

F	212.11.e.2. Failure to provide the Engineer and DEC a timely written noncompliance report of violations or for a deficient written noncompliance report.	$750 for the first day the report is late or deficient	Additional $750 for every 14-day period without the required information.
G	212.14 Failure to comply with the requirements of the CGP, approved SWPPP, and Section 212, expect as listed above.	$750 per occurance for the first day of noncompliance	Additional $750 for every day the deficiency remains uncorrected.

212.17 Basis of Payment

Payment for this item will be made under the following unit:

Bid Item	Description	Unit
212	Erosion and Pollution Control Administration	EA
212a	Temporary Erosion and Pollution Control	EA

DIVISION 300

SP – 12: Add Section 304 – Cast-in-Place Structural Concrete

304.1 General

The work of this section includes cast-in-place concrete, including concrete materials, mixture design, placement procedures, and finishes.

a. Action Submittals

1. Product Data
    a. Portland cement.
    b. Fly ash.
    c. Slag cement.
    d. Blended hydraulic cement.
    e. Aggregates.
    f. Admixtures:
        i. Include limitations of use, including restrictions on cementitious materials, supplementary cementitious materials, air entrainment, aggregates, temperature at time of concrete placement, relative humidity at time of concrete placement, curing conditions, and use of other admixtures.
    g. Vapor retarders.
    h. Liquid floor treatments.

i. Curing materials.
j. Joint fillers.

2. Design Mixtures
   a. Mixture identification.
   b. Minimum 28-day compressive strength.
   c. Durability exposure class.
   d. Maximum w/c.
   e. Slump limit.
   f. Air content.
   g. Nominal maximum aggregate size.
   h. Intended placement method.
   i. Submit alternate design mixtures when characteristics of materials, Project conditions, weather, test results, or other circumstances warrant adjustments.

3. Shop Drawings – Reinforcing steel and other embedded items.

b. Informational Submittals

1. Material Certificates: For each of the following, signed by manufacturers:
   a. Cementitious materials.
   b. Admixtures.
   c. Curing compounds.
   d. Vapor retarders.
   e. Joint-filler strips

2. Material Test Reports: For the following from a qualified testing agency:
   a. Portland cement.
   b. Fly ash.
   c. Aggregates.
   d. Admixtures.

3. Research Reports: For concrete admixtures in accordance with ICC's Acceptance Criteria ACI98.
4. Preconstruction Test Reports: For each Mix Design.

c. Quality Assurance

Ready-Mixed Concrete Manufacturer Qualifications: A firm experienced in manufacturing ready-mixed concrete products and that complies with ASTM C94/C94M requirements for production facilities and equipment.

1. Manufacturer certified in accordance with NRMCA's "Certification of Ready Mixed Concrete Production Facilities."

d. Delivery, Storage, and Handling

Comply with ASTM C94/C94M and ACI 301

e. Field Conditions

1. Cold-Weather Placement – Comply with ACI 301 and ACI 306.1
2. Hot-Weather Placement – Comply with ACI 301 and ACI 305.1

304.2 Material

a. Concrete, General

1. ACI Publications: Comply with ACI 301 (ACI 301M) unless modified by requirements in the Contract Documents

b. Concrete Materials

1. Cementitious Materials:
    a. Portland Cement: ASTM C150/C150M, Type I/II, gray.
    b. Fly Ash: ASTM C618, Class C or F.

2. Normal-Weight Aggregates: ASTM C33/C33M, Class 3S coarse aggregate or better, graded. Provide aggregates from a single source.

    a. Alkali-Silica Reaction: Comply with one of the following:

        i. Expansion Result of Aggregate: Not more than 0.04 percent at one-year when tested in accordance with ASTM C1293.
        ii. Expansion Results of Aggregate and Cementitious Materials in Combination: Not more than 0.10 percent at an age of 16 days when tested in accordance with ASTM C1567.
        iii. Alkali Content in Concrete: Not more than 4 lb./cu. yd. (2.37 kg/cu. m) for moderately reactive aggregate or 3 lb./cu. yd. (1.78 kg/cu. m) for highly reactive aggregate, when tested in accordance with ASTM C1293 and categorized in accordance with ASTM C1778, based on alkali content being calculated in accordance with ACI 301 (ACI 301M).

b. Maximum Coarse-Aggregate Size: 3/4 inch (Size No. 67).
c. Fine Aggregate: Free of materials with deleterious reactivity to alkali in cement.

3. Air-Entraining Admixture: ASTM C260/C260M.

4. Chemical Admixtures: Certified by manufacturer to be compatible with other admixtures that do not contribute water-soluble chloride ions exceeding those permitted in hardened concrete. Do not use calcium chloride or admixtures containing calcium chloride in any concrete.

    a. Water-Reducing Admixture: ASTM C494/C494M, Type A.
    b. High-Range, Water-Reducing Admixture: ASTM C494/C494M, Type F.

5. Water and Water Used to Make Ice: ASTM C94/C94M, potable.

c. Vapor Retarder

1. Vapor Barrier to consist of 15 mil thick plastic waterstop sheathing having strength complying with ASTM E1745 Class A.

d. Curing Materials

1. Absorptive Cover: AASHTO M 182, Class 2, burlap cloth made from jute or kenaf, weighing approximately 9 oz./sq. yd. (305 g/sq. m) when dry.

2. Moisture-Retaining Cover: ASTM C171, polyethylene film burlap-polyethylene sheet.

    a. Color:
        i. Ambient Temperature Below 50 deg F (10 deg C): Black.
        ii. Ambient Temperature between 50 deg F (10 deg C) and 85 deg F (29 deg C): Any color.
        iii. Ambient Temperature Above 85 deg F (29 deg C): White.

3. Water: Potable or complying with ASTM C1602/C1602M.

4. Clear, Waterborne, Membrane-Forming, Dissipating Curing Compound: ASTM C309, Type 1, Class B.

5. Clear, Waterborne, Membrane-Forming, Curing and Sealing Compound: ASTM C1315, Type 1, Class A or Class C (preferred).

e. Related Materials

1. Expansion- and Isolation-Joint-Filler Strips: ASTM D1752, cork or self-expanding cork.

2. Bonding Agent: ASTM C 1059/C, 1059M, Type II, non-redispersable, acrylic emulsion or styrene butadiene.

3. Epoxy Bonding Agent: ASTM C881, two-component epoxy resin, capable of humid curing and bonding to damp surfaces of class suitable for application temperature and of grade to suit requirements, and as follows:

    a. Types IV and V, load bearing, for bonding hardened or freshly mixed concrete to hardened concrete.

4. Adhesive Anchors: Hilti HIT-RE 500 or Simpson SET XP adhesive anchors. Install per manufacturer's recommendations.

f. Concrete Mixtures, General

1. Prepare design mixtures for each type and strength of concrete, proportioned on the basis of laboratory trial mixture or field test data, or both, in accordance with ACI 301 (ACI 301M).

    a. Use a qualified testing agency for preparing and reporting proposed mixture designs, based on laboratory trial mixtures.

2. Cementitious Materials: Limit percentage, by weight, of cementitious materials other than Portland cement in concrete as follows:

    a. Fly Ash or Other Pozzolans: 25 percent by mass.

3. Admixtures: Use admixtures in accordance with manufacturer's written instructions.

    a. Use water-reducing and high-range water-reducing admixture in concrete, as required, for placement and workability.

b. Use water-reducing and -retarding admixture when required by high temperatures, low humidity, or other adverse placement conditions.

g. Concrete Mixtures

1. Class A; Normal-weight concrete used for footings and interior slabs-on-grade.

    a. Exposure Class: ACI 318 (ACI 318M) F0/C1.
    b. Minimum Compressive Strength: 4000 psi (27.6 MPa) at 28 days.
    c. Maximum w/c: 0.45.
    d. Slump Limit: 4 inches (100 mm), plus or minus 1 inch (25 mm).
        i. Exposure Classes F0/C1: 2 percent, plus or minus 1 percent at point of delivery for concrete containing 3/4-inch (19-mm) nominal maximum aggregate size.
    e. Limit water-soluble, chloride-ion content in hardened concrete to 0.5 percent by weight of cement.

h. Concrete Mixing

1. Ready-Mixed Concrete: Measure, batch, mix, and deliver concrete in accordance with ASTM C94/C94M and furnish batch ticket information.

304.3 Execution

a. Installation of Embedded Materials

1. Place and secure anchorage devices and other embedded items required for adjoining Work that is attached to or supported by cast-in-place concrete.

b. Joints

1. Doweled Joints:

    a. Install dowel bars and support assemblies at joints where indicated on Drawings.

c. Concrete Placement

1. Before placing concrete, verify that installation of formwork, reinforcement, embedded items, and vapor retarder is complete and that required inspections are completed.

    a. Immediately prior to concrete placement, inspect vapor retarder for damage and deficient installation, and repair defective areas.
    b. Provide continuous inspection of vapor retarder during concrete placement and make necessary repairs to damaged areas as Work progresses.

2. Notify Owner and testing and inspection agencies 24 hours prior to commencement of concrete placement.

3. Do not add water to concrete during delivery, at Project site, or during placement unless approved by Owner in writing, but not to exceed the amount indicated on the concrete delivery ticket.

    a. Do not add water to concrete after adding high-range water-reducing admixtures to mixture.

4. Deposit concrete continuously in one layer or in horizontal layers of such thickness that no new concrete is placed on concrete that has hardened enough to cause seams or planes of weakness.

    a. If a section cannot be placed continuously, provide construction joints as indicated.
    b. Deposit concrete to avoid segregation.
    c. Deposit concrete in horizontal layers of depth not to exceed formwork design pressures and in a manner to avoid inclined construction joints.
    d. Consolidate placed concrete with mechanical vibrating equipment in accordance with ACI 301 (ACI 301M).

        i. Do not use vibrators to transport concrete inside forms.
        ii. Insert and withdraw vibrators vertically at uniformly spaced locations to rapidly penetrate placed layer and at least 6 inches (150 mm) into preceding layer.
        iii. Do not insert vibrators into lower layers of concrete that have begun to lose plasticity.
        iv. At each insertion, limit duration of vibration to time necessary to consolidate concrete, and complete embedment of reinforcement and

other embedded items without causing mixture constituents to segregate.

5. Deposit and consolidate concrete for floors and slabs in a continuous operation, within limits of construction joints, until placement of a panel or section is complete.

    a. Do not place concrete floors and slabs in a checkerboard sequence.
    b. Consolidate concrete during placement operations, so concrete is thoroughly worked around reinforcement and other embedded items and into corners.
    c. Maintain reinforcement in position on chairs during concrete placement.
    d. Screed slab surfaces with a straightedge and strike off to correct elevations.
    e. Level concrete, cut high areas, and fill low areas.
    f. Slope surfaces uniformly to drains where required.
    g. Begin initial floating using bull floats or darbies to form a uniform and open-textured surface plane, before excess bleedwater appears on the surface.
    h. Do not further disturb slab surfaces before starting finishing operations.

d. Finishing Floors and Slabs

1. Comply with ACI 302.1R recommendations for screeding, re-straightening, and finishing operations for concrete surfaces. Do not wet concrete surfaces.

2. Trowel Finish:

    a. After applying float finish, apply first troweling and consolidate concrete by hand or power-driven trowel.
    b. Continue troweling passes and restraighten until surface is free of trowel marks and uniform in texture and appearance.
    c. Grind smooth any surface defects that would telegraph through applied coatings or floor coverings.
    d. Do not add water to concrete surface.
    e. Do not apply hard-troweled finish to concrete, which has a total air content greater than 3 percent.
    f. Apply a trowel finish to interior slab-on-grade in the wood shop, restroom and storage rooms/areas.

e. Concrete Curing

1. Protect freshly placed concrete from premature drying and excessive cold or hot temperatures.
    a. Comply with ACI 301 (ACI 301M) and ACI 306.1 for cold weather protection during curing.
    b. Comply with ACI 301 (ACI 301M) and ACI 305.1 (ACI 305.1M) for hot-weather protection during curing.
    c. Maintain moisture loss no more than 0.2 lb/sq. ft. x h (1 kg/sq. m x h), calculated in accordance with ACI 305.1, before and during finishing operations.

2. Curing Unformed Surfaces: Comply with ACI 308.1 (ACI 308.1M) as follows:

    a. Begin curing immediately after finishing concrete.
    b. Interior Concrete Floors:
        i. Floors to Receive Curing Compound:
            A. Apply uniformly in continuous operation by power spray or roller in accordance with manufacturer's written instructions.
            B. Recoat areas subjected to heavy rainfall within three hours after initial application.
            C. Maintain continuity of coating, and repair damage during curing period.

f. Tolerances

1. Conform to ACI 117 (ACI 117M).

g. Field Quality Control

1. Special Inspections: Owner will engage a special inspector to perform field tests and inspections and prepare testing and inspection reports.
2. Testing Agency: Owner will engage a qualified testing and inspecting agency to perform tests and inspections and to submit reports.

    a. Testing agency shall be responsible for providing curing container for composite samples on Site and verifying that field-cured composite samples are cured in accordance with ASTM C31/C31M.
    b. Testing agency shall immediately report to Architect, Contractor, and concrete manufacturer any failure of Work to comply with Contract Documents.
    c. Testing agency shall report results of tests and inspections, in writing, to Owner, Architect, Contractor, and concrete manufacturer within 48 hours of inspections and tests

i. Test reports shall include reporting requirements of ASTM C31/C31M, ASTM C39/C39M, and ACI 301, including the following as applicable to each test and inspection:
    A. Project name.
    B. Name of testing agency.
    C. Names and certification numbers of field and laboratory technicians performing inspections and testing.
    D. Name of concrete manufacturer.
    E. Date and time of inspection, sampling, and field testing.
    F. Date and time of concrete placement.
    G. Location in Work of concrete represented by samples.
    H. Date and time sample was obtained.
    I. Truck and batch ticket numbers.
    J. Design compressive strength at 28 days.
    K. Concrete mixture designation, proportions, and materials.
    L. Field test results.
    M. Information on storage and curing of samples before testing, including curing method and maximum and minimum temperatures during initial curing period.
    N. Type of fracture and compressive break strengths at seven days and 28 days.

3. Batch Tickets: For each load delivered, submit three copies of batch delivery ticket to testing agency, indicating quantity, mix identification, admixtures, design strength, aggregate size, design air content, design slump at time of batching, and amount of water that can be added at Project site.

4. Inspections:

    a. Verification of use of required design mixture.
    b. Concrete placement, including conveying and depositing.
    c. Curing procedures and maintenance of curing temperature.
    d. Verification of concrete strength before removal of shores and forms from beams and slabs.

5. Concrete Tests: Testing of composite samples of fresh concrete obtained in accordance with ASTM C 172/C 172M shall be performed in accordance with the following requirements:

a. Testing Frequency: Obtain one composite sample for each day's pour of each concrete mixture exceeding 5 cu. yd. (4 cu. m), but less than 25 cu. yd. (19 cu. m), plus one set for each additional 50 cu. yd. (38 cu. m) or fraction thereof.

    i. When frequency of testing provides fewer than five compressive-strength tests for each concrete mixture, testing shall be conducted from at least five randomly selected batches or from each batch if fewer than five are used.

b. Slump: ASTM C143/C143M:

    i. One test at point of placement for each composite sample, but not less than one test for each day's pour of each concrete mixture.
    ii. Perform additional tests when concrete consistency appears to change.

c. Air Content: ASTM C231/C231M pressure method, for normal-weight concrete;

    i. One test for each composite sample, but not less than one test for each day's pour of each concrete mixture.

d. Concrete Temperature: ASTM C1064/C1064M:

    i. One test hourly when air temperature is 40 deg F (4.4 deg C) and below or 80 deg F (27 deg C) and above, and one test for each composite sample.

e. Compression Test Specimens: ASTM C31/C31M:

    i. Cast and laboratory cure two sets of four 6-inch (150 mm) by 12-inch (300 mm) or 4-inch (100 mm) by 8-inch (200 mm) cylinder specimens for each composite sample.

f. Compressive-Strength Tests: ASTM C39/C39M.
    i. Test one laboratory-cured specimens at seven days and two specimens at 28 days with the fourth cylinder held in reserve.

g. Strength of each concrete mixture will be satisfactory if every average of any three consecutive compressive-strength tests equals or exceeds specified

compressive strength, and no compressive-strength test value falls below specified compressive strength by more than 500 psi (3.4 MPa) if specified compressive strength is 4000 psi (34.5 MPa).

h. Nondestructive Testing: Impact hammer, sonoscope, or other nondestructive device may be permitted by Engineer but will not be used as sole basis for approval or rejection of concrete.
i. Additional Tests:

    i. Testing and inspecting agency shall make additional tests of concrete when test results indicate that slump, air entrainment, compressive strengths, or other requirements have not been met, as directed by Architect.
    ii. Testing and inspecting agency may conduct tests to determine adequacy of concrete by cored cylinders complying with ASTM C42/C42M or by other methods as directed by Architect.

        A. Acceptance criteria for concrete strength shall be in accordance with ACI 301 (ACI 301M), section 1.6.6.3.

j. Additional testing and inspecting, at Contractor's expense, will be performed to determine compliance of replaced or additional work with specified requirements.
k. Correct deficiencies in the Work that test reports and inspections indicate do not comply with the Contract Documents.

h. Protection

1. Protect concrete surfaces as follows:
    a. Protect from petroleum stains.
    b. Diaper hydraulic equipment used over concrete surfaces.
    c. Prohibit vehicles from interior concrete slabs.
    d. Prohibit use of pipe-cutting machinery over concrete surfaces.
    e. Prohibit placement of steel items on concrete surfaces.
    f. Prohibit use of acids or acidic detergents over concrete surfaces.
    g. Protect liquid floor treatment from damage and wear during the remainder of construction period. Use protective methods and materials, including temporary covering, recommended in writing by liquid floor treatments installer.

304.4 Method of Measurement

No measurement will be made for this item of work.

304.5 Basis of Payment

Payment for this item will be made under the following unit:

Bid Item	Description	Unit
304	Foundation Modification and Repairs	EA

SP – 13: Add Section 305 – Flowable Fill

305.1 General

The work covered by these specifications consists of furnishing and placing Flowable Fill to the extents shown on the Drawings. Flowable Fill is a self-compacting cementitious material using mineral aggregates (sand and/or gravel), native or processed materials, fly ash/cement, water, air entraining solution, and possibly other admixtures. Flowable Fill is also known as Controlled Low-Strength Material (CLSM), Controlled Density Fill (CDF) or Soil-Cement Slurry. Flowable Fill is only permitted when specifically called out in the contract documents or approved by the Engineer.

All Flowable Fill applications shall conform to the American Society of Testing and Materials (ASTM) and American Concrete Institute (ACI) standards. Applicable standards for this section are detailed below.

ASTM D4832	Preparation/Testing of Soil-Cement Slurry Test Cylinders
ASTM C39	Test Method for Compressive Strength of Cylindrical Concrete Specimens
ASTM D6023	Standard Test Method for Unit Weight
ASTM C150	Specification for Portland Cement
ASTM C618	Specification for Fly Ash
ASTM C494	Specification for Chemical Admixture for Concrete
ASTM E329	Practice for Use in the Evaluation of Testing and Inspection Agencies as Used in Construction
ASTM C1064	Temperature of Freshly Mixed Portland Cement Concrete
ASTM C117	Materials Finer Than 0.075 mm (No. 200) Sieve in Mineral Aggregates by Washing
ASTM C136	Sieve Analysis of Fine & Coarse Aggregate
ASTM C117	Materials Finer Than No. 200 (0.075 mm) Sieve in Mineral Aggregates by Washing
ASTM D4318	Test Method for Liquid Limit, Plastic Limit and Plasticity Index of Soils
ASTM C94	Ready Mix Concrete
ACI 301	Standard Specifications for Structural Concrete for Buildings

305.2 Materials

The mixture of materials used shall produce a self-compacting cementitious material and follow the proportions for 1-Sack Flowable Fill below.

Constituent	Standard	Quantity
ABI Cement, Type I/II	ASTM C150	95lb
Water	Potable, free of oil, acid, salt, alkali, sugar, organic matter, or other substances capable of compromising the finished product	335 lb
Fine Aggregate (3/8" – 9.5mm)	ASTM C33	2480 lb
Air	N/A	25%

The Fill shall be designed to achieve a 28-day compressive strength of 200 psi maximum when tested in accordance with ASTM C39. Test specimens shall be made in accordance with ASTM D4832. Compressive strength tests shall be performed at least once per 150 cubic yards and at least once per day of placement.

305.3 Execution

Contractor shall comply with ACI 304 and ASTM C94 for Measuring, Mixing, Transporting, and Placing the Flowable Fill, and as specified herein.
Flowable Fill shall be mixed, placed, and transported by methods that preserve the quality of the material in terms of compressive strength, flow, homogeneity, plasticity, and workability. Fill shall flow easily around, adjacent to, and under structures and be self-compacting.
Flowable Fill shall not be placed on frozen ground. Mix and place only when the air temperature is at least 35°F (2°C). Flowable Fill shall be at least 40°F during placement. Stop mixing and placement when air temperature is 40°F and falling.
Begin curing immediately following placement to protect from premature drying. Air in contact with fill surface shall maintain temperatures above freezing and shall be protected from excessive hot or cold temperatures. Curing shall continue until the flowable fill has attained the 28-day strength requirement outlined in the Materials section of this specification.

305.4 Method of Measurement

Flowable Fill is incidental to Pay Item 304.

DIVISION 600

SP – 14: Modify Section 602 – Furnish and Install Pipe

Add the following language to Subsections 602.1 and 602.2:

602.1 General

All pipe and fittings shall conform to the following American Water Works Association (AWWA), American Society for Testing and Materials (ASTM), and Plastic Pipe Institute (PPI) standards as applicable.

AWWA C906	Polyethylene Pressure Pipe and Fittings, 4 Inch Through 63 Inch for Water Distribution and Transmission
AWWA C153	Mechanical Joint Ductile Iron Fittings
ASTM D3261	Butt Heat Fusion polyethylene (PE) Plastic Fittings for Polyethylene (PE) Plastic Pipe and Tubing
ASTM F714	Polyethylene (PE) Plastic Pipe (SDR-PR) Based on Outside Diameter
ASTM F905	Standard Practice for Qualification of Polyethylene Saddle-Fused Joints
ASTM F1055	Standard Specification for Electrofusion Type Polyethylene Fittings for Outside Diameter Controlled Polyethylene and Crosslinked Polyethylene (PEX) Pipe and Tubing
ASTM F2164	Field Leak Testing of Polyethylene (PE) Pressure Piping Systems using Hydrostatic Pressure
ASTM F2206	Fabricated Fittings for Butt-Fused Polyethylene Plastic Pipe
ASTM F2620	Standard Practice for Heat Fusion Joining of Polyethylene Pipe and Fittings
ASTM F3124	Standard Practice for Data Recording the Procedure used to Produce Heat Butt Fusion Joints
PPI TN-38	Bolt Torque for Polyethylene Flanged Joints

602.2 Material

a. Ductile Iron Pipe (DIP)

All direct bury ductile iron pipe and fittings shall be restrained joint TR Flex® or Engineer approved equal.

Gaskets for buried ductile iron pipe joints shall be resistant to permeation by hydrocarbons. Gaskets shall be nitrile (NBR) Buna-N rubber, color-coded green, or Fluorocarbon/fluoroelastomer (FKM) Viton®, and color-coded red. The use of SBR, Neoprene® or EPDM gaskets will NOT be allowed for direct bury ductile iron pipe.

Wrap all direct bury ductile iron pipe with 8-mil V-Bio enhanced polyethylene wrap in accordance with ANSI/AWWA C105/A21.5 *Polyethylene Encasement for Ductile Iron Pipe Systems*.

Replace Subection 602.2, Part d. entirely with the following:

d. High Density Polyethylene Pipe (HDPE)

HDPE pipe placement and pipe sizes shall be as specified on the drawings.
All HDPE main line shall be installed with No. 6 bare copper tracer wire. Trace wire shall be secured, at ten-foot intervals, to the top of the pipe with tape or other engineer approved equal.

1. Pipe

Pipe and fittings, including linings and coatings, shall be certified by an accredited organization as being suitable for contact with potable water, in accordance with NSF 61 and labeled as such.

All HDPE pipe, fittings, and flanged and mechanical joint adapters shall have a minimum designation code of PE4710, a minimum cell classification of 445474C, be in accordance with AWWA C906, and conform to all applicable ASTM standards. Molded or fabricated fittings and flanged or mechanical joint (MJ) adapters shall have a pressure rating equal to that of the pipe to be installed.
All nominal pipe diameters given on the drawings will have actual diameter dimensions in accordance with ASTM F714. Pipe shall have a standard dimension ratio (SDR) of 11.0

All HDPE pipe used in the project shall have the same trade name and matching print line information that displays the pipe designation code, manufacturer, and standard dimension ratio, trade name, relevant standards to which the pipe was manufactured, and date of manufacture. All pipe shall contain Carbon Black for UV inhibition and blue striping along the length of pipe at no more than 90-degree intervals around the pipe. Striping shall be co-extruded on the outside surface of the pipe as part of the manufacturing process.

2. Joints

All flanged and mechanical joints shall be properly restrained to help mitigate pull-out forces due to hydraulic forces, temperature change, and seismic movements.
Stiffening rings shall be used in HDPE pipe where restrained joint devices utilize radial clamping force to achieve restraint.

All fusions shall be made by a Qualified Fusion Operator (QFO). The QFO for this project must:

(i) Be competent and knowledgeable in heat fusion procedures
(ii) Have proof of qualification within the last 24 months via a manufacturer's recognized training facility and/or program
(iii) Have received training in heat fusion procedures according to ASTM F2620 for Butt Fusion and ASTM F1055 for Electrofusion
(iv) Have received training in the equipment being used to perform fusion
(v) Have received training for fusion of, at minimum, medium diameter pipe (2" IPS to 20" OD)
(vi) Have received training in handling and testing methods
(vii) Understand the effects of changing environmental conditions in the area in which the pipe is to be installed, and adjust or check fusion parameters to avoid negative impact on the integrity of the fusion
(viii) Have individual documented prior experience (logs), not company experience, in performing HDPE pipe installations, heat fusion procedures, and testing methods

Equipment used to make fusions shall be the McElroy Rolling 412 or approved equal. Pipe stands of adequate load bearing capacity shall be used for pipe support on either side of the fusion machine. Bar oil will not be permitted when cutting HDPE pipe with a chainsaw. Records of all fusion will be kept either on paper or using a McElroy DataLogger. Logged information should include at least the date and time of fusion, employee ID of the machine operator, the machine ID, the machine model, the piston area, pipe material, pipe size, interfacial pressures during heat, soak, fuse, and cooling stages of fusion, recommended gauge pressures during heat, soak, fuse, and cooling stages, drag pressure, data logger probe temperature, and the external probe temperature.

a. Molded or fabricated butt fusion fittings shall be made in accordance with AWWA C906 and all applicable ASTM standards (ASTM D3261 for molded and ASTM F2206 for fabricated fittings). Pipe fusions and fabricated fittings shall be made using a datalogger that records fusion time, temperature, and pressure. Each fabricated and data-logged joint will be marked with a unique identifier that corresponds to the joint report. Fusion time and pressure data will be retained and made available to the City for a minimum of five years.

b. Electrofusion fittings shall be made in accordance with ASTM F1055.

c. Saddle fusion shall be done in accordance with ASTM F2620.

d. Markings for molded or machined adapters shall be in accordance with ASTM D3261. Fabricated adapters shall be marked in accordance with ASTM F2206. All markings on pipe shall be made using a permanent, metallic-colored

marker such as the “Sharpie” or “Magic Marker” by Avery or fast drying paint pens such as those manufactured by Pentel or Faber Castell.

e. Installation of flanged adapters shall be done following the guidelines outlined in PPI TN-38. Installation of HDPE to Ductile Iron MJ adapters shall consist of an HDPE mechanical joint transition fitting fused directly to the end of the pipe, a stainless-steel stiffening ring, a rubber gasket, a mechanical joint backup drive ring, and hot-dipped galvanized mechanical joint T-bolts and nuts.

f. Gaskets shall be manufactured in accordance with AWWA C153 and NSF 61 certified.

g. T-bolts shall be sufficient length to show a minimum of three complete threads when the joint is made and tightened. Threads shall be greased prior to installation using petroleum-based grease. Retorque nuts after 24 hours.

Add the following to Subsection 602.3, Part b:

602.3 Construction

b. Materials Delivery

If exposed to sun or warm weather for an elongated period prior to placement, allow the pipe to cool to ambient soil temperature in the trench to reduce the possibility of excessive pull-out forces caused by the contraction of the pipe as it cools.
Standard straight lengths for pipe are generally 40 feet long. The site staging of the pipe should be free of damaging debris that could jeopardize the integrity of the pipe. The Contractor shall consider the size of the site, so the stored pipe does not interfere with handling and maneuvering equipment.
Upon arrival to the site, and prior to acceptance of delivery, the pipe shall be inspected for damage. Cuts or gouges that reduce the wall thickness by more than 10% is unacceptable and shall be documented by the Contractor. Photo and written documentation with length of damaged pipe, description of damage, when and where the damage was incurred, and actions taken by Contractor to remedy the damage shall be submitted to engineer as soon as possible. Cuts and gouges shall be cut out of the pipe, discarded, and pipe shall be rejoined via fusion techniques outlined in these specifications.

Add the following to Subsection 602.4.:

602.4 Flushing and Testing

Contractor shall obtain a Hydrostatic General Permit (AKG003000) in compliance with the provisions of the Clean Water Act (CWA) issued under provisions of the Alaska Statutes and Administrative Code as amended.

Replace the last paragraph of Section 602.4.b with the following:
Hydrostatic testing of Polyethylene (PE) pressure pipe shall be conducted in accordance with ASTM F2164 except as modified herein. For safety, only hydrostatic testing will be permitted.

Testing Pressure, pounds / square inch (psi) - The minimum test pressure for new mains shall be 190 psi (110% working pressure of new pump station butterfly valves).
Filling - Fill the pipeline with water after it has been laid; bleed off any trapped air. (Warning - Entrapped air can result in an explosive, violent, and dangerous catastrophic failure because both the pressure stress on piping and the energy used to compress the entrapped air is released.)

Initial Expansion Phase – Gradually pressurize the test section to test pressure, and maintain test for three (3) hours. During the initial expansion phase, polyethylene pipe will expand slightly. Additional test liquid will be required to maintain pressure. It is not necessary to monitor the amount of water added during the initial expansion phase.
Test phase – reduce test pressure by 10 psi and monitor pressure for 1 hour. Do not increase pressure or add make-up water.

Pass/Fail Criteria – If no visual leakage is observed, and pressure during the test phase remains steady (with only a max of 5 psi drop) for the 1-hour test phase period, a passing test is indicated.

Prior to connecting to existing services, and for services to future connections, new service lines shall be flushed and tested at the working pressure of the main and shall be accepted if free of visible leaks. New services shall not be backfilled or insulated prior to successful testing. The same test shall apply to hydrant leads.

Note: under no circumstances shall the total time under test exceed eight (8) hours at 1.5 times the system pressure rating. If the test is not complete within this time limit (due to leakage, equipment failure, etc.), the test section shall be permitted to "relax" for eight (8) hours prior to the next test sequence.

SP – 15: Modify Subsection 604.2

Add the following language:

13. All hydrants shall be wrapped in 3 layers of 8-millimeter polyethylene encasement below the ground line.

14. All hydrants shall have anode and #10 jumper wires connected to connector plates

SP – 16: Add Section 609 – Pump Station Process Mechanical Piping

609.1 General

Work under this section includes furnishing and installing all process piping inside the pump station.

a. Related Work

Section 602 – Furnish and Install Pipe
Section 610 – Pump Station Valves, Actuators, and Specialty Piping Items

b. Submittals

Submittals shall be as per the City of Homer General Provisions Section 10 and shall include but not be limited to materials provided, materials of construction, dimensions, part lists, maintenance requirements, and performance specifications.

609.2 Material

a. Ductile Iron Pipe

Ductile iron pipe shall be used where specified on the drawings. Pipe sizes shall be as indicated on the drawings. All pipe, fittings, and accessories shall conform to the following American Water Works Association (AWWA) standards as applicable.

AWWA C104	Cement-Mortar Lining for Ductile Iron and Gray Iron Pipe and Fittings for Water
AWWA C110	Gray-Iron and Ductile-Iron Fittings, 3 in. Through 48 in., for Water and Other Liquids
AWWA C115	Flanged cast-iron and Ductile-Iron Pipe with Threaded Flanges
AWWA C151	Ductile-Iron Pipe, Centrifugally Cast in Metal Molds or Sand-Lined Molds, for Water or Other Liquids

1. *Pipe*

Pipe interior shall be coated with a cement lining in accordance with AWWA C104. The pipe shall be a minimum of pressure Class 250 conforming to AWWA C151. Pipe shall be factory coated for corrosion protection.

2. *Joints*

a. Flange: Flange joints shall be used for connecting to piping, pumps, valves, and other miscellaneous equipment and where otherwise indicated. Flanged pipe shall conform to AWWA C115.

b. Flange Gaskets: Gaskets used on raw water piping shall be synthetic rubber and 1/8" thick conforming to AWWA C115.

c. Flanged Adapters (Ductile Iron Pipe): For joining plain end pipe to flanged valves, flanged fittings or other condition requiring a flange use a restraining type EBAA Iron Megaflange Series 2100 or approved equal.

d. Fittings: Fittings for ductile iron pipe shall conform to AWWA C110 and shall be used as specified on the construction drawings. Fittings shall be cement lined in accordance with AWWA C104. All elbows shall be standard radius unless otherwise noted.

