CITY OF HOMER
INVITATION TO BID / BID DOCUMENTS

Deepwater Dock Uplands Improvements 2016

PREPARED BY:
CITY OF HOMER – PUBLIC WORKS DEPARTMENT
3575 HEATH STREET
HOMER ALASKA 99603
907-235-3170

INVITATION TO BID
By the City of Homer, Alaska, for the
Deep Water Dock Uplands Improvements 2016

JAN 15 2016

Sealed bids for the construction of the **Deep Water Dock Uplands Improvements** project will be received at the Office of the City Clerk, City Hall, City of Homer, 491 East Pioneer Avenue, Homer, Alaska, until **2:00 p.m., Thursday, February 18, 2016**, at which time they will be publicly opened and read. The time of receipt will be determined by the City Clerk's time stamp. Bids received after the time fixed for the receipt of the bids shall not be considered. All bidders must submit a City of Homer Plan Holders Registration form to be on the Plan Holders List and to be considered responsive. Plan holder registration forms and Plans and Specifications are available online at http://www.cityofhomer-ak.gov/rfps

The project is funded with a State of Alaska Legislative Grant. The City's local bidder's 5% preference requirements do apply; State prevailing wage rates will apply. **Pre-bid conference – Wednesday, February 3, 2016 at 1:30 p.m.**, Harbormaster's office. The work includes, but is not limited to the following:

Demolition of 1800 LF of 15-20' high timber fencing, removal of concrete structures, and miscellaneous demolition work; and installation of 2600 LF of 9' chain link fence, 6 chain link sliding gates, 16 light poles (40') with luminaires, bases, conduit and wiring, security cameras, asphalt paving (80,000 SF), pavement marking, 24" CMP (350 LF) with stormceptors and manholes, and other miscellaneous items.

Please direct all technical questions regarding this project to: Carey Meyer, City of Homer, Public Works Department, 3575 Heath Street, Homer, Alaska 99603 (907) 235-3170

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 $170 per set ($200 for overnight delivery). City of Homer Standard Construction Specifications 2011 Edition (containing general contract provisions) may be downloaded from the City's web site. 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 bidder.

DATED this 15th day of January, 2016.

CITY OF HOMER

Katie Koester

Katie Koester, City Manager

Publish: Homer News - January 21 and 28, 2016
Peninsula Clarion – January 24, 2016

Fiscal Note: 415-924

Table of Contents

Deep Water Dock Uplands Improvements 2016

Deep Water Dock Uplands Improvements 2016

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

I. Scope of Services

The proposed work is located within the Homer city limits and is illustrated on the plans entitled:

Deep Water Dock Uplands Improvements 2016

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 the following:

Demolition of 1800 LF of 15-20' high timber fencing, removal of concrete structures, and misc. demolition work; and installation of 2600 LF of 9' chain link fence, 6 chain link sliding gates, 16 light poles (40') with luminaires, bases, conduit and wiring, security cameras, asphalt paving (80,000 SF), pavement marking, 24" CMP (350 LF) with stormceptors and manholes, and other misc. items.

II. General Bidding Requirements

The work must be performed by a Contractor skilled and regularly engaged in the general class or type of work called for under the Contract. The bidder must have a current contractor's license issued by the State of Alaska. The license must apply to the work described in the Invitation to Bid.

The City of Homer Standard Construction Specifications, 2011 Edition, shall supplement the project plans. A copy of the Homer Standard Construction Specifications (S.C.S.) may be obtained at the Office of the City Clerk, 491 E. Pioneer Ave., Homer, Alaska 99603. The cost for S.C.S. is per set is $50.00. Persons requesting the sets by mail must include an additional $25.00 for shipping.

This project is covered by the State of Alaska, Laborer's and Mechanic's Minimum Rates of Pay, Title 36 Public Contracts, (AS 36.05 & 36.10) **Pamphlet 600 Issue 31, Effective September 1, 2015.** 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.

Performance and Payment bonds in the amount of One Hundred Percent 100% of the bid amount are required.

All bidders must submit a City of Homer Plan Holders Registration form to be on the Plan Holders List and to be considered responsive. Plan holder registration forms and Plans and Specifications are available online at http://www.cityofhomer-ak.gov/rfps

Bids must be submitted on the Bid Form and be received until will be received at the office of the City Clerk, City Hall, City of Homer, 491 East Pioneer Avenue, Homer, Alaska, until **2:00 PM Thursday February 18, 2016**. A bid bond is required. Cashier checks in an amount equal to five percent (5%) of the bid are acceptable. Surety bonds are acceptable.

The City of Homer has a two-part bid process, Part A and Part B. Each portion of the bid must be submitted in separate envelopes. At the bid opening, Part B is opened first and must be complete and regular or Part A will not be opened and the bid will be rejected.

Part A of the bid contains the Bid Form, the Bid Bond and the Power of Attorney (if needed). Part A must be submitted separately in an envelope marked Part A.

Part B of the bid contains the 1) Addenda Acknowledgment, 2) EEO-1 Certification, 3) Equal Employment Opportunity Clause. Part B must be submitted separately in an envelope marked Part B.

III. Instruction to Bidders

The City of Homer reserves the right to accept or reject any or all proposals, to waive irregularities or informalities in the proposals, 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 lowest responsible, responsive 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.

If the signature on the Bid is by an agent, other than an Officer of a corporation of a member of a Co-partnership, a Power of Attorney must either be on file with the City Clerk prior to the Bid opening or submitted with the Bid in Part B.

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 a Bid, each prospective Bidder shall familiarize themselves with the work, the site logistics, labor conditions and all laws, regulations and other factors affecting performance of the work. The Contractor shall carefully correlate his observations with the requirements of the Contract Documents and otherwise satisfy himself 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.

1. Site Conditions

Each Bidder shall visit the site (or sites) of the Work and completely inform himself 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, in writing, to the Office of the Project Manager of Public Works, 3575 Heath St. Homer Alaska, 99603. Replies will be issued by Addenda mailed or 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 (7) 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. No questions will be answered the day of the bid due date.

The Bid shall contain an acknowledgement of receipt of all Addenda, the numbers of which shall be filled in on the Addendum Form, properly signed by the Bidder and placed in envelope B.

It shall be the Bidder's responsibility to inquire as to addenda issued. Failure to include the Addenda Form in envelope B shall result in the Bid being rejected as non-responsive.

E. Bid Bond Guarantee

Each Bid shall be accompanied by a Bid Bond duly completed on the suggested form provided by a guaranty company authorized to carry on 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 envelope A of the Bid 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 therefore, 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. Bids

1. 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 on file with the City Clerk prior to opening the Bid or submitted in envelope B of the Bid; otherwise, the Bid will be disregarded as irregular and unauthorized, and 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 or telephone proposals will be considered.

Bids will be received at the City Clerk's Office located at 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 Bidder shall see that the Bid title and date of Bid opening is on the lower left-hand corner of the envelope. The City is not responsible for the premature opening of, or failure to open, a bid not properly addressed and identified. Promised overnight delivery from the Post office or private carriers usually is an inaccurate statement for Alaska and Homer Area.

No consideration will be given by the city to a claim of 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 Bids are deposited at the time and place set forth for the public opening of Bids. Bids not received by the time will not be accepted and will be returned to the Bidder in the sealed bid envelope.

I. Local Bidders Preference

The City of Homer Local Bidder Preference applies to this contract.

IV. BID SCHEDULE
Part A

BID SCHEDULE

City of Homer DWD Uplands Improvements 2016

ITEM NO.	SPEC NO.	BID ITEM DESCRIPTION	UNIT	ESTIMATED QUANTITY	UNIT BID PRICE	TOTAL BID PRICE
SCHEDULE A - Access Road Improvements						
A- 1	204	Excavation	per CY	1049		
A- 2	206	Leveling Course	per TON	997		
A- 3	401	Asphalt Pavement	per TON	1077		
A- 4	402	Painted Traffic Markings	per LS	1		
A- 5	707	Furnish & Install Standard Sign	per EA	13		
SCHEDULE B - Storage / Laydown Area Access / Drainage Improvements						
B- 1	203-A	Removal of Concrete Pavement and Below Grade Structures	per SY	893		
B- 2	203-B	Removal of Obstruction (Culvert Pipe)	per LF	44		
B- 3	203-C	Removal of Light Pole and Foundation	per EA	1		
B- 4	204	Excavation	per CY	479		
B- 5	205	Type III Classified Fill and Backfill	per CY	50		
B- 6	206	Leveling Course	per TON	455		
B- 7	219	Remove Existing Pavement	per SY	330		
B- 8	304	Chip Pad Detention Basin Modification	per LS	1		
B- 9	401	Asphalt Pavement	per TON	492		
B-10	704	Furnish and Install Insulation (4" Thick Insulfoam 60)	per BF	2700		
B-11	802-A	Furnish and Install CPEP (18-inch, Type S, Circular)	per LF	317		
B-12	802-B	Furnish and Install CPEP (24-inch, Type S, Circular)	per LF	337		
B-13	802-C	Install Owner Furnished 24-inch CPEP	per LF	90		
B-14	804	Furnish and Install Storm Drain Manhole (Type I)	per EA	2		
B-15	808-A	Furnish and Install Stormceptor STC 1800	per EA	1		
B-16	808-B	Install Owner Furnished Stormceptor STC 1800	per EA	1		
SCHEDULE C - Storage / Laydown Area Lighting Improvements						
C- 1	904	Luminaire Pole Foundation	per EA	9		
C- 2	905	Luminaire Pole, 2-Arm, Fixed Base, 39 Ft.	per EA	9		
C- 3	907	Lighting Control System	per LS	1		
SCHEDULE D - Storage / Laydown Area Fencing / Security Improvements						
D- 1	711	Concrete Pipe Bollard (Yellow)	per EA	24		
D- 2	712	Furnish and Install Cantilever Sliding Gate (Various Sizes)	per LF	276		
D- 3	713	Furnish and Install 9' Fencing	per LF	2604		
D- 4	906	Security Camera System	per LS	1		

SCHEDULE E - General Provisions

E- 1	101	Mobilization and Demobilization	per LS	1		
E- 2	102	Construction Surveying	per LS	1		
E- 3	103	Traffic Maintenance	per LS	1		
E- 4	104	Erosion, Sediment, and Pollution Control	per LS	1		

Bid Summary	SCHEDULE BID PRICE
SCHEDULE A - Access Road Improvements	$
SCHEDULE B - Storage / Laydown Area Access / Drainage Improvements	$
SCHEDULE C - Storage / Laydown Area Lighting Improvements	$
SCHEDULE D - Storage / Laydown Area Fencing / Security Improvements	$
SCHEDULE E - General Provisions	$
Total Bid - Schedules A-E	$

Name of Firm _____

Address of Firm _____

_____

_____

Authorized Signature _____

Date

Printed Name and Title of Signatory _____

Date of Bid _____

BID BOND

KNOW ALL MEN BY THESE PRESENTS, that _____

_____

Hereinafter called the PRINCIPAL, and _____

a Corporation duly organized under the laws of the State of Alaska having its principal place of business at _____
In the State of Alaska, and authorized to do business in the State of Alaska, as SURETY, are held and firmly bound unto the City of Homer hereinafter called the OBLIGEE, in the penal sum of _____ DOLLARS ($_____) for payment of which we bind ourselves, our heirs, executors, administrators, successors, and assigns, jointly and severally, firmly by these presents.

THE CONDITION OF THIS BOND IS 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 OBLIGEE the penal sum as liquidated damages:

Signed and sealed this _____Day of _____, 2016.

PRINCIPAL: _____

BY:_____

SURETY:_____

ATTORNEY-IN-FACT:_____

Part B

ADDENDA ACKNOWLEDGMENT

Project Name: **Deep Water Dock Uplands Improvements 2016**

I hereby acknowledge addenda numbers:

_____

_____

_____

_____

_____

_____

Name of Firm: _____

Signature of Bidder: _____

Date: _____

This Acknowledgement must be included with Part B of the Bid or the Bid will be considered non-responsive.

City of Homer

Equal Employment Opportunity (EEO – 1) CERTIFICATION

The following Certification is required by the Equal Employment Opportunity Regulations of the Secretary of Labor (41 CFR 60-1.7 (b) (1)) and must be submitted by BIDDERS and proposed SUBCONTRACTORS in connections with contracts and subcontracts which are subject to the Equal Opportunity Clause. Contracts and subcontracts which are exempt from the Equal Opportunity Clause are set forth in 41 CFR 60-1.5 (generally only contracts or subcontracts of $10,000 or under are exempt.) Proposed PRIME CONTRACTORS and SUBCONTRACTORS who have participated in a previous contract or subcontract subject to the Executive Orders and have not filed the required reports, should note the 41 CFR 60-1.7 (b) (1) prevents the award of contracts and subcontracts unless such contractor submits a report covering the delinquent period or such other period as specified by the Federal Highway Administration; by the Director, Office of Federal Contract Compliance Programs, U.S. Department of Labor; or by the Equal Employment Opportunity Commission.

Currently, Standard Form 100 (EEO-1) is the only report required by the Executive Orders or their implementing regulations. The Employer Information Report EEO-1 (Standard Form 100) is not a voluntary survey. The filing of the report is in accordance with Standard Form 100 instructions and is required by Federal law. The applicable law is Section 709©, Title VII, Civil rights Act of 1964 and regulations issued by the Equal Opportunity Commission under that law are reprinted in Appendix (6). Under Section 710(b) of Title VII, the Commission may obtain an order from a United States District Court compelling a covered employer to file this report. Under Section 209 (a) of Executive Order 11246, the penalties for failure by a Federal contractor or subcontractor to comply may include termination of the Federal government contract and debarment from future Federal contracts.

It is the employer's responsibility to keep current on all EEO-1 filing requirements. All inquiries and requests for special procedures should be directed to: Office of Federal Contract Compliance Programs, Department of Labor, Federal Building/U.S. Court House, 701 C Street, Box 55, Anchorage, AK 99513. Blank reporting forms may be obtained from: The Joint Reporting committee, P.O. Box 2236, Norfolk, Virginia 23501 (804) 625-3734.

(CHECK APPLICABLE BLOCK) The BIDDER _____ or proposed SUBCONTRACTOR _____ hereby certifies:

1. Their firm has participated in a previous contract or subcontractor subject to the Equal Opportunity Clause as required by Federal Executive Order 11246, Section 201 (301 F.R. 12319) YES_____ NO _____

   A. Their firm has filed all reports due under the applicable filing requirement with the Joint Reporting Committee Opportunity Commission as stated in this certifications. YES_____ NO _____

2. Their firm has participated in a previous City of Homer construction contract or subcontract. YES_____ NO _____

   A. Their firm has filed all the EEO reports due under applicable filing requirements of the city of Homer Department of Public Works. YES_____ NO _____

_____ _____
Signature of Authorized Representative of Company Date

_____ _____
Name of Company Phone Number

_____ _____
Address of Company Zip Code

PROJECT NAME - **Deep Water Dock Uplands Improvements 2016**

This certificate (2 pages) needs to be included with the Bid Documents Part B or the Bid will be considered non-responsive.

EQUAL EMPLOYMENT OPPORTUNITY CLAUSE

During the performance of this contract, the contractor agrees to comply with OFCC Regulations 40 CFR 60.1.4 (1) through (7) as follows:

1. The contractor will not discriminate against any employee or applicant for employment because of race, color, religion, sex or national origin. The contractor will take affirmative action to ensure that applicants are employed, and that employees are treated during employment without regard to their race, color, religion, sex, or national origin. Such action shall include, but not be limited to the following: Employment, upgrading, demotion, or transfer, recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided by the contracting officer setting forth the provisions of this nondiscrimination clause.

2. The contractor will, in all solicitations or advertisements for employees placed by or on behalf of the contractor, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, or national origin.

3. The contractor will send to each labor union or representative of workers with whom he has a collective bargaining agreement or other contract or understanding, a notice to be provided by the agency contracting officer, advising the labor union or workers' representative of the contractor's commitments under Section 202 of Executive Order 11246 of September 24, 1965 and shall post copies of the notice in conspicuous places available to employees and applicants for employment.

4. The contractor will comply with all provisions of executive order 11246 of September 24, 1965 and of the rules, regulations, and relevant orders of the Secretary of Labor.

5. The contractor will furnish all information and reports required by Executive Order 11246 of September 24, 1965 and by the rules, regulations, and orders of the secretary of labor, or pursuant thereto, and will permit access of his books, records, and accounts by the contracting agency and the secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations, and orders.

6. In the event of the contractor's noncompliance with the nondiscrimination clauses of this contract or with any such rules, regulations or orders, this contract may be canceled, terminated or suspended in whole or in part and the contractor may be declared ineligible for further government contracts in accordance with procedures authorized in executive order 11246 of September 24, 1965 and such other sanctions may be imposed and remedies invoked as provided in executive order 11246 of September 24, 1965 or by rule, regulation or order of the Secretary of Labor as otherwise provided by law.

7. The contractor will include the provisions of paragraphs (1) through (7) in every subcontract or purchase order unless exempted by rules, regulations, or orders of the Secretary of Labor issued pursuant to section 204 of Executive Order 11246 of September 24, 1965 so that such provisions will be binding upon each subcontractor or vendor. The contractor will take such action with respect to any subcontract or purchase order as the contracting agency may direct as a means of enforcing such provisions including sanctions for noncompliance: Provided, however that in the event the contractor becomes involved in, or is threatened wit, litigation with a subcontractor or vendor as a result of such direction by the contracting agency, the contractor may request the United States to enter into such litigation to protect the interest of the United States.

_____ _____

(Signature) (Title)

_____

(Date)

This form (2 pages) must be included with the Bid, Part B, or the Bid will be considered non-responsive.

V. Contract Documents

C O N T R A C T

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

_____

Hereinafter called the "Contractor";

WITNESSETH:

The Contractor, in consideration of the sum to be paid him by the City and of the covenants and agreements herein contained, hereby agrees at his own cost and expense to do all the work and furnish all the materials, tools, labor and all appliances, machinery and appurtenances for City to the extent of the Bid made by the contractor, dated the _____ day of _____, 2016, all in full compliance with the Contract documents referred to herein as:

Deep Water Dock Uplands Improvements 2016

a) Invitation to Bid
b) The signed copy of the Bid
c) The Bid Bond
d) The 2011 City of Homer Standard Construction Specifications
e) All Addenda, totaling ___
f) The drawings which consist of 35 sheets entitled;

City of Homer DWD Uplands

Are hereby referred to and reference made a part of the Contract as fully and completely 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 bid in the Bid and to make such payments upon the Contractor's invoicing as approved by the City Engineer.

C O N T R A C T

CONTRACT COMPLETION TIME

The Contractor agrees to complete the project, in all respects no later than **June 30, 2016**

CONTRACT AMOUNT _____
In Numbers

_____
In Words

LIQUIDATED DAMAGES:

Liquidated damages in the amount of $250.00 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 _____, 2016.

CITY OF HOMER

By: _____

Title: Mary K. Koester, Homer City Manager

CONTRACTOR

_____
(Contractor)

By: _____

Title: _____

PERFORMANCE BOND

KNOW ALL MEN BY 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 way 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 five (5) counterparts, each one of which shall be deemed and original, this the _____ day of _____, 2016.

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 MEN BY 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 way affect its 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 five (5) counterparts, each one of which shall be deemed and original, this the _____ day of _____, 2016.

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.

VI. Project Schedule

DWD Uplands Improvements 2016

No Later Than

Pre-Bid (Harbormasters Office)…….……..1:30 PM February 3, 2016

Bids Due…..……..…….....Until 2:00 PM Thursday February 18, 2016

Notice of Intent to Award…….…….…….…..... February 23, 2016

Pre-Construction Meeting and Notice to Proceed……..…….……..... March 1, 2016

Start Construction…….……..……April 15, 2016

Must be Completed by…….……... June 30, 2016

VII. Special Provisions

SPECIAL PROVISIONS
Deep Water Dock Uplands Improvements - 2016

General Conditions of the Contract

The General Provisions of this contract shall be those of the City of Homer Standard Construction Specifications, 2011 Edition, Section 10. (These provisions are available on the City's website).

Disadvantaged Business Requirement

The Contractor shall, to the extent possible, use small, minority, women-owned or disadvantaged business concerns.

Liability Exclusion

The City of Homer and the State of Alaska are not liable for damages or claims from damages arising from any Contractor's performance or activities under the terms of this contract. The Contractor shall defend, indemnify, and hold harmless the City and the State of Alaska from all claims, actions, costs, damages, or expenses of any nature whatsoever by reason of the acts or omissions of the City or the State of Alaska in connection with the performance of this contract; except those damages which may be caused by the sole negligence of the City or the State of Alaska.

Construction Schedule

Construction will commence – April 15, 2016
All work must be complete by – June 30, 2016

Contractor will be required to provide a detailed **C**ritical **P**ath **M**ethod project schedule upon award of contract and presented to the City at the Pre-Construction Conference.

Applicable Prevailing Wage Rates

Contractor is required to pay State of Alaska Department of Labor or Workforce Development Laborers' & Mechanics' Minimum Rates of Pay. Contractor is required to submit State of Alaska Department of Labor Certified Payrolls in accordance with the State Department of Labor requirements, including submittal of signed Statements of Compliance.

Questions regarding compliance with State Davis Bacon Wage requirements should be directed to:

Warren E. Petrasek
Wage and Hour Investigator
Wage and Hour Administration
Anchorage Regional Office
Telephone: 907-352-2558
Fax: 907-352-4182
Email: warren.petrasek@alaska.gov

Insurance Requirements

The Contractor shall provide the following types of insurance prior to starting work (see General Conditions - Article 6.18 – Insurance). All Insurance Certificates shall name "City of Homer, Alaska" and "The State of Alaska" as an additionally insured party. Contractor will also include a provision that the "Department of Transportation and Public Facilities" along with the "State of Alaska" not be liable for damages or claims from damages arising from any contractor's performance or activities in connection with work authorized by the projects Grant Agreement.

1. Worker's Compensation	Minimum Limits
Employer's Liability and Workers' Compensation as required by Alaska State Workers' Compensation Statutes.	Statutory (no less than $100K per occurrence)
U.S. Longshoremen & Harbor Workers' (USL&H).	

2. Comprehensive General Liability	Minimum Limits
Single Limit	$1,000,000
Aggregate	$2,000,000

- Bodily Injury & Property Damage Liability
- Premises Operations
- Blanket Contractual
- Broad Form Property Damage
- Personal Injury
- Independent Contractors

3. Comprehensive Automobile Liability	Minimum Limits
Bodily Injury and Property Damage, including All owned, hired and non-owned vehicles	$1,000,000

Anti-Discrimination Requirements

The Contractor shall not discriminate on the basis of race, color, national origin or sex in the performance of this contract. Failure by the contractor to carry out these requirements is a material breach of this contract which may result in the termination of this contract or other legally available remedies.

Access to Records and Project

The City and the State of Alaska shall have full access and the rights to examine, excerpt, and copy any documents generated by the Contractor that relate to this project. Additionally, the City and the Department shall have unhindered access to the project site and all work performed in connection with this project.

Violation and Breach of Contract

Administrative, contractual, or legal remedies in instances where the Contractor violates or breaches contract terms or either party terminates for cause or convenience are contained in the General Conditions of the City of Homer Standard Construction Specifications 2011 which provide for such procedures, sanctions and penalties as may be appropriate. See Section 5.30, 5.31., 5.32, and 5.34 of the General Conditions and liquidated damages amount in the contract.

Compliance with Equal Employment Opportunity Provisions of Executive Order 11246

Contractor shall be in compliance with Executive Order 11246 of September 24, 1965, entitled "Equal Employment Opportunity," as amended by Executive Order 11375 of October 13, 1967, and as supplemented in Department of Labor regulations (41 CFR Chapter 60).

Compliance with State and Federal Environmental Regulations

Contractor shall be in compliance with all applicable standards, orders, or requirements issued under section 306 of the Clean Air Act (42 U.S.C. 1857(h)), section 508 of the Clean Water Act (33 U.S.C. 1368), Executive Order 11738, and Environmental Protection Agency regulations (40 CFR part 15).

City Provided Work/Services

The City will accomplish the following work items:

1. Provide contractor with a lay down/storage area for equipment and materials for this project on the concrete chip pad (exact location to be determined by the Harbormaster).
2. The City will provide a Quality Control/City Inspector for the duration of the project.
3. The City will provide a Stormceptor and 90 LF of 24" Dia. CPEP storm drain pipe. Storm ceptor provided by City includes complete structure: concrete manhole sections, top amd bottom slabs, fiberglass disc insert, gaskets, lubricant, cast iron frame and cover, and grade rings.
4. The City will be responsible for the cost of any quality control testing.
5. The City will be responsible for the cost of any required utility relocation.

Contractor Provided Materials/Work

The Contractor is responsible for providing all materials, equipment and labor required to complete the work as specified herein, as shown on the plans and specifications, or as directed by the Engineer. Contractor is responsible for all required construction survey as described in the technical specifications. **(Contractor will not proceed with any definable feature of work without Engineer approved submittals in hand.)**

Coordination of Work with Ongoing Activities

Contractor shall coordinate with the Engineer to minimize conflict with adjacent property owners and pedestrian/vehicular traffic. The Contractor shall be responsible for limiting access to the actual job site, including if necessary the installation of barricades and caution tape/danger tape along the perimeter of the work area and around any material storage areas if necessary.

The City will conduct a mandatory weekly project coordination meeting with the Contractor during the duration of the project to be held at the Homer Harbormasters Office conference room. Attendance by the Contractors Project Superintendent and Project Manager will be required for all meetings.

Project Safety Requirements

The City of Homer is requiring that the General Contractor and all Sub-Contractors provide a well-developed Activity Hazard Analysis for all definable features of work on this project a minimum of 72 hours before the work is to take place. All plans will be reviewed and approved by the City of Homer before the Contractor will be allowed to proceed with the work. The General Contractor will hold a mandatory jobsite wide safety meeting at a minimum of once a month during the course of construction. The General Contractor will be responsible for their Sub-Contractors safe work practices at all times during this project. The City of Homer will maintain and enforce the most current issue of O.S.H.A. standards.

Any damage to the existing City property during the course of construction caused by the Contractor or their Sub-Contractors will be repaired/replaced by the Contractor to the acceptance of the City Engineer before final payment will be made on this Contract.

