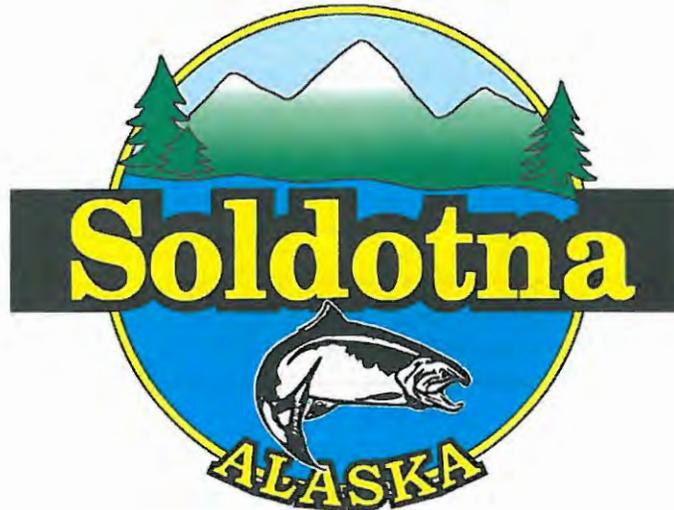


PROJECT MANUAL
STERLING STREET PAVING AND UTILITY
UPGRADES



PROJECT # SOLB 13-16

PLANS AND SPECIFICATIONS AVAILABLE: JUNE 3, 2013

NON-MANDATORY PRE-BID CONFERENCE: JUNE 19, 2013 AT 10:00AM

BIDS DUE: JULY 3, 2013 AT 3:00 PM

OWNER:

**CITY OF SOLDOTNA
177 N. BIRCH STREET
SOLDOTNA, AK 99669
(907) 262-9107**

CONTRACTOR:

Sterling Street Paving and Utility Upgrades
SOLB 13-16
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SECTION 1
BIDDING DOCUMENTS

Invitation to Bid
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Tax Compliance Form

INVITATION TO BID

CITY OF SOLDOTNA
177 NORTH BIRCH STREET
SOLDOTNA, ALASKA 99669
Phone 907•262•9107

The City of Soldotna hereby invites qualified firms to submit a firm price for acceptance by the City for the Sterling Street Paving and Utility Upgrades.

The project consists of the following:

Install approximately 1,615 lf of water main pipe, 546 lf of sewer main pipe, 110 lf of storm sewer pipe and necessary infrastructure shown on plans to connect new main into utility networks. Existing utilities including some asbestos-cement pipe will be abandoned in place. Modify subgrade per plans and pave approximately 1,555 lf of S Sterling St, Kingfisher Ct and necessary approaches, intersections and cul-de-sacs with concrete curb, gutter and sidewalk per plans. Traffic control and temporary utility access and coordination is included in the project as well.

A non-mandatory pre-bid conference will be held at the City Hall, Soldotna, AK on June 19, 2013 at 10:00am. Attendance at the pre-bid is not required, but strongly recommended.

This contract is subject to the provision of State of Alaska, Title 36, Minimum Wage Rates. The subsequent contract will require certificates of insurance and may require performance and payment bonds.

One (1) complete set of the bid package is to be submitted to the City of Soldotna at 177 North Birch Street, Soldotna, Alaska 99669. These forms must be enclosed in a sealed envelope with the bidder's name on the outside and clearly marked:

BID: Sterling Street Paving and Utility Upgrades SOLB 13-16
DUE DATE: July 3, 2013 no later than 3:00 pm

The project documents may be obtained from the City of Soldotna beginning June 3, 2013 for a non-refundable fee of \$20.00 (21.20 with tax). An additional non-refundable fee of \$5.00 will be required if mailing is requested. Project documents may be downloaded from the City of Soldotna web site at www.ci.soldotna.ak.us. To bid on City of Soldotna projects and/or to receive project addendums, you must be on the planholders list. To be placed on the planholders list, please contact Barbara Phegley either by phone (714-1241) or email publicworks@ci.soldotna.ak.us. Downloading projects from the City web site does **not** automatically put you on the planholders list.

Peninsula Clarion: June 3, 6, 9 and 11, 2013

INSTRUCTIONS TO BIDDERS

1. GENERAL

These instructions specify the form and procedures for the submission of a complete and acceptable bid. (See Bid Form.)

2. EVIDENCE OF QUALIFICATIONS

Upon request of the Owner, a Bidder whose Bid is under consideration for the award of the Agreement shall submit promptly to the Owner satisfactory evidence of the Bidder's financial resources, their experience, their performance in completing other projects of a similar nature, and the organization and equipment they have available for the performance of the Agreement.

3. BIDDER QUALIFICATIONS

Before the Bid is considered for award, the City Engineer reserves the right to determine whether or not a Bidder is responsible and to require the Bidder to complete a Bidder Qualification Form and/or a current financial statement prepared by a Certified Public Accountant. The City Engineer shall determine whether a Bidder is responsible on the basis of the following criteria:

- The skill and experience demonstrated by the Bidder in performing Agreements of a similar nature.
- The Bidder's record for honesty and integrity.
- The Bidder's capacity to perform in terms of facilities, personnel, and financing.
- The Bidder's past performance under City Agreements. If the Bidder has failed in any material way to perform its obligations under any Agreement with the City, the Bidder may be determined as a non-responsible Bidder.
- A Bidder's representations concerning their qualifications will be construed as a covenant under the Agreement. Should it appear that the Bidder has made a material misrepresentation, the City shall have the right to terminate the Agreement for the Contractor's breach, and the City may then pursue such remedies as provided in the Agreement Documents or as provided by state statute, City code, or as appropriate.

Any determination that a Bidder is non-responsible will be made by the City Engineer. Such determination will be made in writing to the Bidder setting forth the reasons for such determination.

4. CONDITIONS AFFECTING THE WORK

The Bidder shall examine carefully the site of the proposed work and the Bidding Documents before submitting a Bid. The submission of a Bid shall be an admission that the Bidder has made such examination and is satisfied as to the conditions to be encountered in performing the work and as to the requirements and accuracy of the Bidding Documents.

The City assumes no responsibility for any understanding or representations concerning conditions made by any of its officers, agents, or employees prior to the execution of this Agreement, unless such understanding or representations are expressly stated in the Bidding Documents or Addenda.

The Bidder shall include in their Bid sufficient sums to cover all items required by the Agreement and the conditions of the site(s), and shall rely entirely upon their own examination in making their Bid. The submission of a Bid shall be taken as prima facie evidence of compliance with this paragraph.

If material required for bidding purposes by these documents is absent, the bidder is required to notify the City Engineer by facsimile (866) 594-7658, or by e-mail to kkornelis@ci.soldotna.ak.us

5. SECURITY TO BE FURNISHED BY BIDDER

If the bid exceeds \$100,000 the following apply: Certified check, bank cashier's check, or bid bond, made payable to the City of Soldotna in an amount equal to five (5%) percent of the total bid, shall accompany each bid as evidence of good faith, a guarantee that if awarded the contract, the Bidder will execute the contract and give bond as required. All Bidder's checks or bid bonds will be retained until the successful bidder has entered into a satisfactory contract and furnished bonds, as required. The successful Bidder shall furnish the Owner a Performance and Payment bond in the full amount of the Agreement and shall maintain the Bond in force during the continuance of the Agreement. The bonds must be furnished prior to the Owner's execution of the contract. The Bond shall be for the faithful performance of the Agreement in all respects including, but not limited to, payments for all materials and labor. All alterations, extensions of time, additional work, and other changes authorized by the Agreement Documents may be made without securing the consent of the Surety or Sureties. Power-of-Attorney for the person signing the Bond for the Surety must be submitted with the Bond. These bonds, in whatever amount required by the specific contract, shall be administered and deemed governed by the provisions of Alaska Statutes Title 36, Chapter 25, and shall comply with all requirements for payment and submission of claims as provided by that chapter.

6. LICENSING

Section 43.70.020 of the Alaska State Statutes requires that all businesses wishing to engage in business in Alaska obtain a license. All bidders are required to furnish, on the Bid Form, a current, valid Alaska Business License Number and if applicable, a current, valid Contractor's License Number, Specialty Contractor License Number, etc. Failure to submit all required information on the Bid Form may result in rejection of the Contractor's bid.

7. TAX COMPLIANCE CERTIFICATE

City of Soldotna Code requires that businesses or individuals contracting to do business with the City be in compliance with Kenai Peninsula Borough tax provisions. No contract will be awarded to any individual or business who is found to be in violation of the Kenai Peninsula Borough Code of Ordinances in the several areas of taxation. The Kenai Peninsula Borough Tax Compliance Certificate must be signed by the bidder and submitted with the bid. Bids submitted without a completed Tax Compliance Certificate may be considered nonresponsive.

8. INTERPRETATION OR CORRECTIONS OF BID DOCUMENTS

Bidders shall notify the City Engineer promptly of any error, omission, or inconsistency that may be discovered during examination of the Bid Documents and the proposed work site. Requests from Bidders for interpretation or clarification of the Bid Documents shall be made in writing to the City Engineer and shall arrive no later than 5:00 pm on June 25, 2013. Questions may be faxed to 866-594-7658 or emailed to kkornelis@ci.soldotna.ak.us. The subject line of the email must read, Sterling Street Paving and Utility Upgrades.

Oral questions may be presented at a pre-bid conference if one is provided for in the Bid Documents. Interpretations, corrections, or changes, if any, to the Bid Documents shall be made by Addendum. Bidders shall not rely upon interpretations, corrections, and changes made in any other manner, including orally, at the pre-bid conference. Interpretations, corrections, and changes shall not be binding unless included in an Addendum. All Addenda issued during the time of bidding shall become part of the Agreement Documents. Questions or requests for clarifications shall be directed to the City Engineer. Questions or requests for clarification directed to any other member of the City staff may be grounds for rejection of bid as being irregular. Only written interpretations or corrections by addendum shall be binding, and no other forms of interpretation or correction will be binding on the City. It is the Bidder's sole responsibility to ascertain that they have received all Addenda issued by the City. Addenda will be

issued electronically and/or by facsimile. All Addenda must be acknowledged in the space provided on the Bid Form. If no Addendum has been issued, leave blank or write or type "N/A" on the Bid Form in the space provided.

9. SUBSTITUTIONS.

Substitution requests must be submitted in accordance with Section 8, Interpretation or Corrections of Bid Documents. Substitution requests must comply with the requirements of the contract documents and specifications.

10. PREPARATION AND SUBMISSION OF BIDS

- Bids must be received by no later than the time and at the place stated in the Invitation to Bid, 177 North Birch Street, Soldotna, Alaska 99669.
- Bids must be submitted on the bid form furnished. Bids must be completed in ink or by typewriter, and must be manually signed by an authorized person. If erasures or other changes appear on the forms, the person signing the bid must initial each erasure or change in ink.
- Bids shall specify a unit or lump sum price, typed or written in ink in figures, for each bid item called for. In case of error in the extension of prices, the unit price will govern. Bids may be rejected if they show any omissions, alteration of the forms, additions not called for, conditional or alternate bids not called for, qualified bids, or irregularities of any kind. In the event there is a conflict between the numerical price and written price, the written price will govern.
 - It is expressly agreed that the quantities shown in the Bid Form, whether for a "Unit Price Bid" or in connection with a "Lump Sum Bid" given under the heading "Bid Form" are approximate only for use as a basis for comparison of Bids and are not to be taken to be either representations or warranties. The Owner does not expressly, nor by implication, agree that the actual amount of work will correspond therewith.
- The Bid Form invites bids on definite plans and specifications. Only the amounts and information asked for on the Bid Form will be considered as the bid. Each bidder shall bid upon the work exactly as specified and as requested on the Bid Form, and bidders shall bid upon all alternates as indicated. When bidding on an alternate for which there is no charge, Bidder Shall Write the words "no charge" in the space provided.
- One (1) complete set of the bid package (which shall include the Bid Form, completed Tax Compliance Certificate, and bid schedule, if applicable) shall be completely sealed in an envelope clearly marked with the Bidder's company name and the following:

Bid: Sterling Street Paving and Utility Upgrades

Due Date: July 3, 2013 no later than 3:00 pm

- Bids received without all the required documents may be considered non-responsive. Bids received after the closing time will be considered non-responsive and will not be read.
- No responsibility shall be attached to the owner for the premature opening of, or the failure to open a bid not properly addressed and identified.

Please note that overnight delivery from the lower 48 states is generally not available. Prospective bidders should anticipate a minimum of two to three days delivery time for express, priority or expedited delivery services.

11. MODIFICATION OF BIDS

Bid modifications will be accepted by the City, and binding upon the Bidder, where the modification:

- Is received by the Owner at the place designated for submission of bids prior to the deadline.
- Is sealed in an envelope clearly stating "Bid Modification," the name of the project, and the Bidder's company name.
- Is signed by the same individual who signed the original bid.

The modification document shall include a photocopy of each page of the original bid which Bidder seeks to modify, with the modification and the Bidder's signature clearly set out in ink on each page. Facsimile modification documents will be accepted within the sealed envelope provided that the Bidder's signature is clearly legible.

Should there be more than one bid modification from a Bidder, the last modification received prior to the deadline shall be opened and applied to the bid. All earlier modifications shall be returned to the Bidder unopened.

Any modification which fails to meet any requirement of this section shall be rejected, and the bid shall be considered as if no modification had been attempted.

12. WITHDRAWAL OF BID

At any time prior to scheduled closing time for receipt of bids, any bidder may withdraw their bid, either personally or by written request.

After the scheduled closing time for receipt of bids, no bidder will be permitted to withdraw their bid unless Notice of Award is delayed for a period exceeding Forty-Five (45) days.

13. ACCEPTANCE – REJECTION OF BIDS

The City reserves the right to reject any or all bids, to waive minor irregularities in any bids or in the bidding procedure, and to accept any bid presented which meets or exceeds said specifications and which is deemed to be in the best interest of the City. However, the requirements for timeliness and manual signatures shall not be waived. The City is not obligated to accept the lowest bid and is not responsible for bid preparation costs.

14. EXECUTION OF CONTRACTS

The successful bidder shall be required to execute a contract for the work within ten (10) days after receiving the contract documents from Owner; if Contractor does not return executed copies within this time, then, at the option of Owner, the bid may be rejected.

15. AWARD OF CONTRACT

It is the intent of the City to award the bid to the lowest, qualified, responsive and responsible bidder. Unless otherwise stated in the Bid Documents, the Agreement, if awarded, shall be awarded to the responsible Bidder who submits the lowest responsive bid. When Bid Documents contain a base bid and alternates, only the total of the base bid and the alternates to be awarded shall be used to determine the low bidder.

The amount of the Agreement shall be the total sum of the amounts computed from the estimated quantities and unit prices and/or the lump sum awarded by the City Engineer and specified in the Agreement.

On all Bids, Notice of Award or rejection will be given within Forty-Five (45) days of Bid opening. The notice will be in writing and signed by the City Engineer. A Notice of Intent to Award, and no other act of the City or its representatives, constitutes an acceptance of a Bid. The acceptance of a Bid shall bind the successful Bidder to execute the Agreement.

16. CONFLICTS OF INTERESTS

No member of the governing body of City or other officer, employee or agent of the City who exercises any functions or responsibilities in connection with the carrying out of the project shall have any personal interests, direct or indirect, in any ensuing contract as a result of this Invitation to Bid, without first disclosing his/her potential conflict, by submitting a letter to the City Clerk's Office establishing their "intent to do business with the City". The contractor for itself and its principal employees, officers, agents, directors or shareholders covenants that neither the contractor nor any of the listed classes of individuals has nor shall acquire any interest, direct or indirect, in the project, direct or indirect, to which the contract pertains which would conflict in any manner or degree with the performance of its work hereunder. The selected bidder further covenants that in its performance of the contract no person having such interest shall be employed, without first disclosing his/her potential conflict.

17. APPEAL PROCESS

Any aggrieved bidder may, within five days after an award of contract, appeal to the city council for a hearing, with notice to interested parties, for redetermination and final award in accordance with law.

BID FORM

**Sterling Street Paving and Utility Upgrades
SOLB 13-16**

I have received Addenda No(s) _____ and have included their provisions in my bid.

I have examined both the documents and the site, and submit the following bid:

1. To hold my bid open forty-five (45) consecutive calendar days.
2. To accept the provisions of the Instructions to Bidders.
3. To enter into and execute a contract, if awarded, on the basis of my proposal.
4. To furnish all labor and materials and to accomplish the work in accordance with the Contract Documents.
5. To accomplish Substantial Completion sixty (60) days from Notice to Proceed

Firm Name	_____		
Address	_____		
City:	_____	State	_____ Zip _____
Telephone	_____	Fax	_____
Representative	_____	Title	_____
Signature	_____	Date	_____
Email Address	_____	Cell Phone	_____

BIDDER'S DECLARATION & UNDERSTANDING

The Bidder further declares that the only person or parties interested in the Bid are those named herein, that this Bid is, in all respects, fair and without fraud, that it is made without collusion with any official of the CITY OF SOLDOTNA, and that the Bid is made without any connection or collusion with any person submitting another Bid on this Contract.

DOCUMENTS TO SUBMIT WITH THIS BID

1. Bid Form
2. Bid Schedule (if applicable)
3. A KPB Tax Compliance Certificate signed by the contractor
4. Bid Bond (5% of Bid, if bid exceeds \$100,000) and Power of Attorney

**DOCUMENTS THE CITY OF SOLDOTNA IS TO RECEIVE WITHIN 10 DAYS AFTER
NOTICE OF AWARD**

The bidder agrees that if this bid is accepted he will deliver to the City of Soldotna, within 10 calendar days of Notice of Award, the following:

1. Performance Bond (100% of contract)
2. Labor and material Payment bond (100% of contract)
3. Necessary Power-of-Attorney
4. The contractor's Certificate of Insurance
5. Corporate Acknowledgment (if applicable)
6. Contractor's questionnaire (if required)
7. Copy of business license
8. Copy of contractor's license

A contract shall not be formed and no rights shall exist under the contract until the final contract is fully executed by all parties. Bidder agrees to commence work immediately upon full execution and filing of the contract or such later time where work is to commence upon a notice to proceed, adhere to the proposed schedule, and to assist the CITY in securing the expeditious execution of work.

If awarded a contract, contractor agrees to execute and perform the contract in accordance with the request for bids and consultant's bid.

By executing this bid I certify that I have authority to bind the contractor or contracting firm or other business entity submitting this bid.

BID SCHEDULE

STERLING STREET WATER AND SEWER BID SCHEDULE A					
Item	Pay Item	Pay Unit	Quantity	Unit Price	Amount
20.02A	Storm Water Pollution Prevention Plan	Lump Sum	1		
20.08	Removal of Concrete Curb & Gutter	Linear Foot	46		
20.09	Removal of Pavement	Square Yard	239		
20.10A	Excavation for Traffic Ways, unusable	Cubic Yard	1974		
20.10B	Excavation for Traffic Ways, usable	Cubic Yard	2835		
20.13	Trench Excavation & Backfill	Linear Foot	2174		
20.16	Furnish and Place Class B Bedding Material	Ton	410		
20.21A	Classified Fill and Backfill, Type II	Ton	2567		
20.26	Insulation Board (R-9)	Square Foot	2500		
30.02C	P.C.C Valley Gutter	Linear Foot	46		
40.06	Asphalt Concrete Pavement, ADOT Type II Class B	Ton	26		

50.02-8	Furnish and Install Pipe (8-Inch CL50 DIP)	Linear Foot	297		
50.02-10	Furnish and Install Pipe (10-Inch CL50 DIP)	Linear Foot	348		
50.03	Construct Sanitary Sewer Manhole (Type A, Standard Depth)	Each	3		
50.04	Furnish and Install Sanitary Sewer Manhole Frame Dust Pan	Each	2		
50.05	Connect to Existing Sanitary Sewer Main	Each	3		
50.10	Sanitary Sewer Service (4-Inch)	Each	1		
50.12	Construct Sanitary Sewer Cleanout	Each	1		
50.14	Bypass Pumping Sanitary Sewage Flows	Lump Sum	1		
50.20	Remove Existing Sanitary Sewer Manhole	Each	2		
60.02-6	Furnish and Install Pipe (6-Inch CL52 DIP) Water Main	Linear Foot	77		
60.02-8	Furnish and Install Pipe (8-Inch CL52 DIP) Water Main	Linear Foot	1503		
60.03A	Furnish and Install 8-Inch Gate Valve	Each	11		
60.03B	Furnish and Install 6-Inch Gate Valve	Each	6		
60.06	Furnish and Install 1-Inch Water Service Line	Each	3		
60.08	Temporary Water System	Lump Sum	1		
60.12-8	Abandon Pipeline in Place (8-Inch, AC)	Linear Foot	401		
60.12-10	Abandon Pipeline in Place (10-Inch, AC)	Linear Foot	352		
60.13	Connect to Existing Water System	Each	5		
60.21	Water Main Blow-Off	Each	1		
65.02	Construction Survey	Lump Sum	1		
70.07	Remove Pipe	Linear Foot	964		
70.12	Traffic Maintenance	Lump Sum	1		
90.15	Miscellaneous Work	Contingent Sum	1	\$20,000.00	\$20,000.00
90.16	Existing Utilities in Construction Zone	Lump Sum	1		
90.18	Mobilization & Demobilization	Lump Sum	1		
TOTAL:					

**STERLING STREET AND KINGFISHER COURT ROAD IMPROVEMENTS
 BID SCHEDULE B**

Item	Pay Item	Pay Unit	Quantity	Unit Price	Amount
20.02A	Storm Water Pollution Prevention Plan	Lump Sum	1		
20.04	Clearing & Grubbing	Lump Sum	1		
20.08	Removal of Concrete Curb & Gutter	Linear Foot	30		
20.10A	Excavation for Traffic Ways, unusable	Cubic Yard	2650		
20.21A	Classified Fill and Backfill, Type II	Ton	3480		
20.21B	Classified Fill and Backfill, Type II-A	Ton	2710		
20.22	Leveling Course (D-1)	Ton	630		
20.25	Geotextile Fabric, Woven Class 2	Square Yard	2850		
20.27	Reconstruct Driveway	Each	13		
30.02-1	P.C.C Curb & Gutter (Type 1)	Linear Foot	2520		
30.02-2	P.C.C Curb & Gutter (Type 2)	Linear Foot	364		
30.02-4	P.C.C Curb & Gutter (Type 4)	Linear Foot	330		
30.03	P.C.C. Sidewalk (5' wide 4-Inch thick, standard finish)	Square Yard	745		
30.04A	P.C.C Curb Ramp	Each	2		
30.04B	Detectable Warnings	Square Foot	20		
40.06	Asphalt Concrete Pavement, ADOT Type II Class A	Ton	578		
50.21	Adjust Cleanout to Finish Grade	Each	1		
65.02	Construction Survey	Lump Sum	1		
70.11	Remove and Relocate Existing Signs	Each	1		
70.12	Traffic Maintenance	Lump Sum	1		
70.17	Relocate Mailbox Cluster	Lump Sum	1		
75.03	Furnish and Place Topsoil (4-Inch Depth)	MSF	35.5		
75.04	Furnish and Place Seeding (Schedule D)	MSF	35.5		
80.30	Furnish and Install (4-Inch PVC Void)	Linear Foot	60		
90.15	Miscellaneous Work	Contingent Sum	1	\$15,000.00	\$15,000.00
90.16	Existing Utilities in Construction Zone	Lump Sum	1		
90.18	Mobilization & Demobilization	Lump Sum	1		
				TOTAL:	

**STERLING STREET STORM DRAIN
BID SCHEDULE C**

Item	Pay Item	Pay Unit	Quantity	Unit Price	Amount
20.13	Trench Excavation & Backfill	Linear Foot	150		
55.02-15	Furnish and Install Pipe (15-Inch CPEP)	Linear Foot	43		
55.02-24	Furnish and Install Pipe (24-Inch CPEP) Dual Wall	Linear Foot	80		
55.04A	Connect to Existing Storm Drain Manhole	Each	4		
55.09	Construct Storm Drain Manhole Type 1	Each	1		
55.08	Adjust Storm Drain Manhole to Finish Grade	Each	6		
55.09	Construct Catch Basin	Each	5		
65.02	Construction Survey	Lump Sum	1		
70.07	Remove Pipe	Linear Foot	150		
				TOTAL:	

Bid schedule A – Sterling Street Water and Sewer	
Bid schedule B – Sterling Street and Kingfisher Court Road Improvements	
Bid schedule C – Sterling Street Storm Drain	
Total all three bid schedules:	
Total of all three bid schedules written in words: _____	
Bidding Company: _____	
Signature: _____	

Licensing Information:
Alaska Business License # _____
Contractor's License # _____
Specialty Contractor License # (if applicable): _____

BID BOND

KNOW ALL MEN BY THESE PRESENTS: that

_____ (Name of Contractor)

_____ (Address of Contractor)

as Principal, hereinafter called Principal, and

_____ (Name of Surety)

_____ (Address of Surety)

a corporation duly organized under the laws of the State of Alaska as Surety, hereinafter called Surety, are held and firmly bound unto City of Soldotna

_____ (Name of Owner)

177 N. Birch Street, Soldotna, AK 99669

_____ (Address of Owner)

as Obligee, hereinafter called Obligee, in the sum of _____ Dollars, (\$ _____) for the payment of which sum well and truly to be made, the said Principal and the said Surety, bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, the Principal has submitted a bid for the City of Soldotna _____ located in Soldotna, Alaska.

NOW THEREFORE, if the Obligee shall accept the bid of the Principal and the Principal shall enter into a Contract with the Obligee in accordance with the terms of such bid, and give such bond or bonds as may be specified in the bidding or Contract Documents with good and sufficient surety for the faithful performance of such Contract and for the prompt payment of labor and material furnished in the prosecution thereof, or in the event of the failure of the Principal to enter such Contract and give such bond or bonds, if the Principal shall pay to the Obligee the difference not to exceed the penalty hereof between the amount specified in said bid and such larger amount for which the Obligee may in good faith contract with another party to perform the Work covered by said bid, then this obligation shall be null and void, otherwise to remain in full force and effect.