3. *Insulation*

Insulate entire pipe with minimum 2-inches of insulation. Use all glass, closed-cell, FOAMGLASS insulation, as manufactured by Owens Corning, or approved equal. Insulation shall be pure glass, inorganic having a compressive strength of 90 psi and average density of 7 lb/cf. All insulation joints shall be sealed with manufacturer's recommended joint sealant. Provide minimum thickness 20 mil PVC jacketing over insulation or polished aluminum jacket fastened with stainless steel bands.

4. *Wall and Floor Penetrations*

Pipe penetrations through concrete walls and floors shall be cast with pipe penetration sleeves molded from non-conductive, high impact resistant HDPE. Pipes shall be sealed within the sleeve with Link Seal modular seals. The seal shall provide a watertight penetration. Use wall penetration sleeves as provided by Century-Line and modular Link Seal system as manufactured by PSI/Thunderline/ Link-Seal®. All bolts and nuts shall be stainless steel.

b. Steel Pipe

1. *General*

Steel pipe shall be used where indicated on the drawings or where specified. Steel pipe shall be used to relocate and re-plumb the existing pump station air release valve drains to match existing pipe material. Interior raw water piping, fittings and connecting procedures shall conform with the latest edition of the Uniform Plumbing Code.

All steel pipe, fittings, and accessories shall conform to the following American Society for Testing and Materials (ASTM), American National Standards Institute (ANSI), and American

Water Works Association (AWWA) standards and specifications as applicable. See the sections following this listing for specific references to these standards.

ANSI B1.20.1	Pipe Threads
ANSI B16.9	Factory-Made Wrought Steel Butt Welding Fittings
ANSI B36.10	Welded and Seamless Wrought Steel Pipe
ASTM A53	Pipe, Steel, Black and Hot-Dipped, Zinc-Coated Welded and Seamless
ASTM A105	Forgings Carbon Steel for Piping Components
ASTM A307	Carbon Steel Bolts and Studs, 60,000 psi Tensile Strength
ASTM A234	Pipe Fittings of Wrought Carbon Steel and Alloy Steel for Moderate and Elevated Temperature
AWWA C151	American National Standard for Ductile-Iron Pipe, Centrifugally Cast, for Water
AWWA C153	American National Standard for Ductile-Iron Compact Fittings, 3-inch through 24-inch and 54-inch through 64-inch, for Water Service
AWWA C200	Steel Water Pipe 6 In. and Larger
AWWA C206	Field Welding of Steel Water Pipe
AWWA C207	Steel Pipe Flanges for Waterworks Service – 4 In. through 144 In.
AWWA C208	Dimensions for Fabricated Steel Water Pipe Fittings
AWWA C210	Liquid Epoxy Coating Systems for the Interior and Exterior of Steel Water Pipelines
AWWA C213	Fusion-Bonded Epoxy Coating for the Interior and Exterior of Steel Water Pipelines
AWWA C606	Grooved and Shouldered

2. *Pipe*

Steel pipe shall conform to ASTM A53 (Grade B) or ASTM A139 (Grade B) or AWWA C151, ANSI B36.10 and AWWA C200, where applicable. Steel pipe shall be standard thickness. Minimum yield strength shall be 35,000 psi.

3. *Joints*

For 4-inch diameter and larger pipe, the pipe ends shall be beveled for welding where flanged or grooved ends are not provided. Joints for 4-inch pipe and smaller shall be screwed, unless flanged ends are called for in the Drawings.

a. Welded Joints: Welded joints in the steel pipe shall be butt-welded in compliance with AWWA C200, and field welds shall conform to AWWA C206. A single butt weld on the exterior of the pipe shall be used. The welded joints shall not create a deflection at the joint of more than 0.4 percent (1" in 20').

b. Screwed Joints: Threads shall comply with ANSI B1.20.1.

c. Flanges: Flanges shall be attached to the steel pipe at all locations shown on the Drawings and/or as needed to properly install the pipe as indicated in the Drawings. Flanged fittings shall be used for all connections to pumps and to valves 4-inches and larger. Flanges shall be ASME B16.5, Class 300, flat faced and attached by two fillet welds. Gaskets shall be ⅛" thick full-faced rubber. Bolts shall be galvanized conforming to ASTM A307 or equivalent stainless steel. The attaching of flanges shall comply with AWWA C207 and field welds shall conform to AWWA C206.

d. Dismantling Joints: Dismantling joints shall consist of telescoping, AWWA C207, Class F, flanged fittings with fully restrained tie rod restraints. Flange spool piece shall be ductile iron with Class F steel ring flange. End ring and body shall be made of ASTM A36 steel. Gaskets shall be NTR. Fittings shall be coated and lined with fusion bonded epoxy, NSF61 certified. Telescoping range shall be two inches for 12-inch and smaller fittings and 3-inches for 14-inch and larger fittings. Bolts shall be carbon steel or similar. Stainless steel bolts are not required. Flanged dismantling joints shall be Romac Style DJ400, or approved equal, and rated for 300 psi operating pressure.

e. Fittings: All steel fittings shall comply with ANSI B16.9, ASTM A234, AWWA C200 and AWWA C208. Flanges, welds, and threads shall be as covered above for steel pipe.

f. Reducing Branch Connections: All reducing tee connections to steel pipe where the branch pipe is 3" or smaller shall utilize a reinforced welded connection fitting. Welded connection fitting shall be standard weight with male NPT threadolet outlet conforming to ASTM A105. A mitered branch with a saddle, reinforcing pad, or collar plate configuration will not be acceptable. Larger tee or wye connections shall be reinforced with collar plates, "donuts" or equivalent, as required by manufacturer for the maximum required operating pressures.

g. Flanged Coupling Adapters: Flanged coupling adapters (FCA) shall be used only if indicated on the Drawings and include anchor pin for thrust restraint. Body shall be ASTM A53 steel and ANSI 150 # flange drilling. Bolts shall be manufacturer's standard steel bolt material. Gasket material shall be Nitrile, and finish shall be fusion bonded epoxy inside and out. FCA's shall be Romac FCA501, Smith-Blair Series 913, or approved equal.

4. *Corrosion Protection*

a. Coatings: Interior pipe, joints, and fittings shall have corrosion protection coating as specified in AWWA C210.

b. Linings for Steel Pipe and Fittings: Except where galvanized pipe is allowed, steel pipe linings shall be liquid epoxy in accordance with AWWA C210. Linings shall be NSF approved for potable water use. All interior fittings and pipe shall be of the same lining system.

c. Field Repair: Any damaged coatings or linings shall be field repaired following the appropriate AWWA standard.

5. *Wall and Floor Penetrations*

Pipe penetrations through concrete walls and floors shall be cast with pipe penetration sleeves molded from non-conductive, high impact resistant HDPE. Pipes shall be sealed within the sleeve with Link Seal modular seals. The seal shall provide a watertight penetration. Use wall penetration sleeves as provided by Century-Line and modular Link Seal system as manufactured by PSI/Thunderline/ Link-Seal®. All bolts and nuts shall be stainless steel.

c. Pipe Hangers and Supports

1. *General*

The Contractor shall be responsible for providing hangers and supports for all interior piping and above grade exterior piping. Unless otherwise indicated, all pipe hangers and supports shall be standard, commercially accepted pipe hangers and accessories. In locations where a standard support cannot be used, the Contractor shall be responsible for fabricating these supports in accordance with the details provided in the Drawings. Support spacing shall be as indicated on the drawings. Where no spacing is indicated, Contractor shall provide adequate support to eliminate all sagging of the pipe, to eliminate all dead loads on equipment or tank flanges, and/or movement of the pipe when subjected to the operating flow and pressure of the transported fluid. No pipe shall be supported directly by wall penetrations or equipment flanges.

2. *Adjustable Pipe Stand Floor Supports*

Pipe stands shall be Anvil Intl. Figure 259 pipe stands with U-bolt strap with Figure 62 adjustable pipe stanchions or approved equal.

3. *Wall Hangers and Supports*

For pipes 1" in diameter or less, use Unistrut Corporation J1205N through J1220N or approved equal. Where large piping is supported from a wall, a wall support and "U" bolt shall be installed. The wall support shall be Figure 195 or Figure 199 as manufactured by Anvil Intl. or approved equal.
Small diameter pipe supports for attachment of 1" to 3" diameter pipe to walls shall consist of all-purpose metal framing. Metal framing shall be 1-5/8" square and constructed of hot-dipped galvanized steel, as manufactured by Unistrut. Pipe straps shall be Unistrut Series P2558 of the appropriate size or approved equal.

609.3 Execution

a. General

Pipe runs shall be installed where indicated if the piping is dimensioned. Where piping is not dimensioned the Contractor shall install the pipe as close as possible to the locations indicated taking care to maintain a neat appearance. Piping shall be installed in a manner that maintains access around the pumps and new header.

b. Fabrication

Pipe shall be accurately cut to the required lengths using tools specifically designed for the material involved. All piping shall be reamed to full size after cutting.

c. Assembly

1. *Flanged Joints*

Thoroughly clean gasket and all surfaces which will contact gasket and thoroughly brush with soapy water. Tighten bolts alternately to an even, normal torque. Ineffective sealing will require disassembly, inspection for defects and proper reassembly of joints.

2. *Threaded Joints*

Threads on pipes shall be carefully cut with proper thread dies and shall be smooth and continuous. Screwed joints shall be made up with Teflon tape or an approved thread lubricant for the service involved applied to male threads only. Joints which are required to be backed off shall be entirely disjointed, the threads of both the pipe and fittings shall be cleaned, new Teflon tape applied, and the connection reassembled.

3. *Welded Joints*

Welded joints shall be completed in accordance with AWS Code for procedures of manual shielded metal-arc welding, appearance and quality of welds made and methods used in correcting field welding.

a. Other patented jointing systems shall be made in strict accordance with the manufacturer's recommendations.

d. Handling of Pipe

All pipe furnished by the Contractor shall be delivered and distributed at the site by the Contractor. Pipe, fittings, and accessories shall be loaded and unloaded by lifting with hoists or by skidding to avoid shock or damage. Under no circumstances shall such material be dropped. Pipe handled on skidways shall not be skidded or rolled against pipe already on the ground.
In distributing the material at the site of the work, each piece shall be unloaded near the place where it is to be installed or in an acceptable storage area.

e. Temporary Pipe

Every precaution shall be taken to prevent foreign material from entering the pipe while it is being placed in the line. Before pipe installed under this contract will be accepted by the Owner, the Contractor shall remove all debris, earth, rocks or other foreign material from the pipe. At all times when pipe installation is not actually in progress, the open ends of pipe shall be closed by temporary plugs, caps, or other approved means.

f. Testing

After installation all interior piping shall be pressure tested by operating the pumps. No visible leakage will be allowed.

g. Painting

1. All interior pipe and exposed steel framework shall be coated in accordance with ANSI/AWWA C116/A21.16-09.

2. Coatings shall be applied during good painting weather. Air and surface temperatures shall be within limits prescribed by the manufacturer for the coating being applied and work areas shall be reasonably free of airborne dust at the time of application and while the coat is drying.

3. Materials shall be mixed, thinned and applied to the manufacturer's printed instructions.

4. Allow each coat to dry thoroughly before applying the next coat.

5. The contents shall be identified on the piping in a contrasting color using pre-made adhesive label at 10 ft. on centers or as otherwise specified.

6. All work shall be cut in neatly and finish coats shall be uniform in color and texture without streaks, laps, heavy build-ups, runs, sags, or missed areas.

7. Request acceptance of each coat before applying the next coat.

609.4 Method of Measurement

No measurement will be made for this item of work.

609.5 Basis of Payment

Payment for this item will be made under the following unit:

Bid Item	Description	Unit
609	Pump Station Process Mechanical Piping	EA

SP – 17: Add Section 610 – Pump Station Valves, Actuators, and Specialty Piping Items

610.1 General

Work under this section includes materials, testing, and installation of manually operated valves, check valves, surge relief valves, and process butterfly valves. This section includes materials, testing, and installation of motorized actuators to be installed on pump discharge butterfly valves.

a. Related Work

1. Furnish and Install Pipe: Section 602
2. Pump Station Process Mechanical Piping: Section 609

b. Submittals

Submit manufacturer's catalog data and detail construction sheets showing all valve parts and describing by material of construction and specification (such as AISI, ASTM, SAE, or CDA). Identify each valve by tag number to which the catalog data and detail sheets pertain. Show dimensions and orientation of valve actuators, as installed on the valves. Show location of internal stops for gear actuators.

Show valve linings and coatings. Submit manufacturer's catalog data and descriptive literature.

610.2 Material

a. General

1. Install valves complete with operating handwheels or levers, chainwheels, extension stems, floor stands, gear actuators, operating nuts, chains, and wrenches required for operation.

2. Valves shall have the name of the manufacturer and the size of the valve cast or molded onto the valve body or bonnet or shown on a permanently attached plate.

3. All valves shall be NSF-61 compliant and approved for potable water application.

b. Manual Valve Operators

1. Provide lever or wrench operators for valves 6 inches and smaller. For larger valves, provide gear driven handwheels.

2. Provide handwheels or lever operators as indicated on the plans or elsewhere in the specifications.

3. Design gear operators assuming the differential pressure across the plug or disc is equal to the test pressure of the connecting piping.

4. Gear operators shall be enclosed, oil lubricated, with seals provided on shafts to prevent entry of dirt and water into the operators. Gear operators shall have handwheels. The operators shall contain a dial indicating the position of the valve disc or plug.

5. Traveling nut and worm and gear actuators shall be of the totally enclosed design so proportioned as to permit operation of the valve under full differential pressure rating of the valve with a maximum pull of 80 pounds on the handwheel or crank. Provide stop limiting devices in the actuators in the open and closed positions.

6. Self-locking worm gear shall be a one-piece design of gear bronze material (ASTM B 427), accurately machine cut. The worm shall be hardened alloy steel (ASTM A 322, Grade G31400; or ASTM A 148, Grade 105-85), with thread ground and polished. Support worm gear shaft at each end by ball or tapered roller bearings. The reduction gearing shall run in a proper lubricant.

7. Valve actuators, handwheels, or levers shall open by turning counterclockwise.

c. Motorized Valve Actuators

1. Provide motorized actuators for valves as indicated on the plans or elsewhere in the specifications.

2. Electric actuators shall be Bray Series 70 to fit existing Bray Series 31 Lug Butterfly valves. Refer to the table below and valve list for details.

Tag	Valve Size	Valve Model	Actuator Model
FV-103	8”	Bray Series 31 Resilient Seated Butterfly Valve	Bray S70-003, 3000 in.·lb

3. Motor Power requirements:
   Voltage: 120 VAC
   Frequency: 60 Hz
   Phase: 1 pH
4. Actuators shall be of the self-locking type to prevent the disc or plug from creeping. Mechanical stainless steel travel stops shall be provided and located outside the actuator enclosure for ease of adjustment.

5. Travel switches shall be single pole, Double Throw (SPDT) Form C Type UL listed and CSA Approved 10A at 125 VAC.

6. Travel limit switches shall limit the actuator travel in both open and closed direction of travel.

7. Actuator travel limit switches shall be held in brackets for accurate and repeatable valve position feedback.

8. Auxiliary switches are required on each actuator to indicate travel position for remote customer control systems. All auxiliary switches shall be single pole, Double Throw (SPDT) Form C Type UL listed and CSA Approved 10A at 125 VAC.

9. Input signals shall be 4-20 mA.

10. Provide high visibility valve position indicator locally mounted on actuator.

11. Provide manual handwheel override for manual operation of valve.

d. Valve Tagging and Identification

Provide permanent plastic or metal identifying valve tags with valve numbers matching the drawings.

e. Bolts and Nuts for Flanged Valves

Bolts and nuts for flanged valve shall be as described in the piping specifications.

f. Gaskets for Flanges

Gaskets for flanged end valves shall be as described in the piping specification.

g. Painting and Coating:

Valves and actuators shall be factory painted and/or coated.

h. Packing, O-Rings, and Gaskets

Unless otherwise stated in the detailed valve specifications, packing, O-rings, and gaskets shall be one of the following non-asbestos materials and in compliance with NSF 61:

1. Teflon
2. Kevlar aramid fiber
3. Acrylic or aramid fiber bound by nitrile. products: Garlock "Bluegard", Klinger "Klingersil C4400", or equal
4. Buna-N (nitrile)

i. Butterfly Valves

Motorized butterfly valves shall be installed on each individual pump discharge as indicated on the drawings. Hand operated, isolation butterfly valves shall be installed on each transmission main as indicated on the drawings.

1. Valve Body: Body shall lug design with extended neck to allow for 2” of piping insulation. A non-corrosive bushing and a self-adjusting stem seal shall be provided. No field adjustment shall be necessary to maintain optimum field performance.

2. Valve Disk: Disc edge and hub on metal discs shall be spherically machined and hand polished for torque and maximum sealing capability.

3. Valve Stem: Shall be one-piece design. Disc to stem connection shall be and internal double “D” design with no possible leak paths in the disc-to-stem connection. External disc to stem connections such as disc screws or pins are not allowed. Stem shall be mechanically retained in the body neck and no part of the stem shall be exposed to the line media.

4. Seat: Shall be tongue-and-groove seat with a primary hub seal and a molded flange O-ring for weldneck and slip-on flanges. The seat shall totally encapsulate the body isolating it from the line media and no flange gaskets shall be required.

5. Testing: Valve shall be tested to 110% of the rated pressure.

6. Pressure Ratings: Valve shall be rated for bubble-tight shut-off at pressure rating shown below.
   Bi-directional Service (With downstream flanges and disc in closed position):
   2”-12” (50mm-300mm) 175 psi (12.0 Bar)
   14”-20” (350mm-500mm) 150 psi (10.3 Bar)
   Dead-End Service (No downstream flanges and disc in closed position):
   2”-12” (50mm-300mm) 75 psi (5.2 Bar)
   14”-20” (350mm-500mm) 50 psi (3.4 Bar)

7. Butterfly Valve shall be NSF/ANSI 61 certified (Potable Water)

8. Valve materials of construction shall be as follows:

Component	Material	Specification
Body	Cast iron or ductile iron	ASTM A 48, Class 40; ASTM A 126, Class; or ASTM A 536, Grade 65-45-12
Exposed body, cap screws, bolts, nuts	Stainless steel	ASTM A 276, Type 316
Discs	Stainless steel	ASTM A 276, Type 316
Internal lining, body and disc	Buna-N or Teflon	
Valves shall be Bray Series 31 or engineer approved equal.		

9. Thrust Bearings for Butterfly Valves:
   a. Provide thrust bearings to hold the valve disc in the center of the valve seat.
   b. No bearings shall be mounted inside the valve body within the waterway.
   c. Do not use thrust bearings in which a metal bearing surface on the disc rubs in contact with an opposing metal surface on the inside of the body.

10. Corrosion-Resistant Materials in Butterfly Valves: where AWWA C504 (Subsections 3.5, 3.6, and 3.7) requires "corrosion resistant" material, such material shall be Type 316 stainless steel.

j. Ball Valves

1. Ball valves 2” and under nominal pipe size shall have threaded or soldered bronze ball with 600# cold working pressure.

2. Ball valves shall have a two-piece body, reinforced seats, a blowout-proof stem design, and adjustable packing gland.

3. Apollo Series 70 two-piece uni-directional or approved equal.

k. Check Valves

Each pump discharge shall be equipped with a globe style, silent check valve.

1. Check valve shall be globe style, flanged, and drilled per ASME B16 with 125/150 flange bolt circles.

2. Valve plug must be center guided at both ends with integral shaft.

3. Valve spring must be a coil spring, Type 316 Stainless Steel with ends ground flat for true perpendicular closing force.

4. Valve seat and plug shall be replaceable in the field for ease of maintenance. Resilient seated valves shall be drip tight. Flow area through the valve body shall be equal to or greater than the cross-sectional area of the equivalent pipe size.

5. APCO CSC Series 600A Globe Silent Check Valve as manufactured by DeZurik® or engineer approved equal.

l. Surge Relief Valves:

The Pump Station pump discharge piping shall be equipped with a surge relief valve. Surge relief angle valves shall be normally closed against the system pressure by external spring(s) in compression and shall open quickly to relieve pressure when the system pressure exceeds the pressure relief setting. The pressure relief setting shall be factory set at **120 PSI** and field adjustable by adjusting the spring compression. The valve will begin to close when the system pressure subsides below the pressure relief setting. The closing speed shall be adjustable to suit the application.

1. Valve Body shall be a 90-degree elbow design conforming to the center-to-face dimension for long-radius elbows per ASME B16.1 and ASME B16.42. Valve shall be

a compact design to fit in tight installation spaces. Body and cover shall be constructed of ASTM A536 Grade 65-45-12 ductile iron.

2. Body Seat shall be 316 stainless steel. Flanges shall be flat faced and conform to ASME B16.42 Class 150. Valve shall be proof-of-design tested to 5,000 cycles.

3. A self-contained, sealed hydraulic system shall provide closing speed control. The valve cover shall provide an air gap between the line fluid and the hydraulic oil that will indicate seal wear and prevent contamination of line fluid or hydraulic oil. The valve shall be capable of being mounted in any position without modification or customization of the hydraulic system components. A mechanical stroke counter with manual reset shall provide local indication of total valve cycles.

4. External spring(s) located on the valve cover in a protective steel enclosure shall provide closing force. Springs shall be sized to optimally match customer-specified relief pressure setting to minimize pressure rise above the set-point to fully open valve. A single adjustment screw shall be provided for field adjustment of relief pressure setting.

5. Valve Disc shall have a replaceable seat ring of Acrylonitrile-Butadiene (NBR); Terpolymer of Ethylene, Propylene and A Diene (EPDM) or Fluoro Rubber (FKM) for tight shutoff.

6. Valve shall be a 4” flanged APCO SRA Surge Relief Angle Valve or engineer approved equal. Relief pressure set point shall be 120 PSI.

m. Raw Water Sampling Valve

A raw water sampling tap and sampling valve shall be provided on the raw water pump discharge header in a readily accessible location. The sample tap shall be consistent with sampling needs and shall not be of the petcock type. Taps shall be of the smooth-nosed type without exterior or interior threads, shall not be of the mixing type, and shall not have a screen, aerator, or other such appurtenance.

610.3 Execution

a. Joints

1. Bolt holes of flanged valves shall straddle the horizontal and vertical centerlines of the pipe run to which the valves are attached. Clean flanges by wire brushing before installing flanged valves. Clean flange bolts and nuts by wire brushing,

lubricate threads with oil and graphite, and tighten nuts uniformly and progressively. If flanges leak under pressure testing, loosen or remove the nuts and bolts, reseat or replace the gasket, reinstall or retighten the bolts and nuts, and retest the joints. Joints shall be watertight.

2. Clean threaded joints by wire brushing or swabbing. Apply Teflon joints compound or Teflon tape to pipe threads before installing threaded valves. Joints shall be watertight.

b. Installing Valves

1. Install valves in horizontal runs of pipe having centerline elevations 4'-6" or less above the floor with their operating stems vertical. Install valves in horizontal runs of pipe having centerline elevations between 4'-6" and 6'-9" above the floor with their operating stems horizontal.

2. Install valves on vertical runs of pipe that are next to walls with their stems horizontal, away from the wall. Valves on vertical runs of pipe that are not located next to walls shall be installed with their stems horizontal, oriented to facilitate valve operation.

c. Mounting Gear Operators

The valve manufacturer shall select and mount the gear actuator and accessories on each valve and stroke the valve from fully open to fully closed prior to shipment. For existing valves, the Contractor shall install the actuator per manufacturer's instructions and verify all bolts are torqued per specifications. Verify smooth operation of the valve is possible with the handwheel and the actuator. If any hesitation is noted, verify valve to piping flange bolts are properly torqued (a common error is over-torqued bolts in lug style butterfly valves).

d. Field Installation of Gear Actuator:

Provide the actuator manufacturer's recommended lubricating oil in each actuator before commencing the field testing.

e. Valve Leakage Testing

Test valves for leakage while the connecting pipelines are tested. See Section 602.4 b for hydrostatic pressure testing requirements. Protect or isolate any parts of valves, actuators, or control and instrumentation systems whose pressure rating is less than the pressure test. Valves shall show zero leakage. Repair or replace any valves and retest.

f. Valve Field Testing

Operate manual valves through 10 full cycles of opening and closing. Valves shall operate from full open to full close without sticking or binding. If valves stick or bind, repair or replace the valve and repeat the tests.
Gear actuators shall operate valves from full open to full close through 10 cycles without binding or sticking. The pull required to operate handwheel - or chainwheel - operated valves shall not exceed 80 pounds. The torque required to operate valves having 2-inch AWWA nuts shall not exceed 150 ft-lbs. If actuators stick or bind or if pulling forces and torques exceed the values stated previously, repair or replace the actuators and repeat the tests. Operators shall be fully lubricated in accordance with the manufacturer's recommendations prior to operating.

610.4 Method of Measurement

No measurement will be made for this item of work.

610.5 Basis of Payment

Payment for this item will be made under the following unit:

Bid Item	Description	Unit
610	Pump Station Process Mechanical Valves, Actuators, and Specialty Piping Items	EA

SP – 18: Add Section 611 – Raw Water Pump Station Electrical Demolition and Update to VFD/SCADA Programming

611.1 General

Work under this section includes items directly related to the removal of the surge tank system in the Raw Water Pumphouse and is generally described as:

1. Demolition work consisting of but not limited to proper removal and disposal of existing electrical conduit, wire, boxes, equipment, fixtures, etc. related to the surge tank and associated air compressor system.
2. Modifications to the VFD settings for the three existing raw water pumps.
3. Modifications to the SCADA system at the main water treatment plant to remove any alarms or other references to the compressed air system.

a. Related Work

1. Furnish and Install Pipe: Section 602
2. Pump Station Process Mechanical Piping: Section 609

b. Submittals

No submittals required.

611.2 Material

a. General

1. Demolition work does not have materials, except as outlined below.

2. Repair or replace any electrical components impacted by the demolition. It is anticipated that the contractor will need to block openings in existing panels where conduit has been removed. Any open knock-out shall be plugged with watertight hole-seal device.

611.3 Execution

a. General

1. The Contractor shall visit the site and visually examine the items to be removed in order to determine the exact extent of the work required.
2. The existing surge tank system is to be removed and all associated electrical and controls are to be removed back to the main panel. All conduit, electrical boxes, wiring, and switches that would be disabled are to be removed. Any open holes in the panel formerly connected to conduit shall be sealed to prevent water intrusion.

3. Remove two air compressors and air receiver tank and associated power and control wiring back to the main panel. Reference record drawings marked as DEMO attached to this specification. Drawings may not be completely up to date and contractor is responsible for field inspection prior to bidding work to ensure full understanding of the required scope.

4. All three pump VFDs shall have start / stop settings adjusted to prevent speed changes from 100%-0% occurring in less than 10 seconds.

b. Demolition

1. The Contractor shall exercise extreme caution in conducting all demolition operations to avoid damage to adjacent equipment and structures. During demolition, the Contractor shall provide temporary bracing as required to prevent unintentional collapse of equipment and conduit. All areas where demolition activities are to take place shall be marked and separated to avoid injury and damage.

2. All equipment shall be removed in such a manner to assure that associated piping, wiring and other assemblages are not damaged.

3. Damaged equipment and piping due to Contractor's demolition work shall be removed and replaced at no additional cost to the owner.

c. Coordination and Scheduling

1. The Contractor shall schedule and coordinate demolition work with the plant personnel and the Construction Project Manager. The request for downtime shall be submitted to the owner 14 days prior to the planned commencement of work. The owner will notify the Contractor of the approval or denial of the request for downtime 24 hours prior to the planned commencement of work.

2. At completion of demolition work, coordinate with SCADA programmer to update all screens in the main water treatment plant to remove any items no longer in service.

611.4 Method of Measurement

No measurement will be made for this item of work.

611.5 Basis of Payment

Payment for this item will be made under the following unit:

Bid Item	Description	Unit
611	Pump Station Electrical Demolition, VFD programming, and SCADA Updates	EA

BID FORM

Raw Water Transmission Line Replacement

Scope A

ITEM NO.	SPEC NO.	BID ITEM DESCRIPTION	UNIT	QUANTITY	UNIT BID PRICE	TOTAL BID PRICE
1	101	Mobilization & Demobilization	EA	1		
2	102	Construction Surveying	EA	1		
3	202	Clearing & Grubbing	ACRE	16		
4	205	Furnish & Install Type (I) Classified Fill	TON	1,000		
5	206	Furnish & Install Leveling Course	TON	33		
6	207 (Sheet C8)	Dewatering	EA	1		
7	207a	Disposal of Unsuitable Fill	CY	5,457		
8	208	Compaction Control by Contractor	EA	1		
9	209	Demolition	EA	1		
10	209a	Disposal of Contaminated Soils	TON	120		
11	209b	Demolition of Existing Communications	EA	1		
12	212	Erosion and Pollution Control Administration	EA	1		
13	212a	Temporary Erosion and Pollution Control	EA	1		
14	304	Foundation Modifications & Repairs	EA	1		
15	602	Furnish & Install 12” HDPE Pipe	LF	3,828		
16	602	Furnish & Install 12” DI Pipe	LF	147		
17	602	Furnish & Install 6” DI Pipe	LF	44		
18	603a	Furnish & Install 12” Gate Valve	EA	3		

19	603b	Combination Air Valve Assembly	EA	1		
20	604	Furnish & Install Hydrant Assembly	EA	1		
21	609 (Sheet M3)	Pump Station Mechanical Piping	EA	1		
22	610 (Sheet M3-M5)	Pump Station Process Mechanical Valves, Actuators, and Specialty Piping Items	EA	1		
23	611	Pump Station Electrical Demolition, VFD programming, and SCADA Updates	EA	1		
24	702 (N)	Furnish & Install Geotextile Fabric	SY	888		
25	708	Seeding (Type I)	MSF	152		
26	709	Furnish & Install Soil Stabilization Matting	MSF	32		
27	105	Create Record Drawings	EA	1		
28	104	Create Approved Work Plan	EA	1		
29		Furnish & Install Fiber Optic Cable	LF	3,800		
30		Furnish & Install 2” HDPE Conduit	LF	3,800		
31		Conduit/Cable Terminations	EA	2		
32		Communications Vault	EA	4		

Grand Total All Bid Items: $_____

Name of Bidding Company_____

Address of Bidding Company_____

Signature of Company Representative _____ Date _____

Printed Name of Company Representative_____

Phone#/Email_____

CONTRACT FOR THE RAW WATER TRANSMISSION LINE REPLACEMENT PROJECT

This Contract, made and entered into by and between the City of Homer, Alaska, a Municipal Corporation, hereinafter called the "City" and

_____

(Company Name)

Hereinafter called the "Contractor".

I. CONTRACT DOCUMENTS

The Contractor, in consideration of the sum to be paid by the City agrees to furnish all materials, tools, labor, machinery and appurtenances to perform the work set forth in the Contract documents, including:

a. Signed copy of the Bid;
b. Performance Bond;
c. Payment Bond;
d. Bid documents;
e. All Addenda, totaling _;
f. The drawings which consist of 19 sheets titled "Raw Water Transmission Line Replacement";
g. The drawings which consists of 2 sheets titled "Fiber Optic Line Key Map" and "Fiber Optic Line Trench Details";
h. The 2011 Homer Standard Construction Specifications, including the general provisions;

Said Contract Documents are fully and completely incorporated as part of the Contract as if the same were fully set forth herein.

In consideration of the performance of the work as set forth in these Contract Documents, the City agrees to pay to the Contractor the amounts specified in the Contract Documents and to make such payments upon the Contractor's invoicing as approved by the City.

II. CONTRACT COMPLETION TIME

The Contractor agrees to complete the Project, in all respects on or before October 31, 2026.

III. CONTRACT AMOUNT

$_____

In Numbers

$_____
In Words

IV. LIQUIDATED DAMAGES

Liquidated damages in the amount of **$350.00** per day will apply to the Contractor's unexcused delay in the Completion of Construction. The liquidated damage amount specified herein shall only apply to damages and expenses the Owner may incur as a result of a delay in placing the facility into use and operation exclusive of third party damages or claims. The liquidated damage amount shall not cover any damages or expenses the Owner may incur as a result of the Contractor's unexcused delay in completing any portion of the entire Project, which delay results in whole or in part in delay, disruption, hindrance, interference, damages or expenses to any third party. The Contractor shall remain liable for the full amount of any such delay damages or expenses suffered by any third party without limitation by any liquidated damage provision set forth in the Contract.

IN WITNESS WHEREOF, we, the parties hereto, each herewith subscribe the same this _____ day of _____, 2025.

CITY OF HOMER

By: _____

Title: City Manager

CONTRACTOR

_____
(Contractor)

By: _____

Title: _____

PERFORMANCE BOND

KNOW ALL THESE PRESENTS: That we _____
(Name of Contractor)

_____ a _____
(Corporation, Partnership, Individual)

hereinafter called "Principal" and _____
(Surety)

of _____, State of _____

hereinafter called the "Surety" are held and firmly bound unto the City of Homer, hereinafter called "Owner," in the penal sum of _____ dollars ($_____) in lawful money of the United States, for the payment of which sum well and truly to be made, we bind ourselves, our heirs, executors, administrators and successors, jointly and severally, firmly by these presents.