VIII. Technical Specifications

City of Homer, Standard Construction Specifications, current edition and modified as follows:

STANDARD MODIFICATIONS
AND ADDITIONAL SPECIFICATIONS
FOR

CITY OF HOMER
DWD UPLANDS

JANUARY 2016

INDEX

SECTION 10.06 LEGAL RELATIONS AND RESPONSIBILITIES

6.18 Insurance

Insert the following to the end of this Article:

A. Include the following parties or entities as additional insured:
   a. R&M Consultants, Inc., 9101 Vanguard Drive, Anchorage, Alaska, 99507.
   b. Foldenauer Engineering, 1105 North Blue Ridge Circle, Palmer, Alaska 99645.
   c. Nelson Engineering, 155 Bidarka Street, Kenai, Alaska, 99611.

Add the following New Sections to this Division.

SECTION 104 EROSION, SEDIMENT, AND POLLUTION CONTROL

104.1 GENERAL

A. The Work described 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) for projects that may adversely impact receiving waters or waters of the United States. The Plan shall cover all areas disturbed by the project including the construction site and off-site activities which include, but may not be limited to, material sites, waste disposal sites, borrow and fill sites, and equipment and material storage areas.

B. 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 Construction General Permit (CGP).

C. Definitions: These definitions apply only to Section 641.

a. **Alaska Certified Erosion and Sediment Control Lead (AK-CESCL)**. A person who has completed training, testing, and other requirements of, and is currently certified as, an AK-CESCL from an AK-CESCL Training Program. The Owner recognizes AK-CESCLs as "qualified personnel" required by the CGP.

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

c. **Alaska Pollutant Discharge Elimination System (APDES)**. A system administered by ADEC that issues and tracks permits for storm water discharges.

d. **Best Management Practices (BMPs)**. Temporary or permanent structural and nonstructural devices, schedules of activities, prohibition of practices, maintenance procedures, and other management practices to prevent or minimize the discharge of pollutants to waters of the United States. BMPs also include, but are not limited to, treatment requirements; operating procedures; practices to control site runoff, spillage or leaks; sludge or waste disposal; or drainage from material storage.

e. **Clean Water Act (CWA).** Federal Water Pollution Control Amendments of 1972, as amended (33 U.S.C. 1251 et seq.).

f. **Construction Activity**. Physical activity by the Contractor, Subcontractor or utility company; that may result in erosion, sedimentation, or a discharge of pollutants into storm water. Construction Activity includes soil disturbing activities (e.g. clearing, grubbing, grading, excavating); and establishment of construction materials or equipment storage or maintenance areas (e.g. material piles, borrow area, concrete truck chute wash down, fueling); and activities that may discharge storm water and are directly related to the construction process (e.g. concrete or asphalt batch plants).

g. **Construction General Permit (CGP)**. The permit authorizing storm water discharges from Construction Activities, issued and enforced by ADEC. The CGP authorizes storm water discharges provided permit conditions and water quality standards are met.
h. **U.S. Army Corps of Engineers Permit (USACE PERMIT)**. A U.S. Army Corps of Engineers Permit for construction in waters of the U.S. Such permit may be issued under Section 10 of the Rivers and Harbors Act of 1899, or Section 404 of the Clean Water Act.
i. **Electronic Notice of Intent (eNOI)**. The electronic Notice of Intent submitted to ADEC, to obtain coverage under the CGP.
j. **Electronic Notice of Termination (eNOT)**. The electronic Notice of Termination submitted to ADEC, to end coverage under the CGP.
k. **Environmental Protection Agency (EPA)**. A federal agency charged to protect human health and the environment.
l. **Erosion and Sediment Control Plan (ESCP)**. The Contractor's project specific document that illustrates measures to control erosion and sediment on the project.
m. **Final Stabilization**. Is defined in this section as it is defined in the CGP.
n. **Hazardous Material Control Plan (HMCP)**. The Contractor's detailed project specific plan for 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 Contractor shall include the HMCP as an appendix to the SWPPP.
o. **Inspection**. An inspection required by the CGP or the SWPPP, usually performed together by the Contractor's SWPPP Manager and Owner's Inspector.
p. **Multi-Sector General Permit (MSGP)**. The Alaska Pollutant Discharge Elimination System General Permit for storm water discharges associated with industrial activity.
q. **Operator(s)**. The party or co-parties associated with a regulated activity that has responsibility to obtain permit coverage under the CGP. "Operator" for the purpose of the CGP and in the context of storm water associated with construction activity, means any party associated with a construction project that meets either of the following two criteria:
    i. The operator has operational control over construction plans and specifications, including the ability to make modifications to those plans and specifications; or
    ii. The operator 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 other permit conditions).
r. **Owner**. City of Homer.
s. **Permit**. Shall mean the CGP.
t. **Pollutant**. Any substance or item meeting the definition of pollutant contained in 40 CFR § 122.2. A partial listing from this definition includes: dredged spoil, solid waste, sewage, garbage, sewage sludge, chemical

wastes, biological materials, wrecked or discarded equipment, rock, sand, cellar dirt and industrial or municipal waste.

u. **Project Zone**. The Project Zone includes the area of street, road, highway or facility under construction; project staging and equipment areas; and material and disposal sites; when those areas, routes and sites, are directly related to the Contract.
    i. Material sites, material processing sites, disposal sites, haul routes, staging and equipment storage areas; that are furnished by the Contractor or a commercial operator, are not included in the Project Zone.

v. **Records**. Any record, report, information, document or photograph required to be created or maintained pursuant to the requirements of the CGP, the CGP storm water requirements of the Clean Water Act; and applicable local, state, and federal laws and regulations regarding document preservation.

w. **Spill Prevention, Control, and Countermeasure Plan (SPCC Plan)**. Contractor's detailed plan for petroleum spill prevention and control measures that conform to the requirements of 40 CFR 112.

x. **Spill Response Field Representative**. Contractor's representative with authority and responsibility for managing, implementing, and executing the HMCP and SPCC Plan.

y. **Storm Event**. A rainfall event that produces more than one half inch (0.5") of precipitation in twenty-four (24) hours and that is separated from the previous storm event by at least three (3) days of dry weather.

z. **Storm Water Pollution Prevention Plan (SWPPP)**. The Contractor's detailed project specific plan to minimize erosion and contain sediment within the Project Zone, and to prevent discharge of pollutants that exceed applicable water quality standards. The SWPPP includes, but is not 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, and other applicable local, state, and federal laws and regulations.

aa. **Subcontractor Spill Response Coordinator**. The Subcontractor's Representative with authority and responsibility for coordinating the Subcontractor's activities in compliance with the HMCP and SPCC Plan.

bb. **Subcontractor SWPPP Coordinator.** The Subcontractor's representative has responsible charge of and authority to direct the Subcontractor's Work; is responsible for the subcontractor's compliance with the SWPPP; and performs coordination with the Superintendent and SWPPP Manager.

cc. **Superintendent**. The Contractor's duly authorized representative in responsible charge of the work. The Superintendent has responsibility and authority for the overall operation of the Project and for Contractor furnished sites and facilities directly related to the Project.

dd. **SWPPP Amendment**. A revision or document that adds to, deletes from, or modifies the SWPPP.

ee. **SWPPP Manager**. The Contractor's qualified representative who conducts Inspections, updates SWPPP records, and has authority to

suspend work and to implement corrective actions required for CGP compliance.

ff. **SWPPP Preparer**. The Contractor's qualified representative who is responsible for developing the initial SWPPP.

gg. **Utility Spill Response Coordinator**. A utility's representative with authority and responsibility for coordinating the Utility's activities in compliance with the HMCP and SPCC Plan.

hh. **Utility SWPPP Coordinator**. A utility's representative with authority to direct the Utility's work, and who is responsible for coordination with the Superintendent and SWPPP Manager, and for the utility's compliance with the SWPPP.

D. Applicable Standards:

a. The latest version of the following permits, standard and requirements are hereby made a part of these specifications:

i. Alaska 2016 Construction General Permit (CGP) permit number AKR100000.

ii. Alaska Department of Environmental Conservation (ADEC) Storm Water Pollution Prevention Plan (SWPPP) Template.

E. 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 completed, 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. Contractor shall submit an electronic copy or three hard copies of the SWPPP to the Engineer for approval. Deliver these documents to the Engineer within ten (10) days of the effective date of the Notice to Proceed or five (5) days before the commencement of work, whichever is the earlier date in accordance with General Provisions Article 5.12. Organize and bind the SWPPP and related documents for submittal according to the requirements of Subsection 104.2.

i. The Engineer will review the SWPPP submittals within 14 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 Engineer. When the submittal is rejected, the Contractor must revise and resubmit the SWPPP. The 14 day review period will restart when the Contractor resubmits an electronic copy and three hard copies of the revised SWPPP to the Engineer for approval.

ii. After the SWPPP is approved by the Engineer, the Contractor must sign and certify the approved SWPPP.

b. Hazardous Material Control Plan (HMCP). Contractor shall submit an electronic copy or three hard copies of the HMCP, as an appendix to the SWPPP, to the Engineer for approval. The HMCP submittal and review timeline, and signature requirements are the same as the SWPPP. The HMCP shall be appended to and submitted with the SWPPP.

c. Spill Prevention, Control and Countermeasure Plan (SPCC). When an SPCC Plan is required under Article 104.3, Contractor shall submit an electronic copy or three signed hard copies of the SPCC Plan to the Engineer. Deliver these documents to the engineer at least 21 days before beginning Construction Activity. The Owner reserves the right to review the SPCC Plan and require modifications.

d. Construction General Permit (CGP) Coverage. The Contractor is responsible for permitting of Contractor and subcontractor Construction Activities related to the Project, including any material sites, waste disposal sites, borrow & fill sites, and equipment and material storage areas that are not covered by a different permit.. Do not use the SWPPP for Construction Activities outside the Project Zone where the Owner is not an operator.
    i. After Engineer approval of the SWPPP and prior to beginning Construction Activity, Contractor shall submit an eNOI with the required fee to ADEC for coverage under the Construction General Permit (CGP). Submit a copy of the signed eNOI and ADEC's written acknowledgement (by letter or other document), to the Engineer as soon as practicable and no later than three days after filing eNOI or receiving a written ADEC response.
    ii. The Contractor shall not begin Construction Activity until full compliance with the conditions listed in Subsection 104.7 are completed.
    iii. The Owner will submit an eNOI to ADEC for Construction Activities inside the Project Zone. The Engineer will provide the Contractor with a copy of the Owner's eNOI and ADEC's written acknowledgment (by letter or other document), for inclusion in the SWPPP.
    iv. Before Construction Activities occur, transmit to the Engineer an electronic copy of the approved and certified SWPPP, with signed Delegations of Signature Authorities, SWPPP Certifications, both permittee's signed eNOIs and ADEC's written acknowledgement.

e. Ending CGP Coverage. Submit an eNOT to ADEC, and submit both a copy of the signed eNOT and ADEC's acknowledgement letter to the Owner, within 30 days after the Engineer has determined the conditions listed in Subsection 104.9 G have been met. Submit a copy of the signed eNOT and ADEC's acknowledgement letter to the Owner within three (3) days of filing the eNOT or receiving an ADEC written response.

f. ADEC SWPPP Review. When CGP Part 2.1.3, requires ADEC SWPPP review:
    i. Transmit a copy of the Engineer-approved SWPPP to ADEC using delivery receipt confirmation;
    ii. Transmit a copy of the delivery receipt confirmation to the Engineer within seven days of receiving the confirmation; and
    iii. Retain a copy of delivery receipt confirmation in the SWPPP.

g. Modifying Contractor's eNOI. When required by The CGP Part 2.7, Contractor shall modify the eNOI to update or correct information. Reasons for modification include a change in start or end dates, small

changes in number of acres to be disturbed, change in decision to use or not use treatment chemicals, or change in location of SWPPP Records.

i. The Contractor must submit an eNOT and then submit a new eNOI instead of an eNOI modification when: the operator has changed, the original eNOI indicates disturbed area less than five acres and the project will disturb more than five acres, or a project over five disturbed acres grows by more than 50%.

F. Personnel Qualifications:
Provide documentation in the SWPPP that the individuals serving in these positions meet the personnel qualifications.

The Owner accepts persons having either of the following certificates as equivalent to AK-CESCL, if the certificates are current according to the sponsoring organization's policies:

- CPESC—Certified Professional in Erosion and Sediment Control, or
- CISEC—Certified Inspector in Sediment and Erosion Control

a. SWPPP Preparer must meet at least one of the following qualifications:
   i. Current certification as a Certified Professional in Erosion and Sediment Control (CPESC);
   ii. Current certification as AK-CESCL, and at least two years' experience in erosion and sediment control, as a SWPPP Manager or SWPPP writer, or equivalent. Provide documentation including project names, project timelines, and work responsibilities demonstrating the experience requirement; or
   iii. Professional Engineer registered in the State of Alaska with current certification as AK-CESCL.
   iv. For Projects disturbing more than 20 acres, the SWPPP Preparer must also have completed a SWPPP Preparation course.

b. Monitoring Person must have current certification as AK-CESCL and be knowledgeable in the principles and practices of water quality monitoring in accordance with CGP Part 7.

c. Superintendent must meet the following qualifications:
   i. Current certification as AK-CESCL; and
   ii. Duly authorized representative, as defined in the CGP, Appendix A, Part 1.12.3.

d. SWPPP Manager must have current certification as AK-CESCL and must meet the CGP experience, training, and authority requirements identified for the *Storm Water Lead* and *Storm Water Inspector* positions as defined in the CGP, Appendix C Definitions, Qualified Person.

e. Active Treatment System (ATS) Operator must have current certification as AK-CESCL, and shall be knowledgeable in the principals and practices of treatment systems in general, and the operation of the project-specific ATS. The ATS operator must have at least six (6) months field experience with ATS, or completion of an ATS manufacturer's training course, or completion of system operator certification course.

G. Signature/Certification Requirements and Delegations

a. eNOI and eNOT. The eNOI and eNOT shall be signed and certified by a responsible Contractor corporate officer according to CGP Appendix A, Part 1.12.2. Signature and certification authority for the eNOI and eNOT shall not be delegated.
b. Delegation of Signature Authority for Other SWPPP Documents and Reports. Use Form F-108 to delegate signature authority and certification authority to the Superintendent position, according to CGP Appendix A, Part 1.12.3, for the SWPPP, Inspection Reports and other reports required by the CGP. The Superintendent position is responsible for signing and certifying the SWPPP, Inspection Reports, and other reports required by the CGP, except the eNOI and eNOT.
    i. The Engineer will provide the Owner's delegation Form F-107, which the Contractor must include in the SWPPP.
c. Subcontractor Certification. Subcontractors must certify that they have read and will abide by the CGP and the conditions of the project SWPPP.
d. Signatures and Initials. Handwrite signatures or initials on CGP documents and SWPPP forms, wherever a signature or initial is required.

H. Responsibility for Storm Water Permit Coverage
a. The Owner and the Contractor are jointly responsible for permitting and permit compliance within the Project Zone.
b. The Contractor is responsible for permitting and permit compliance outside the Project Zone. The Contractor has sole responsibility for compliance with ADEC, USACE and other applicable federal, state, and local requirements, and for securing all necessary clearances, rights, and permits. The Contractor has sole responsibility to verify that the entity has appropriate permit coverage and to provide a copy of the permit documents to the Engineer.
c. An entity that owns or operates, a commercial plant, material source, or disposal site outside the Project Zone, is responsible for permitting and permit compliance. The Contractor has sole responsibility to verify that the entity has appropriate permit coverage and to provide a copy of the permit documents to the Engineer.
d. The Owner is not responsible for permitting or permit compliance, and is not liable for fines resulting from noncompliance with permit conditions:
    i. For areas outside the Project Zone;
    ii. For Construction Activity and Support Activities outside the Project Zone; and
    iii. For commercial plants, commercial material sources, and commercial disposal sites.

104.2 Storm Water Pollution Prevention Plan (SWPPP) Requirements

A. SWPPP Preparer and Pre-Construction Site Visit.
a. Use a SWPPP Preparer to develop the SWPPP and associated documents, according to the requirements of the CGP. The SWPPP Preparer must put their name, qualifications (including the expiration date of any certifications), title and company name in the SWPPP.
b. The SWPPP Preparer must conduct a pre-construction inspection at the Project site before construction activity begins. If the SWPPP Preparer is

not a Contractor employee, the SWPPP Preparer must visit the site accompanied by the Contractor. Give the Owner/Engineer at least seven (7) days advanced notice of the site visit, so that the Owner/Engineer may participate.

c. During the pre-construction inspection, the SWPPP Preparer must identify, or if a draft of the SWPPP has already been prepared verify that the SWPPP fully addresses and describes:
    i. Opportunities to phase construction activities;
    ii. Appropriate BMPs and their sequencing; and
    iii. Sediment controls that must be installed prior to beginning Construction Activities.

d. Document the SWPPP Preparer's pre-construction inspection in the SWPPP on Form F-106, SWPPP Pre-Construction Site Visit, including the names of attendees and the date.

B. Developing the SWPPP.

a. Contractor shall prepare their own ESCP using project environmental commitments, and other Contract documents as a starting point for developing the SWPPP. The approved SWPPP replaces the ESCP.

b. Develop the SWPPP with sections and appendices, according to the current ADEC SWPPP template. Include information required by the Contract and the CGP.

c. Add additional appendices for:
    i. Appendix L – Hazardous Material Control Plan (HMCP)
    ii. Appendix M – SWPPP Preparer's Site Visit
    iii. Appendix N – Rainfall Logs
    iv. Appendix O – NOT forms and Acknowledgement letters from ADEC (include both Owner's and Contractor's)

d. Obtain the following forms after they have been completed by the Owner and include them in the SWPPP:
    i. SWPPP Delegation of Signature Authority - Form F-107.
    ii. SWPPP Certification for Owner - Form F-109

e. Use the following Owner forms for recording information in the SWPPP:
    i. SWPPP Amendment Log F-114.
    ii. SWPPP Certification for Contractor F-111.
    iii. SWPPP Construction Site Inspection Report F-100.
    iv. SWPPP Corrective Action Log F-112.
    v. SWPPP Daily Record of Rainfall F-115.
    vi. SWPPP Delegation of Signature Authority – Contractor F-108.
    vii. SWPPP Grading and Stabilization Activities Log F-110.
    viii. SWPPP Pre-Construction Site Visit F-106.
    ix. SWPPP Subcontractor Certification F-105.
    x. SWPPP Training Log F-125.

f. SWPPP Template and Forms will be provided by the Engineer.

g. Compile the SWPPP in three ring binders with tabbed and labeled dividers for each section and appendix.

C. SWPPP Considerations and Contents.

a. The SWPPP must provide erosion and sediment control measures for all Construction Activity within the Project Zone.

b. The SWPPP must consider the activities of the Contractor and all subcontractors and utility companies performing work in the Project Zone. The SWPPP must describe the roles and responsibilities of the Contractor, subcontractors, utility companies, and the Owner with regard to implementation of the SWPPP. The SWPPP must identify all operators for the Project, including utility companies performing Construction Activity, and identify the areas:
    i. Over which each operator has operational control; and
    ii. Where the Owner and Contractor are co-operators.
c. For work outside the Project Zone the SWPPP must identify the entity that has storm water permit coverage, the operator, and the areas that are:
    i. Dedicated to the Project and where the Owner is not an operator; and
    ii. Not dedicated to the project, but used for the project.
d. Develop the SWPPP according to the requirements of the CGP and this specification. Account for the Contractor's construction methods and phasing. Identify the amount of mean annual precipitation.
e. Comply with the CGP Part 1.4.2 Allowable Non-Storm Water Discharges. List locations where authorized non-storm water will be used, including the types of water that will be used on-site.
f. There are special requirements in the CGP Part 3.2, for storm water discharges into an impaired water body, and they may include monitoring of storm water discharges. For Projects meeting the permit criteria, the Owner will initiate a monitoring program for the storm water within the Project Zone, and will provide the required information and reports for inclusion in the SWPPP. The Contractor is responsible for monitoring and reporting outside the Project Zone.
g. Preserve natural topsoil unless infeasible. Delineate the site according to CGP Part 4.1. Use stakes, flags, or silt fence, etc. to identifying areas where land disturbing activities will occur and areas that will be left undisturbed. Minimize the amount of soil exposed during Construction activity according to CGP Part 4.1.2.
h. Comply with CGP Part 4.3, requirements for dewatering for trenches and excavations.
i. The SWPPP must identify specific areas where potential erosion, sedimentation, or pollution may occur. The potential for wind erosion must be addressed. The potential for erosion at drainage structures must be addressed.
j. Describe methods and time limits, to initiate temporary or permanent soil stabilization. For areas with mean annual precipitation of:
    i. 40 inches or less, initiate stabilization as soon as practicable and within 14 days; or
    ii. Greater than 40 inches, initiate stabilization as soon as practicable and within seven days.
k. Within seven days of initiating final stabilization, either complete final stabilization or continue maintenance of work until final stabilization is complete.
l. Include in the "Stabilize Soils" section of the SWPPP, a description of how you will minimize the amount of disturbed and unstabilized ground in the

fall season. Identify anticipated dates of fall freeze-up and spring thaw. Describe how you will stabilize areas when it is close to or past the seasonal time of snow cover or frozen conditions, and before the first seasonal thaw. Include a plan for final stabilization.

m. Plans for Active Treatment Systems must be submitted to ADEC for review at least 14 days prior to their use and the Operator of the ATS identified in the SWPPP. Any use of treatment chemicals must be identified on the eNOI.
n. The SWPPP must provide designated areas for equipment and wheel washing, equipment fueling and maintenance, chemical storage, staging or material storage, waste or disposal sites, concrete washouts, paint and stucco washouts, and sanitary toilets. These activities must be done in designated areas that are located, to the extent practicable, away from drain inlets, conveyance channels, and waters of the U.S. No discharges are allowed from concrete washout, paint and stucco washout; or from release oils, curing compounds, fuels, oils, soaps, and solvents. Equipment and wheel washing water that doesn't contain detergent may be discharged on-site if it is treated before discharge.
o. Design temporary BMPs for a 2 year 24 hour precipitation amount. Describe BMPs in the SWPPP and in SWPPP Amendments, including source controls, sediment controls, discharge points, and temporary and permanent stabilization measures. Describe the design, placement, installation, and maintenance of each BMP, using words and drawings as appropriate. Describe the design capacity of sediment basins (including sediment ponds and traps). Provide a citation to the BMP Manual or publication used as a source for the BMP, including the title of the BMP Manual or publication, the author (individual or agency), and date of publication. If no published source was used to select or design a BMP, then the SWPPP or SWPPP amendment must state that "No BMP manual or publication was used for this design."
p. Describe the sequence and timing of activities that disturb soils and of BMP implementation and removal. Phase earth disturbing activities to minimize unstabilized areas, and to achieve temporary or final stabilization quickly. Whenever practicable incorporate final stabilization work into excavation, embankment and grading activities.
q. Identify the inspection frequency in the SWPPP:
r. For projects where the mean annual precipitation is less than 40 inches, either:
    i. Inspect at least once every seven (7) calendar days; or
    ii. Inspect at least once every fourteen (14) calendar days and within twenty-four (24) hours of the end of a storm event that resulted in a discharge from the site.
s. For projects where the mean annual precipitation is forty (40) inches or greater:
    i. Inspect once every seven (7) calendar days.
t. Linear Project Inspections, described in CGP Part 6.5, are not applicable to this project.
u. The SWPPP must cite and incorporate applicable requirements of the Project permits, environmental commitments, USACE permit, and

commitments related to historic preservation. Make additional consultations or obtain permits as necessary for Contractor specific activities which were not included in the Owner's permitting and consultation.

v. The SWPPP is a dynamic document. Keep the SWPPP current by noting installation, modification, and removal of BMPs, and by using amendments, SWPPP amendment logs, Inspection Reports, corrective action logs, records of land disturbance and stabilization, and any other records necessary to document storm water pollution prevention activities and to satisfy the requirements of the Consent Decree, CGP and this specification.

D. Recording Personnel and Contact Information in the SWPPP.

a. Identify the SWPPP Manager as the Storm Water Lead and Storm Water Inspector positions in the SWPPP. Document the SWPPP Manager's responsibilities in Section 2.0 Storm Water Contacts, of the SWPPP template and:

i. Identify that the SWPPP Manager does not have authority to sign inspection reports (unless the SWPPP Manager is also the designated project Superintendent).

ii. Identify that the SWPPP Manager cannot prepare the SWPPP unless the SWPPP Manager meets the Contract requirements for the SWPPP Preparer.

b. Include in the SWPPP, Records of the AK-CESCL cards or certificates for the Superintendent and SWPPP Manager, and for any acting Superintendent and acting SWPPP Managers. If the Superintendent or SWPPP Manager is replaced permanently or temporarily, by an acting Superintendent or acting SWPPP Manager; record in the SWPPP the names of the replacement personnel, the date of the replacement. For temporary personnel record their beginning and ending dates.

c. Provide 24 hour contact information for the Superintendent and SWPPP Manager. The Superintendent and SWPPP Manager must have 24 hour contact information for all Subcontractor SWPPP Coordinators and Utility SWPPP Coordinators.

d. Include in the SWPPP, Records of the AK-CESCL cards or certificates of ATS operators. Record names of ATS operators and their beginning and ending dates.

e. The Owner will provide Records of AK-CESCL cards or certificates for the Project Engineer, Storm water Inspectors, and Monitoring Person (if applicable), and names and dates they are acting in that position. Include the Owner's Records in the SWPPP Appendix. Include the Owner's Storm Water Inspector and Storm Water Monitoring Person (if applicable) in section 2.0 of the SWPPP.

104.3 Hazardous Material Control Plan (HMCP) Requirements

A. Prepare the HMCP for prevention of pollution from storage, use, containment, cleanup, and disposal of all hazardous material, including petroleum products related to construction activities and equipment. Include the HMCP as an

appendix to the SWPPP. Compile Material Safety Data Sheets in one location and reference that location in the HMCP.

B. Designate a Contractor's Spill Response Field Representative with 24 hour contact information. Designate a Subcontractor Spill Response Coordinator for each subcontractor. The Superintendent and Contractor's Spill Response Field Representative must have 24 hour contact information for each Subcontractor Spill Response Coordinator and the Utility Spill Response Coordinator.
C. List and give the location and estimated quantities of hazardous materials (Including materials or substances listed in 40 CFR 117 and 302, and petroleum products) to be used or stored on the Project. Hazardous materials must be stored in covered storage areas. Include secondary containment for all hazardous material storage areas.
D. Identify the locations where fueling and maintenance activities will take place, describe the activities, and list controls to prevent the accidental spillage of petroleum products and other hazardous materials. Controls include placing absorbent pads or other suitable containment under fill ports while fueling, under equipment during maintenance or repairs, and under leaky equipment.
E. List the types and approximate quantities of response equipment and cleanup materials available on the Project. Include a list and location map of cleanup materials, at each different work site and readily available off site (materials sources, material processing sites, disposal sites, staging areas, etc.). Spill response materials must be stored in sufficient quantity at each work location, appropriate to the hazards associated with that site.
F. Describe procedures for containment and cleanup of hazardous materials. Describe a plan for the prevention, containment, cleanup, and disposal of soil and water contaminated by spills. Describe a plan for dealing with contaminated soil and water encountered during construction. Clean up spills or contaminated surfaces immediately.
G. Describe methods of disposing of waste petroleum products and other hazardous materials generated by the Project, including routine maintenance. Identify haul methods and final disposal areas. Assure final disposal areas are permitted for hazardous material disposal.
H. Describe methods of complying with the requirements of AS 46.04.010-900, Oil and Hazardous Substances Pollution Control, and 18 AAC 75. Include contact information for reporting hazardous materials and petroleum product spills to the Owner, Engineer, and reporting to federal, state and local agencies.