Signed and Sealed this _____ day of _____ 2013

_____ (Principal) Seal

_____ (Witness)

_____ (Title) Seal

_____ (Surety) Seal

_____ (Witness)



Kenai Peninsula Borough

144 N. Binkley
Soldotna, Alaska 99669-7599

BUSINESS: (907) 714-2197 or (907) 714-2175
FAX: (907) 714-2376

TAX COMPLIANCE CERTIFICATION

FILL IN ALL INFORMATION REQUESTED, SIGN AND DATE, AND SUBMIT WITH BID OR PROPOSAL

Reason for Certificate _____ For (Dept) _____
 Date Rec'd by Finance _____ Business Name _____
 Owner Name(s) _____ a. Individual _____
 Business Mailing Address _____ b. Corporation _____
 Telephone _____ Fax: _____ c. Partnership _____
 E-mail _____ d. Other _____

As a business or individual have you ever conducted business or owned real or personal property within the Kenai Peninsula Borough? Yes No (If yes please supply the following account numbers and sign below. If no, please sign below.)
 Kenai Peninsula Borough Code of Ordinances, Chapter 5 28 140, requires that businesses/individuals contracting to do business with the Kenai Peninsula Borough be in compliance with Borough tax provisions. No contract will be awarded to any individual or business who is found to be in violation of the Borough Code of Ordinances in the several areas of taxation.

REAL/PERSONAL/BUSINESS PROPERTY ACCOUNTS

Number	Account Name

TAX ACCOUNTS/STATUS

(TO BE COMPLETED BY BOROUGH PERSONNEL)

YEAR LAST PAID	BALANCE DUE

Kenai Peninsula Borough Finance Dept (Signature Required)

Date _____ IN COMPLIANCE
 YES NO

SALES TAX ACCOUNTS

Number	Account Name

TAX ACCOUNTS/STATUS

(TO BE COMPLETED BY BOROUGH PERSONNEL)

FILED THRU	MT's	BALANCE DUE

Kenai Peninsula Borough Sales Tax (Signature Required)

Date _____ IN COMPLIANCE
 YES NO

I _____ the _____ hereby certify that, to the best of my knowledge, the above
 (Name of Applicant) (Title)
 information is correct as of _____
 (Date) (Signature of Applicant - Required)

*** IF ANY BUSINESS IS CONDUCTED OR IS AWARDED A BID WITHIN THE KENAI PENINSULA BOROUGH YOU MUST BE REGISTERED TO COLLECT SALES TAX. THE SALES TAX DEPARTMENT CAN BE REACHED AT (907) 714-2175.

Revised 1/4/11

SECTION 2
CONTRACT DOCUMENTS

Sample Agreement
Payment Bond
Performance Bond
Lien Release

**CITY OF SOLDOTNA
AGREEMENT BETWEEN OWNER AND CONTRACTOR**

MADE AS OF THE _____ DAY OF _____ 2013.

BETWEEN the OWNER: CITY OF SOLDOTNA
 177 N Birch Street
 Soldotna AK 99669

AND the CONTRACTOR:

FOR the PROJECT: Sterling Street Paving and Utility Upgrades

The Owner and Contractor agree as set forth below.

**ARTICLE 1
THE WORK**

The Contractor shall perform all the work required by the contract documents enumerated below, which are specifically incorporated into this agreement by reference and which form the contract documents:

- A. The Contractor's executed bid, dated _____
- B. Licenses and Certifications
- C. The General Conditions for the project
- D. Addendum No. _____
- E. Specifications
- F. Drawings
- G. Laborers' & Mechanics' Minimum Rates of Pay (Pamphlet 600)
- H. Any and all later modifications, change orders and written interpretations of the Contract Documents issued by the Owner and agreed to by Contractor. (Attachment "F").

Any other attachments to this agreement do not form a part of the agreement but are for reference or proof of compliance with the requirements of the agreement.

**ARTICLE 2
TIME OF COMMENCEMENT AND COMPLETION**

Work shall commence upon receipt of the Notice To Proceed. All work must be substantially completed within 60 days after the date of the Notice to Proceed. Time is of the essence, and liquidated damages will be charged against the Contractor as provided in Article 10, below.

ARTICLE 3
CONTRACT SUM

The Owner shall pay the Contractor as provided in this contract the total sum price of _____ for the successful completion of the specified work.

ARTICLE 4
PROGRESS PAYMENT

Based upon applications for payment submitted by the Contractor, the Owner shall provide for Progress Payments to the Contractor on a monthly schedule. Upon proper application submitted no later than ten (10) days prior to the next scheduled Contractor payday, the Contractor shall be paid for the value of the work performed and materials stored at the site during the period preceding payment. Each application for progress payment shall be on an approved Application for Payment form and shall contain a completed Schedule of Values. All sums properly due shall be paid within thirty (30) days of receipt of application. Prior to final payment, the Contractor shall submit the written consent of surety to such payment and shall submit notarized waivers of lien from all materialmen and subcontractors.

ARTICLE 5
FINAL PAYMENT

The Owner shall make final payment within thirty (30) days after issuance of a Certificate of Final Completion of the work subject to provisions of the General Conditions. The Certificate of Final Completion acknowledges that all work required by the contract documents has been completed in accordance with the requirements of the contract. The Contractor shall request the final inspection at least five (5) days in advance of the anticipated date of inspection. If all work has not been satisfactorily completed, the Contractor shall be liable for all costs incurred by the Owner in making such inspection.

ARTICLE 6
NOTICES

All legal notices relating to this contract, including changes of address, shall be mailed to the Owner and the Contractor at the following addresses:

OWNER

City of Soldotna
177 N Birch Street
Soldotna AK 99669

CONTRACTOR

ARTICLE 7
INDEMNIFICATION

No provision in the contract documents lessens, alters, or makes inapplicable the requirement for indemnification stated in GC 4.13. In the event of conflict between GC 4.13 and any other contract provision(s), the requirements set out in GC 4.13 control.

ARTICLE 8
JURISDICTION: CHOICE OF LAW

This contract shall be governed by the laws of the State of Alaska, and any lawsuit brought thereon shall be filed in the Third Judicial District at Kenai, Alaska.

ARTICLE 9
ATTACHMENTS

In the event there is any difference between an attachment to the original of this agreement on file with the City Clerk and any attachment to a copy of the agreement, the attachments to the original filed with the City Clerk shall control.

ARTICLE 10
LIQUIDATED DAMAGES

Owner and Contractor recognize that time is of the essence in performance of this contract and the Owner will suffer financial loss if the work is not substantially complete within the time specified above, plus any extensions thereof allowed in accordance with contract documents. They also recognize the delays, expense and difficulties involved in proving the actual loss suffered by Owner if the work is not substantially complete on time. Accordingly, instead of requiring any such proof, Owner and Contractor agree that as liquidated damages for delay (but not as a penalty) Contractor shall pay seven hundred fifty dollars (750.00) for each calendar day that expires after the contract time required for substantial completion to the actual date of substantial completion determined as set out in the CONTRACT documents. The Owner and Contractor agree that this amount is a reasonable forecast of just compensation for the harm that is caused by the delay.

ARTICLE 11
NO THIRD-PARTY BENEFICIARY

This agreement is intended solely for the benefit of each party hereto. Nothing contained herein shall be construed or deemed to confer any benefit or right upon any third party.

IN WITNESS WHEREOF, the parties have caused this agreement to be executed in their respective names or by their duly authorized representatives as of the date and year above written.

CITY OF SOLDOTNA

CONTRACTOR

Mark Dixson, City Manager

Name and Title of Office (printed or typed)

Date: _____

Company Name (printed or typed)

Signature

Date: _____

ATTEST:

City Clerk

ACKNOWLEDGMENTS

STATE OF ALASKA)
)ss
THIRD JUDICIAL DISTRICT)

The foregoing instrument was acknowledged before me this _____ day of _____ 2013, by Mark Dixson, City Manager of the City of Soldotna, for the corporation on behalf of the corporation.

Notary Public for State of Alaska

My Commission Expires: _____

STATE OF ALASKA)
)ss
THIRD JUDICIAL DISTRICT)

The foregoing instrument was acknowledged before me this _____ day of _____ 2013, by _____ the _____

of _____ for and on behalf of the corporation/business

Notary Public for State of Alaska

My Commission Expires: _____

PAYMENT BOND

KNOW ALL MEN BY THESE PRESENTS: that

(Name of Contractor)

(Address of Contractor)

a _____, hereinafter called Principal, and
(Corporation, Partnership, or Individual)

(Name of Surety)

(Address of Surety)

hereinafter called Surety, are held and firmly bound unto _____

(Name of Owner)

(Address of Owner)

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 is such that whereas, the Principal entered into a certain
contract with the Owner, dated the _____ day of _____, 201_, 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 materials 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
materials lubricants, oil, gasoline, coal and coke, repairs on machinery, equipment and tools, consumed or
used in connection with the construction of said work, and all insurance premiums on said work, and for
all labor, performed in such work whether by subcontractor or other-wise, then this obligation 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 to the work to be

performed thereunder or the specifications accompanying the same shall in any ways affects 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 Contractor shall abridge the right of any beneficiary hereunder, who claims may be unsatisfied.

IN WITNESS WHEREOF, this instrument is executed in two (2) counterparts, each one of which shall be deemed an original, this the ____ day of _____, 201__.

<p>ATTEST:</p> <p>_____</p> <p>(Witness as to Principal)</p> <p>_____</p> <p>(Address)</p>	<p>Principal) _____ (SEAL)</p> <p>_____</p> <p>(Principal Secretary)</p> <p>BY _____</p> <p>_____</p> <p>(Address)</p>
<p>ATTEST:</p> <p>_____</p> <p>(Witness as to Surety)</p> <p>_____</p> <p>(Address)</p>	<p>_____</p> <p>(Surety) _____ (SEAL)</p> <p>BY _____</p> <p>(Attorney-in-Fact)</p> <p>_____</p> <p>(Address)</p>

NOTE: If Contractor is Partnership, all partners should execute bond.

IMPORTANT: Surety companies executing bonds must appear on the Treasury Department's most current list (Circular 570 as amended) and be authorized to transact business in the State where the project is located.

PERFORMANCE BOND

KNOW ALL MEN BY THESE PRESENTS: that

(Name of Contractor)

(Address of Contractor)

a _____, hereinafter called Principal, and
(Corporation, Partnership, or Individual)

(Name of Surety)

(Address of Surety)

hereinafter called Surety, are held and firmly bound unto _____

(Name of Owner)

(Address of Owner)

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 is such that whereas, the Principal entered into a certain
contract with the Owner, dated the _____ day of _____, 201____, 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 he 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 good any default, then this obligation 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 to the work to be performed thereunder or the specifications accompanying the same shall in any ways affects 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 Contractor shall abridge the right of any beneficiary hereunder, who claims may be unsatisfied.

IN WITNESS WHEREOF, this instrument is executed in two (2) counterparts, each one of which shall be deemed an original, this the ____ day of _____, 201__.

<p>ATTEST:</p> <p>_____</p> <p>(Witness as to Principal)</p> <p>_____</p> <p>(Address)</p>	<p>Principal) _____ (SEAL)</p> <p>_____</p> <p>(Principal Secretary)</p> <p>BY _____</p> <p>_____</p> <p>(Address)</p>
<p>ATTEST:</p> <p>_____</p> <p>(Witness as to Surety)</p> <p>_____</p> <p>(Address)</p>	<p>_____</p> <p>(Surety) _____ (SEAL)</p> <p>BY _____</p> <p>(Attorney-in-Fact)</p> <p>_____</p> <p>(Address)</p>

**CONTRACTOR'S RELEASE
AND AFFIDAVIT OF PAYMENTS OF DEBTS AND CLAIMS ("Release")**

PROJECT NAME: Sterling Street Paving and Utility Upgrades SOLB 13-16

The undersigned, being first duly sworn, deposes and says:

1. That pursuant to this contract for project Sterling Street Paving and Utility Upgrades between the undersigned and the City of Soldotna dated _____ the undersigned hereby certifies that, except as listed below, he has paid in full or has otherwise satisfied all obligations for materials and equipment furnished for all work, labor, and services performed and for all known indebtedness and claims for which the Contractor or the City of Soldotna is or may become liable in connection with performance under this contract. The Contractor warrants that he has made diligent search and inquiry to determine the existence of any such claim, debt, or liability and that all such obligations, whether liquidated, unliquidated, or disputed, have been satisfied.

2. The Contractor further certifies he did not extend any loan, gratuity, or gift of money of any form whatsoever to any employee or agent of the City, that he did not rent or purchase any equipment or materials from any employee of the City, nor to the best of his knowledge, from any agent of any employee of the City, and that he has not made any promise to an employee or agent of the City to do or undertake any such action after completion of the subject contract.

3. Pursuant to the above-described contract and in consideration of the final payment in the amount of \$_____, the undersigned Contractor hereby releases and discharges the City of Soldotna, its officers, agents and employees of and from any and all further claim, debt, charge, demand, liability, or other obligation whatsoever under or arising from said contract, whether known or unknown and whether or not ascertainable at the time of the execution of this instrument. This release is complete, final, binding and irrevocable.

4. The Contractor shall indemnify, defend, save and hold the City, its elected and appointed officers, agents and employees, harmless from any and all claims, demands, suits, or liability of any nature, kind or character including costs, expenses, and attorney's fees resulting from Contractor or Contractor's officers, agents, employees, partners, attorneys, suppliers, and subcontractors' performance or failure to perform this Agreement in any way whatsoever. This defense and indemnification responsibility includes claims alleging acts or omissions by the City or its agents which are said to have contributed to the losses, failure, violations, or damage. However, Contractor shall not be responsible for any damages or claim arising from the sole negligence or willful misconduct of the City, its agents, or employees. Contractor and subcontractors shall also not be required to defend or indemnify the City for damage or loss that has been found to be attributed to an independent contractor directly responsible to the City under separate written contract.

If any portion of this Release is voided by law or court of competent jurisdiction, the remainder of this Release shall remain in full force and effect.

IN WITNESS WHEREOF, this Release has been executed this ____ day of _____, 2013.

(Contractor's signature)

Title

STATE OF ALASKA)
)ss
THIRD JUDICIAL DISTRICT)

THIS IS TO CERTIFY that on this _____ day of _____, 2013, before the undersigned, a Notary Public in and for the State of Alaska, duly commissioned and sworn, personally appeared _____, who, having produced satisfactory evidence of identification, and having acknowledged the voluntary and authorized execution of the foregoing instrument for the purposes therein mentioned, executed the above and foregoing instrument.

Notary Public for State of Alaska

My Commission Expires: _____

(NOTE: In case of a corporation, the attached Certificate of Authority must be completed by a corporate officer other than the one who signs above.)

SECTION 3

GENERAL CONDITIONS

- Article 1 Contract Documents
- Article 2 Administration of the Contract
- Article 3 Owner General Rights and Duties
- Article 4 Contractor's General Rights and Duties
- Article 5 Subcontractors and Suppliers
- Article 6 Separate Contracts
- Article 7 Bonds and Insurance
- Article 8 Measurement, Payment and Completion
- Article 9 Changes in the Work, Contract Price and Time
- Article 10 Testing and Correction of Work
- Article 11 Warranties
- Article 12 Claims and Litigation
- Article 13 Termination of the Contract or Suspension of the Work
- Article 14 Miscellaneous Provisions

GENERAL CONDITIONS OF THE CONTRACT BETWEEN OWNER AND CONTRACTOR

ARTICLE 1 CONTRACT DOCUMENTS

- 1.1 The contract documents enumerated in the Agreement between Owner and Contractor form the final and completely integrated contract between the parties and supersede any prior statements, negotiations, agreements, documents or representations, written or oral. What is required by any one contract document is deemed to be required by all documents.
- 1.2 The contract documents consist of documents designated as contract documents and enumerated in the Agreement between Owner and Contractor.
- 1.3 The contract documents do not include Invitation to Bid, Instructions to Bidder, sample forms, portions of Addenda relating to any of these, or any other documents unless specifically enumerated in Agreement between Owner and Contractor.
- 1.4 Unless specifically provided otherwise in the contract documents the parties to this agreement intend that Contractor will obtain all permits, inspections, tests, bonds, and insurance required by state or federal law, rule, regulation or order, or local ordinance or rule or regulation or the contract documents, whichever requirement is greater, and provide all labor, equipment, transportation, water, heat, utilities, tools, scaffolding, materials, supplies, facilities, and services necessary for performance of the contract and that the cost of these requirements be included within the contract price. The parties further intend that the cost of all overhead, supervision, and other incidental expenses required or occasioned by the contract is included in the contract price. The parties also intend that minor items required to produce complete functional system(s) and sub-system(s) are deemed to be required by the contract documents at the contract price whether or not specifically expressed. The requirements stated in this provision apply whether or not the execution or completion of the work is temporary or permanent and whether or not it is incorporated or to be incorporated in the work or final product.
- 1.5 The requirements of the contract documents and the duties and rights of each party may be amended subsequent to execution of this contract only by:
1. A written amendment to the contract signed by both parties; or,
 2. A change order issued pursuant to ARTICLE 9.1
- 1.6 The term "Work" includes all procurement, labor, materials, products, equipment, erection, installation, and alterations necessary to complete the construction envisioned by this contract. The term "Project" refers to the overall construction, of which the work required by the contract may be the whole or may be a part. The term "Architect" also refers to Registered Engineers as appropriate.
- 1.7 The contract between Owner and Contractor shall be executed and returned by Contractor within the time required in the instructions to bidders. A written Notice to Proceed with the work will be issued to Contractor within five (5) days after Owner has executed the contract, except as provided in ARTICLE 4.1.3.

¹ Unless otherwise stated, all references to an ARTICLE refer to the articles of these general conditions.

- 1.8 Should any provision or requirement of one portion of the contract documents conflict with any other portion of the contract documents, unless otherwise provided herein, the conflict will be resolved by reference to the contract documents in the following order of priority:
- A. Valid change orders control over previous change orders, the agreement, addenda, supplementary conditions, general conditions, specifications, and drawings;
 - B. The agreement shall control over addenda, supplementary conditions, general conditions, specifications, and drawings;
 - C. Addenda pertaining to general conditions control over supplementary conditions and general conditions. Addenda pertaining to specifications and drawings control over specifications and drawings;
 - D. Supplementary conditions control over general conditions, specifications, and drawings;
 - E. General conditions control over specifications and drawings;
 - F. Specifications control over drawings.
- 1.9 In case of difference between small and large scale drawings, the large scale drawings shall govern. Schedules on any contract drawing shall take precedence over conflicting information on that or any other contract drawing. On any of the drawings where a portion of the work is detailed or drawn out and the remainder is shown in outline, the parts detailed or drawn out shall apply also to all other like portions of the work.
- 1.10 In the event Contractor believes a discrepancy exists in the contract documents, Contractor shall submit the issue to the Project Representative together with Contractor's proposed course of action for performance of the work. Project Representative shall respond within seven (7) working days or advise Contractor that a response cannot be given within that time. If response will take more than seven (7) working days, Project Representative shall take steps to provide a response within a reasonable time. Any action taken by Contractor prior to or without Owner's response shall be at Contractor's own risk and expense.
- 1.11 Words and abbreviations which are not defined in the contract documents, but which have well known technical or trade meanings, shall be construed in accordance with the common meaning established by sound architectural or engineering practice in the State of Alaska.
- 1.12 Drawings, Specifications, other documents prepared for this project, and copies of them that are furnished by Owner and/or Architect or Consultant for this project, whether or not the documents or project are completed, shall be the property of Owner. All rights of use are reserved to Owner for this project and any subsequent project in which Owner participates in construction. Owner specifically relieves Architect or Consultant of any responsibility or liability pertaining to any subsequent use of the documents, in whole or in part, where those documents bear the stamp of a subsequent Architect or Consultant and are used for a subsequent project.
- 1.13 Up to five (5) sets of full-size contract drawings and project manuals will be furnished the Contractor without charge. Additional sets will be furnished on request at the cost of reproduction, plus postage and handling if necessary. Contractor shall check all documents furnished immediately upon receipt and shall promptly notify Owner of any discrepancies.

- 1.14 The contract documents shall not be construed in any way as limiting Contractor's responsibility to perform the work completely, nor shall any prior customs or trade practices be held to constitute a waiver of the requirements of the contract documents or any portion of them.
- 1.15 The individual(s) executing the contract represent that they have the legal authority to execute the contract as or on behalf of Contractor in accordance with the bid instructions and the contract documents.
- 1.16 Execution of the contract by Contractor is a representation that Contractor has visited the site, become familiar with the local conditions under which the work is to be performed, has correlated personal observations with the requirements of the contract documents and enters this contract with knowledge of those conditions.

ARTICLE 2 ADMINISTRATION OF THE CONTRACT

- 2.1 The term "Project Representative" shall mean a person or entity employed by or under contract to Owner to be Owner's on-site designated representative. The term Project Representative shall include the Project Representative's employees.
- 2.2 The terms "Architect" or "Engineer" (hereinafter used interchangeably) shall mean the person or entity contracted by the City of Soldotna to provide design services for the project. Architect or Engineer also includes employees of the Architect or Engineer. Architect shall provide professional services during construction as described herein below or as authorized by Owner.
- 2.3 Project Representative will provide administration of this contract and all communication made to Owner, Architect or Engineer by Contractor shall be made through Project Representative.
- 2.4 Project Representative will be Owner's primary representative during construction until final payment has been made and the project has been closed out. Owner's instructions to Contractor shall be made through Project Representative, who shall have authority to act on behalf of Owner to the extent set forth in this contract.
- 2.5 Project Representative shall not have the authority to require additional work, changes in the work, modifications or waivers of the rights, work or duties required by the contract documents or the right to bind Owner to any change in specifications or drawings without the written consent of Owner except as provided herein.
- 2.6 Project Representative shall have authority to allow minor deviation in the requirements of the contract documents by Field Order to a maximum cumulative amount of \$5,000.00 per each additional work item, change in work, modification or waiver in the work. Field Orders are to be incorporated into a subsequent Change Order.
- 2.7 Project Representative will render interpretations of the contract documents necessary for the proper execution or progress of the project. All interpretations and decisions of Project Representative shall be consistent with the intent of the contract documents and shall be in writing.
- 2.8 Matters relating to design intent will be referred to the design Architect whose decisions will be final, consistent with the intent of the contract documents.

- 2.9 Project Representative, Architect, and authorized representatives of Owner shall have access to the project site and to the work at all times and shall be afforded every reasonable facility for ascertaining whether or not the work is in accordance with the requirements and intent of the contract documents.
- 2.10 All claims, disputes and other matters in question between Contractor and Owner relating to the execution or progress of the work shall be resolved pursuant to ARTICLE 12.
- 2.11 Project Representative shall have the authority: 1) to reject work which does not conform to the contract documents; 2) to require additional inspections or testing of any work during, prior to, or after fabrication, installation, or completion; 3) to specify both remedial work necessary to correct defective work and the time within which such work must be performed.
- 2.12 On the basis of on-site observations and inspections Project Representative will keep Owner informed of the progress of the work, and will endeavor to guard Owner against defects and deficiencies in the work. If Project Representative determines that any construction method, sequence, material, technique, safety precaution, act or omission of Contractor, Contractor's subcontractors, suppliers, or any of their agents, is detrimental to the progress, quality or safety of the work or to Owner's interest, then Project Representative shall inform Owner promptly, and Owner may, among other things, stop the work and order remedial measures. This provision shall not eliminate or reduce the responsibilities or requirements placed upon contractor and/or subcontractors by the contract documents and shall not place any liability upon the owner for action or omission in regard to this provision.
- 2.13 In accordance with the requirements of ARTICLE 8.5, Project Representative will determine amounts owing to Contractor and will recommend that Owner issue payment in the amount determined due.
- 2.14 Project Representative, with the concurrence of Owner, will determine the dates of Substantial Completion and Final Completion. The Architect will receive and forward to Owner for Owner's review, written warranties and related documents required by the contract and assembled by Contractor.
- 2.15 Project Representative's duties, responsibilities, and limitations of authority will not be modified without written consent of Owner and Project Representative.

ARTICLE 3 OWNER GENERAL RIGHTS AND DUTIES

- 3.1 At Owner's option, Owner may undertake any or all tasks of Project Representative described in ARTICLE 2.
- 3.2 Owner's directions to Contractor will be made in writing either directly or through Project Representative in accordance with ARTICLE 2. No verbal representation shall be binding upon any party unless confirmed in writing.
- 3.3 Owner shall have the right to perform work related to the project under separate contract(s) in accordance with the provisions of ARTICLE 6.
- 3.4 Owner shall have the right to issue change orders from time to time which may alter the scope of work required by the contract documents. All change orders will be subject to provisions of ARTICLE 9.

- 3.5 Owner will have the authority to reject work which does not conform to the requirements of the contract documents and to require such remedial work at no charge to Owner as is necessary to correct the defective work. Where defective work is being performed by Contractor and Contractor fails to correct the defective work within a reasonable period of time as set out in ARTICLE 10, or repeatedly fails to carry out the work in accordance with the contract documents, Owner shall have the authority to order an immediate halt to all defective work. Any losses suffered by Contractor as a result of the halt shall be borne by Contractor without recourse to Owner. Issuance of a stop-work order shall not be construed as constituting a breach of the agreement nor authorize Contractor to refuse to perform other portions of the work which Owner has not halted.
- 3.6 Owner shall have the right to terminate the contract or suspend performance of the contract as set out in these general conditions or other contract documents.
- 3.7 Owner shall promptly pay Contractor all sums properly due as provided by ARTICLE 8. If Owner fails to issue payment for a period of forty-five (45) days after the certificate of payment has been approved by Project Representative, without a written statement indicating why payment is being withheld, then Contractor may terminate the contract upon seven (7) days written notice to Owner and may recover from Owner payment for all work executed and for any proven losses sustained upon any materials, equipment and tools, including a reasonable profit and overhead.
- 3.8 Owner and Contractor warrant that neither party will maintain an action against the other for punitive or exemplary damages.

ARTICLE 4 CONTRACTOR'S GENERAL RIGHTS AND DUTIES

4.1 EXAMINATION OF SITE AND CONTRACT DOCUMENTS

- 4.1.1 The term "Contractor" means the person or entity identified in the Agreement which has contracted with Owner to perform the work of the contract. This definition includes a responsible officer of Contractor's organization or its authorized representative who shall be made known to Owner.
- 4.1.2 Contractor represents by execution of the Agreement that Contractor has carefully examined the contract documents and the site upon which the work is to be performed and has developed familiarity with the nature, extent, site access, and risks involved in the work and with all local conditions and applicable statutes, ordinances and regulations that may affect the performance of the work. Contractor assumes full responsibility for having correlated Contractor's study of the contract documents and observation of the site. Contractor represents that Contractor has studied all available surveys and investigation reports of subsoil and latent physical conditions of the site and has made such additional surveys and investigations as Contractor deemed necessary for the performance of the work at the contract price, within the time specified and in accordance with the requirements of the contract documents.
- 4.1.3 Contractor shall not begin work until given a Notice to Proceed, which will be issued as promptly as possible after the Agreement has been executed by all parties. If Owner is required to delay issuance of a Notice to Proceed for more than five (5) working days because of fault of Contractor or other reasons which Owner deems sufficient, then

Contractor shall be notified in writing of the delay and when issuance of the Notice to Proceed is anticipated.