THE CONDITIONS OF THIS OBLIGATION are such that Whereas, the Principal has or is about to enter into a certain contract with the Owner, a copy of which is hereto attached and made a part hereof for the construction of:

NOW, THEREFORE, if the Principal shall well, truly and faithfully perform its duties, all the undertakings, covenants, terms, conditions, and agreements of said contract during the original term thereof, and any extensions thereof which may be granted by the Owner, with or without notice to the Surety, and if it shall satisfy all claims and demands incurred under such contract, and shall fully indemnify and save harmless the Owner from all costs and damages which it may suffer by reason of failure to do so, and shall reimburse and repay the Owner all outlay and expense which the Owner may incur in making food any default, then this obligations shall be void; otherwise to remain in full force and effect.

PROVIDED, FURTHER, that the said surety, for value received hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the contract or the work to be performed thereunder or the specifications accompanying the same shall in any wise affect it obligation on this bond, and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the contract or to the work or to the specifications.

PROVIDED, FURTHER, that no final settlement between the Owner and the Principal shall abridge the right of any beneficiary hereunder, whose claim may be unsatisfied.

IN WITNESS WHEREOF, this instrument is executed in three (3) counterparts, each one of which shall be deemed and original, this the _____ day of _____, 2025.

ATTEST:

_____ _____

(Principal's Corporate Secretary) (Principal)

_____

Affix CORPORATE SEAL if applicable _____

(Address-Zip Code)

_____

(Witness as to Principal)

_____

(Address – Zip Code)

_____

(Surety)

ATTEST: By:_____

(Attorney-in-Fact)

_____ _____

(Surety) Secretary (Address-Zip Code)

(Affix SURETY'S SEAL)

_____

(Witness as to Surety)

_____

(Address-Zip Code)

Notes:

If Principal is Partnership, all partners must execute bond. The Attorney-in-Fact, who executes this bond on behalf of the surety, must attach a copy of his Power-of-Attorney as evidence of his authority.

PAYMENT BOND

KNOW ALL THESE PRESENTS: That we _____
(Name of Contractor)

_____ a_____
(Corporation, Partnership, Individual)

hereinafter called "Principal" and _____
(Surety)

of _____, State of _____

hereinafter called the "Surety" are held and firmly bound unto the City of Homer,

hereinafter called "Owner," in the penal sum of _____

dollars ($_____) in lawful money of the United States, for the payment of which sum well and truly to be made, we bind ourselves, our heirs, executors, administrators and successors, jointly and severally, firmly by these presents.

THE CONDITIONS OF THIS OBLIGATIONS are such that Whereas, the Principal has or is about to enter into a certain contract with the Owner, a copy of which is hereto attached and made a part hereof for the construction of:

NOW, THEREFORE, if the Principal shall promptly make payment to all persons, firms, subcontractors and corporations furnishing material for, or performing labor in the prosecution of the work provided for in such contract, and any authorized extension or modification thereof, including all amounts due for material, lubricants, fuels, repairs on machinery, equipment and tools, consumed or used in connection with the construction of such work, and all insurance premiums on said work, and for all labor performed in such work, whether by subcontractor or otherwise, then this obligation shall be void: otherwise to remain in full for and effect.

PROVIDED, FURTHER, that the said Surety, for value received hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the contract or the work to be performed thereunder or the specifications accompanying the same shall in any wise affect it obligation on this bond, and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the contract or to the work or to the specifications.

PROVIDED, FURTHER, that no final settlement between the Owner and the Principal shall abridge the right of any beneficiary hereunder, whose claim may be unsatisfied.

IN WITNESS WHEREOF, this instrument is executed in three (3) counterparts, each one of which shall be deemed and original, this the _____ day of _____, 2025.

ATTEST:

_____ _____

(Principal's Corporate Secretary) (Principal)

_____

Affix CORPORATE SEAL if applicable _____

(Address-Zip Code)

_____

(Witness as to Principal)

_____

(Address-Zip Code)

_____

(Surety)

ATTEST: By:_____

(Attorney-in-Fact)

_____ _____

(Surety) Secretary (Address-Zip Code)

(Affix SURETY'S SEAL)

_____

(Witness as to Surety)

_____

(Address-Zip Code)

Notes:

If Principal is Partnership, all partners must execute bond. The Attorney-in-Fact, who executes this bond on behalf of the Surety, must attach a copy of her Power-of-Attorney as evidence of her authority.

BID BOND

KNOW ALL THESE PRESENTS: That we _____
(Name of Contractor)
_____a_____hereinafter
(Corporation, Partnership, Individual)
called "Principal" and _____ of
(Surety)
_____, State of _____hereinafter called the "Surety" are held and firmly bound unto the City of Homer, hereinafter called "Owner," in the penal sum of

_____

dollars ($_____) in lawful money of the United States, for the payment of which sum well and truly to be made, we bind ourselves, our heirs, executors, administrators and successors, jointly and severally, firmly by these presents.

THE CONDITIONS OF THIS OBLIGATIONS are such that: Whereas, the Principal has herewith submitted his or its BID for _____ said bid, by reference thereto, being hereby made a part hereof.

NOW, THEREFORE, if the Bid submitted by the Principal is accepted and the Contract awarded to the Principal, and if the Principal shall execute the proposed Contract and shall furnish such Performance and Payment Bond as required by the Contract Documents within the time fixed by the documents, then this obligation shall be void: if the Principal shall fail to execute the proposed Contract and furnish the Bond, the Surety hereby agrees to pay the Owner the penal sum as liquidated damages: _____

_____.

Signed and sealed this_____day of_____, 2024

ATTEST:

_____ _____

(Principal's Corporate Secretary) (Principal)

Affix CORPORATE SEAL if applicable _____

_____

(Address-Zip Code)

_____

(Witness as to Principal)

_____

(Address-Zip Code)

_____

(Surety)

ATTEST: By:_____

(Attorney-in-Fact)

_____ _____

(Surety) Secretary (Address Zip Code)

(Affix SURETY'S SEAL)

_____

(Witness as to Surety)

_____

(Address-Zip Code)

Notes:

If Principal is Partnership, all partners must execute bond. The Attorney-in-Fact, who executes this bond on behalf of the Surety, must attach a copy of her Power-of-Attorney as evidence of her authority.

CONTRACTOR'S QUESTIONNAIRE
NOTICE TO CONTRACTORS

Prior to Award, this questionnaire shall be completely filled out for the project upon which a bid is submitted.

A. FINANCIAL

1. Have you ever failed to complete a contract on account of insufficient resources?
   _____

2. Have you made sufficient arrangements to finance the work? _____

   If so, with whom and for what amount? _____

   _____

   If so, with what company? _____

B. EQUIPMENT

1. Set forth below the equipment which you have available for the work, which you propose to do. This equipment should be listed in detail (General statements will not be accepted).

NO.	ITEMS TYPE	SIZE/CAPACITY	PRESENT VALUE

2. Do you thoroughly understand that in case the contract is awarded to you, you may be required to use any or all of the equipment listed on the work covered by this contract?
   _____

3. Do you propose to purchase any equipment for use on this project should the contract be awarded to you? If so, state type, quantity and approximate cost.
   _____
   _____

4. Do you propose to rent any equipment for this work? _____
   If so, state type, quantity, and reason for renting. _____
   _____
   _____

5. Have you made contracts or received firm offers for all necessary materials with the prices used in preparing your proposal? _____

6. Do you intend to plan to subcontract any of the work? _____
If so, what types or portions of the work. _____
_____
_____

Approximate value $_____ Percent of total bid _____

C. EXPERIENCE

1. How many years has your organization been in business as a general contractor under your present business name? _____

2. How many years of experience in construction work has your organization had:

a) As a General Contractor _____.
b) As a Subcontractor _____.

3. List previous contracts you have completed of a similar nature to this proposed contract:

a) _____
b) _____
c) _____
d) _____
e) _____

4. List projects which you currently have under contract or expect to have under contract during the life of this contract:

a) _____
b) _____
c) _____

Use additional sheets as necessary.

5. List your staff you plan to use on this project and the position they will fill for this project (include managerial and clerical personnel that will provide support services).

STAFF MEMBER **POSITION**

_____
_____
_____

Signature: _____ Title: _____

ADDENDA ACKNOWLEDGMENT

Project Name: _____

I hereby acknowledge addenda numbers:

_____ _____

_____ _____

_____ _____

Name of Firm: _____

Signature of Bidder: _____

Date: _____

This Acknowledgement must be included in the Bid/Proposal for the project if any Addenda are issued or the Bid/Proposal could be considered non-responsive.

Acknowledgement of Standard Construction Specifications

I acknowledge that I have been provided with all parts of the City of Homer 2011 Standard Construction Specifications, including the General Provisions and that I have a responsibility to both read and understand this document.

_____ _____

Contractor's Authorized Representative Date

Build America Buy America (BABA) Act Acknowledgement Certification

The undersigned certifies, to the best of their knowledge and belief, that:

The Build America, Buy America Act (BABAA) requires that no federal financial assistance for "infrastructure" projects is provided "unless all of the iron, steel, manufactured products, and construction materials used in the project are produced in the United States." Section 70914 of Public Law No. 117-58, §§ 70901-52.

The undersigned certifies that for the Raw Water Transmission Line Replacement Project that the iron, steel, manufactured products, and construction materials used in this contract are in full compliance with the BABAA requirements including:

1. All iron and steel used in the project are produced in the United States. This means all manufacturing processes, from the initial melting stage through the application of coatings, occurred in the United States.
2. All manufactured products purchased with FEMA financial assistance must be produced in the United States. For a manufactured product to be considered produced in the United States, the cost of the components of the manufactured product that are mined, produced, or manufactured in the United States is greater than 55% of the total cost of all components of the manufactured product, unless another standard for determining the minimum amount of domestic content of the manufactured product has been established under applicable law or regulation.
3. All construction materials are manufactured in the United States. This means that all manufacturing processes for the construction material occurred in the United States. The (insert name of contractor or subcontractor), certifies or affirms the truthfulness and accuracy of each statement of its certification and disclosure, if any. In addition, the (insert name of contractor or subcontractor) understands and agrees that the provisions of 31 U.S.C. Chap. 38, Administrative Remedies for False Claims and Statements, apply to this certification and disclosure, if any.

_____ _____

Signature of (insert name of contractor or subcontractor) Authorized Official Date

_____

Name and Title of (insert name of contractor or subcontractor) Authorized Official

Certification Regarding Lobbying

The undersigned certifies, to the best of their knowledge and belief, that:

No federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of an agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any federal contract, the making of any federal grant, the making of any federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any federal contract, grant, loan, or cooperative agreement.

If any funds other than federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, “Disclosure Form to Report Lobbying,” in accordance with its instructions.

The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify and disclose accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by section 1352, title 31, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than $10,000 and not more than $100,000 for each such failure.

_____ _____

Signature of Contractor’s Authorized Official Date

_____

Name and Title of Contractor’s Authorized Official

MINIMUM RATES OF PAY
For Laborers and Mechanics

Effective April 1, 2025 Issue 50

PAMPHLET No. 600

Title 36. Public Contracts
AS 36.05

DEPARTMENT OF LABOR
AND WORKFORCE DEVELOPMENT
Wage and Hour

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THE STATE of ALASKA
GOVERNOR MIKE DUNLEAVY

Department of Labor and Workforce Development

Office of the Commissioner

Post Office Box 111149
Juneau, Alaska 99811
Main: 907.465.2700
fax: 907.465-2784

April 1, 2025

TO ALL CONTRACTING AGENCIES:

At the Alaska Department of Labor and Workforce Development our goal is putting Alaskans to work. This pamphlet is designed to help contractors awarded public construction contracts understand the most significant laws of the State of Alaska pertaining to prevailing wages.

This pamphlet identifies current prevailing wage rates for public construction contracts (any construction projects awarded for the State of Alaska or its political subdivisions, such as local governments and certain non-profit organizations). Because these rates may change in a subsequent determination, please be sure you are using the appropriate rates. The rates published in this edition become effective April 1, 2025.

The prevailing wage rates contained in this pamphlet are applicable to public construction projects with a final bid date of April 11, 2025, or later. As the law now provides, these rates will remain stable during the life of a contract or for 24 calendar months, whichever is shorter. **The 24-month period begins on the date the prime contract is awarded.** Upon expiration of the initial 24-month period, the latest wage rates issued by the department shall become effective for a subsequent 24-month period or until the original contract is completed, whichever occurs first. This process shall be repeated until the original contract is completed.

The term "original contract" means the signed contract that resulted from the original bid and any amendments, including changes of work scope, additions, extensions, change orders, and other instruments agreed to by the parties that have not been subject to subsequent open bid procedures.

If a higher federal rate is required due to partial federal funding or other federal participation, the higher rate must be paid.

For additional copies of this pamphlet go to: http://labor.state.ak.us/lss/pamp600.htm

For questions regarding prevailing wage or employment preference requirements, please contact the nearest Wage and Hour office. These offices are listed on Page x.

Sincerely,

Catherine Muñoz
Commissioner

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Table of Contents

Excerpts from Alaska Law

Sec. 36.05.005. Applicability iv
Sec. 36.05.010. Wage rates on public construction. iv
Sec. 36.05.040. Filing schedule of employees, wages paid and other information iv
Sec. 36.05.045. Notice of work and completion; withholding of payment iv
Sec. 36.05.060. Penalty for violation of this chapter v
Sec. 36.05.070. Wage rates in specifications and contracts for public works v
Sec. 36.05.080. Failure to pay agreed wages v
Sec. 36.05.090. Payment of wages from withheld payments and listing contractors who violate contracts v
Sec. 36.05.900. Definition.. vi

Excerpts from Alaska Administrative Code

8 AAC 30.051. Purpose vi
8 AAC 30.052. Board and lodging; remote sites vi
8 AAC 30.054. Per diem instead of board and lodging vi
8 AAC 30.056. Alternative arrangement vii
8 AAC 30.900. General definitions (selected excerpts) vii

Additional Information

Per Diem vii
Laborer Classification Clarification viii
Apprentice Rates viii
Fringe Benefit Plans viii
Special Prevailing Wage Rate Determination ix
Alaska Employment Preference Information ix
Labor Standards and Safety Notice Requests x
Debarment List x

Wage Rates ..... Pages 1-26

Note to Readers: The statutes and administrative regulations listed in this publication were taken from the official codes, as of the effective date of the publication. However, there may be errors or omissions that have not been identified and changes that occurred after the publication was printed. This publication is intended as an informational guide only and is not intended to serve as a precise statement of the statutes and regulations of the State of Alaska. To be certain of current laws and regulations, please refer to the official codes.

EXCERPTS FROM ALASKA LAW

Sec. 36.05.005. Applicability.
This chapter applies only to a public construction contract that exceeds $25,000.

Sec. 36.05.010. Wage rates on public construction.
A contractor or subcontractor who performs work on a public construction contract in the state shall pay not less than the current prevailing rate of wages for work of a similar nature in the region in which the work is done. The current prevailing rate of wages is that contained in the latest determination of prevailing rate of wages issued by the Department of Labor and Workforce Development at least 10 days before the final date for submission of bids for the contract. The rate shall remain in effect for the life of the contract or for 24 calendar months, whichever is shorter. At the end of the initial 24-month period, if new wage determinations have been issued by the department, the latest wage determination shall become effective for the next 24-month period or until the contract is completed, whichever occurs first. This process shall be repeated until the contract is completed.

Sec. 36.05.040. Filing schedule of employees, wages paid, and other information.
All contractors or subcontractors who perform work on a public construction contract for the state or for a political subdivision of the state shall, before the Friday of every second week, file with the Department of Labor and Workforce Development a sworn affidavit for the previous reporting period, setting out in detail the number of persons employed, wages paid, job classification of each employee, hours worked each day and week, and other information on a form provided by the Department of Labor and Workforce Development.

Sec. 36.05.045. Notice of work and completion; withholding of payment.

(a) Before commencing work on a public construction contract, the person entering into the contract with a contracting agency shall designate a primary contractor for purposes of this section. Before work commences, the primary contractor shall file a notice of work with the Department of Labor and Workforce Development. The notice of work must list work to be performed under the public construction contract by each contractor who will perform any portion of work on the contract and the contract price being paid to each contractor. The primary contractor shall pay all filing fees for each contractor performing work on the contract, including a filing fee based on the contract price being paid for work performed by the primary contractor's employees. The filing fee payable shall be the sum of all fees calculated for each contractor. The filing fee shall be one percent of each contractor's contract price. The total filing fee payable by the primary contractor under this subsection may not exceed $5,000. In this subsection, "contractor" means an employer who is using employees to perform work on the public construction contract under the contract or a subcontract.

(b) Upon completion of all work on the public construction contract, the primary contractor shall file with the Department of Labor and Workforce Development a notice of completion together with payment of any additional filing fees owed due to increased contract amounts. Within 30 days after the department's receipt of the primary contractor's notice of completion, the department shall inform the contracting agency of the amount, if any, to be withheld from the final payment.

(c) A contracting agency

(1) may release final payment of a public construction contract to the extent that the agency has received verification from the Department of Labor and Workforce Development that

(A) the primary contractor has complied with (a) and (b) of this section;

(B) the Department of Labor and Workforce Development is not conducting an investigation under this title; and

(C) the Department of Labor and Workforce Development has not issued a notice of a violation of this chapter to the primary contractor or any other contractors working on the public construction contract; and

(2) shall withhold from the final payment an amount sufficient to pay the department's estimate of what may be needed to compensate the employees of any contractors under investigation on this construction contract, and any unpaid filing fees.

(d) The notice and filing fee required under (a) of this section may be filed after work has begun if
   (1) The public construction contract is for work undertaken in immediate response to an emergency; and
   (2) The notice and fees are filed not later than 14 days after the work has begun.

(e) A false statement made on a notice required by this section is punishable under AS 11.56.210.

Sec. 36.05.060. Penalty for violation of this chapter.

A contractor who violates this chapter is guilty of a misdemeanor and upon conviction is punishable by a fine of not less than $100 nor more than $1,000, or by imprisonment for not less than 10 days nor more than 90 days, or by both. Each day a violation exists constitutes a separate offense.

Sec. 36.05.070. Wage rates in specifications and contracts for public works.

(a) The advertised specifications for a public construction contract that requires or involves the employment of mechanics, laborers, or field surveyors must contain a provision stating the minimum wages to be paid various classes of laborers, mechanics, or field surveyors and that the rate of wages shall be adjusted to the wage rate under AS 36.05.010.

(b) Repealed by §17 ch 142 SLA 1972.

(c) A public construction contract under (a) of this section must contain provisions that
   (1) the contractor or subcontractors of the contractor shall pay all employees unconditionally and not less than once a week;
   (2) wages may not be less than those stated in the advertised specifications, regardless of the contractual relationship between the contractor or subcontractors and laborers, mechanics, or field surveyors;
   (3) the scale of wages to be paid shall be posted by the contractor in a prominent and easily accessible place at the site of the work;
   (4) the state or a political subdivision shall withhold so much of the accrued payments as is necessary to pay to laborers, mechanics, or field surveyors employed by the contractor or subcontractors the difference between
      (A) the rates of wages required by the contract to be paid laborers, mechanics, or field surveyors on the work; and
      (B) the rates of wages in fact received by laborers, mechanics, or field surveyors.

Sec. 36.05.080. Failure to pay agreed wages.

Every contract within the scope of AS 36.05.070 shall contain a provision that if it is found that a laborer, mechanic, or field surveyor employed by the contractor or subcontractor has been or is being paid a rate of wages less than the rate of wages required by the contract to be paid, the state or its political subdivision may, by written notice to the contractor, terminate the contractor's right to proceed with the work or the part of the work for which there is a failure to pay the required wages and to prosecute the work to completion by contract or otherwise, and the contractor and the contractor's sureties are liable to the state or its political subdivision for excess costs for completing the work.

Sec. 36.05.090. Payment of wages from withheld payments and listing contractors who violate contracts.

(a) The state disbursing officer in the case of a state public construction contract and the local fiscal officer in the case of a political subdivision public construction contract shall pay directly to laborers, mechanics, or field surveyors from accrued payments withheld under the terms of the contract the wages due laborers, mechanics, or field surveyors under AS 36.05.070.

(b) The state disbursing officer or the local fiscal officer shall distribute to all departments of the state government and to all political subdivisions of the state a list giving the names of persons who have disregarded their obligations to employees. A person appearing on this list and a firm, corporation, partnership, or association in which the person has an interest may not work as a contractor or

subcontractor on a public construction contract for the state or a political subdivision of the state until three years after the date of publication of the list. If the accrued payments withheld under the contract are insufficient to reimburse all the laborers, mechanics, or field surveyors with respect to whom there has been a failure to pay the wages required under AS 36.05.070, the laborers, mechanics, or field surveyors have the right of action or intervention or both against the contractor and the contractor's sureties conferred by law upon persons furnishing labor or materials, and in the proceedings it is not a defense that the laborers, mechanics, or field surveyors accepted or agreed to accept less than the required rate of wages or voluntarily made refunds.

Sec. 36.05.900. Definition.
In this chapter, "contracting agency" means the state or a political subdivision of the state that has entered into a public construction contract with a contractor.

EXCERPTS FROM ALASKA ADMINISTRATIVE CODE

Notice:** Regulations relating to board and lodging and per diem went into effect on November 25, 2018. The new regulations are excerpted here

8 AAC 30.051. Purpose. The purpose of 8 AAC 30.052 – 8 AAC 30.056 is to ensure that wages paid to laborers, mechanics, and field surveyors do not fall below the prevailing rate of pay.

8 AAC 30.052. Board and lodging; remote sites. (a) A contractor on a public construction project located 65 or more road miles from the international airport closest to the project area in either Fairbanks, Juneau, or Anchorage, or that is inaccessible by road in a two-wheel drive vehicle, shall provide adequate board and lodging to each laborer, mechanic, or field surveyor while the person is employed on the project. If commercial lodging facilities are not available, the contractor shall provide temporary lodging facilities. Lodging facilities must comply with all applicable state and federal laws. For a highway project, the location of the project is measured from the midpoint of the project.

(b) A contractor is not required to provide board and lodging:

(1) to a laborer, mechanic, or field surveyor who is a domiciled resident of the project area; or

(2) on a laborer, mechanic, or field surveyor's scheduled days off, when the person can reasonably travel between the project and the person's permanent residence; for the purposes of this paragraph, "scheduled day off" means a day in which a person does not perform work on-site, is not required to remain at or near the job location for the benefit of the contractor, and is informed of the day off at least seven days before the day off.

(c) Upon a contractor's written request, the commissioner may waive the requirements of (a) of this section where:

(1) the project is inaccessible by road in a two-wheel drive vehicle, but the laborer, mechanic, or field surveyor can reasonably travel between the project and the person's permanent residence within one hour; or

(2) a laborer, mechanic, or field surveyor is not a domiciled resident of the project area, but has established permanent residence, with the intent to remain indefinitely, within 65 road miles of the project, or for a highway project, the mid-point of the project.

8 AAC 30.054. Per diem instead of board and lodging. (a) A contractor may pay a laborer, mechanic, or field surveyor per diem instead of providing board and lodging, when the following conditions are met:

(1) the department determines that per diem instead of board and lodging is an established practice for the work classification; the department shall publish and periodically revise its determinations in the pamphlet *Laborers and Mechanics Minimum Rates of Pay*;

(2) the contractor pays each laborer, mechanic, or field surveyor the appropriate per diem rate as published and periodically revised in the pamphlet *Laborers and Mechanics Minimum Rates of Pay*; and

(3) the contractor pays the per diem to each laborer, mechanic, or field surveyor on the same day that wages are paid.

(b) A contractor may not pay per diem instead of board and lodging on a highway project located

(1) west of Livengood on the Elliot Highway, AK-2;

(2) on the Dalton Highway, AK-11;

(3) north of milepost 20 on the Taylor Highway, AK-5;

(4) east of Chicken on the Top of the World Highway; or

(5) south of Tetlin Junction to the Alaska-Canada border on the Alaska Highway, AK-2.

8 AAC 30.056. Alternative arrangement. Upon a contractor's written request, the commissioner may approve an alternative board and lodging or per diem arrangement, provided

(1) the arrangement does not reduce the laborer, mechanic, or field surveyor's wages below the prevailing wage rate; and

(2) the laborer, mechanic, or field surveyor voluntarily enters into and signs the written arrangement; a labor organization representing laborers, mechanics, or field surveyors may enter into the written agreement on their behalf.

8 AAC 30.900. General definitions (selected excerpts only):

In this chapter and in AS 36

(22) "domiciled resident" means a person living within 65 road miles of a public construction project, or in the case of a highway project, the mid-point of the project, for at least 12 consecutive months prior to the award of the public construction project;

(23) "employed on the project" means the time period from the date the laborer, mechanic, or field surveyor first reports on-site to the project through the final date the person reports on-site to the project.

ADDITIONAL INFORMATION

PER DIEM

Notice: New regulations relating to board and lodging and per diem went into effect on November 25, 2018. The regulations provide a comprehensive set of requirements for the provision of board and lodging or per diem for workers on remote projects. Please refer to Alaska Administrative Code 8 AAC Chapter 30 and read the chapter carefully.

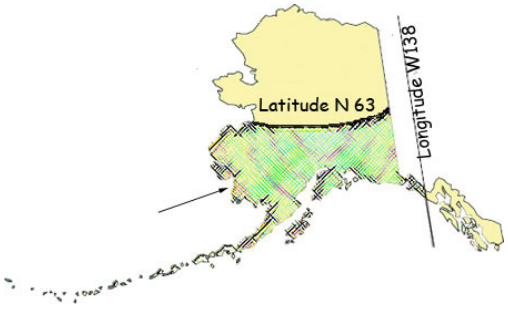
The Alaska Department of Labor and Workforce Development has determined that per diem is an established work practice for certain work classifications. These classifications are indicated throughout the Pamphlet by an asterisk (*) under the classification title. If all of the conditions of 8 AAC 30.054 are met, an employer may pay workers in these classifications per diem instead of providing board and lodging on a remote project.

Per Diem Rate: As of May 1, 2019, the minimum per diem rate is $100.00 per day, or part thereof, the worker is employed on the project. In the event that a contractor provides lodging facilities, but no meals, the department will accept a payment of $48 per day for meals to meet the per diem requirements.

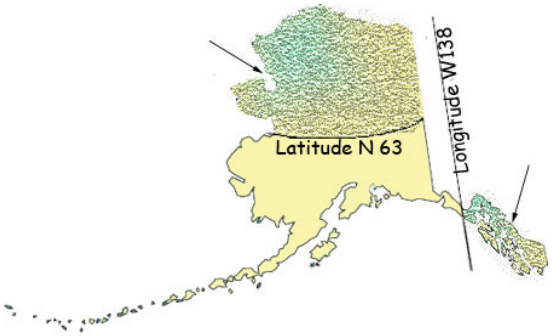
LABORER CLASSIFICATION CLARIFICATION

The laborer rates categorized in class code S1201-S1206 apply in one area of Alaska; the area that is south of N63 latitude and west of W138 Longitude. The laborer rates categorized in class code N1201-N1206 apply in two areas of Alaska; the Alaska areas north of N63 latitude and east of W138 longitude. The following graphic representations should assist with clarifying the applicable wage rate categories:

S1201-
S1206



N1201-
N1206



APPRENTICE RATES

Apprentice rates at less than the minimum prevailing rates may be paid to apprentices according to an apprentice program which has been registered and approved by the Commissioner of the Alaska Department of Labor and Workforce Development in writing or according to a bona fide apprenticeship program registered with the U.S. Department of Labor, Office of Apprenticeship Training. **Any employee listed on a payroll at an apprentice wage rate who is not registered as above shall be paid the journeyman prevailing minimum wage in that work classification.** Wage rates are based on prevailing crew makeup practices in Alaska and apply to work performed regardless of either the quality of the work performed by the employee or the titles or classifications which may be assigned to individual employees.

FRINGE BENEFIT PLANS

Contractors/subcontractors may compensate fringe benefits to their employees in any one of three methods. The fringe benefits may be paid into a union trust fund, into an approved benefit plan, or paid directly on the paycheck as gross wages.

Where fringe benefits are paid into approved plans, funds, or programs including union trust funds, the payments must be contributed at least monthly. If contractors submit their own payroll forms and are paying fringe benefits into approved plans, funds, or programs, the employer's certification must include, in addition to those requirements of 8 AAC 30.020(c), a statement that fringe benefit payments have been or will be paid at least monthly. Contractors who pay fringe benefits to a plan must ensure the plan is one approved by the Internal Revenue Service and that the plan meets the requirements of 8 AAC 30.025 (eff. 3/2/08) in order for payments to be credited toward the prevailing wage obligation.

SPECIAL PREVAILING WAGE RATE DETERMINATION

Special prevailing wage rate determinations may be requested for special projects or a special worker classification if the work to be performed does not conform to traditional public construction for which a prevailing wage rate has been established under 8 AAC 30.050(a) of this section. Requests for special wage rate determinations must be in writing and filed with the Commissioner at least 30 days before the award of the contract. An applicant for a special wage rate determination shall have the responsibility to support the necessity for the special rate. An application for a special wage rate determination filed under this section must contain:

(1) a specification of the contract or project on which the special rates will apply and a description of the work to be performed;
(2) a brief narrative explaining why special wage rates are necessary;
(3) the job class or classes involved;
(4) the special wage rates the applicant is requesting, including survey or other relevant wage data to support the requested rates;
(5) the approximate number of employees who would be affected; and
(6) any other information which might be helpful in determining if special wage rates are appropriate.

Requests made pursuant to the above should be addressed to:

Director
Alaska Department of Labor and Workforce Development
Labor Standards and Safety Division
Wage and Hour
P.O. Box 111149
Juneau, AK 99811-1149
-or-
Email: statewide.wagehour@alaska.gov

EMPLOYMENT PREFERENCE INFORMATION

In October 2019, the Alaska Attorney General issued a formal opinion stating that the Alaska Statutes 36.10.150 of the State's 90% Employment Preference law, also known as the Alaska Resident Hire law, violates both the U.S. and Alaska Constitutions. As a result, the state has stopped all enforcement activity.
A copy of the Attorney General opinion is found here:

http://law.alaska.gov/pdf/opinions/opinions_2019/19-005_AK-hire.pdf

Alaska Department of Labor and Workforce Development
Labor Standards and Safety Division
Wage and Hour
Web site: http://labor.state.ak.us/lss/pamp600.htm

Anchorage	Juneau	Fairbanks
1251 Muldoon Road, Suite 113 Anchorage, Alaska 99504-2098 Phone: (907) 269-4900 Email: statewide.wagehour@alaska.gov	PO Box 111149 Juneau, Alaska 99811 Phone: (907) 465-4842 Email: statewide.wagehour@alaska.gov	Regional State Office Building 675 7th Ave., Station J-1 Fairbanks, Alaska 99701-4593 Phone: (907) 451-2886 Email: statewide.wagehour@alaska.gov

LABOR STANDARDS AND SAFETY NOTICE REQUESTS

If you would like to receive Wage and Hour or Mechanical Inspection **regulation notices** or **publications information**, they are available via electronic mail, by signing up in the GovDelivery System, https://public.govdelivery.com/accounts/AKDOL/subscriber/new and selecting topics *LSS – Wage and Hour – Forms and Publications*, *LSS – Mechanical Inspection Regulations*, or *LSS – Wage and Hour Regulations*.

Publications are also available online at http://labor.alaska.gov/lss/home.htm

DEBARMENT LIST

AS 36.05.090(b) states that "the state disbursing officer or the local fiscal officer shall distribute to all departments of the state government and to all political subdivisions of the state a list giving the names of persons who have disregarded their obligations to employees."

A person appearing on the following debarment list and a firm, corporation, partnership, or association in which the person has an interest may not work as a contractor or subcontractor on a public construction contract for the state or a political subdivision of the state for three years from the date of debarment.

Company Name	Debarment Expires

No companies are currently debarred.