104.3 Spill Prevention, Control and Countermeasure Plan (SPCC PLAN) Requirements

A. Prepare and implement an SPCC Plan when required by 40 CFR 112; when both of the following conditions are present on the Project:
    a. Oil or petroleum products from a spill may reach navigable waters (as defined in 40 CFR 112); and
    b. Total above ground storage capacity for oil and any petroleum products is greater than 1,320 gallons (not including onboard tanks for fuel or hydraulic fluid used primarily to power the movement of a motor vehicle or ancillary onboard oil-filled operational equipment, and not including containers with a storage capacity of less than 55 gallons).

B. Reference the SPCC Plan in the HMCP and SWPPP.

104.4 Responsibility and Authority of the Superintendent and SWPPP Manager

A. The Superintendent is responsible for the overall operation of the Project and all Contractor furnished sites and facilities directly related to the Project. The Superintendent shall sign and certify the SWPPP, Inspection Reports, and other reports required by the CGP, except the NOI and NOT. The Superintendent may not delegate the task or responsibility of signing and certifying the SWPPP submitted under Subsection 104.1 E, Inspection Reports, and other reports required by the CGP.
B. The Superintendent may assign certain duties to the SWPPP Manager those duties may include:
    a. Ensuring Contractor's and subcontractor's compliance with the SWPPP and CGP;
    b. Ensuring the control of erosion, sedimentation, or discharge of pollutants;
    c. Directing and overseeing installation, maintenance, and removal of BMPs;
    d. Performing Inspections; and
    e. Updating the SWPPP including adding amendments and forms.
C. The Superintendent and SWPPP Manager shall be knowledgeable in the requirements of this Section 104, the SWPPP, CGP, BMPs, HMCP, SPCC Plan, environmental permits, environmental commitments, and historic preservation commitments.
D. The Superintendent and SWPPP Manager shall have the Contractor's complete authority and be responsible for suspending construction activities that do not conform to the SWPPP or CGP.

104.5 Materials

A. Use materials suitable to withstand hydraulic, wind, and soil forces, and to control erosion and trap sediments according to the requirements of the CGP and the Specifications.
B. If straw is used it shall be certified as free of noxious weed by the United States Department of Agriculture, Natural Resources Conservation Service, Local Soil and Water Conservative District. Alaska Weed Free Forage Certification Program must be used when available. Hay may not be substituted for straw.
C. Use Oregon Scientific RGR126 wireless rain gauge with temperature, or Taylor 2751 Digital Wireless Rain Gauge with Thermometer, or approved equivalent.

104.6 Contractor Requirements

A. The Contractor must be familiar with the requirements of the CGP because Contractor's employees will be conducting duties that relate to compliance with the CGP.

104.7 Construction Requirements

A. Comply with the SWPPP and the requirements of the CGP.

a. Before Construction Activity may Begin.
    i. The following actions must be completed before Construction Activity begins:
        1. The SWPPP Preparer must visit the Project, the visit must be documented in the SWPPP, and the SWPPP must be developed (or amended) with findings from the visit;
        2. The SWPPP must be approved by the Engineer;
        3. The Contractor must be authorized to begin by the Engineer;
        4. The Project eNOIs for the Owner and for the Contractor, as well as any other eNOIs if there are additional operators, must be listed as Active Status on the ADEC website;
        5. The Engineer approved SWPPP must be submitted to ADEC (if required by CGP); and
        6. The Contractor has transmitted to the Engineer an electronic copy of the approved SWPPP.
    ii. You may begin Winter Construction activity according to CGP Part 4.12.2, provided actions 1 through 3 above are completed before winter construction activity begins.
    iii. Post notices containing the following information:
        1. Copy of all eNOIs related to this project;
        2. Name and 24 hour phone number of SWPPP Manager; and
        3. Location of the SWPPP.
            a. Post notices on the outside wall of the Contractor's project office, and near the main entrances of the construction project. Protect postings from the weather. Locate postings so the public can read them without obstructing construction activities or the traveling public (for example, at an existing pullout). Do not use 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. Update the notices if the listed information changes.
            b. Install an outdoor rain gauge per manufacturer's guidance in a readily accessible location on the Project.
            c. Delineate the site for both land disturbing activities and areas that will be left undisturbed. Install sediment controls and other BMPs that must be placed prior to the initiation of Construction Activity.
b. During Construction.
    i. Before subcontractors or utility companies begin soil disturbing activities, provide to them copies of applicable portions of the SWPPP, and require them to sign a SWPPP Subcontractor Certification, Form F-105. Include SWPPP Subcontractor Certifications as an appendix to the SWPPP. Ensure subcontractors and utility companies understand and comply with the SWPPP and the CGP. Inform subcontractors and utility

companies of SWPPP amendments that affect them in a timely manner. Coordinate with subcontractors and utility companies doing work in the Project Zone so BMPs, including temporary and permanent stabilization are installed, maintained, and protected from damage.

ii. Provide on-going training to employees and subcontractors, on control measures at the site and applicable storm water pollution prevention procedures. Training must be specific to the installation, maintenance, protection, and removal of control measures. Training must be given at a frequency that will be adequate to ensure proper implementation and protection of control measures, and no less frequently than once a month during construction activity. Document on the SWPPP Training Log. Form F-125, the dates and attendees to these trainings. Include the SWPPP Training Log as an appendix to the SWPPP.

iii. Notify the Engineer immediately if the actions of any utility company or subcontractor do not comply with the SWPPP and the CGP.

iv. Comply with General Provisions Article 5.10 Protection of Property.

v. Contractor shall not install concrete washout containment within one hundred (100) feet of wetlands and/or other water bodies.

vi. Fuel in designated areas. Place absorbent pads or other suitable containment under fill ports while fueling, under equipment during maintenance or repairs, and under leaky equipment.

vii. Comply with requirements of the HMCP and SPCC Plan, and all local, state and federal regulations that pertain to the handling, storage, containment, cleanup, and disposal of petroleum products or other hazardous materials.

viii. Keep the SWPPP and HMCP current.

c. <u>Pollutant and Hazardous Materials Reporting Requirements.</u>

i. If there has been an incident of non-compliance with the CGP that may endanger health or the environment, immediately report the incident to ADEC according to the CGP, Appendix A, Part 3.0. Notify the Engineer immediately and to the extent possible coordinate reports to ADEC with the Engineer. The report must include:

1. A description of the noncompliance and its causes;
2. The exact dates and times of noncompliance ;
3. If not yet corrected the anticipated time the project will be brought back into compliance; and
4. The corrective action taken or planned to reduce, eliminate and prevent reoccurrence.

ii. If there has been an incident of non-compliance with USACE Permits, then notify the Engineer immediately of the non-compliance.

iii. Report spills of petroleum products or other hazardous materials to the Engineer and other agencies as required by law. Use the HMCP and SPCC Plan (if available) for contact information to report spills to regulatory agencies.

d. Corrective Action and Maintenance of BMPs.
    i. Implement maintenance as required by the CGP, SWPPP, and manufacturer's specifications, whichever is more restrictive.
    ii. Implement corrective action:
        1. If an incident of non-compliance with the SWPPP, or CGP is identified;
        2. If an Inspection or the Engineer identifies the SWPPP or any part of the SWPPP is ineffective in preventing erosion, sedimentation or the discharge of pollutants;
        3. If a required BMP was not installed according to the SWPPP schedule or phasing, or was installed incorrectly, or was not installed according to the CGP Part 4.0;
        4. If a BMP is not operating as intended, has not been maintained in an effective operation condition, or is unable to effectively perform the intended function;
        5. If a prohibited discharge of pollutants, as specified in CGP, is occurring or will occur; or
        6. If there is accumulation of sediment or other pollutants, that is in or near any storm water conveyance channels, or that may enter a discharge point or storm sewer system. If there is accumulation of sediment or other pollutants that is being tracked outside the project zone.
        7. For conditions that are easily remedied (i.e. removal of tracked sediment, maintenance of control measure, or spill clean-up), initiate corrective action within 24 hours and complete as soon as possible;
        8. For all other conditions initiate corrective actions so both of the following requirements are met:
            a. Corrective action is completed in time to protect water quality; and
            b. Corrective action is completed no later than the Complete-by-Date that was entered in an Inspection Report.
    iii. If a corrective action is not implemented within the time requirements of this section, document the situation in the SWPPP, notify the Engineer and implement corrective action as soon as possible.
    iv. If a corrective action could affect a subcontractor, notify the subcontractor within three days of taking the corrective action. Require in your written subcontract, that subcontractors must notify the Contractor within 24 hours of becoming aware of a condition that requires a corrective action.
e. Stabilization.
    i. Stabilization may be accomplished using temporary or permanent measures. Initiate stabilization of disturbed soils, erodible stockpiles, disposal sites, and of erodible aggregate layers so that all of the following conditions are satisfied:
        1. As soon as practicable;

2. As soon as necessary to avoid erosion, sedimentation, or the discharge of pollutants; and
3. As identified in the SWPPP.

ii. Land may be disturbed and stabilized multiple times during a project. Coordinate work to minimize the amount of disturbed soil at any one time. Do not disturb more soil than you can stabilize with the resources available.

iii. Temporarily stabilize from wind and water erosion portions of disturbed soils, portions of stockpiles, and portions of disposal sites, that are not in active construction. Temporary stabilization measures may require a combination of measures including but not limited to vegetative cover, mulch, stabilizing emulsions, blankets, mats, soil binders, non-erodible cover, dust palliatives, or other approved methods.

iv. When temporary or permanent seeding is required, provide a working hydro seeding equipment located within 100 miles of the project by road; with 1,000 gallon or more tank capacity, paddle agitation of tank, and the capability to reach the seed areas with an uniform mixture of water, seed, mulch and tackifier. If the project is located in an isolated community the hydro-seeder must be located at the project.

v. Before applying temporary or permanent seeding, prepare the surface to be seeded to reduce erosion potential and to facilitate germination and growth of vegetative cover. Apply seed and maintain seeded areas. Reseed areas where growth of temporary vegetative cover is inadequate to stabilize disturbed ground.

vi. Apply permanent seed, within the time periods allowed by the CGP and the contract, at locations where seeding is indicated on the plans and after land-disturbing activity is permanently ceased.

vii. When installing a culvert or other drainage structure where stream bypass is not used, install temporary or permanent stabilization concurrently or immediately after placing the culvert or drainage structure in a manner that complies with the SWPPP, applicable project permits and prevents discharge of pollutants. Install temporary and permanent stabilization:
1. At the culvert or drainage structure inlet and outlet; and
2. In the areas upstream and downstream that may be disturbed by the process of installing the culvert, culvert end walls, culvert end sections, or drainage structure.

viii. Before deactivating a stream bypass or stream diversion used for construction of a bridge, culvert, or drainage structure, install permanent stabilization:
1. At the inlet and outlet of the culvert, drainage structure, or bridge;
2. In the area upstream and downstream of the culvert, drainage structure, or bridge, that is disturbed during installation or construction of the culvert, drainage structure, or bridge; and
3. Under the bridge.

ix. Within seven days of initiating final stabilization, either complete final stabilization or continue maintenance of work until final stabilization is complete.

f. Ending CGP Coverage and BMP Maintenance.
   i. The Engineer will determine the date that all the following conditions for ending CGP coverage have been met within the Project Zone:
      1. Land disturbing activities have ceased;
      2. Final Stabilization has been achieved (including at Department furnished material sources, disposal sites, staging areas, equipment areas, etc.); and
      3. Temporary BMPs have been removed.
   ii. After the Engineer has determined the conditions for ending CGP coverage have been met, the Owner will:
      1. Send written notice to the Contractor with the date that the conditions were met;
      2. Submit an eNOT to ADEC; and
      3. Provide a copy of the eNOT and ADEC's acknowledgement letter to the Contractor.
   iii. The Contractor is responsible for ending permit coverage within the Project Zone, by submitting an eNOT to ADEC within 30 days of meeting the conditions for ending CGP coverage. The Contractor is responsible for BMP maintenance and SWPPP updates until permit coverage is ended.
   iv. If the Contractor's CGP eNOI acreage includes Support Activities and any other areas where the Owner is not an Operator, the Contractor may not be able to file an eNOT at the same time as the Owner. In this case, the Contractor must amend the SWPPP to indicate the Owner's CGP coverage has ended, and the Owner is no longer an Operator within the Project Zone.
   v. 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. The Contractor must submit an eNOT to ADEC, and insert copies of the Owner's and the Contractor's eNOTs with ADEC's acknowledgement letters in the appendix of the SWPPP.
   vi. The Contractor must submit a copy of each signed eNOT and ADEC's acknowledgement letter to the Owner within three (3) days of filing the eNOT or receiving a written response.
   vii. The Contractor is responsible for coordinating local government inspections of work and ending permit coverage with local government.

g. Transmit final SWPPP.
   i. Transmit one copy of the final SWPPP, including all amendments, appendices and maps, to the Engineer; when the project eNOTs are filed, or within 30 days of the Owner's eNOT being filed, whichever is sooner. Transmittal must be by both electronic and hard copy.

104.8 SWPPP DOCUMENTS, LOCATION ON-SITE, AVAILABILITY, AND RECORD RETENTION

A. The SWPPP and related documents maintained by the Contractor are the Record for demonstrating compliance with the CGP. Copies of SWPPP documents transmitted to the Engineer under the requirements of this specification are informational and do not relieve the Contractor's responsibility to maintain complete records as required by the CGP and this specification.
B. Keep the SWPPP, HMCP and SPCC Plan 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. Records may be moved to another office for record retention after the eNOTs are filed. Records may be moved to another office during winter shutdown. Update on-site postings if records are relocated during winter shutdown. Provide the Owner with copies of all Records.
C. Retain Records and a copy of the SWPPP, for at least three years after the date of eNOT. If EPA or 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 EPA and/or ADEC has determined all issues related to the investigation are settled.
D. The SWPPP and related documents must be made available for review and copy, to the Owner and other regulatory agencies that request them. See CGP Parts 5.10, 6.6 and 9.4.

104.9 SWPPP INSPECTIONS, AMENDMENTS, REPORTS, AND LOGS

A. Perform Inspections, prepare Inspection Reports, and prepare SWPPP Amendments in compliance with the SWPPP and the CGP. Update SWPPP Corrective Action Log, SWPPP Amendment Log, SWPPP Grading and Stabilization Activities Log, and SWPPP Daily Record of Rainfall forms. For active projects update the Records daily.
B. Inspection during Construction.
    a. Conduct Inspections according to the schedule and requirements of the SWPPP and CGP.
    b. Inspections required by the CGP and SWPPP must be performed by the Contractor's SWPPP Manager and the Owner's Storm water Inspector jointly, unless impracticable. For this paragraph, "impracticable" means when both inspectors must fly to a remote area in the winter or when one inspector is sick or unable to travel to the site due to weather. When this is the case, the Operator who conducts the Inspection must provide a copy of the Inspection Report to the other Operator within three days of the Inspection date and document the date of the report transmittal.
C. Inspection Reports.
    a. Use only the SWPPP Construction Site Inspection Report, Form F-100 to record Inspections. Changes or revisions to Form F-100 are not permitted; except for adding or deleting data fields that list: Location of Discharge Points, and Site Specific BMPs. Complete all fields included on the Inspection Report form; do not leave any field blank.

b. Unless otherwise directed by the Engineer, insert a Complete-by-Date for each corrective action listed that complies with:
    i. Section 104.7 d;
    ii. The CGP; and
c. Provide a copy of the completed, unsigned Inspection Report to the Engineer by noon on the day following the inspection.
d. The Superintendent must review, correct errors, and sign and certify the Inspection Report, within three days of the date of Inspection. The Engineer may coordinate with the Superintendent to review and correct any errors or omissions before the Superintendent signs the report. Corrections are limited to adding missing information or correcting entries to match field notes and conditions present at the time the Inspection was performed. Deliver the signed and certified Inspection Report to the Engineer on the same day the Superintendent signs it.
e. The Engineer will sign and certify the Inspection Report and will return the original to the Contractor within three (3) working days.
f. The Engineer may make corrections after the Superintendent has signed and certified the Inspection Report. The Engineer will initial and date each correction. If the Engineer makes corrections, the Superintendent must recertify the Inspection Report by entering a new signature and date in the white space below the original signature and date lines. Send a copy of the recertified Inspection Report to the Engineer on the day it is recertified.
g. If subsequent corrections to the certified Inspection Report are needed, document the corrections in an addendum that addresses only the omitted or erroneous portions of the original Inspection Report. The Superintendent and the Engineer must both sign and certify the addendum.

D. Inspection before Seasonal Suspension of Work.
    a. Conduct an Inspection before seasonal suspension of work to confirm BMPs are installed and functioning according to the requirements of the SWPPP and CGP.

E. Reduced Inspection Frequencies.
    a. Conduct Inspections according to the inspection schedule indicated in the approved SWPPP. Any change in inspection frequency must be approved by the Engineer, and beginning and ending dates documented as an amendment to the SWPPP.
    b. When work is suspended due to freezing conditions, the Engineer may suspend inspection requirements after fourteen days of freezing conditions if:
        i. Soil disturbing activities are suspended; and
        ii. Soil stabilizing activities are suspended.
    c. Inspections must resume according to the normal inspection schedule identified in the SWPPP, at least 21 days before anticipated spring thaw.
    d. The Engineer may waive requirements for updating the Grading and Stabilization Activities Log and Daily Record of Rainfall during seasonal suspension of work. If so, resume collecting and recording weather data on the Daily Record of Rainfall form one month before thawing conditions are expected to result in runoff. Resume recording land disturbance and

stabilization activities on the Grading and Stabilization Activities Log when Construction Activity resumes.

F. Stabilization before Seasonal Thaw.
   a. Construction Activities within the Project Zone must be stabilized with appropriate BMPs prior to seasonal thaw. Seasonal thaw is the annual (first) recurrence of snow and ice melting after a prolonged period of freezing conditions.

G. Inspection before Project Completion.
   a. Conduct Inspection to ensure Final Stabilization is complete throughout the Project, and temporary BMPs that are required to be removed are removed. Temporary BMPs that are biodegradable and are specifically designed and installed with the intent of remaining in place until they degrade, may remain in place after project completion.

H. Items and Areas to Inspect.
   a. Conduct Inspections of the areas required by the CGP and SWPPP.

I. SWPPP Amendments and SWPPP Amendment Log.
   a. The Superintendent and the SWPPP Manager are the only persons authorized to amend the SWPPP and update the SWPPP Amendment Log, Form F-114. The Superintendent or the SWPPP Manager must sign and date amendments to the SWPPP and updates to the SWPPP Amendment Log.
   b. SWPPP Amendments must be approved by the Engineer.
   c. Amendments must occur:
      i. Whenever there is a change in design, construction operation, or maintenance at the construction site that has or could cause erosion, sedimentation or the discharge of pollutants that has not been previously addressed in the SWPPP;
      ii. If an Inspection identifies that any portion of the SWPPP is ineffective in preventing erosion, sedimentation, or the discharge of pollutants;
      iii. Whenever an Inspection identifies a problem that requires additional or modified BMPs
      iv. Whenever a BMP is modified during construction, or a BMP not shown in the original SWPPP is added;
      v. If the Inspection frequency is modified (note beginning and ending dates); or
      vi. When there is a change in personnel who are named in the SWPPP.
   d. Amend the SWPPP narrative as soon as practicable after any change or modification, but in no case, later than seven days following identification of the need for an amendment. Every SWPPP Amendment must be signed and dated. Cross-reference the amendment number with the Corrective Action Log or SWPPP page number, as applicable. When a BMP is modified or added, describe the BMP according to Subsection 104.2 C.
   e. Keep the SWPPP Amendment Log current. Prior to performing each scheduled Inspection, submit to the Engineer a copy of the pages of the Amendment Log that contain new entries since the last submittal. Include copies of any documents amending the SWPPP.

f. Keep the SWPPP Amendment Log as an appendix to the SWPPP.

J. Site Maps.
   a. Document installation, routine maintenance, and removal of BMPs by making notes on the SWPPP Site Maps or in a table included with the site maps. Include the date and the recording person's initials by these notes. Identify areas where Construction Activities begin, areas where Construction Activities temporarily or permanently cease, and areas that are temporarily or permanently stabilized.

K. Corrective Action Log.
   a. The Superintendent and SWPPP Manager are the only persons authorized to make entries on the SWPPP Corrective Action Log, Form F-112. Document the need for corrective action within 24 hours of either:
      i. Identification during an inspection; or
      ii. Discovery by the Owner's or Contractor's staff, a subcontractor, or a regulatory agency inspector.
   b. Modification or replacement of a BMP, installation of a new BMP not shown in the original SWPPP, or overdue maintenance (after sediment accumulated in sediment basins (including sediment traps and ponds) exceeds 50% of design capacity; or after sediment accumulates to more than half the above ground height on silt fences, check dams, or berms) is a corrective action and must be documented on the Corrective Action Log.
   c. Within 24 hours of discovery, update the Corrective Action Log with the date of discovery and proposed corrective action. If discovered during an inspection, update log with inspection date and proposed corrective actions noted on the Inspection Report.
   d. After the corrective action has been accomplished, note in the Corrective Action Log the action taken and if a SWPPP amendment was needed. Date and initial the entry.
   e. Keep the Corrective Action Log current and submit a copy to the Engineer prior to performing each scheduled SWPPP Inspection.
   f. Keep the Corrective Action Log as an appendix to the SWPPP.

L. Grading and Stabilization Activities Log.
   a. The Superintendent and SWPPP Manager are the only persons authorized to date and initial entries on the SWPPP Grading and Stabilization Activities Log, Form F-110. Use the SWPPP Grading and Stabilization Activities Log, to record land disturbance and stabilization activities.
   b. Keep the Grading and Stabilization Activities Log current and submit a copy to the Engineer prior to performing each scheduled SWPPP Inspection. Keep the Grading and Stabilization Activities Log organized and completed to demonstrate compliance with the CGP Part 4.5.
   c. Keep the Grading and Stabilization Activities Log as an appendix to the SWPPP.

M. Daily Record of Rainfall.
   a. Use SWPPP Daily Record of Rainfall, Form F-115, to record weather conditions at the Project. Update the form daily and include the initials of the person recording each day's entry. Submit a copy to the Engineer prior to performing each scheduled Inspection. Keep the Daily Record of Rainfall as an appendix to the SWPPP.

104.10 FAILURE TO PERFORM WORK

A. The Engineer has authority to suspend work and withhold monies, for an incident of non-compliance with the CGP, Consent Decree or SWPPP, that may endanger health or the environment or for failure to perform work related to this Section 104. If the suspension is to protect workers, the public, or the environment from imminent harm, the Engineer may orally order the suspension of work. Following an oral order of suspension, the Engineer will promptly give written notice.
B. In other circumstances, the Engineer will give the Contractor written notice before suspension of work. A notice of suspension will:
    a. state the defects or reasons for a suspension,
    b. the corrective actions required to stop suspension and,
    c. the time allowed to complete the corrective actions.
C. If the Contractor fails to take the corrective action within the specified time, the Engineer may:
    a. Suspend the work until corrective action is completed;
    b. Withhold monies due the Contractor until corrective action is completed;
    c. Assess damages or equitable adjustments against the Contract Amount; and
    d. Employ others to perform the corrective action and deduct the cost from the Contract amount.
D. Reasons for the Engineer to take action under this section include, but are not limited to, the Contractor's failure to:
    a. Obtain appropriate permits before Construction Activities occur;
    b. Perform SWPPP Administration;
    c. Perform timely Inspections;
    d. Update the SWPPP;
    e. Transmit updated SWPPP, Inspection Reports, and other updated SWPPP forms to the Engineer;
    f. Maintain effective BMPs to control erosion, sedimentation, and pollution in accordance with the SWPPP, the CGP, and applicable local, state, and federal requirements;
    g. Perform duties according to the requirements of this Section 104; or
    h. Meet requirements of the CGP, SWPPP, or other permits, laws, and regulations related to erosion, sediment, or pollution control.
E. No additional Contract time or additional compensation will be allowed due to delays caused by the Engineer's suspension of work under this subsection.

104.11 Access to Work

A. The Project, including any related off-site areas or support activities, must be made available for inspection, or sampling and monitoring, by the Owner and other regulatory agencies. See CGP Part 6.6.

104.12 Method of Measurement

A. The Work in this Section is measured by Lump Sum and will consist of all labor, materials, and equipment required to prepare and implement a SWPPP, including all required SWPPP amendments, revisions, inspections, and all other measures necessary to complete the Work.

B. This includes, but is not limited to, SWPPP and HMCP and SPCC Plan preparation, agency fees for SWPPP reviews, SWPPP amendments, pre-construction Inspections, Inspections, monitoring, reporting, and Record keeping or copying Records related to the SWPPP and required by the CGP, and Record retention; and all labor, supervision, material, equipment, and incidentals to install, maintain, remove and dispose of temporary erosion, sedimentation, and pollution control BMPs identified in the SWPPP and SPCC Plan.

C. Work at the Contractor's Expense. Temporary erosion, sediment and pollution control measures that are required due to carelessness, negligence, or failure to install temporary or permanent controls as scheduled or ordered by the Engineer, or for the Contractor's convenience, are at the Contractor's expense.

D. Permanent erosion, sediment and pollution control measures will be measured and paid for under other Contract items, when shown on the bid schedule.

104.5 Basis of Payment

Basis of payment for this item shall be in accordance with *Section 10.07 – Measurement and Payment*, and shall be full payment for work described in this section.

Payment shall be made on the following basis:

ITEM	DESCRIPTION	UNIT
104	Erosion, Sediment and Pollution Control	Lump Sum

SECTION 203 REMOVAL OF OBSTRUCTIONS

203.2 Construction

Insert the following to the end of this sub-article:

A. Where rebar bar is exposed after saw cutting, chipping and/or grinding all exposed rebar shall be coated with zinc-rich primer in accordance with ASTM A 780 and the manufactures written instructions. Submit coating manufactures product information and written instructions to Engineer for review.