- 4.1.4 Before commencing any part of the work, and prior to undertaking each subsequent phase of the work, Contractor shall carefully study the plans and specifications and check and verify all previous work and pertinent dimensions, figures and amounts shown in them and shall make all applicable field measurements. Contractor shall at once report in writing to Owner any apparent conflict, ambiguity, discrepancy, error or other omissions which Contractor may discover. Contractor shall be liable to Owner for failure to notify Owner of any conflict, ambiguity, discrepancy, error or other omissions which Contractor discovered, but failed to report to Owner and shall be responsible for providing a remedy.
- 4.1.5 Contractor shall lay out the work from established base lines and bench marks indicated on the drawings and shall be responsible for all measurements in connection therewith. Contractor will be held responsible for the execution of the work to such lines and grades. It shall be the responsibility of Contractor to maintain, preserve, or replace all stakes and other marks.
- 4.1.6 Drawings showing location of equipment, piping, etc., are diagrammatic and job conditions will not always permit installation in the location shown. If a situation occurs which may require relocation of an item or system which substantially differs from the location called for in the contract documents, it shall be brought to Owner's attention immediately and the relocation determined with the concurrence of Architect or Engineer. If Contractor relocates such items without approval, Contractor will be responsible for any cost or expense for removal or further relocation necessitated by installation without approval.

4.2 SUBMITTALS

- 4.2.1 Within 20 days after the effective date of the Notice to Proceed and prior to commencement of work, Contractor shall submit to Owner the construction progress schedule and schedule of values required in Articles 4.2.2, 4.2.3 and 4.2.4. The schedule of values and progress schedule must be acceptable to owner and provide reasonable divisions of contract work with corresponding payment. No payment will be made under this contract prior to completion of this requirement.
- 4.2.2 In accordance with the Division 1 requirements governing submittals as provided in the contract specifications, Contractor shall prepare and submit to Owner a detailed progress schedule for the work which reveals and identifies the critical path of progress, which is consistent with the work and time required by the contract, and which shall provide for the most expeditious and practicable execution of the work. Float time between work items is part of the project and not property of the Contractor. Float time is defined as the amount of time that spans from completion of one previously scheduled activity and extends to the point at which the next scheduled activity is set to begin.
- 4.2.3 Contractor shall also provide Owner with a proposed schedule of values upon submittal of a detailed progress schedule for the work. The schedule of values shall be allocated to various portions of the work and be prepared in such a form and supported by such data to substantiate its accuracy as reasonably required by Owner. Each item of work shall include all applicable profit and overhead. This schedule of values, unless objected to by owner shall be the basis for progress payments made to Contractor and shall include

specific lump sum amounts for "Final Payment." This line item shall be in conformance with guidelines specified in ARTICLE 8. Contractor, at the request of Owner, shall amend the progress schedule and the schedule of values as the work progresses.

- 4.2.4 The schedule of values must show a complete breakdown of all phases of the work required by the contract documents. Payment will be in accordance with Article 8. Payment requests, schedules of value and progress schedules must correspond.
- 4.2.5 Contractor shall submit for Architect's and Owner's approval all product data required by the contract documents in conformance with the dates specified in the detailed progress schedule. Such data include illustrations, standards, schedules, performance charts, instructions, brochures, diagrams, or other information necessary to assist Architect in determining whether a proposed product meets the intent of the contract documents.
- 4.2.6 Contractor shall also submit physical samples of materials, equipment or workmanship where required by the contract documents. After approval by Owner and Architect, the sample shall be established as the minimum standard of work, material, equipment or other quality which will be acceptable for work of which the sample is representative.
- 4.2.7 Submittal of shop drawings by contractor constitutes a representation by contractor that the submittal and work, or products required or to be used in accordance with that submittal, will meet or exceed the criteria and conditions of the contract documents and that performance of the work identified in those submittals will meet the progress schedule.
- 4.2.8 Before initiating any work for which shop drawings are required, Contractor shall obtain Architect's approval of the shop drawings, which include drawings, diagrams, schedules and other data specially prepared by Contractor, a subcontractor, a manufacturer, a supplier or distributor to illustrate in detail that portion of the work. Contractor shall review, approve, and submit all shop drawings, whether prepared by himself/herself or subcontractor or supplier. It shall be the duty of Contractor to provide a whole or complete system and to coordinate all work depicted by a particular shop drawing with the work required by other shop drawings for that portion of the work or for related or adjacent work.
- 4.2.9 Contractor shall provide a copy of all transmittal letters to Project Representative at the time the submittal is made to Architect. Architect will review Contractor's submittals only for conformance with the design concept of the work and the information given in the contract documents. Architect's approval of a specific item shall not indicate approval of an assembly of which the item is a component. Architect will return reviewed submittals to Contractor with written comments and forward one set to Project Representative with reasonable promptness so as to cause no delay. A minimum of five (5) sets of submittals shall be required.
- 4.2.10 Should Architect reject any proposed shop drawings, product data or sample, Contractor shall resubmit revised drawings, samples or product data and draw Architect's attention to any deviation or revisions other than those requested by Architect.
- 4.2.11 All of Contractor's submittals shall be made in conformance with the dates specified in the detailed progress schedule with reasonable promptness and in such sequence as to cause no delay in the work of Owner or any separate contractor.

4.3 SAFETY AND CONTROL OF SITE

- 4.3.1 Contractor is deemed to be in physical control of the work site. Contractor shall confine Contractor's operations at the site to those areas described in the contract documents or permitted by applicable statutes, ordinances or permits.
- 4.3.2 Contractor shall not unreasonably encumber the site with materials, equipment or ancillary construction. Contractor shall be responsible for eliminating or minimizing to the extent reasonably possible, public hazards and inconveniences which might result from this work.
- 4.3.3 Contractor shall at all times keep the premises free from accumulation of excess snow, waste materials or rubbish and shall keep adjacent public road clear of mud and dust caused by Contractor's activities. At the completion of the work, Contractor shall remove all waste materials and rubbish from the project as well as Contractor's tools, equipment and surplus materials. The removal and disposal of waste materials, rubbish, or other material, shall be accomplished in accordance with all local, state and federal requirements.
- 4.3.4 Contractor shall be responsible for initiating, maintaining and supervising all necessary safety precautions in connection with this work and shall be responsible for ascertaining and adhering to all applicable federal, state, and local standards, laws, ordinances, regulations, requirements and any lawful order of any public authority bearing on the safety of persons or property or their protection from damage, injury, or loss.
- 4.3.5 Contractor's duty to maintain a safe and secure project site shall include all precautions necessary to assure the safety and protection against injury and damage, of all employees engaged in the work and any other person who may be affected by the work including Owner's agents and employees; Contractor's agents and employees; and members of the general public. Contractor shall assure the safety and protection of all work, materials and equipment which may be upon the site; utilities and other property of Owner including portions of structures and utilities not designated for removal or relocation, trees, shrubs, lawns, walks, pavements and roadways. Contractor duties include but are not limited to protection of project site from vandalism. Such precautions shall further include but not be limited to protection from dangers from hazardous materials.
- 4.3.6 Contractor shall take all necessary measures to prevent members of the general public from entering upon the site without the permission of Owner or Contractor.
- 4.3.7 Contractor shall comply with all OSHA requirements, give all safety notices, erect and maintain all reasonable safeguard notices and barriers, including danger signs and fences which may be required to protect the site and limit access to it.
- 4.3.8 In the event of an emergency, the Contractor will take all means necessary to minimize all damage to or exposure from effects of a catastrophic event. In such case, the Contractor may consult with Owner or seek Owner's assistance. The responsibility for protection of the site, work, and all material remains with the Contractor.
- 4.3.9 Contractor shall designate a person in Contractor's employ at the site to be primarily responsible for the prevention of accidents, identification of all applicable

safety standards, statutes and regulations, including but not limited to those addressing hazardous material, and full compliance therewith. This person shall be Contractor's Superintendent unless otherwise designated by Contractor in writing to Owner.

- 4.3.10 Should Project Representative or other representative of Owner ascertain that a safety danger exists, Project Representative or Owner may order an immediate cessation of all dangerous activity and a correction of any safety hazard. Written notice of the order to stop work or to correct the safety hazard shall be made to Contractor as soon as practicable. Contractor shall have no recourse against Owner for any alleged losses or delays arising from this section unless the order to stop work or correct safety deficiency is wholly without basis.
- 4.3.11 Should Contractor elect to utilize explosives or other hazardous materials or equipment, or should Contractor be required to do so for the execution of the work, Contractor shall first give jurisdictional authorities and Owner notice of the intention to utilize hazardous materials, explosives or equipment at a particular time and date. Contractor shall use the utmost care in utilizing such materials and shall use only properly qualified and licensed personnel.
- 4.3.12 Contractor shall correct any damage to the property of Owner or other parties which arises out of the activities or omissions of Contractor, Contractor's agents, subcontractors, employees, personnel or suppliers. Contractor shall commence remedial activities within seven (7) days from the date of the damage. If Contractor fails to do so, Owner or the affected party may utilize his own forces to correct or replace the damaged property and Contractor shall promptly reimburse Owner or the affected party for all losses and costs thereupon. In the event Contractor fails to reimburse Owner as set forth herein, Owner may set off the amount due Owner from any amount due Contractor.

4.4 SUPERVISION AND QUALITY OF THE WORK

- 4.4.1 Contractor shall supervise and direct the work using the best skill and attention. Contractor is responsible for, and agrees to comply with all applicable local, state and federal ordinances, laws, regulations and statutes. Contractor shall be solely responsible for all construction means, methods, techniques, sequences and procedures, and for the schedule and coordination of all portions of the work to be performed under the contract. Contractor shall also be required to coordinate the work with that of any other contractor working on the project so as to minimize delay, inconvenience, and expense to both. Where identified in writing by Owner at any time, Contractor shall be required to coordinate the work with any partial use of the site that Owner deems necessary.
- 4.4.2 All materials and equipment shall be applied, installed, connected, erected, used, cleaned, prepared or conditioned in accordance with the instructions of the applicable manufacturer, fabricator or processor except as otherwise provided in the plans and specifications.
- 4.4.3 Contractor shall keep on the job site at all times during work progress, a competent resident superintendent capable of reading and thoroughly understanding the plans and specifications. The superintendent will be Contractor's representative at the site and all communications given to the superintendent shall be as binding as if given to Contractor directly. In the event Contractor decides to replace the superintendent, Contractor shall submit to Owner a written notice including the proposed new superintendent's

qualifications. The superintendent shall not be replaced without this written notice and a statement of non-objection by the Owner.

- 4.4.4 Contractor shall provide sufficient, competent, and suitable qualified personnel to survey and lay out the work and to perform all construction required by the contract documents. Contractor is responsible for maintaining good discipline and order at the job site at all times and shall not employ any unfit person or anyone not skilled in the task assigned to that person.
- 4.4.5 Contractor shall be fully responsible to Owner for the acts and omissions of Contractor's employees and agents, Contractor's subcontractors and their employees and agents, and any other persons performing any of the work for the benefit of Contractor.
- 4.4.6 Contractor shall not permit the possession or use of alcohol or controlled substances on the site, and shall remove from the site any person who possesses, uses, or is under the influence of alcohol or controlled substances. Contractor shall require all Contractor's agents, subcontractors, employees or suppliers who perform work on site to sign a statement that they have been informed and will abide by the above policy. A copy of all such statements shall be kept at the job site throughout the duration of Contractor's work.
- 4.4.7 Contractor warrants to Owner that all work will be free from faults and defects and meeting or exceeding the requirements of the contract documents and all local, state, and federal legal requirements. All work not so conforming to these standards will be considered defective, and Owner may require its correction.

4.5 DIVISION OF THE WORK

- 4.5.1 The division of the work into various specialties and divisions in the contract specifications and drawings shall not bind Contractor in apportioning the work among various subcontractors, specialty contractors or workers, and Contractor's own employees.

4.6 TITLE 36 AND OTHER STATUTORY REQUIREMENTS

- 4.6.1 Contractor shall give and post all notices and comply with all federal, state, and local laws, ordinances, regulations, requirements and any lawful order of any public authority bearing on the performance of the work, and shall notify Owner in writing if the drawings and specifications or the contract documents are at variance therewith. If Contractor knows or should know that Contractor is performing work contrary to such legal requirements without giving written notice to Owner in time for Owner to give a stop work order, the Contractor shall bear all costs to remedy that work and to bring it into conformance with the applicable requirements. In the event Contractor fails to reimburse Owner as set forth herein, Owner may set off the amount due Owner from any amount due Contractor. This requirement does not lessen or alter the requirement for indemnification stated in ARTICLE 4.13.
- 4.6.2 Contractor and subcontractors shall strictly comply with all requirements of Title 8, Chapter 30 of the Alaska Administrative Code and Title 36 of the Alaska Statutes as applicable to this contract.

- 4.6.3 Contractor or subcontractors of the contractor shall pay all employees unconditionally as required by AS 36.05.040 and any other applicable laws or regulations. 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. The wages are determined for the region in which the work is done and the rates are issued by the Alaska State Department of Labor (see attached Title 36 wage schedule). The scale of wages to be paid shall be posted by Contractor in a prominent and easily accessible place at the site of the work. 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 this contract, Owner may, on written notice to Contractor hold Contractor in immediate default and terminate Contractor's right to proceed with the work or that part of the work for which there is a failure to pay the required wages, and Owner may prosecute the remaining work to completion by contract or otherwise, holding Contractor and Contractor's sureties liable for any costs in excess of the contract price. In the event Owner permits Contractor to pursue further work under the contract, Owner 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 the rates of wages required by the contract to be paid laborers, mechanics, or field surveyors on the work and the rates of wages in fact received by laborers, mechanics, or field surveyors.
- 4.6.4 A copy of certified payrolls, with social security numbers redacted, shall be provided to the Project Representative with each Progress Payment Request.

4.7 PROJECT RECORDS

- 4.7.1 Contractor shall maintain at the project site copies of plans and technical specifications, approved shop drawings and manufacturers' information sheets, and other contractor documents which are necessary for the expeditious and correct execution of the work.
- 4.7.2 Contractor shall maintain at the project site a complete daily job report showing job conditions, work activities started, in progress, interrupted and completed; work force, including identification and number of Contractor's employees and subcontractors by craft; receipt and disposition of materials and equipment; tests performed, visiting personnel and any accidents on a particular day. Owner shall have access to the daily report at all times. A copy of each daily report shall be provided to Project Representative at the end of each week.
- 4.7.3 Contractor shall keep one record copy of all specifications, drawings, addenda, modifications, and shop drawings at the job site in good order and annotated to show all changes made during the construction process. These shall be available to Owner during construction and turned over to Owner prior to final completion of the work.

4.8 ALLOWANCES

- 4.8.1 Contractor shall include in the contract sum all allowances stated in the specifications or plans, and all items covered by these allowances shall be supplied in such amounts, or by such a person, as Owner may direct. The allowance shall include the cost to Contractor, less applicable trade discounts, of materials and equipment required by the allowance; delivery at the site, applicable taxes; Contractor's cost for unloading and handling on the site, for labor, installation, overhead, profit and other expenses incurred by Contractor.

Whenever the cost of the allowed item exceeds or is less than the allowance, the contract sum shall be adjusted equitably by change order.

4.9 NONDISCRIMINATION

4.9.1 Contractor must comply with all federal and state laws, rules, regulations and orders, and all local ordinances, regulations and rules concerning wages, taxes, social security, workers' compensation, nondiscrimination, licenses, registration requirements, and similar provisions governing employment of individuals.

4.9.2 Contractor will not discriminate against any employee or applicant for employment or refuse employment to a person, or bar a person from employment, or discriminate against a person in compensation or in a term, condition, or privilege of employment because of the person's race, religion, color, or national origin, or because of the person's age, physical or mental disability, sex, marital status, changes in marital status, pregnancy, or parenthood when the reasonable demands of the position do not require distinction on the basis of age, physical or mental disability, sex, marital status, changes in marital status, pregnancy, parenthood, or political affiliation. Contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices setting forth the provisions of this nondiscrimination clause. Contractor further agrees to insert this provision in all subcontracts hereunder and to require the subcontractors to insert this provision in their subcontracts.

Notwithstanding the prohibition against employment discrimination on the basis of marital status or parenthood stated above, an employer may, without violating this provision, provide greater health and retirement benefits to employees who have a spouse or dependent children than are provided to other employees.

4.9.3 Contractor shall state, in all solicitations or advertisements for employees to work on contract jobs, that all qualified applicants will receive consideration for employment in accordance with the above referenced nondiscrimination clause.

4.9.4 Contractor shall comply with the reporting requirements which the State of Alaska may establish by regulation.

4.9.5 Contractor shall include the provisions of these paragraphs in this section in every subcontract or purchase order under this contract so as to be binding upon every such subcontractor or vendor of Contractor under this contract.

4.10 TAXES

4.10.1 Contractor shall pay all sales, consumer, use and other taxes for the work or portions thereof provided by Contractor which are legally enacted at the time bids are received, whether or not yet effective.

4.10.2 Contractor shall comply with Owner's requirements for payment of taxes. This contract is specifically subject to the provisions of Section 3.06.060 of the Soldotna Municipal Code, as it now stands or as it may be amended, including but not limited to termination of the contract for non-compliance. If the violation arises from failure to file or remit sales taxes, no payment will be made to Contractor until all filings have been made and all amounts due are paid.

4.11 PERMITS, FEES, AND NOTICES

4.11.1 Unless otherwise provided in the contract documents, Contractor shall secure and pay for the building permit. Contractor shall secure and pay for all other legally required permits and government fees, licenses and inspections necessary for the proper execution and completion of the work. These are customarily secured after execution of the contract. These costs are part of the contract price. This provision does not lessen the requirements set out in ARTICLE 1.4.

4.12 ROYALTIES AND PATENTS

4.12.1 Contractor shall pay for all royalties and license fees. Contractor shall defend all suits or claims for infringement of any patent rights and shall save Owner harmless from loss on account thereof.

4.13 INDEMNIFICATION

4.13.1 The contractor shall indemnify, hold harmless, and defend the city from and against any claims of, or liability for, any wrongful or negligent act, error, or omission of the contractor or any subcontractor under this contract. The contractor shall not be required to defend or indemnify the city for any claims of, or liability for, any wrongful or negligent act, error, or omission solely due to the independent negligence of the city. If there is a claim of, or liability for, the joint negligence of the contractor and the independent negligence of the city, the indemnification and hold harmless obligation shall be apportioned on a comparative fault basis. Apportionment shall be determined upon final determination of percentage of fault. If any such determination is by settlement, the percentage of fault attributed to each party for purposes of this indemnification provision shall only be binding upon the parties included in the settlement agreement. "Contractor" and "city" as used in this article include the employees, agents, officers, directors, and other contractors who are directly responsible, respectively, to each. The term "independent negligence of the city" is negligence other than in the city's selection, administration, monitoring, or controlling of the contractor and in approving or accepting the contractor's work.

ARTICLE 5 SUBCONTRACTORS AND SUPPLIERS

5.1 DEFINITIONS AND RESPONSIBILITIES

5.1.1 A subcontractor is a person or entity having a direct contractual relationship with Contractor, or with one of Contractor's subcontractors, to perform any of the work at the site. A supplier is any manufacturer or person or firm providing materials, equipment or assemblies to Contractor or to one of the subcontractors for inclusion in this project.

5.1.2 All contracts between Contractor, subcontractors and suppliers (whether or not in privity with Contractor) shall be in accordance with the terms of this contract and shall incorporate the General Conditions of this contract. Contractor shall include in such contracts, and require its inclusion in any subcontracts, a provision holding any subcontractor or supplier (whether or not in privity with Contractor) directly accountable to Owner for work which fails to meet the requirements of the contract documents, or which prevents Contractor or any subcontractor from performing work. This direct

accountability to the Owner shall be in addition to Contractor's liability for any such failure.

- 5.1.3 The provisions in this ARTICLE shall not be construed as creating a right of recourse, or any direct contractual relationship, between Owner or Owner's agents and any subcontractor, supplier, or manufacturer (whether or not in privity with Contractor).
- 5.1.4 Contractor shall make all necessary copies of these contract documents available to Owner and to each subcontractor and shall require each subcontractor to make copies of these contract documents available to each of Contractor's subcontractors, if any.
- 5.1.5 Contractor shall be fully responsible for enforcing discipline among subcontractors, their employees and their subcontractors, and for insuring that each subcontractor performs the work in accordance with the contract documents and all safety regulations.
- 5.1.6 Contractor shall have the discretion to require subcontractor(s) to provide payment or performance bonds for work of the subcontractor(s).

5.2 AWARDS TO SUBCONTRACTORS AND SUPPLIERS

- 5.2.1 At Owner's request Contractor shall submit to Owner a list of all principal subcontractors and material suppliers and shall not contract with any proposed person or organization to whom Owner voices a reasonable objection. This provision applies to substitution of subcontractors or suppliers subsequent to Owner's initial objection to a proposed person or entity. Such list shall be submitted in accordance with Division 1 requirements as provided in the contract specifications.
- 5.2.2 Rejection of a proposed subcontractor or material supplier shall not entitle Contractor to any increase in the contract sum or time.
- 5.2.3 At Owner's request Contractor shall submit to Owner a copy of any subcontract and any purchase orders for materials and equipment prior to purchase of such items.

5.3 CONTRACTOR PAYMENTS TO SUBCONTRACTORS AND SUPPLIERS

- 5.3.1 Recognizing the importance of maintaining the integrity of a public contract, Contractor warrants that Contractor will pay all subcontractors and material suppliers at least monthly on or about the 20th day of each month upon approval of the subcontractors' and materials suppliers' billing, for all apparently acceptable work performed on the site during the preceding month and for all apparently acceptable material incorporated into the project or delivered and properly stored at the site during any month for which Contractor has received payment from Owner. If Owner retains a percentage of sums due, Contractor may retain a like percentage, but when retainage is paid, Contractor must pay to the subcontractor or supplier interest on retainage equal to interest rate paid to Contractor by Owner.
- 5.3.2 In furtherance of Contractor's warranty under this ARTICLE and ARTICLE 8, Owner, may require Contractor to declare Contractor's status of accounts with any or all the subcontractors and suppliers. A proof of payment to subcontractors and suppliers shall be made in a form acceptable to Owner. If Contractor breaches this warranty and fails to pay each subcontractor and materials supplier within 45 days after a monthly billing has

been presented, then Owner reserves the right to withhold sufficient sums from Progress Payments due to Contractor and to issue payment to the subcontractors or material suppliers directly. This ARTICLE shall not be construed as creating a right in the subcontractors or material suppliers to have direct recourse against Owner for payment. Contractor expressly agrees that Owner will not be liable for any exercise of Owner's discretionary right under this section, and Contractor agrees to release and indemnify Owner for any claims arising therefrom, either by Contractor directly or by any subcontractor or material supplier. Likewise, this ARTICLE shall not be construed as creating a right in Contractor's surety or any other subrogated party to have direct recourse against Owner for failure to withhold sums pursuant to this section.

ARTICLE 6 SEPARATE CONTRACTS

- 6.1 Owner has the right to award separate contracts for work on the project that is not included in this contract.
- 6.2 When separate contracts are awarded for different portions of the Project or other work on the site, the term Contractor in the contract documents in each case shall mean the Contractor who executes each separate contract.
- 6.3 Contractor shall afford other contractors and Owner's own forces reasonable opportunity for the introduction and storage of materials and equipment and for the execution of their work and shall properly connect and coordinate Contractor's work with theirs as required by the contract documents.
- 6.4 Any costs caused by defective or ill-timed work under separate contracts shall be borne by the party responsible thereof and shall be paid promptly.
- 6.5 If Contractor alleges that delay or additional costs were caused by the letting of separate contracts or by work performed by Owner's own forces, then Contractor may request an equitable adjustment by change order as provided below.
- 6.6 If any part of Contractor's work depends upon work performed by Owner or any separate contractor, prior to proceeding with the work, Contractor is required to report to Owner any apparent discrepancies, defects or delays in the other work which impede proper execution of the work required by this contract. If Contractor fails to report such unsuitable work by another contractor to Owner, then Contractor shall be deemed to have accepted the unsuitable work and any liability for all deficiencies, damages and costs which arise as a result of the defective work or of Contractor's use or covering of the unsuitable work.
- 6.7 Should Contractor or any subcontractor delay or cause damage to the work or property of any other contractor or person, Contractor shall repair the damage or settle the claim and shall further, to the extent allowed by law, indemnify, defend, and hold Owner harmless from any and all claims, costs, expenses, injury, damages, or loss of any kind, including attorneys' fees, court costs, or arbitration costs, which arise out of such delay or damage.
- 6.8 Should a dispute arise between Contractor and separate contractors as to the responsibility for completing, finishing or cleaning up particular work or a portion of the work, Owner may complete, finish or clean up the disputed portion and apportion the cost among Contractors responsible as Owner shall determine to be equitable.

ARTICLE 7 BONDS AND INSURANCE

7.1 PERFORMANCE AND PAYMENT BONDS

- 7.1.1 Contractor shall provide as part of the basic contract sum, a performance bond and a payment bond, each in the amount of 100% of the contract amount, prior to Owner's execution of the contract. Contractor shall have no recourse of any kind against Owner, if Owner declines to award a contract due to Contractor's failure to provide the required bonds. These bonds, in whatever amount required by the specific contract, shall be administered and deemed governed by the provisions of Alaska Statutes Title 36, Chapter 25 and shall comply with all requirements for payment and submission of claims as provided by that chapter.
- 7.1.2 All bonds shall name Owner as the beneficial party and shall protect Owner for a period of at least one year subsequent to the date of final payment upon this contract. All bonds shall be executed upon a form acceptable to Owner and by a surety company licensed to do business within the State of Alaska and acceptable to Owner. The form of the bond shall provide that Owner shall have at least thirty (30) days prior notice of any lapse in bond coverage. The bond payment shall be applicable to all subcontractors or material suppliers (whether or not in privity with Contractor) who might attempt to assert a claim against Owner.
- 7.1.3 Owner may inform the surety as to the general progress and status of the work. A copy of all communications with the surety company shall be provided promptly to Contractor upon request.
- 7.1.4 In the event Contractor refuses, or is unable to make payments to laborers, subcontractors or material suppliers, or to complete the work, or to correct defective work, within the times provided by this contract, Owner may elect to call upon Contractor's surety to rectify Contractor's default. Contractor shall first be given seven (7) calendar days written notice (effective when mailed) of Owner's intentions to call upon the surety company and Owner shall specify to Contractor the basis for the proposed course of action. If Contractor fails to correct the default within the time provided, Owner shall promptly call upon the surety.
- 7.1.5 Prior to final payment or reduction in retainage, Contractor shall provide written consent of each affected surety releasing Owner from any further claims arising from payment to Contractor and obligating the surety company to rectify any default, nonpayment, defective work, error, omission or deficiency of Contractor.
- 7.1.6 Contractor and Owner expressly agree that Owner shall be entitled to retain from payments to Contractor amounts in excess of normal retainage if these additional amounts may be necessary to indemnify Contractor's surety for any payment or corrective work which the surety might be required to undertake. This additional retainage will be made only upon written directive by Contractor's surety specifying the reason for retaining extra amounts, the amounts to be retained and agreement of the surety to reimburse Owner for any interest which may be due Contractor under the provisions of the Alaska Statutes.