Laborers' & Mechanics' Minimum Rates of Pay

Class Code	Classification of Laborers & Mechanics	BHR	H&W	PEN	TRN	Other Benefits		THR
Boilermakers	*See per diem note on last page							
						VAC	**SAF**	
A0101	Boilermaker (journeyman)	54.08	8.57	18.72	2.50	4.25	0.34	88.46
Bricklayers & Allied Craftworkers	*See per diem note on last page							
						L&M	**ANU**	
A0201	Blocklayer, including:	52.77		9.91	0.66	0.20	2.45	65.99
	Bricklayer Marble Mason Refractory Worker (Firebrick, Plastic, Castable, and Gunite Refractory Applications) Stone Mason Terrazzo Worker Tile Setter							
						L&M	**ANU**	
A0202	Pointer/Caulker/Cleaner (PCC)	52.77		9.91	0.66	0.20	2.45	65.99
	Caulker Cleaner Tuck Pointer							
						L&M	**ANU**	
A0203	Finisher	40.91		10.03	0.54	0.20	2.45	54.13
	Marble Finisher Terrazzo Finisher Tile Finisher							
						L&M	**ANU**	
A0204	Torginal Applicator	40.91		10.03	0.54	0.20	2.45	54.13
Carpenters, Region I (North of 63 latitude)	*See per diem note on last page							
						L&M	**SAF**	
N0301	Carpenter (journeyman)	50.79	8.75	16.80	0.77	0.10		77.21
	Lather/Drywall/Acoustical							
Carpenters, Region II (South of N63 latitude)	*See per diem note on last page							
						L&M	**SAF**	
S0301	Carpenter (journeyman)	50.79	8.75	17.34	0.77	0.10		77.75

Wage benefits key: ANU=Annuity, BHR=basic hourly rate; H&W=health and welfare; IAF=industry advancement fund; LEG=legal fund; L&M=labor/management fund; PEN=pension fund; SAF=safety; SUI=supplemental unemployment insurance; S&L=SUI & LEG combined; TRN=training; THR=total hourly rate; VAC=vacation

Class Code	Classification of Laborers & Mechanics	BHR	H&W	PEN	TRN	Other Benefits		THR
Carpenters, Region II (South of N63 latitude)								
	*See per diem note on last page							
						L&M	**SAF**	
S0301	Carpenter (journeyman)	50.79	8.75	17.34	0.77	0.10		77.75
	Lather/Drywall/Acoustical							
Cement Masons								
	*See per diem note on last page							
						L&M		
A0401	Group I, including:	49.28	8.80	11.80	1.68	0.10		71.66
	Application of Sealing Compound							
	Application of Underlayment							
	Building, General							
	Cement Finisher							
	Cement Mason (journeyman)							
	Concrete							
	Concrete Paving							
	Concrete Polishing							
	Concrete Repair							
	Curb & Gutter, Sidewalk							
	Curing of All Concrete							
	General Concrete Pour Tender							
	Grouting & Caulking of Tilt-Up Panels							
	Grouting of All Plates							
	Patching Concrete							
	Screed Pin Setter							
	Screeder or Rodder							
	Spackling/Skim Coating							
						L&M		
A0402	Group II, including:	49.28	8.80	11.80	1.68	0.10		71.66
	Form Setter							
						L&M		
A0403	Group III, including:	49.28	8.80	11.80	1.68	0.10		71.66
	Concrete Saw Cutter Operator (All Control Joints and Self-powered)							
	Curb & Gutter Machine							
	Floor Grinder							
	Pneumatic Power Tools							
	Power Chipping & Bushing							
	Sand Blasting Architectural Finish							
	Screed & Rodding Machine Operator							
	Troweling Machine Operator (all concrete surfaces)							
						L&M		
A0404	Group IV, including:	49.28	8.80	11.80	1.68	0.10		71.66

Class Code	Classification of Laborers & Mechanics	BHR	H&W	PEN	TRN	Other Benefits	THR
Cement Masons							
	*See per diem note on last page						
A0404	Group IV, including:	49.28	8.80	11.80	1.68	L&M 0.10	71.66
	Acoustical or Imitation Acoustical Finish						
	Application of All Composition Mastic						
	Application of All Epoxy Finishes on Concrete Surfaces						
	Application of All Plastic Material						
	Finish Colored Concrete						
	Gunite Nozzleman						
	Hand Powered Grinder						
	Preparing, scratching and browsing of all ceilings and walls, finished with terrazo or tile						
	Tunnel Worker						
A0405	Group V, including:	49.28	8.80	11.80	1.68	L&M 0.10	71.66
	Casting and finishing						
	EIFS Systems						
	Finishing of all interior and exterior plastering						
	Fireproofing (Pryocrete, Cafco, Albi-Clad, sprayed fiberglass)						
	Gypsum, Portland Cement						
	Kindred material and products						
	Operation and control of all types of plastering machines, including power tools and floats, used by the industry						
	Overcoating and maintenance of interior/exterior plaster surfaces						
	Plasterer						
	Support and control of all concrete 3D printing operations (Excluding Paint)						
	Use of 3D structural and architectural printing and finishes						
	Use of sustainable materials and equipment practices						
	Veneer plastering process (Rapid Plaster, U.S.G. "Imperial Systems", and Pabcoat Systems")						
	Venetian plaster and color-integrated Italian/Middle-Eastern line plaster						
Culinary Workers							
A0501	Baker/Cook	29.95	7.53	8.83		LEG	46.31
A0503	General Helper	25.92	7.53	8.83		LEG	42.28
	Housekeeper						
	Janitor						
	Kitchen Helper						

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Class Code	Classification of Laborers & Mechanics	BHR	H&W	PEN	TRN	Other Benefits		THR
Culinary Workers								
A0504	Head Cook	29.95	7.53	8.83		**LEG**		46.31
A0505	Head Housekeeper	26.20	7.53	8.83		**LEG**		42.56
	Head Kitchen Help							
Dredgemen	*See per diem note on last page							
A0601	Assistant Engineer	52.32	12.10	16.25	1.05	**L&M** 0.10		81.82
	Craneman Electrical Generator Operator (primary pump/power barge/dredge) Engineer Welder							
A0602	Assistant Mate (deckhand)	50.93	12.10	16.25	1.05	**L&M** 0.10		80.43
A0603	Fireman	51.46	12.10	16.25	1.05	**L&M** 0.10		80.96
A0605	Leverman Clamshell	55.33	12.10	16.25	1.05	**L&M** 0.10		84.83
A0606	Leverman Hydraulic	53.23	12.10	16.25	1.05	**L&M** 0.10		82.73
A0607	Mate & Boatman	52.32	12.10	16.25	1.05	**L&M** 0.10		81.82
A0608	Oiler (dredge)	51.46	12.10	16.25	1.05	**L&M** 0.10		80.96
Electricians	*See per diem note on last page							
A0701	Inside Cable Splicer	53.44	14.83	14.49	0.95	**L&M** 0.25	**LEG** 0.15	84.11
A0702	Inside Journeyman Wireman, including:	53.44	14.83	14.49	0.95	**L&M** 0.25	**LEG** 0.15	84.11
	Technicians (including use of drones in electrical construction)							
A0703	Power Cable Splicer	74.34	14.83	19.92	0.95	**L&M** 0.25	**LEG** 0.15	110.44
A0704	Tele Com Cable Splicer	55.28	14.83	18.56	0.95	**L&M** 0.25	**LEG** 0.15	90.02

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Class Code	Classification of Laborers & Mechanics	BHR	H&W	PEN	TRN	Other Benefits		THR
Electricians								
	*See per diem note on last page							
						L&M	**LEG**	
A0705	Power Journeyman Lineman, including:	72.59	14.83	19.87	0.95	0.25	0.15	108.64
	Power Equipment Operator Technician (including use of drones in electrical construction)							
						L&M	**LEG**	
A0706	Tele Com Journeyman Lineman, including:	53.53	14.83	18.51	0.95	0.25	0.15	88.22
	Technician (including use of drones in telecommunications construction) Tele Com Equipment Operator							
						L&M	**LEG**	
A0707	Straight Line Installer - Repairman	53.53	14.83	18.51	0.95	0.25	0.15	88.22
						L&M	**LEG**	
A0708	Powderman	70.59	14.83	19.81	0.95	0.25	0.15	106.58
						L&M	**LEG**	
A0710	Material Handler	29.57	15.34	5.89	0.15	0.15	0.15	51.25
						L&M	**LEG**	
A0712	Tree Trimmer Groundman	32.97	14.83	14.84	0.15	0.15	0.15	63.09
						L&M	**LEG**	
A0713	Journeyman Tree Trimmer	42.23	14.83	15.12	0.15	0.15	0.15	72.63
						L&M	**LEG**	
A0714	Vegetation Control Sprayer	45.91	14.83	15.23	0.15	0.15	0.15	76.42
						L&M	**LEG**	
A0715	Inside Journeyman Communications CO/PBX	53.44	14.83	14.49	0.95	0.25	0.15	84.11
Elevator Workers								
	*See per diem note on last page							
						L&M	**VAC**	
A0802	Elevator Constructor	50.01	16.28	21.36	0.80	1.60	5.55	95.60
						L&M	**VAC**	
A0803	Elevator Constructor Mechanic	71.44	16.28	21.36	0.80	1.60	7.93	119.41
Heat & Frost Insulators/Asbestos Workers (North of 63rd Parallel)								
	*See per diem note on last page							
						IAF	**LML**	
N0902	Asbestos Abatement-Mechanical Systems	43.85	9.24	11.13	1.50	0.18	0.05	65.95
						IAF	**LML**	
N0903	Asbestos Abatement/General Demolition All Systems	43.85	9.24	11.13	1.50	0.18	0.05	65.95
						IAF	**LML**	
N0904	Insulator, Group II	43.85	9.24	11.13	1.50	0.18	0.05	65.95

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Class Code	Classification of Laborers & Mechanics	BHR	H&W	PEN	TRN	Other Benefits		THR
Heat & Frost Insulators/Asbestos Workers (North of 63rd Parallel) *See per diem note on last page								
						IAF	**LML**	
N0905	Fire Stop	43.85	9.24	11.13	1.50	0.18	0.05	65.95
Heat & Frost Insulators/Asbestos Workers (South of 63rd Parallel) *See per diem note on last page								
						IAF	**LML**	
S0902	Asbestos Abatement-Mechanical Systems	43.35	9.24	11.13	1.50	0.18	0.05	65.45
						IAF	**LML**	
S0903	Asbestos Abatement/General Demolition All Systems	43.35	9.24	11.13	1.50	0.18	0.05	65.45
						IAF	**LML**	
S0904	Insulator, Group II	43.35	9.24	11.13	1.50	0.18	0.05	65.45
						IAF	**LML**	
S0905	Fire Stop	43.35	9.24	11.13	1.50	0.18	0.05	65.45
IronWorkers *See per diem note on last page								
						L&M	**IAF**	
A1101	Ironworkers, including:	46.49	10.16	26.45	0.87	0.20	0.24	84.41
	Bender Operators Bridge & Structural Hangar Doors Hollow Metal Doors Industrial Doors Machinery Mover Mass Timber Construction (Cross Laminate Timber) Ornamental Reinforcing Rigger Sheeter Signalman Stage Rigger Toxic Haz-Mat Work Welder							
						L&M	**IAF**	
A1102	Helicopter	47.49	10.16	26.45	0.87	0.20	0.24	85.41
	Helicopter (used for rigging and setting) Tower (energy producing windmill type towers to include nacelle and blades)							
						L&M	**IAF**	
A1103	Fence/Barrier Installer	42.99	10.16	26.45	0.87	0.20	0.24	80.91

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Class Code	Classification of Laborers & Mechanics	BHR	H&W	PEN	TRN	Other Benefits		THR
IronWorkers								
	*See per diem note on last page							
						L&M	**IAF**	
A1104	Guard Rail Layout Man	43.73	10.16	26.45	0.87	0.20	0.24	81.65
						L&M	**IAF**	
A1105	Guard Rail Installer	43.99	10.16	26.45	0.87	0.20	0.24	81.91
Laborers (The Alaska areas north of N63 latitude and east of W138 longitude)								
	*See per diem note on last page							
						L&M	**LEG**	
N1201	Group I, including:	40.25	10.55	21.51	2.00	0.35	0.20	74.86

Asphalt Worker (shovelman, plant crew)
Brush Cutter
Camp Maintenance Laborer
Carpenter Tender or Helper
Choke Setter, Hook Tender, Rigger, Signalman
Concrete Labor (curb & gutter, chute handler, curing, grouting, screeding)
Crusher Plant Laborer
Demolition Laborer
Ditch Digger
Dumpman
Environmental Laborer (hazard/toxic waste, oil spill)
Fence Installer
Fire Watch Laborer
Flagman
Form Stripper
General Laborer
Guardrail Laborer, Bridge Rail Installer
Hydro Seeder Nozzleman
Laborer, Building
Landscaper or Planter
Laying of Mortarless Decorative Block (retaining walls, flowered decorative block 4 feet or less - highway or landscape work)
Material Handler
Pneumatic or Power Tools
Portable or Chemical Toilet Serviceman
Pump Man or Mixer Man
Railroad Track Laborer
Sandblast, Pot Tender
Saw Tender
Slurry Work
Steam Cleaner Operator
Steam Point or Water Jet Operator

Class Code	Classification of Laborers & Mechanics	BHR	H&W	PEN	TRN	Other Benefits		THR
						L&M	LEG	
N1201	Group I, including:	40.25	10.55	21.51	2.00	0.35	0.20	74.86
	Storm Water Pollution Protection Plan Worker (SWPPP Worker - erosion and sediment control Laborer)							
	Tank Cleaning							
	Utiliwalk & Utilidor Laborer							
	Watchman (construction projects)							
	Window Cleaner							
						L&M	LEG	
N1202	Group II, including:	41.25	10.55	21.51	2.00	0.35	0.20	75.86
	Burning & Cutting Torch							
	Cement or Lime Dumper or Handler (sack or bulk)							
	Certified Erosion Sediment Control Lead (CESCL Laborer)							
	Choker Splicer							
	Chucktender (wagon, air-track & hydraulic drills)							
	Concrete Laborer (power buggy, concrete saws, pumpcrete nozzleman, vibratorman)							
	Culvert Pipe Laborer							
	Cured Inplace Pipelayer							
	Environmental Laborer (asbestos, marine work)							
	Floor Preparation, Core Drilling							
	Foam Gun or Foam Machine Operator							
	Green Cutter (dam work)							
	Gunite Operator							
	Hod Carrier							
	Jackhammer/Chipping Gun or Pavement Breaker							
	Laser Instrument Operator							
	Laying of Mortarless Decorative Block (retaining walls, flowered decorative block over 4 feet - highway or landscape work)							
	Mason Tender & Mud Mixer (sewer work)							
	Pilot Car							
	Pipelayer Helper							
	Plasterer, Bricklayer & Cement Finisher Tender							
	Powderman Helper							
	Power Saw Operator							
	Railroad Switch Layout Laborer							
	Sandblaster							
	Scaffold Building & Erecting							
	Sewer Caulker							
	Sewer Plant Maintenance Man							
	Thermal Plastic Applicator							
	Timber Faller, Chainsaw Operator, Filer							
	Timberman							

Laborers (The Alaska areas north of N63 latitude and east of W138 longitude)
*See per diem note on last page

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Class Code	Classification of Laborers & Mechanics	BHR	H&W	PEN	TRN	Other Benefits	L&M	LEG	THR
Laborers (The Alaska areas north of N63 latitude and east of W138 longitude) *See per diem note on last page									
N1203	Group III, including:	42.15	10.55	21.51	2.00		0.35	0.20	76.76
	Bit Grinder Camera/Tool/Video Operator Guardrail Machine Operator High Rigger & Tree Topper High Scaler Multiplate Plastic Welding Slurry Seal Squeegee Man Traffic Control Supervisor Welding Certified (in connection with laborer's work)								
N1204	Group IIIA	46.53	10.55	21.51	2.00		0.35	0.20	81.14
	Asphalt Raker, Asphalt Belly Dump Lay Down Drill Doctor (in the field) Driller (including, but not limited to wagon drills, air-track drills, hydraulic drills) Pioneer Drilling & Drilling Off Tugger (all type drills) Pipelayers Powderman (Employee Possessor) Storm Water Pollution Protection Plan Specialist (SWPPP Specialist) Traffic Control Supervisor, DOT Qualified								
N1205	Group IV	29.82	10.55	21.51	2.00		0.35	0.20	64.43
	Final Building Cleanup Permanent Yard Worker								
N1206	Group IIIB	54.01	5.50	21.51	1.60		0.35	0.20	83.17
	Driller (including, but not limited to wagon drills, air-track drills, hydraulic drills)(over 5,000 hours) Federal Powderman (Responsible Person in Charge) Grade Checking (setting or transferring of grade marks, line and grade, GPS, drones) Pioneer Drilling & Drilling Off Tugger (all type drills)(over 5,000 hours) Stake Hopper								
Laborers (The area that is south of N63 latitude and west of W138 longitude) *See per diem note on last page									
S1201	Group I, including:	40.25	10.55	21.51	2.00		0.35	0.20	74.86
	Asphalt Worker (shovelman, plant crew)								

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Class Code	Classification of Laborers & Mechanics	BHR	H&W	PEN	TRN	Other Benefits	L&M	LEG	THR

Laborers (The area that is south of N63 latitude and west of W138 longitude)
*See per diem note on last page

S1201	Group I, including:	40.25	10.55	21.51	2.00		0.35	0.20	74.86

Brush Cutter
Camp Maintenance Laborer
Carpenter Tender or Helper
Choke Setter, Hook Tender, Rigger, Signalman
Concrete Labor (curb & gutter, chute handler, curing, grouting, screeding)
Crusher Plant Laborer
Demolition Laborer
Ditch Digger
Dumpman
Environmental Laborer (hazard/toxic waste, oil spill)
Fence Installer
Fire Watch Laborer
Flagman
Form Stripper
General Laborer
Guardrail Laborer, Bridge Rail Installer
Hydro Seeder Nozzleman
Laborer, Building
Landscaper or Planter
Laying of Mortarless Decorative Block (retaining walls, flowered decorative block 4 feet or less - highway or landscape work)
Material Handler
Pneumatic or Power Tools
Portable or Chemical Toilet Serviceman
Pump Man or Mixer Man
Railroad Track Laborer
Sandblast, Pot Tender
Saw Tender
Slurry Work
Steam Cleaner Operator
Steam Point or Water Jet Operator
Storm Water Pollution Protection Plan Worker (SWPPP Worker - erosion and sediment control Laborer)
Tank Cleaning
Utiliwalk & Utilidor Laborer
Watchman (construction projects)
Window Cleaner

S1202	Group II, including:	41.25	10.55	21.51	2.00		0.35	0.20	75.86

Burning & Cutting Torch

Class Code	Classification of Laborers & Mechanics	BHR	H&W	PEN	TRN	Other Benefits	L&M	LEG	THR

Laborers (The area that is south of N63 latitude and west of W138 longitude)
*See per diem note on last page

							L&M	LEG	
S1202	Group II, including:	41.25	10.55	21.51	2.00		0.35	0.20	75.86

Cement or Lime Dumper or Handler (sack or bulk)
Certified Erosion Sediment Control Lead (CESCL Laborer)
Choker Splicer
Chucktender (wagon, air-track & hydraulic drills)
Concrete Laborer (power buggy, concrete saws, pumpcrete nozzleman, vibratorman)
Culvert Pipe Laborer
Cured Inplace Pipelayer
Environmental Laborer (asbestos, marine work)
Floor Preparation, Core Drilling
Foam Gun or Foam Machine Operator
Green Cutter (dam work)
Gunite Operator
Hod Carrier
Jackhammer/Chipping Gun or Pavement Breaker
Laser Instrument Operator
Laying of Mortarless Decorative Block (retaining walls, flowered decorative block over 4 feet - highway or landscape work)
Mason Tender & Mud Mixer (sewer work)
Pilot Car
Pipelayer Helper
Plasterer, Bricklayer & Cement Finisher Tender
Powderman Helper
Power Saw Operator
Railroad Switch Layout Laborer
Sandblaster
Scaffold Building & Erecting
Sewer Caulker
Sewer Plant Maintenance Man
Thermal Plastic Applicator
Timber Faller, Chainsaw Operator, Filer
Timberman

							L&M	LEG	
S1203	Group III, including:	42.15	10.55	21.51	2.00		0.35	0.20	76.76

Bit Grinder
Camera/Tool/Video Operator
Guardrail Machine Operator
High Rigger & Tree Topper
High Scaler
Multiplate
Plastic Welding

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Class Code	Classification of Laborers & Mechanics	BHR	H&W	PEN	TRN	Other Benefits		THR
Laborers (The area that is south of N63 latitude and west of W138 longitude) *See per diem note on last page								
						L&M	**LEG**	
S1203	Group III, including:	42.15	10.55	21.51	2.00	0.35	0.20	76.76
	Slurry Seal Squeegee Man Traffic Control Supervisor Welding Certified (in connection with laborer's work)							
						L&M	**LEG**	
S1204	Group IIIA	46.53	10.55	21.51	2.00	0.35	0.20	81.14
	Asphalt Raker, Asphalt Belly Dump Lay Down Drill Doctor (in the field) Driller (including, but not limited to wagon drills, air-track drills, hydraulic drills) Pioneer Drilling & Drilling Off Tugger (all type drills) Pipelayers Powderman (Employee Possessor) Storm Water Pollution Protection Plan Specialist (SWPPP Specialist) Traffic Control Supervisor, DOT Qualified							
						L&M	**LEG**	
S1205	Group IV	29.82	10.55	21.51	2.00	0.35	0.20	64.43
	Final Building Cleanup Permanent Yard Worker							
						L&M	**LEG**	
S1206	Group IIIB	54.01	5.50	21.51	1.60	0.35	0.20	83.17
	Driller (including, but not limited to wagon drills, air-track drills, hydraulic drills)(over 5,000 hours) Federal Powderman (Responsible Person in Charge) Grade Checking (setting or transferring of grade marks, line and grade, GPS, drones) Pioneer Drilling & Drilling Off Tugger (all type drills)(over 5,000 hours) Stake Hopper							
Millwrights *See per diem note on last page								
						L&M		
A1251	Millwright (journeyman)	55.42	8.75	15.00	1.11	0.20	0.25	80.73
						L&M		
A1252	Millwright Welder	56.42	8.75	15.00	1.11	0.20	0.25	81.73
Painters, Region I (North of N63 latitude) *See per diem note on last page								
						L&M		
N1301	Group I, including:	40.33	9.97	15.10	1.10	0.10		66.60

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Class Code	Classification of Laborers & Mechanics	BHR	H&W	PEN	TRN	Other Benefits	THR
Painters, Region I (North of N63 latitude) *See per diem note on last page							
						L&M	
N1301	Group I, including:	40.33	9.97	15.10	1.10	0.10	66.60
	Brush General Painter Hand Taping Hazardous Material Handler Lead-Based Paint Abatement Roll						
						L&M	
N1302	Group II, including:	40.85	9.97	15.10	1.10	0.10	67.12
	Bridge Painter Epoxy Applicator General Drywall Finisher Hand/Spray Texturing Industrial Coatings Specialist Machine/Automatic Taping Pot Tender Sandblasting Specialty Painter Spray Structural Steel Painter Wallpaper/Vinyl Hanger						
N1304	Group IV, including:	44.54	9.97	18.61	1.10	0.10	74.32
	Glazier Storefront/Automatic Door Mechanic						
N1305	Group V, including:	39.66	9.97	5.00	1.10	0.10	55.83
	Carpet Installer Floor Coverer Heat Weld/Cove Base Linoleum/Soft Tile Installer						
N1306	Group VI, including:	69.78	11.01	7.80	1.10	0.10	89.79
	Traffic Control Striper						
Painters, Region II (South of N63 latitude) *See per diem note on last page							
						L&M	
S1301	Group I, including :	35.97	9.97	17.45	1.10	0.10	64.59
	Brush						

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Class Code	Classification of Laborers & Mechanics	BHR	H&W	PEN	TRN	Other Benefits	THR
Painters, Region II (South of N63 latitude) *See per diem note on last page							
						L&M	
S1301	Group I, including :	35.97	9.97	17.45	1.10	0.10	64.59
	General Painter Hand Taping Hazardous Material Handler Lead-Based Paint Abatement Roll Spray						
						L&M	
S1302	Group II, including :	37.22	9.97	17.45	1.10	0.10	65.84
	General Drywall Finisher Hand/Spray Texturing Machine/Automatic Taping Wallpaper/Vinyl Hanger						
						L&M	
S1303	Group III, including :	37.32	9.97	17.45	1.10	0.10	65.94
	Bridge Painter Epoxy Applicator Industrial Coatings Specialist Pot Tender Sandblasting Specialty Painter Structural Steel Painter						
						L&M	
S1304	Group IV, including:	45.20	9.97	17.25	1.10	0.10	73.62
	Glazier Storefront/Automatic Door Mechanic						
						L&M	
S1305	Group V, including:	39.66	9.97	5.00	1.10	0.10	55.83
	Carpet Installer Floor Coverer Heat Weld/Cove Base Linoleum/Soft Tile Installer						
S1306	Group VI, including:	69.78	11.01	7.80	1.10	0.10	89.79
	Traffic Control Striper						
Piledrivers *See per diem note on last page							

Wage benefits key: ANU=Annuity, BHR=basic hourly rate; H&W=health and welfare; IAF=industry advancement fund; LEG=legal fund; L&M=labor/management fund; PEN=pension fund; SAF=safety; SUI=supplemental unemployment insurance; S&L=SUI & LEG combined; TRN=training; THR=total hourly rate; VAC=vacation

Class Code	Classification of Laborers & Mechanics	BHR	H&W	PEN	TRN	Other Benefits	THR
Piledrivers							
	*See per diem note on last page						
						L&M **IAF**	
A1401	Piledriver	50.79	8.75	16.80	0.77	0.10	77.21
	Assistant Dive Tender						
	Carpenter/Piledriver						
	Rigger						
	Sheet Stabber						
	Skiff Operator						
						L&M **IAF**	
A1402	Piledriver-Welder/Toxic Worker	51.79	8.75	16.80	0.77	0.10	78.21
						L&M **IAF**	
A1403	Remotely Operated Vehicle Pilot/Technician	55.10	8.75	16.80	0.77	0.10	81.52
	Single Atmosphere Suit, Bell or Submersible Pilot						
						L&M **IAF**	
A1404	Diver (working) **See note on last page	94.90	8.75	16.80	0.77	0.10	121.32
						L&M **IAF**	
A1405	Diver (standby) **See note on last page	55.10	8.75	16.80	0.77	0.10	81.52
						L&M **IAF**	
A1406	Dive Tender **See note on last page	54.10	8.75	16.80	0.77	0.10	80.52
						L&M **IAF**	
A1407	Welder (American Welding Society, Certified Welding Inspector)	56.35	8.75	16.80	0.77	0.10	82.77
Plumbers, Region I (North of N63 latitude)							
	*See per diem note on last page						
						L&M **S&L**	
N1501	Journeyman Pipefitter	51.66	12.45	18.70	1.75	1.20	85.76
	Plumber						
	Welder						
Plumbers, Region II (South of N63 latitude)							
	*See per diem note on last page						
						L&M	
S1501	Journeyman Pipefitter	47.50	14.03	16.02	2.40	0.20	80.15
	Plumber						
	Welder						
Plumbers, Region IIA (1st Judicial District)							
	*See per diem note on last page						
						L&M	
X1501	Journeyman Pipefitter	50.50	15.67	12.25	2.95	0.24	81.61

Wage benefits key: ANU=Annuity, BHR=basic hourly rate; H&W=health and welfare; IAF=industry advancement fund; LEG=legal fund; L&M=labor/management fund; PEN=pension fund; SAF=safety; SUI=supplemental unemployment insurance; S&L=SUI & LEG combined; TRN=training; THR=total hourly rate; VAC=vacation

Class Code	Classification of Laborers & Mechanics	BHR	H&W	PEN	TRN	Other Benefits	THR
Plumbers, Region IIA (1st Judicial District) *See per diem note on last page							
						L&M	
X1501	Journeyman Pipefitter	50.50	15.67	12.25	2.95	0.24	81.61
	Plumber						
	Welder						
Power Equipment Operators *See per diem note on last page							
						L&M	
A1601	Group I, including:	53.23	12.10	16.25	1.05	0.10	82.73
	Asphalt Roller: Breakdown, Intermediate, and Finish						
	Back Filler						
	Barrier Machine (Zipper)						
	Beltcrete with Power Pack & similar conveyors						
	Bending Machine						
	Boat Coxswain						
	Bulldozer						
	Cableways, Highlines & Cablecars						
	Cleaning Machine						
	Coating Machine						
	Concrete Hydro Blaster						
	Cranes (45 tons & under or 150 feet of boom & under (including jib & attachments))						
	(a) Hydralifts or Transporters, (all track or truck type)						
	(b) Derricks						
	(c) Overhead						
	Crushers						
	Deck Winches, Double Drum						
	Ditching or Trenching Machine (16 inch or over)						
	Drag Scraper, Yarder, and similar types						
	Drilling Machines, Core, Cable, Rotary and Exploration						
	Finishing Machine Operator, Concrete Paving, Laser Screed, Sidewalk, Curb & Gutter Machine						
	Grade Checker and/or Line and Grade including Drone						
	Helicopters						
	Hover Craft, Flex Craft, Loadmaster, Air Cushion, All-Terrain Vehicle, Rollagon, Bargecable, Nodwell, & Snow Cat						
	Hydro Ax, Feller Buncher & similar						
	Hydro Excavation (Vac-Truck and Similar)						
	Loaders (2 1/2 yards through 5 yards, including all attachments):						
	(a) Forklifts (with telescopic boom & swing attachment)						
	(b) Front End & Overhead, (2-1/2 yards through 5 yards)						
	(c) Loaders, (with forks or pipe clamp)						
	(d) Loaders, (elevating belt type, Euclid & similar types)						

Class Code	Classification of Laborers & Mechanics	BHR	H&W	PEN	TRN	Other Benefits	THR
Power Equipment Operators *See per diem note on last page							
						L&M	
A1601	Group I, including:	53.23	12.10	16.25	1.05	0.10	82.73
	Material Transfer Vehicle (Elevating Grader, Pickup Machine, and similar types)						
	Mechanic, Welder, Bodyman, Electrical, Camp & Maintenance Engineer						
	Micro Tunneling Machine						
	Mixers: Mobile type with hoist combination						
	Motor Patrol Grader						
	Mucking Machine: Mole, Tunnel Drill, Horizontal/Directional Drill Operator and/or Shield						
	Off-Road Hauler (including Articulating and Haul Trucks)						
	Operator on Dredges						
	Piledriver Engineer, L.B. Foster, Puller or similar paving breaker						
	Plant Operator (Asphalt & Concrete)						
	Power Plant, Turbine Operator 200 k.w & over (power plants or combination of power units over 300 k.w.)						
	Remote Controlled Equipment						
	Scraper (through 40 yards)						
	Service Oiler/Service Engineer						
	Shot Blast Machine						
	Shovels, Backhoes, Excavators with all attachments, and Gradealls (3 yards & under)						
	Sideboom (under 45 tons)						
	Sub Grader (Gurries & similar types)						
	Tack Tractor						
	Truck Mounted Concrete Pump, Conveyor/Tele-belt, & Creter						
	Wate Kote Machine						
						L&M	
A1602	Group IA, including:	55.33	12.10	16.25	1.05	0.10	84.83
	Camera/Tool/Video Operator (Slipline)						
	Certified Welder, Electrical Mechanic, Camp Maintenance Engineer, Mechanic (over 10,000 hours)						
	Cranes (over 45 tons or 150 feet including jib & attachments)						
	(a) Clamshells & Draglines (over 3 yards)						
	(b) Tower Cranes						
	Licensed Water/Waste Water Treatment Operator						
	Loaders (over 5 yards)						
	Motor Patrol Grader, Dozer, Grade Tractor (finish: when finishing to final grade and/or to hubs, or for asphalt)						
	Power Plants (1000 k.w. & over)						
	Profiler, Reclaimer, and Roto-Mill						
	Quad						
	Scrapers (over 40 yards)						

Class Code	Classification of Laborers & Mechanics	BHR	H&W	PEN	TRN	Other Benefits	THR
Power Equipment Operators *See per diem note on last page							
						L&M	
A1602	Group IA, including:	55.33	12.10	16.25	1.05	0.10	84.83
	Screed						
	Shovels, Backhoes, Excavators with all attachments (over 3 yards)						
	Sidebooms (over 45 tons)						
	Slip Form Paver, C.M.I. & similar types						
	Topside (Asphalt Paver, Slurry machine, Spreaders, and similar types)						
						L&M	
A1603	Group II, including:	52.32	12.10	16.25	1.05	0.10	81.82
	Boiler - Fireman						
	Cement Hogs & Concrete Pump Operator						
	Conveyors (except those listed in Group I)						
	Hoists on Steel Erection, Towermobiles & Air Tuggers						
	Horizontal/Directional Drill Locator						
	Locomotives, Rod & Geared Engines						
	Mixers						
	Screening, Washing Plant						
	Sideboom (cradling rock drill, regardless of size)						
	Skidder						
	Trenching Machines (under 16 inches)						
	Water/Waste Water Treatment Operator						
						L&M	
A1604	Group III, including:	51.46	12.10	16.25	1.05	0.10	80.96
	"A" Frame Trucks, Deck Winches						
	Bombardier (tack or tow rig)						
	Boring Machine						
	Brooms, Power (sweeper, elevator, vacuum, or similar)						
	Bump Cutter						
	Compressor						
	Farm Tractor						
	Forklift, Industrial Type						
	Gin Truck or Winch Truck (with poles when used for hoisting)						
	Hoists, Air Tuggers, Elevators						
	Loaders:						
	(a) Elevating-Athey, Barber Greene & similar types						
	(b) Forklifts or Lumber Carrier (on construction job sites)						
	(c) Forklifts, (with tower)						
	(d) Overhead & Front End, (under 2-l/2 yards)						
	Locomotives: Dinkey (air, steam, gas & electric) Speeders						
	Mechanics, Light Duty						
	Oil, Blower Distribution						
	Posthole Digger, Mechanical						

Class Code	Classification of Laborers & Mechanics	BHR	H&W	PEN	TRN	Other Benefits	THR
Power Equipment Operators							
	*See per diem note on last page						
						L&M	
A1604	Group III, including:	51.46	12.10	16.25	1.05	0.10	80.96
	Pot Fireman (power agitated)						
	Power Plant, Turbine Operator, (under 200 k.w.)						
	Pumps, Water						
	Roller (other than Asphalt)						
	Saws, Concrete						
	Skid Hustler						
	Skid Steer (with all attachments)						
	Stake Hopper						
	Straightening Machine						
	Tow Tractor						
						L&M	
A1605	Group IV, including:	44.06	12.10	16.25	1.05	0.10	73.56
	Crane Assistant Engineer/Rig Oiler						
	Drill Helper						
	Parts & Equipment Coordinator						
	Spotter						
	Steam Cleaner						
	Swamper (on trenching machines or shovel type equipment)						
Roofers							
	*See per diem note on last page						
						L&M	
A1701	Roofer & Waterproofer	52.07	13.90	4.01	0.81	0.10	0.09 70.98
						L&M	
A1702	Roofer Material Handler	38.68	13.90	4.01	0.81	0.10	0.09 57.59
Sheet Metal Workers, Region I (North of N63 latitude)							
	*See per diem note on last page						
						L&M	
N1801	Sheet Metal Journeyman	54.00	12.80	15.94	1.80	0.12	84.66
	Air Balancing and duct cleaning of HVAC & HVAC-R systems						
	Brazing, soldering or welding of metals						
	Demolition of sheet metal HVAC & HVAC-R systems						
	Fabrication and installation of exterior wall sheathing, siding, metal roofing, flashing, decking and architectural sheet metal work						
	Fabrication and installation of heating, ventilation and air conditioning ducts and equipment						
	Fabrication and installation of louvers and hoods						
	Fabrication and installation of sheet metal lagging						