203.3 Method of Measurement

Insert the following to the end of this sub-article:

A. Removal of Concrete Pavement and Below Grade Structures will be measured by the square yard of pavement and structures designated for removal, regardless of thickness and/or depth, except that no measurement will be made of pavement less than one inch (1") thick. All saw cuts shall be vertical to finished grade surface. Type I classified fill and unclassified fill when noted as well as mechanical compaction of backfill are incidental to this pay item. Removal of W-beam in concrete pad is incidental to this pay item.

B. Removal of Obstruction (Culvert Pipe) will be measured per linear foot of pipe removed.

C. Removal of timber light pole will be measured per each regardless of post/piling size and/or depth; size of pole and fixture; and terminating electrical wiring in accordance with applicable electrical codes.

D. Contractor shall provide disposal site for all removed materials and structures. Any fees for disposal shall be considered incidental to each pay item and no separate payment will be made.

203.5 Basis of Payment

Insert the following pay items:

ITEM	DESCRIPTION	UNIT
203-A	Removal of Concrete Pavement and Below Grade Structures	Square Yard
203-B	Removal of Obstruction (Culvert Pipe)	Linear Foot
203-C	Removal of Light Pole and Foundation	Each

Add the following New Sections to this Division.

SECTION 209 POROUS BACKFILL

209.1 General

A. The Work under this Section consists of all labor, equipment, and materials necessary for backfill of light pole crash barrier with porous backfill material as specified in this section and as shown on the drawings.

B. References:
   a. AASHTO T 112 (ASTM C 142) Standard Method of Test for Clay Lumps and Friable Particles in Aggregate
   b. ASTM D 2487 Standard Practice for Classification of Soils for Engineering Purposes (Unified Soil Classification System)

C. Related documents:
   a. Section 904—Luminaire Foundation for light pole foundation requirements.

D. Submittals:
   a. Material Test Reports: For each type of the following:
      i. Classification according to ASTM D 2487, Unified Soil Classification System.

209.2 Materials

A. Porous Backfill
   a. Gravel consisting of crushed or naturally occurring granular material containing not more than 1% clay lumps or other readily decomposed material (AASHTO T 112). Meet the gradation requirements of Table 209-1.

Table 209-1 Aggregate Gradation for Porous Backfill

Sieve	Percent Passing by Weight
3 inch	100
1 inch	0 - 10
No. 200	0 - 5

209.3 Construction

A. Backfill
   a. Place porous backfill material within the CPEP crash barrier as uniformly as possible on all sides to avoid distortion of the pipe to full height of barrier. Material is to be placed loose and not compacted.

209.4 Method of Measurement

Porous Backfill will be considered incidental to light pole foundation installation Section 904. No separate payment will be made.

209.5 Basis of Payment (Not Used)

SECTION 301 GENERAL

301.6 Mix Requirements for Classes of Concrete

Insert the following definitions to the end of this sub-article:

Project Mix Design:

The following mix design shall be used for all concrete pavements, fence foundations, pipe bollards, and utility pad foundations.

Maximum Water Cement Ratio:	0.45
Minimum Entrained Air:	6.0%
Minimum Compressive Strength:	4,000 psi.

Add the following New Sections to this Division.

SECTION 304 CHIP PAD DETENTION BASIN MODIFICATION

304.1 General

A. The Work under this Section consists of all labor, equipment, and materials necessary for modification of the existing concrete sump as shown on the drawings.

B. Related documents:
   a. Section 301—General for concrete mix design and reinforcement requirements.

304.2 Materials (Not Used)

304.3 Construction (Not Used)

304.4 Method of Measurement

A. Chip Pad Detention Basin Modification will be measured as Lump Sum complete and in place. Sorbent booms will be considered incidental and no separate payment will be made.

304.5 Basis of Payment

Basis of payment for this item shall be in accordance with *Section 10.07 – Measurement and Payment*, and shall be full payment for work described in this section.

Payment shall be made on the following basis:

ITEM	DESCRIPTION	UNIT
304	Chip Pad Detention Basin Modification	Lump Sum

Add the following New Sections to this Division.

SECTION 401 GENERAL

401.1 General

Asphalt concrete pavement placed under this contract shall conform to Section 401 of the State of Alaska Department of Transportation and Public Facilities, Standard Specifications for Highway Construction, 2015 unless otherwise stated. All references to the "State" are changed to the "City."

The following changes apply to the above mentioned Standard Specifications:

401.2 Composition of Mixtures

Delete this Article in its entirety and substitute the following:

A. **At least fifteen (15) days prior to the production of asphalt concrete the Contractor shall submit the Job Mix Design to the City.** The Job Mix Design shall be performed by a certified laboratory experienced in Asphalt Mix Design by the Marshall Method. Proposals by the Contractor shall be within the master range of required sieve analysis for the particular type of mix and should be determined to take full advantage of the job tolerances as state below.

Sieve Size or Item	Tolerance % Passing	
No. 4 and above	+/-	7.0
No. 10	+/-	6.0
No. 40	+/-	4.0
No. 200	+/-	3.0
Asphalt %	+/-	0.5

The above permissible variations from the Job Mix Design shall not cause the use of any mix to fall outside the broad band specification.

The Engineer may require an increased asphalt content of up to 0.5% above that indicated by the Job Mix Design criteria.

Mix Design Method

The Job Mix Design method shall be determined according to the Marshall Method, as set forth in the "The Asphalt Institute Manual, Series No. 2 (MS-2), Second Edition." The Job Mix Design shall be in accordance with the following Marshall criteria for medium traffic:

Compaction	50 blows, each end of specimen
Stability	750 pounds, minimum

Flow	8 to 18 (0.01 inches)
Percent Air Voids	3 to 5
Percent Voids in Mineral Aggregate	14 to 16

B. The Asphalt Concrete used shall be Type II.

C. The Asphalt Cement shall be AC 5.

D. The percentage of Asphalt Cement shall be 5.0% to 8.0%.

401.3 Compaction

Add the following to Article 401- 3.12:

The completed pavement shall have a density equal to or greater than ninety-two percent (92%) of the theoretical maximum density and equal to or greater than ninety-six percent (96%) of a laboratory specimen made from the same day's mix.

When requested by the Engineer, the Contractor shall provide test samples from the finished asphalt surface at no cost to the Owner. All samples shall be cored from the completed pavement and shall be a minimum of four inches (4") in diameter. The Contractor shall supply and finish new asphalt voids left by the sampling within 24 hours.

401.5 Joints

Add the following to Article 401 – 3.13:

When the first lane is paved, the longitudinal centerline joint shall be hand compacted with a lute (asphalt rake) prior to compaction by the breakdown roller.

401.6 Contract Price Adjustments

Delete Article 401 – 4.02 in its entirety and substitute the following:

Asphalt Concrete Pavement that exceeds the allowable specification tolerances listed in Article 401-2, Composition of Mixtures, will be removed from the project and replaced with fresh, specification mixture at no additional cost to the Owner.

401.7 Basis of Payment

Delete the second paragraph in Article 401 – 5.01 and substitute the following:

Anti-stripping additive shall be added to the asphalt in the amount of one fourth (1/4) of one percent (1%) by weight of asphalt. No separate payment shall be made for anti-stripping additive.

Basis of payment for this item shall be in accordance with *Section 10.07 – Measurement and Payment*, and shall be full payment for work described in this section.

Payment shall be made on the following basis:

ITEM	DESCRIPTION	UNIT
401	Asphalt Pavement	Ton

Add the following New Sections to this Division.

SECTION 402 PAINTED TRAFFIC MARKINGS

402.1 General

Painted Traffic Markings placed under this Contract shall conform to Section 670 of the State of Alaska Department of Transportation and Public Facilities, Standard Specifications for Highway Construction, 2015 unless otherwise stated. All references to the "State" are changed to the "City."

402.2 Types of Lines

The roadway shall be striped under the following schedule:

Centerline: 4-inch wide double yellow stripes as shown in the plans.

Fog Lines: 4-inch wide single white stripes each side of roadway as shown in the plans.

402.3 Basis of Pavement

Payment shall be made under:

ITEM NO.	DESCRIPTION	UNIT
402	Painted Traffic Markings	Lump Sum

Add the following New Sections to this Division.

SECTION 711 CONCRETE PIPE BOLLARD

711.1 General

A. The Work under this Section consists of all labor, equipment, and materials necessary to complete the construction of concrete pipe bollards in accordance with this specification section as shown on the drawings.

B. References:
   a. ASTM A 36 Standard Specification for Carbon Structural Steel
   b. ASTM A 53 Standard Specification for Pipe, Steel, Black and Hot-Dipped, Zinc-Coated, Welded and Seamless
   c. ASTM A 123 Standard Specification for Zinc (Hot-Dip Galvanized) Coatings on Iron and Steel Products

C. Related documents:
   a. Section 10.07—Measurement and Payment.
   b. Section 301—General for concrete requirements.

D. Submittals:
   a. Product Data: For each type of the following manufactured products required:
      i. Reflective Tape.
      ii. Fabrication Shop Drawings of all fabricated metal items prior to fabrication.
      iii. Manufacturer's Certified Mill Test Report: Steel Certification including chemistry, physical tests, and mill heat numbers conducted on the steel for each metal included in the shipment.
      iv. Paint for bollards.
      v. Galvanizing.

711.2 Materials

A. Concrete Pipe Bollards
   a. Contractor shall use only new products in construction and installation of concrete pipe bollards. Standard products of a manufacturer regularly engaged in the manufacture of such products. The materials provided shall be of a type with proven satisfactory use for at least two years.
   b. Concrete: Portland cement shall conform to Section 301 – General project mix design.
   c. Steel Pipe: In accordance with ASTM A 53.
   d. Finish: Finish shall be galvanized. Exposed surfaces and edges shall be rounded, polished, or sanded. Finish shall be non-toxic, non-glare, and resistant to corrosion.
   e. Galvanizing: After fabrication, hot-dip galvanized components in zinc in accordance with ASTM A 123. Remove Tailings and sharp protrusions formed as a result of the hot-dip process and burnish exposed edges.
   f. Paint: Top coat with two coats marine safety yellow marine grade paint.

g. Reflective Tape: White, prismatic reflective tape, adhesive backed, and marine grade.

711.3 Construction

A. Site Inspection
   a. The contractor shall verify that finished grade and other operations affecting mounting surfaces have been completed prior to the installation of bollards. Do not begin work until all unsatisfactory conditions are corrected. Install Bollards plumb and true in accordance with the approved manufacturer's instructions or recommendations

B. Installation
   a. For concrete pipe bollard, provide footing as shown on drawings. Slope drainage from tubing at two percent (2%) grade. Place concrete inside steel pipe or tubing for full extent. Rod concrete to remove air voids. Dome top to provide clean transition from top surface to bollard sides. Do not leave exposed edge. Provide brushed finish to concrete dome.
   b. Install bollards plumb, level and true to line. Top of a row of bollards shall be maintained at a consistent level above adjacent ground.

C. Clean Up
   a. Clean the site of all materials associated with the installation. Clean surfaces of dirt, stains, filings, and other blemishes occurring from shipment and installation. Provide cleaning methods and agents according to manufacturer's instructions or as indicated. Remove excess concrete.

711.4 Method of Measurement

Measurement will be based on Each complete unit in place for all bollards.

711.5 Basis of Payment

Basis of payment for this item shall be in accordance with *Section 10.07 – Measurement and Payment*, and shall be full payment for work described in this section.

Payment shall be made on the following basis:

ITEM	DESCRIPTION	UNIT
711	Concrete Pipe Bollard (Yellow)	Each

Add the following New Sections to this Division.

SECTION 712 CANTILEVER SLIDE GATE

712.1 General

A. The work in this section shall include furnishing all labor, materials, equipment and appliances necessary to complete all manual Chain-Link Cantilever Slide Gates required for this project in accordance with this specification section and drawings.

B. References:
   a. ASTM F 1184 Standard Specification for Industrial and Commercial Horizontal Slide Gates.

C. Related documents:
   a. Section 10.07—Measurement and Payment.
   b. Section 301—General for concrete requirements.

D. Submittals:
   a. Product Data:
      i. Provide manufacturer's catalog cuts with printed specifications and installation instructions.
   b. Shop Drawings:
      i. Supply shop drawings showing the gate system, including details of all major components to be provided.
      ii. Include details of gate construction, gate height, and post spacing dimensions.

712.2 Materials

A. Gate Construction Details
   a. Gate Frame:
      i. Gate frames shall be constructed in a manner such as to provide a rigid frame and ample strength and shall be free from sag and twist. The end members of the gate frames shall be extended approximately one (1) foot above the top member and arranged for attaching four (4) uniformly spaced strands of barbed wire and furnished with bands or other suitable method for securely attaching the wire. Fabric shall be attached securely to the gate frame at intervals not to exceed fifteen (15") inches.
      ii. Gate frames may be fabricated from steel or 6063-T6 aluminum alloy extrusions.
      iii. The gate frame may be fabricated in one or multiple sections depending on size requirements/constraints.
   b. Vertical Members:
      i. The spacing for the vertical intermediates shall be no greater than half the height of the gate.
   c. Bracing:

i. Diagonal "X" bracing of 3/8" minimum diameter truss rods shall be installed to brace the gate panels.

d. Fabric:
   i. Gate fabric shall be 9-gage, 2-inch mesh. It shall extend the entire length of the gate opening (not including the back frame) and shall be secured at each end of the gate frame by standard fence industry tension bars and tied at each vertical member with standard fence industry tie wires.

e. All openings shall be screened from the bottom of the gate to a minimum height of 48" above grade. The applied screening shall be of sufficient size to prevent a 2 ¼" diameter sphere from passing through openings anywhere in the gate.

B. Posts:
   a. Gate posts shall be sized in accordance with gate dimensions as noted on the plans. Height of the post and depth of footing shall be as specified on the plans. All gate posts shall be of steel.
   b. The gate frame panel shall be guided by four malleable iron rollers. Mount rollers on secure side of gate posts as indicated on the plans.

712.3 Construction

A. Site Inspection
   a. Examine final grades and installation conditions. Do not begin work until all unsatisfactory conditions are corrected.

B. Installation
   a. Excavate, place concrete and install posts in footings as detailed on the Plans. Install guide roller assemblies. Install gate panel and make final adjustments to align gate with latch. Install components of this section in strict accordance with the supplier's printed instructions unless otherwise shown on the contract drawings.
   b. The gate and installation shall conform to ASTM F 1184 standards for horizontal slide gates.

C. System Validation
   a. The complete system shall be tested and adjusted to assure it is performing properly.

712.4 Method of Measurement

Furnish and Install (F&I) Cantilever Slide Gate shall be measured per Each, complete in place for a particular size.

712.5 Basis of Payment

Basis of payment for this item shall be in accordance with *Section 10.07– Measurement and Payment*, and shall be full payment for work described in this section.

Payment shall be made on the following basis:

ITEM	DESCRIPTION	UNIT
712	Furnish and Install Cantilever Slide Gate (Various Sizes)	Each

Add the following New Sections to this Division.

SECTION 713 CHAIN LINK FENCE

713.1 General

A. This section shall consist of furnishing all new materials and erecting chain-link fence as required in accordance with this specification Section and Plans.

B. Chain-link fence shall consist of chain-link fabric attached to metal posts and fastened to a top tension wire and a bottom rail. The fence shall be topped with barbed wire as indicated on the Plans. The height of chain-link fences shall be as shown on the Plans.

C. Barbed wire shall consist of galvanized barbed wire and all fittings and hardware required for fastening to a chain-link fence as shown on the Plans.

D. References:
   a. AASHTO M 181 Standard Specification for Chain-Link Fence.
   b. AASHTO M 280 Standard Specification for Metallic-Coated (Carbon) Steel Barbed Wire (ASTM Designation: A 121-13)

E. Related documents:
   a. Section 10.07—Measurement and Payment.
   b. Section 301—General for concrete requirements.

F. Submittals:
   a. Product Data:
      i. Provide manufacturer's catalog cuts with printed specifications and installation instructions.

713.2 Materials

A. Chain-Link Fabric
   a. Chain link fabric shall conform to the requirements of AASHTO M 181. Fabric shall be 9-gage, 2-inch mesh.

B. Fence Posts
   a. Fence posts, rails and braces shall conform to the requirements of AASHTO M 181.
   b. Pipe couplings shall be galvanized non-recessed, taper tapped, extra heavy couplings.

C. Barbed Wire
   a. Barbed wire shall conform to the requirements of AASHTO M 280, 12.5 gage wire, with 4-point round 14-gage barbs, spaced at 5 inches, Class 1 coating.

D. Concrete

a. Concrete (or an approved, pre-mixed, sacked concrete) shall meet the project mix requirements of Section 301 - General.

713.3 Construction

A. General
   a. The contractor shall perform such demolition and/or clearing and grubbing as may be necessary to construct the fence to the required grade and alignment.

B. Installation
   a. Prior to installing fence, the existing ground along the line of the fence location shall be graded to a smooth uniform surface, to the extent that no abrupt changes in grade exist between adjacent fence posts.
   b. At locations where breaks in a run of fencing are required, or at intersections with existing fences, appropriate adjustment in post spacing shall be made to conform to the requirements for the type of closure indicated.
   c. When the Plans require that posts, braces or anchors be imbedded in concrete, the contractor shall install temporary guys, or braces as may be required to hold the posts in proper position until such time as the concrete has set sufficiently to hold the posts. Unless otherwise permitted, no materials shall be installed on posts or strain placed on guys and bracing set in concrete until seven days have elapsed from the time of placing of the concrete.
   d. The tops of all posts shall be set to the required grade and alignment. Cutting of the tops of the posts will not be allowed.
   e. Wire or fencing of the size and type required shall be firmly attached to the posts and braces in the manner indicated. All wire shall be stretched taut and be installed to the required elevations.
   f. At each location where an electric transmission, distribution or secondary line crosses any of the types of fences covered by these specifications, the contractor shall furnish and install a ground rod and connection to the fence conforming to the requirements of Section 9 of the National Electric Safety Code.
   g. Ground rods and connectors shall be placed at minimum intervals of 200 feet along the fence. When fence runs are less than 200 feet in length, one ground rod with connection to the fence shall be required.
   h. Changes in line where the angle of deflection is 30 degrees or more shall be considered as corners and corner posts shall be installed. Changes in line where the angle deflection is more than 15 degrees and less than 30 degrees shall be considered as alignment angles and adjacent posts shall be made fast to the angle posts by means of wire, or if such method is impracticable such posts shall be braced as detailed on the plans for gate, end and corner posts.

713.4 Method of Measurement

Chain link fencing will be measured per Linear Foot, in place, from outside to outside of end or corner posts, except for the space occupied by gates.

713.5 Basis of Payment

Basis of payment for this item shall be in accordance with *Section 10.07 – Measurement and Payment*, and shall be full payment for work described in this section.

Payment shall be made on the following basis:

ITEM	DESCRIPTION	UNIT
713	Furnish and Install 9’ Fencing	Linear Foot

SECTION 802 FURNISH AND INSTALL PIPE

802.1 General

Insert the following to the end of this sub-article:

A. Submittals:
   a. Product Data: For each type of the following manufactured products required:
      i. Pipe and fittings.

802.2 Materials

Insert the following definition to the end of this sub-article:

c. Corrugated Polyethylene Pipe (CPEP):
   i. Corrugated Polyethylene pipe shall conform to the requirements of AASHTO M-294 and the following specification for Type S classification:
      1. Type S - This pipe shall have a full circular cross-section, with an outer corrugated pipe wall and a smooth inner liner. Corrugations may be either annular or helical.
   ii. All CPEP fittings shall be rotational or blow molded and shall conform to the fitting requirements of AASHTO M-294.
   iii. Contractor shall join CPEP segments per the manufacturer's recommendations. When a bell and spigot joint is utilized, the Contractor shall ensure that the rubber gasket is correctly inserted into the joint and that the bell is on the upstream end of the pipe.
   iv. All flared end sections shall be constructed of the same material as the pipe and shall be factory assembled units to serve as structural, hydraulic, and/or aesthetic end treatment to CPEP culverts. CPEP connections shall be as recommended by the manufacturer.
   v. Contractor shall not insert any portion of the bell of CPEP pipe into any manhole, catch basin, or catch basin manhole unless that portion will be completely removed when the pipe is trimmed to two inches (2") inside the manhole.
   vi. CPEP used for light pole foundation shall be a single continuous length of pipe without segment joins.

802.4 Method of Measurement

Insert the following definition to the end of this sub-article:

Corrugated Polyethylene Pipe used for light pole foundation will be considered incidental to light pole foundation installation Section 904. No separate payment will be made.

802.5 Basis of Payment

Insert the following pay items:

ITEM	DESCRIPTION	UNIT
802-A	Furnish and Install CPEP (18-inch, Type S, Circular)	Linear Foot
802-B	Furnish and Install CPEP (24-inch, Type S, Circular)	Linear Foot
802-C	Install Owner Furnished 24-inch CPEP	Linear Foot
802-D	Furnish and Install CPEP End Section	Each

Add the following New Sections to this Division.

SECTION 808 OIL GRIT SEPARATOR

808.1 General

A. This Section specifies requirements for constructing underground storm water treatment chambers to construct the complete Oil Grit Separator (OGS) device. Work includes supply and installation of concrete bases, precast sections, and the appropriate precast section with all internal components completely and correctly installed within the OGS device, water tight seals prior to arrival to the project site. The Contractor shall furnish all equipment, tools, labor and materials necessary to complete the work in accordance with the plans and specifications.

B. References:
   a. ASTM A 48 Standard Specification for Gray Iron Castings
   b. ASTM A 615 Standard Specification for Deformed and Plain Carbon-Steel Bars for Concrete Reinforcement
   c. ASTM A 1064 Standard Specification for Carbon-Steel Wire and Welded Wire Reinforcement, Plain and Deformed, for Concrete
   d. ASTM C 144 (AASHTO M-45) Standard Specification for Aggregate for Masonry Mortar
   e. ASTM C 150 Standard Specification for Portland Cement
   f. ASTM C 443 Specification for Joints for Concrete Pipe and Manholes, Using Rubber Gaskets
   g. ASTM C 478 (AASHTO-199) Specification for Precast Reinforced Concrete Manhole Sections
   h. ASTM D 4097 Contact Molded Glass Fiber Reinforced Chemical Resistant Tanks

C. Submittals:
   a. Shop drawings: Shop drawings shall detail the precast concrete components and the precast concrete component detailing all OGS internal components pre-installed and watertight sealed at the precast facility prior to shipment, including the sequence for installation.
   b. Manufactures operations and maintenance manual.

D. Handling and Storage:
   a. Prevent damage to materials during storage and handling.
      i. Internal OGS device materials supplied by the Manufacturer for connection to the precast concrete shall be pre-fabricated and bolted to the precast and watertight sealed to the precast surface prior to delivery to the project site to ensure Manufacturer's internal assembly process and quality control processes are fully adhered to, and to prevent damage to the materials on site. No exceptions will be accepted.
      ii. Follow all instructions labeled on precast concrete components during installation.

808.2 Materials

A. General:
   a. The separator shall be circular and constructed from pre-cast concrete circular riser and slab components. The internal fiberglass insert shall be bolted and sealed watertight inside the reinforced concrete component. The separator shall be capable to be used as a bend or junction structure within the storm water drainage system. The storm water quality treatment device shall remove oil and sediment from storm water.
   b. Total Suspended Solids:
      i. The treatment device shall be capable of removing 80 percent of the average annual total suspended solids (TSS) load without scouring previously captured pollutants.
      ii. Design methodologies shall provide calculations substantiating removal efficiencies and correlation to field monitoring results using both particle size and TSS removal efficiency.
      iii. All manufactures shall provide performance data that the storm water quality treatment system does not scour previously captured pollutants based on the particle size distribution specified in Table 1. Performance data should be laboratory testing with an initial sediment load of 50 percent of the unit's sediment capacity at an operating rate of 125% or greater. Particle size distribution (PSD) for the initial sediment load shall conform to Table 1.
   c. Free Oil:
      i. The separator must be capable of removing 95 percent of the floatable free oil.
      ii. The first 16 inches of hydrocarbon storage shall be lined with fiberglass to provide a double wall containment of the hydrocarbon materials.
   d. Particle Size:
      i. The separator must be capable of trapping fine sand, silt, clay and organic particles in addition to larger sand, gravel particles and small floatables.
      ii. The storm water quality treatment device shall be sized to a specific particle size distribution that is clearly identified in both diameter and specific gravity. The example below is a Fine Particle Size that is a common PSD used in design of water quality devices to ensure proper design for capturing smaller particles and the high load of associated pollutants.

Table 1 – Particle Size Distribution

Amount	Diameter	Specific Gravity
20%	20 micron	1.3
20%	60 micron	1.8
20%	150 micron	2.2
20%	400 micron	2.65
20%	2000 micron	2.65

e. Precast Concrete Sections:
    i. All precast concrete components shall be designed and manufactured to a minimum live load of AASHTO HS-20 truck loading or greater based on local regulatory specifications.
    ii. Materials used in the construction of manholes shall conform to the requirements of ASTM C 478 (AASHTO-199) and the Standard Details. Cones shall be eccentric, unless otherwise approved.
f. Joints:
    i. Each precast concrete barrel section, precast concrete eccentric cone section, concrete adjusting ring and manhole cover/frame shall be set and sealed by use of a plastic gasket joint sealer, as manufactured by Henry Company, Inc., Ram-Nek Sealant Division, or an approved equal.
g. Frame and Cover:
    i. The tensile strength of the gray cast iron for manhole frames, pavement-adjusting rings and covers shall be 30,000 PSI minimum conforming with the requirements of ASTM A 48. The requirement for transverse breaking load shall be 2,000 pounds. Frames and covers shall conform to the Standard Details.
h. Concrete:
    i. Cement for mortar used in the construction of manholes shall conform to the requirements of ASTM C 150, Type II. Sand shall conform with AASHTO M-45. The mortar shall be composed of one (1) part cement and three (3) parts sand. The joints shall be constructed to produce a smooth, regular watertight surface. Only enough water shall be added to provide plasticity in placing the mortar.
    ii. Refer to Division 300, Section 301, Article 301.6 - Mix Requirements for Classes of Concrete, for specifications pertaining to Class A-3 concrete as required in forming manhole inverts. The use of Transite or Asbestos Cement (AC) pipe to form manhole inverts is prohibited.
    iii. Reinforcement steel shall conform to the requirements of ASTM A 1064, ASTM A 615, Grade 60 steel, or better, and the Standard Details.
i. Fiberglass:
    i. The fiberglass portion of the water treatment device shall be constructed in accordance with the following standard: ASTM D 4097: Contact Molded Glass Fiber Reinforced Chemical Resistant Tanks.
j. Exterior Coating:
    i. All exterior manhole concrete surfaces shall be coated for waterproofing with TUFF-N-DRY® brush grade foundation coating, or approved equal, applied per manufacturer's recommendations.
k. Inspection:
    i. All precast concrete sections shall be inspected to ensure that dimensions, appearance and quality of the product meet local specifications and ASTM C 478.