7.2 CONTRACTOR'S INSURANCE

- 7.2.1 The services to be rendered under this contract are those of an independent Contractor.
- 7.2.2 Contractor and all subcontractors, if any, shall be responsible for the purchase and maintenance of all insurance required by law and at a minimum purchase the insurance coverage as specified in ARTICLE 7.2.5 and 7.2.6 below, and any other insurance coverage as may be specified in ARTICLE 7.2.11 SUPPLEMENTARY GENERAL CONDITIONS OF INSURANCE, if attached and forming a part of this contract.
- 7.2.3 This insurance coverage required by ARTICLE 7.2.5 and 7.2.6, and ARTICLE 7.2.11 if attached, shall be in acceptable form, and for the amounts specified by the City of Soldotna Public Works Department, or as required by law, whichever is greater.
- 7.2.4 The insurance policies shall remain in force for the life of the contract and shall be a part of the contract price.
- 7.2.5 Commercial general liability with minimum coverage of \$1,000,000 and automobile liability insurance with minimum coverage of \$1,000,000 combined single limit bodily injury and property damage per occurrence. This insurance shall be primary and exclusive of any other insurance carried by the City of Soldotna. The commercial general liability insurance shall be without limitation on the time within which the resulting loss, damage, or injury is actually sustained.
- 7.2.6 Per Alaska State Statutes, Worker's Compensation and Employers Liability Insurance shall be provided for all employees who are performing work under this contract.
- 7.2.7 Certificate(s) of Insurance shall be provided by Contractor and all subcontractors, or their Insurance Companies and/or their Agents, naming the City of Soldotna as an additional insured for the work specified in this contract. The certificates of insurance must reference the specific contract by name and project number. Certificates of Insurance, acceptable in form and content, will be delivered to Owner at the address designated for legal service in the agreement, at or prior to presentation of the contract for execution by owner.
- 7.2.8 There shall be no cancellation or material change of the insurance coverage, or intent not to renew the insurance coverages as specified in this contract, without thirty (30) days prior written notice to the City of Soldotna. Notice of cancellation, material change in coverage, or intent not to renew will be delivered to the address designated for legal notice in the agreement.
- 7.2.9 Upon renewal or change in policies during the contract, Certificates of Insurance shall be delivered to the address designated for legal notice in the agreement.
- 7.2.10 Owner shall have the option to purchase and maintain such insurance as will protect Owner against property losses or liability claims, which may arise from operations under the contract. Insurance providing coverage against fire and extended coverage perils, may, at Owner option, provide coverage to the full insurable value of the project and insure the interests of Contractor and all subcontractors as their interests may appear. Any recovery for loss insured pursuant to this General Condition is to be adjusted to Owner and made payable to Owner as trustee for the insured, as their interests may

appear. This section does not modify the contractor or subcontractors' responsibility to provide insurance as required in ARTICLE 7.

7.2.11 May be added in supplementals as Supplementary General Conditions of Insurance.

ARTICLE 8 MEASUREMENT, PAYMENT AND COMPLETION

8.1 SCOPE OF PAYMENT

8.1.1 Unless altered by change order, Contractor shall be paid only that sum set forth in the agreement between Owner and Contractor as Contractor's compensation for performance of all work required by the contract documents.

8.2 LUMP SUM PAY ITEMS

8.2.1 Each bid item is characterized as either a lump sum item or a unit price item in the bid documents. Where the item is bid at a lump sum price, no additional compensation shall be paid to Contractor for additional work required because Contractor failed to include items or quantities in Contractor's estimate or a subcontractor's estimate, or failed to utilize proper construction means, methods, procedures or sequence or by virtue of any decision of Contractor.

8.2.2 Contractor is required to provide and pay for all requirements necessary for the proper execution and completion of the contract unless specifically excluded by the contract documents. The costs are part of the contract price. The requirements include but are not limited to the requirements stated in ARTICLE 1.4.

8.2.3 All materials and equipment incorporated in the work shall be new except as otherwise provided in the contract documents. All materials and equipment shall meet or exceed the requirements of the plans and specifications and Contractor shall furnish, if requested, satisfactory evidence as to the source, kind and quality of any materials and equipment.

8.3 UNIT COST ITEMS

8.3.1 Quantities appearing in the bid schedule are approximate and are prepared for comparison of bids. Payment to Contractor will be for actual quantities of work performed and materials furnished in accordance with the contract documents. Scheduled quantities of work and materials may be increased, decreased or eliminated as provided herein.

8.4 APPLICATION FOR PAYMENT

8.4.1 Applications for payment shall be based on Contractor's submitted schedule of values, as approved by Owner per Section 4.2. Schedule of values shall be prepared in such form and supported by such data as may be required by Owner to substantiate its accuracy prior to Contractor's first application for payment.

8.4.2 The schedule of values shall include quantities of work, unit prices and other items comprising the contract price. It shall subdivide the work into each component part in sufficient detail to serve as the basis for progress payments during construction.

8.4.3 With each subsequent application for progress payment, Contractor shall provide a

schedule of values to Owner showing all work which has been performed to date together with the value thereof, and the percentage of work completed.

8.5 PROGRESS PAYMENTS

- 8.5.1 Progress Payments shall be made monthly, based upon the amount of apparently acceptable work performed at the site and apparently acceptable materials purchased for the project and properly stored at the site during the previous month. Disbursement of progress payments will not effect a transfer of the risk of loss from the Contractor to the Owner for invoiced equipment or material. The risk of loss of the work and all material and equipment not yet incorporated in the work is the liability of the Contractor until substantial or final completion, whichever is earlier.
- 8.5.2 The value of work performed and materials stored shall be set forth in Contractor's revised schedule of values. If requested by Owner, Contractor shall promptly provide Owner any additional information necessary to ascertain the value of the work performed or the cost of materials stored at the site during the previous month. Each updated Schedule of Values shall be in the form of a notarized affidavit. Proof of certified payroll shall be provided per ARTICLE 4.
- 8.5.3 By application for payment, Contractor warrants and guarantees to Owner that title to all work, materials, and equipment for which payment is requested will pass to Owner either by incorporation in the construction and after substantial completion or upon receipt of payment, whichever occurs later, that such title will be clear of all liens, claims, security interests, and other encumbrances, except for liens to be released later prior to final payment and specifically identified on the application for payment, and that all such work, materials, and equipment are of acceptable quality.
- 8.5.4 Each application for payment shall be made no later than the tenth day of each month for work performed during the preceding month. Progress Payment requests shall be submitted to Project Representative for analysis and recommendation to Owner.
- 8.5.5 Project Representative will review Contractor's application for payment within seven (7) working days after receipt and if Project Representative ascertains that the amounts set forth therein are properly due and owing to Contractor, then Project Representative shall issue a Certificate of Payment to Owner. If Project Representative determines that only a portion of the sum requested is then properly due and owing to Contractor, then Project Representative may issue a Certificate of Payment in a lesser amount or may reject the application altogether. Project Representative will notify in writing both Contractor and Owner of the reasons for reduction or rejection of any application for Progress Payment.
- 8.5.6 Project Representative's issuance of a Certificate of Payment constitutes a representation that the work has progressed to the point indicated and that to the best of Project Representative's professional knowledge and information, Contractor is entitled to payment in the amounts certified.

8.6 RETAINAGE

- 8.6.1 After receipt from Project Representative of the Certificate for Payment, Owner shall make payment to Contractor within thirty (30) days. Owner shall have the option to retain up to 10% of the full amount of the Certificate for Payment plus lump sum

amounts for material and equipment not properly stored, or subject to damage prior to use. Amounts retained by Owner may be held by Owner until project completion. If the project involves grant money or the city has entered into a written contract with the state to provide state funds, payment will be made in accordance with AS 36.90.200-270.

- 8.6.2 Owner may withhold additional sums of money from progress payments in an amount sufficient to safeguard and protect Owner against any apparently meritorious claims against Contractor by any party other than Owner, and for any work which Owner ascertains to be defective or not meeting the requirements of the contract documents.

8.7 CONDITIONS OF PAYMENT

- 8.7.1 Project Representative may refuse to approve all or any part of any request for progress payment if, in Project Representative's opinion, it would be incorrect to make the representation to Owner set out in ARTICLE 8. Project Representative may also refuse to approve all or any part of any request for progress payment, if subsequently discovered evidence or the results of subsequent inspections or tests nullify any payment previously approved.

- 8.7.2 Owner may withhold payment to the extent necessary to protect Owner from loss resulting from:

- A. Defective or damaged work;
- B. Claims or liens which have been filed or may be reasonably expected;
- C. Contract price reduction by modifications or change orders;
- D. Owner cost to correct or complete defective work;
- E. Unsatisfactory prosecution of the work by Contractor, including but not limited to failure to furnish adequate submittals or to clean up the work or site;
- F. Reasonable evidence that the work cannot be completed for the unpaid balance of the contract sum;
- G. Failure of Contractor to make payment properly due to subcontractors, employees, suppliers or utilities;
- H. Reasonable evidence to believe the work cannot be completed within the contract time.
- I. Damage to Owner's property not replaced or repaired in timely manner.

When the grounds for withholding payment are removed, payment shall be made for amounts withheld.

- 8.7.3 Neither the issuance of a Certificate of Payment, nor the making of any progress payment, nor the partial or entire use of the project by Owner shall constitute an acceptance of any work not in accordance with the contract documents nor shall it constitute a waiver of any right accruing to Owner or of any duty of Contractor.

8.8 SUBSTANTIAL COMPLETION

- 8.8.1 Substantial Completion is defined as the state of construction at which the work is sufficiently complete and in accordance with the contract documents, so that Owner could occupy and utilize the work or a specific portion of it, for its intended use.

- 8.8.2 When Contractor considers the work substantially complete Contractor shall notify Project Representative in writing and request a Substantial Completion inspection. The notice shall include a comprehensive list of items to be completed, reasons they are not completed and a date of anticipated completion. The notice shall also include copies of all code compliance inspections, the Certificate of Occupancy, if applicable, and any other documents required by the contract.
- 8.8.3 Project Representative shall schedule the Substantial Completion inspection and notify Contractor. The inspection will be performed by Project Representative, Architect, Design Engineers, and Owner personnel in the presence of Contractor. Should this inspection find the work not substantially complete, Owner may terminate the inspection and promptly notify Contractor in writing of the conditions for reinspection. Any deficiencies identified by this inspection will be listed and promptly furnished to Contractor for remedial action.
- 8.8.4 If Contractor has requested that Project Representative and Owner make an inspection to ascertain Substantial Completion, and if the work is not then substantially complete, Contractor shall be liable for all costs Owner, Architect, and Project Representative have incurred in making the inspection.
- 8.8.5 If it is determined on the basis of inspection that the work is substantially complete, Project Representative will issue a Certificate of Substantial Completion. Included in the certificate shall be a list of items which must be completed or corrected before final payment and the time within which such items shall be complete and corrected. Failure to include an item on this list does not alter the responsibility of Contractor to complete all work in accordance with contract requirements.
- 8.8.6 Certificate of Substantial Completion shall state the date of Substantial Completion and the respective responsibilities of Owner and Contractor for the maintenance, insurance and security of the work. Certificate of Substantial Completion shall specifically authorize Owner to take possession of the premises and utilize them for their intended purpose. Owner's beneficial occupancy of the premises shall make reasonable allowance for the performance of the work which Contractor must complete prior to final completion.
- 8.8.7 If Contractor fails to complete or correct work required by the Certificate of Substantial Completion within the time allowed, then the Certificate of Substantial Completion shall be voided and the contract time expended by Contractor shall be counted, and the acceptability of the work shall be inspected as if a Certificate of Substantial Completion had not been issued.
- 8.8.8 Upon Substantial Completion of the work and upon application by Contractor and certification by Project Representative, Owner shall make payment, reflecting adjustment in retainage, if any, for such work as provided in the contract documents.

8.9 FINAL COMPLETION AND WARRANTY PERIOD

- 8.9.1 The terms Final Completion and Warranty Period refer to, respectively, the finalization of the construction phase and a one-year warranty period following the Substantial Completion. Final Completion shall be represented by a lump sum dollar amount identified on the schedule of values. Final Payment represents a sum of money to

perform all tasks necessary from Substantial Completion to Final Completion, including completion of final punch list, completion of as-built data, turnover of all warranty information, notarized acknowledgments of payments, and relinquishment of claims against Owner.

- 8.9.2 When Contractor considers the work ready for Final Completion, Contractor shall forward to Project Representative an application for final payment including (1) an affidavit that all payrolls, bills for materials and equipment, and other indebtedness connected with the work have been paid or otherwise satisfied, (2) consent of surety, if any, to payment, (3) irrevocable, notarized proof of payment and relinquishment of claim against Owner, issued by every subcontractor (whether or not in privity with Contractor), material supplier and other party who might assert a claim against Owner, and (4) all other documentation required by the contract documents. Project Representative and Owner shall promptly inspect the work to see that it is fully performed and complete, that all portions of the work are acceptable and that the contract is fully performed aside from completion of the Warranty Period. After Project Representative has made a determination that these requirements have been met, Project Representative shall prepare and recommend that Owner issue a Certificate of Final Completion and Final Payment.
- 8.9.3 Project Representative's approval of Final Payment constitutes an additional representation by Project Representative to Owner that to the best of Project Representative's knowledge and information, all conditions which Contractor must fulfill prior to being entitled to Final Payment have in fact been fulfilled in accordance with the contract documents.
- 8.9.4 If any party refuses to relinquish its claim, or if Owner considers that any item or portion of the work: (1) is of doubtful acceptability under the contract documents; or (2) may diminish the value of the work; or (3) may prove to be ultimately unreliable; or (4) may prove to be less functional than required by the intent of the contract, then Owner, in lieu of refusing Final Payment to Contractor, may allow Contractor to furnish a bond in a form and in an amount satisfactory to indemnify Owner against losses occasioned thereby. If any additional costs to settle the claim or to correct work of doubtful quality accrue to Owner in excess of the indemnity available to Owner, Contractor shall refund to Owner all differences and costs which Owner might be compelled to pay, including all litigation costs and reasonable attorney fees.
- 8.9.5 Acceptance of final payment by Contractor constitutes an explicit waiver of all claims which Contractor might assert against Owner except those previously made in writing and identified by Contractor as unsettled at the time of the Application for Final Payment.
- 8.9.6 Final Payment to Contractor shall constitute a waiver of all claims which Owner might assert except those arising from: (1) unsettled claims; (2) faulty or defective work (3) failure of the work to comply with the requirements of the contract documents; (4) warranties required by this contract or that by their terms do not expire upon completion of the contract.
- 8.9.7 If, after Substantial Completion, Warranty Completion is delayed through no fault of Contractor, or by the issuance of change orders affecting Final Completion, Owner may, upon recommendation of the Project Representative, extend the contract time by a reasonable period and accept certified applications for further Progress Payments.

8.9.8 The contract sum identified on the schedule of values as "Final" shall be based on the contract award in an amount as follows:

<u>CONTRACT AWARD</u>		<u>FINAL AMOUNT</u>
\$100,000	-	\$249,999
\$250,000	-	\$499,999
\$500,000	-	\$1,999,999
\$2,000,000	-	\$4,999,999
\$5,000,000	-	\$9,999,999
\$10,000,000	-	\$19,999,999
\$20,000,000	-	up
		5.00% of Contract Amount
		3.00% of Contract Amount
		2.00% of Contract Amount
		1.50% of Contract Amount
		1.25% of Contract Amount
		1.00% of Contract Amount
		0.75% of Contract Amount

8.9.9 Upon completion of all requirements identified in ARTICLE 8 as "Final" the funds representing Final Payment shall be released to Contractor along with the Certificate of Final Completion. Upon issuance of Certificate of Final Completion all contract sums shall be accounted for to Contractor and shall be paid to Contractor. However, any and all applicable bonds shall not be released until after the Warranty Period.

8.10 TIME AND LIQUIDATED DAMAGES

8.10.1 The time permitted for construction of the work will run from issuance of Notice to Proceed through the dates for Substantial Completion as specified in Agreement between Owner and Contractor, unless a specific completion date is specified.

8.10.2 The term "day" as used in this contract shall mean "calendar day" unless specifically stated otherwise.

8.10.3 All warranty periods and obligations accruing to Contractor through completion of the work shall be considered to begin on the date of Substantial Completion, unless otherwise agreed to separately in writing by Owner and Contractor.

8.10.4 Contractor shall begin the work as soon as possible after the date identified in Notice to Proceed and shall prosecute the work expeditiously and with adequate labor and materials.

8.10.5 Liquidated damages will, if agreed to by the parties and set out in the Agreement, be applied in the amount set out in the Agreement.

8.10.6 Claims for extension of time will be considered only if they affect "critical path" items specifically identified in the detailed progress schedule or in any applicable Supplementary Conditions. Claims for extension of the contract time must be made in writing to Owner not more than twenty (20) days after the reason for requested extension appears.

ARTICLE 9 CHANGES IN THE WORK, CONTRACT PRICE, AND TIME

9.1 CHANGE ORDERS

9.1.1 Without invalidating this contract, Owner may, at any time, order additions, deletions, or revisions in the work. All such changes must be authorized by written change order.

Upon receipt of a change order, Contractor shall proceed with the work in accordance with applicable requirements of the contract documents. If any change order entails an increase or decrease in the contract price or an extension or curtailment of the contract time, adjustment will be made as provided herein.

- 9.1.2 Extra work will be paid for either at a fixed price specified in the change order (using unit prices or a lump sum amount) or on a time and materials basis.
- 9.1.3 Project Representative may authorize minor changes, alterations or deviations in the work in accordance with ARTICLE 2. These changes shall be authorized by written Field Order to be included in a subsequent Change Order.
- 9.1.4 Any additional work performed by Contractor without a properly executed change order will not entitle Contractor to an increase in the contract amount or to an extension of the contract time, except in the case of emergency threatening life, safety or property.

9.2 ISSUANCE OF CHANGE ORDER

- 9.2.1 The contract sum constitutes the total compensation to Contractor for the work required by this contract. The contract price may be changed only by a properly executed change order. Any request for increase in the contract price shall be based upon written notice delivered to Project Representative within ten (10) days after the reason for the proposed increase appears. Change order proposals must be accompanied by all pertinent data and documentation, including a detailed estimate showing costs, quantities, unit prices and markups for overhead and profit.
- 9.2.2 Project Representative shall analyze Contractor's change order proposal and shall make a recommendation to Owner within a reasonable period of time. If Owner accepts the proposal, Project Representative shall prepare the change order for execution by Contractor and Owner.
- 9.2.3 The value of any work added or deleted by change order shall be determined by one of the following methods:
 - A. Application of unit prices set forth in the bid: unit prices shall include all direct and indirect costs of the work, including labor, equipment (whether owned or rented), materials, home office expense, all overhead and profit. For unit price change orders involving credits to Owner, unit prices applied shall be 90% of the bid unit price.
 - B. Application of mutually accepted unit prices for work not covered by bid unit prices: unit prices shall include all direct and indirect costs of the work, including labor, equipment (whether owned or rented), materials, home office expense, all overhead and profit.
 - C. Mutual acceptance of a lump sum: Contractor's lump sum proposal must include an itemized breakdown of all costs of Contractor, subcontractors and suppliers. Breakdowns shall show quantities and prices of labor, materials, equipment and other direct costs. To direct costs shall be added the allowable combined overhead and profit as provided in ARTICLE 9.4.

D. At Owner's option, Contractor may be directed to proceed with additional work on a "time and materials" basis which may also stipulate a maximum "not to exceed" amount. Contractor will be required to maintain and submit detailed records showing all quantities and prices of labor, materials, equipment and other direct costs. To direct costs shall be added the allowable combined overhead and profit as provided in ARTICLE 9.4.

9.2.4 When both additions and credits for related work or substitutions are involved in any one change, the allowance for overhead and profit shall be based on the net change. All related items within a proposal shall be considered as a single item for purposes of computing overhead and profit.

9.2.5 When Contractor is directed to proceed on a time and materials basis, costs of the work shall be submitted daily for approval by Project Representative and may only include:

- A. Actual payroll costs for employees, as substantiated by time cards, in the direct employ of Contractor for the times actually utilized in prosecution of the additional work, including allowance for benefits which Contractor customarily provides its employees;
- B. The actual substantiated cost to Contractor for all material and equipment incorporated into the work, including transportation and storage expenses;
- C. The actual substantiated amounts of payments by Contractor to subcontractors for work performed by the subcontractors;
- D. Any costs of special consultants to the extent authorized by Owner;
- E. Substantiated equipment rental costs at reasonable market rates;
- F. Additional supervision and travel costs reasonably related to the work performed;
- G. Increased bond premiums;
- H. Additional license fees, permits, or applicable taxes;
- I. Minor incidental expenses such as telegrams and long distance telephone charges.

To these direct costs shall be added the allowable combined overhead and profit as provided in ARTICLE 9.4.

9.2.6 Unless specifically agreed to by Owner in writing, the cost of additional work shall not include any portion of Contractor's general overhead, nor any sum attributable to Contractor's prosecution and supervision of the principal work at the site, nor any overtime expense, unless specifically agreed to by Owner in writing. Contractor shall not be compensated for any casualty or other losses or expenses attributable to negligence of Contractor or any person in its employ or any subcontractor or supplier.

9.2.7 Payment to Contractor shall be made only for the actual quantities of work performed and accepted or materials furnished, in conformance with the contract or applicable change

order. When the accepted quantities of work or materials vary from the quantities stated in the bid schedule, Contractor shall accept as payment in full, payment at the original contract unit prices for the quantities of work and materials furnished, completed and accepted; except as provided in the contract documents.

9.3 UNIT PRICES

- 9.3.1 When unit prices are used, and where the final quantity of a major contract item varies more than 25% above or below the bid quantity, either party to the contract may request an equitable adjustment in the contract unit price of that item. A major contract item is an item equal to 10% or more of the total contract.
- 9.3.2 When the final quantity of work is less than 75% of the bid quantity, the equitable adjustment shall be made for those units of work done and accepted, except that the total payment for the item shall not exceed 75% of the total amount bid for the item.
- 9.3.3 To determine unit prices for authorized changes or additions in the work that alter the quantity of work under a lump sum pay item, adjustment to the pay item will be determined by multiplying the added or deleted quantity by the quotient of the contract lump sum price and the estimated quantity shown on the original plans. Payment will be made under a new contract item established for that purpose. Adjustments will be made as a change order to the contract.
- 9.3.4 No allowance shall be made for any increased expenses, loss of expected reimbursement or loss of anticipated profits suffered or claimed, either directly from such alterations in quantities or indirectly from unbalanced allocations among the contract items by Contractor, or any other causes.

9.4 ALLOWABLE OVERHEAD AND PROFIT

- 9.4.1 When the value of change order work is determined by the lump sum method or by the time and materials method, the following definitions and percentages shall apply.
- 9.4.2 Direct costs are defined as the net cost to Contractor to accomplish a given change. Costs of bonds and insurance associated with the change shall be applied after addition of indirect costs.
- 9.4.3 Indirect costs are defined as general operational charges relating to the accomplishment of a given change, including but not limited to small tools, incidental job burdens and general office expense.
- 9.4.4 Overhead and Profit: Allowances for all indirect costs shall be identified as combined overhead and profit and shall not exceed nor be less than the percentages in the following schedule:
 - A. Additive work:
 - (1) Prime Contractor:
 - (a) 15% of the direct costs of own work in excess of \$1000.00; 20% when the total value of own work is equal to or under \$1,000.00.
 - (b) 8% of the direct costs of work performed by subcontractors not including subcontractor's overhead and profit.

- (c) 8% of the direct costs of equipment.
 - (2) Subcontractor:
 - (a) 15% of the direct costs of own work or work performed by other subcontractor in excess of \$1,000.00; 20% when total value of subcontractor's own work is equal to or under \$1,000.00.
 - (b) 8% of the direct costs of equipment.
 - (3) In no case shall overhead and profit exceed 23% of the direct costs of work or 16% of the direct costs of equipment when the cost of the work exceeds \$1,000.00. In no case shall overhead and profit exceed 28% of the direct costs of work or 16% of the direct costs of equipment when the cost of the work is equal to or less than \$1,000.00.
- B. Deductive work:
- (1) Prime Contractor: 4% of the direct cost of deleted own work.

9.5 CONCEALED CONDITIONS

- 9.5.1 This ARTICLE applies only when concealed conditions substantially at variance with the conditions set forth in the contract documents are encountered and these conditions were not foreseeable by Contractor or reasonably inferable from information provided by Architect or Owner in the bidding documents.
- 9.5.2 If it is determined the Contractor could not predict the concealed conditions as set forth under ARTICLE 9.5.1, Owner may issue a change order for the performance of additional work required with an equitable adjustment in the contract sum. Contractor shall not begin work upon any concealed condition until Owner has approved a written change order

ARTICLE 10 TESTING AND CORRECTION OF WORK

10.1 TESTS AND INSPECTIONS

- 10.1.1 Contractor shall be responsible for securing permits and approvals from entities having jurisdiction over the work. Owner will provide any special testing or inspections required by the contract documents. Contractor shall not cover work that requires testing, inspection or approval until such testing, inspection, or approval has been completed.
- 10.1.2 Contractor shall give Owner timely notice of readiness of the work for all inspections, tests or approvals. Minimum time required for giving notice of readiness will be agreed upon by Owner and Contractor prior to startup of work.
- 10.1.3 Neither observation by Owner nor inspections, tests, or approvals by Owner or Owner's testing agency shall relieve Contractor from Contractor's obligation to perform the work in accordance with the contract documents.

10.2 UNCOVERING OF WORK

- 10.2.1 If any work is covered or buried contrary to contract requirements or Owner's written request, such work shall be uncovered at Owner's request for inspections, tests or approvals. Uncovering and recovering shall be at Contractor's expense, unless Contractor

has given notice of intent to cover the work and Owner has not acted with reasonable promptness to provide any necessary tests, inspections or approvals.