Class Code	Classification of Laborers & Mechanics	BHR	H&W	PEN	TRN	Other Benefits	THR
Sheet Metal Workers, Region I (North of N63 latitude) *See per diem note on last page							
						L&M	
N1801	Sheet Metal Journeyman	54.00	12.80	15.94	1.80	0.12	84.66

Fabrication and installation of stainless steel commercial or industrial food service equipment & wall sheathing
HVAC & HVAC-R Service Mechanic, servicing and maintaining and making operable HVAC & HVAC-R Systems
HVAC & HVAC-R systems controls and programming
Manufacture, fabrication assembly, installation and alteration of all ferrous and nonferrous metal work
Metal lavatory partitions
Preparation of drawings taken from architectural and engineering plans required for fabrication and erection of sheet metal work
Sheet Metal shelving, lockers
Sheet Metal venting, chimneys and breaching
Skylight installation

Sheet Metal Workers, Region II (South of N63 latitude) *See per diem note on last page							
						L&M	
S1801	Sheet Metal Journeyman	48.75	12.80	15.30	2.06	0.43	79.34

Air Balancing and duct cleaning of HVAC & HVAC-R systems
Brazing, soldering or welding of metals
Demolition of sheet metal HVAC & HVAC-R systems
Fabrication and installation of exterior wall sheathing, siding, metal roofing, flashing, decking and architectural sheet metal work
Fabrication and installation of heating, ventilation and air conditioning ducts and equipment
Fabrication and installation of louvers and hoods
Fabrication and installation of sheet metal lagging
Fabrication and installation of stainless steel commercial or industrial food service equipment & wall sheathing
HVAC & HVAC-R Service Mechanic, servicing and maintaining and making operable HVAC & HVAC-R Systems
HVAC & HVAC-R systems controls and programming
Manufacture, fabrication assembly, installation and alteration of all ferrous and nonferrous metal work
Metal lavatory partitions
Preparation of drawings taken from architectural and engineering plans required for fabrication and erection of sheet metal work
Sheet Metal shelving, lockers
Sheet Metal venting, chimneys and breaching
Skylight installation

Class Code	Classification of Laborers & Mechanics	BHR	H&W	PEN	TRN	Other Benefits	THR
Sprinkler Fitters	*See per diem note on last page						
A1901	Sprinkler Fitter	56.61	12.40	18.45	0.54	L&M 0.25	88.25
Surveyors	*See per diem note on last page						
A2001	Chief of Parties	59.93	13.48	14.64	1.30	L&M 0.10	89.45
A2002	Party Chief	55.78	13.48	14.64	1.30	L&M 0.10	85.30
A2003	Line & Grade Technician/Office Technician/GPS, Drones	52.77	13.48	14.64	1.30	L&M 0.10	82.29
A2004	Associate Party Chief (including Instrument Person & Head Chain Person)/Stake Hop/Grademan	50.31	13.48	14.64	1.30	L&M 0.10	79.83
A2006	Chain Person (for crews with more than 2 people)	45.29	13.48	14.64	1.30	L&M 0.10	74.81
Truck Drivers	*See per diem note on last page						
A2101	Group I, including:	51.58	13.48	14.64	1.30	L&M 0.10	81.10

Air/Sea Traffic Controllers
Ambulance/Fire Truck Driver (EMT certified)
Boat Coxswain
Captains & Pilots (air & water)
Deltas, Commanders, Rollagons, & similar equipment (when pulling sleds, trailers or similar equipment)
Dump Trucks (including articulating end dumps, rockbuggy, side dump, belly dump, & trucks with pups) over 40 yards up to & including 60 yards
Fueler
Helicopter Transporter
Liquid Vac Truck/Super Vac Truck
Material Coordinator or Purchasing Agent
Oil Distributor Truck
Ready-mix (over 12 yards up to & including 15 yards) (over 15 yards to be negotiated)
Semi with Double Box Mixer
Tireman, Medium Duty (Truck Tires up to 1200-24")
Water Wagon (250 Bbls and above)

A2102	Group 1A including:	53.05	13.48	14.64	1.30	L&M 0.10	82.57

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Class Code	Classification of Laborers & Mechanics	BHR	H&W	PEN	TRN	Other Benefits	THR
Truck Drivers	*See per diem note on last page						
						L&M	
A2102	Group 1A including:	53.05	13.48	14.64	1.30	0.10	82.57
	Dump Trucks (including rockbuggy, side dump, belly dump & trucks with pups) over 60 yards up to & including 100 yards (over 100 yards to be negotiated)						
	Jeeps (driver under load)						
	Lowboys, including tractor attached trailers & jeeps, up to & including 12 axles (over 12 axles or 150 tons to be negotiated)						
	Tireman Heavy Duty (earthmover tires, i.e., loader, scraper, haul truck)						
						L&M	
A2103	Group II, including:	50.12	13.48	14.64	1.30	0.10	79.64
	All Deltas, Commanders, Rollagons, & similar equipment						
	Batch Trucks (8 yards & up)						
	Batch Trucks (up to & including 7 yards)						
	Boom Truck/Knuckle Truck (over 5 tons)						
	Cacasco Truck/Heat Stress Truck						
	Construction and Material Safety Technician						
	Dump Trucks (including articulating end dump, rockbuggy, side dump, belly dump, & trucks with pups) over 20 yards up to & including 40 yards						
	Gin Pole Truck, Winch Truck, Wrecker (truck mounted "A" frame manufactured rating over 5 tons)						
	Mechanics						
	Partsman						
	Ready-mix (up to & including 12 yards)						
	Stringing Truck						
	Turn-O-Wagon or DW-10 (not self loading)						
						L&M	
A2104	Group III, including:	49.17	13.48	14.64	1.30	0.10	78.69
	Boom Truck/Knuckle Truck (up to & including 5 tons)						
	Dump Trucks (including articulating end dump, rockbuggy, side dump, belly dump, & trucks with pups) over 10 yards up to & including 20 yards						
	Expeditor (electrical & pipefitting materials)						
	Gin Pole Truck, Winch Truck, Wrecker (truck mounted "A" frame manufactured rating 5 tons & under)						
	Greaser - Shop						
	Semi or Truck & Trailer						
	Thermal Plastic Layout Technician						
	Traffic Control Technician						
	Trucks/Jeeps (push or pull)						
						L&M	
A2105	Group IV, including:	48.50	13.48	14.64	1.30	0.10	78.02
	Air Cushion or similar type vehicle						
	All Terrain Vehicle						

Class Code	Classification of Laborers & Mechanics	BHR	H&W	PEN	TRN	Other Benefits	THR
Truck Drivers	*See per diem note on last page						
						L&M	
A2105	Group IV, including:	48.50	13.48	14.64	1.30	0.10	78.02
	Buggymobile						
	Bull Lift & Fork Lift, Fork Lift with Power Boom & Swing Attachment (over 5 tons)						
	Bus Operator (over 30 passengers)						
	Cement Spreader, Dry						
	Combination Truck-Fuel & Grease						
	Compactor (when pulled by rubber tired equipment)						
	Dump Trucks (including rockbuggy, side dump, belly dump, & trucks with pups) up to & including 10 yards						
	Dumpster						
	Expeditor (general)						
	Fire Truck/Ambulance Driver						
	Flat Beds, Dual Rear Axle						
	Foam Distributor Truck Dual Axle						
	Front End Loader with Fork						
	Grease Truck						
	Hydro Seeder, Dual Axle						
	Hyster Operators (handling bulk aggregate)						
	Loadmaster (air & water operations)						
	Lumber Carrier						
	Ready-mix, (up to & including 7 yards)						
	Rigger (air/water/oilfield)						
	Tireman, Light Duty						
	Track Truck Equipment						
	Truck Vacuum Sweeper						
	Warehouseperson						
	Water Truck (Below 250 Bbls)						
	Water Truck (straight)						
	Water Wagon, Semi						
						L&M	
A2106	Group V, including:	47.62	13.48	14.64	1.30	0.10	77.14
	Buffer Truck						
	Bull Lifts & Fork Lifts, Fork Lifts with Power Boom & Swing Attachments (up to & including 5 tons)						
	Bus Operator (up to 30 passengers)						
	Farm Type Rubber Tired Tractor (when material handling or pulling wagons on a construction project)						
	Flat Beds, Single Rear Axle						
	Foam Distributor Truck Single Axle						
	Fuel Handler (station/bulk attendant)						
	Gear/Supply Truck						

Class Code	Classification of Laborers & Mechanics	BHR	H&W	PEN	TRN	Other Benefits	THR
Truck Drivers							
	*See per diem note on last page						
						L&M	
A2106	Group V, including:	47.62	13.48	14.64	1.30	0.10	77.14
	Gravel Spreader Box Operator on Truck						
	Hydro Seeder, Single Axle						
	Pickups (pilot cars & all light-duty vehicles)						
	Rigger						
	Swamper						
	Tack Truck (welders/gear)						
	Team Drivers (horses, mules, & similar equipment)						
Tunnel Workers, Laborers (The Alaska areas north of N63 latitude and east of W138 longitude)							
	*See per diem note on last page						
						L&M	**LEG**
N2201	Group I, including:	44.28	10.55	21.51	2.00	0.35	0.20	78.89
	Brakeman						
	Mucker						
	Nipper						
	Storm Water Pollution Protection Plan Worker (SWPPP Worker - erosion and sediment control Laborer)						
	Topman & Bull Gang						
	Tunnel Track Laborer						
						L&M	**LEG**
N2202	Group II, including:	45.38	10.55	21.51	2.00	0.35	0.20	79.99
	Burning & Cutting Torch						
	Certified Erosion Sediment Control Lead (CESCL Laborer)						
	Concrete Laborer						
	Floor Preparation, Core Drilling						
	Jackhammer/Chipping Gun or Pavement Breaker						
	Laser Instrument Operator						
	Nozzlemen, Pumpcrete or Shotcrete						
	Pipelayer Helper						
						L&M	**LEG**
N2203	Group III, including:	46.37	10.55	21.51	2.00	0.35	0.20	80.98
	Miner						
	Retimberman						
						L&M	**LEG**
N2204	Group IIIA, including:	51.18	10.55	21.51	2.00	0.35	0.20	85.79
	Asphalt Raker, Asphalt Belly Dump Lay Down						
	Drill Doctor (in the field)						
	Driller (including, but not limited to wagon drills, air-track drills, hydraulic drills)						

Class Code	Classification of Laborers & Mechanics	BHR	H&W	PEN	TRN	Other Benefits		THR
						L&M	LEG	
Tunnel Workers, Laborers (The Alaska areas north of N63 latitude and east of W138 longitude) *See per diem note on last page								
N2204	Group IIIA, including:	51.18	10.55	21.51	2.00	0.35	0.20	85.79
	Pioneer Drilling & Drilling Off Tugger (all type drills) Pipelayer Powderman (Employee Possessor) Storm Water Pollution Protection Plan Specialist (SWPPP Specialist) Traffic Control Supervisor, DOT Qualified							
						L&M	LEG	
N2206	Group IIIB, including:	59.41	5.50	21.51	1.60	0.35	0.20	88.57
	Driller (including, but not limited to wagon drills, air-track drills, hydraulic drills)(over 5,000 hours) Federal Powderman (Responsible Person in Charge) Grade Checking (setting or transferring of grade marks, line and grade, GPS, drones) Pioneer Drilling & Drilling Off Tugger (all type drills)(over 5,000 hours) Stake Hopper							
Tunnel Workers, Laborers (The area that is south of N63 latitude and west of W138 longitude) *See per diem note on last page								
						L&M	LEG	
S2201	Group I, including:	44.28	10.55	21.51	2.00	0.35	0.20	78.89
	Brakeman Mucker Nipper Storm Water Pollution Protection Plan Worker (SWPPP Worker - erosion and sediment control Laborer) Topman & Bull Gang Tunnel Track Laborer							
						L&M	LEG	
S2202	Group II, including:	45.38	10.55	21.51	2.00	0.35	0.20	79.99
	Burning & Cutting Torch Certified Erosion Sediment Control Lead (CESCL Laborer) Concrete Laborer Floor Preparation, Core Drilling Jackhammer/Chipping Gun or Pavement Breaker Laser Instrument Operator Nozzlemen, Pumpcrete or Shotcrete Pipelayer Helper							
						L&M	LEG	
S2203	Group III, including:	46.37	10.55	21.51	2.00	0.35	0.20	80.98
	Miner Retimberman							

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Class Code	Classification of Laborers & Mechanics	BHR	H&W	PEN	TRN	Other Benefits		THR
Tunnel Workers, Laborers (The area that is south of N63 latitude and west of W138 longitude) *See per diem note on last page								
						L&M	LEG	
S2204	Group IIIA, including:	51.18	10.55	21.51	2.00	0.35	0.20	85.79
	Asphalt Raker, Asphalt Belly Dump Lay Down Drill Doctor (in the field) Driller (including, but not limited to wagon drills, air-track drills, hydraulic drills) Pioneer Drilling & Drilling Off Tugger (all type drills) Pipelayer Powderman (Employee Possessor) Storm Water Pollution Protection Plan Specialist (SWPPP Specialist) Traffic Control Supervisor, DOT Qualified							
						L&M	LEG	
S2206	Group IIIB, including:	59.41	5.50	21.51	1.60	0.35	0.20	88.57
	Driller (including, but not limited to wagon drills, air-track drills, hydraulic drills)(over 5,000 hours) Federal Powderman (Responsible Person in Charge) Grade Checking (setting or transferring of grade marks, line and grade, GPS, drones) Pioneer Drilling & Drilling Off Tugger (all type drills)(over 5,000 hours) Stake Hopper							
Tunnel Workers, Power Equipment Operators *See per diem note on last page								
						L&M		
A2207	Group I	58.55	12.10	16.25	1.05	0.10		88.05
						L&M		
A2208	Group IA	60.86	12.10	16.25	1.05	0.10		90.36
						L&M		
A2209	Group II	57.55	12.10	16.25	1.05	0.10		87.05
						L&M		
A2210	Group III	56.60	12.10	16.25	1.05	0.10		86.10
						L&M		
A2211	Group IV	48.47	12.10	16.25	1.05	0.10		77.97

Wage benefits key: ANU=Annuity, BHR=basic hourly rate; H&W=health and welfare; IAF=industry advancement fund; LEG=legal fund; L&M=labor/management fund; PEN=pension fund; SAF=safety; SUI=supplemental unemployment insurance; S&L=SUI & LEG combined; TRN=training; THR=total hourly rate; VAC=vacation

*** Per diem is an established practice for this classification. This means that per diem is an allowable alternative to board and lodging if all criteria are met. See 8 AAC 30.051-08 AAC 30.056, and the per diem information on page vii of this Pamphlet.**

**** Work in combination of classifications: Employees working in any combination of classifications within the diving crew (working diver, standby diver, and tender) in a shift are paid in the classification with the highest rate for a minimum of 8 hours per shift.**

Erosion and Sediment Control Plan

For

Raw Water Transmission Line Replacement

Homer, Alaska

City of Homer

491 E. Pioneer Avenue

Homer, Alaska 99603

Prepared By: Forrester Cook, EIT, PMP

Company Name: DOWL

ESCP Preparation Date: February 2025

The following Erosion and Sediment Control Plan (ESCP) has been prepared to assist bidders in successfully planning their construction means and methods to comply with the 2021 Alaska Construction General Permit (CGP), United States Army Corps of Engineers (USACE) 404/10 Permit, Alaska Department of Environmental Conservation (DEC) 401 Water Quality Certification, Alaska Department of Fish and Game (ADF&G) Title 16, and other permits associated with this project. This document is not intended to be all inclusive of the best management practices (BMP's) that will be required to reduce the potential for sediment discharge during construction and comply with permit conditions or construction specifications. This ESCP is intended to guide contractors during the bidding process and assist in the preparation of the contractor's Storm Water Pollution Prevention Plan (SWPPP) that must be approved prior to commencing construction after award. The contractor is responsible for the risk assessment analysis, planning, preparation and implementation of the SWPPP.

TABLE OF CONTENTS

1.0 PERMITTEE (5.3.1) 1
1.1 Operator(s)/Contractor(s) 1
1.2 Subcontractors 2
2.0 STORM WATER CONTACTS (5.3.2) 3
3.0 PROJECT INFORMATION (5.3.3) 4
3.1 Project Information 4
3.2 Project Site-Specific Conditions (5.3.3) 4
3.3 Reference Documents Available 6
4.0 NATURE OF CONSTRUCTION ACTIVITY (5.3.4) 6
4.1 Scope of Work 6
4.2 Project Function (5.3.4.1) 6
4.3 Support Activities (As Applicable) 6
4.4 Sequence and Timing of Soil-disturbing Activities (5.3.4.2) 6
4.5 Size of Property and Total Area expected to be Disturbed (5.3.4.3) 7
4.6 Identification of All Potential Pollutant Sources (5.3.4.5) 7
5.0 SITE MAPS (5.3.5) 9
6.0 DISCHARGES 10
6.1 Locations of Other Industrial Storm Water Discharges (5.3.8) 10
6.2 Allowable Non-Storm Water Discharges (1.4.3; 4.3.7; 5.3.9) 11
7.0 DOCUMENTATION OF PERMIT ELIGIBILITY RELATED TO TOTAL MAXIMUM DAILY LOADS (3.2, 5.6) 12
7.1 Identify Receiving Waters (5.3.3.3) 12
7.2 Identify TMDLs (5.6.1) 12
8.0 DOCUMENTATION OF PERMIT ELIGIBILITY RELATED TO ENDANGERED SPECIES (3.3, 5.7) 13
8.1 Information on Endangered or Threatened Species or Critical Habitat (5.7.1) 13
9.0 APPLICABLE FEDERAL, STATE, TRIBAL, OR LOCAL REQUIREMENTS (4.10, 4.15) 13
9.1 Historic Properties 13
9.2 Projects near Public Water System (PWS) (4.10) 14
10.0 CONTROL MEASURES/BEST MANAGEMENT PRACTICES (4.0; 5.3.6) 17
10.1 Minimize Amount of Soil Exposed during Construction Activity (4.2.2) 19
10.1.1 Site Delineation (4.2.1) 19
10.2 Maintain Natural Buffer Areas (4.2.3) 19
10.2.1 Clearing Vegetation (4.2.4) 21
10.3 Control Storm Water Discharges and Flow Rates (4.2.5) 21
10.3.1 Protect Steep Slopes (4.2.6) 21
10.4 Storm Water Inlet Protection Measures (4.3.1) 21

10.5 Water Body Protection Measures (4.3.2) 21
10.6 Down-Slope Sediment Controls (4.3.3) 23
10.7 Stabilized Construction Vehicle Access and Exit Points (4.3.4) 24
10.8 Dust Generation and Track-Out from Vehicles (4.3.5, 4.3.6) 25
10.9 Soil Management and Soil Stockpile (4.3.7) 25
10.10 Sediment Basins (4.3.9) 26
10.11 Dewatering (4.4) 27
10.12 Permanent/Post-Construction BMPs (4.11) 28
10.12.1 Soil Stabilization (4.5, 5.3.6.3) 28
10.13 Treatment Chemicals (4.6; 5.3.6.4) 30
10.14 Active Treatment System Information or Cationic Treatment Chemicals (4.6.7) 30
10.15 Good Housekeeping Measures (4.8) 30
10.15.1 Washing of Equipment and Vehicles (4.8.1) 30
10.15.2 Fueling and Maintenance Areas (4.8.2) 30
10.15.3 Staging and Material Storage Areas (4.8.3) 31
10.15.4 Washout of Applicators/Containers Used for Paint, Concrete, and Other Materials (4.8.4) 31
10.15.5 Fertilizer or Pesticide Use (4.8.5) 32
10.16 Spill Notification (4.9) 33
10.17 Construction and Waste Materials (4.8.6, 5.3.7) 33
11.0 INSPECTIONS (5.4; 6.0) 35
11.1 Inspection Schedules (5.4.1.2; 6.1; 6.2; 6.6) 35
11.2 Inspection Form or Checklist (5.4.1.3; 6.7) 37
11.3 Corrective Action Procedures (5.4.1.4; 8.0) 37
11.4 Inspection Recordkeeping (5.4.2) 37
12.0 MONITORING PLAN (IF APPLICABLE) (5.5; 7.0) 38
12.1 Determination of Need for Monitoring Plan 38
13.0 POST-AUTHORIZATION RECORDS (5.8) 38
13.1 Additional Documentation Requirements (5.8.2) 38
13.1.1 Records of Employee Training (4.14; 5.8.2.8) 38
14.0 MAINTAINING AN UPDATED SWPPP (5.9) 39
14.1 SWPPP Amendment Log (5.9.2) 39
14.2 Deadlines for SWPPP Modifications (5.9.3) 39
15.0 ADDITIONAL SWPPP REQUIREMENTS (5.10) 39
15.1 Retention of SWPPP (5.10.1) 39
15.2 Main Entrance Signage (5.10.2) 39
15.3 Availability of SWPPP (5.10.3) 39

APPENDICES

Appendices that are marked with **(ESCP)** are to be filled out by the Designer. All other appendices are to be filled out by the SWPPP preparer and will not be included in the ESCP.

Appendix A Site Maps and Drawings **(ESCP)**
Appendix B BMP Details
Appendix C Project Schedule
Appendix D Supporting Documentation: **(ESCP)**
- TMDLs
- Endangered Species
- Historic Properties
- DEC Non-Domestic Wastewater Plan Review Non-Objection Letter (if required)
- DEC Dewatering Permit (if required)
- Environmental Permits and Commitments
- Other Permits or Requirements

Appendix E Operator Plan Authorizations/Certifications/Delegations and Personnel Qualifications **(ESCP)**
Appendix F Permit Conditions:
- Copy of Signed Notice of Intent
- Copy of Letters from DEC Authorizing Coverage, with DEC NOI Tracking Number
- Copy of 2021 Alaska Construction General Permit

Appendix G Grading and Stabilization Records
Appendix H Monitoring Plan (if applicable) and Reports
Appendix I Training Records
Appendix J Corrective Action Log
Appendix K Inspection Records
Appendix L SWPPP Preconstruction Site Visit
Appendix M SWPPP Amendment Log
Appendix N Daily Record of Rainfall
Appendix O Hazardous Materials Control Plan
Appendix P Treatment Chemical/Active Treatment Systems
Appendix Q Other
- Anti-Degradation Analysis (if applicable)
- Correspondence with Regulatory Agencies
- Notices of Termination

1.0 PERMITTEE (5.3.1)

The City of Homer (COH) will be a permittee for the project. Upon the approval of the contractor's Storm Water Pollution Prevention Plan (SWPPP) by COH, the contractor will be required to submit a Notice of Intent (NOI) and obtain permit coverage as an operator. The contractor's contact information as well as contact information for all subcontractors must be included in the contractor's SWPPP. All subcontractors will be required to sign a certification that they have read the Alaska Construction General Permit (CGP) and the contractor's SWPPP and will adhere to their terms and conditions.

1.1 Operator(s)/Contractor(s)

Operator Information			
Organization:	Name:		Title:
Phone:	Fax (optional):	Email:	
Mailing Address:	Street (PO Box):		
	City:	State:	Zip:
Area of Control	Day-to-day operational control of those activities at a site which are necessary to ensure compliance with a SWPPP or other permit conditions.		

The contractor has day-to-day operational control over activities in the field, including subcontractors, installing, maintaining, and inspecting all erosion and sediment controls and implementation of the SWPPP.

Owner/Operator Information			
Organization: City of Homer	Name:		Title:
Phone:	Fax (optional):	Email:	
Mailing Address:	Street (PO Box): 3575 Heath Street		
	City: Homer	State: Alaska	Zip: 99603
Area of Control	Operational control over construction plans and specifications, including the ability to make modifications to those plans and specifications.		

Repeat, as necessary.

1.2 Subcontractors

Subcontractor Information			
Organization:	Name:		Title:
Phone:	Fax (optional):	Email:	
Mailing Address:	Street (PO Box):		
	City:	State:	Zip:
Area of Control	Insert Area of Control (if more than one operator at site)		

Repeat as necessary to include all subcontractors.

2.0 STORM WATER CONTACTS (5.3.2)

Qualified Personnel	Responsibility
Contractor's Superintendent Company Name Address City, State, Zip Code Telephone # Fax/Email	Authority to stop and/or modify construction activities as necessary to comply with the SWPPP and terms of the Alaska Construction General Permit. Assess conditions at the construction site that could impact storm water quality. Assess the effectiveness of any erosion and sediment control measures selected to control the quality of storm water discharge, and familiar with Part 6 as a means to ensure compliance with the permit.
Contractor's Relief Superintendent Company Name Address City, State, Zip Code Telephone # Fax/Email	Authority to stop and/or modify construction activities as necessary to comply with the SWPPP and terms of the Alaska Construction General Permit. Assess conditions at the construction site that could impact storm water quality. Assess the effectiveness of any erosion and sediment control measures selected to control the quality of storm water discharge, and familiar with Part 6 as a means to ensure compliance with the permit.
City of Homer Public Works Director Name Address City, State, Zip Code Telephone # Fax/Email	Authority to stop and/or modify construction activities as necessary to comply with the SWPPP and the terms and conditions of the permit. Has the authority to issue changes to the design plans and specifications.
SWPPP Preparer Company Name Address City, State, Zip Code Telephone # Fax/Email	Possess the skills to assess conditions at the construction site that could impact storm water quality. Familiar with Part 5 as a means to implement the permit.

3.0 PROJECT INFORMATION (5.3.3)

3.1 Project Information

Project Name: Raw Water Transmission Line Replacement			
Location Address:	Street/Location: Easement between Skyline Drive and Bridge Creek Reservoir	Borough or similar government subdivision: Kenai Peninsula Borough	
	City: Homer	State: Alaska	Zip: 99603
	Latitude (decimal degree, 5 places): 59.67353	Longitude (decimal degree, 5 places): -151.54445	
	Determined By: ☐ GPS ☒ Web Map: Google ☐ USGS Topo Map, Scale: ☐ Other:		

3.2 Project Site-Specific Conditions (5.3.3)

The project corridor is located in Homer, Alaska, along the Diamond Ridge, between Skyline Drive and the Bridge Creek Reservoir. The project involves replacing approximately 3,800 linear feet of existing raw water transmission line between the Bridge Creek Reservoir intake pump station (Pump Station) and the Water Treatment Plant (WTP) near the intersection of Skyline Drive and Pine Terrace Circle. The existing 8-inch cast iron piping will be replaced with a combination of new 12-inch high-density polyethylene (HDPE) and 12-inch ductile iron (DI) piping.

Mean annual precipitation:

According to the Western Regional Climate Center (WRCC), available at https://wrcc.dri.edu/cgi-bin/cliMAIN.pl?ak3665, the Homer Airport weather station (503665) has an average annual precipitation of **24.47 inches**.

Size of the 2-yr, 24-hr storm event (in inches):

According to the National Oceanic and Atmospheric Administration (NOAA) *Atlas 14 Point Precipitation Frequency Estimates,* available at https://hdsc.nws.noaa.gov/hdsc/pfds/pfds_map_cont.html?bkmrk=nc, the 2-year, 24-hour storm event for the Homer Airport weather station is **1.63 inches**.

Soil Type(s):

According to a geotechnical desktop study performed by DOWL in March of 2021, there is site-specific subsurface information available for the WTP and Pump Station, but no site-specific information for most of the water transmission main alignment. Despite this, sufficient information exists to draw general conclusions about anticipated subsurface conditions.

In the wetlands region, a surficial layer of peat deposits ranging from 1 to 5 feet thick is present. This peat layer typically consists of fibrous material associated with active vegetative growth. Beneath the peat layer, a stratum of windblown sediments (loess) is anticipated, likely composed of silt, silty sand, and silty clay. The loess is expected to overlay glacial till deposits, which are generally unsorted mixtures of silt, sand, gravel, and boulders. Exploratory drilling at the Bridge Creek Dam site revealed glacial till deposits with a maximum thickness of 30 feet overlying bedrock. At the WTP and Pump Station locations, bedrock has been encountered at depths ranging from 5 to 10.5 feet and 3.5 to 10 feet, respectively, below the original ground surface.

Slopes and Landscape Topography:

The topography slopes downward to the north from the WTP to the Pump Station. The WTP is situated at an elevation of approximately 1,090 feet above mean sea level (MSL), while the Pump Station is at about 935 feet MSL. The steepest section of the slope, estimated at a grade of 5 to 10 degrees, occurs within approximately 1,000 feet north of the WTP. Beyond this section, the slope becomes relatively gentle.

Drainage Patterns & Storm Sewer Drainage Systems:

Drainage generally flows in the direction of the Pump Station from the WTP, however, surface runoff will primarily infiltrate the ground surface prior to discharging from the project.

There are no storm sewer drainage systems within the project area.

No significant changes to drainage patterns will occur as a result of work associable with this project.

Type of Existing Vegetation:

In the project area, most of the section line easement has been cleared of trees. Vegetation primarily consists of shrubs and grasses, with smaller spruce trees encroaching along the edges of the easement.

Approximate growing season:

The growing season for the Cook Inlet ecoregion is approximated to be from May 8 to October 5, according to *the United States Army Corps of Engineer's Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Alaska Region*, dated September 2007. The ground could be expected to thaw sufficiently for enough roots to grow around the beginning of May. The first hard freeze, which can end the growing season for most plants, is expected to take place near the beginning of October.

Seeding Dates:

Seeding and fertilization should occur between **May 15 and August 15**.

Clearing Window/ Time Period to Perform Vegetation Clearing:

According to the US Fish & Wildlife Service's (USFWS) *Land Clearing Timing Guidance for Alaska, Southeast Region,* available at https://dot.alaska.gov/sereg/projects/sitka_katlianbayroad/assets/1-vegetation_clearing.pdf**,** the clearing window for shrubbery or other low-lying, open vegetation is from **July 16 to April 31**.

Fish Window:

In-water work is not anticipated at any proposed work areas, and a fish window is not applicable to this project.

Historic site contamination evident from existing site features and known past usage of the site:

A search of the DEC Contaminated Site Database indicated one (1) 'Cleanup Complete – Institutional Controls' contaminated sites located within a 1500-ft radius of the project site. Categorized by Hazard ID 2067, the City of Homer-Bridge Creek Pump Station contaminated site is located within the project limits near the intake Pump Station. This contaminated site is the result of a 1993-1994 fuel release from a heating oil tank within 50 feet of the Bridge Creek Reservoir.

This one contaminated site will be impacted by construction activities. The Contractor will coordinate with the COH and DEC as necessary. Appendix A contains a map showing Hazard 2067 and its location within the project limits. Appendix D contains the DEC-approved work plan to address the estimated 11 cubic yards of contaminated soil requiring excavation and removal.

3.3 Reference Documents Available

Listed below are the reference documents available for this project. Please contact the Engineer for assistance in obtaining these documents.

- Raw Water Transmission Line Replacement Geotechnical Conditions Desktop Study, Homer, Alaska, March 2021, prepared by DOWL
- Bridge Creek Pump Station Test Pit Work Plan, Homer, Alaska, February 2024, prepared by Antheia Environmental

4.0 NATURE OF CONSTRUCTION ACTIVITY (5.3.4)

4.1 Scope of Work

The Proposed Action would:

- Replace existing CI raw water transmission line with new HDPE and DI raw water transmission line.
- Replace existing valve connections to the Pump Station to accommodate new raw water transmission lines

4.2 Project Function (5.3.4.1)

This project plans to improve and replace the existing cast iron raw water transmission lines from the Bridge Creek Reservoir intake Pump Station to the Water Treatment Plant.

4.3 Support Activities (As Applicable)

Support activities for this project are:

Support Activity	Location	Dedicated	
		Yes	No
Concrete Batch Plant	N/A – Batch plant will not be dedicated to project	☐	☑
Asphalt Batch Plant	N/A	☐	☑
Equipment Staging Yards	Refer to Site Maps located in Appendix A	☑	☐
Material Storage Areas	Contractor to designate location	☑	☐
Excavated Material Disposal Areas	Contractor to designate location	☑	☐
Borrow Areas	N/A – Borrow source won't be dedicated to project	☐	☑

4.4 Sequence and Timing of Soil-disturbing Activities (5.3.4.2)

To limit erosion and control sediment transport, all project areas where ground-disturbing activities have ceased either temporarily or permanently shall initiate stabilization measures within one (1) calendar day.

To the extent practicable, construction activities will be sequenced to minimize the amount of exposed soils. The contractor will be required to stabilize disturbed areas prior to moving on to the next area. The contractor will be required to prepare a detailed schedule for review and approval prior to commencement of construction activities, to be included in the SWPPP. The schedule will detail the sequence of activities and describe the stabilization schedule. The contractor must adapt this section to their specific plans in the project SWPPP.

4.5 Size of Property and Total Area expected to be Disturbed (5.3.4.3)

The following are estimates of the construction site:

Total project area:	**6.13 acres**
Construction site area to be disturbed	**1.31 acres**
Percentage impervious area BEFORE construction:	**0**%
Runoff Coefficient BEFORE construction:	**0.25**
Percentage impervious area AFTER construction:	**0**%
Runoff coefficient AFTER construction:	**0.25**

4.6 Identification of All Potential Pollutant Sources (5.3.4.5)

Identify and list all potential sources of sediment from construction materials and activities which may affect the quality of storm water discharges from the construction site.