808.3 Construction

A. Installation:
   a. The installation of the pre-cast concrete storm water quality treatment device should conform to state highway, municipal or local specifications for the construction of manholes. Selected sections of a general specification that are applicable are summarized below.

A. Excavation:
   a. Excavation for the installation of the storm water quality treatment device should conform to state highway, municipal or local specifications.
   b. The storm water quality treatment device should not be installed on frozen ground. Excavation should allow for adequate compaction around the structure. If the bottom of the excavation provides an unsuitable foundation additional excavation may be required.
   c. In areas with a high water table, continuous dewatering should be provided to ensure that the excavation is stable and free of water.

B. Backfilling:
   a. Backfill material should conform to state highway, municipal or local specifications. Backfill material should be placed in uniform layers not exceeding 12 inches in depth and compacted to state highway, municipal or local specifications.

C. Water Quality Device Construction Sequence:
   a. The concrete water quality device is installed in sections in the following sequence:
      i. aggregate base
      ii. base slab
      iii. treatment chamber section(s)
      iv. transition slab (if required)
      v. bypass section
      vi. connect inlet and outlet pipes
      vii. riser section and/or transition slab (if required)
      viii. maintenance riser section(s) (if required)
      ix. frame and access cover
   b. The precast base should be placed level at the specified grade. The entire base should be in contact with the underlying compacted granular material. Subsequent sections, complete with gasketed joint seals, should be installed in accordance with the precast concrete manufacturer's recommendations.
   c. Adjustment of the storm water quality treatment device can be performed by lifting the upper sections free of the excavated area, re-leveling the base, and re-installing the sections. Damaged sections and gaskets should be repaired or replaced as necessary. Once the storm water quality treatment device has been constructed, any lift holes must be plugged with mortar.

D. Drop Pipe, Riser and Pipe:
    a. Once the upper chamber has been attached to the lower chamber, the inlet drop tee, and riser pipe must be attached. Pipe installation instructions and required materials shall be provided with the insert.

E. Inlet and Outlet Pipes:
    a. Inlet and outlet pipes should be securely set into the upper chamber using non-shrink grout or approved pipe seals (flexible boot connections, where applicable) so that the structure is watertight.

F. Frame, Cover and Grate Installation:
    a. The grade adjustment units should be laid in a full bed of mortar with successive units being joined using sealant recommended by the manufacturer. Frames for the cover should be set in a full bed of mortar at the elevation specified.

808.4 Method of Measurement

A. Stormceptor STC 1800 manholes shall be measured as Each units complete in place.

B. Owner furnished manhole will be provide near the project site.

808.5 Basis of Payment

Basis of payment for this item shall be in accordance with *Section 10.07 – Measurement and Payment*, and shall be full payment for work described in this section.

Payment shall be made on the following basis:

ITEM	DESCRIPTION	UNIT
808-A	Furnish and Install Stormceptor STC 1800	Each
808-B	Install Owner Furnished Stormceptor STC 1800	Each

Add the following New Sections to this Division.

SECTION 901 COMMON WORK RESULTS FOR ELECTRICAL

901.1 General

A. Related Documents:
   a. Drawings and general provisions of the Contract apply to this Section.

B. Summary:
   a. Section Includes:
      i. Safety Standards.
      ii. Technical Standards.
      iii. Technical References.
      iv. Electrical equipment coordination and installation.
      v. Firestopping.
      vi. Sleeves for raceways and cables.
      vii. Sleeve seals.
      viii. Grout.
      ix. Common electrical installation requirements.

C. Definitions:
   a. Approved: Acceptable to the authority having jurisdiction; (NFPA 70 Art. 100). Acceptable to the AHJ means NRTL listed and identified.
   b. Code: Denotes National Electrical Code, NFPA 70.
   c. Commissioning: The formal and systematic process of verifying and documenting that electrical system performance is in accordance with the design intent and operational requirements.
   d. Firestopping: The necessary and coordinated penetration of fire-resistance rated assemblies to accommodate electrical systems, and the subsequent application of only approved firestopping systems to maintain the integrity of those fire-resistance rated assemblies. Approved firestopping systems consist of specific methods and specific materials that shall be used together.
   e. Identified: Recognizable as suitable for the specific purpose, function, use, environment, application, and so forth, where described in a particular Code requirement; (NFPA 70 Art. 100). Recognition is denoted by the presence of an NRTL label, NRTL symbol, NRTL mark or listing in an NRTL directory.
   f. Labeled: Equipment or materials to which has been attached a label, symbol, or other identifying mark of an organization that is acceptable to the authority having jurisdiction and concerned with product evaluation, that maintains periodic inspection of production of labeled equipment or materials, and by whose labeling the manufacturer indicates compliance with appropriate standards or performance in a specified manner; (NFPA 70 Art. 100). These organizations are the NRTLs.
   g. Listed: Equipment, materials, or services included in a list published by an organization that is acceptable to the authority having jurisdiction and concerned with evaluation of products or services, that maintains periodic inspection of production of listed equipment or materials or periodic

evaluation of services, and whose listing states that either the equipment, material, or service meets appropriate designated standards or has been tested and found suitable for a specified purpose; (NFPA 70 Art. 100).

h. Membrane Penetration of Fire Resistance Rated Assembly: Membrane penetration occurs when electrical boxes are flush mounted into one side of a fire-resistance rated assembly.
i. Through Penetration of Fire Resistance Rated Assembly: Through-penetrations occur when raceways, cables, wireways, cable trays, or busways penetrate through fire-resistance rated floors, walls, concrete slabs, concrete walls or masonry walls.
j. Acronyms
    i. AHJ: Authority Having Jurisdiction.
    ii. ANSI: American National Standards Institute.
    iii. ASTM: ASTM International.
    iv. CA: Commissioning Authority
    v. EGC: Equipment Grounding Conductor.
    vi. EGSA: Electrical Generating Systems Association.
    vii. EPDM: Ethylene-propylene-diene terpolymer rubber.
    viii. GISC: Galvanized Intermediate Steel Conduit.
    ix. GRSC: Galvanized Rigid Steel Conduit.
    x. IBC: International Building Code.
    xi. NBR: Acrylonitrile-butadiene rubber.
    xii. NEC: National Electrical Code.
    xiii. NECA: National Electrical Contractors Association.
    xiv. NESC: National Electrical Safety Code.
    xv. NFPA: National Fire Protection Association.
    xvi. NRTL: Nationally Recognized Testing Laboratory.
    xvii. IOM: Installation, Operations and Maintenance.
    xviii. RSC: Rigid Steel Conduit.
    xix. UL: Underwriters Laboratories.
    xx. UV: Ultraviolet light or radiation.

D. Submittals:
    a. Product Data:
        i. Conductors
        ii. Cables
        iii. Precast Concrete Junction Boxes
        iv. Conduit.
        v. Electrical connectors and fittings.
        vi. Sleeve seals where indicated.
        vii. Firestop systems and materials where indicated.

E. Closeout Submittals:
    a. Redline record drawings.
    b. IOM Manuals.
    c. Software Licenses; Provide the Owner with a software license for any equipment installed as part of the project as may be necessary to properly operate the new equipment as part of an existing larger system; this includes computer operating systems, and existing video management

systems as may be necessary for the addition of new cameras; coordinate directly with the owner for this requirement.

d. Software Maintenance Agreements.
e. Warranties and Guarantees.
f. Extended Service Agreements and Maintenance Agreements.

F. Quality Assurance:
   a. Electrical Components, Devices, and Accessories: NRTL listed and labeled as defined in NFPA 70, Article 100, and marked for intended use.
   b. Comply with manufacturer's written instructions and procedures.

G. Coordination:
   a. Coordinate and schedule locates and inspections.
   b. Coordinate arrangement, mounting, and support of electrical equipment:
      i. To allow maximum possible headroom unless specific mounting heights that reduce headroom are indicated.
      ii. To provide for maintenance access.
      iii. To provide for ease of disconnecting the equipment with minimum interference to other installations.
      iv. To allow right of way for piping and conduit installed at required slope.
      v. So connecting raceways, cables, wireways, cable trays, and busways will be clear of obstructions and of the working and access space of other equipment.
   c. Coordinate installation of required supporting devices, conduits and set sleeves in cast-in-place concrete, masonry walls, and other structural components as they are constructed.
   d. Coordinate sleeve selection and application with the wall, floor or ceiling assembly being penetrated.
   e. Coordinate selection and application of only approved methods and materials for firestopping.

H. Safety Standards:
   a. Comply with the following Safety Standards, which are the law of the land:
      i. ANSI/IEEE C2-2012; National Electrical Safety Code; Institute of Electrical and Electronic Engineers.
      ii. NFPA 70-2011; National Electrical Code; National Fire Protection Association.

I. Technical Standards:
   a. Comply with the following Technical Standards unless otherwise indicated:
      i. NFPA 110-2010; Standard for Emergency and Standby Power Systems; National Fire Protection Association.
      ii. UL BXUV; Fire Resistance Ratings (BXUV), UL Online Certifications Directory, Fire-Resistance-Rated Systems and Products; Underwriters Laboratories.
      iii. UL CLIV; Wall Opening Protective Materials (CLIV), UL Online Certifications Directory, Fire-Resistance-Rated Systems and Products; Underwriters Laboratories.

iv. UL XHEZ; Through Penetration Firestop Systems (XHEZ), UL Online Certifications Directory, Fire-Resistance-Rated Systems and Products; Underwriters Laboratories.
v. UL XHJI; Firestop Devices (XHJI), UL Online Certifications Directory, Fire-Resistance-Rated Systems and Products; Underwriters Laboratories.
vi. NECA 1-2015; Standard For Good Workmanship In Electrical Construction (ANSI); National Electrical Contractors Association
vii. NECA 101-2013; Standard For Installing Steel Conduits (Rigid, IMC, EMT) (ANSI); National Electrical Contractors Association
viii. NECA 120-2012; Standard For Installing Armored Cable (Type AC) And Metal-Clad Cable (Type MC); National Electrical Contractors Association
ix. NECA 130-2010; Standard For Installing And Maintaining Wiring Devices (ANSI); National Electrical Contractors Association
x. NECA 200-2010; Recommended Practice For Installing And Maintaining Temporary Electric Power At Construction Sites; National Electrical Contractors Association
xi. NECA 202-2006; Standard For Installing And Maintaining Industrial Heat Tracing Systems (ANSI); National Electrical Contractors Association
xii. NECA 230-2010; Standard For Selecting, Installing, And Maintaining Electric Motors And Motor Controllers (ANSI); National Electrical Contractors Association
xiii. NECA 331-2009; Standard For Building And Service Entrance Grounding And Bonding; National Electrical Contractors Association
xiv. NECA 400-2007; Standard For Installing And Maintaining Switchboards (ANSI); National Electrical Contractors Association
xv. ANSI/NECA/EGSA 404-2007; standard for installing generator sets; National Electrical Contractors Association
xvi. NECA 407-2009; Standard For Installing And Maintaining Panelboards (ANSI); National Electrical Contractors Association
xvii. NECA 409-2009; Standard For Installing And Maintaining Dry-Type Transformers (ANSI); National Electrical Contractors Association
xviii. NECA 420-2007; Standard For Fuse Applications (ANSI); National Electrical Contractors Association
xix. NECA /IESNA 500-2006; Standard For Installing Indoor Commercial Lighting Systems (ANSI); National Electrical Contractors Association
xx. NECA /IESNA 501-2006; Standard For Installing Exterior Lighting Systems (ANSI); National Electrical Contractors Association
xxi. NECA /IESNA 502-2006; Standard For Installing Industrial Lighting Systems (ANSI); national electrical contractors association
xxii. NECA 605-2004; Recommended Practice For Installing Underground Nonmetallic Utility Duct; National Electrical Contractors Association

xxiii. NECA 407-2009; Standard For Installing Overcurrent Protection To Achieve Selective Coordination (ANSI); National Electrical Contractors Association

J. Technical References:
   a. For practical implementation guidance the contractor shall refer to the following Technical References:
      i. None for Electrical.

K. Order of Precedence:
   a. The Safety Standards shall prevail over the Technical Standards. The Technical Standards shall prevail over the Technical References.

901.2 Products

A. Firestopping Systems:
   a. Provide listed firestopping systems in accordance with UL BXUV, UL CLIV, UL XHEZ and UL XHJI.
      i. Products by Specified Technologies Inc. or other listed vendor.

B. Sleeves for Raceways and Cables, Non Fire Resistance Rated Applications:
   a. Steel Pipe Sleeves: ASTM A 53/A 53M, Type E, Grade B, Schedule 40, galvanized steel, plain ends, cut square and free of burrs or sharp edges.
   b. Cast-Iron Pipe Sleeves: Cast or fabricated "wall pipe," equivalent to ductile-iron pressure pipe, with plain ends and integral waterstop, unless otherwise indicated.
   c. Sleeves for Rectangular Openings: Galvanized sheet steel.
      i. Minimum Metal Thickness:
         1. For sleeve cross-section rectangle perimeter less than 50 inches and no side more than 16 inches, thickness shall be 0.052 inch.
         2. For sleeve cross-section rectangle perimeter equal to, or more than, 50 inches and 1 or more sides equal to, or more than, 16 inches, thickness shall be 0.138 inch.
   d. The contractor is encouraged to submit alternative commercial-off-the-shelf sleeve devices for approval.

C. Sleeves Seals, Non Fire Resistance Rated Applications:
   a. Description: Modular sealing device designed for field assembly, to fill annular space between sleeve and raceway or cable.
      i. Subject to compliance with requirements, provide listed commercial-off-the–shelf devices from available manufacturers.
      ii. Sealing Elements: EPDM, NBR or other permanent and durable elastomeric interlocking links shaped to fit surface of cable or conduit. Include type and number required for material and size of raceway or cable.
      iii. Pressure Plates: Stainless steel, carbon steel with corrosion-resistant coating. Include two for each sealing element.

iv. Connecting Bolts, Lock Washers and Nuts: Carbon steel with corrosion-resistant coating or stainless steel of length required to secure pressure plates to sealing elements. Provide number as necessary for complete assembly.

b. The contractor is encouraged to submit alternative commercial-off-the-shelf listed sealing devices for approval.

D. Grout, Non Fire Resistance Rated Applications:
   a. Nonmetallic, Shrinkage-Resistant Grout: ASTM C1107, factory-packaged, nonmetallic aggregate grout, noncorrosive, nonstaining, mixed with water to consistency suitable for application and a 30-minute working time.

901.3 Construction

A. Common Requirements for Electrical Installations:
   a. Provide a safe environment to protect employees and all others from injury. Comply with Federal, State and Local law.
   b. Remove all waste and rubbish from the project site as it is produced.
   c. All workmanship, installation practice, demonstrations, inspections, procedures, test results, equipment, and materials shall be to the Engineer's satisfaction.
   d. Provide seismic anchorage and bracing for the lateral and vertical support of conduit and electrical equipment as shown on the drawings and as required by the IBC.
   e. Mere compliance with the Safety Standards does not imply acceptable performance. All installations, cabling and systems shall nevertheless perform in accordance with the Technical Standards, the manufacturer's technical data and the manufacturer's operations and maintenance manuals.
   f. Unless otherwise indicated, all work shown on the drawings and in the specifications is new, to be provided and made fully operational.
   g. Unless otherwise indicated, provide and install all structures, systems, software, equipment and materials, as indicated on the drawings and in the specifications, whether or not shown on floor plans or site plans.
   h. Provide everything necessary to construct, install and commission safe, complete and fully operational electrical and telecommunications systems as indicated on the drawings and in the specifications.
   i. The contractor shall acquire all locates and permits, coordinate and schedule all locates and inspections, address and correct all inspection findings and close out all permits prior to pre-final inspection.
   j. All installed equipment and materials shall be listed by a Nationally Recognized Testing Laboratory (NRTL) for the application and bare the mark of the listing NRTL. Nationally Recognized Testing Laboratories shall be as defined by the United States Department of Labor Occupational Safety And Health Administration in 29 CFR 1910.7.
   k. All systems, equipment and materials shall be applied, installed, transported, stored, tested, commissioned, operated and repaired in accordance with the manufacturer's published instructions. All systems,

equipment and software features shall be fully operational in accordance with the manufacturer's published operating instructions at the time of pre-final inspection.

l. Materials, equipment and installation practice shall be uniform and consistent throughout the project. Provide similar items from the same manufacturer at all locations.
m. Substitution is not acceptable unless otherwise indicated or approved by the Engineer in writing.
n. Electrical power system installation and testing shall be performed by qualified journeyman electricians or higher unless otherwise indicated.
o. Maintain an up-to-the-moment set of redline record drawings on which changes shall be clearly marked and dimensioned. Submit redline record drawings to the project Engineer at the time of pre-final inspection.
p. All equipment and materials shall be new, undamaged and within 18 months of manufacture unless otherwise indicated.
q. All equipment and materials shall be shipped and stored in the manufacturer's original containers.
r. Installations shall be clean and serviceable at the time of pre-final inspection.
s. All installations shall be inspected by the contractor for mishandling, damage, poor workmanship and manufacturing defects prior to pre-final inspection. All defective equipment and materials shall be replaced with serviceable and all poor workmanship shall be corrected prior to pre-final inspection.
t. Unused or damaged equipment, materials and debris are the property of the contractor and shall be removed from site before pre-final inspection. Abandonment-in-place is unacceptable.
u. Provide only those materials and quantities necessary for complete and fully functional installation. Spares or excess materials shall not be provided unless otherwise indicated.
v. All equipment, systems and software shall perform in accordance with the manufacturer's published operation and maintenance (IOM) manuals at the time of pre-final inspection.
w. IOM manuals shall be neatly bound in three ring binders and submitted to the project Engineer at the time of pre-final inspection.
x. All systems and equipment shall be inspected, exercised, calibrated and adjusted to full operational capability before pre-final inspection.
y. The contractor shall verify the quality and compatibility of all software, equipment, materials, quantities and installation methods before installation. Incompatible or defective software, equipment or materials shall not be installed.
z. EGC, metal chassis or metallic frames shall not be used or permitted to be used as an operational current return path to the source of supply.
aa. Shared or common neutrals shall not be installed unless otherwise indicated.
bb. Neutral conductors shall be full size unless otherwise indicated.
cc. Metallic raceway and cable tray shall not be solely relied upon as equipment grounding conductor (EGC). All feeders and branch circuits shall include a wire-type ECG.

dd. Unless otherwise indicated, all power circuit conductors shall be 100% copper with 600V XHHW insulation.
ee. Aluminum or copper-clad aluminum conductors shall not be installed.
ff. Minimum branch circuit conductor shall be size 12 AWG.
gg. Screwless pressure terminal connectors of the conductor-push-in type shall not be used.
hh. Screw and bolted connections shall be properly tightened to the correct torque value. Torque wrenches shall be currently calibrated.
ii. Provide switch legs where implied for completely functional installations.
jj. Exterior steel raceways, fittings and supports shall be hot-dipped galvanized unless otherwise indicated.
kk. Raceway connections shall not pass through the top of exterior enclosures unless otherwise indicated. Where raceway connections through the top of exterior enclosures are indicated the connection shall include a liquidtight sealing washer.
ll. There shall be no more than three bends between pull points.
mm. All outdoor and underground environments shall be regarded as corrosive. Buried maintenance holes and/or junction boxes shall be regarded as an underground environment.
nn. Nonferrous raceway shall not be installed unless otherwise indicated. Nonmetallic raceway shall not be installed unless otherwise indicated.
oo. Below-grade metal conduit and risers shall be hot-dipped galvanized rigid steel unless otherwise indicated.
pp. All buried nonmetallic conduit and duct connections shall be permanently joined with the manufacturer's recommended cement, connector or thermal-fusion bond at the time of installation.
qq. Metallic conduit connections shall be finished with bonding bushings and bonded to the equipment grounding conductor.
rr. Metallic conduit connectors shall be provided with insulated throats or finished with insulated protective bushings.
ss. Minimum conduit size shall be 3/4" unless otherwise indicated.
tt. Connections to vibrating equipment shall be with stranded conductors.
uu. Metallic raceway connections to vibrating equipment shall be with a section of flexible metallic conduit at least 18 inches long. For motor-generator sets metallic flexible conduit sections shall be made up with external ground lug connectors and bridged with external bonding jumpers.
vv. Each spare raceway shall be provided with a pull cord and plugged. Pull cords shall be rot resistant with no less than 200 lb breaking strength. 18" of slack shall be left at each end of the pull cord.
ww. Match enclosures to the application and environment in accordance with NFPA 70. Enclosures shall be mounted securely, square and plumb. Enclosure doors shall be equipped with a latching mechanism. Hinged enclosure doors shall swing open past 90 degrees without interference. Single-door side-hinged enclosure doors shall open from right to left, unless otherwise indicated. Top-hinged enclosure doors shall lock open and stay open without additional support.

xx. Within enclosures, power system circuit conductors shall be separated from telecommunications cables or direct current power system conductors by metallic barrier or at least 2" of physical separation.

yy. Telecommunications cabling, signal cabling or direct current power system conductors shall not be routed with ac power system conductors or occupy the same raceway as ac power system conductors.

zz. Measure indicated mounting heights to bottom of unit for suspended items and to center of unit for wall-mounted items. Mounting heights shall be in accordance with NECA 1 unless otherwise indicated.

aaa. All test equipment, including torque wrenches, shall be calibrated and maintained in accordance with the manufacturer's published procedures. Utilization of uncalibrated or expired test equipment shall be grounds for rejection of all associated test, inspection, certification or commissioning results. All test equipment calibration shall be current at time of test and verifiable by means of calibration laboratory documentation or calibration sticker. All calibration sources shall be traceable to the National Institute of Standards and Technology (NIST) or similarly accredited international standards organizations. Calibration records shall be made available for examination immediately upon request.

bbb. Coordinate location and connection of equipment for function, ready access, future maintenance, repair and replacement without interference from adjacent equipment.

ccc. Headroom Maintenance: If mounting heights or other location criteria are not indicated, arrange and install components and equipment to provide maximum possible headroom consistent with these requirements.

ddd. Equipment: Install to facilitate service, maintenance, and repair or replacement of components of both electrical equipment and other nearby installations. Connect in such a way as to facilitate future disconnecting with minimum interference with other items in the vicinity.

eee. Right of Way: yield to mechanical systems.

B. Sleeve Installation for electrical Penetrations of Non-Fire-Rated Assemblies:

a. Concrete Slabs and Walls: Install sleeves for penetrations unless core-drilled holes or formed openings are used. Install sleeves during erection of slabs and walls.

b. Use pipe sleeves unless penetration arrangement requires rectangular sleeved opening.

c. Where spare sleeves are indicated provide removable and durable plugs.

d. Cut sleeves to length for mounting flush with both surfaces of walls.

e. Extend sleeves installed in floors 2 inches above finished floor level.

f. Size pipe sleeves to provide 1/4-inch annular clear space between sleeve and raceway or cable, unless indicated otherwise.

g. Seal space outside of sleeves with grout for penetrations of concrete and masonry. Promptly pack grout solidly between sleeve and wall so no voids remain. Tool exposed surfaces smooth; protect grout while curing.

h. Interior Penetrations of Walls and Floors: Seal annular space between sleeve and raceway or cable, using joint sealant appropriate for size, depth, and location of joint.
i. Roof-Penetration Sleeves: Seal penetration of individual raceways and cables with flexible boot-type flashing units applied in coordination with roofing work.
j. Aboveground, Exterior-Wall Penetrations: Seal penetrations using steel pipe sleeves and mechanical sleeve seals. Select sleeve size to allow for 1-inch annular clear space between pipe and sleeve for installing mechanical sleeve seals.
k. Underground, Exterior-Wall Penetrations: Install cast-iron pipe sleeves. Size sleeves to allow for 1-inch annular clear space between raceway or cable and sleeve for installing mechanical sleeve seals.

C. Sleeve-Seal Installation:
a. Install to seal exterior wall penetrations or wherever necessary to maintain the integrity of walls, floors or roofs.
b. Follow the manufacturer's instructions. Use type and number of sealing elements recommended by manufacturer for raceway or cable material and size. Assemble mechanical sleeve seals and install in annular space between raceway, or cable and sleeve. Tighten bolts against pressure plates to cause sealing elements to expand and make watertight seal.

D. Firestopping:
a. Maintain the integrity of fire resistance rated assemblies and structures.
b. Apply only listed through-penetration firestop systems in accordance with UL XHEZ.
c. Apply only listed membrane penetration firestop systems in accordance with UL BXUV and UL CLIV.

E. Electrical Power Systems Acceptance Inspection and Testing:
a. Comply with manufacturer's written procedures. Testing shall be accomplished after installation.
b. Provide test reports only for those systems indicated on the Drawings. Each test report shall include: summary statement of pass/fail result, test organization and names of test personnel, date of test, equipment identifier, make and part number, test procedure reference, test results, pass/fail criteria, test equipment make, part number, installed interface module part number, installed options, installed firmware, installed software and calibration date(s).
c. Documentation shall be clean, error free, neat and legible.
d. Test results shall be submitted in printed format on 8.5" x 11" plain white 24 pound bond paper with portrait orientation.
e. Submit Documentation: Electrical test reports shall be neatly bound in three ring binders and submitted to the Engineer at the time of pre-final inspection.

F. Pre-Final Inspection:

a. Upon completion of all work the Contractor shall request a pre-final inspection with the Engineer or Owner's Representative.
b. The Contractor shall provide all necessary expertise, personnel and equipment (including high lift or bucket truck) to accomplish the pre-final inspection and any necessary reinspections.
c. Contractor personnel shall configure and operate all systems and equipment during the pre-final inspection.
d. The pre-final inspection shall include a survey of all work, demonstration by the Contractor that all systems are properly operating and that all features and options are available.
e. Submit Documentation: IOM manuals, software licenses, software maintenance agreements, test reports, and redline record drawings.
f. Documentation shall be clean, error free, neat and legible.
g. All deficiencies shall be immediately corrected at no additional cost and with no extension to the project schedule.
h. Reinspections shall be accomplished at no additional cost and with no extension to the project schedule.

901.4 Method of Measurement (not used)

901.5 Basis of Payment (not used)

Add the following New Sections to this Division.