10.2.2 If any work has been covered which Owner has not specifically requested to observe prior to covering, or if Owner considers it necessary or advisable that covered work be inspected or tested by others, then Contractor shall, at Owner's request, uncover, expose or otherwise make available for observation, inspection, or testing, that portion of the work as Owner may require. Contractor shall furnish all necessary labor, materials and equipment. If such work is found to be defective, Contractor shall bear all expenses, including compensation for any additional professional services and testing. If, however, the uncovered work is found not to be defective, Contractor shall be allowed an equitable adjustment in the contract price or the contract time. Only Contractor's direct costs attributable to the uncovering of work and its recovering shall be allowed.

10.3 DEFECTIVE WORK

10.3.1 All work not meeting the requirements of the contract documents shall be considered defective.

10.3.2 Contractor shall promptly correct or replace any defective work. Any and all costs associated with correction or replacement shall be borne by Contractor. Contractor shall also bear the expense of making good all work of others destroyed or damaged or required to be redone because of the correction or replacement of defective work.

10.3.3 If, after seven (7) days written notice to Contractor, Contractor fails to correct deficiencies or to provide Owner with an approved schedule for correcting defective work, Owner may, without prejudice to any other remedy it may have, make good deficiencies and deduct the cost thereof from the payment then or thereafter due Contractor. No extensions of time shall be allowed for correction of work that is defective.

ARTICLE 11 WARRANTIES

11.1 Contractor unconditionally warrants for a period of one year from issuance of the Certificate of Substantial Completion the usability and quality of all work, labor and materials incorporated into the project, unless otherwise provided in the contract documents. After the approval of Final Payment and prior to the expiration of one year after the date of Final Completion, any work found to be defective shall be remedied promptly by Contractor within fourteen (14) days of written notice without cost to Owner and in accordance with Owner's written instructions. Contractor shall either correct such defective work, or, if it has been rejected by Owner, remove it from the site and replace it with acceptable work. If Contractor does not promptly comply with the terms of Owner's instructions, Owner may have the defective work corrected or the rejected work removed and replaced, and all direct and indirect costs of such removal and replacement, including compensation for additional professional services, shall be deducted from Warranty Period Payment, unless the surety elects to remedy deficiency.

11.2 In addition to other warranties set forth in this contract and in accordance with requirements stated in the contract documents, Contractor shall obtain and transmit to Architect all warranties on material and equipment incorporated into the work and either provided by the supplier or

otherwise required by the contract documents. Transmittal of warranties to Owner shall be a prerequisite of the Certificate of Final Completion.

- 11.3 All material and equipment installed by Contractor shall have a manufacturer's warranty for a period of one year, except as otherwise provided by the contract documents. The period of warranty shall begin on the date of Substantial Completion unless otherwise noted on the Certificate of Substantial Completion. This article does not limit any manufacturer's warranty which extends for a period of time longer than that specified as minimum in the contract documents.
- 11.4 If a warranty period in excess of one year on a particular item or part of the work is required by the contract documents, the longer warranty period shall govern warranty obligations of Contractor.
- 11.5 Owner may accept defective work or materials found during the warranty period instead of requiring correction or removal and replacement. If acceptance occurs prior to approval of final payment, a change order shall be issued to reduce the contract price. If acceptance occurs after approval of final payment, an appropriate amount shall be paid by Contractor to Owner.
- 11.6 The provisions of this ARTICLE shall not be construed as limiting the right of Owner to make a claim against Contractor for work not constructed in accordance with the contract documents. Where a defect attributable to Contractor's or subcontractor's materials or workmanship appears after expiration of the one-year warranty period, Owner shall notify Contractor of the appearance of damages due to defective work or materials and shall offer Contractor the right to replace or repair all defective work and other work using Contractor's forces. If Contractor fails to correct the work and any consequentially damaged work within a reasonable time, or if Contractor refuses to correct the work, Owner may correct the work utilizing Owner's own forces. Contractor shall pay Owner all costs attributable to correction of the defective work and any consequential damages occasioned by the defective work.
- 11.7 Should Owner and Contractor agree to delay completion of any items, the one-year warranty period for those items shall commence upon written acceptance of each item by Owner.

ARTICLE 12 CLAIMS AND LITIGATION

- 12.1 This contract shall be governed by the laws of the State of Alaska, and any lawsuit brought thereon shall be filed in the Third Judicial District at Kenai, Alaska.
- 12.2 No controversy or claim arising out of this contract shall be subject to binding arbitration unless both Owner and Contractor agree in writing to submit the question to arbitration at the time when the controversy arises.
- 12.3 All claims, disputes and other matters in question between Contractor and Owner relating to the execution or progress of the work shall be referred initially to Project Representative, who shall render a recommendation in writing to Owner within a reasonable time.
- 12.4 During pendency of any claim arising out of this contract, Contractor shall carry on the work and maintain the Progress Schedule approved by Owner unless otherwise agreed by Contractor and Owner in writing. Should Contractor cease work, Contractor shall be in breach of this contract and Owner shall have the right to terminate the contract and to prosecute the work to completion

with Owner's own forces or with a replacement Contractor. Contractor shall be responsible for any increase in costs to Owner above the contract price.

- 12.5 Contractor may make claims for additional costs only if the additional cost involved has occurred because of:
- A. A change order issued by Owner, where the additional sum due Contractor set forth in the change order is in dispute.
 - B. An order by Owner to stop the work where Contractor was not at fault.
 - C. Concealed conditions as set out in ARTICLE 9.
 - D. Failure of payment by Owner pursuant to ARTICLE 3.
 - E. Additional costs or delays caused by separate contractors' or Owner's forces in accordance with ARTICLE 6.
- 12.6 Contractor shall not make a claim for additional costs where the basis of the claim lies in an oversight or mistake made by Contractor during the bidding process or by reason of negligent acts or omissions of Contractor or any mistake in judgment or improper selection of construction means, methods, sequences and materials during the course of construction.
- 12.7 If Contractor is entitled to make claim for an increase in the contract sum, Contractor shall deliver to Owner written notice of Contractor's intention to assert each claim within twenty (20) days after occurrence of each event giving rise to the claim. Contractor must give this notice of claim and specify the full extent and nature of the claim(s) to Owner before proceeding to execute the work upon which a claim might be asserted. No claim for additional costs or compensation shall be valid unless the prior twenty (20) day notice has been given. Adherence to this provision shall be strict. Any adjustment in the contract sum resulting from settlement of claims shall be authorized by change order.

ARTICLE 13 TERMINATION OF THE CONTRACT OR SUSPENSION OF THE WORK

13.1 TERMINATION BY OWNER

- 13.1.1 Owner shall have the right to terminate the contract if Contractor should file for bankruptcy, reorganization, otherwise be declared insolvent, or if Contractor makes a general assignment for the benefit of creditors. Exercise of these rights, where required by law, is contingent upon relief from the automatic stay provisions of the United States Bankruptcy Court or through other appropriate court order. This right of termination is in addition to the right of Owner to terminate for cause outlined below and other rights of termination as stated in the contract documents.
- 13.1.2 Termination for cause: If Contractor: (1) repeatedly refuses or fails to supply enough proper skilled workmen; or (2) fails to pay promptly all subcontractors, suppliers, or other parties as set out in the contract documents; or (3) fails to adhere in all respects to the provisions of Title 8, Chapter 30, of the Alaska Administrative Code and Title 36 of the Alaska Statutes as applicable to this contract and all other pertinent statutes, ordinances or regulations or orders of any local, state, or federal authority concerning payment; or (4) allows insurance to lapse; or (5) if after seven (7) days written notice, without prejudice to any other remedy of Owner, Contractor fails to correct to Owner's satisfaction deficiencies in work that does not conform to the contract documents; or (6) allows a situation that creates a danger to person or property to arise. Where an

emergency situation creating a danger to person or property arises, Owner may at its option terminate the contract and take possession of the site and any of Contractor's equipment and material necessary to complete an emergency response or hire a separate contractor to complete the emergency response. Contractor shall be paid the contract rate for the material used and shall be paid for the use of Contractor's equipment at the price shown in the contract documents or at the rate for such equipment listed in RENTAL RATE BLUE BOOK FOR CONSTRUCTION EQUIPMENT, published by Machinery Information Division of K-III Directory Corporation, 1735 Technology Drive, Suite 410, San Jose, California 95110. If the rate for such equipment is not so listed, reliable sources will be used to determine a reasonable rate.

- 13.1.3 In the event of termination for cause, Owner shall have the right of set-off, from any payment due Contractor, of all expenses, costs, and damages including but not limited to all professional and legal expenses and attorneys' fees and costs or other additional expenditures necessary to complete the projects that are occasioned by the termination. In the event such amounts exceed the amount of payment withheld, Contractor shall be liable to Owner for such amounts. No payment shall be made to Contractor prior to determination that a balance is due Contractor after the amount of set-off is determined.
- 13.1.4 Owner may terminate this contract at any time for the convenience of Owner for any reason deemed by Owner to be in the best interest of Owner.
- 13.1.5 If this contract is terminated for convenience, Contractor will be directed to make all necessary preparations for closing out the project and for safeguarding Owner's materials and the work already completed. Contractor will be paid for all conforming work done to date and for all materials delivered to the site and already paid for by Contractor, together with all reasonable costs directly attributed to termination, including fixed overhead. Contractor shall be responsible for minimizing the extent of such expenses and shall **not** be paid for expenses which could have been reasonably avoided. On the date that notice of termination or suspension for convenience is issued, Contractor shall immediately take all actions necessary to stop orders of material, rental of equipment or premises, employment of persons on the project, and shipment of materials not yet delivered to the site. The notice of termination or suspension for convenience shall specify a date by which all steps necessary for termination shall be completed and by which Contractor shall have removed any unused material and all Contractor's equipment and forces. Contractor shall leave the premises in a clean and safe condition on or prior to the date specified in the notice. Owner shall certify that all termination procedures have been completed and that the premises have been turned over to the possession of Owner. Within fifteen (15) days after that certification by Owner, Contractor shall render to Owner a bill for all expenses incurred in termination and for all work done subsequent to the last progress payment. Owner shall pay Contractor all sums properly due, together with any retainage not necessary to cover apparently nonconforming work or other changes, within fifteen (15) working days after the bill has been received by Owner, provided that Owner has received releases for all liens.
- 13.1.6 If Contractor is terminated for cause or default on this contract, the performance bond surety shall commence performance within fourteen (14) days of the termination or default. If the surety does not arrange for or commence performance by that date, Owner shall have the option to complete or arrange for performance and the surety shall not be relieved of any responsibility for payment of costs of performance.

13.1.7 Should Owner elect to terminate Contractor's services prior to final completion of the work, such termination shall not affect any rights Owner might assert against Contractor at time of termination or thereafter. Any retention or payment of monies by Owner to Contractor shall not release Contractor from that liability.

13.2 SUSPENSION OF THE WORK

13.2.1 Owner may, at any time and for any reason, suspend the work or any portion of it for a period not to exceed ninety (90) days, by written notice delivered to Contractor thirty (30) days prior to the date fixed for suspension. The notice of suspension shall fix the date on which the work is to be resumed and Contractor shall resume the work on the date so fixed. Equitable adjustment in the contract price, the contract time, or both shall be made for cost or delay directly attributable to suspension of the work.

13.3 TERMINATION BY CONTRACTOR

13.3.1 If through no act or fault of Contractor, Owner orders a suspension of work for a period of more than ninety (90) days, Contractor may, upon thirty (30) days written notice to Owner, terminate this contract and recover from Owner payment for work accepted to date plus purported overhead and profit in the manner provided in ARTICLE 9.4. Contractor shall also have the right to terminate this contract if Owner fails within forty-five (45) days to pay amounts properly due Contractor for satisfactorily accomplished work, so certified by Project Representative, as due and payable. The provisions of this section do not include amounts ordinarily retained from Contractor's Application for Payment or amounts retained because of unsatisfactory, defective, or incomplete work, or for any other reason provided in the contract documents.

ARTICLE 14 MISCELLANEOUS PROVISIONS

14.1 Whenever any provision of the contract documents requires written notice, such notice shall be deemed to have been given and binding when given by certified mail to the respective party at the address provided in the Legal Notice provision of the agreement section of the contract documents.

14.2 Neither party may assign this contract without the written consent of the other party and Contractor may not delegate duties under this contract other than as provided in the contract documents without the prior written consent of Owner.

14.3 In the event a provision of the contract documents is found to be unenforceable or void for any reason, it shall be considered as severed from the contract documents, and the remaining portions of the contract documents shall stand as if that provision had never been included in the contract documents. In the event the unenforceable or void provision is legally essential to the continuing existence of the contract, the parties shall attempt to substitute a reasonable replacement provision.

14.4 **No general condition stated in these provisions or other provision in the contract documents lessens, alters, or makes inapplicable the requirement for indemnification stated in ARTICLE 4.13. In the event of conflict between any contract provisions, the requirements set out in ARTICLE 4.13 control.**

END GENERAL CONDITIONS

SECTION 4
TITLE 36 WAGE SCHEDULE
Alaska Department of Labor Pamphlet 600

See: <http://labor.state.ak.us/lss/pamp600.htm>

SECTION 5
SPECIFICATIONS

CITY OF SOLDOTNA
DEPARTMENT OF PUBLIC WORKS
STERLING STREET WATER & SEWER REPLACEMENT - 2013

MODIFICATIONS TO THE M.A.S.S. STANDARD SPECIFICATIONS
AS INCORPORATED INTO THIS CONTRACT

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**MODIFICATIONS AND ADDITIONS TO THE CITY OF SOLDOTNA STANDARD CONSTRUCTION
SPECIFICATIONS
DIVISION 10.00 - GENERAL PROVISIONS**

SECTION 10.04 SCOPE OF WORK

Article 4.4 Estimates of Quantities, 4.5 Increase Quantities, 4.6 Decreases Quantities

Delete articles 4.4, 4.5 and 4.6 in their entirety and replace with the following:

a. Increased Quantities

The owner reserves the right to increase the quantity of any item of the work or to omit portions of the work; also to make such alterations or deviations, additions to, or omissions from the plans and specifications as may be determined during the progress of the work to be necessary and advisable for the proper completion thereof.

The actual scope of work will depend on the contract unit prices of the Contractor, the amount of monies available at the time of construction, and the desire of the Owner during the life of the Contract. The Owner reserves the right to direct the Contractor to increase the quantity of any bid item during the life of the Contract in order to increase the scope of the work. There shall be no renegotiation of unit prices of any item due to an increase in the quantity and the scope of work. The unit prices for any increased scope of Work desired by the Owner, for items not included on the Bid Schedule, shall be negotiated at the time the work is contemplated, during the life of the Contract.

b. Decreased Quantities

The owner reserves the right to decrease the quantity of any item of the work or to omit portions of the work; also to make such alterations or deviations, additions to, or omissions from the plans and specifications as may be determined during the progress of the work to be necessary and advisable for the proper completion thereof.

The actual scope of work will depend on the contract unit prices of the Contractor, the amount of monies available at the time of construction, and the desire of the Owner during the life of the Contract. The Owner reserves the right to direct the Contractor to decrease the quantity of any bid item during the life of the Contract in order to decrease the scope of the work. There shall be no renegotiation of unit prices of any item due to a decrease in the quantity and the scope of work.

DIVISION 20.00 - EARTHWORK

SECTION 20.01 GENERAL

Article 1.5 Compaction Standards

Add the following paragraph:

"The use of a nuclear densometer for the purpose of determining soil density shall be permitted subject to the approval of the Engineer."

SECTION 20.02 STORM WATER POLLUTION PREVENTION PLAN

Delete the Section and add the following in its place:

Article 2.1 General

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) or projects that may adversely impact receiving waters or waters of the United States. The type of plan required depends on the area 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.

A SWPPP is required for all Projects that disturb one or more acres of land. As a requirement of this Contract, the Contractor shall accept a delegation of authority from the City to act as the City's duly authorized representative for the purpose of overseeing compliance with the APDES Construction Permit at the project site.

Article 2.2 Definitions

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 (a program developed under a Memorandum of Understanding between the Municipality and others). The Municipality recognizes AK-CESCLs as "qualified personnel" required by the CGP. An AK-CESCL shall be recertified every three years.

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

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

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.

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

Construction Activity - Work by Contractor, subcontractor or utility company within the project area, 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); 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).

Construction General Permit (CGP) - The current 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.

Electronic Notice of Intent (eNOI) - The electronic Notice of Intent submitted to ADEC to obtain coverage under the CGP.

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

Environmental Protection Agency (EPA) - A federal agency charged to protect human health and the environment.

Final Stabilization - The CGP defines Final Stabilization as:

1. All soil disturbing activities at the site have been completed and either of the two following criteria have been met:

- a. A uniform (e.g., evenly distributed, without large bare areas) perennial vegetative cover for the area has been established on all unpaved areas and areas not covered by permanent structures, or
 - b. Equivalent non-vegetative permanent stabilization measures have been employed (such as use of rip rap, gabions, porous backfill (ADOT&PF specification 703-2.10), railroad ballast or subballast, ditch lining (ADOT&PF Specification 610-2.01 with <3% smaller than #200 sieve), geotextiles, or fill material with low erodibility as determined by an engineer familiar with the site and documented in the SWPPP.
2. When background native vegetation will cover less than one hundred percent (100%) of the ground (e.g., arid areas, beaches), the seventy percent (70%) coverage is adjusted as follows: if the native vegetation covers fifty percent (50%) ($0.70 \times 0.50 = 0.35$), thirty-five percent (35%) total cover is required for final stabilization. On a beach with no natural vegetation, no stabilization is required.
3. In arid and semi arid areas only, all soil disturbing activities at the site have been completed and both of the following criteria have been met:
 - a. Temporary erosion control measures (e.g., degradable rolled erosion control product) are selected, designed, and installed along with an appropriate seed base to provide erosion control for at least three years without active maintenance by the permittee:
 - b. Temporary erosion control measures are selected, designed, and installed to achieve seventy percent (70%) vegetative coverage within three years.
4. For individual lots in residential construction, final stabilization occurs when either:
 - a. The homebuilder has completed final stabilization as specified above, or
 - b. The home builder has temporary stabilization including perimeter controls for an individual lot prior to occupation of the home by the homeowner and informing the homeowner of the need for, and benefits of, final stabilization.

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.

Inspection - An inspection required by the CGP or the SWPPP, usually performed together by the Contractor's SWPPP Manager and the Municipal Inspector.

Municipal Separate Storm Sewer System (MS4) Permit - An ADEC storm water discharge permit issued to local governments (Municipality) and other public bodies, for operation of storm water conveyances and drainage systems. See CGP for further definition

Multi-Sector General Permit (MSGP) - The Alaska Pollutant Discharge Elimination System General Permit for storm water discharges associated with industrial activity.

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:

1. The operator has operational control over construction plans and specifications, including the ability to make modifications to those plans and specifications; or
2. The operator has day to day responsibility and operational control for all activities at a project which are necessary to fully comply with the CGP and the project SWPPP for the site or other requirements of the permit. For the purpose of a Contractor executing project Work under this Contract with the Municipality, the Contractor is the operator responsible for CGP and SWPPP coverage and compliance under the CGP for the Work.

Permit - References to permit pursuant to Division 20, Section 20.02 shall mean the Construction General Permit (CGP) defined above.

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.

Project Zone - The Project Zone includes the area of street, road, highway or other 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. 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 pertaining to document preservation.

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.

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

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. Event can be measured on site using a rain gauge or Contractor can utilize the nearest National Weather Service (NWS) precipitation gauge station to determine the amount of rain fall during a storm event if the NWS gauge used is located within twenty (20) miles of the site. Storm Water Pollution Prevention Plan (SWPPP) - 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 the plan, 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.

Storm Water Pollution Prevention Plan - if the area of disturbance is 1 acre or greater, or part of a common development that disturbs one or more acres.

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.

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.

Superintendent - 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.

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

SWPPP Manager - Contractor's qualified representative who conducts inspections, has authority to suspend work and implement corrective actions required for CPG compliance, except they do not have authority to prepare the initial SWPPP or sign inspection reports.

SWPPP Preparer - Contractor's qualified representative who is responsible for developing the initial SWPPP.

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.

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.

Article 2.3 Applicable Standards

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

- A. Alaska 2011 Construction General Permit (CGP) #100000
- B. Alaska Department Of Environmental Conservation (ADEC) Storm Water Pollution Prevention Plan (SWPPP) Template
- C. Municipal Separate Storm Sewer System (MS4) Permit

Article 2.4 Plan and Permit Submittals

Partial and incomplete submittals will not be accepted for review. A submittal that is resubmitted 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 resubmittals.

A. Storm Water Pollution Prevention Plan (SWPPP)

Contractor shall submit an electronic copy and three hard copies of the SWPPP to the Engineer for approval. Contractor shall organize and bind the SWPPP and related documents for submittal according to the requirements of Article 2.9 The Municipality will review the SWPPP submittals within ten (10) business days after they are received. Submittals will be returned to the Engineer, and marked as either "rejected" with reasons listed or as "approved" by the Municipality. When the submittal is rejected, the Contractor shall revise and resubmit the SWPPP. The ten (10) business days review period will restart when the Contractor resubmits an electronic copy and three hard copies of the revised SWPPP to the Engineer for approval. After the SWPPP is approved by the Municipality, the Contractor shall sign and certify the approved SWPPP.

B. 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. 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 acknowledgement letter to the Engineer as soon as practicable and no later than three days after filing eNOI or receiving a written responses from ADEC. The Contractor shall not begin Construction Activity until in full compliance with the conditions listed in Article 2.14.A.

C. Ending CGP Coverage

Contractor shall submit an eNOT to ADEC, and submit both a copy of the signed eNOT and ADEC's acknowledgement letter to the Municipality, within 30 days after the Engineer has determined the Contractor has fully complied with the conditions listed in Article 2.16.F.

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. The Contractor shall 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%.

Article 2.5 Personnel Qualifications.

A. General

Contractor shall provide documentation in the SWPPP that the individuals serving in these positions are "qualified Personnel" pursuant to the CGP. The Municipality 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

B. SWPPP Preparer

The SWPPP Preparer shall meet at least one of the following qualifications:

- current certification as a Certified Professional in Erosion and Sediment Control (CPESC); or
- current certification as AK-CESCL, and at least three years experience in erosion and sediment control (provide documentation including project names, project timelines, and work responsibilities demonstrating the experience requirement); or
- Professional Engineer licensed in the State of Alaska

For Projects disturbing more than 20 acres, the SWPPP Preparer shall also have completed a SWPPP Preparation course.

C. Superintendent

The Superintendent shall hold current certification as AK-CESCL and be a duly authorized representative as defined in the CGP, Appendix A, Part 1.12.3 and Section 20.02 definitions.

D. SWPPP Manager

The SWPPP Manager shall have current certification as AK-CESCL, and shall 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, Qualified Person.

E. Storm Water Inspector & Monitoring Person

The Storm Water Inspector and the Storm Water Monitoring Person shall have current certification as AK-CESCL.

Article 2.6 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 The Contractor shall 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.

C. Subcontractor Certification

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

D. Signatures and Initials

Contractor and subcontractor personnel shall handwrite (wet ink) signatures or initials on CGP documents and SWPPP forms, wherever a signature or initial is required.

Article 2.7 Responsibility for Storm Water Permit Coverage

A. Contractor is responsible for permitting and permit compliance.

B. The Contractor has sole responsibility for compliance with ADEC and other applicable federal, state, and local requirements, and for securing all necessary clearances, rights, and permits.

C. An entity that owns or operates a commercial plant, material source, or disposal site receiving materials, waste, or any product generated as a result of the

Project 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. Contractor shall indemnify, defend and hold the Municipality harmless for any and all fines resulting from non-compliance with the permit conditions.

Article 2.8 Utility Responsibilities

If a utility is working ahead of the main project, the utility shall follow the procedures in this Section, obtain SWPPP approval, and file an eNOI with ADEC prior to starting any ground disturbing activity.

Article 2.9 Storm Water Pollution Prevention Plan (SWPPP) Requirements

A. General

Contractor shall prepare SWPPP in accordance with the applicable standards of this Section. Contractor shall submit and maintain the SWPPP in three-ring binder with tabbed and labeled dividers for each section and appendix.

B. SWPPP Preparer and Pre-Construction Site Visit

Contractor shall hire or designate a SWPPP Preparer to prepare the SWPPP and associated documents according to the requirements of the CGP. The SWPPP shall identify the SWPPP Preparer and include qualifications (including the expiration date of any certifications), title, and company name in the SWPPP. The Contractor and SWPPP Preparer shall 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 shall visit the site accompanied by Contractor's superintendent. Contractor shall provide the Municipality at least seven (7) days written notice of the site visit, so that the Municipality may participate. During the pre-construction inspection, the SWPPP Preparer shall identify or, if a draft of the SWPPP has already been prepared, verify that the SWPPP fully addresses and describes:

1. opportunities to phase construction activities;
2. appropriate BMPs and their sequencing; and
3. sediment controls that shall be installed prior to beginning construction activities.

Contractor shall 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.

C. SWPPP Development

Contractor shall prepare the SWPPP with sections and appendices, in accordance with the current ADEC SWPPP template and the following additional information:

1. Add additional appendices for:
 - a. Appendix L -- Hazardous Material Control Plan (HMCP)
 - b. Appendix M -- SWPPP Preparer's Site Visit
 - c. Appendix N -- Rainfall Logs
 - d. Appendix O -- NOT forms and Acknowledgement letters from ADEC (Include Contractor's)
2. Use the following forms for recording information in the SWPPP:
 - a. SWPPP Amendment Log
 - b. SWPPP Certification for Contractor
 - c. SWPPP Construction Site Inspection Report
 - d. SWPPP Corrective Action Log
 - e. SWPPP Daily Record of Rainfall
 - f. SWPPP Delegation of Signature Authority Contractor
 - g. SWPPP Grading and Stabilization Activities Log
 - h. SWPPP Pre-Construction Site Visit
 - i. SWPPP Subcontractor Certification

j. SWPPP Training Log

D. SWPPP Considerations and Contents

The SWPPP shall provide erosion and sediment control measures for all Construction Activity. The SWPPP shall include the activities of the Contractor, all subcontractors, and utility companies performing Work. The SWPPP shall describe the roles and responsibilities of the Contractor, subcontractors, and utility companies with regard to implementation of the SWPPP.