Identify and list all potential sources of pollution, other than sediment, from construction materials and activities which may affect the quality of storm water discharges from the construction site.

Potential sources of sediment to storm water runoff:

Construction materials and activities that have the potential to contribute sediment pollutants to storm water runoff originating on-site include:

Trade Name Material	Storm Water Pollutants	Location
Excavation/ Backfilling/ Grading	Silt, Sand, Gravel, Organic Soil	Within project limits and areas disturbed by construction activity
Stockpiles	Silt, Sand, Gravel	Within the general construction staging area and areas of excavation and fill activities
Vehicle Tracking	Silt, Sand, Gravel, Organic Soil	At all project exits

Potential pollutants and sources, other than sediment, to storm water runoff:

Construction materials that have the potential to contribute pollutants other than sediment to storm water runoff originating on-site include:

Trade Name Material	Storm Water Pollutants	Location
Diesel Fuel/ Gasoline/ Hydraulic Oil/ Lubricants	Petroleum Distillate, Oil, Grease, Naphthalene, Xylene	Within the project limits and material staging areas
Coolant	Ethylene Glycol, Heavy Metals (Copper, Lead, Zinc)	Within the project limits and material staging areas
Sanitary Toilet	Fecal Coliform	General construction staging areas
Fertilizer	Nitrogen, Phosphorus	Areas requiring seeding operations
General Site Litter	Paper, Plastic	Within project limits and material staging areas
Portland Cement Concrete (PCC)/ Grout	Limestone, Sand, pH, Chromium	Within project limits and at concrete washout areas

No pollutant sources from areas other than construction have been identified for this project.

5.0 SITE MAPS (5.3.5)

Site map(s) and drawings are located in Appendix A.

The SWPPP must include a legible site map (or set of maps for large projects) showing the entire site and identifying the following site-specific information:

1. North Arrow
2. Property boundaries
3. Locations where earth-disturbing activities will occur, noting any phasing dictated by design
4. Location of areas that will not be disturbed and natural features to be preserved
5. Locations of all storm water conveyances including ditches, pipes, and swales
6. Locations of storm water inlets and outfalls, with a unique identification code for each outfall
7. Location where storm water and/or authorized non-storm water discharges to waters of the U.S. (including wetlands) or a Municipal Separate Storm Sewer Systems (MS4), if present
8. Direction of storm water flow and approximate slopes anticipated after grading activities
9. Locations where control measures will be installed
10. Locations where exposed soils will be or have been stabilized
11. Locations where post-construction storm water controls will be installed (i.e. seeding areas, matting, riprap, sedimentation basins, etc.)
12. Locations of support activities, if known
13. Locations where authorized non-storm water will be used
14. Locations and sources of run-on to the site from adjacent property that may contain quantities of pollutants (e.g., sediment, fertilizers and/or pesticides, paints, solvents, fuels) which could be exposed to rainfall, or snowmelt, and could be discharged from your construction site, if applicable
15. Locations of all waters of the U.S. (including significant wetland areas 10,000 square feet or greater) on the site within 2,500 feet of the site boundary (~1/2 mile on each side of road) that may be affected by storm water discharges from the site (see Section 7.1)
    a. This can be shown on a general location map (USGS quad map, a portion of a city or county map, or other map) with enough detail to identify the location of the construction site and waters of the U.S. within the one-mile distance.
16. Location of existing public water system (PWS) drinking water protection areas (DWPA) for PWS sources (e.g. springs, wells, or surface water intakes) that intersect the boundary of the proposed project/permit area. The DWPAs can be found using the interactive web map application, “Alaska DEC Drinking Water Protection Areas”, located at http://dec.alaska.gov/das/GIS/apps.htm.
    a. A copy of the webpage from the above URL will work with the addition of the project boundary and labels for the DWPAs by their ID numbers (see Section 9).
17. Sampling point(s), if applicable
18. Areas where final stabilization has been accomplished
19. Location of staging and material storage areas (construction materials, hazardous materials, fuels, etc.)
20. Dumpsters
21. Porta-potties
22. Concrete, paint, or stucco washout areas
23. Stabilized construction exits

6.0 DISCHARGES

Subject to compliance with the terms and conditions of the CGP, the permittee is authorized to discharge pollutants in storm water discharges from the site. If the permittee is eligible for coverage under CGP and does not comply with the requirements of the CGP, the permittee may be in violation of this general permit for otherwise eligible discharges.

Describe and identify the location of any storm water discharge associated with support activities, including discharges from dedicated asphalt and concrete plants covered by the CGP (5.3.8).

As defined in Appendix C of the 2021 ACGP, a discharge point is a location where collected and concentrated stormwater flows are discharged from the construction site. The project site is known to have three existing discharge points. The final determination of the project's discharge points will be established in the field.

Discharge Point #1: Discharge Point #1 is located approximately 50 feet directly west of the Pump Station near STA 160+00. Discharge Point #1 is a natural conveyance that discharges collected surface runoff into the Bridge Creek Reservoir collected.

Discharge Point #2: Discharge Point #2 is located approximately 50 feet directly north of the water main alignment at STA 162+00. Discharge Point #2 is a natural conveyance that discharges surface runoff into the Bridge Creek Reservoir collected from the cleared area between the easement section line around STA 161+50 to STA 162+50.

Discharge Point #3: Discharge Point #3 is located approximately 70 feet directly north of the proposed 90-degree horizontal bend in the water main alignment at STA 164+74.35. Discharge Point #3 is a natural conveyance that discharges surface runoff into the Bridge Creek Reservoir collected from the cleared area between the easement section line around STA 164+74.35 to STA 175+00.

6.1 Locations of Other Industrial Storm Water Discharges (5.3.8)

The contractor is required to identify discharges from related support activities. Portable batch plants located on department-supplied property must be included in the contractor's SWPPP and related inspections. If the COH is not a CGP operator for the site or sites listed in this subsection, then describe the sites and BMPs for them in a separate SWPPP2. In this section, explain which areas are covered within this SWPPP and which are covered within a separate SWPPP2. Also provide information on where the SWPPP2 is available for review.

Locations of additional storm water dischargers associated with construction but not provided with this project may include:

- Equipment staging areas
- Material staging areas
- Excavated material disposal areas

6.2 Allowable Non-Storm Water Discharges (1.4.3; 4.3.7; 5.3.9)

The contractor must list all allowable non-storm water discharges and describe how the discharges will be minimized and managed to reduce pollution to storm water in the contractor's SWPPP.

Allowable Non-Storm Water Discharges:

- Discharges from fire-fighting activities (1.4.3.1)
- Fire hydrant flushing (1.4.3.2)
- Waters used to wash vehicles where detergent are not used (1.4.3.3)
- Water used to control dust (1.4.3.4)
- Potable water including uncontaminated water line flushings (1.4.3.5)
- Routine external building wash down that does not use detergents (1.4.3.6)
- Pavement wash waters where spills or leaks of toxic or hazardous materials have not occurred (unless all spilled material has been removed) and where detergents are not used (1.4.3.7)
- Uncontaminated air conditioning or compressor condensate (1.4.3.8)
- Uncontaminated, non-turbid discharges of ground water or spring water (1.4.3.9)
- Foundation or footing drains where flows are not contaminated with process materials such as solvents or contaminated groundwater (1.4.3.10)
- Uncontaminated construction dewatering waters that are treated by an appropriate control measure in compliance with Part 4.4.2 or have been treated with treatment chemicals in compliance with Part 4.6 (1.4.3.11)
- Landscape irrigation (1.4.3.12)

7.0 DOCUMENTATION OF PERMIT ELIGIBILITY RELATED TO TOTAL MAXIMUM DAILY LOADS (3.2, 5.6)

A search of the "Alaska's Final 2022 Integrated Water Quality Monitoring and Assessment Report" found listings or impairments for the **Bridge Creek Reservoir**.

7.1 Identify Receiving Waters (5.3.3.3)

Description of receiving waters:

Bridge Creek Reservoir: The Bridge Creek Reservoir is a manmade, freshwater lake located along Diamond Ridge. The manmade lake was created and is managed as a water supply source for the City of Homer's public water utility. The Reservoir provided permanent habitat to Dolly Varden and rainbow trout.

Unnamed Ponds: Two unnamed settling ponds are located adjacent to the Water Treatment Plant facility. The ponds are located from STA 194+25 to STA 198+00 and are situated between Skyline Drive to the south and west and the raw water line alignment to the east**.**

Outstanding Natural Resource Waters (2.1.6):

The DEC must be consulted, at least 30 days prior to construction activities, when determining requirements for water quality analysis on all projects that will or may discharge storm water to a Tier III water body, also known as Outstanding Natural Resource Waters (ONRW).

For this project, the contractor is not required to contact DEC prior to commencement of construction activities. Although the project may discharge storm water to the Bridge Creek Reservoir and the unnamed ponds, these water bodies are not designated as a Tier III water body. No ONRWs have been designated in Alaska by DEC as of February 2025.

7.2 Identify TMDLs (5.6.1)

Is an EPA-established or approved TMDL published for the receiving water(s) listed in Section 7.1?

☐ Yes ☑ No

TMDL: **Not applicable**

Summary of consultation with state or federal TMDL authorities (5.6.2): **Not applicable**

Measures taken to ensure compliance with TMDL (5.6.3): **Not applicable**

Are there impaired receiving waters listed in Section 7.1 without an approved TMDL? ☐ Yes ☑ No

8.0 DOCUMENTATION OF PERMIT ELIGIBILITY RELATED TO ENDANGERED SPECIES (3.3, 5.7)

8.1 Information on Endangered or Threatened Species or Critical Habitat (5.7.1)

Are endangered or threatened species and critical habitats on or near the project area?

☑ Yes ☐ No

Describe how this determination was made:

Utilizing the USFWS Information, Planning, and Conservation (IPAC) development tool located at https://ipac.ecosphere.fws.gov/, the ensuing determinations were made:

1. One threatened or endangered species may be encountered in the project area.
    a. Steller's eider has a designated non-breeding concentration area within the project boundaries. This small marine duck is currently listed as **Threatened**.

2. There are no critical habitats within the project area.
    a. Critical habitats have been designated for the Steller's eider, but the closest one is approximately 340 miles from the project location.

Although possible, it is unlikely this bird species would be encountered in the proposed project area due to existing development and roadway disturbance. The Steller eiders spend the majority of their life in coastal marine waters and there are no known nesting grounds located near the project.

Will species or habitat be adversely affected by storm water discharge?

☐ Yes ☑ No

Construction of this project is not anticipated to adversely affect the endangered species or its critical habitats.

9.0 APPLICABLE FEDERAL, STATE, TRIBAL, OR LOCAL REQUIREMENTS (4.10, 4.15)

By meeting ADEC requirements, the project will comply with all applicable federal, state, local, and tribal requirements for soil erosion control and storm water management.

The contractor will be responsible for obtaining all necessary permits and clearances for material and disposal sites, and/or equipment storage areas in accordance with the CGP for Storm Water Discharges from Construction Activities.

9.1 Historic Properties

Are there any historic sites on or near the construction site?

☐ Yes ☑ No

Describe how this determination was made:

The National Register of Historic Places, available through the National Park Service, does not list any historic sites on or near the construction site.

If cultural or paleontological resources are discovered after the initial commencement of construction activities, work that would disturb such resources is to be stopped, and the Office of History and Archaeology, a Division of Parks and Outdoor Recreation of the Alaska Department of Natural Resources (http://dnr.alaska.gov/parks/oha/), is to be notified immediately at (907) 269-8721.

It is the Contractor's responsibility, thru the Project Engineer, to get clearance for material and disposal sites that have not been assessed during the Design phase of the project.

9.2 Projects near Public Water System (PWS) (4.10)

Projects with boundaries encompassed within or intersecting Public Water System (PWS) Drinking Water Protection Area(s) (DWPA) and Provisional Protection Area(s) shall abide by the requirements set forth under section 4.10 of the ACGP. These requirements include:

1. Notifying the appropriate PWS contact of construction activity.
2. Within the DWPA, restrict activities that may significantly impact natural surface water drainage groundwater gradient.
3. Immediately notify the PWS of any potential contaminants, such as spills or excess erosion.

The project boundary encompasses **one (1)** Public Water System DWPA. Prior to construction activities, the Contractor Superintendent on behalf of both permittees, will notify the PWS contact by either email or telephone – whichever is most expedient.

The associated water system name, number, and contact information are provided below.

Water System Name	PWSID	Contact Name	Phone #	Address	Email
Homer Water System	AK2240456	Todd Cook	907-235-3174	3575 Heath St., Homer, AK-99603	tcook@ci.homer.ak.as

Appendix A contains a map showing the project boundaries and the location of the encompassed DWPA.

General Principles for Erosion and Sediment Controls.

The contractor must design, install, and maintain effective erosion and sediment controls to minimize the discharge of pollutants. At a minimum, such controls must be designed, installed, and maintained to:

- Control storm water volume and velocity to minimize soil erosion and pollutant discharges;
- Control storm water discharges, including both peak flowrates and total storm water volume, to minimize channel and streambank erosion and scour in the immediate vicinity of discharge points;
- Minimize the amount of soil exposed during construction activity;
- Minimize the disturbance of steep slopes;
- Minimize sediment discharges from the site. The design, installation, and maintenance of erosion and sediment controls must address factors such as the amount, frequency, intensity, duration of precipitation; the nature of resulting storm water runoff; and soil characteristics, including the range of soil particle sizes expected to be present on the site;
- Provide and maintain natural buffers around waters of the U.S., direct storm water to vegetated areas and maximize storm water infiltration to reduce pollutant discharges, unless infeasible;
- Minimize soil compaction. Minimizing soil compaction is not required where the intended function of a specific area of the site dictates it to be compacted.
- Unless infeasible, preserve topsoil. Preserving topsoil is not required where the intended function of a specific area of the site dictates that the topsoil be disturbed or removed.

Additional Erosion and Sediment Controls Selection and Design Considerations:

Preventing storm water from coming into contact with polluting materials is generally more effective, and less costly, than removing pollutants from storm water;

Using a combination of control measures is more effective than using control measures in isolation for minimizing pollutants in the storm water discharge;

Using technologically available, economically practicable, and achievable methods in light of best industry practices;

Assessing the type and quantity of pollutants, including their potential to impact receiving water quality, is critical to designing effective control measures that will achieve the limits in this permit;

Minimizing impervious areas at the permittee's facility and infiltrating runoff onsite (including bioretention cells, green roofs, and pervious pavement, among other approaches) can reduce runoff and improve groundwater recharge and stream base flows in local streams, although care must be taken to avoid ground water contamination;

Dissipate storm water runoff into open vegetated swales and natural depressions to reduce in stream impacts of erosive flows;

Conserving and/or restoring of riparian buffers will help protect streams from storm water runoff and improve water quality; and

Using treatment interceptors (e.g., sand filters) may be appropriate in some instances to minimize the discharge of pollutants.

Describe the Best Management Practices (BMPs) to be implemented to control pollutants in storm water discharges. For each major activity identified:

- Clearly describe appropriate control measures.
- Describe the general sequence during the construction process in which the measures will be implemented.
- Describe maintenance and inspection procedures to be undertaken for that specific BMP.
- Include protocols, thresholds, and schedules for cleaning, repairing, and/or replacing damaged or failing BMPs.
- Identify staff responsible for maintaining BMPs. (If your SWPPP is shared by multiple operators, indicate the operator responsible for each BMP.)

Categorize each BMP under one of the following areas of BMP activity as described below:

1. *Minimize the Amount of Soil Exposed during Construction Activity (4.2.2) & Site Delineation (4.2.1)*
2. *Maintain Natural Buffer Areas (4.2.3) & Clearing Vegetation (4.2.4)*
3. *Control Storm Water Discharges and Flow Rates (4.2.5)*
4. *Protect Steep Slopes (4.2.6)*
5. *Storm Water Inlet Protection (4.3.1)*
6. *Water Body Protection (4.3.2)*
7. *Down-Slope Sediment Controls (4.3.3)*
8. *Stabilized Construction Vehicle Access and Exit Points (4.3.4)*
9. *Track-Out from vehicles (4.3.5)*
10. *Dust Generation (4.3.6)*
11. *Stockpile Management (4.3.7)*
12. *Sediment Basins (4.3.9)*
13. *Dewatering (4.4)*
14. *Soil Stabilization (4.5)*
15. *Treatment Chemicals / Active Treatment Systems (4.6)*
16. *Good Housekeeping Measures (4.8)*
17. *Spill Notification (4.9)*
18. *Construction and Waste Materials (5.3.7)*
19. *Permanent/Post-Construction BMPs (4.11)*
20. *Projects near a Public Water System (PWS) (4.10)*

- Note the location of each BMP on your site map(s).
- Any structural BMPs should have design specifications and details referred to in Section 11 or included in Appendix B.

For more information or ideas on BMPs, see the DEC *Alaska Storm Water Guide*: https://dec.alaska.gov/water/wastewater/stormwater/guidance/ & for a list of Alaska specific BMPs look at the DOT&PF *Alaska SWPPP Guide*'s Appendix B - BMP Guide for Erosion & Sediment Control at http://dot.alaska.gov/stwddes/desenviron/assets/pdf/bmp/bmp_all.pdf

10.0 CONTROL MEASURES/BEST MANAGEMENT PRACTICES (4.0; 5.3.6)

Much of the guidance in this section is for both the ESCP & SWPPP preparers. Carefully read through the requirements listed below when filling out Section 10. When developing this section, think about how they are going to construct the project. Look at means and measures but do not direct the contractor…merely suggest. Consider 'prior to/upon construction' methods (i.e. upon placing culvert install a fiber roll and outlet protection).The following sections describe BMPs that will or may be used as necessary to prevent erosion and control sediment.

The selection, design, installation, maintenance, and removal of control measures must be in accordance with good engineering practices, manufacturer specifications, and address site-specific conditions such as precipitation, site topography, soil characteristics, and growing season.

The plan preparer will use this section to describe the types and locations of control measures and BMPs to be installed and maintained in accordance with CGP Part 4.0.

Describe each control measure and BMP, including installation schedule and maintenance, inspection, and removal requirements. You may include a brief description of each BMP in this section and refer to detailed installation, maintenance, inspection, removal requirements, and manufacturer's specifications that **MUST** be included in the Appendix B.

If a control measure or BMP will be used to comply with more than one element of this section, you do not need to repeat the detailed installation, maintenance, inspection, removal requirements, and manufacturer's information. For each repeated element, identify the control measure or BMP to be used, and refer to the section or Appendix B where the detailed information is presented.

The person(s) identified in Section 2.0 of this SWPPP will be responsible for ensuring compliance with the installation, maintenance, inspection, and removal of these control measures.

The format to be used is:

BMP Description:

Describe purpose, applicability, limitations and design. If using a BMP manual or publication, this information may be found there.

BMP Manual/Publication:

Provide the citation information as described below. If referencing Appendix B, where the BMP details are provided, ensure the attached sheets clearly identify this information.

Installation Schedule:

Identify the activity or phase prior to which the BMP will be installed or the activity that requires this BMP to be installed before it can begin.

Maintenance and Inspection:

Describe the thresholds and/or indicators for maintenance and protocols for inspecting the BMP. Describe the maintenance procedures. If using a BMP manual or publication, this information may be found there.

Responsible Staff:

Name the position and company who is responsible for installation and maintenance.

How to Cite a BMP Publication:

COH requires citations for the BMP manual or publication used to select and design the BMP, along with a description of the BMP. If no BMP manual or publication was used to select or design a given BMP then state “No BMP manual or publication was used in the design or selection of this BMP.” BMP designs submitted by the contractor and approved by the Project Engineer may be used but still must state that no manual or publication was used.

BMP Manuals/Publications: BMP manuals describe each BMP and outline details such as installation, design parameters, applicability/limitations, maintenance, and targeted pollutants. To cite a manual, include the title, author (individual or agency) and date of publication.

Be careful when citing outside of the state control measures or BMPs. Read through them to make sure they do not put any additional restrictions that go beyond the CGP. If citing outside of state BMPs, make sure to mark out any requirements that do not apply to this project or do not meet CGP requirements and cite as ‘modified from (insert BMP manual title).

COH Specifications and Plan Sheets: The publication cited may be the COH contract specifications and plan sheets provided that the minimum information regarding the BMP is included (those listed above).

When the plans and specifications are used, the reference must include the sheet or page number and these must be appended to the SWPPP. If the specifications and plan sheets do not provide the minimum information, the plan preparer must provide the missing information in the plan. Any drawing or description developed by the plan preparer must include the statement “No BMP manual or publication was used for this design.”

Manufacturer’s Specification Sheet: Referencing a manufacturer’s specification sheet is suitable only if it includes all the necessary information listed in the above subsection. When using the manufacturer’s specification sheet(s), provide the product name, manufacturer, and date of copyright, and attach copies of the specification sheet(s) to the plan. It may also be helpful to provide the manufacturer’s website if the information was obtained online. You may deviate from manufacturer’s specifications where you provide justification for such deviation and include documentation of your rationale in the ESCP/SWPPP.

Permanent/Post-Construction Control Measures: Identify any permanent/post-construction control measures that will be installed during the construction process and not discussed elsewhere in the SWPPP (permanent Soil Stabilization measures should be covered in section 10.13).

10.1 Minimize Amount of Soil Exposed during Construction Activity (4.2.2)

Describe how the disturbed land areas (e.g., clearing and grading) and undisturbed land areas (e.g., trees, boundaries of sensitive areas, or buffers established by CGP Part 4.2.3) will be delineated.

Describe the areas that will be disturbed for each phase of construction, and the methods you will use (e.g., signs, fences, etc.) to protect the areas that are to be left undisturbed. Construction activities must be phased to minimize the extent and duration of exposed soil.

Identify natural features and describe how each will be protected during construction activity.

Describe how native topsoil will be preserved. Native topsoil should be preserved for later use with on-site stockpiles, unless deemed infeasible by space constraints or site design criteria creates impervious surfaces (CGP Part 4.2.2.1).

The contractor shall employ all means necessary to minimize impacts to the Bridge Creek Reservoir and the WTP settling ponds. Work limits for ground disturbance areas will be delineated by slope stakes, silt fences, fiber rolls, or other necessary methods prior to initiating construction activities. Vegetation and the root mass shall be left in place whenever possible to the greatest extent practicable, unless otherwise directed by the Engineer.

***BMP Description*:** *Vegetation Buffer / Preserve Existing Vegetation, BMP 38.00*	
BMP Manual/Publication: *DOT&PF, Alaska SWPPP Guide, October 2016*	
☐ ***Permanent***	☑ ***Temporary***
***Installation Schedule*:**	Before clearing or ground disturbing operations begin.
***Maintenance and Inspection*:**	Inspection: Look for areas where the preservation barrier has been removed or visibility of the barrier has been reduced. Maintenance: Make repairs if any conditions noted under inspection are found.
***Responsible Staff*:**	SWPPP Manager & Superintendent, Contractor

10.1.1 Site Delineation (4.2.1)

***BMP Description*:** *Site Delineation, BMP 54.00*	
BMP Manual/Publication: *DOT&PF, Alaska SWPPP Guide, October 2016*	
☐ ***Permanent***	☑ ***Temporary***
***Installation Schedule*:**	Prior to the initiation of construction activities.
***Maintenance and Inspection*:**	Inspection: Look for flagging or fencing that does not sufficiently delineate undisturbed areas, trees, boundaries of sensitive areas, or natural buffer areas. Maintenance: Make repairs if any conditions noted under inspection are found.
***Responsible Staff*:**	SWPPP Manager & Superintendent, Contractor

10.2 Maintain Natural Buffer Areas (4.2.3)

Are stream crossings or waters of the U.S. located within or immediately adjacent to the property?

☑ Yes ☐ No

If YES, describe the control measures to be implemented to comply with the CGP Part 4.2.3 (e.g., buffer areas, perimeter controls, etc.).

You must maintain natural buffer areas at stream crossings and around the edge of any waters of the U.S. that are located within or immediately adjacent to the construction activity in accordance with the following:

- The buffer must be a minimum of 25 feet wide, or the width as required by local ordinance, unless infeasible based on-site dimensions;
- Exceptions are allowed for water dependent activities, specific water access activities, or necessary water crossings;
- A permittee should, to the extent practicable, use perimeter controls adjacent to buffers and direct storm water sheet flow to buffer areas to increase sediment removal and maximize storm water infiltration.

The Bridge Creek Reservoir and WTP settling ponds are located within the project boundaries. Although in-water work is not anticipated, the following measures shall be employed to minimize the impacts of construction activities to the water body and its natural buffer areas:

1. Fueling, maintenance, and cleaning of equipment will not take place within 100 feet of any water body.
2. Sanitation facilities and construction waste will not be placed within 50 feet of any water body.
3. Natural buffer areas shall be delineated by acceptable means in accordance with Section 10.1.1.
4. Construction waste materials will not be stored within a vicinity of the water body which could negatively impact its water quality.
5. Any aggregate material stockpiles stored upstream of water bodies will have appropriate BMPs and perimeter controls installed to prevent sediment laden discharge to water bodies.

Perimeter controls and vegetated buffer areas shall be used, to the extent practicable, to direct storm water, remove sediment, and maximize infiltration for construction activities that do not encroach upon natural buffer areas.

***BMP Description*:** *Vegetation Buffer, BMP 38.00*	
BMP Manual/Publication: *DOT&PF, Alaska SWPPP Guide, October 2016*	
☐ ***Permanent***	☑ ***Temporary***
***Installation Schedule*:**	Delineate existing vegetation before starting work in an area.
***Maintenance and Inspection*:**	Inspection: Look for damage caused by equipment and/or vehicles. Look for erosion or sediment deposition within the vegetation buffer caused by concentrated water flows. Ensure limits of the natural buffer are clearly marked. Maintenance: Make repairs if any conditions noted under inspection are found. Replace damaged or insufficient flagging.
***Responsible Staff*:**	SWPPP Manager & Contractor, Superintendent

10.2.1 Clearing Vegetation (4.2.4)

Clearing of vegetation that disturbs the vegetative mat and exposes soil is **prohibited** prior to obtaining authorization under the CGP.

Cutting of trees and brush while the ground is frozen without disturbing the vegetative mat for the purpose of clearing in accordance with the U.S. Fish & Wildlife Service "Recommended Time Periods for Avoiding Vegetation Clearing" is allowed prior to the submittal of a project's NOI.

If vegetation clearing that disturbs the vegetative mat and occurs after the onset of spring thaw (as defined in Appendix C) or conditions that consist of above freezing temperatures that cause melting of snow, the permittee must develop a SWPPP and file an NOI. Operators must receive authorization under this permit and otherwise comply with the terms of this permit prior to such clearing.

10.3 Control Storm Water Discharges and Flow Rates (4.2.5)

Describe control measures to comply with the CGP (e.g., divert storm water around the site, slow down or contain storm water, use of velocity dissipation devices, installing permanent storm water management controls prior to construction of site improvements to the extent practicable, etc.). Storm water that may concentrate must be slowed down or contained.

Fiber rolls and other similar control measures may be used to divert water around the site, slow down or contain storm water, or be used as sediment traps.

BMP Description: *Fiber Rolls for Erosion Control, BMP 10.01.a*	
BMP Manual/Publication: *DOT&PF, Alaska SWPPP Guide, July 2018*	
☐ ***Permanent***	☑ ***Temporary***
Installation Schedule:	Installed prior to soil disturbance in the contributing drainage area.
Maintenance and Inspection:	Inspection: Look to see that fiber rolls are tightly abutted and that fiber rolls are in contact with the soil and entrenched. Also look for scouring underneath the rolls and sediment accumulation. Maintenance: If rolls are crushed, torn, slumping or split, the damaged sections must be replaced. Remove sediment accumulated upslope of the roll when it reaches one-half the distance between the top of the fiber roll and the ground surface.
Responsible Staff:	SWPPP Manager & Contractor Superintendent

10.3.1 Protect Steep Slopes (4.2.6)

Will steep slopes be present at the site during construction? ☐ Yes ☑ No

No long, steep slopes are present or proposed in the project area.

10.4 Storm Water Inlet Protection Measures (4.3.1)

No piped storm systems are located within the limits of the projects.

10.5 Water Body Protection Measures (4.3.2)

Describe control measures selected to minimize discharge of sediment prior to entry into water bodies located on or immediately downstream of the site.

Perimeter controls and sediment barriers such as fiber rolls, silt fences, and vegetation buffers shall be used to protect receiving waters from excessive sedimentation.

***BMP Description*:** *Fiber Rolls for Erosion and Sediment Control, BMP 10.01.b*	
BMP Manual/Publication: *DOT&PF, Alaska SWPPP Guide, July 2018*	
☐ ***Permanent***	☑ ***Temporary***
***Installation Schedule*:**	Install prior to soil disturbance in the contributing drainage area.
***Maintenance and Inspection*:**	Inspection: Look for roll ends remain abutted tightly. Ensure the rolls are in contact with the soil and are entrenched. Look for scouring underneath the rolls. Maintenance: If rolls are crushed, torn, slumping or split, the damaged sections must be replaced. Remove sediment accumulated upslope of the roll when it reaches one-third the distance between the top of the fiber roll and the ground surface.
***Responsible Staff*:**	SWPPP Manager & Superintendent, Contractor

BMP Description: *Silt Fence, BMP 20.00*	
BMP Manual/Publication: *DOT&PF, Alaska SWPPP Guide, October 2016*	
☐ ***Permanent***	☑ ***Temporary***
Installation Schedule:	Installed prior to soil disturbance in the contributing drainage area.
Maintenance and Inspection:	Inspections are performed a minimum of weekly and after significant rainfall. • Repair functional deficiencies immediately. • Reinforce fence-line as needed to prevent undesirable sedimentation of sensitive areas • Replace torn or punctured fabric • Remedy fence sags • When accumulated sediment reaches one-third of above ground height or capacity, remove silt/sediment waste in an approved manner and location
Responsible Staff:	SWPPP Manager & Superintendent, Contractor

***BMP Description*:** *Vegetation Buffer, BMP 38.00*	
BMP Manual/Publication: *DOT&PF, Alaska SWPPP Guide, October 2016*	
☐ ***Permanent***	☑ ***Temporary***
***Installation Schedule*:**	Delineate existing vegetation before starting work in an area.
***Maintenance and Inspection*:**	Inspection: Look for damage caused by equipment and/or vehicles. Look for erosion or sediment deposition within the vegetation buffer caused by concentrated water flows. Ensure limits of the vegetation buffer are clearly marked. Maintenance: Make repairs if any conditions noted under inspection are found.
***Responsible Staff*:**	SWPPP Manager & Contractor, Superintendent

10.6 Down-Slope Sediment Controls (4.3.3)

Describe sediment controls (e.g., silt fence or temporary diversion dike) for any portion of the down-slope and side-slope perimeter where storm water will be discharged from disturbed areas of the site.

Sediment control measures such as fibers rolls, vegetation buffers, and silt fences will be used on any portion of the site where water traveling over disturbed areas or around soil stockpiles may be discharged off-site or into a receiving water. These control measures shall be functional before ground-disturbing activities take place.

***BMP Description*:** *Vegetation Buffer, BMP 38.00*	
BMP Manual/Publication: *DOT&PF, Alaska SWPPP Guide, October 2016*	
☐ ***Permanent***	☑ ***Temporary***
***Installation Schedule*:**	Delineate existing vegetation before starting work in an area.
***Maintenance and Inspection*:**	Inspection: Look for damage caused by equipment and/or vehicles. Look for erosion or sediment deposition within the vegetation buffer caused by concentrated water flows. Ensure limits of the vegetation buffer are clearly marked. Maintenance: Make repairs if any conditions noted under inspection are found.
***Responsible Staff*:**	SWPPP Manager & Contractor, Superintendent

BMP Description: *Silt Fence, BMP 20.00*	
BMP Manual/Publication: *DOT&PF, Alaska SWPPP Guide, October 2016*	
☐ ***Permanent***	☑ ***Temporary***
Installation Schedule:	Installed prior to soil disturbance in the contributing drainage area.
Maintenance and Inspection:	Inspections are performed a minimum of weekly and after significant rainfall. • Repair functional deficiencies immediately. • Reinforce fence-line as needed to prevent undesirable sedimentation of sensitive areas • Replace torn or punctured fabric • Remedy fence sags • When accumulated sediment reaches 1/3 of above ground height or capacity, remove silt/sediment waste in an approved manner and location
Responsible Staff:	SWPPP Manager & Superintendent, Contractor

***BMP Description*:** *Fiber Rolls for Sediment Control, BMP 10.01.b*	
BMP Manual/Publication: *DOT&PF, Alaska SWPPP Guide, July 2018*	
☐ ***Permanent***	☑ ***Temporary***
***Installation Schedule*:**	Install prior to soil disturbance in the contributing drainage area. Place fiber rolls perpendicular to flow and parallel to the slope contour.
***Maintenance and Inspection*:**	Inspection: Look for roll ends that remain tightly abutted. Ensure that the rolls are in contact with the soil and are entrenched. Look for scouring underneath the rolls.

	Maintenance: If rolls are crushed, torn, slumping or split, the damaged sections must be replaced. Remove sediment accumulated upslope of the roll when it reaches one-half the distance between the top of the fiber roll and the ground surface. Capacity is limited to one-third when protecting a water body or storm drain inlet.
***Responsible Staff*:**	SWPPP Manager & Superintendent, Contractor

10.7 Stabilized Construction Vehicle Access and Exit Points (4.3.4)

Vehicle access points must be limited as much as possible and must be stabilized.

Describe location(s) of vehicle entrance(s) and exit(s), procedures to remove accumulated sediment off-site (i.e., vehicle tracking), and stabilization practices (i.e., stone pads and/or wash racks) to minimize off-site vehicle tracking of sediments and discharges to storm water.