SECTION 902 HANGERS AND SUPPORTS FOR ELECTRICAL SYSTEMS

902.1 General

A. Related Documents:
   a. Drawings and general provisions of the Contract apply to this Section.

B. Summary:
   a. This Section includes the following:
      i. Hangers and supports for electrical equipment and systems.

C. Definitions:
   a. EMT: Electrical metallic tubing.
   b. IMC: Intermediate metal conduit.
   c. RMC: Rigid metal conduit.

D. Performance Requirements:
   a. Design supports for multiple raceways capable of supporting combined weight of supported systems and its contents.
   b. Design equipment supports capable of supporting combined operating weight of supported equipment and connected systems and components.
   c. Rated Strength: Adequate in tension, shear, and pullout force to resist maximum loads calculated or imposed for this Project, with a minimum structural safety factor of five times the applied force.

E. Bid Submittals:
   a. Product Data: For the following:
      i. Steel slotted support systems.
      ii. Nonmetallic slotted support systems.
      iii. Trapeze hangers. Include Product Data for components.
      iv. Steel slotted channel systems. Include Product Data for components.
      v. Nonmetallic slotted channel systems. Include Product Data for components.
      vi. Equipment supports.
      vii. Mounting devices

F. Quality Assurance:
   a. Comply with NFPA 70.

G. Coordination:
   a. Coordinate size and location of concrete bases.
   b. Coordinate cast anchor-bolt inserts into bases.

902.2 Products

A. Support, anchorage, and Attachment Components:

a. Steel Slotted Support Systems: Comply with MFMA-4, factory-fabricated components for field assembly.
    i. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
        1. Allied Tube & Conduit.
        2. Cooper B-Line, Inc.; a division of Cooper Industries.
        3. ERICO International Corporation.
        4. Thomas & Betts Corporation.
        5. Unistrut; Atkore International.
        6. Wesanco, Inc.
    ii. Metallic Coatings: Hot-dip galvanized after fabrication and applied according to MFMA-4.
    iii. Nonmetallic Coatings: Manufacturer's standard PVC, polyurethane, or polyester coating applied according to MFMA-4.
    iv. Painted Coatings: Manufacturer's standard painted coating applied according to MFMA-4.
    v. Channel Dimensions: Selected for applicable load criteria.

B. Raceway and Cable Supports: As described in NFPA 70, NECA 1 and NECA 101.

C. Conduit and Cable Support Devices: Steel hangers, clamps, and associated fittings, designed for types and sizes of raceway or cable to be supported.

D. Support for Conductors in Vertical Conduit: Factory-fabricated commercial-off-the shelf assembly consisting of threaded body and insulating wedging plug or plugs for non-armored electrical conductors or cables in riser conduits. Plugs shall have number, size, and shape of conductor gripping pieces as required to suit individual conductors or cables supported.

E. Mounting, Anchoring, and Attachment Components: Items for fastening electrical items or their supports to building surfaces include the following:
    a. Mechanical-Expansion Anchors: Insert-wedge-type, zinc-coated or stainless steel, for use in hardened portland cement concrete with tension, shear, and pullout capacities as identified by the manufacturer for supported loads and building materials in which used.
    b. Concrete Inserts: Steel slotted support system units complying with MFMA-4.
    c. Clamps for Attachment to Steel Structural Elements: Steel slotted support system units complying with MFMA-4.
    d. Through Bolts: Structural type, hex head, and high strength. Comply with ASTM A 325.
    e. Toggle Bolts: All-steel springhead type.
    f. Hanger Rods: Galvanized or electro coated threaded steel.

F. Galvanizing Repair Paint:
    a. 3M 16-501 Zinc Spray or equal.

902.3 Construction

A. Application:
   a. Comply with NFPA 70, NECA 1 and NECA 101 for application of hangers and supports for electrical equipment and systems except if requirements in this Section are stricter.
   b. Maximum Support Spacing and Minimum Hanger Rod Size for Raceway: Space supports for EMT, IMC, and RMC as required by NFPA 70. Minimum rod size shall be 1/4 inch in diameter.
   c. Multiple Raceways or Cables: Install trapeze-type supports fabricated with steel slotted support system, sized so capacity can be increased by at least 25 percent in future without exceeding specified design load limits.
   d. Secure raceways and cables to supports with conduit clamps rated for load requirements.
   e. Spring-steel clamps designed for supporting single conduits without bolts may be used for 1-1/2-inch and smaller raceways serving branch circuits and communication systems above suspended ceilings and for fastening raceways to trapeze supports.

B. Support Installation:
   a. Comply with NFPA 70, NECA 1 and NECA 101 for installation requirements except as specified in this Article.
   b. Strength of Support Assemblies: Where not indicated, select sizes of components so strength will be adequate to carry present and future static loads within specified loading limits. Minimum static design load used for strength determination shall be weight of supported components plus 200 lb.
   c. Mounting and Anchorage of Surface-Mounted Equipment and Components: Anchor and fasten electrical items and their supports to building structural elements by the following methods unless otherwise indicated by code:
      i. To Wood: Fasten with lag screws or through bolts.
      ii. To New Concrete: Expansion anchor fasteners.
      iii. To Masonry: Approved toggle-type bolts on hollow masonry units and expansion anchor fasteners on solid masonry units.
      iv. To Existing Concrete: Expansion anchor fasteners.
      v. To Steel: Slotted steel channel beam clamps.
      vi. To Light Steel: Sheet metal screws.
      vii. Items Mounted on Hollow Walls and Nonstructural Building Surfaces: Mount cabinets, panelboards, disconnect switches, control enclosures, pull and junction boxes, transformers, and other devices on slotted-channel racks attached to substrate.
   d. Drill holes for expansion anchors in concrete at locations and to depths that avoid reinforcing bars. Anchor holes shall be no closer than 10 times the hole diameter to any edge.

C. Painting:
   a. Touchup: Restore finishes to match original condition with manufacturer's recommended methods and materials.

b. Galvanized Surfaces: Clean welds, bolted connections, end cuts and abraded areas and apply galvanizing-repair paint to provide protection equal to that of original finish.

902.4 Method of Measurement (not used)

902.5 Basis of Payment (not used)

Add the following New Sections to this Division.

SECTION 903 IDENTIFICATION FOR ELECTRICAL SYSTEMS

903.1 General

A. Related Documents:
   a. Drawings and general provisions of the Contract apply to this Section.

B. Summary:
   a. Section Includes:
      i. Identification of power and control cables.
      ii. Identification for conductors.
      iii. Underground-line warning tape.
      iv. Warning labels and signs.
      v. Instruction signs.
      vi. Equipment identification labels.
      vii. Miscellaneous identification products.

C. Submittals:
   a. None.

D. Quality Assurance:
   a. Comply with ANSI/IEEE C2.
   b. Comply with NFPA 70.
   c. Comply with 29 CFR 1910.144.
   d. Comply with 29 CFR 1910.145.
   e. Comply with ANSI Z535.4 for safety signs and labels.
   f. Adhesive-attached labeling materials, including label stocks, laminating adhesives, and inks used by label printers, shall comply with UL 969.

E. Coordination:
   a. Coordinate identification names, abbreviations, colors, and other features with requirements in other Sections requiring identification applications, Drawings, Shop Drawings, manufacturer's wiring diagrams, and the Operation and Maintenance Manual; and with those required by codes, standards, and 29 CFR 1910.145. Use consistent designations throughout Project.
   b. Coordinate installation of identifying devices with completion of covering and painting of surfaces where devices are to be applied.
   c. Coordinate installation of identifying devices with location of access panels and doors.
   d. Install identifying devices before installing acoustical ceilings and similar concealment.

903.2 Products

A. Wire Identification Materials:
   a. Wire Markers: Preprinted vinyl cloth, permanent, wraparound. Thomas & Betts E-Z-Code or equal.

B. Power and Control Cable Identification Materials:
    a. Self-Adhesive Vinyl Labels: Preprinted, flexible label laminated with a clear, weather- and chemical-resistant coating and matching wraparound adhesive tape for securing ends of legend label. Thomas & Betts E-Z-Code or equal.

C. Conductor Identification Materials:
    a. Color-Coding Tape: Colored, self-adhesive vinyl tapes not less than 7 mils thick by 3/4 inch wide. 3M Scotch 35 or equal.

D. Underground-Line Warning Tape:
    a. Tape:
        i. Recommended by manufacturer for the method of installation and suitable to identify and locate underground electrical and communications utility lines.
        ii. Printing on tape shall be permanent and shall not be damaged by burial operations.
        iii. Tape material and ink shall be chemically inert, and not subject to degrading when exposed to acids, alkalis, and other destructive substances commonly found in soils.
    b. Color and Printing:
        i. Comply with ANSI Z535.1 through ANSI Z535.5.
        ii. Inscriptions for Red-Colored Tapes: ELECTRIC LINE, HIGH VOLTAGE.
        iii. Inscriptions for Orange-Colored Tapes: TELEPHONE CABLE, CATV CABLE, COMMUNICATIONS CABLE, OPTICAL FIBER CABLE as applicable.

E. Warning Labels and Signs:
    a. Comply with NFPA 70 and 29 CFR 1910.145.
    b. Self-Adhesive Warning Labels: Factory-printed, multicolor, pressure-sensitive adhesive labels, configured for display on front cover, door, or other access to equipment unless otherwise indicated. Thomas & Betts E-Z-Code or equal.

F. Equipment Identification Labels and Instructional Signs:
        i. Front rotary engraved. 1/16 inch thick. White letters on black background. Outdoor label material shall be UV stable and identified for outdoor application. ROWMARK Ultra-Matte lamicoid or equal.

G. Miscellaneous Identification Products:
    a. Fasteners for Labels and Signs: Screws, pan or truss head, Phillips or slotted drive, self-tapping or thread-cutting, stainless-steel.
    b. Rivets shall not be used.

903.3 Construction

A. Installation:
   a. Cable elements which are inherently color coded or otherwise uniquely identifiable, such as the individual color coded conductors of multi conductor cables, shall not be labeled.
   b. Verify identity of each item before installing.
   c. Maintain enclosure type rating.
   d. Screws should be snug, not tight, to allow expansion and contraction of substrate without buckling or cracking.
   e. Signs and labels shall be centered, squarely aligned and permanently attached. Adjust position so as not to obscure or cover any control, indicator, locking mechanism, fastener, ventilation opening, manufacturer's markings or otherwise adversely affect normal operation or maintenance.
   f. Location: Identification labels shall be installed at the top front of enclosure doors unless otherwise indicated. Warning labels and informative signs shall be installed below the identification label. For large equipment, such as unit heaters, install labels on control-access doors.
   g. Apply identification devices after completing finish work.
   h. Clean surfaces before application, using materials and methods recommended by manufacturer of the particular identification device.
   i. Underground-Line Warning Tape: During backfilling of trenches install continuous underground-line warning tape directly above line at 6 to 8 inches below finished grade. Use multiple tapes where width of multiple lines installed in a common trench exceeds 16 inches overall.
   j. Power-Circuit Conductor Identification, 600 V or Less: For conductors in panelboards, vaults, pull and junction boxes, maintenance holes, and handholes, conductors shall be color coded to identify the system voltage and conductor phase.
      i. Color-Coding for Phase and Voltage Level Identification, 600 V or Less: Use colors listed below for service, feeder and branch circuit conductors.
         1. Insulation color shall be factory applied for sizes smaller than 4 AWG. The insulation of conductors 4 AWG and larger shall be the color Black.
         2. Colors for 120 Volt Single Phase Systems
            a. Line: Black.
            b. Neutral: White.
         3. Colors for 120/208/240 Volt Single Phase Systems:
            a. Line 1: Black.
            b. Line 2: Red.
            c. Neutral: White.
         4. Colors for 120/208 Volt Three Phase Systems:
            a. Phase A: Black.
            b. Phase B: Red.
            c. Phase C: Blue.
            d. Neutral: White.
         5. Colors for 277/480 Volt Three Phase Systems:

a. Phase A: Brown.
b. Phase B: Orange.
c. Phase C: Yellow.
d. Neutral: Gray.

6. Colors for Switch Legs: Switch leg conductors shall be Violet.
7. Direct current systems with separate conductors not otherwise part of a cable assembly shell be color coded as:
    a. +: Red with Brown tracer.
    b. -: Brown with Red tracer.
    c. Neutral: White.
8. Field-Applied, Color-Coding Conductor Tape: Apply in half-lapped turns for a minimum length of 3 inches. Apply last two turns of tape with no tension to resist possible unwinding. Locate bands to avoid obscuring factory cable markings.
9. All conductor color codings shall be visible at all junction boxes, pullboxes, panelboards, outlets, switches, at access locations in closed raceways, every three feet in cable trays and wireways, and at all terminations.

k. Install instructional sign at each panelboard describing color-code for conductors.
l. Conductors to Be Extended in the Future: Attach write-on tags to conductors and annotate source.
m. Auxiliary Electrical Systems Conductor Identification: Identify field-installed alarm, control, and signal connections.
    i. Identify conductors, cables, and terminals in enclosures and at junctions, terminals, and pull points. Identify by system and circuit designation.
    ii. Use system of marker tape designations that is uniform and consistent with system used by manufacturer for factory-installed connections.
    iii. Coordinate identification with Project Drawings, manufacturer's wiring diagrams, and the Operation and Maintenance Manual.
n. Locations of Underground Lines: Identify with warning tape for power, communication, control wiring and optical fiber cable.
    i. Install underground-line warning tape for both direct-buried cables and buried raceway.
o. Warning Labels for Cabinets, Boxes, and Enclosures for Power and Lighting: Self-adhesive warning labels.
    i. Comply with 29 CFR 1910.145.
    ii. Identify system voltage with black letters on an orange background.
    iii. Apply to exterior of door, cover, or other access.
    iv. For equipment with multiple power or control sources, apply to door or cover of equipment including, but not limited to, the following:
        1. Power transfer switches.
        2. Controls with external control power connections.

p. Instructional Signs: Provide where indicated. Front rotary engraved. 1/16 inch thick, white letters on black background. Letters shall be 3/8 inch tall. Provide 1/2 inch margin sides, top and bottom. Provide holes punched or drilled for screw mounting. Mounting holes shall be oversized to accommodate thermal expansion. Signs 4 inches long by 2 inches high shall be secured with two screws. Signs larger than 4 inches long by 2 inches high shall be secured with at least 4 screws

q. Equipment Identification Labels: On each unit of equipment, unless provided with its own identification, install a unique designation label that is consistent with wiring diagrams, schedules, and the manufacturer's installation, operation and maintenance (IOM) instructions.
    i. Labeling Instructions: Front rotary engraved. 1/16 inch thick, 4 inches wide by 2 inches high. White letters on black background. First line shall be equipment identifier in 1/4 inch tall letters. Second line, if applicable, shall be source panelboard identifier and breaker position(s) in 1/4 inch tall letters. Punched or drilled with two holes for screw mounting. Mounting holes shall be oversized to accommodate thermal expansion.
    ii. Equipment To Be Labeled:
        1. Panelboards: Typewritten directory of circuits in the location provided by panelboard manufacturer. Panelboard identification shall be engraved, laminated acrylic or melamine label.
        2. Enclosures and electrical cabinets.
        3. Access doors and panels for concealed electrical items.
        4. Switchgear.
        5. Switchboards.
        6. Transformers: Label that includes designation shown on Drawings for the transformer, feeder, and panelboards or equipment supplied by the secondary.
        7. Substations, including Mini Power Zone and Mini-Power Center.
        8. Emergency system boxes and enclosures.
        9. Motor-controls.
        10. Enclosed switches.
        11. Enclosed circuit breakers.
        12. Enclosed controllers.
        13. Variable-speed controllers.
        14. Push-button stations.
        15. Power transfer equipment.
        16. Contactors.
        17. Remote-controlled switches, dimmer modules, and control devices.
        18. Battery-inverter units.
        19. Battery racks.
        20. Power-generating units.
        21. Monitoring and control equipment.
        22. UPS equipment.
        23. Local area network work area outlets

24. Local area network jackfields.

903.4 Method of Measurement (not used)

903.5 Basis of Payment (not used)

Add the following New Sections to this Division.

SECTION 904 LUMINAIRE FOUNDATIONS

904.1 General

A. The Work in this Section shall include all labor, materials, tools and equipment necessary to furnish and install all galvanized steel pipe piles, porous backfill and CPEP crash barrier for luminaire foundations in accordance with the requirements of the Contract Documents and as shown on the Drawings.

B. All foundations for luminaire poles shall be constructed either a driven pile or cast-in-place concrete foundation. Only one option shall be used for this project.

C. The Contractor shall be responsible for furnishing pile foundations of sufficient length, size and suitable pile driving equipment to obtain the required penetration as shown on the Drawings.

D. References:
   a. AASHTO M31 Standard Specification for Deformed and Plain Carbon-Steel Bars for Concrete Reinforcement
   b. AASHTO M218 Standard Specification for Steel Sheet, Zinc-Coated (galvanized), for Corrugated Steel Pipe
   c. AASHTO M232 (ASTM A 153) Standard Specification for Zinc Coating (Hot-Dip) on Iron and Steel Hardware
   d. AASHTO M270 Standard Specification for Structural Steel for Bridges
   e. AASHTO M292 Standard Specification for Carbon and Alloy Steel Nuts for Bolts for High-Pressure or High-Temperature Service
   f. AASHTO M293 Standard Specification for Hardened Steel Washers
   g. AASHTO T141 Standard Method of Test for Sampling Freshly Mixed Concrete
   h. AASHTO T199 Standard Method of Test for Air Content of Freshly Mixed Concrete by the Chace Indicator
   i. ASTM A 36 Standard Specification for Carbon Structural Steel
   j. ASTM A 53 Standard Specification for Pipe, Steel, Black and Hot-Dipped, Zinc-Coated, Welded and Seamless
   k. ASTM A 123 Standard Specification for Zinc (Hot-Dip Galvanized) Coatings on Iron and Steel Products
   l. ASTM A 325 Standard Specification for Structural Bolts, Steel, Heat Treated, 120/105 ksi Minimum Tensile Strength
   m. ASTM A 780 Standard Practice for Repair of Damaged and Uncoated Areas of Hot-Dip Galvanized Coatings
   n. ASTM C 143 Standard Test Method for Slump of Hydraulic-Cement Concrete
   o. ASTM F 1554 Standard Specification for Anchor Bolts, Steel, 36, 55, and 105-ksi Yield Strength
   p. AWS D1.1 Structural Welding Code - Steel
   q. AWS C2.23 Specification for the Application of Thermal Spray Coatings (Metallizing) of Aluminum, Zinc, and Their Alloys and Composites for the Corrosion Protection of Steel

r. DOD-P-210354A Military Specification: Phosphate Coatings, Heavy, Manganese or Zinc Base (for ferrous metals)
s. WCRSI western Concrete Reinforcing Steel Institute

E. Related documents:
   a. Sections 209 Porous Backfill for porous backfill requirements.
   b. 301—General for Portland cement concrete and reinforcement requirements.
   c. 802 Furnish and Install Pipe Section for CPEP crash barrier pipe requirements.

F. Submittals:
   a. Steel:
      i. Manufacturer's Certified Mill Test Report: Steel Certification including chemistry, physical tests, and mill heat numbers conducted on the steel for each pile included in the shipment.
      ii. Certification of Inspection for galvanizing of piles verifying that coated material conforms to Specifications.
      iii. Welding Procedures and Welder Certifications.
      iv. Weld inspection reports.
      v. Welder's certificates that include a statement that specifically certifies that each welder employed on the Work have been qualified as specified in AWS D1.1 for the particular process or processes that the welder will perform on this project. Submittal shall also specifically certify that welder's qualifications remain in effect in accordance with AWS D1.1.
      vi. Shop drawings for all steel fabrications.
   b. Coatings:
      i. Furnish galvanization that complies with Federal Specification DOD-P-210354A (Galvanizing Repair Spec) and is U.L. listed. Provide manufacturers' instructions and materials for repair of galvanized coatings.
   c. Cast-in-Place Concrete:
      i. Material certifications for all anchor bolts.
      ii. Grout mix design and manufactures product information.
      iii. CMP manufactures product information.
      iv. Concrete mix design and batch plant test reports.
      v. Concrete sampling and testing reports.
      vi. Material test reports for reinforcing steel.
      vii. Shop drawing for all steel fabrications including reinforcement.

904.2 Materials

A. General:
   a. All materials shall conform to the Contract Documents and as shown on the Plans. Purchase orders shall contain all necessary information to ensure that materials purchased will comply with the Contract Documents. The fabricator shall inspect all materials, upon arrival, for conformance with the purchase orders, and the fabricator shall confirm that mill

certificates and test reports are provided and that they correctly identify the materials delivered. If a supplier proposes a substitute for any material, the proposed substitution shall be submitted to the Engineer for approval prior to ordering/delivering the proposed substitute material. Supplier must be prepared to supply materials as identified in the Contract Documents if the proposal for a substitution is not approved by the Engineer.

b. All materials incorporated into this project shall be new, unless otherwise noted on the Drawings. Material not specifically noted in the Contract Documents or on the Drawings shall be submitted by the Contractor for approval by the Engineer. Approval will be based on conformance to current standards utilized by the Owner or as applicable in the opinion of the Engineer.
c. All materials shall conform to good workmanship, acceptable industry standards and manufacturer's recommendations.
d. Steel piles shall not exceed the camber and sweep permitted by allowable mill tolerance. Piles bent or otherwise damaged will be rejected.

B. Materials:
   a. Base plate steel shall be ASTM A 36, hot-dip galvanized, unless otherwise noted.
   b. Pipe less than 12-inch diameter shall be ASTM A 53, Grade B, hot-dip galvanized, unless otherwise noted.
   c. Bolts and Miscellaneous Hardware: Unless otherwise noted, all bolts shall be ASTM A 325, hot-dip galvanized. Washers are required under both the head and nut of all bolts, unless otherwise noted. All nuts and washers shall be hot-dip galvanized.

C. Protective Coatings:
   a. All steel pipe piles shall be hot-dip galvanized after fabrication, full length, in accordance with ASTM A 123, unless otherwise noted on the Plans. Piles too long for available galvanizing equipment may be galvanized in pieces and then spliced. Such splices shall be shop spliced and galvanized using hot applied galvanized coatings per ASTM A 780 and AWS C2.23. Minimum coating thickness is 2.3 ounces per square foot.

D. Cast-in-Place Concrete Foundation
   a. The Contractor shall use a minimum 14 gauge corrugated metal pipe (CMP) form to cast concrete foundations in place.
   b. Concrete shall be Class AA-3 Portland Cement conforming to Section 301 301—General.
   c. Reinforcing steel and wire fabric shall conform to the requirements of Section 301—General.
   d. Sampling and testing requirements by Contractor:
      i. Concrete cylinders in accordance with AASHTO T141 for each foundation.
      ii. Sump test in accordance with AASHTO T199 or ASTM C 143 for each foundation.

iii. Should the analysis of any test cylinder not meet the requirements of these Specifications, all concrete placed from the batch represented by the cylinder shall be removed and replaced at the Contractor's expense.

e. Material Requirements:

Material Requirements		
Concrete	Class AA-3	F'c = 4000 psi
CMP	AASHTO M218	14 ga
Vertical Reinforcing Steel	AASHTO M31 #8	GR 60
Spiral Reinforcing Steel	AASHTO M31 #4	GR 60
Ground Wire		#4 AWG
Anchor Rods 2"x96"	ASTM F 1554 S2, S3, & S5	GR 105
Fasteners, Washers	AASHTO M293	
Fasteners, Nuts	AASHTO M292	
Finish, Anchor Rods & Fasteners	AASHTO M232	
Ring Plate	AASHTO M270	GR 36
Conduit	Sch 40	RMC
Protective Sleeve	Sch 40	PVC

904.3 Construction

A. Contractor shall ensure that the top surface of the anchor plate is three inches (3") above porous backfill as indicated in the Drawings.

B. Welding:
   a. All welding shall be in accordance with AWS D1.1. Welding shall be performed by welders who possess welder's certificates that indicate they are currently certified for the type of welding specified.
   b. Galvanizing within 1-inch of the weld shall be removed and repaired per ASTM A 780 after welding.

C. Coating Repairs:
   a. Galvanized coating at field damaged areas shall be repaired using flame metalizing or hot-stick galvanizing method in accordance with ASTM A 780 and AWS C2.23.

D. Drive Pile Foundation
   a. Contractor shall supply driven pile foundations of the size and length indicated. Contractor shall ensure that the top surface of the anchor plate is three inches (3") above finished grade at luminaire pole locations or as indicated in the Drawings.
   b. After welding on the pile cap adapter and anchor plate to the driven steel pile, Contractor shall cold galvanize the pile cap, the pile cap adapter, anchor plate, and the top three feet (3') of the steel pile including pile cap and anchor plate.