The SWPPP shall identify all operators for the Project including utility companies performing Construction Activity, and identify the areas over which each operator has operational control and where the Municipality and Contractor are cooperators. The SWPPP shall include any material sites, waste disposal sites, borrow and fill sites, and equipment and material storage sites. If those sites are covered under a different permit or operated by a different entity, the Contractor shall provide the permit information and/or operational information as part of the SWPPP. Contractor shall prepare the SWPPP according to the requirements of the CGP and this specification, including accounting for the Contractor's construction methods and phasing, and identifying the amount of mean annual precipitation. Contractor shall include an Antidegradation Analysis in the SWPPP, if storm water from the Project discharges into a receiving water that is considered a high quality water and constitutes an outstanding national resource. The City does not provide the analysis. The Contractor shall perform this analysis according to the CGP Part 2.1.5. There are special requirements in the CGP Part 3.2, for storm water discharges into an impaired water body, which may include monitoring of storm water discharges. For projects meeting the permit criteria, the Contractor is responsible for compliance with the CGP Part 3.2 inside and outside the Project Zone. Contractor shall preserve natural topsoil where possible. Contractor shall delineate the site in accordance to CGP Part 4.1. Contractor shall use stakes, flags, or silt fence, etc. to identify areas where land disturbing activities will occur and areas that will be left undisturbed. Contractor shall minimize the amount of soil exposed during Construction Activity in accordance to CGP Part 4.1.2. Contractor shall conform to the dewatering requirements of CGP Part 4.3. The SWPPP shall identify specific areas where potential erosion, sedimentation, or pollution may occur. The potential for wind erosion shall be addressed. The potential for erosion at drainage structures shall be addressed. SWPPP shall include in the "Stabilize Soils" section, a description of how the Contractor will minimize the amount of disturbed and unstabilized ground in the fall season. Contractor shall identify anticipated dates of fall freeze-up and spring thaw. Contractor's SWPPP shall describe how the Contractor 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. Contractor's SWPPP shall include a plan for final stabilization.

The SWPPP shall 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 shall be done in designated areas that are located, to the extent practicable, away from drain inlets, conveyance channels, and waters of the US. 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 may be treated and discharged.

Contractor shall implement temporary BMPs for a two (2)-year-twenty-four (24) hour storm event. Contractor shall describe BMPs in the SWPPP and in SWPPP Amendments, including source controls, sediment controls, discharge points, and all temporary and permanent stabilization measures. Contractor's SWPPP shall describe the design, placement, installation, and maintenance of each BMP, using words and drawings as appropriate. Contractor shall 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 shall state that "No BMP manual or publication was used for this design."

Contractor shall describe the sequence and timing of activities that disturb soils and of BMP implementation and removal. Contractor shall phase earth disturbing activities to minimize unstabilized areas and to achieve temporary or final stabilization quickly. Whenever practicable,

the Contractor shall incorporate final stabilization work into excavation, embankment and grading activities. Contractor shall identify the inspection frequency in the SWPPP. At a minimum the inspection frequency shall be:

- at least once every seven (7) days during construction; or
- at least once every fourteen (14) days during construction and within twenty-four (24) hours of the end of a storm event of one-half inch (1/2") or greater rainfall in a twenty-four (24) hour period (one-half inch (1/2") rainfall as recorded at the project site rain gauge)

The SWPPP shall cite and incorporate applicable requirements of the Project permits, environmental commitments, and commitments related to historic preservation. The SWPPP is a dynamic document. The Contractor shall maintain 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 other records necessary to document storm water pollution prevention activities and to satisfy the requirements of the CGP and this specification.

E. Recording Personnel and Contact Information in the SWPPP.

Contractor shall include records of the AK-CESCL cards or certificates for the Superintendent, SWPPP Manager, acting Superintendent and acting SWPPP Managers in the SWPPP.

Contractor shall provide twenty-four- (24)-hour contact information for the Superintendent and SWPPP Manager. The Superintendent and SWPPP Manager shall have twenty-four- (24)-hour contact information for all Subcontractor SWPPP Coordinators and Utility SWPPP Coordinators.

Articles 2.10 and 2.11 are not included.

Article 2.12 Superintendent and SWPPP Manager Responsibility and Authority

Contractor's 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 Article 2.4, Inspection Reports, and other reports required by the CGP. The Superintendent may assign certain duties to the SWPPP Manager, which may include:

- ensuring Contractor's and subcontractor's compliance with the SWPPP and CGP;
- ensuring the control of erosion, sedimentation, or discharge of pollutants;
- directing and overseeing installation, maintenance, and removal of BMPs;
- performing Inspections; and
- updating the SWPPP including adding amendments and forms.

Contractor shall ensure that Superintendent and SWPPP Manager are knowledgeable in the requirements of this Section, the SWPPP, CGP, BMPs, HMCP, SPCC Plan, environmental permits, environmental commitments, and historic preservation commitments. Contractor's Superintendent and SWPPP Manager shall have the complete authority and shall be responsible for suspending construction activities that do not conform to the SWPPP or CGP.

Article 2.13 Materials

Contractor shall

- 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.
- use the temporary seed mixture specified by special provision, or use annual rye grass if no temporary seed mix is specified.

- use straw that is certified free of noxious weed by the United States Department of Agriculture(USDA), Natural Resources Conservation Service, Local Soil and Water Conservative District(NRCS). Alaska Weed Free Forage Certification Program shall be used when available.

Article 2.14 Construction Requirements

Contractor shall be familiar with the requirements of the CGP. Contractor shall fully comply with the SWPPP and the requirements of the CGP.

A. Prior to Construction

Contractor shall complete the following actions before construction activity begins:

1. the SWPPP Preparer shall visit the Project, the visit shall be documented in the SWPPP, and the SWPPP shall be developed (or amended) with findings from the visit ;
2. the SWPPP shall be approved by the Engineer;
3. the Contractor shall be authorized to begin construction only by the Engineer;
4. the Project eNOIs for the Contractor, as well as other eNOIs if there are additional operators, shall be listed as Active Status on the ADEC website before construction activity commences ;
5. Contractor shall post notices on project site containing the following information:

- Copy of all eNOIs related to this project
- Name and twenty-four- (24)-hour phone number of SWPPP Manager and Superintendent
- Location of the SWPPP

6. Contractor shall prominently post notices on the outside wall of the Contractor's Project office and near the main entrances of the construction project. Postings shall be protected from the weather. Contractor shall 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 retro-reflective signs for the SWPPP posting. Do not locate SWPPP signs in locations where the signs may be confused with traffic control signs or devices. Contractor shall update the notices if the listed information changes.

7. Contractor shall install an outdoor rain gauge in accordance with manufacturer's guidance in a readily accessible location on the Project.

8. Contractor shall delineate the site for both ground disturbing activities and areas that will be left undisturbed and install sediment controls and other BMPs that shall be placed prior to the initiation of Construction Activity.

B. During Construction

1. Contractor shall ensure subcontractors understand and comply with the WPPP and the CGP, and have signed a SWPPP Subcontractor Certification. Contractor shall include SWPPP Subcontractor Certifications as an appendix to the SWPPP. Contractor shall provide SWPPP information to utility companies and coordinate with Subcontractors and utility companies doing work in the Project Zone so that BMPs, including but not limited to, temporary and permanent stabilization, are installed, maintained, and protected from damage.

2. Contractor shall provide on-going training to employees and Subcontractors, on control measures at the site and applicable storm water pollution prevention procedures. Training shall be documented on the SWPPP Training Log Form, including the dates and attendees to these trainings.

Contractor shall include the SWPPP Training Log as an appendix to the SWPPP. 3. Contractor shall notify the Engineer immediately if the actions of any utility company or Subcontractor do not comply with the SWPPP and the CGP.

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

5. Contractor shall keep the SWPPP current (refer to Article 2.9.C SWPPP Considerations and Contents)

C. Pollutant and Hazardous Materials Reporting Requirements

Contractor shall immediately report incidents of non-compliance with the CGP that may endanger health or the environment to ADEC. Incident report shall conform to the CGP, Appendix A, Part 3.0. Contractor shall immediately notify the Engineer and coordinate reports to ADEC with the Engineer. The report shall include:

- a description of the noncompliance and its causes;
 - the exact dates and times of noncompliance;
 - if not yet corrected, the anticipated time the project will be brought back into compliance; and
 - the corrective action taken or planned to reduce, eliminate and prevent reoccurrence.
- Contractor shall report spills of petroleum products or other hazardous materials to the Engineer and other agencies as required by law.

D. Corrective Action and Maintenance of BMPs

If a corrective action is not implemented within the time requirements of this Section, the Contractor shall document the situation in the SWPPP, notify the Engineer and immediately implement alternative BMPs.

1. Contractor shall implement maintenance of BMP's as required by the CGP, SWPPP, and manufacturer's specifications, whichever is more restrictive.

2. Contractor shall implement corrective action should any of the following occur:

- a. if an incident of non-compliance with the SWPPP or CGP is identified;
- b. if an Inspection identifies the SWPPP or any part of the SWPPP is ineffective in preventing erosion, sedimentation or the discharge of pollutants;
- c. if the Engineer determines the SWPPP or any part of the SWPPP is ineffective in preventing the erosion, sedimentation, or the discharge of pollutants;
- d. if any BMP is damaged, undercut, or unable to effectively perform the intended function;
- e. before sediment or debris fills any BMP (including sediment traps, ponds and silt fences) to 50% of its design storage capacity (or manufacturer's specifications or SWPPP requirements, whichever is lower); or
- f. whenever there is a change in conditions, design, construction, operation, or maintenance that could result in erosion, sedimentation, or the discharge of pollutants.

3. Contractor shall implement corrective actions so that the following time requirements are satisfied:

- a. corrective action is completed as soon as possible;
- b. corrective action is completed before the next storm event ;
- c. corrective action is completed in time to protect water quality; and
- d. corrective action is completed no later than the Complete-by-Date that was entered in an Inspection Report (see Article 2.16 for more information).

E. Stabilization

Contractor shall stabilize disturbed areas using temporary or permanent BMP's. Contractor shall initiate stabilization of disturbed soils, erodible stockpiles, disposal sites, and of erodible aggregate layers so that all of the following conditions are satisfied:

- as soon as practicable;
- as soon as necessary to avoid erosion, sedimentation, or the discharge of pollutants;
- as identified in the SWPPP; and

• disturbed land or land surface shall be stabilized within fourteen (14) days

after the temporary or permanent cessation of land-disturbing activities on a portion of the site. In accordance with the SWPPP, Contractor shall coordinate work to minimize the amount of disturbed soil at any one time. Contractor shall not disturb more soil than the Contractor can stabilize with the resources available. Land which is disturbed multiple times during a project will require as necessary multiple stabilization efforts. Contractor shall temporarily stabilize from wind and water erosion those portions of disturbed soils, portions of stockpiles, and portions of disposal sites that are not in active construction. 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.

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

Contractor shall apply permanent seed, within the time periods required, at locations where seeding is indicated on the Drawings and after land-disturbing activity is permanently ceased. When installing a culvert or other drainage structure where a stream bypass is not used, Contractor shall 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. Contractor shall install temporary and permanent stabilization:

- at the culvert or drainage structure inlet and outlet and
- 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. Before deactivating a stream bypass or stream diversion used for construction of a bridge, culvert, or drainage structure, the Contractor shall install permanent stabilization:
 - at the inlet and outlet of the culvert, drainage structure, or bridge;
 - in the area upstream and downstream of the culvert, drainage structure, or bridge, that is disturbed during installation or construction; and
 - under the bridge.

F. Ending CGP Coverage and BMP Maintenance

The Engineer will determine the date that all the following conditions for ending CGP coverage have been met within the Project Zone based on, but not limited to, the following:

- land disturbing activities have ceased;
- Final Stabilization has been achieved (including material sources, disposal sites, staging areas, equipment areas, etc.)
- temporary BMPs have been removed.
- submit an eNOT to ADEC; and
- provide a copy of the eNOT and ADEC's acknowledgement letter to the Contractor

Contractor shall end 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.

Contractor shall 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 shall submit an eNOT to ADEC, the Contractor shall submit a copy of each signed eNOT and ADEC's acknowledgement letter to the City within 30 days of receiving them.

G. Transmit final SWPPP

Contractor shall transmit one (1) copy of the final SWPPP, including all amendments and appendices, to the Engineer when the project eNOTs are filed. Transmittal shall be by both electronic and hard copy.

Article 2.15 SWPPP Documents (Location on-site and Record Retention)

Contractor shall maintain the SWPPP and related documents as the Record that demonstrates 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 of his responsibility to maintain complete records as required by the CGP and this Section.

Contractor shall maintain the SWPPP Plan at the on-site project office. If there is not an on-site project office, the Contractor shall maintain the documents at an onsite project location that meets CGP requirements and this specification. Records may be moved to another office for record retention during winter shutdown or after the eNOTs are filed. Contractor shall update on-site postings if records are relocated during winter shutdown. Contractor shall update and maintain all postings current and shall provide the Municipality with copies of all Records.

Contractor shall 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, Contractor shall 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.

The SWPPP and related documents shall be made available for review and copies provided to other regulatory agencies that request them. The project site documents, including related off-site areas or support activities, shall be made available for inspection, or sampling and monitoring, by the Municipality and other regulatory agencies.

Article 2.16 SWPPP Inspections, Amendments, Reports, and Logs

Contractor shall perform inspections, prepare inspection reports, and prepare SWPPP Amendments in compliance with the SWPPP and the CGP. Contractor shall update the SWPPP Corrective Action Log, SWPPP Amendment Log, SWPPP Grading and Stabilization Activities Log, and SWPPP Daily Record of Rainfall forms. For active projects the Contractor shall update the Records daily.

A. Inspection during Construction

Contractor shall conduct periodic inspections according to the schedule and requirements of the SWPPP and CGP. Inspections required by the CGP and SWPPP shall be performed jointly by the Contractor's SWPPP Manager and the Municipality's inspector.

B. Inspection Reports

Contractor shall use the SWPPP Construction Site Inspection Report Form to record Inspections. Changes or revisions to Form are not permitted; except for adding or deleting data fields that list the location of discharge points and site specific BMPs. Contractor shall complete all fields included on the Inspection Report form; do not leave any field blank.

Unless otherwise directed by the Engineer, Contractor shall insert a Complete-by- Date or each listed corrective action. Complete-by-date is a date that either complies with the time requirements listed in Article 2.16.D or six calendar days after the date of the inspection, whichever is sooner. Contractor shall provide a copy of the completed Inspection Report to the Engineer by noon of the day after inspection.

The Superintendent shall 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 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. Contractor shall deliver the signed and certified Inspection Report to the Engineer on the same day the Superintendent signs it.

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 shall re-certify the Inspection Report by entering a new signature and date in the white space below the original signature and date lines. Contractor shall deliver a copy of the recertified Inspection Report to the Engineer on the day it is recertified. If subsequent corrections to the certified Inspection Report are required, Contractor shall document the corrections in an addendum that addresses only the omitted or erroneous portions of the original Inspection Report. The Superintendent shall sign and certify the addendum.

C. Inspection before Seasonal Suspension of Work

Contractor and the Municipality shall conduct an inspection not more than fourteen (14) days before seasonal suspension of work to confirm BMPs are installed and functioning according to the requirements of the SWPPP and CGP.

D. Reduced Inspection Frequencies

Contractor shall conduct inspections according to the inspection schedule in the approved SWPPP. Changes in inspection frequency, including beginning and ending dates shall be approved by the Engineer, and documented as an amendment to the SWPPP.

Inspection frequency during winter work or seasonal suspension of work may be reduced to at least one Inspection every thirty (30) days, if approved by the Engineer, and one of the following requirements is met:

- the entire site is temporarily stabilized;
- runoff is unlikely due to winter conditions (e.g. the site is covered with snow, ice or the ground is frozen, and water flow or seepage is not likely to occur); or
- soil disturbing activities are suspended.

The Engineer may waive winter monthly Inspection requirements until twentyone (21) days before thawing conditions are expected to result in a discharge, if the following requirements are met:

- frozen conditions are anticipated to continue for more than one month;
- and
- land disturbance activities have been suspended.

Inspections shall resume according to the normal inspection schedule identified in the SWPPP, at least twenty-one (21) days before anticipated spring thaw. 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, Contractor shall resume collecting and recording weather data on the Daily Record of Rainfall form one month before thawing conditions are expected to result in runoff. The Contractor shall resume recording land disturbance and stabilization activities on the Grading and Stabilization Activities Log when Construction Activity resumes.

E. Stabilization before Spring Thaw Construction Activities within the Project Zone shall be stabilized in accordance with the CGP by the Contractor with appropriate BMPs prior to spring thaw.

F. Inspection before Project Completion

Contractor shall conduct an 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.

G. Items and Areas to Inspect

Contractor shall conduct inspections of the areas required by the CGP and SWPPP.

H. SWPPP Amendments and SWPPP Amendment Log The Superintendent and the SWPPP Manager are the only persons authorized to amend the SWPPP and update the SWPPP Amendment Log. The Superintendent or the SWPPP Manager shall sign and date amendments to the SWPPP and updates to the SWPPP Amendment Log. SWPPP Amendments shall be approved by the Engineer.

Amendments shall be prepared whenever:

- there is a change in design or construction operation;
- maintenance occurs at the construction site that has or could cause erosion or sedimentation;
- there is a discharge of pollutants that has not been previously addressed in the SWPPP;
- an Inspection identifies that any portion of the SWPPP is ineffective in preventing erosion, sedimentation, or the discharge of pollutants;
- an Inspection identifies a problem that requires additional or modified BMPs;
- a BMP is modified during construction or a BMP not shown in the original SWPPP is added ;
- the Inspection frequency is modified (note beginning and ending dates); or
- a change occurs in personnel who are identified in the SWPPP, according to Article 2.9.D.

Contractor shall record removal of BMPs as amendments to the SWPPP. See Article 2.9.C for documenting removal of BMPs. Contractor shall amend the SWPPP narrative as soon as practicable after a change or modification, but in no case, later than seven (7) days following identification of the need for an amendment. The SWPPP Amendment shall be signed, dated, and 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 Article 2.9.C The Contractor shall maintain the SWPPP Amendment Log. Prior to performing each scheduled Inspection, the Contractor shall submit to the Engineer a copy of the pages of the Amendment Log that contain new entries since the last submittal, including copies of any documents amending the SWPPP.

The Contractor shall append the SWPPP Amendment Log to the SWPPP.

I. Site Maps

Contractor shall document installation, routine maintenance and removal of BMPs by annotating the SWPPP Site Maps, including the date and the recording person's initials by these notes. Contractor shall identify areas where Construction Activities begin, areas where Construction Activities temporarily or permanently cease, and areas that are temporarily or permanently stabilized.

J. Corrective Action Log

The Superintendent and SWPPP Manager are the only persons authorized to make entries on the SWPPP Corrective Action Log. Contractor shall document the need for corrective action within twenty-four (24) hours of either:

- identification during an inspection; or
- discovery by the Municipality's or Contractor's staff, a subcontractor, or a regulatory agency inspector. Modification or replacement of a BMP, installation of a new BMP not shown in the original SWPPP, or overdue maintenance (for example after a sediment trap

exceeds fifty percent (50%) of capacity) is a corrective action and shall be documented on the Corrective Action Log. Do not record removal of BMPs on the Corrective Action Log. After each Inspection Report has been signed and certified, Contractor shall update the Corrective Action Log with the date of inspection and all proposed corrective actions noted on the Inspection Report. After the corrective action has been accomplished, the Contractor shall note the action taken if a SWPPP amendment was needed and date and initial the entry. Contractor shall maintain the Corrective Action Log current and submit a copy to the Engineer prior to performing each scheduled SWPPP Inspection. Contractor shall append the Corrective Action Log as an appendix to the SWPPP.

K. Grading and Stabilization Activities Log

The Superintendent and SWPPP Manager are the only persons authorized to date and initial entries on the SWPPP Grading and Stabilization Activities Log. Contractor shall use the SWPPP Grading and Stabilization Activities Log to record land disturbance and stabilization activities. Contractor shall keep the Grading and Stabilization Activities Log current and submit a copy to the Engineer prior to performing each scheduled SWPPP Inspection. Contractor shall append the Grading and Stabilization Activities Log as an appendix to the SWPPP.

L. Daily Record of Rainfall

Contractor shall use SWPPP Daily Record of Rainfall, to record weather conditions at the Project and update the form daily, including the initials of the person recording each day's entry. Contractor shall submit a copy to the Engineer prior to performing each scheduled Inspection. Contractor shall append the Daily Record of Rainfall to the SWPPP.

Article 2.17 Failure to Perform Work

The Engineer will suspend Work and withhold monies for incidents of non-compliance with either the CGP or SWPPP. 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 of suspension. In other circumstances, the Engineer will give the Contractor written notice of suspension before suspension of Work. A notice of suspension will state the defects or reasons for a suspension, the corrective actions required to stop suspension, and the time allowed to complete corrective actions. If the Contractor fails to take the corrective action within the specified time, the Engineer may:

1. suspend the work until corrective action is completed;
2. withhold monies due the Contractor until corrective action is completed;
3. assess damages or equitable adjustments against the Contract amount; and
4. employ others to perform the corrective action and deduct the cost from the Contract amount.

Reasons for the Engineer to take action under this section include, but are not limited to, the Contractor's failure to:

- obtain appropriate permits before Construction Activities occur;
- perform SWPPP Administration;
- perform timely Inspections;
- update the SWPPP;
- transmit updated SWPPP, Inspection Reports, and other updated SWPPP forms to the Engineer;
- maintain effective BMPs to control erosion, sedimentation, and pollution in accordance with the SWPPP, the CGP, and applicable local, state, and federal requirements;
- perform duties according to the requirements of this Section; or

- meet requirements of the CGP, SWPPP, or other permits, laws, and regulations related to erosion, sediment, or pollution control. No additional Contract time or additional compensation is allowed due to delays caused by the Engineer's suspension of Work under this Article.

Article 2.18 Measurement

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.

Article 2.19 Basis of Payment

Payment for this Work shall be in accordance with Division 10, Section 10.07 - Measurement and Payment, and shall include full payment for all Work described in this Section.

Payment will be made under the following item:

<u>ITEM</u>	<u>UNIT</u>
Storm Water Pollution Prevention Plan	Lump Sum

SECTION 20.04 CLEARING AND GRUBBING

Delete the Section and add the following in its place:

Article 4.1 General

The Work under this Section consists of removing all vegetation, brush, trees, logs, tree stumps, roots, and root mat to a Contractor-provided disposal site, and the preservation from damage of all items designated to remain. Limits of clearing and grubbing shall be in conformance with right-of-way easements, and stipulations, and as shown on the Drawings, staked by the Contractor, and approved by the Engineer.

Article 4.2 Construction

The Contractor shall do all clearing and grubbing necessary in the construction of roadways, bike trails, and utilities. Prior to clearing and grubbing, the Contractor shall stake the clearing limits. Trees, brush, roots, and root mat removed in the clearing, and grubbing operations shall be hauled to a disposal site provided by the Contractor as delineated in Division 10, Section 10.04, Article 4.9 – Disposal Sites. Any areas designated to remain shall be protected per Division 75, Section 75.02, Article 2.3 – Construction.

Article 4.3 Measurement

The measurement of clearing and grubbing shall be by the acre or portion thereof as shown on the Drawings and staked by the Contractor and approved by the Engineer, or lump sum.

Article 4.4 Basis of Payment

Payment for this Work shall be in accordance with Division 10, Section 10.07 - Measurement and Payment, and shall include full payment for all Work described in this Section. Payment shall be made under the following unit:

<u>ITEM</u>	<u>UNIT</u>
Clearing and Grubbing	Lump Sum

SECTION 20.08 REMOVAL OF CURB AND GUTTER

Delete the Section and add the following in its place:

Article 8.1 General

The Work under this Section consists of performing all operations pertaining to the removal and disposal of existing curb and gutter designated for removal, including any wire mesh or steel reinforcement within the curb and gutter, in accordance with the limits shown on the Drawings or as directed by the Engineer.

Article 8.2 Construction

Curb and gutter to be removed shall be saw cut or broken at a joint. Broken joints shall be finished, as required by the Engineer, to eliminate jagged edges. The Contractor shall dispose of removed curb and gutter at a Contractor-provided disposal site as delineated in Division 10, Section 10.04, Article 4.9 – Disposal Sites.

Article 8.3 Measurement

Curb and gutter removal designated for removal will be measured in linear feet removed, measured along the face of the curb.

Article 8.4 Basis of Payment

Payment for this item shall be in accordance with Division 10, Section 10.07 - Measurement and Payment, and shall include full payment for all Work described in this Section.

Payment shall be made under the following unit:

<u>ITEM</u>	<u>UNIT</u>
Remove Curb and Gutter	Linear Foot

SECTION 20.09 REMOVAL OF PAVEMENT

Delete the Section and add the following in its place:

Article 9.1 General

The Work under this Section consists of performance of all operations pertaining to the removal and disposal of existing pavement in accordance with the limits indicated on the Drawings and as directed by the Engineer.

The Contractor will remove existing pavement (roads, driveways, etc.) within the right-of-way to a line one foot (1') back of the proposed improvements during the initial clearing/excavation operations. Further removal will be as directed by the Engineer in order to provide a proper transition between new and existing pavement. The intent is to minimize unnecessary removal of pavement.

The Contractor shall remove all pavement designated for removal, including pavement placed within the gutter pan. Removal of the pavement within the gutter pan shall be considered incidental to the bid item "Remove Existing Pavement" and no separate payment shall be made.

Article 9.2 Construction

Pavement shall be removed by the Contractor in a manner that will produce a straight, uniform edge along the section removed. The method of producing the straight edge shall be by cutting the section with a power-driven saw, or other methods approved by the Engineer.

In addition to the existing pavement, approximately 2" thick of existing leveling course shall be removed and disposed of under this item.

The Contractor shall dispose of removed asphalt and leveling course at a Contractor-provided disposal site as delineated in Division 10, Section 10.04, Article 4.9 – Disposal Sites.

Article 9.3 Measurement

Pavement removed will be measured by the square yard of pavement designated for removal, regardless of thickness, except that no measurement will be made of pavement less than one inch (1") thick.

Article 9.4 Basis of Payment

Payment for this Work shall be in accordance with Division 10, Section 10.07 - Measurement and Payment, and shall include full payment for all Work described in this Section. Payment shall be made under the following unit:

<u>ITEM</u>	<u>UNIT</u>
Remove Pavement	Square Yard

SECTION 20.10 EXCAVATION FOR TRAFFIC WAYS

Delete the Section and add the following in its place:

Article 10.1 General

The Work under this Section consists of furnishing all plant, labor, equipment, supplies, and material in performance of all operations pertaining to the excavation of unsuitable and/or surplus material for street, alleys, access roads, parking lots, sidewalks, curbs, gutter, and bike trails.

Additional excavation for roadways may be required when authorized in writing by the Engineer. Contractor shall not be entitled to additional compensation for performing excavation not previously authorized by the Engineer.

Article 10.2 Survey Stakes

The Contractor shall place control stakes on each side of, and beyond the limits of, the proposed excavation. Stakes will be set at grade breaks and on even grades at intervals not to exceed fifty feet (50'), with additional stakes on vertical curves. These shall be marked with the station, offset, and show the cut or fill to centerline or grid design grade.