Any rubber-tired piece of equipment or vehicle operating on bare soils will require a stabilized entrance/exit prior to driving on paved surfaces. Tracked equipment must be cleaned prior to operating on paved surfaces. Stabilized construction exits may consist of plastic mud mats, rock, temporary pavement, or metal plates. Existing gravel surfaces may be used for stabilized access and exit points.

BMP Description: *Prefabricated Driving Ground Protection Mat, BMP 14.00*	
BMP Manual/Publication: *DOT&PF, Alaska SWPPP Guide, October 2016*	
☐ ***Permanent***	☑ ***Temporary***
Installation Schedule:	Installed prior to any rubber-tired vehicles or construction equipment leaving the site.
Maintenance and Inspection:	Inspection: Inspect mats for signs of damage and sediment track-out. Ensure that mats are covering all areas that require protection and that exiting vehicles do not drive on surfaces outside of the mats. Maintenance: Clean or replace mats that are damaged or exhibiting signs of track-out. Repair or replace any mat units that are damaged.
Responsible Staff:	SWPPP Manager & Superintendent, Contractor

BMP Description: *Stabilized Construction Exit, BMP 23.00 & 24.00*	
BMP Manual/Publication: *DOT&PF, Alaska SWPPP Guide, October 2016*	
☐ ***Permanent***	☑ ***Temporary***
Installation Schedule:	Installed prior to any rubber-tired vehicles or construction equipment leaving the site.
Maintenance and Inspection:	Inspection: Inspect pads and sediment trapping structures daily for sediment accumulation and material displacement. Maintenance: • Maintain each entrance in a condition that will prevent tracking of mud or sediment onto public rights-of way. • Replace gravel when surface voids are visible. • Remove all mud and sediment deposited on paved roadways within 24 hours.
Responsible Staff:	SWPPP Manager & Superintendent, Contractor

10.8 Dust Generation and Track-Out from Vehicles (4.3.5, 4.3.6)

Describe control measures to minimize the generation of dust and off-site vehicle tracking of sediment. Dust must be minimized prior to the vehicle exits by application of water or other dust suppression techniques.

The contractor will be required to remove any debris including soil and rock from the roadway or any paved surfaces. Offsite accumulation of sediment will be removed at a frequency sufficient to minimize off-site impacts.

BMP Description: *Street Sweeping and Vacuuming for Sediment Control, BMP 55.00*	
BMP Manual/Publication: *DOT&PF, Alaska SWPPP Guide, October 2016*	
☐ ***Permanent***	☑ ***Temporary***
Installation Schedule:	Implement anywhere sediment is tracked from the project site onto public or private paved roads, typically at points of ingress/egress.
Maintenance and Inspection:	Inspection: Daily, the contractor shall inspect project exit points for evidence of sediment, soil, or mud tracked onto roadways. Maintenance: Street sweeping and/or vacuuming shall be conducted whenever accumulated sediment of track-out is visible on paved surfaces. Additional control measures may be necessary to minimize the quantity of swept-up sediment.
Responsible Staff:	SWPPP Manager & Superintendent, Contractor

10.9 Soil Management and Soil Stockpile (4.3.7)

Will soil stockpiles be at the site during construction? ☑ Yes ☐ No

If YES, describe control measures intended to control sediment loss from the stockpiles (e.g., tarps or perimeter straw wattles). Show location(s) of stockpile(s) on site maps, if known. Stockpiles must be stabilized or covered, protected with sediment controls and located away from storm water inlets, conveyance channels, or water bodies, if possible.

Material stockpiles may be required on-site. Temporary material stockpiles shall be located to the extent practicable away from receiving waters. Stockpiles containing erodible material shall be protected and covered with soil binders, plastic sheeting, mulch, or other products to prevent erosion. Control measures such as fiber rolls shall be installed downslope of erodible stockpiles to limit and control sedimentation.

BMP Description: *Tackifier, BMP 56.00*	
BMP Manual/Publication: *DOT&PF, Alaska SWPPP Guide, October 2016*	
☐ ***Permanent***	☑ ***Temporary***
Installation Schedule:	Installed directly upon material stockpiles that require short-term stabilization.
Maintenance and Inspection:	Inspection: Look for any areas that have evidence of erosion or scouring. Maintenance: Make repairs if conditions noted under inspection are found.
Responsible Staff:	SWPPP Manager & Superintendent, Contractor

BMP Description: *Hydraulic Erosion Control Products (HECP), BMP 51.00*	
BMP Manual/Publication: *DOT&PF, Alaska SWPPP Guide, October 2016*	
☐ ***Permanent***	☑ ***Temporary***
Installation Schedule:	HECPs may be applied to stockpile locations that need temporary stabilization. The Contractor shall ensure the product is allowed to cure or dry to prevent mulch from washing away.
Maintenance and Inspection:	Inspection: Inspect for adequate HECP coverage and inspect for areas subjected to erosion or scouring. Maintenance: Replace mulch that has been loosened or dislodged. Make repairs if any conditions noted under inspection are found.
Responsible Staff:	SWPPP Manager & Superintendent, Contractor

BMP Description: *Fiber Rolls for Erosion and Sediment Control, BMP 10.00*	
BMP Manual/Publication: *DOT&PF, Alaska SWPPP Guide, October 2016*	
☐ ***Permanent***	☑ ***Temporary***
Installation Schedule:	Installed as perimeter control at the base of erodible stockpiles to control erosion and sediment.
Maintenance and Inspection:	Inspection: Look to see that fiber rolls are tightly abutted and that fiber rolls are in contact with the soil and entrenched. Also look for scouring underneath the rolls. Maintenance: If rolls are crushed, torn, slumping or split, the damaged sections must be replaced. Remove sediment accumulated upslope of the roll when it reaches one-half the distance between the top of the fiber roll and the ground surface.
Responsible Staff:	SWPPP Manager & Superintendent, Contractor

BMP Description: *Plastic Covering BMP-12.00*	
BMP Manual/Publication: *DOT&PF, Alaska SWPPP Guide, October 2016*	
☐ ***Permanent***	☑ ***Temporary***
Installation Schedule:	Installed as a protective measure against water and wind related erosion when erodible stockpiles are not actively being worked. Plastic covering will be secured either by weighted of trenched methods.
Maintenance and Inspection:	Inspection: Look for overlapping of seems, unsecured covering locations, appropriate anchorage, and water and/or erosion locations under or adjacent to the covering. Check for undermining, torn sheeting, and deterioration in the sheeting. Maintenance: Re-secure covering. Add additional covering or make repairs as needed.
Responsible Staff:	SWPPP Manager & Superintendent, Contractor

10.10 Sediment Basins (4.3.9)

Refer to CGP Part 4.3.8 to determine if a sediment basin is required for your site.

Will a sediment basin be required during construction? ☐ Yes ☑ No

If YES, provide a brief description of the sediment basin here. Append detailed design information in appendices (e.g., calculated volume of runoff from a two-year, 24-hour storm, or other assumptions used to calculate appropriate sediment-basin size). Show location of sediment basin(s) on site maps.

10.11 Dewatering (4.4)

Describe dewatering practices to be implemented if water must be removed from an area so construction activity can continue.

Will dewatering be conducted during construction? ☑ Yes ☐ No

Will excavation dewatering be conducted within 1,500 feet of a DEC mapped contaminated site found on the DEC website? ☑ Yes ☐ No

For DEC's contaminated sites:
http://www.arcgis.com/home/item.html?id=315240bfbaf84aa0b8272ad1cef3cad3.

If yes to above question, review and comply with the DEC General Permit for Excavation Dewatering (AKG002000 - https://dec.alaska.gov/water/wastewater/stormwater/dewater-hydrostatic/#dewater), or most current version, for specific requirements

Dewatering for water line replacement will take place within 1500-ft of a DEC-identified contaminated site. The contractor must acquire and abide by the DEC General Permit for Excavating Dewatering Permit, including stipulations of treating and monitoring discharges. The contaminated site map in Appendix A reveals the specific site within the vicinity of dewatering activities.

All discharges from excavation dewatering activities will be treated with the appropriate control measures. Untreated water from excavation dewatering operations shall not be discharged to receiving waters, nor shall untreated water be allowed to run offsite, unless the dewatering discharges are non-turbid. Water resulting from dewatering operations will be directed to an area where it can infiltrate through the ground. If a suitable location is not available to treat dewatering discharges, then the water will be pumped through a dewatering bag or other approved control measure to remove sediment.

BMP Description: *Excavation Dewatering, BMP 09.00*	
BMP Manual/Publication: *DOT&PF, Alaska SWPPP Guide, October 2016*	
☐ ***Permanent***	☑ ***Temporary***
Installation Schedule:	Prior to and during dewatering activities.
Maintenance and Inspection:	Inspection: Monitor pumps, intake, and discharge points while in use. Inspect for leaks, erosion, clogging, inadequate treatment, failure of energy dissipation material and other defects. Maintenance: Reinforce, repair or restore any portion of the treatment controls, conveyance system, or energy dissipator if deficiencies are found.
Responsible Staff:	SWPPP Manager & Superintendent, Contractor

10.12 Permanent/Post-Construction BMPs (4.11)

Describe any permanent/post-construction control measures that will be installed during the construction process AND have not been discussed elsewhere in this document.

Examples of these measures are:

- Biofilters
- Detention/Retention Devices
- Earth Dikes, Drainage Swales, and Lined Ditches
- Infiltration Basins
- Vegetated Strips and/or Swales

Permanent BMPs for this project include the permanent preservation of existing vegetation and seeding as a final soil stabilization measure. Existing vegetation will be preserved to the extent practicable and all disturbed areas will receive seeding as final stabilization. The permanent/post-construction BMPs are previously or further discussed in relevant subsections of this narrative.

10.12.1 Soil Stabilization (4.5, 5.3.6.3)

The project must stabilize all disturbed areas of the site to minimize on-site erosion and sedimentation and the resulting discharge of pollutants.

Soil stabilization requirements vary depending on the mean annual precipitation for the site. Refer to CGP Part 4.5 for specific requirements.

Refer to the Alaska Plant Materials Center's Alaska Coastal Revegetation & Erosion Control Guide and Interior Alaska Revegetation & Erosion Control Guide at http://plants.alaska.gov for help in selecting appropriate seed mixes and information on methods for revegetation.

Describe permanent & temporary stabilization control measures and sequence of installation.

Describe how the site will be stabilized prior to seasonal freeze-up.

All disturbed areas of the site are required to be stabilized to minimize on-site erosion, on-site and off-site sedimentation, and to prevent the discharge of stormwater that could adversely affect a receiving waterbody.

Temporary stabilization measures shall be initiated as soon as practicable and within one (1) calendar day on any portion of the site where grubbing, excavation, grading, or any other earth-disturbing activity has temporarily or permanently ceased. Tackifier, surface roughening, and hydraulic erosion control products may be utilized as temporary stabilization measures. Temporary stabilization measures shall be completed within fourteen (14) calendar days of their initiation.

Permanent stabilization measures shall be initiated as soon as practicable and within one (1) calendar day after surface disturbing activities have permanently ceased. Final stabilization measures shall be completed within seven (7) calendar days of their initiation. Disturbed areas not receiving outlet protection armoring will be permanently stabilized with hydraulically applied seed.

BMP Description: *Hydraulic Erosion Control Products (HECP), BMP 51.00*	
BMP Manual/Publication: *DOT&PF, Alaska SWPPP Guide, October 2016*	
☐ ***Permanent***	☑ ***Temporary***
Installation Schedule:	Hydraulic Erosion Control Products / hydromulch will be applied at all seeded areas at the rates described in Section 901 of the specifications.

Maintenance and Inspection:	Inspection: Look for mulch being too dry causing it to blow or wash away. Depth of material must allow for acceptable seed germination rates. Maintenance: Replace mulch that has been loosened or dislodged. Water mulch areas periodically to ensure that moisture content will be maintained so that seed germination and grass growth will continue.
Responsible Staff:	SWPPP Manager & Contractor Superintendent

BMP Description: *Tackifier, BMP 56.00*	
BMP Manual/Publication: *DOT&PF, Alaska SWPPP Guide, October 2016*	
☐ ***Permanent***	☑ ***Temporary***
Installation Schedule:	Install as directed by the engineer to bond seed and/or mulch in pre-mixed mulch bales
Maintenance and Inspection:	Inspect for bald patches and roughened areas. Reapply to ensure proper coverage as needed or as directed by the engineer.
Responsible Staff:	SWPPP Manager & Superintendent, Contractor

BMP Description: *Surface Roughening, BMP 30.00*	
BMP Manual/Publication: *DOT&PF, Alaska SWPPP Guide, October 2016*	
☑ ***Permanent***	☐ ***Temporary***
Installation Schedule:	Installed prior to the application of stabilization measures.
Maintenance and Inspection:	Inspection: Inspect roughened areas subsequent to embankment grading and prior to the application of hydraulically applied seed. Maintenance: Seed, fertilize, and mulch areas which are graded as quickly as possible. Regrade and seed immediately if rills appear.
Responsible Staff:	SWPPP Manager & Superintendent, Contractor

BMP Description: *Permanent Seeding and Soil Amendments, BMP 52.00 & 53.00*	
BMP Manual/Publication: *DOT&PF, Alaska SWPPP Guide, October 2016*	
☑ ***Permanent***	☐ ***Temporary***
Installation Schedule:	Permanent seeding should be done after all construction or maintenance activities have ceased or been finalized. Temporary seeding should also be considered for slope protection and erosion control for active construction sites. Conduct all seeding and fertilization in accordance with local requirements.
Maintenance and Inspection:	Inspect all seeded areas on a regular basis and after each major storm even to check for areas where corrective measures may have to be made. Continue monitoring until permanent vegetation is established. • To establish sufficient growth, irrigation may have to be used in low precipitation or hard to access areas. • Can be conducted in conjunction with various forms of mulching & matting. • Limit re-disturbance of site. Reseed areas where growth is absent or inadequate. Provide additional fertilizer if needed.
Responsible Staff:	SWPPP Manager & Superintendent, Contractor

10.13 Treatment Chemicals (4.6; 5.3.6.4)

Provide documentation for all treatment chemicals and/or an Active Treatment System (ATS) to comply with CGP Part 4.6. Submit cationic treatment chemical use or ATS to DEC at least 14 days for approval be for installing.

Will treatment chemicals be used to control erosion and/or sediment during construction?

☐ Yes ☑ No

10.14 Active Treatment System Information or Cationic Treatment Chemicals (4.6.7)

A permittee who uses an Active Treatment System (ATS) or cationic treatment chemicals as a control measure must submit information required by the DEC for review at least 14 days prior to start of operation of the ATS at the project. Specific submittal requirements can be found at 4.6.7.

Will an ATS or cationic treatment chemicals be used as a control measure at the site?

☐ Yes ☑ No

10.15 Good Housekeeping Measures (4.8)

The project must design, install, implement, and maintain effective good housekeeping measures to prevent and/or minimize the discharge of pollutants. The project must include appropriate measures for any of the following activities at the site.

Consult the DEC Storm Water Guide or other resources for more information or ideas on BMPs. See also the EPA's National Menu of BMPs at http://www.epa.gov/npdes/national-menu-best-management-practices-bmps-stormwater-documents & for a list of Alaska specific BMPs look at the *Alaska SWPPP Guide*'s Appendix B - BMP Guide for Erosion & Sediment Control at http://www.dot.state.ak.us/stwddes/desenviron/assets/pdf/bmp/bmp_all.pdf

10.15.1 Washing of Equipment and Vehicles (4.8.1)

Will equipment and vehicle washing and/or wheel wash-down be conducted at the site?

☐ Yes ☑ No

If YES, describe the control measures to be implemented to comply with CGP Part 4.8.1.

10.15.2 Fueling and Maintenance Areas (4.8.2)

Describe equipment/vehicle fueling and maintenance practices to be implemented to control pollutants to storm water (e.g., secondary containment, drip pans, spill kits, etc.).

Describe spill prevention and control measures to be implemented, including ways to reduce the chance of spills, stop the source of spills, contain and clean up spills, dispose of materials contaminated by spills, and train personnel responsible for spill prevention and control.

Will equipment and vehicle fueling or maintenance be conducted at the site?

☑ Yes ☐ No

The contractor's lay down yards, fueling and maintenance areas must be delineated on the contractor's SWPPP site map. Spill kits appropriate to respond to the hazards on site will be required. Inspections will include the contractor's fueling, maintenance, and laydown areas. Equipment will be maintained to prevent oils and grease from discharging with storm water. Prior to use each day, equipment operators are required to do a visual inspection for leaks, drips, and excess grease. If leaks cannot be repaired and stopped, the equipment will be placed out of service over drip pans and/or pads to collect any fluids or grease and prevent pollution discharge. Topping off fluids will not be allowed in lieu of maintenance. Equipment operators will look for excess grease accumulations, especially when the weather warms up, removing and properly disposing of excess grease to prevent discharge.

HMCP: For the specific sections in the Good Housekeeping BMPs that deal with fueling and oiling, equipment care and maintenance, waste materials, etc., it should be mentioned, by referencing the specific page and section, this requirement for BMP reference and citation is met. Also, it will/can create less conflict within the SWPPP due to the HMCP being project specific and the BMP citations more generic.

BMP Description: *Vehicle/Equipment Storage, Maintenance and Fueling, BMP 42.00*	
BMP Manual/Publication: *DOT&PF, Alaska SWPPP Guide, October 2016*	
☐ ***Permanent***	☑ ***Temporary***
Installation Schedule:	Designate areas to be used for storage, washing, maintenance, and fueling of equipment and vehicles. All fueling and maintenance activities shall be located as far as practicable from waters of the U.S and conveyance channels.
Maintenance and Inspection:	Inspection: Look for spills near the designated fueling areas and look for leaks beneath all stored vehicles and equipment. Maintenance: Place drip pans or absorbent pads beneath vehicles and equipment to contain drips or leaks. Immediately clean up all spills, leaks, or contaminated surfaces. Properly dispose of all waste.
Responsible Staff:	SWPPP Manager & Superintendent, Contractor

10.15.3 Staging and Material Storage Areas (4.8.3)

Designate areas to be used for staging and material storage areas. Locate such activities, to the extent practicable, away from storm water conveyance channels, storm water inlets, and waters of the U.S.; and minimize the exposure to precipitation and storm water and vandalism for all chemicals, treatment chemicals, liquid products, petroleum products, and other materials that have the potential to pose a threat to human health or the environment.

10.15.4 Washout of Applicators/Containers Used for Paint, Concrete, and Other Materials (4.8.4)

Describe location(s) and controls to minimize the potential for storm water pollution from washout areas for concrete mixers, paint, stucco, etc.

Will washout areas for trucks, applicators, or containers of concrete, paint, or other materials be used at the site? ☑ Yes ☐ No

If YES, describe control measures to be implemented to comply with CGP Part 4.8.4. If NO, delete the following paragraph.

The contractor will provide a designated concrete washout area. The washout area may be moved during the construction process but the location must be kept current on the site map. Concrete wash water may not be discharged with storm water. The washout must have sufficient capacity for the scheduled activities.

BMP Description: *Concrete Washout, BMP 06.00*	
BMP Manual/Publication: *DOT&PF, Alaska SWPPP Guide, October 2016*	
☐ ***Permanent***	☑ ***Temporary***
Installation Schedule:	Installed prior to any construction activities associated with wet concrete and/or grout.
Maintenance and Inspection:	Inspect washout facilities frequently to determine if/when they have been filled to 50-percent capacity, which is when the materials need to be removed. • Clean out facilities once the washout is one-half full. • If stored liquids are not evaporating and are reaching capacity, vacuum and dispose of liquids in an approved manner. • Remove hardened solids and re-use on-site or haul away for recycling or disposal. • Inspect for signs of weakening or damage prior to relining. • Repair damaged facilities promptly. Contain any spill or discharge of waste material. Replace or display new signage, as needed
Responsible Staff:	SWPPP Manager & Superintendent, Contractor

10.15.5 Fertilizer or Pesticide Use (4.8.5)

Describe fertilizers and/or pesticides expected to be used and/or stored on-site and procedures for storage of materials to minimize exposure of the materials to storm water.

Will fertilizers or pesticides be used at the site? ☑ Yes ☐ No

If YES, describe control measures to be implemented to comply with CGP Part 4.8.5.

The hydro-seed mixture will contain fertilizer which will be applied to finished slopes within the project area; however, fertilizers are not anticipated to be stored onsite.

BMP Description: *Permanent Seeding and Soil Amendments, BMP 52.00 & 53.00*	
BMP Manual/Publication: *DOT&PF, Alaska SWPPP Guide, October 2016*	
☑ ***Permanent***	☐ ***Temporary***
Installation Schedule:	Permanent seeding should be done after all construction or maintenance activities have ceased or been finalized. Temporary seeding should also be considered for slope protection and erosion control for active construction sites. Conduct all seeding and fertilization in accordance with local requirements.
Maintenance and Inspection:	Inspect all seeded areas on a regular basis and after each major storm even to check for areas where corrective measures may have to be made. Continue monitoring until permanent vegetation is established.

	• To establish sufficient growth, irrigation may have to be used in low precipitation or hard to access areas. • Can be conducted in conjunction with various forms of mulching & matting. • Limit re-disturbance of site. Reseed areas where growth is absent or inadequate. Provide additional fertilizer if needed.
Responsible Staff:	SWPPP Manager & Superintendent, Contractor

10.16 Spill Notification (4.9)

The contractor shall describe spill-notification procedures, including relevant federal, state, tribal, and local agency contact information, to be implemented in the event of a leak, spill, or release of hazardous substances or oil that occur at the construction site. Refer to CGP Part 4.9 for permit requirements.

10.17 Construction and Waste Materials (4.8.6, 5.3.7)

Building materials and other construction site wastes must be properly managed and disposed of to reduce the risk of pollution from materials such as surplus or refuse building materials or hazardous wastes. Practices such as trash disposal, recycling, proper material handling, and spill prevention and cleanup measures can reduce the potential for storm water runoff to mobilize construction site wastes and contaminate surface or groundwater.

The contractor must establish proper building and material storage areas to avoid pollutants coming in contact with rainfall or flowing storm water. Any materials that have the potential to pollute storm water will be covered to prevent rainfall from coming into contact with them. Garbage containers will be covered to prevent debris from blowing away as well. Any contractor supplied staging area must be included in inspections and the SWPPP. No materials will be staged or stored, even temporarily in flowing water.

The contractor should designate a waste collection area on site that does not receive substantial amount of runoff from upland areas and does not drain directly to a water body.

Construction Materials:

BMP Description: *General Construction Site Waste Management*	
BMP Manual/Publication: *ADEC Alaska Storm Water Guide, December 2011*	
☐ ***Permanent***	☑ ***Temporary***
Installation Schedule:	Continuously during construction activities
Maintenance and Inspection:	Inspection: Inspect storage and use areas, and identify containers or equipment that could malfunction and cause leaks or spills. Check equipment and containers for leaks, corrosion, support or foundation failure, or other signs of deterioration, and test them for soundness. Maintenance: Immediately repair or replace any that are found to be defective.
Responsible Staff:	SWPPP Manager & Superintendent, Contractor

BMP Description: *BMP C153: Material Delivery, Storage and Containment*	
BMP Manual/Publication: *Washington State Department of Ecology, Stormwater Management Manual for Western Washington, Volume II – Construction Stormwater Pollution Prevention, December 2014*	
☐ ***Permanent***	☑ ***Temporary***
Installation Schedule:	Continuously during construction activities
Maintenance and Inspection:	Inspections shall be performed a minimum of weekly and after significant rainfall. • Temporary storage areas should be located away from vehicular traffic, near construction entrance(s), and away from waterways or storm drains. • MSDS should be supplied for all materials stored. • Chemicals, drums, or bagged materials should not be stored directly on the ground. Place these items on a pallet, and, when possible, store within secondary containment. Keep material storage areas clean, organized, and equipped with an ample supply of appropriate spill clean-up material (spill kit).
Responsible Staff:	SWPPP Manager & Superintendent, Contractor

Waste Materials:

BMP Description: *Sanitary Waste Management, BMP 41.00*	
BMP Manual/Publication: *DOT&PF, Alaska SWPPP Guide, October 2016*	
☐ ***Permanent***	☑ ***Temporary***
Installation Schedule:	Install temporary sanitation facilities as far away from stormwater drainage systems and waters of the U.S. as practicable.
Maintenance and Inspection:	Inspection: Inspect to make sure waste containers are being maintained often enough to prevent overflow. Inspect to make sure the temporary sanitation facilities are located in an area that does not collect water. The facility should also be adequately secured to prevent overturning caused by high winds or other forces. Maintenance: Clean or replace sanitation facilities regularly. Make repairs if any conditions noted under inspection are found.
Responsible Staff:	SWPPP Manager & Superintendent, Contractor

11.0 INSPECTIONS (5.4; 6.0)

Minimum requirements for the locations and scope of site inspections are described in the CGP Part 6.4.

Inspection requirements for linear projects are described in the CGP Part 6.5.

Describe the frequency inspections will occur at your site, including any correlations to storm frequency and intensity.

Note that inspection details for particular BMPs should be included in Section 11 or Appendix B.

11.1 Inspection Schedules (5.4.1.2; 6.1; 6.2; 6.6)

Refer to CGP Part 6.1 for inspection frequency requirements.

Required inspection frequency is based on mean annual precipitation for the site. Refer to Section 3.2 for annual precipitation data and can be found in the project specifications.

A permittee must allow an authorized representative of DEC, EPA or the MS4 operator to conduct a site inspection in accordance with the CGP Part 6.6.

Inspection Frequency:

The inspection frequency for the Kenai Peninsula will be once every seven calendar days.

Pre-construction inspection:

Although not required by the CGP, a pre-construction inspection is recommended to be conducted by the SWPPP preparer, the Superintendent, and a COH representative prior to the start of construction. Document the inspection and include as an appendix to the SWPPP.

Inspection frequency:

An inspection will be scheduled beginning within one (1) week following the start of ground disturbing activities. Inspections will occur once every seven (7) calendar days.

Justification for reduction in inspection frequency, if applicable:

Based on Section 6.2 of the ACGP, the project may reduce inspection frequency as follows:

- If the entire site is temporarily stabilized, the frequency of inspections may be reduced to at least once every thirty (30) calendar days and within two business days of the end of a storm event, at actively staffed sites, that resulted in a discharge from the site;
- If portions of the site have achieved final stabilization, but construction activity remains on other portions of the site, inspections may be suspended for those portions that have achieved final stabilization; however, subsequent inspections may need to be conducted within two business days of the end of a storm event, at actively staffed sites, that results in erosion and causes a discharge from that portion of the site previously considered finally stabilized;
- If the project is undergoing winter shutdown, inspections may stop fourteen (14) calendar days after the anticipated fall freeze-up and shall resume at least twenty-one (21) calendar days prior to the anticipated spring thaw; or
- If the entire site has been finally stabilized and a Notice of Termination (NOT) has been submitted, no further inspection requirements apply to the site.

As defined by the CGP, winter shutdown means the cessation of soil disturbing or soil stabilizing construction activity for winter. Typically, this period is from October/November to April/May and is approximately from Fall Freeze-up to Spring Thaw.

CGP Definition of Fall Freeze-up: For the purposes of this permit, means for planning purposes in the development of the SWPPP and initial planning of control measure maintenance the date in the fall that air temperatures will be predominately below freezing. It is the date in the fall that has an 80% probability that a minimum temperature below a threshold of 32.5 degrees Fahrenheit will occur on or after the given date.

CGP Definition of Spring Thaw: For the purposes of this permit, means for planning purposes in the development of the SWPPP and initial planning of control measure maintenance the date in the spring that air temperatures will be predominately above freezing. It is the date in the spring that has a 20% probability that a minimum temperature below a threshold of 32.5 degrees Fahrenheit will occur on or after the given date.

Estimated date of winter shutdown:

This project will likely be completed in one construction season. If more than one construction season is required to complete the project, a winter shutdown period will be necessary. The actual dates of winter shutdown shall be based upon temperatures and general weather conditions. For the purposes of the contractor's SWPPP based upon this ESCP, the fall freeze-up is the date in the fall that air temperatures will be predominately below freezing, and the spring thaw date is the date in the spring that air temperatures will be predominately above freezing.

Based on the Fall 'Freeze' Probabilities and Spring 'Freeze' Probabilities for the weather station closest to the project, Homer AP (503665), the estimated date of fall freeze-up is **September 28** and the estimate date of spring-thaw is **June 3**. Winter shutdown may start on or after October 12 (14 days after anticipated fall freeze-up). Inspections shall resume on or before May 13 (21 days prior to anticipated spring-thaw). Fall Freeze and Spring Thaw probabilities for Homer AP (503665) are shown below in Figure 1 and Figure 2, respectively.

Fall 'Freeze' Probabilities (Jul. 31 - Dec. 31)

HOMER AP s, k (503665)

Temp F	Earliest	10%	20%	30%	40%	50%	60%	70%	80%	90%	Latest
36.5	08/03	08/16	08/23	08/29	08/31	09/05	09/08	09/10	09/15	09/22	09/29
32.5	08/30	09/05	09/08	09/14	09/17	09/22	09/23	09/25	09/28	10/06	10/18
28.5	09/06	09/15	09/21	09/24	09/29	10/02	10/04	10/07	10/10	10/14	11/11
24.5	09/20	10/04	10/09	10/13	10/15	10/19	10/22	10/25	10/28	11/01	11/14
20.5	10/05	10/15	10/19	10/23	10/26	10/28	11/01	11/03	11/10	11/14	12/14

Figure 1 – Homer AP Fall "Freeze" Probability Table

Spring 'Freeze' Probabilities (Jan 1 - Jul 31)

HOMER AP s, k (503665)

Temp F	Earliest	90%	80%	70%	60%	50%	40%	30%	20%	10%	Latest
36.5	05/07	05/24	06/01	06/04	06/09	06/14	06/18	06/25	07/01	07/13	07/29
32.5	04/20	05/08	05/14	05/17	05/21	05/23	05/27	05/29	06/03	06/09	06/22
28.5	04/02	04/16	04/21	04/27	05/01	05/04	05/07	05/10	05/15	05/18	05/24
24.5	03/06	03/28	04/05	04/09	04/13	04/16	04/20	04/23	04/25	05/03	05/15
20.5	02/17	03/16	03/23	03/26	04/01	04/05	04/08	04/10	04/14	04/19	05/10

Figure 2 – Homer AP Spring "Thaw" Probability Table

In order to implement winter shutdown, the following must be completed:

- Erosion and sediment control measures shall be placed in anticipation of spring thaw.
- Conveyance channels must be temporarily or permanently stabilized.
- Disturbed slopes, disturbed soils, and soil stockpiles must be temporarily or permanently stabilized.
- Conduct an inspection confirming BMPs are installed and functioning in accordance with the requirements of the ACGP and the SWPPP.

The winter shutdown inspections will be conducted jointly with City personnel or the Engineer.

11.2 Inspection Form or Checklist (5.4.1.3; 6.7)

An Inspection Report will be completed after each inspection, identifying BMPs installed at the time of inspection, noting corrective actions required, and documenting complete-by-date for any actions discovered during the inspection. The Contractor's Superintendent will certify each report.

11.3 Corrective Action Procedures (5.4.1.4; 8.0)

The following guidelines apply for setting corrective action complete-by dates as required by the CGP:

For conditions that are easily remedied (i.e., removal of tracked sediment, maintenance of control measures, or spill clean-up), the permittee must initiate appropriate steps to correct the problem within twenty-four hours from the time of discovery and correct the problem as soon as possible; or

If installation of a new control measure is needed or an existing control measure requires significant redesign and reconstruction or replacement, the permittee must install the new or modified measure and make it operational within seven calendar days from the time of discovery of the need for the corrective action, unless infeasible.

If a discharge occurs during a local 2-year, 24-hour storm event, a corrective action must be initiated the day after the storm event ends as described in CGP Part 8.1.1.

For corrective actions that could affect a subcontractor, notify the subcontractor within three calendar days of taking the corrective action.

Additionally, deadlines for completion of corrective actions shall be selected to protect water quality and prior to the next storm event unless impracticable.

Corrective Action Log:

The corrective action log will document the following within 24 hours of discovery of any conditions listed in CGP Part 8.1:

- Date the problem was identified
- Summary of corrective action taken or to be taken
- Notice of whether SWPPP mods were required as a result of this discovery or corrective action
- Date corrective action completed and name of person completing the action

11.4 Inspection Recordkeeping (5.4.2)

Records (including inspection reports, corrective action logs, delayed action item reports, grading and stabilization logs, amendment logs, staff tracking logs, rainfall logs, and training logs) will be maintained for a minimum period of at least three (3) years after the permit is terminated. An electronic copy of the final SWPPP, including all appendices, will be transmitted to COH when the project's NOTs are filed.

12.0 MONITORING PLAN (IF APPLICABLE) (5.5; 7.0)

12.1 Determination of Need for Monitoring Plan

Is there an EPA-established or approved TMDL for **Bridge Creek Reservoir**?

☐ Yes ☑ No

Are the receiving waters listed as impaired for turbidity and/or sediment? ☐ Yes ☑ No

13.0 POST-AUTHORIZATION RECORDS (5.8)

Copy of Permit Requirements (5.8.1): The contractor's SWPPP must contain the following documents:

- Copy of CGP (5.8.1.1)
- Copy of the signed and certified NOI form submitted to DEC (5.8.1.2)
- Upon receipt, a copy of letter from DEC authorizing permit coverage, providing tracking number (5.8.1.3)

These documents must be included in Appendix F.