E. Cast-in-Place Concrete Foundation

a. The Contractor shall over excavate the area around the form enough to allow for proper compaction.
b. The tops of all pole foundations shall be set so that the bottom center of the base plates are between four (4”) and six inches (6”) above CPEP pole bumper.
c. Reinforcement shall be placed and fastened in conformance with Section 301—General.
d. Drilled holes or forms shall be vertical, and true to the locations shown in the Drawings. Upon completion of excavation for a foundation, and prior to the placement of concrete, all loose material shall be removed in order that the foundation rests on firm, undisturbed ground.
e. Forms shall be true to line and grade, with the top of the foundation at the established elevation.
f. Conduit shall be included in all concrete foundations for wire and cable entry as shown on the Drawings as required to complete the Work. The conduit in pole or post foundations shall extend four inches (4") above the foundation (but not above the slip base adapter) and shall be sloped towards the hand-hole opening. These conduits shall exit the foundations in the top center of the foundation surface.
g. The reinforcing steel cage, if required, shall be placed and secured symmetrically about the vertical axis and shall be securely blocked to clear the sides of the foundation. Anchor bolt assemblies and conduit ends and reinforcing bar assemblies shall be securely supported by templates. Each anchor bolt shall have two (2) nuts and two (2) washers.
h. Anchor bolts, nuts and washers shall conform to ASTM F 1554 and shall be hot-dip galvanized after fabrication in accordance with ASTM A 153.
i. Damage to galvanized surfaces as a result of damage during shipping or construction activities shall be repaired in accordance ASTM A 780.
j. Install the bottoms of the bottom leveling nuts in a level plane within one inch (1”) of the top of foundations. Adjust nuts until their tops form a level plane. Install one washer on top of leveling nuts and, after setting the pole on these washers, install one washer under top nuts. Bring leveling nuts (bottom nuts) to full bearing on the bottom of the base plate. Generously lubricate the bearing surface and internal threads of top nuts with beeswax. Tighten top nuts to a “snug” condition. Use a click type torque wrench to apply 600 foot-pounds of torque to the “snug” top nuts. After the top nuts are tightened to the correct torque, use a hydraulic wrench to rotate top nuts an additional one sixth (60 degree) turn, while preventing the leveling nuts from turning.”
k. Reinforcing bars shall be formed into cages and all intersections tied with #14 AWG steel wire. The cages shall be accurately held in position during placing and setting of the concrete. All reinforcing bars shall be bent cold in as smooth a curve as possible and shall conform to standard practice of the WCRSI. Reinforcing steel shall not be welded except as shown in the construction detail Drawings.
l. Surface water shall not be permitted to enter the hole and all water which may have infiltrated in the hole shall be removed before placing concrete. Both forms and ground shall be thoroughly moistened before placing concrete. Each foundation shall be poured in one continuous pour.

m. Posts, poles and pedestals shall not be erected or placed on the foundation until ten (10) days after placement of the concrete.
n. Plumbing shall be accomplished by adjusting the nuts on the anchor bolts. Shims or other similar devices for plumbing or raking are not permitted.
o. After each pole is in position, grout shall be placed under the base plate as shown on the Drawings, and shaped to present a neat appearance.
    i. The Contractor shall use a premixed grout having a minimum twenty-eight (28) day compressive strength of four thousand pounds per square inch (4,000 psi). Proprietary grout mixtures shall be utilized in accordance with the recommendations of the manufacturer.
    ii. Concrete areas to be in contact with the grout shall be cleaned of all loose and foreign matter that would in any way prevent bond between the mortar and the concrete surfaces.
    iii. Contractor shall not grout unless ambient temperature will remain a minimum temperature of forty-five degrees Fahrenheit (45°F) for three days after grouting. All improperly cured or otherwise defective grout shall be removed and replaced at the Contractor's expense. No load shall be placed on the grout until it has set for at least ninety-six (96) hours.
p. Attach a #4 AWG, bare, copper wire as a grounding electrode conductor to the #4 spiral bar in the reinforcing steel cage. Use two irreversible compression connectors to make the attachment. Protect the attachment during concrete placement. In foundations that lack reinforcing steel cages, install 21 feet of coiled #4 AWG, bare, copper wire as the grounding electrode. Route the conductor to protrude near the top, center of the foundations. Slide a minimum six inch (6”) long, PVC or HDPE, protective sleeve over the conductor. Allow one inch (1”) of the sleeve and twenty-four inches (24”) of conductor to protrude from the foundations.
q. Install anchor bolts and rods plumb. Anchor bolts and rods greater than 1:40 out of plumb will result in rejection of foundation. Contractor shall reconstruct rejected foundations at no additional expense to Owner.

904.4 Method of Measurement

A. Luminaire foundations will be measured as Each pile permanently driven, complete and in place, excluding work covered by other Sections. Incidental to this pay item are porous backfill and CPEP crash barrier placed around the pile foundation as indicated on the Plans and in accordance with Sections 209 Porous Backfill and 802 Furnish and Install Pipe. Removal of concrete pad for installation of pile foundation and/or conduits is incidental to this pay item.

B. Any surveying required to complete the work and/or establish pile locations before, during, and after pile driving and other items are completed are considered incidental.

904.5 Basis of Payment

Basis of payment for this item shall be in accordance with *Section 10.07 – Measurement and Payment*, and shall be full payment for work described in this section.

Payment shall be made on the following basis:

ITEM	DESCRIPTION	UNIT
904	Luminaire Pole Foundation	Each

IX. Appendices

Local Bidder Preference

A local bidder preference shall be incorporated into the award of this contract based on the following criteria:

- A Bidder who maintains and operates a business within the boundaries of the City of Homer shall be considered the lower Bidder where its offer is:

    1. Not more than five percent (5%) higher than the lowest non-local bid up to five hundred thousand dollars ($0 - $500,000) or;
    2. Not more than five percent (5%) higher than the lowest non-local bid on the first five hundred thousand dollars ($500,000) and two and ½ percent (2.5%) higher than the lowest non-local bid on an amount greater than five hundred thousand dollars ($500,000) to one million dollars ($1,000,000). There will be no additional local bidder preference percentage for bid amounts exceeding one million dollars ($1,000,000).

- A Bidder shall be deemed a Local Bidder who:

    1. Holds a current Alaska Business License to provide the services requested by this contract; and
    2. Submits a bid under the name appearing on the firm's current Alaska Business License; and
    3. Has maintained a place of business within the boundaries of the City of Homer for a period of at least six (6) months immediately preceding the date of the Bid and intends to permanently maintain such place of business in the future; and
    4. Is not delinquent in the payment of any taxes, charges, or assessments owed to the City of Homer on account of that business.

The City Manager may require such documentation or verification by the person or firm claiming to be a local bidder as deemed necessary to establish the qualifications stated in this section.

X. Submittals

(Due within two (2) days after bid)

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 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 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: _____

JOINT VENTURE

1. Joint Venture Agreement

2. A statement signed by authorized person of each party to the joint venture.

3. Each party to the joint venture shall comply with the requirements for corporations, partnerships or individuals, as applicable.

PARTNERSHIP

1. Partnership Agreement

2. Statement signed by all partners granting authority to the partner signing the Bid.

CORPORATIONS

1. Articles of Incorporation – most recent.

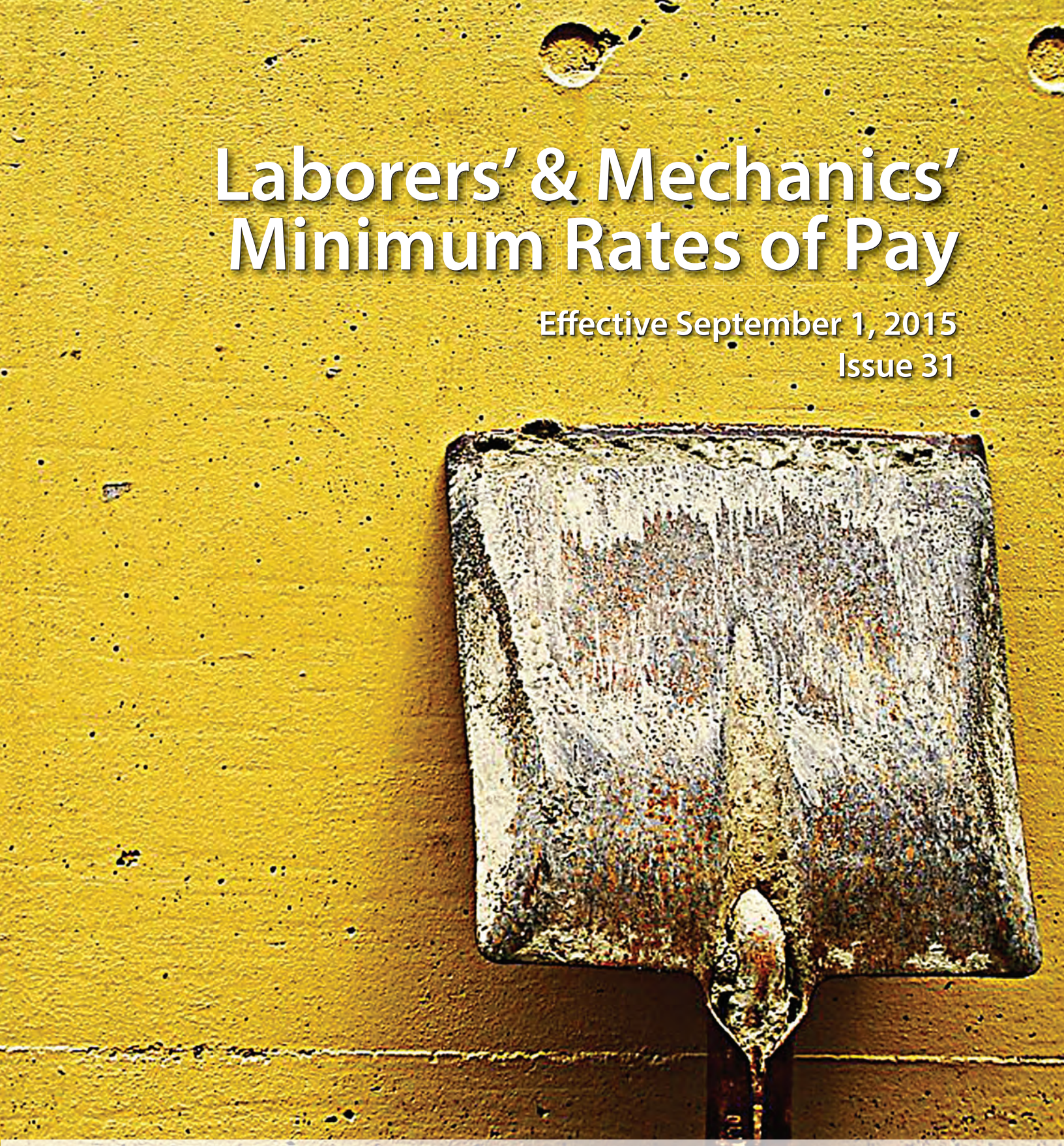
2. By-Laws – most recent.

3. Resolution of the Board of Directors granting the authority to the officer signing on behalf of the corporation.

XI. State of Alaska Labor Rates

Laborers' & Mechanics' Minimum Rates of Pay

Effective September 1, 2015
Issue 31



Title 36. Public Contracts
AS 36.05 & AS 36.10
Wage & Hour Administration
Pamphlet No. 600

ALASKA DEPARTMENT OF LABOR
& WORKFORCE DEVELOPMENT

- This page intentionally left blank -

THE STATE of ALASKA
GOVERNOR BILL WALKER

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

September 1, 2015

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 wage and resident hire requirements.

This pamphlet identifies current prevailing wage rates and resident hire classifications for public construction contracts (any construction projects awarded by the State of Alaska or its political subdivisions, such as local governments and certain non-profit organizations). Because these rates may change, this publication is printed in the spring and fall of every year, so please be sure you are using the appropriate rates. The rates published in this edition become effective September 1, 2015.

All projects with a final bid date of September 11, 2015, or later, must pay the prevailing wage rates contained in this pamphlet. 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 months 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, contact the nearest office of the Division of Labor Standards and Safety, Wage and Hour office or the Web address at: http://labor.state.ak.us/lss/pamp600.htm

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

Sincerely,

Heidi Drygas
Commissioner

Table of Contents

Excerpts from Alaska Law

Additional Information

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 the current laws and regulations, please refer to the official codes.

EXCERPTS FROM ALASKA LAW

(The following statute (36.05.005) applies to projects bid on or after October 20, 2011)

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.

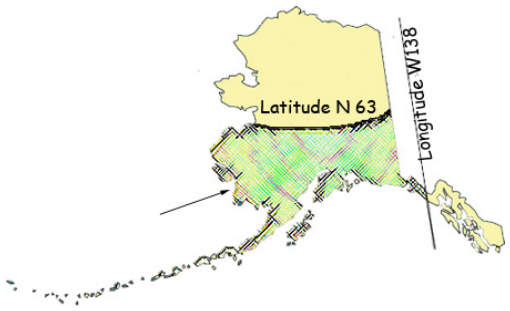
Sec. 36.05.900. Definition.
In this chapter, "contracting agency" means the state or a political subdivision of the state that has entered into a public construction contract with a contractor.

ADDITIONAL INFORMATION

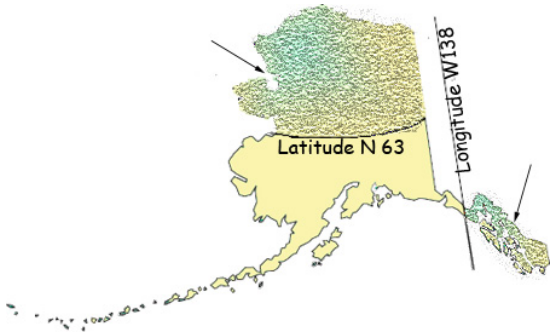
LABORER CLASSIFICATION CLARIFICATION

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



ACCOMMODATIONS AND PER DIEM

The Alaska Department of Labor and Workforce Development has adopted a per diem requirement for blocklayers, bricklayers, carpenters, dredgemen, heat & frost insulators/asbestos workers, ironworkers, laborers, operative plasterers & cement masons, painters, piledrivers, power equipment operators, roofers, surveyors, truck

drivers/surveyors, and tunnel workers. This per diem rate creates an allowable alternative to providing board and lodging under the following conditions:

Employer-Provided Camp or Suitable Accommodations

Unless otherwise approved by the Commissioner, the employer shall ensure that a worker who is employed on a project that is 65 road miles or more from the international airport in either Fairbanks, Juneau or Anchorage or is inaccessible by road in a 2-wheel drive vehicle and who is not a domiciled resident of the locality of the project shall receive meals and lodging. Lodging shall be in accordance with all applicable state and federal laws. In cases where the project site is not road accessible, but the employee can reasonably get to the project worksite from their permanent residence within one hour, the Commissioner may waive these requirements for that employee upon a written request from the employer.

The term "domiciled resident" means a person living within 65 road miles of the 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 project. However, if the employer or person provides sufficient evidence to convince the department that a person has established a permanent residence and an intent to remain indefinitely within the distance to be considered a "domiciled resident," the employer shall not be required to provide meals and lodging or pay per diem.

Where the employer provides or furnishes board, lodging or any other facility, the cost or amount thereof shall not be considered or included as part of the required prevailing wage basic hourly rate and cannot be applied to meet other fringe benefit requirements. The taxability of employer provided board and lodging shall be determined by the appropriate taxation enforcement authority.

Per Diem

Employers are encouraged to use commercial facilities and lodges; however, when such facilities are not available, per diem in lieu of meals and lodging must be paid at the basic rate of $75.00 per day, or part thereof, the worker is employed on the project. Per diem shall not be allowed on highway projects west of Livengood on the Elliott Highway, at Mile 0 of the Dalton Highway to the North Slope of Alaska, north of Mile 20 on the Taylor Highway, east of Chicken, Alaska, on the Top of the World Highway and south of Tetlin Junction to the Alaska-Canada border.

The above-listed standards for room and board and per diem only apply to the crafts as identified in Pamphlet 600, *Laborers' and Mechanics' Minimum Rates of Pay*. Other crafts working on public construction projects shall be provided room and board at remote sites based on the department's existing policy guidelines. In the event that a contractor provides lodging facilities, but no meals, the department will accept payment of $36 per day for meals to meet the per diem requirements.

APPRENTICE HIRING REQUIREMENTS

On July 24, 2005, Administrative Order No. 226 established a 15 percent goal for hiring apprentices in certain job categories on highway, airport, harbor, dam, tunnel, utility or dredging projects awarded by the Alaska Department of Transportation and Public Facilities that exceed $2.5 million. This Order will apply to all projects in the referenced categories that are advertised after September 1, 2005. On these projects, the hours worked by apprentices will be compared to the hours worked by journeyman level workers to determine if the 15 percent goal has been met. This on-the-job training goal is critical to ensure that the Alaska work force is prepared for the future. For additional details, contact the nearest Wage and Hour office at the address listed on Page xi of this publication. Administrative Order No. 226 may be viewed in its entirety on the Internet at http://www.gov.state.ak.us/admin-orders/226.html or call any Wage and Hour office to receive a copy.

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. **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 & Safety Division
Wage and Hour Administration
P.O. Box 111149
Juneau, AK 99811-1149
-or-
Email: anchorage.lss-wh@alaska.gov

LABOR STANDARDS REGULATIONS
NOTICE REQUEST

If you would like to receive ***notices of proposed changes to regulations*** for Wage and Hour or Mechanical Inspection, please indicate below the programs for which you are interested in receiving such notices, print your name and email or mailing address in the space provided, and send this page to:

Alaska Department of Labor and Workforce Development
Labor Standards & Safety Division
Wage and Hour Administration
1251 Muldoon Road, Suite 113
Anchorage, AK 99504-2098
Email: anchorage.lss-wh@alaska.gov

For *REGULATIONS* information relating to any of the following:

❒ Wage and Hour Title 23 Employment Practices
❒ Wage and Hour Title 36 Public Works
❒ Employment Agencies
❒ Child Labor
❒ Employment Preference (Local Hire)
❒ Plumbing Code
❒ Electrical Code
❒ Boiler/Pressure Vessel Construction Code
❒ Elevator Code
❒ Certificates of Fitness
❒ Recreational Devices

Request any of the following *PUBLICATIONS* by checking below:

❒ Wage and Hour Title 23 Employment Practices
❒ Minimum Wage & Overtime Poster
❒ Child Labor Poster
❒ Public Construction Pamphlet
❒ Public Construction Wage Rates
❒ Child Labor Pamphlet

PLEASE NOTE: DUE TO INCREASED MAILING AND PRINTING COSTS, ONLY ONE OF EACH PUBLICATION REQUESTED WILL BE MAILED TO YOU. IF YOU WISH TO RECEIVE ADDITIONAL COPIES OR SUBSEQUENT PUBLICATIONS, PLEASE CONTACT OUR OFFICE AT (907) 269-4900.

Name: _____

Mailing Address: _____

_____

_____

_____

Email Address: _____

DEPARTMENT OF LABOR & WORKFORCE DEVELOPMENT
ALASKA EMPLOYMENT PREFERENCE INFORMATION

By authority of AS 36.10.150 and 8 AAC 30.064, the Commissioner of Labor and Workforce Development has determined the State of Alaska to be a Zone of Underemployment. A Zone of Underemployment requires that Alaska residents who are eligible under AS 36.10.140 be given a minimum of 90 percent employment preference on public works contracts throughout the state in certain job classifications. **This 90 percent Alaska resident hiring preference applies on a project-by-project, craft-by-craft or occupational basis and must be met each workweek by each contractor/subcontractor in each of the following classifications:**

Boilermakers	Electricians	Laborers	Roofers
Bricklayers	Engineers & Architects	Mechanics	Sheet Metal Workers
Carpenters	Equipment Operators	Millwrights	Surveyors
Cement Masons	Foremen & Supervisors	Painters	Truck Drivers
Culinary Workers	Insulation Workers	Piledriving Occupations	Tug Boat Workers
	Ironworkers	Plumbers & Pipefitters	Welders

This determination became effective July 1, 2015, and remains in effect through June 30, 2017. This determination will be applied to projects with a bid submission deadline on or after July 1, 2015 and to projects previously covered by the 2013 Alaska employment preference determination. This will afford contractors an opportunity to consider the impacts of Alaska resident hire in their bids.

The first person on a certified payroll in any classification is called the "first worker" and is not required to be an Alaskan resident. However, once the contractor adds any more workers in the classification, then all workers in the classification are counted, and the 90 percent calculation is applied to compute the number of required Alaskans to be in compliance. To compute the number of Alaskan residents required in a workweek in a particular classification, multiply the total number of workers in the classification by 90 percent. The result is then rounded down to the nearest whole number to determine the number of Alaskans that must be employed in that classification.

If a worker works in more than one classification during a week, the classification in which they spent the most time would be counted for employment preference purposes. If the time is split evenly between two classifications, the worker is counted in both classifications.

If you have difficulty meeting the 90 percent requirement, an approved waiver must be obtained before a non-Alaska resident is hired who would put the contractor/subcontractor out of compliance (8 AAC 30.081 (e) (f)). The waiver process requires proof of an adequate search for qualified Alaskan workers. Qualified Alaska residents identified through the search must be hired before waivers for non-resident workers may be granted. To apply for a waiver, contact the nearest Wage and Hour Office for instructions.

Here is an example to apply the 90 percent requirement to four boilermaker workers. Multiply four workers by 90% and drop the fraction (.90 X 4 = 3.6 - .6 = 3). The remaining number is the number of Alaskan resident boilermakers required to be in compliance in that particular classification for that week.

The penalties for being out of compliance are serious. AS 36.10.100 (a) states "A contractor who violates a provision of this chapter shall have deducted from amounts due to the contractor under the contract the prevailing wages which should have been paid to a displaced resident and these amounts shall be retained by the contracting agency." If a contractor/subcontractor is found to be out of compliance, penalties accumulate until they come into compliance.

Contractors are responsible for determining residency status. If you have difficulty determining whether a worker is an Alaska resident, you should contact the nearest Wage and Hour Office. Contact Wage and Hour in Anchorage at (907) 269-4900, in Fairbanks at (907) 451-2886, or in Juneau at (907) 465-4842.

Alaska Department of Labor and Workforce Development
Labor Standards & Safety Division
Wage and Hour Administration
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: anchorage.lss-wh@alaska.gov	1111 W. 8th Street, Suite 302 Juneau, Alaska 99801 Phone: (907) 465-4842 Email: juneau.lss-wh@alaska.gov	Regional State Office Building 675 7th Ave., Station J-1 Fairbanks, Alaska 99701-4593 Phone: (907) 451-2886 Email: fairbanks.lss@alaska.gov

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
Bengal Groups, LLC	November 3, 2017
Mohammed Ali, Individual	November 3, 2017
Fry's Services, LLC	November 16, 2017
John Paul Freie, Individual	November 16, 2017
Pyramid Audio & Video, Ltd.	June 19, 2018
Jeffrey P. Schneider, Individual	June 19, 2018

Laborers' & Mechanics' Minimum Rates of Pay

Class Code	Classification of Laborers & Mechanics	BHR	H&W	PEN	TRN	Other Benefits		THR
Boilermakers								
						VAC	**SAF**	
A0101	Boilermaker (journeyman)	44.01	8.57	15.34	1.60	3.00	0.34	72.86
Bricklayers & Blocklayers								
	**See note on last page if remote site							
						L&M		
A0201	Blocklayer	39.81	9.53	8.50	0.55	0.15	0.43	58.97
	Bricklayer							
	Marble or Stone Mason							
	Refractory Worker (Firebrick, Plastic, Castable, and Gunite Refractory Applications)							
	Terrazzo Worker							
	Tile Setter							
						L&M		
A0202	Tuck Pointer Caulker	39.81	9.53	8.50	0.55	0.15	0.43	58.97
	Cleaner (PCC)							
						L&M		
A0203	Marble & Tile Finisher	33.94	9.53	8.50	0.55	0.15	0.43	53.10
	Terrazzo Finisher							
						L&M		
A0204	Torginal Applicator	37.88	9.53	8.50	0.55	0.15	0.43	57.04
Carpenters, Statewide								
	**See note on last page if remote site							
						L&M	**SAF**	
A0301	Carpenter (journeyman)	38.09	9.78	13.61	0.70	0.10	0.15	62.43
	Lather/Drywall/Acoustical							
Cement Masons, Region I (North of N63 latitude)								
	**See note on last page if remote site							
						L&M		
N0401	Group I, including:	36.69	7.24	11.80	1.18	0.10		57.01
	Application of Sealing Compound							
	Application of Underlayment							
	Building, General							
	Cement Mason (journeyman)							
	Concrete							

Wage benefits key: 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
Cement Masons, Region I (North of N63 latitude)							
	**See note on last page if remote site						
						L&M	
N0401	Group I, including:	36.69	7.24	11.80	1.18	0.10	57.01
	Concrete Paving Curb & Gutter, Sidewalk Curing of All Concrete Grouting & Caulking of Tilt-Up Panels Grouting of All Plates Patching Concrete Screed Pin Setter Spackling/Skim Coating						
						L&M	
N0402	Group II, including:	36.69	7.24	11.80	1.18	0.10	57.01
	Form Setter						
						L&M	
N0403	Group III, including:	36.69	7.24	11.80	1.18	0.10	57.01
	Concrete Saw (self-powered) Curb & Gutter Machine Floor Grinder Pneumatic Power Tools Power Chipping & Bushing Sand Blasting Architectural Finish Screed & Rodding Machine Operator Troweling Machine Operator						
						L&M	
N0404	Group IV, including:	36.69	7.24	11.80	1.18	0.10	57.01
	Application of All Composition Mastic Application of All Epoxy Material Application of All Plastic Material Finish Colored Concrete Gunite Nozzleman Hand Powered Grinder Tunnel Worker						
						L&M	
N0405	Group V, including:	36.94	7.24	11.80	1.18	0.10	57.26
	Plasterer						
Cement Masons, Region II (South of N63 latitude)							
	**See note on last page if remote site						
						L&M	
S0401	Group I, including:	36.44	7.24	11.80	1.18	0.10	56.76

Wage benefits key: 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
Cement Masons, Region II (South of N63 latitude)							
	**See note on last page if remote site						
						L&M	
S0401	Group I, including:	36.44	7.24	11.80	1.18	0.10	56.76
	Application of Sealing Compound						
	Application of Underlayment						
	Building, General						
	Cement Mason (journeyman)						
	Concrete						
	Concrete Paving						
	Curb & Gutter, Sidewalk						
	Curing of All Concrete						
	Grouting & Caulking of Tilt-Up Panels						
	Grouting of All Plates						
	Patching Concrete						
	Screed Pin Setter						
	Spackling/Skim Coating						
						L&M	
S0402	Group II, including:	36.44	7.24	11.80	1.18	0.10	56.76
	Form Setter						
						L&M	
S0403	Group III, including:	36.44	7.24	11.80	1.18	0.10	56.76
	Concrete Saw (self-powered)						
	Curb & Gutter Machine						
	Floor Grinder						
	Pneumatic Power Tools						
	Power Chipping & Bushing						
	Sand Blasting Architectural Finish						
	Screed & Rodding Machine Operator						
	Troweling Machine Operator						
						L&M	
S0404	Group IV, including:	36.44	7.24	11.80	1.18	0.10	56.76
	Application of All Composition Mastic						
	Application of All Epoxy Material						
	Application of All Plastic Material						
	Finish Colored Concrete						
	Gunite Nozzleman						
	Hand Powered Grinder						
	Tunnel Worker						
						L&M	
S0405	Group V, including:	36.69	7.24	11.80	1.18	0.10	57.01
	Plasterer						

Class Code	Classification of Laborers & Mechanics	BHR	H&W	PEN	TRN	Other Benefits	THR
Culinary Workers * See note on last page							
A0501	Baker/Cook	25.67	6.53	6.37		LEG 0.07	38.64
A0503	General Helper	22.62	6.53	6.37		LEG 0.07	35.59
	Housekeeper Janitor Kitchen Helper						
A0504	Head Cook	26.22	6.53	6.37		LEG 0.07	39.19
A0505	Head Housekeeper	23.04	6.53	6.37		LEG 0.07	36.01
	Head Kitchen Help						
Dredgemen **See note on last page if remote site							
A0601	Assistant Engineer, including:	39.26	9.60	10.50	1.00	L&M 0.10	60.46
	Craneman Electrical Generator Operator (primary pump/power barge/dredge) Engineer Welder						
A0602	Assistant Mate (deckhand)	38.10	9.60	10.50	1.00	L&M 0.10	59.30
A0603	Fireman	38.54	9.60	10.50	1.00	L&M 0.10	59.74
A0605	Leverman Clamshell	41.79	9.60	10.50	1.00	L&M 0.10	62.99
A0606	Leverman Hydraulic	40.03	9.60	10.50	1.00	L&M 0.10	61.23
A0607	Mate & Boatman	39.26	9.60	10.50	1.00	L&M 0.10	60.46
A0608	Oiler (dredge)	38.54	9.60	10.50	1.00	L&M 0.10	59.74
Electricians							
A0701	Inside Cable Splicer	39.82	11.61	12.59	0.95	L&M 0.20	LEG 0.15 65.32