Article 10.3 Miscellaneous

Public property lying within the right-of-way, such as signs and markers, that interferes with construction shall be removed and reset at the time and place as directed by the Engineer. Any damage by the Contractor shall be repaired or the item replaced in kind at the Contractor's expense.

Contractor shall remove culverts designated for salvage. Contractor shall deliver salvaged culverts to the location specified in the Contract Documents or as directed by the Engineer. A disposal site for non-salvageable materials shall be provided by the Contractor per Division 10, Section 10.04, Article 4.9 – Disposal Sites.

All existing valve boxes, cleanouts, manholes, etc. shall be located and exposed by the Contractor and carefully protected during the course of the Work. The Contractor, in conjunction with the Engineer, shall check all utilities prior to the start of the construction and record their condition. All manholes, catch basins, cleanouts, etc. will be checked for damage resulting from the Contractor's operation prior to final acceptance by the Owner. The Contractor is responsible for restoring all existing utilities to pre-existing conditions, and shall coordinate with the affected utility in having any necessary repairs completed.

All existing utilities requiring adjustment to grade shall be adjusted by the Contractor in accordance with the applicable Standard Details. Payment for such adjustment shall be as specified under the applicable Section of these Specifications.

Article 10.4 Unusable and Usable Excavation

Unusable excavation shall consist of all excavation which is excess or not suitable for classified fill or backfill as determined by the Engineer. When grubbing of the surface organic or root mat is not required elsewhere on the Drawings or Specifications, unusable excavation shall include the surface mat.

Usable excavation shall consist of material from excavation that is designated by the Engineer as suitable for fill or backfill.

If usable soil conditions are encountered at elevations different from those indicated on the Drawings, the Engineer may direct, in writing, that the excavation be altered to elevations either above or below those specified.

Any unauthorized excavation beyond the specified lines, grades, and cross sections shall be filled with classified fill or backfill and compacted without additional cost to the Owner. The Contractor shall control

the banks of all excavated areas as necessary to prevent movement of soil in areas supporting existing foundations, slabs, poles or other structures.

Where unusable soils are encountered in the subgrade within the specified depth below finish grade as indicated on the Drawings, the Contractor shall excavate to a depth such that usable soils are uncovered or the depth below finished grade as directed by the Engineer. The excavations shall be uniformly shaped so that classified backfill material can be properly placed and compacted. The area shall be feathered to adjoining areas where usable material is found. Excavated area shall not be backfilled cross sectional elevations and measurements of the area excavated have been taken.

The Contractor shall be responsible for keeping all embankments and excavation well shaped and drained. The subgrade shall be maintained, compacted in cut sections if required, and kept free of leaves, sticks, or other debris.

The Contractor shall perform whatever work necessary to prevent flow and accumulation of surface water or ground water in excavations. Unless otherwise provided in the Special Provisions, all Work associated with pumping or dewatering shall be considered incidental to the Contract and no separate payment shall be made.

Article 10.5 Utilization or Disposal of Excavated Material

Excavated material conforming to the specifications for classified fill and backfill shall be used where practical for fill and backfill as directed by the Engineer. When this material is used, it shall be considered usable excavation. Usable excavation shall be compacted in accordance with Section 20.01, Article 1.5 - Compaction Standards. When not used on the Project site, the material shall be hauled away and treated as unusable excavation. Unless otherwise specified in the Special Provisions, the Contractor will not be required to transport usable excavation from one schedule of a Contract for use in another schedule of the same Contract unless they are continuous or adjacent.

Article 10.6 Excavation

The Contractor shall utilize whatever methods and equipment necessary to excavate to the limits designated by the Drawings and Specifications and authorized by the Engineer, except that no equipment or method may be utilized that because of its action deteriorates the subgrade making additional excavation necessary beyond the limits originally authorized.

Article 10.7 Measurement

The measurement of excavation will not include water or other liquids but will include topsoil, mud, muck, or other similar semi-solid material which cannot be drained or pumped away.

Usable excavation will be measured per cubic yard by cross section or at the option of the Engineer per cubic yard by truck count. Computation of truck volumes will be by actual measurement to arrive at truck loading, adjusted by an appropriate swell factor.

Unusable excavation will be measured per cubic yard by cross section, or per ton; or at the option of the Engineer per cubic yard by truck count. Computation of truck volumes will be by actual measurement to arrive at truck loading, adjusted by an appropriate swell factor.

Cross-section measurement of usable or unusable excavation shall be based on in-place volumes as determined by the average end areas of cross sections.

For all scale measured quantities, the Contractor shall furnish a scale certified by the State of Alaska for weighing excavation at a location agreeable to the Engineer. Weight tickets will be serialized and witnessed at the time of weighing by a Contractor-furnished weighman. The Engineer may at any time

verify load weights and weighing process. Tickets shall be presented for each load at time of delivery to the Engineer or his designated representative.

Article 10.8 Basis of Payment

Payment for this Work shall be in accordance with Division 10, Section 10.07 - Measurement and Payment, and shall include full payment for all Work described in this Section.

Payment for usable excavation includes the costs of subsequent placement and compaction of the excavated material and shall not be paid separately as Classified Fill or Backfill. Payment for unusable excavation includes removal from the project site and disposal in accordance with Section 20.27 – Disposal of Unusable or Surplus Material.

Payment shall be made under the following units:

<u>ITEM</u>	<u>UNIT</u>
Unusable Excavation	Cubic Yard, Truck Count
Usable Excavation	Cubic Yard, Truck Count

SECTION 20.13 TRENCH EXCAVATION AND BACKFILL

Article 13.1 General

The Work under this Section consists of providing all materials and performance of all operations pertaining to items of Work involved in excavation, bedding, backfill, and compaction of trenches. When unsuitable or surplus excavation material is removed from the job site, it will be incidental to this item. When material is imported, it will be paid for under the appropriate item. Any shoring, sheeting, or bracing required shall be considered incidental to Work under this Section.

The Contractor is subject to the same utilities check requirements as described under Section 20.10, Article 10.3 - Miscellaneous.

Article 13.2 Trench Excavation and Backfill – Description

This Work shall consist of all excavation and backfill of trenches as specified for pipe installation and all other miscellaneous items as specified in this Section.

The Contractor shall minimize the width of the trench.

Trench width at or below the top of the pipe shall be of a width that will allow compaction equipment to be utilized at the sides of the pipe. Trenches shall be of the necessary width for proper laying of pipe, conduit, or cable and the banks shall be sloped so as to conform to the prevailing safety requirements.

Trench depth shall be excavated not less than six inches (6”) below the barrel of the pipe unless otherwise directed by the Engineer. Where maximum trench width is limited, as shown on the Drawings, the Contractor shall provide trench shoring or supports systems as necessary to ensure that the trench width does not exceed the established limits. The Contractor shall erect and maintain continuous trench barricades to prevent access around all excavations left open at the end of the workday. The Contractor shall provide and maintain adequate barricades to insure public safety at all times during the prosecution of the Work. All excavated material shall be stockpiled on geotextile fabric to limit damage to the existing vegetation.

Trenches shall comply to the latest requirements of Occupational Safety and Health Administration (OSHA) or State of Alaska safety regulations.

The Contractor is required to conduct all trenching operations in accordance with current safety standards. The Contractor shall be responsible for any and all costs resulting from over excavation, including the need for additional backfill beyond the maximum pay limits as shown on the Drawings or described herein. In addition, the Contractor shall be responsible for all costs and time required for the repair or replacement of streets, alleys, driveways, buildings, sidewalks, curb and gutter, drainage patterns, gravel pads, fences, lawns, property corner markers, survey monumentation, street name signs, traffic control signs, light poles, trees, utilities, shrubbery, gardens, retaining walls, utility markers, rockeries, landscaping, or other public or private improvements damaged by the Contractor which are located outside of the horizontal pay limits defined above. The cost of repairing damage or replacing such facilities shall be included as part of the unit price for the pay item under construction or shall otherwise be considered incidental to the Contract.

Resurfacing of trench excavation and backfill shall conform to the appropriate sections of this Division.

Article 13.3 Construction

A. Trench Excavation

The Contractor shall perform all excavation of every description and whatever substance encountered including rock and permafrost. Excavation will be as required for utility installation. All excavated materials for backfill shall be placed in an orderly manner and placed at a distance from the trench section which conforms to all state and/or federal safety codes.

All excavated organic or other unsuitable backfill materials shall be placed in a similar manner, but shall be kept separate from all excavated sandy, silty, or gravelly material. In addition, excavated materials suitable for bedding, foundation material, Type II or Type III material, shall be stockpiled separate from each other.

Time is of the essence; therefore, the Contractor shall not begin excavation of the trench until all materials, equipment, and personnel are present to complete the Work in the most expedient manner. Not more than four hundred feet (400') of trench shall be open in advance of pipe or conduit installation unless authorized, in writing, by the Engineer. Unless otherwise indicated in the Drawings and Specifications, all excavation will be open cut.

Where rock is encountered, it shall be removed and shall be replaced with approved material.

All unusable or surplus material excavated from within the trench section, as shown on the Drawings, shall be removed from the project site. Payment for this Work is incidental to this item.

B. Trench Dewatering

Contractor shall protect adjacent utilities and property by trench dewatering and to successfully install the new utility lines. Dewatering shall be performed in accordance with Section 20.12 - Dewatering. Payment for dewatering is incidental to Trench Excavation and Backfill.

C. Bedding

All pipe shall be placed in bedding material as specified or as shown on the Drawings. Bedding materials for the type specified shall conform to the requirements of Section 20.16 – Furnish Bedding Material.

Bedding material shall be placed so that it does not free fall for a distance greater than two feet (2') above the top of the pipe. If the distance is greater than two feet (2'), the Engineer may require the Contractor to expose the exterior surface of the pipe being bedded. The Contractor shall provide the Engineer an opportunity to inspect the uncovered Work for damage. Upon completion of the inspection, the Contractor shall repair or replace damaged Work to the satisfaction of the Engineer. All costs associated with inspection, repair, replacement, and installation of the Work due to the bedding material free falling greater than two feet (2') shall be incidental to the Contract.

Where specified bedding material is available from trench excavation, the Contractor shall use care to separate it from unsuitable material. Class B or C bedding material shall be placed under and around the pipe in lifts not to exceed twelve inches (12"), and compacted to ninety-five percent (95%) of maximum density. In no case shall bedding material be placed above the spring line of the pipe in a single lift.

Where specified bedding materials are encountered in the trench bottom, the trench shall be accurately graded to provide uniform bearing and support for each section of the pipe for its entire length, except for the portion of the pipe sections where it is necessary to excavate for the bell holes and other type joints and for the proper sealing of the joints. Bell holes and depressions for joints shall be dug after the trench bottom has been graded and, in order that the pipe will rest on the prepared bottom for as nearly its full length as practical, bell holes and depressions shall be only of such length, depth, and width as

required for properly making the particular type of joint. Where unsuitable material such as, but not limited to hard pan or rock is encountered, the trench shall be over-excavated so a minimum of six inch (6") depth of bedding material is required to bring the trench bottom up to the specified grade. This bedding material shall be compacted to a minimum of ninety-five percent (95%) of maximum density prior to the installation of the pipe. If the Engineer determines that excavated material is unsuitable for bedding, he may direct the Contractor to "Furnish Bedding Material."

D. Trench Backfill

Trench backfill is defined as the placement of material above the level of bedding material. Material for backfill shall be obtained from trench excavation if the material is suitable or conforms to the specifications for backfill. If the Engineer determines that excavated material is unsuitable for trench backfill, he may direct the Contractor to "Furnish Trench Backfill." Backfill shall be placed in lifts and compacted in such a manner that ninety-five percent (95%) of maximum density is obtained unless otherwise specified in the Contract Documents. No separate payment will be made for compaction to ninety-five percent (95%) of maximum density. Where mechanical compaction is required, compaction shall be accomplished in accordance with Section 20.01, Article 1.5 - Compaction Standards. Backfill shall not contain broken bituminous pavement or Portland Cement Concrete, and shall be placed in accordance with Section 20.21 - Classified Fill and Backfill.

E. Locator Tape

Contractor shall provide and install a detectable locator tape properly coded and labeled identifying the utility or utilities installed in the trench. The locator tape shall not be less than five (5) mil, foil backed, and six inch (6") wide vinyl tape. The Contractor shall install the locator tape above and parallel to the axis of the utility with no breaks in continuity. The Contractor shall install the locator tape three feet (3') below finish grade or two feet (2') deep in the street structural section. Installation of the locator tape is considered incidental to Trench Excavation and no separate payment shall be made.

F. Cleanup

This item consists of cleanup and finishing of all construction areas to their original condition or better. All Work shall be in accordance with Division 10, Section 10.05, Article 5.25 - Final Trimming of Work.

G. Insulation

Refer to Section 20.26 – Insulation and Standard Details for insulation installation requirements.

Article 13.4 Measurement

Measurement of trench excavation and backfill will be per linear foot of horizontal distance for the various depths as set forth in the Bid Schedule. On sanitary sewer and storm drain construction, measurement will be from center to center of manholes, from center of Manhole to center of catch basins, from center of manhole to center of cleanout wye, from center of manhole to end of out-fall piping. On all other construction, measurement will be from station to station as shown on the Drawings.

Locator tape is incidental to this Bid Item.

Disposal of unusable or surplus material is incidental to this item.

Article 13.5 Basis of Payment

Payment for this Work shall be in accordance with Division 10, Section 10.07 - Measurement and Payment, and shall include full payment for all Work described in this Section.

Payment shall be made under the following units:

<u>ITEM</u>	<u>UNIT</u>
Trench Excavation and Backfill (various depths)	Linear Foot
Insulation (R-Value)	Square Foot

SECTION 20.14 TRENCH EXCAVATION, BACKFILL AND COMPACTION FOR SERVICE CONNECTIONS

Article 14.1 General

The Work under this Section consists of performing all operations necessary for excavation, backfill, and compaction required for service connections and all other miscellaneous items as specified in this Section. Service connections include Sanitary Sewer Service Connections, Footing Drain Services, and Water Service Lines.

Article 14.2 Construction

A. Excavation

Excavation for service connections shall be unclassified and the Contractor shall excavate whatever substances that are encountered to the depth required for the connections. However, if rock or permafrost is encountered in the trench section different from what is shown on the Drawings, measurement and payment will be as delineated in Section 20.13, Articles 13.4 - Measurement and 13.5 - Basis of Payment.

Depth for service connections shall be as required by the utility. Variations in required depth will not be grounds for additional payment. It shall be the Contractor's responsibility to familiarize himself with the depth of the main line utilities and storm drain systems for the project. The Contractor shall excavate for service connections in such a manner that the excavation is ninety (90) degrees to the street line, whenever possible. The ditch shall be long enough to allow the service connection to be stubbed at the property line.

Trenches shall be of sufficient width at the bottom to allow for laying of the particular service (minimum two and one-half feet [2-1/2'] for single service). Excavation of all fill materials to virgin ground is required to provide safety for workmen utilizing the trench.

The Contractor shall be responsible for, and shall bear expenses incurred, in the event that a main line utility should be damaged during excavation or backfilling.

It shall be the responsibility of the Contractor during construction to keep all embankments and excavation well shaped and drained. The subgrade shall be maintained, compacted in cut sections if required, and kept free of leaves, sticks, and other debris.

The Contractor shall perform all Work necessary to prevent flow and accumulation of surface water or ground water in trenches. Unless otherwise provided in the Special Provisions, all Work associated with pumping or dewatering shall be considered a responsibility of the Contractor and shall be accomplished at no additional cost to the Owner.

The Contractor shall submit as a part of his proposal the method to be used in the dewatering of the trench section.

If any portion of asphalt or concrete surfacing is under-cut or damaged during trench excavation, Contractor shall saw cut, remove, and replace the affected area at no additional cost to the Owner.

B. Backfill

At such time as the Engineer may direct, but only after the service lines and appurtenances have been properly completed and inspected, the trenches and appurtenant structures shall be backfilled. The backfill material, free from clods or boulders, shall be placed by the Contractor in conformance with the

codes and regulations of the Municipality. Backfill shall be placed and compacted in conformance with Section 20.13 - Trench Excavation and Backfill.

The material shall be placed and spread uniformly in successive layers not exceeding twelve inches (12") in loose thickness. The Engineer may approve lifts of greater thickness provided the equipment and method used will consistently achieve the specified density. The layers shall be carried up full width from the bottom of the fill to avoid the necessity of widening the edges after the center has been brought to grade. Each layer shall be compacted to a minimum of ninety-five percent (95%) of the maximum density at optimum moisture as determined by the method of testing noted in Section 20.01, Article 1.5 - Compaction Standards. Reasonable time shall be provided the Engineer to make field density determinations prior to placement of successive layers of material.

The maximum dimensions of any particle of the embankment material shall not be greater than two-thirds (2/3) of the compacted thickness of the layer in which it is placed. The top six inches (6") of embankment material for streets shall be Type II-A classified fill and backfill. Oversize material shall be removed. Portions of any layer in which the embankment material becomes segregated shall be removed and replaced with satisfactory material or shall be added to and remixed to secure proper gradation as directed by the Engineer. No separate payment will be made for any material removed or regraded in areas where material becomes segregated.

The Engineer may permit lifts in excess of twelve inch (12") thickness when fill or backfill is placed over swampy or saturated ground, or where he is satisfied that the Contractor's method and equipment will consistently produce the specified density. No frozen material shall be used for backfill. Backfill shall not be placed in frozen trench.

C. Notification

The Contractor shall notify the Engineer forty-eight (48) hours before starting excavation (excluding Saturday, Sunday and holidays) on all service connection requests which involve twelve (12) or less connections. On connection requested for subdivisions involving more than twelve (12) connections, one (1) week notification prior to excavating is required.

Article 14.3 Measurement

Trench excavation, backfill and compaction for service connections shall not be measured for payment.

Article 14.4 Basis of Payment

No separate payment shall be made for trench excavation, backfill and compaction for service connections. This Work is considered incidental to the service connection pay item.

SECTION 20.15 FURNISH TRENCH BACKFILL

Article 15.1 General

The work under this Section consists of performing all operations necessary to furnish trench backfill.

Article 15.2 Construction

The Engineer shall order in writing the amount and type of backfill material to be transported to the Project site. No payment will be made for backfill material under this item that has not been ordered in writing. Material hauled to the Project site shall meet the requirements for the type specified in Section 20.21 - Classified Fill and Backfill.

Article 15.3 Measurement

Trench backfill material furnished to the Project site shall be measured in tons (2000 lbs.) delivered to the Project site. Weights shall be obtained on a scale certified by the State of Alaska. All loads shall be accompanied with a serialized weight ticket witnessed at the time of weighing by a Contractor-furnished weighman. The Engineer may at any time verify load weights and the weighing process. Measurement of delivered material may include moisture up to a maximum of four percent (4.0%) of dry weight of material. When tests by the Engineer indicate that moisture contents in excess of four percent (4.0%) may be occurring consistently, the frequency of testing will be increased as necessary and the results averaged over a period of one week. When the average is greater than four percent (4.0%), the tonnage, as measured over the above period, shall be reduced by the difference. No credit will be due the Contractor when moisture content is less than four percent (4.0%). Testing will be done in accordance with standards provided in this Specification.

Article 15.4 Basis of Payment

Payment for this Work shall be in accordance with Division 10, Section 10.07 - Measurement and Payment, and shall be full payment for all Work described in this Section.

Payment shall be made under the following unit:

<u>ITEM</u>	<u>UNIT</u>
Furnish Trench Backfill (Type)	Ton

SECTION 20.16 FURNISH BEDDING MATERIAL

Article 16.1 General

The Work under this Section consists of performance of all operations pertaining to providing bedding material for underground utilities.

Article 16.2 Materials

The coarse aggregate material conforming to the requirements specified below shall have a percentage of wear not to exceed thirty (30) after five hundred (500) revolutions, as determined by the current requirements of ASTM C-131.

A. Class "B" Bedding

Materials furnished by the Contractor for use as "B" bedding classified fill and/or backfill shall be graded within the limitations delineated below:

Class "B" Bedding	
<u>U.S. Std. Sieve</u>	<u>Cumulative % Passing by Weight</u>
1"	100
3/8"	60-100
#4	40-85
#10	25-70
#40	5-40
#200	0-6

In addition to the grading limits listed above, the fraction of material passing the #200 sieve shall not be greater than thirty-five percent (35%) of that fraction passing the #40 sieve. The bedding material shall not include mechanically fractured materials.

B. Class "C" Bedding

Materials furnished by the Contractor for use as "C" bedding classified fill and/or backfill shall be graded within the limitations delineated below:

Class "C" Bedding	
<u>U.S. Std. Sieve</u>	<u>Cumulative % Passing by Weight</u>
2"	100
1/2"	40-100
#4	20-75
#10	12-60
#40	2-30
#200	0-6

In addition to the grading limits listed above, the fraction of material passing the #200 sieve shall not be greater than twenty percent (20%) of that fraction passing the #40 sieve. The bedding material shall not include mechanically fractured materials.

C. Class "D" Bedding

Materials furnished by the Contractor for use as "D" bedding classified fill and/or backfill shall be graded within the limitations delineated below:

Class "D" Bedding

<u>U.S. Std. Sieve</u>	<u>Cumulative % Passing by Weight</u>
1"	100
3/4"	90-100
1/2"	50-70
3/8"	20-50
#4	0-10
#200	0-1

The bedding material shall not include mechanically fractured materials.

D. Class "E" Bedding

Materials furnished by the Contractor for use as "E" bedding classified fill and/or backfill shall be graded within the limitations delineated below:

Class "E" Bedding

<u>U.S. Std. Sieve</u>	<u>Cumulative % Passing by Weight</u>
1/2"	100
3/8"	80-100
#4	20-75
#8	12-60
#30	2-30
#200	
0-6	

Article 16.3 Construction

Placement of bedding shall conform to the requirements of Section 20.13, Article 13.3 - Construction.

The Contractor shall employ such means and methods to keep the bedding material contained and segregated from potential contaminants until it is placed per the Contract Documents. Bedding material lost, contaminated with other material, or otherwise found to be unusable shall not be used for bedding material and the Contractor shall not be paid for that material.

Article 16.4 Measurement

Measurement of bedding shall be per ton or per linear foot of bedding material placed in the trench.

Article 16.5 Basis of Payment

Payment for this Work shall be in accordance with Division 10, Section 10.07 - Measurement and Payment, and shall include full payment for all Work described in this Section.

Payment shall be made under the following units:

<u>ITEM</u>	<u>UNIT</u>
Bedding Material (Class)	Ton

SECTION 20.21 CLASSIFIED FILL AND BACKFILL

Delete the Section and add the following in its place:

Article 21.1 General

The Work under this Section consists of performing all operations necessary to furnish, place, and compact classified fill and backfill.

Article 21.2 Material

Classified fill and backfill shall contain no lumps, frozen material, organic matter, or other deleterious matter, and shall be durable and sound. It shall have a plasticity index not greater than six (6) as determined by ASTM D-424 and shall conform to one of the following types as required by the Drawings and Specifications. The coarse aggregate material conforming to the requirements specified below shall have a percentage of wear not to exceed thirty (30) after five hundred (500) revolutions, as determined by the current requirements of ASTM C-131.

The portion of the material retained on a #4 sieve shall be known as coarse aggregate. Both coarse and fine aggregates shall conform to the quality requirements of AASHTO M-147.

A. Type II

Materials furnished by the Contractor for use as Type II classified fill and/or backfill shall be graded within the limitations delineated below:

Type II

<u>U.S. Std. Sieve</u>	<u>Cumulative % Passing by Weight</u>
8"	100
3"	70-100
1-1/2"	55-100
3/4"	45-85
#4	20-60
#10	12-50
#40	4-30
#200	2-6

* In addition to the grading limits listed above, the fraction of material passing the #200 sieve shall not be greater than fifteen percent (15%) of that fraction passing the #4 sieve.

B. Type II-A

Materials furnished by the Contractor for use as Type II-A classified fill and/or backfill shall be graded within the limitations delineated below:

Type II-A

<u>U.S. Std. Sieve</u>	<u>Cumulative % Passing by Weight</u>
3"	100
3/4"	50-100
#4	25-60
#10	15-50
#40	4-30
#200	2-6

* In addition to the grading limits listed above, the fraction of material passing the #200 sieve shall not be greater than twenty percent (20%) of that fraction passing the #4 sieve.

C. Type III

Materials furnished by the Contractor for use as Type III classified fill and/or backfill shall be approved sand or gravel with a maximum of ten percent (10%) passing the #200 sieve.

D. Type IV

Materials furnished by the Contractor for use as Type IV classified fill and/or backfill shall be an approved material consisting of sand or gravel with a maximum of twenty-five percent (25%) passing the #200 sieve.

E. Type V

Materials furnished by the Contractor for use as Type V classified fill and/or backfill shall be graded within the limitations delineated below:

Type V

<u>U.S. Std. Sieve</u>	<u>Cumulative % Passing by Weight</u>
3"	100
1 1/2"	60-90
3/4"	40-80
#4	25-55
#10	15-45
#40	4-30
#200	2-6

* In addition to the grading limits listed above, at least thirty percent (30%) of the coarse aggregate particles shall have one or more mechanically fractured face.

F. Type VI

Materials furnished by the Contractor for use as Type VI classified fill and/or backfill shall be graded within the limitations delineated below:

Type VI

<u>U.S. Std. Sieve</u>	<u>Cumulative % Passing by Weight</u>
2"	100
1 1/2"	65-95
3/4"	50-80
1/2"	30-60
#4	20-50
#10	10-30
#40	5-25
#200	2-6

* In addition to the grading limits listed above, at least forty percent (40%) of the coarse aggregate particles shall have one or more mechanically fractured face.

Article 21.3 Construction

The subgrade shall be cleared of all debris and organic material. All depressions or holes below the general area surface level, whether caused by removal of debris or unacceptable material, or otherwise, shall be backfilled with approved material and compacted to specified density and to a level, uniform surface before the placement of other layers. Embankment shall not be placed on frozen ground, nor on ground having a slope greater than one vertical to four horizontal (slope 1:4).

The specified material shall be constructed at the locations and to the lines and grades indicated on the Drawings. The material shall be placed and spread uniformly in successive layers not exceeding twelve inches (12") in loose thickness. The Engineer may approve lifts of greater thickness provided the equipment and method used will consistently achieve the specified density. The layers shall be carried up full width from the bottom of the fill to avoid the necessity of widening the edges after the center has been brought to grade. Each layer shall be compacted to not less than ninety-five percent (95%) of the maximum density at optimum moisture as determined by the method of testing noted in Section 20.01, Article 1.5 – Compaction Standards. Reasonable time shall be provided the Engineer to make field density determinations prior to placement of successive layers of material.