13.1 Additional Documentation Requirements (5.8.2)

A Grading and Stabilization Log, located in an appendix to the SWPPP, will be filled out to satisfy the following CGP requirements:

- Dates when grading activities occur (5.8.2.1.1)
- Description of grading activities and location (5.8.2.1.2)
- Dates when construction activities temporarily or permanently cease on a portion of the site (5.9.2)
- Dates when stabilization measures are initiated (5.8.2.1.4)
- Description of Stabilization Measure (5.8.2.1.5)
- Date of beginning and ending period for winter shutdown (5.8.2.2)

Other documents will be included as shown below:

- Copies of inspection reports (5.4.2; 5.8.2.3; insert in Appendix K).
- Copies of monitoring reports, if applicable (7.3.9.2; 5.8.2.4; 5.8.2.5; 5.5.2; 9.1; insert in Appendix H).
- Documentation in support of chemical-treatment processes (4.6; 5.8.2.7; insert in Appendix P).
- Documentation of maintenance and repairs of control measures (5.8.2.9; 8.1; 8.2; insert in Appendix J).
- Copy of DEC Letter of Non-Objection (insert in Appendix D).

13.1.1 Records of Employee Training (4.14; 5.8.2.8)

Describe Training Conducted:

General storm water and BMP awareness training for staff and subcontractors:

Detailed training for staff and subcontractors with specific storm water responsibilities:

Individual(s) Responsible for Training:

Documentation of training conducted shall be recorded an included in an appendix of the SWPPP.

14.0 MAINTAINING AN UPDATED SWPPP (5.9)

This section does not need to be filled out but is a list of reminders for the applicant.

The permittee must modify the SWPPP, including site map(s), in response to any of the following:

- Whenever changes are made to construction plans, control measures, good housekeeping measures, monitoring plan (if applicable), or other activities at the site that are no longer accurately reflected in SWPPP (5.9.1.1);
- If inspections of site investigations by staff or by local, state, tribal, or federal officials determine SWPPP modifications are necessary for permit compliance (5.9.1.2); and
- To reflect any revisions to applicable federal, state, tribal, or local laws that affect control measures implemented at the construction site (5.9.1.3).

14.1 SWPPP Amendment Log (5.9.2)

A permittee must keep a log showing dates, name of person authorizing the change, and a brief summary of changes for all significant SWPPP modifications (e.g., adding new control measures, changes in project design, or significant storm events that cause replacement of control measures). Amendments must be approved by an AK-CESCL or equivalently certified individual and be included in an appendix to the SWPPP.

14.2 Deadlines for SWPPP Modifications (5.9.3)

Revisions to the SWPPP must be completed within seven days of the inspection that identified the need for a SWPPP modification or within seven days of substantial modifications to the construction plans or changes in site conditions.

15.0 ADDITIONAL SWPPP REQUIREMENTS (5.10)

15.1 Retention of SWPPP (5.10.1)

A copy of the SWPPP (including a copy of the permit), NOI, and acknowledgement letter from DEC must be retained at the construction site.

15.2 Main Entrance Signage (5.10.2)

A sign or other notice must be posted conspicuously near the main entrance of the site. The sign or notice must include a copy of the completed NOI for both COH and the contractor.

15.3 Availability of SWPPP (5.10.3)

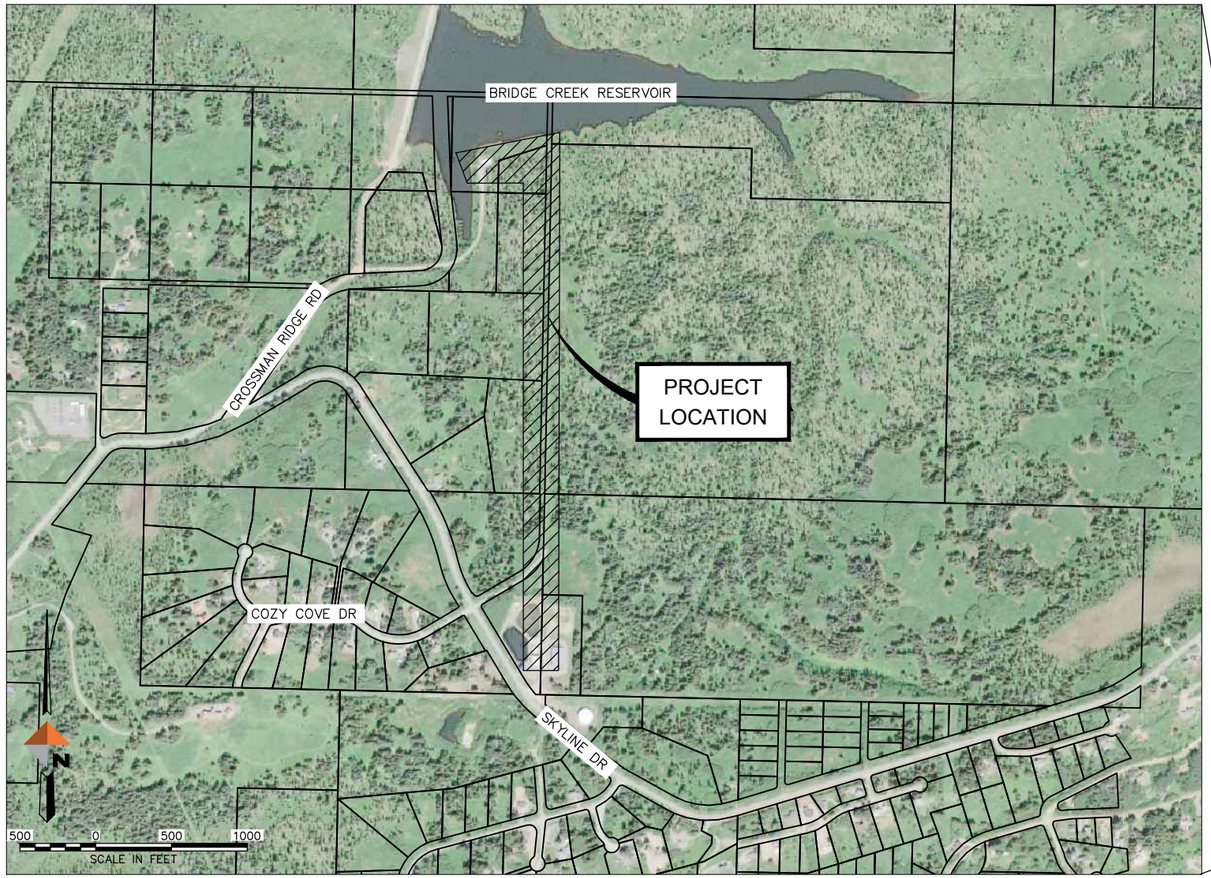
The permittee must keep a current copy of the SWPPP at the site. The SWPPP must be made available to subcontractors, government and tribal agencies, and MS4 operators, upon request.

APPENDIX A
SITE MAPS AND DRAWINGS

RAW WATER TRANSMISSION LINE REPLACEMENT

HOMER, ALASKA

EROSION AND SEDIMENT CONTROL PLAN



LOCATION MAP

REVISIONS			
REV	DATE	DESCRIPTION	BY

177

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RAW WATER TRANSMISSION LINE REPLACEMENT
HOMER, AK

EROSION AND SEDIMENT CONTROL PLAN

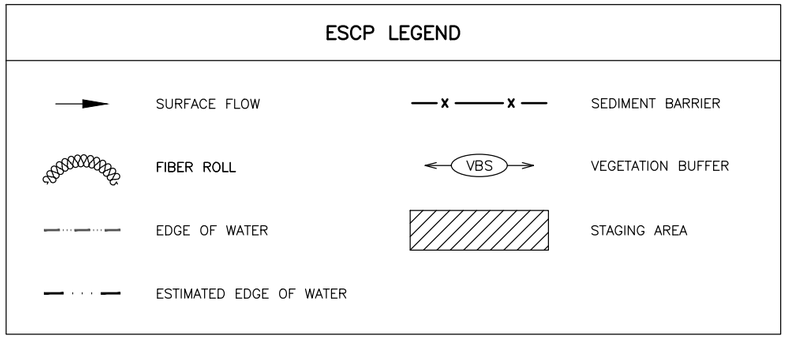
PROJECT	62417.03
DATE	2/5/2025

SHEET
ESCP1

ESCP NOTES

1. REFER TO ESCP REPORT FOR EROSION AND SEDIMENT CONTROL BEST MANAGEMENT PRACTICES (BMPs).
2. CONTRACTOR SHALL USE BMPs MOST APPROPRIATE FOR CONDITIONS ON-SITE. IF INSPECTION REVEALS EROSION CONTROL MEASURES ARE INSUFFICIENT, THE CONTRACTOR SHALL IMMEDIATELY IMPLEMENT CORRECTIVE ACTION AS NECESSARY TO CORRECT THE DEFICIENCY.
3. RECEIVING WATER BODIES FOR THIS PROJECT INCLUDE THE BRIDGE CREEK RESERVOIR AND TWO UNNAMED PONDS.
4. ALL DISTURBED AREAS FOR THIS PROJECT, EXCLUDING ANY TIE-IN GRADING WORK, IS ANTICIPATED TO OCCUR WITHIN A 15-FT LATERAL LIMIT (AVERAGE) CENTERED ON THE WATERLINE PIPE ALIGNMENT.
5. THE CONTRACTOR SHALL USE CONTROL MEASURES TO ENSURE THAT CONSTRUCTION ACTIVITIES HAVE MINIMAL IMPACTS ON THE NATURAL BUFFER AREAS OF THE RECEIVING WATER BODIES.
6. VEGETATION SHALL REMAIN UNDISTURBED TO THE FULLEST EXTENT POSSIBLE.
7. ALL DISTURBED SHALL RECEIVE HYDROSEED WITH MULCH AS A FINAL STABILIZATION MEASURE, UNLESS OTHER TREATMENTS ARE REQUIRED BY PERMIT CONDITIONS.
8. HAUL ROUTES SHALL BE MAINTAINED FREE OF DEBRIS AND TRACKING.
9. ANY CONCRETE WASHOUT AREAS USED BY THE CONTRACTOR SHALL BE DESIGNATED, MAINTAINED, AND LOCATED, TO THE EXTENT PRACTICABLE, AWAY FROM WATER OF THE U.S. AND STORM WATER CONVEYANCE CHANNELS.
10. PROPOSED EQUIPMENT AND MATERIAL STOCKPILE/STAGING AREAS WILL ALSO BE THE LOCATION PROPOSED FOR SANITATION FACILITIES, REUSE CONTAINERS, AND HAZARDOUS MATERIALS CONTROLS/SPILL KITS.
11. ANALYSIS FOR THIS PROJECT DID NOT IDENTIFY ANY ADJACENT PROPERTIES THAT ARE KNOWN TO HOUSE POLLUTANTS EXPOSED TO STORMWATER THAT COULD POTENTIALLY RUN ON-SITE. THE CONTRACTOR SHALL VERIFY THAT DETERMINATION.
12. ALL DISCHARGES FROM EXCAVATION DEWATERING ACTIVITIES WILL BE TREATED WITH THE APPROPRIATE CONTROL MEASURES. UNTREATED WATER FROM CONSTRUCTION DEWATERING OPERATIONS SHALL NOT BE DISCHARGED TO ANY RECEIVING WATERS NOR SHALL UNTREATED WATER BE ALLOWED TO RUN OFF-SITE, UNLESS THE WATER IS NON-TURBID.

ESCP LEGEND



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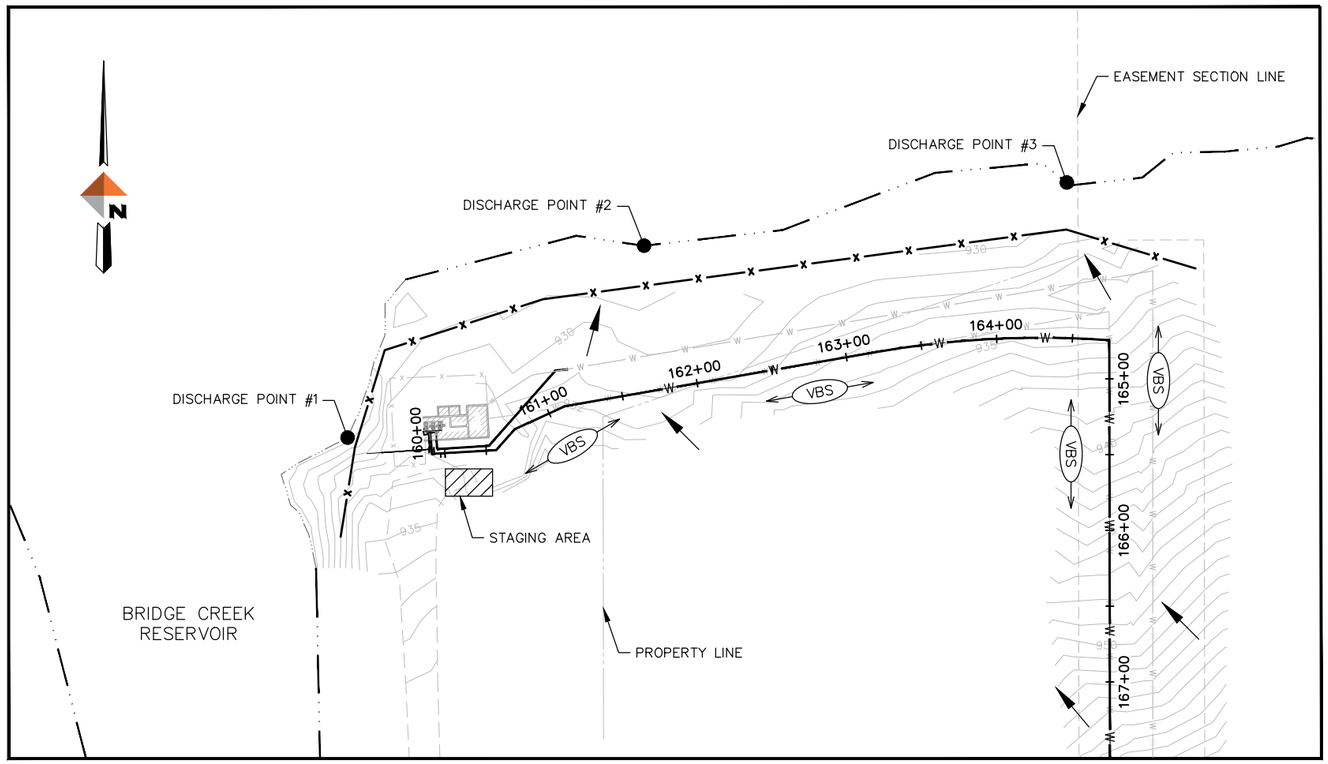
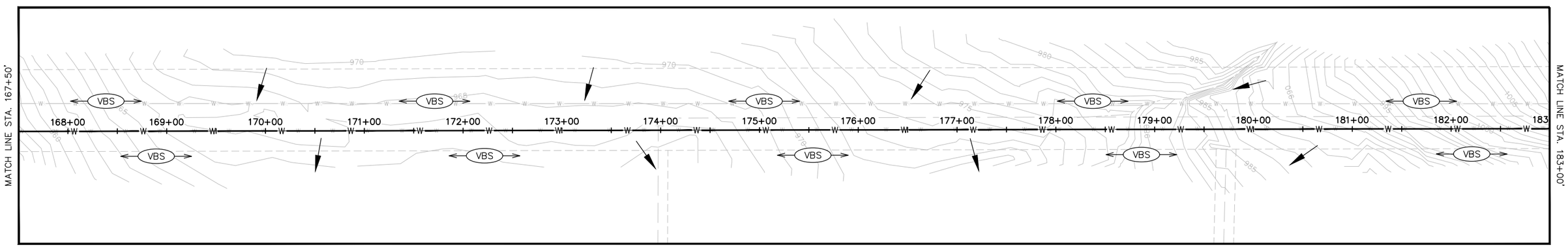
RAW WATER TRANSMISSION LINE REPLACEMENT
HOMER, AK

EROSION AND SEDIMENT CONTROL PLAN NOTES AND LEGEND

PROJECT	62417.03
DATE	2/5/2025

SHEET
ESCP2





REVISIONS			
REV	DATE	DESCRIPTION	BY

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RAW WATER TRANSMISSION LINE REPLACEMENT
HOMER, AK

EROSION AND SEDIMENT CONTROL PLAN
STA 160+00 TO STA 183+00

PROJECT	62417.03
DATE	2/5/2025

SHEET
ESCP3

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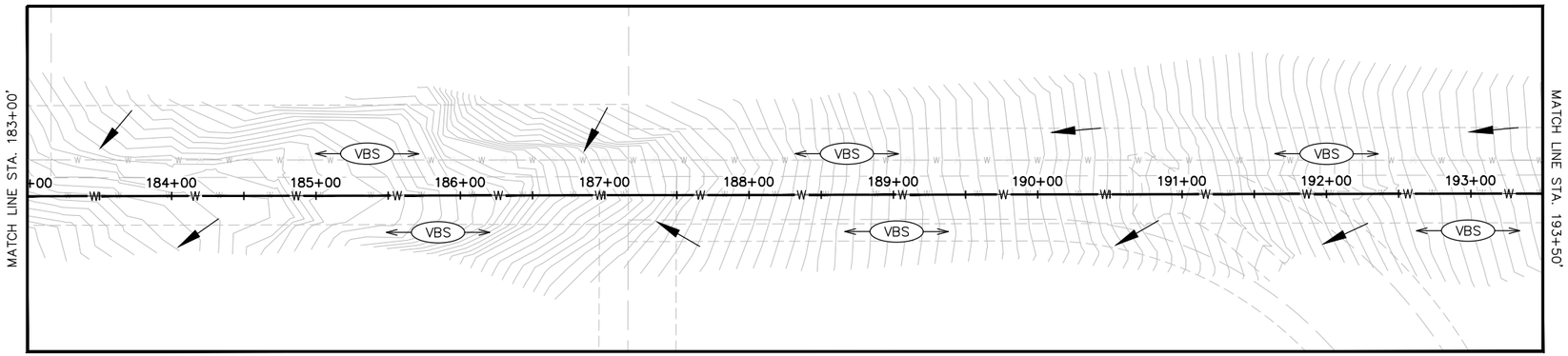

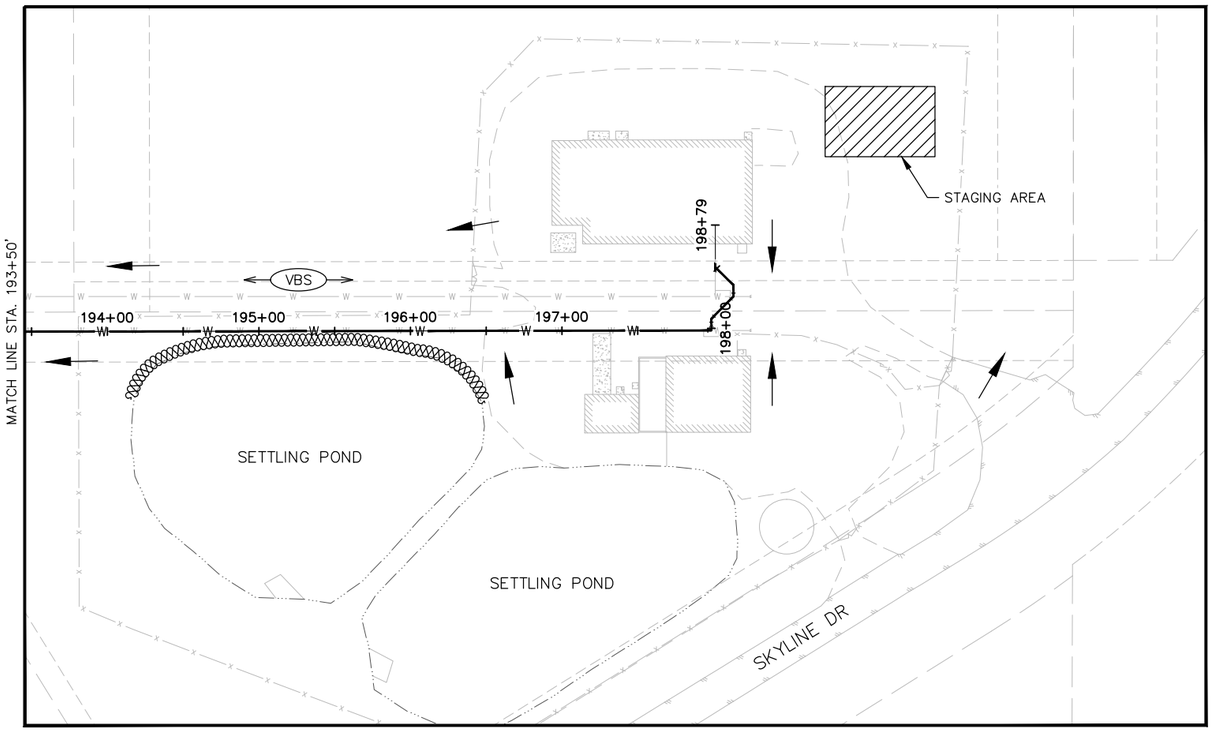

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REV	DATE	DESCRIPTION	BY

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RAW WATER TRANSMISSION LINE REPLACEMENT
HOMER, AK

EROSION AND SEDIMENT CONTROL PLAN
STA 183+00 TO 198+79

PROJECT	62417.03
DATE	2/5/2025

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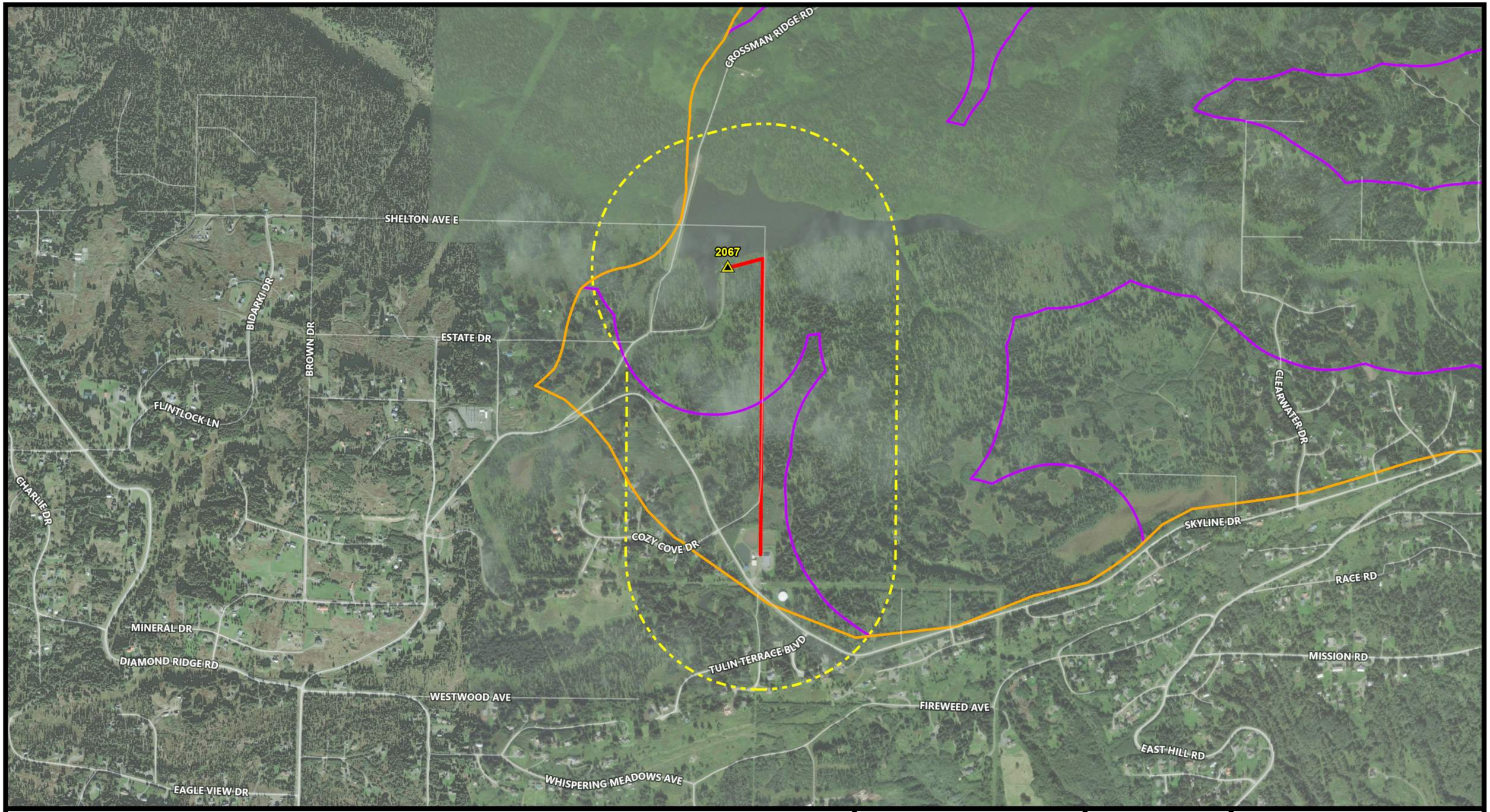

Approximate Project Alignment

1,500-ft Project Buffer

DEC Drinking Water Protection Areas

Zone A (GW-Several Months Time of Travel or SW 1000 ft buffer)

Zone C Surface Water (Watershed Boundary)

DEC Contaminated Sites

Cleanup Complete - Institutional Controls

0 250 500 1,000 Feet

Contaminated Sites and Drinking Water Protection Areas within 1,500 ft of Project Boundary

Sec 6 and 7 T6S R13W

Seward Meridian, Alaska

CITY OF HOMER ALASKA

RAW WATER TRANSMISSION LINE REPLACEMENT

Homer, Alaska

February 2025 | Sheet 1 of 1

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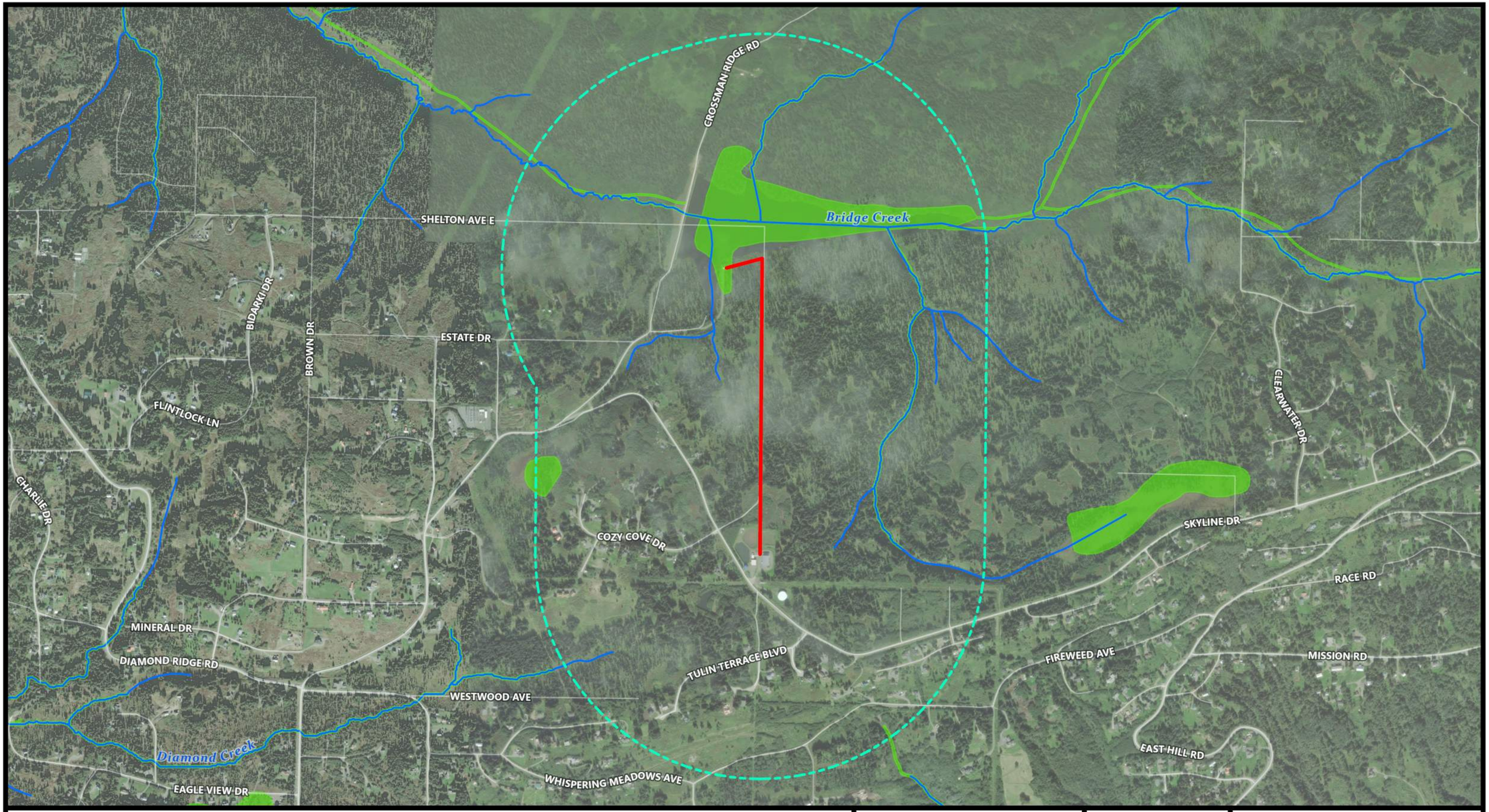

Approximate Project Alignment
2,500-ft Project Buffer
NWI Mapped Wetland
USGS Mapped Stream/River

0 250 500 1,000 Feet

Wetlands and Waterbodies within 2,500 ft of Project Boundary

Sec 6 and 7 T6S R13W

Seward Meridian, Alaska

CITY OF HOMER ALASKA

RAW WATER TRANSMISSION LINE REPLACEMENT

Homer, Alaska

February 2025 | Sheet 1 of 1

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Service Layer Credits: World Imagery: Maxar

APPENDIX D
SUPPORTING DOCUMENTATION

Antheia Environmental
178 Skyline Dr | Homer, AK 99603
casey@antheiaenvironmental.com
www.antheiaenvironmental.com
907.299.5678

Proposed Cleanup Techniques

The horizontal and vertical extent of soil contamination – as it applies to waterline replacement – has been delineated. Exceedances of cleanup criteria were only detected in test pit 1 at 6 feet bgs. However, given the high PID readings at a shallower depth in this test pit, we recommend soils at 4-7 feet bgs be segregated and disposed of as contaminated soil.

Laterally, soils will be excavated at approximately 29-39 feet from the Pump Station's southwest corner (5 feet east and west of the contaminated test pit), and from the building footprint to 10 feet out from the building (9 feet north and 1 foot south of the contaminated test pit). This assumes a 10-foot-wide trench will be excavated to reach 7 feet bgs, the intended depth of waterline replacement. The total soils to be excavated and moved offsite are approximately 10 ft long, 10 ft wide, and 3 ft deep, totaling up to 300 cubic feet (11.1 cubic yards). The actual quantity may be less, due to sloped sides of the trench to be dug to reach a depth of 7 feet.

When the replacement takes place, all contaminated soils will be excavated and placed in Super Sacks. The City currently has a remediation site at the City of Homer Sewer Plant for contaminated soil. Contaminated soil from the Pump Station may be moved to the Sewer Plant location. Otherwise, contaminated soil will be moved to the Kenai Peninsula Borough Central Landfill in Soldotna.

A Contaminated Media Transport and Treatment or Disposal Approval Form will be submitted to the DEC Project Manager for approval prior to moving soil.

APPENDIX E

OPERATOR PLAN
AUTHORIZATIONS/CERTIFICATIONS/DELEGATIONS

OPERATOR PLAN
AUTHORIZATION/CERTIFICATION/DELEGATION

(To be signed by Responsible Corporate Officer)

I state that based on my review this SWPPP meets the minimum requirements of the Construction General Permit and that the **[Insert Operator Name] Superintendent** has day-to-day operational control of the project site**.**

[Insert Operator Name] is responsible for the maintenance and implementation of the SWPPP including inspections, documentation, and application of the Best Management Practices at the site.

[Insert Operator Name] will notify all subcontractors of the requirement of this SWPPP.

City of Homer has operational control over the project specifications, including the ability to make changes to the project specifications.

I hereby designate **[Insert Operator Name] Superintendent** as my authorized representative for SWPPP administration. This designee is responsible for the overall operations of the site and will be responsible for the implementation of the Storm Water Pollution Prevention Plan, compliance with the Construction General Permit, selecting and implementing additional Best Management Practices as conditions warrant, and signing all inspection reports required.

I certify under penalty of law that this document and all attachments were prepared under direction of **[Insert Operator Name]** in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Insert Operator Name

Signature	Date
Printed Name	Title

OPERATOR PLAN
AUTHORIZATION/CERTIFICATION/DELEGATION

(To be signed by Public Works Director)

I state that based on my review this SWPPP meets the minimum requirements of the Construction General Permit and that the **[Insert Operator Name] Superintendent** has day-to-day operational control of the project site**.**

[Insert Operator Name] is responsible for the maintenance and implementation of the SWPPP including inspections, documentation, and application of the Best Management Practices at the site.

[Insert Operator Name] will notify all subcontractors of the requirement of this SWPPP.

City of Homer has operational control over the project specifications, including the ability to make changes to the project specifications.

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I certify under penalty of law that this document and all attachments were prepared under direction of **City of Homer** in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

City of Homer

Signature	Date
	Public Works Director
Printed Name	Title