Wage benefits key: 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
Electricians								
						L&M	**LEG**	
A0702	Inside Journeyman Wireman, including:	39.49	11.61	12.83	0.95	0.20	0.15	65.23
	Technicians							
						L&M	**LEG**	
A0703	Power Cable Splicer	52.27	11.61	17.34	0.95	0.20	0.15	82.52
						L&M	**LEG**	
A0704	Tele Com Cable Splicer	47.45	11.61	15.02	0.95	0.20	0.15	75.38
						L&M	**LEG**	
A0705	Power Journeyman Lineman, including:	50.52	11.61	17.29	0.95	0.20	0.15	80.72
	Power Equipment Operator Technician							
						L&M	**LEG**	
A0706	Tele Com Journeyman Lineman, including:	45.70	11.61	14.97	0.95	0.20	0.15	73.58
	Technician Tele Com Equipment Operator							
						L&M	**LEG**	
A0707	Straight Line Installer - Repairman	45.70	11.61	14.97	0.95	0.20	0.15	73.58
						L&M	**LEG**	
A0708	Powderman	48.52	11.61	17.23	0.95	0.20	0.15	78.66
						L&M	**LEG**	
A0710	Material Handler	26.18	11.11	4.54	0.15	0.15	0.15	42.28
						L&M	**LEG**	
A0712	Tree Trimmer Groundman	26.67	11.61	10.55	0.15	0.15	0.15	49.28
						L&M	**LEG**	
A0713	Journeyman Tree Trimmer	35.34	11.61	10.81	0.15	0.15	0.15	58.21
						L&M	**LEG**	
A0714	Vegetation Control Sprayer	38.79	11.61	10.91	0.15	0.15	0.15	61.76
						L&M	**LEG**	
A0715	Inside Journeyman Communications CO/PBX	38.07	11.61	12.54	0.95	0.20	0.15	63.52
Elevator Workers								
						L&M	**VAC**	
A0802	Elevator Constructor	35.94	13.58	14.21	0.60	0.30	3.27	67.90
						L&M	**VAC**	
A0803	Elevator Constructor Mechanic	51.34	13.58	14.21	0.60	0.30	5.70	85.73

Wage benefits key: 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
Heat & Frost Insulators/Asbestos Workers								
	**See note on last page if remote site							
						SAF		
A0902	Asbestos Abatement-Mechanical Systems	36.18	8.84	9.51	0.60	0.12		55.25
						SAF		
A0903	Asbestos Abatement/General Demolition All Systems	36.18	8.84	9.51	0.60	0.12		55.25
						SAF		
A0904	Insulator, Group II	36.18	8.84	9.51	0.60	0.12		55.25
						SAF		
A0905	Fire Stop	36.18	8.84	9.51	0.60	0.12		55.25
IronWorkers								
	**See note on last page if remote site							
						L&M	**IAF**	
A1101	Ironworkers, including:	36.25	7.83	19.25	0.97	0.46	0.10	64.86
	Bender Operators Bridge & Structural Machinery Mover Ornamental Reinforcing Rigger Sheeter Signalman Stage Rigger Toxic Haz-Mat Work Welder							
						L&M	**IAF**	
A1102	Helicopter	37.25	7.83	19.25	0.97	0.46	0.10	65.86
	Tower (energy producing windmill type towers to include nacelle and blades)							
						L&M	**IAF**	
A1103	Fence/Barrier Installer	32.75	7.83	19.00	0.97	0.46	0.10	61.11
	Guard Rail Installer							
						L&M	**IAF**	
A1104	Guard Rail Layout Man	33.49	7.83	19.00	0.97	0.46	0.10	61.85
Laborers (The Alaska areas north of N63 latitude and east of W138 longitude)								
	**See note on last page if remote site							
						L&M	**LEG**	
N1201	Group I, including:	29.79	7.53	15.95	1.20	0.20	0.15	54.82
	Asphalt Worker (shovelman, plant crew)							

Wage benefits key: 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
						L&M	LEG	

Laborers (The Alaska areas north of N63 latitude and east of W138 longitude)

**See note on last page if remote site

N1201	Group I, including:	29.79	7.53	15.95	1.20	0.20	0.15	54.82

Brush Cutter
Camp Maintenance Laborer
Carpenter Tender or Helper
Choke Setter, Hook Tender, Rigger, Signalman
Concrete Labor (curb & gutter, chute handler, grouting, curing, 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

N1202	Group II, including:	30.79	7.53	15.95	1.20	0.20	0.15	55.82

Burning & Cutting Torch
Cement or Lime Dumper or Handler (sack or bulk)

Wage benefits key: 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
						L&M	LEG	

Laborers (The Alaska areas north of N63 latitude and east of W138 longitude)

**See note on last page if remote site

						L&M	LEG	
N1202	Group II, including:	30.79	7.53	15.95	1.20	0.20	0.15	55.82

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)
Foam Gun or Foam Machine Operator
Green Cutter (dam work)
Gunite Operator
Hod Carrier
Jackhammer or Pavement Breaker (more than 45 pounds)
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	
N1203	Group III, including:	31.69	7.53	15.95	1.20	0.20	0.15	56.72

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

Class Code	Classification of Laborers & Mechanics	BHR	H&W	PEN	TRN	Other Benefits		THR
						L&M	LEG	
N1203	Group III, including:	31.69	7.53	15.95	1.20	0.20	0.15	56.72
	Welding Certified (in connection with laborer's work)							
						L&M	LEG	
N1204	Group IIIA	34.97	7.53	15.95	1.20	0.20	0.15	60.00
	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)							
	Licensed Powderman							
	Pioneer Drilling & Drilling Off Tugger (all type drills)							
	Pipelayers							
	Storm Water Pollution Protection Plan Specialist (SWPPP Specialist)							
						L&M	LEG	
N1205	Group IV	19.36	7.53	15.95	1.20	0.20	0.15	44.39
	Final Building Cleanup							
	Permanent Yard Worker							
						L&M	LEG	
N1206	Group IIIB	35.80	7.53	15.95	1.20	0.20	0.15	60.83
	Federally Licensed Powderman (Responsible Person in Charge)							
	Grade Checking (setting or transferring of grade marks, line and grade, Stake Hopper)							

Laborers (The Alaska areas north of N63 latitude and east of W138 longitude)

**See note on last page if remote site

Laborers (The area that is south of N63 latitude and west of W138 longitude)

**See note on last page if remote site

						L&M	LEG	
S1201	Group I, including:	29.79	7.53	15.95	1.20	0.20	0.15	54.82
	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, grouting, curing, screeding)							
	Crusher Plant Laborer							
	Demolition Laborer							
	Ditch Digger							
	Dumpman							
	Environmental Laborer (hazard/toxic waste, oil spill)							
	Fence Installer							
	Fire Watch Laborer							
	Flagman							

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

Laborers (The area that is south of N63 latitude and west of W138 longitude)

**See note on last page if remote site

S1201	Group I, including:	29.79	7.53	15.95	1.20	0.20	0.15	54.82

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

						L&M	LEG	
S1202	Group II, including:	30.79	7.53	15.95	1.20	0.20	0.15	55.82

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)
Foam Gun or Foam Machine Operator
Green Cutter (dam work)
Gunite Operator
Hod Carrier
Jackhammer or Pavement Breaker (more than 45 pounds)

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

Laborers (The area that is south of N63 latitude and west of W138 longitude)

**See note on last page if remote site

						L&M	LEG	
S1202	Group II, including:	30.79	7.53	15.95	1.20	0.20	0.15	55.82

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:	31.69	7.53	15.95	1.20	0.20	0.15	56.72

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)

						L&M	LEG	
S1204	Group IIIA	34.97	7.53	15.95	1.20	0.20	0.15	60.00

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)
Licensed Powderman
Pioneer Drilling & Drilling Off Tugger (all type drills)
Pipelayers
Storm Water Pollution Protection Plan Specialist (SWPPP Specialist)

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 note on last page if remote site							
						L&M	**LEG**	
S1205	Group IV	19.36	7.53	15.95	1.20	0.20	0.15	44.39
	Final Building Cleanup Permanent Yard Worker							
						L&M	**LEG**	
S1206	Group IIIB	35.80	7.53	15.95	1.20	0.20	0.15	60.83
	Federally Licensed Powderman (Responsible Person in Charge) Grade Checking (setting or transferring of grade marks, line and grade, Stake Hopper)							
Millwrights								
						L&M		
A1251	Millwright (journeyman)	36.49	9.78	11.26	1.00	0.40	0.05	58.98
						L&M		
A1252	Millwright Welder	37.49	9.78	11.26	1.00	0.40	0.05	59.98
Painters, Region I (North of N63 latitude)								
	**See note on last page if remote site							
						L&M		
N1301	Group I, including:	32.07	7.83	11.10	1.08	0.07		52.15
	Brush General Painter Hand Taping Hazardous Material Handler Lead-Based Paint Abatement Roll							
						L&M		
N1302	Group II, including:	32.59	7.83	11.10	1.08	0.07		52.67
	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							

Wage benefits key: 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
Painters, Region I (North of N63 latitude)							
	**See note on last page if remote site						
						L&M	
N1302	Group II, including:	32.59	7.83	11.10	1.08	0.07	52.67
	Wallpaper/Vinyl Hanger						
N1304	Group IV, including:	37.88	7.83	11.16	1.05	0.05	57.97
	Glazier						
	Storefront/Automatic Door Mechanic						
N1305	Group V, including:	29.51	7.83	5.02	0.83	0.07	43.26
	Carpet Installer						
	Floor Coverer						
	Heat Weld/Cove Base						
	Linoleum/Soft Tile Installer						
Painters, Region II (South of N63 latitude)							
	**See note on last page if remote site						
						L&M	
S1301	Group I, including :	30.31	7.83	10.85	1.08	0.07	50.14
	Brush						
	General Painter						
	Hand Taping						
	Hazardous Material Handler						
	Lead-Based Paint Abatement						
	Roll						
	Spray						
						L&M	
S1302	Group II, including :	31.56	7.83	10.85	1.08	0.07	51.39
	General Drywall Finisher						
	Hand/Spray Texturing						
	Machine/Automatic Taping						
	Wallpaper/Vinyl Hanger						
						L&M	
S1303	Group III, including :	31.66	7.83	10.85	1.08	0.07	51.49
	Bridge Painter						
	Epoxy Applicator						
	Industrial Coatings Specialist						
	Pot Tender						
	Sandblasting						
	Specialty Painter						
	Structural Steel Painter						

Wage benefits key: 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
Painters, Region II (South of N63 latitude)								
	**See note on last page if remote site							
S1304	Group IV, including:	37.88	7.83	10.41	1.08	L&M 0.07		57.27
	Glazier Storefront/Automatic Door Mechanic							
S1305	Group V, including:	29.51	7.83	5.02	0.83	L&M 0.07		43.26
	Carpet Installer Floor Coverer Heat Weld/Cove Base Linoleum/Soft Tile Installer							
Piledrivers								
	**See note on last page if remote site							
A1401	Piledriver	38.09	9.78	13.61	0.70	L&M 0.10	IAF 0.15	62.43
	Assistant Dive Tender Carpenter/Piledriver Rigger Sheet Stabber Skiff Operator							
A1402	Piledriver-Welder/Toxic Worker	39.09	9.78	13.61	0.70	L&M 0.10	IAF 0.15	63.43
A1403	Remotely Operated Vehicle Pilot/Technician	42.40	9.78	13.61	0.70	L&M 0.10	IAF 0.15	66.74
	Single Atmosphere Suit, Bell or Submersible Pilot							
A1404	Diver (working) ***See note on last page	82.20	9.78	13.61	0.70	L&M 0.10	IAF 0.15	106.54
A1405	Diver (standby) ***See note on last page	42.40	9.78	13.61	0.70	L&M 0.10	IAF 0.15	66.74
A1406	Dive Tender ***See note on last page	41.40	9.78	13.61	0.70	L&M 0.10	IAF 0.15	65.74
A1407	Welder (American Welding Society, Certified Welding Inspector)	43.65	9.78	13.61	0.70	L&M 0.10	IAF 0.15	67.99
Plumbers, Region I (North of N63 latitude)								
N1501	Journeyman Pipefitter	41.21	7.75	13.45	1.25	L&M 1.10	S&L	64.76
	Plumber							

Wage benefits key: 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 I (North of N63 latitude)							
						L&M **S&L**	
N1501	Journeyman Pipefitter	41.21	7.75	13.45	1.25	1.10	64.76
	Welder						
Plumbers, Region II (South of N63 latitude)							
						L&M	
S1501	Journeyman Pipefitter	40.00	8.88	11.57	1.25	0.20	61.90
	Plumber						
	Welder						
Plumbers, Region IIA (1st Judicial District)							
						L&M	
X1501	Journeyman Pipefitter	37.27	12.72	11.25	2.50	0.24	63.98
	Plumber						
	Welder						
Power Equipment Operators							
	**See note on last page if remote site						
						L&M	
A1601	Group I, including:	40.03	9.60	10.50	1.00	0.10	61.23
	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						
	Crushers						
	Deck Winches, Double Drum						
	Ditching or Trenching Machine (16 inch or over)						
	Drag Scraper, Yarder, and similar types						

Wage benefits key: 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

Power Equipment Operators

**See note on last page if remote site

						L&M	
A1601	Group I, including:	40.03	9.60	10.50	1.00	0.10	61.23

Drilling Machines, Core, Cable, Rotary and Exploration
Finishing Machine Operator, Concrete Paving, Laser Screed, Sidewalk, Curb & Gutter Machine
Helicopters
Hover Craft, Flex Craft, Loadmaster, Air Cushion, All-Terrain Vehicle, Rollagon, Bargecable, Nodwell, & Snow Cat
Hydro Ax, Feller Buncher & similar
Licensed Line & Grade
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)
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
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)
Spreaders, Blaw Knox, Cedarapids, Barber Greene, Slurry Machine
Sub Grader (Gurries, Reclaimer & similar types)
Tack Tractor
Truck Mounted Concrete Pump, Conveyor & Creter
Unlicensed Off-Road Hauler
Wate Kote Machine

						L&M	
A1602	Group IA, including:	41.79	9.60	10.50	1.00	0.10	62.99

Camera/Tool/Video Operator (Slipline)

Wage benefits key: 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
Power Equipment Operators							
	**See note on last page if remote site						
						L&M	
A1602	Group IA, including:	41.79	9.60	10.50	1.00	0.10	62.99
	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, Roto-Mill/Profiler (finish: when finishing to final grade and/or to hubs, or for asphalt)						
	Power Plants (1000 k.w. & over)						
	Quad						
	Scrapers (over 40 yards)						
	Screed						
	Shovels, Backhoes, Excavators with all attachments (over 3 yards)						
	Sidebooms (over 45 tons)						
	Slip Form Paver, C.M.I. & similar types						
						L&M	
A1603	Group II, including:	39.26	9.60	10.50	1.00	0.10	60.46
	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						
	Licensed Grade Technician						
	Loaders (i.e., Elevating Grader & Material Transfer Vehicle)						
	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:	38.54	9.60	10.50	1.00	0.10	59.74
	"A" Frame Trucks, Deck Winches						
	Bombardier (tack or tow rig)						
	Boring Machine						
	Brooms, Power						
	Bump Cutter						
	Compressor						

Class Code	Classification of Laborers & Mechanics	BHR	H&W	PEN	TRN	Other Benefits	THR
Power Equipment Operators							
	**See note on last page if remote site						
A1604	Group III, including:	38.54	9.60	10.50	1.00	L&M 0.10	59.74
	Farm Tractor Forklift, Industrial Type Gin Truck or Winch Truck (with poles when used for hoisting) Grade Checker & Stake Hopper 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 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) Straightening Machine Tow Tractor						
A1605	Group IV, including:	32.33	9.60	10.50	1.00	L&M 0.10	53.53
	Crane Assistant Engineer/Rig Oiler Drill Helper Parts & Equipment Coordinator Spotter Steam Cleaner Swamper (on trenching machines or shovel type equipment)						
Roofers							
	**See note on last page if remote site						
A1701	Roofer & Waterproofer	42.95	7.43	2.91	0.81	L&M 0.10	0.02 54.22
A1702	Roofer Material Handler	30.07	7.43	2.91	0.81	L&M 0.10	0.02 41.34

Wage benefits key: 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
Sheet Metal Workers, Region I (North of N63 latitude)							
						L&M	
N1801	Sheet Metal Journeyman	45.93	9.50	10.64	1.32	0.25	67.64

Air Balancing and duct cleaning of HVAC systems
Brazing, soldering or welding of metals
Demolition of sheet metal HVAC 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
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
Sheet Metal venting, chimneys and breaching
Skylight installation

Sheet Metal Workers, Region II (South of N63 latitude)							
						L&M	
S1801	Sheet Metal Journeyman	40.79	9.50	11.72	1.18	0.33	63.52

Air Balancing and duct cleaning of HVAC systems
Brazing, soldering or welding of metals
Demolition of sheet metal HVAC 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
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
Sheet Metal venting, chimneys and breaching

Class Code	Classification of Laborers & Mechanics	BHR	H&W	PEN	TRN	Other Benefits	THR
Sheet Metal Workers, Region II (South of N63 latitude)							
S1801	Sheet Metal Journeyman	40.79	9.50	11.72	1.18	L&M 0.33	63.52
	Skylight installation						
Sprinkler Fitters							
A1901	Sprinkler Fitter	43.75	8.52	13.20	0.45	L&M 0.25	66.17
Surveyors							
	**See note on last page if remote site						
A2001	Chief of Parties	42.51	9.98	9.99	1.30	L&M 0.10	63.88
A2002	Party Chief	40.92	9.98	9.99	1.30	L&M 0.10	62.29
A2003	Line & Grade Technician/Office Technician	40.32	9.98	9.99	1.30	L&M 0.10	61.69
A2004	Associate Party Chief (including Instrument Person & Head Chain Person)	38.20	9.98	9.99	1.30	L&M 0.10	59.57
A2005	Stake Hop/Grademan	35.27	9.98	9.99	1.30	L&M 0.10	56.64
A2006	Chain Person (for crews with more than 2 people)	33.86	9.98	9.99	1.30	L&M 0.10	55.23
Truck Drivers							
	**See note on last page if remote site						
A2101	Group I, including:	39.29	9.98	9.99	1.30	L&M 0.10	60.66
	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 rockbuggy & trucks with pups) over 40 yards up to & including 60 yards						
	Helicopter Transporter						
	Lowboys, including attached trailers & jeeps, up to & including 12 axles (over 12 axles or 150 tons to be negotiated)						

Wage benefits key: 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
Truck Drivers							
	**See note on last page if remote site						
A2101	Group I, including:	39.29	9.98	9.99	1.30	L&M 0.10	60.66
	Material Coordinator and Purchasing Agent Ready-mix (over 12 yards up to & including 15 yards) (over 15 yards to be negotiated) Semi with Double Box Mixer Tireman, Heavy Duty/Fueler Water Wagon (250 Bbls and above)						
A2102	Group 1A including:	40.56	9.98	9.99	1.30	L&M 0.10	61.93
	Dump Trucks (including rockbuggy & trucks with pups) over 60 yards up to & including 100 yards (over 100 yards to be negotiated) Jeeps (driver under load)						
A2103	Group II, including:	38.03	9.98	9.99	1.30	L&M 0.10	59.40
	All Deltas, Commanders, Rollagons, & similar equipment Boom Truck/Knuckle Truck (over 5 tons) Construction and Material Safety Technician Dump Trucks (including rockbuggy & 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) Lowboys (including attached trailers & jeeps up to & including 8 axles) Mechanics Partsman Ready-mix (over 7 yards up to & including 12 yards) Stringing Truck Super Vac Truck/Cacasco Truck/Heat Stress Truck Turn-O-Wagon or DW-10 (not self loading)						
A2104	Group III, including:	37.21	9.98	9.99	1.30	L&M 0.10	58.58
	Batch Trucks (8 yards & up) Boom Truck/Knuckle Truck (up to & including 5 tons) Dump Trucks (including rockbuggy & 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 Oil Distributor Driver Thermal Plastic Layout Technician Traffic Control Technician						

Class Code	Classification of Laborers & Mechanics	BHR	H&W	PEN	TRN	Other Benefits	THR
Truck Drivers							
	**See note on last page if remote site						
						L&M	
A2104	Group III, including:	37.21	9.98	9.99	1.30	0.10	58.58
	Trucks/Jeeps (push or pull)						
						L&M	
A2105	Group IV, including:	36.63	9.98	9.99	1.30	0.10	58.00
	Air Cushion or similar type vehicle						
	All Terrain Vehicle						
	Buggymobile						
	Bull Lift & Fork Lift, Fork Lift with Power Boom & Swing Attachment (over 5 tons)						
	Bus Operator (over 30 passengers)						
	Combination Truck-Fuel & Grease						
	Compactor (when pulled by rubber tired equipment)						
	Dump Trucks (including Rockbuggy & 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)						
	Semi or Truck & Trailer						
	Tireman, Light Duty						
	Track Truck Equipment						
	Vacuum Truck, Truck Vacuum Sweeper						
	Warehouseperson						
	Water Truck (Below 250 Bbls)						
	Water Truck, Dual Axle						
	Water Wagon, Semi						
						L&M	
A2106	Group V, including:	35.87	9.98	9.99	1.30	0.10	57.24
	Batch Truck (up to & including 7 yards)						
	Buffer Truck						
	Bull Lifts & Fork Lifts, Fork Lifts with Power Boom & Swing Attachments (up to & including 5 tons)						

Class Code	Classification of Laborers & Mechanics	BHR	H&W	PEN	TRN	Other Benefits	THR
Truck Drivers							
	**See note on last page if remote site						
						L&M	
A2106	Group V, including:	35.87	9.98	9.99	1.30	0.10	57.24
	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						
	Gravel Spreader Box Operator on Truck						
	Hydro Seeders, Single axle						
	Pickups (pilot cars & all light-duty vehicles)						
	Rigger/Swamper						
	Tack Truck						
	Team Drivers (horses, mules, & similar equipment)						
Tunnel Workers, Laborers (The Alaska areas north of N63 latitude and east of W138 longitude)							
	**See note on last page if remote site						
						L&M	LEG	
N2201	Group I, including:	32.77	7.53	15.95	1.20	0.20	0.15	57.80
	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:	33.87	7.53	15.95	1.20	0.20	0.15	58.90
	Burning & Cutting Torch							
	Certified Erosion Sediment Control Lead (CESCL Laborer)							
	Concrete Laborer							
	Jackhammer							
	Laser Instrument Operator							
	Nozzlemen, Pumpcrete or Shotcrete							
	Pipelayer Helper							
						L&M	LEG	
N2203	Group III, including:	34.86	7.53	15.95	1.20	0.20	0.15	59.89
	Miner							
	Retimberman							

Wage benefits key: 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
						L&M	LEG	
Tunnel Workers, Laborers (The Alaska areas north of N63 latitude and east of W138 longitude)								
	**See note on last page if remote site							
N2204	Group IIIA, including:	38.47	7.53	15.95	1.20	0.20	0.15	63.50
	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)							
	Licensed Powderman							
	Pioneer Drilling & Drilling Off Tugger (all type drills)							
	Pipelayer							
	Storm Water Pollution Protection Plan Specialist (SWPPP Specialist)							
						L&M	LEG	
N2206	Group IIIB, including:	39.38	7.53	15.95	1.20	0.20	0.15	64.41
	Federally Licensed Powderman (Responsible Person in Charge)							
	Grade Checking (setting or transferring of grade marks, line and grade, Stake Hopper)							
Tunnel Workers, Laborers (The area that is south of N63 latitude and west of W138 longitude)								
	**See note on last page if remote site							
						L&M	LEG	
S2201	Group I, including:	32.77	7.53	15.95	1.20	0.20	0.15	57.80
	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:	33.87	7.53	15.95	1.20	0.20	0.15	58.90
	Burning & Cutting Torch							
	Certified Erosion Sediment Control Lead (CESCL Laborer)							
	Concrete Laborer							
	Jackhammer							
	Laser Instrument Operator							
	Nozzlemen, Pumpcrete or Shotcrete							
	Pipelayer Helper							
						L&M	LEG	
S2203	Group III, including:	34.86	7.53	15.95	1.20	0.20	0.15	59.89
	Miner							
	Retimberman							

Wage benefits key: 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
						L&M	LEG	
S2204	Group IIIA, including:	38.47	7.53	15.95	1.20	0.20	0.15	63.50
	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) Licensed Powderman Pioneer Drilling & Drilling Off Tugger (all type drills) Pipelayer Storm Water Pollution Protection Plan Specialist (SWPPP Specialist)							
						L&M	LEG	
S2206	Group IIIB, including:	39.38	7.53	15.95	1.20	0.20	0.15	64.41
	Federally Licensed Powderman (Responsible Person in Charge) Grade Checking (setting or transferring of grade marks, line and grade, Stake Hopper)							

Tunnel Workers, Laborers (The area that is south of N63 latitude and west of W138 longitude)

**See note on last page if remote site

Tunnel Workers, Power Equipment Operators

**See note on last page if remote site

						L&M	
A2207	Group I	44.03	9.60	10.50	1.00	0.10	65.23
						L&M	
A2208	Group IA	45.97	9.60	10.50	1.00	0.10	67.17
						L&M	
A2209	Group II	43.19	9.60	10.50	1.00	0.10	64.39
						L&M	
A2210	Group III	42.39	9.60	10.50	1.00	0.10	63.59
						L&M	
A2211	Group IV	35.56	9.60	10.50	1.00	0.10	56.76

*** A remote site is isolated and relatively distant from the amenities of civilization, and usually far from the employee's home. As a condition of employment, the workers must eat, sleep, and socialize at the worksite and remain there for extended periods.**

**** This classification must receive board and lodging under certain conditions. A per diem option of $75 is an alternative to providing meals and lodging. See Page v for an explanation.**

***** 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.**

Wage benefits key: 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