Blading, rolling, and tamping shall continue until the surface is smooth, free from waves and irregularities, and conforms to elevations shown on the Drawings. If at any time the material is excessively wet, it shall be aerated by means of blade graders, harrows, or other suitable equipment until the moisture content is satisfactory. The surface shall then be compacted and finished as specified above.

Contractor shall submit a processing and blending plan to the Engineer for review and approval prior to utilization of classified fill or backfill from more than one source. The plan must be accompanied by materials analysis reports for each material source and fully describe how the material will be placed and blended to ensure that timely and accurate in-place density testing can be achieved.

The maximum dimensions of any particle of the embankment material shall not be greater than two-thirds (2/3) of the compacted thickness of the layer in which it is placed unless specified elsewhere. The top six inches (6") of embankment material for roads, streets, parking lots, and bike trails, shall be Type II-A classified fill and backfill. Oversize material shall be removed. Portions of any layer in which the embankment material becomes segregated shall be removed and replaced with satisfactory material or shall be added to and remixed to secure proper gradation as directed by the Engineer. No separate payment will be made for any material removed or regraded in areas where material becomes segregated.

The Engineer may permit lifts in excess of twelve inch (12") thickness when classified fill or backfill is placed over swampy or saturated ground, or where he is satisfied that the Contractor's method and equipment will consistently produce the specified density.

Embankments for bike trail sections will be brought to grade in one (1) single lift for embankments less than eighteen inches (18") to finish grade. Trail embankments over eighteen inches (18") shall be brought to grade in lifts as directed by the Engineer.

Article 21.4 Measurement

Classified fill or backfill material, obtained from borrow pits, will be measured in tons (2000 lbs.) of material delivered and placed in accordance with these Specifications. The measurement may include moisture up to a maximum of four percent (4.0%) of dry weight of the material. When tests by the Engineer indicate that moisture contents in excess of four percent (4.0%) may be occurring consistently, the frequency of testing will be increased as necessary and the results averaged over a period of one week. When this average is greater than four percent (4.0%), the tonnage as measured over the above period, shall be reduced by the difference. No credit will be due the Contractor when moisture content is less than four percent (4.0%). Testing shall be done in accordance with Section 20.01, Article 1.3 – Applicable Standards.

Imported classified fill and backfill will be weighed on a scale certified by the State of Alaska. Weight tickets will be serialized and witnessed at the time of weighing by a Contractor-furnished weighman. The Engineer may at any time verify load weights and the weighing process.

Where excavation of unsuitable material beyond the lines and grades shown on the Drawings is ordered in writing, the measurement of classified backfill will include the material required for replacement. No measurement will be made for quantities placed beyond the lines and grade authorized or for quantities placed outside the limits of required excavation.

The Contractor and the Engineer shall verify daily the quantity of material delivered to the Project site. Weight tickets not presented at time of delivery will require special verification by the Contractor before payment can be made.

Article 21.5 Basis of Payment

Payment for this Work shall be in accordance with Division 10, Section 10.07 - Measurement and Payment, and shall include full payment for all Work described in this Section. Payment for the placement and compaction of usable excavation shall not be paid under this Section.

Payment shall be made under the following units:

<u>ITEM</u>	<u>UNIT</u>
Classified Fill and Backfill (Type)	Ton

SECTION 20.22 LEVELING COURSE

Delete the Section and add the following in its place:

Article 22.1 General

The Work under this Section consists of performing all operations necessary to complete construction of the leveling course on the prepared subbase.

Article 22.2 Material

The leveling course shall consist of crushed gravel, rock, sand, or other approved material. The aggregate shall be free from lumps, balls of clay, or other objectionable matter, and shall be durable and sound. The portion of the material retained on a No. 4 sieve shall be known as coarse aggregate. Both coarse and fine aggregates shall conform to the quality requirements of AASHTO M-147.

Upon written approval by the Engineer, recycled asphalt concrete pavement (RAP) may be substituted for leveling course, on an inch for inch basis. All RAP shall conform to Division 40, Section 40.08 – Recycled Asphalt Pavement. RAP which has been derived from environmentally contaminated aggregates shall not be accepted.

A. Coarse Aggregate

The coarse aggregate material conforming to the requirements specified above shall have a percentage of wear not to exceed thirty-five (35) after five hundred (500) revolutions, as determined by the current requirements of ASTM C-131. It shall consist of angular fragments reasonably uniform in density and quality, and reasonably free from thin and elongated pieces, dirt, and other objectionable material. At least fifty percent (50%) of the coarse aggregate particles shall have two or more mechanically fractured faces.

B. Fine Aggregate

The fine aggregate shall consist of material free of organic or other objectionable matter. The fine aggregate, either naturally combined with the coarse aggregate or separately obtained and mixed therewith, shall be of such character that the composite material will conform to the gradation and other requirements specified.

C. Gradation

The composite mixture of coarse aggregate and fine aggregate, processed as hereinafter specified, shall conform to the following gradation limits as required by the Drawings:

Leveling Course

<u>U.S. Std. Sieve</u>	<u>Cumulative % Passing by Weight</u>
1"	100
3/4"	70-100
3/8"	50-80
#4	35-65
#8	20-50

#50
#200

8-28
*2-6

*In addition to the grading limits stipulated above, fractions passing the #200 sieve shall not be greater than seventy-five percent (75%) of the fractions passing the #50 sieve.

Article 22.3 Construction

The leveling course shall be placed to the lines, grades, and thicknesses shown on the Drawings and shall consist of the materials hereinbefore specified. The leveling course shall provide a smooth stabilized surface on which to place the pavement.

A. Preparation of Subbase

Subbase preparation shall consist of dressing, shaping, wetting, and compacting of the subbase to a minimum density of ninety-five percent (95%) in accordance with Section 20.01, Article 1.5 - Compaction Standards. Surfaces shall be cleaned of all foreign substances and debris. Any ruts or soft yielding spots that may appear in the subbase surface shall be corrected by loosening, removing and adding approved material, reshaping, and recompacting the affected areas to the line, grade, and to the specified density requirements.

B. Surveying

Subbase and leveling course control stakes shall be wooden bluetops set to finish subbase. The subbase bluetops will be the reference used by the Contractor to set top of leveling course. Subbase bluetops shall be set at breaks in grade and on even grade at intervals not to exceed fifty feet (50'), with additional stakes at vertical curves. Side control will be from the lip or gutter, or in the case of strip paving, additional bluetops shall be provided.

C. Placing

The approved leveling course material shall be deposited and spread in a uniform layer to the required contour and grades and to such loose depth that when compacted to the density required will achieve the specified thickness. The material shall be spread uniformly on the prepared subbase from moving vehicles or spreading boxes, then leveled to the required contour and graded with blade graders. Portions of the layer which become segregated in spreading shall be remixed to the required gradation.

D. Compacting

The leveling course shall be compacted to a minimum of ninety-five percent (95%) of maximum density. In all places not accessible to the rolling equipment, the mixture shall be compacted with tamping equipment. Blading, rolling and tamping shall continue until the surface is smooth and free from waves and inequalities. If at any time the mixture is excessively moistened by rain, it shall be aerated by means of blade graders, harrows or other approved equipment until the moisture content is such that the surface can be recompacted and finished as above. The finished leveling course shall be maintained by the Contractor in the above condition until the pavement is applied.

E. Smoothness Test

The surface of the leveling course, when finished, shall not show any deviation in excess of three-eighths inch (3/8") when tested with a ten foot (10') straightedge applied parallel with, and at right angles to, the centerline of the area to be paved. Any deviation in excess of this amount shall be corrected by loosening, adding, or removing material and reshaping and compacting to

satisfy the above requirement. Contractor shall obtain written approval from the Engineer for the final leveling course grade prior to pavement placement.

Article 22.4 Measurement

The leveling course shall be measured in tons of materials delivered and placed in accordance with these Specifications. The measurement may include moisture up to a maximum of four percent (4.0%) of dry weight of the material. When tests by the Engineer indicate that moisture contents in excess of four percent (4.0%) may be occurring consistently, the frequency of testing will be increased as necessary and the results averaged over a period of one week. When this average is greater than four percent (4.0%), the tonnage as measured over the above period, shall be reduced by the difference. No credit will be due the Contractor when moisture content is less than four percent (4.0%). Testing shall be done in accordance with Section 20.01, Article 1.3 – Applicable Standards.

Article 22.5 Basis of Payment

Payment for this Work shall be in accordance with Division 10, Section 10.07 - Measurement and Payment, and shall include full payment for all Work described in this Section.

Payment shall be made under the following unit:

<u>ITEM</u>	<u>UNIT</u>
Leveling Course	Ton

SECTION 20.27 DISPOSAL OF UNUSABLE OR SURPLUS MATERIAL

Article 27.4 Measurement

Delete the Article and add the following in it's place:

No measurement will be made for Disposal of Unusable or Surplus Material.

Article 27.5 Basis of Payment

Delete the Article and add the following in it's place:

No separate payment will be made for Disposal of Unusable or Surplus Material. Payment for this work shall be incidental to Excavation for Traffic Ways.

SECTION 20.28 RECONSTRUCT DRIVEWAY

Article 28.1 Description

The Work under this Section consists of performing all operations and furnishing all materials pertaining to removing, disposing of, re-grading and replacing existing driveway approaches, including removal and disposal of existing pavement, excavation, surfacing, classified fill and backfill, leveling course, and working adjacent to existing landscaping amenities, as indicated on the Drawings.

Driveway reconstruction consists of installing a section of driveway that provides a smooth transition from the existing driveway to the street improvements. The transition length is measured from the back of curb or back of sidewalk and shall be as shown on the Drawings or as directed by the Engineer.

Contractor shall not disturb existing driveways that have imbedded heating systems.

Article 28.2 Materials

All materials used in the reconstruction of driveways shall conform to the requirements for asphalt concrete pavement conforming with Division 40 – Asphalt Surfacing for asphalt paved driveways. Subbase material shall conform to the requirements of this Division.

Article 28.3 Construction

All construction practices, tests and other controls shall conform to Division 20 –Earthwork and Division 40 – Asphalt Surfacing.

The Contractor shall neatly and cleanly saw cut and remove existing driveway surfacing. Contractor shall saw cut a minimum of two inches (2”) deep for asphalt surfaces and three inches (3”) deep for concrete surfaces. If any portion of the remaining asphalt or concrete surfacing is under-cut or damaged during construction operations, Contractor shall saw cut, remove, and replace the affected area at no additional cost to the Owner.

The Contractor shall reconstruct existing driveways with asphalt or concrete surfacing to match existing driveway surface. Contractor shall place two inches (2”) of asphalt surfacing over two inches (2”) of leveling course.

Contractor shall perform asphalt paving by utilizing a mechanical spreader and compact by a mechanical roller weighing not less than ten (10) tons, except that where the area of the asphalt replacement patch is less than three hundred (300) square feet, a mechanical spreader need not be employed.

Contractor shall tamp small inaccessible areas to produce a compression and surface texture equivalent to that produced by the specified rolling. Hand tampers shall have a maximum tamping face of fifty (50) square inches and minimum weight of twenty-five (25) pounds.

Contractor shall maintain access and parking accommodations for each resident during driveway work. Contractor shall notify and coordinate with the affected resident(s) prior to necessary driveway closures.

Article 28.4 Measurement

Driveway reconstruction is measured either per square yard of replaced driveway surface or per each, complete and in place for the specified type of surface. No separate measurement is to be made for asphalt, classified backfill, excavation, geotextile fabric, or leveling course as these items are incidental to the Work item. No measurement is made for temporary relocation of driveways or required driveway maintenance during construction as these items are incidental to the Work item.

Article 28.5 Basis of Payment

Payment for this item shall be in accordance with Division 10, Section 10.07 - Measurement and Payment, and shall include full payment for all Work described in this Section.

Payment shall be made under the following unit:

ITEM	UNIT
Reconstruct Driveway, Asphalt (Class)	Each

SECTION 30.02 PORTLAND CEMENT CONCRETE, CURB AND GUTTER AND VALLEY GUTTER

Delete the Section and add the following in its place:

Article 2.1 Description

The Work covered under this Section consists of the construction of curbs, gutters, miscellaneous median shapes and parking stops.

Article 2.2 Materials

Portland Cement Concrete, joint filler, reinforcing steel and curing materials shall conform to Section 30.01, Article 1.3 - Materials. Concrete mix for curbs shall conform to the requirements for Class A-3 unless otherwise specified.

A. Reinforcing Steel and Steel Dowels

Refer to Section 30.01, Article 1.3, SubArticle A. - Reinforcing Steel and SubArticle - Welded Steel Wire Fabric.

B. Preformed Expansion and Dummy Joint Filler Refer to Section 30.01, Article 1.3, SubArticle H. - Expansion Joints.

C. Curing Compounds

Refer to Section 30.01, Article 1.3, SubArticle G. – Curing Materials.

D. Forms

Forms may be of wood or metal or any other material at the option of the Contractor, provided that the forms as set will result in a curb, or curb and gutter of the specified thickness, cross section, grade and alignment shown on the Drawings.

Forms may be removed on the day following pour if the concrete is sufficiently set that removal can be accomplished without danger of chipping or spalling. Form materials shall be free from warp, with smooth and straight upper edges, and if used for the face of a curb, shall be surfaced on the side against which the concrete is to be placed. Wooden forms for straight work shall have a net thickness of at least one and one-half inches (1.5"). Metal forms for such a work shall be of a gage that will provide equivalent rigidity and strength. Curb face forms used on monolithic curb and gutter construction shall be a single plank width when the curb face is ten inches (10") or less, except for those used in curb returns. All forms used in curb returns shall not be less than three-quarters inches (3/4") in thickness, cut in the length and radius as shown on the Drawings, and held rigidly in place to line and grade by the use of metal stakes and clamps. The curb face form shall be cut to conform exactly with the curb face batter as well as being cut to the required length and radius. Forms shall be of sufficient rigidity and strength, and shall be supported to adequately resist springing or deflection from placing and tamping of concrete.

Form material shall be clean and free from defect at the time of use.

All forms including back planks of curb shall be set with upper edges flush with specified alignment and grade of the finished surface of the improvements to be constructed, and all forms shall be not less than a depth equivalent to full specified thickness of the concrete to be placed.

Forms shall be held securely in place by means of metal stakes driven in pairs at intervals not to exceed three feet (3'), one at the front form and one at the back form. Clamps, spreaders, and braces shall be used to the extent as may be necessary to insure proper form rigidity. Forms for walk and similar work shall be firmly secured by means of stakes driven at intervals not to exceed four feet (4'). Form stakes shall be of sufficient size and be driven so as to adequately resist lateral displacement.

Commercial form clamps for curb and gutter may be used provided they fulfill the requirements specified herein.

Pump trucks may be used upon approval of the Engineer. Prior to approval, the Contractor must demonstrate to the satisfaction of the engineer that the pumping equipment will not segregate, or in any other way degrade, the concrete. Additional test samples for such alternate placement methods may be taken from the discharge side of the machine for compressive strength determination assurance tests.

Article 2.3 Construction

A. Erecting Forms

All forms shall be set to the lines, grade, and dimensions shown on the Drawings. The forms shall be thoroughly braced and secured to resist deformation or displacement under load, and shall be installed to permit easy removal without hammering or prying against the fresh concrete. The top of the forms shall not deviate more than one-eighth inch (1/8") in ten feet (10'), and the alignment of forms shall be within one-fourth inch (1/4") in ten feet (10').

Before placement of concrete, steel forms shall be lightly oiled with a good grade of form oil. Excess oil shall be removed by wiping with clean rags, dampened in diesel or fuel oil. Wooden forms may be oiled in the same manner as metal forms, or they may be watered immediately in advance of the placement of concrete. Watering of the form shall be done with clean water of the same quality as that specified for mixing water, and only when the atmospheric temperature is not less than forty degrees (40deg) Fahrenheit. Concrete shall not be placed until all forms have been inspected and approved by the Engineer. Wherever form work is exposed to pedestrian traffic, bridges (not attached to the forms) shall be provided at all regular pedestrian crossings where it is required to maintain safety standards. Barricades and other safety features shall be installed as necessary.

B. Placing Concrete

Prior to the delivery of the first load of concrete for curbs, the Contractor shall furnish rigid straightedges, ten feet (10') or sixteen feet (16') in length, to the Engineer for checking surface uniformity. String shall not be used as a straightedge. Surface irregularities, as measured along the top face of curb and the curb pan, shall not exceed three-sixteenth inch (3/16") within ten feet (10'), or five-sixteenth inch (5/16") within sixteen feet (16'). Non-conforming surfaces shall be subject to rejection by the Engineer. All surfaces rejected by the Engineer shall be corrected by the Contractor at the Contractor's expense.

The subgrade shall be properly compacted and brought to specified grade in accordance with the Drawings before placing concrete. The subgrade shall be thoroughly dampened immediately prior to the placement of the concrete. Forms shall not be splashed with concrete in advance of placing.

Concrete shall be discharged from transport vehicle to the point of final placement in a continuous manner as rapidly as practicable. The rate of placement shall not exceed the rate at which the various placing and finishing operations can be performed in accordance with these Specifications. Concrete shall not be allowed to free fall more than three feet (3').

If concrete is to be placed by the extruded method, the Contractor shall demonstrate to the satisfaction of the Engineer that the machine is capable of placing a dense, uniformly compacted concrete to exact section, line and grade. Extruded curb which does not meet all requirements of the Contract Documents, shall be replaced at the Contractor's expense.

C. Stripping Forms and Finishing

The face form of the curb shall be stripped at such time in the early curing as will enable inspection and correction of all irregularities that appear thereon.

Forms shall not be removed until the concrete has set sufficiently to retain its true shape. The face of the curb shall be troweled with a tool cut to the exact section of the curb and at the same time maintain the shape, grade, and alignment of the curb. Both front and back edges shall be troweled to a radius of one-half inch (1/2"). Final finish shall be obtained by brooming the surface, including the troweled edge to a gritty finish after all free moisture has disappeared from the surface. Sprinkling of cement or sand for blotting will not be permitted.

It is the intent of this Specification to insure the highest quality of workmanship in the construction and finishing of P.C.C. curb and gutter.

Unightly or poorly finished surfaces will be considered grounds for rejection of the Work. The top and/or face and gutter of the finished concrete surfaces shall be true and straight, of uniform width and free of cracks, humps, sags, or other irregularities. The finished concrete surface shall not vary more than two-hundredths of a foot (0.02') from a ten foot (10') straight edge, except at grade changes or curves. No freestanding water is permitted on slopes at or greater than one percent (1%). No freestanding water deeper than one-sixteenth inch (1/16") is permitted on slopes of less than one percent (1%). The Contractor shall flow test all new concrete curb and gutter. Curb and gutter failing to meet this requirement will be rejected.

All defective areas shall be removed and replaced at the Contractor's expense, unless permission to patch is granted by the Engineer. Such permission shall not be construed as an acceptance of the Work or as a waiver of the Engineer's right to require the complete removal of the Work, if in his opinion the patch does not satisfactorily restore the quality or appearance of the surface.

Should patching be permitted, the area shall be chipped clean to a depth of one inch (1") perpendicular to the surface and saturated with clean water prior to being patched. The patch shall be made with a mortar extracted from fresh concrete by passing it through a three-eighths inch (3/8") screen. The mortar shall be thoroughly compacted and screeded off slightly higher than the surrounding surface to allow for contracting or setting after the maximum shrinkage has taken place. After one (1) to two (2) hours, the patch shall be troweled to the same finish as the surrounding area and shall be cured as specified herein. The use of special patching material will be permitted if approved by the Engineer.

D. Curing

Curing compounds shall be applied to all exposed surfaces immediately after finishing. Transparent curing compounds shall contain a color dye of sufficient strength to render the film distinctly visible on the concrete for a minimum period of four (4) hours after application.

If, at any time during the curing period any of the forms are removed, a coat of curing compound shall be applied immediately to the exposed surface. The curing compound shall be applied in sufficient quantity to obscure the natural color of the concrete. Additional coats shall be applied if the Engineer determines that the coverage is not adequate. The concrete shall be cured for the minimum period of time set forth below.

Curb and gutter constructed of Type I/II Portland Cement Concrete must have been placed and finished a minimum of seven (7) days prior to material being distributed against, or vibrated (compaction) adjacent to the structure.

Curb and gutter constructed of Type III Portland Cement Concrete must have been placed and finished a minimum of three (3) days prior to any material being distributed against, or vibrated (compaction) adjacent to the structure.

When forms are removed before the expiration of the curing period, the edges of the concrete shall be protected with moist earth, or sprayed with curing compound.

Other standard methods of curing the curb and gutter may be used upon approval of the Engineer. Concrete shall not be placed unless curing compounds and necessary equipment for applying such is on the Project site.

E. Expansion and Contraction Joints

1. Expansion Joints

Expansion joints shall be placed along all structures, as shown in the Drawings and/or Standard Details, and around all features that project into, through, or against the concrete. An expansion joint shall be constructed at the intersection of sidewalks; between sidewalk crossings and sidewalks; between curbs and sidewalks (except parallel curb); and at the beginning and end of curb returns. Additionally expansion joints shall be constructed every fifty feet (50') where the sidewalk span exceeds seventy-five feet (75') and expansion joints are not required for the above listed reasons. Expansion joint material shall conform to the requirements of ASTM D-1751 (AASHTO M-213). Expansion joints shall not exceed one half inch plus or minus one-eighth inch ($1/2'' \pm 1/8''$) in width. Expansion joint material shall extend the full width of the structure and shall be cut to such dimensions that the base of the expansion joint shall extend to the subgrade and the top shall be depressed not less than one-quarter inch ($1/4''$) nor more than one-half inch ($1/2''$) below the finished surface of the concrete. The material shall be of one (1) piece in the vertical dimension and shall be securely fastened in a vertical position to the existing concrete face against which fresh concrete is to be placed. After the concrete has set, the expansion joints shall be filled flush to the finish concrete surface with an approved polyurethane sealant applied according to the manufacturer's recommendation.

Before sealing, the joint shall be cleaned of all dirt, gravel, concrete mortar, and other extraneous material. Sealing shall be done in a neat workmanlike manner.

2. Contraction Joints

Transverse contraction joints, cut to a depth of one inch (1") prior to the final set of the concrete, shall be tooled in the sidewalks at intervals of five feet (5'), and at ten feet (10') intervals in the curb and gutter. Where the sidewalk adjoins the curb (parallel to it), contraction joints in the sidewalk and curb shall be made to match where practicable.

Article 2.4 Measurement

Curb or integral curb and gutter shall be measured per linear foot along the face of the curb. Mountable (rolled) curb and gutter shall be measured per linear foot along the gutter line. Portland Cement Concrete (P.C.C.) Valley Gutter shall be measured as shown on the Standard Detail.

Curb containing steel curb facing shall be measured per linear foot along the face of the curb and the designation "Steel Curb Facing" shall be included in the "Type" description of the pay item.

Medians with curb noses shall be measured as follows: P.C.C. curb and gutter per linear foot, curb noses including yellow paint, as units complete in place. Parking stops shall be measured as units complete in place.

Article 2.5 Basis of Payment

Payment for this Work shall be in accordance with Division 10, Section 10.07 - Measurement and Payment and shall include full payment for all Work described in this Section.

Payment shall be made under the following units unless otherwise specified:

<u>ITEM</u>	<u>UNIT</u>
P.C.C. Curb and Gutter (Type)	Linear Foot
P.C.C. Valley Gutter	Linear Foot

SECTION 30.03 PORTLAND CEMENT CONCRETE SIDEWALKS

Delete the Section and add the following in its place:

Article 3.1 Description

The Work covered under this Section consists of all Work necessary for the provision of Portland Cement Concrete sidewalks.

Article 3.2 Materials

The Portland Cement Concrete, joint filler, reinforcing steel, and curing materials shall conform to Section 30.01, Article 1.3 - Materials. Concrete mix for sidewalks shall conform to the requirements for Class A-3.

Article 3.3 Construction

A. Excavation and Embankment

Excavation and embankment for sidewalks shall be as described in Division 20 - Earthwork. Where directed by the Engineer, unsuitable material in the subgrade shall be removed to a specific depth and then backfilled with classified fill. Payment will not be allowed for excavation below grade or for backfill materials required when such excavation is caused by negligence of the Contractor.

Embankment shall be compacted to ninety-five percent (95%) maximum density in accordance with Division 20, Section 20.01, Article 1.5 - Compaction Standards. In areas that are inaccessible to normal compaction equipment, approved tampers shall be used.

Before the forms are set, the subgrade shall be graded to within one inch (1") of established grade and the area between the sidewalk and the adjacent private property line shall be shaped to line, grade, and section shown on the Drawings.

B. Forms and Fine Grading

Forms shall conform to requirements outlined in Section 30.02 - Portland Cement Concrete, Curb and Gutter, and Valley Gutter. Wood forms against unexposed concrete surfaces shall be No. 2 Common Lumber or better. Those against surfaces to be exposed shall be dressed and matched boards of uniform thickness, and widths not exceeding ten inches (10"). Rigid, nonporous and waterproof sheet material may be used provided the end result will be a smooth unmarked concrete surface without waves, fins or other noticeable markings.

Plywood conforming to the requirements for form work, as set forth by the American Plywood Association, may be used against both exposed and unexposed concrete surfaces. This plywood shall be not less than five (5) ply and at least nine-sixteenths inch (9/16") thick. Low areas in the subgrade shall be backfilled with classified fill or with suitable native material as directed by the Engineer. The backfill shall then be compacted to ninety-five percent (95%) maximum density and any dry areas in the subgrade shall be thoroughly dampened prior to the time the concrete is placed. No payment will be made for water, and the work of placing and cost thereof shall be considered as incidental to the construction of the concrete sidewalk.

C. Placing and Finishing Portland Cement Concrete Sidewalk

The concrete shall be spread uniformly between the forms and thoroughly compacted with a steel shod strikeboard. After the concrete has been thoroughly compacted and leveled, it shall be floated with wood floats and finished at the proper time with a steel float. Joints shall be edged with a one-quarter inch (1/4") radius edger and the sidewalk edges shall be tooled with a one-half inch (1/2") radius edger. After final troweling, sidewalk on grades of less than six percent (6%) shall be given a fine hair broom finish applied transversely to the centerline. On grades exceeding six percent (6%), walk shall be finished by

hand with a wood float. Walk shall be re-marked as necessary after final finish to assure neat uniform edges, joints, and score lines. Unsightly, poorly finished, and sidewalk failing to meet the requirements of the Drawings, Specifications, and this Section will be rejected.

The sidewalk shall be divided into panels by scoring one inch (1") deep every five feet (5'). Refer to Section 30.02, Article 2.3, SubArticle E - Expansion and Contraction Joints for requirements for contraction and expansion joints. The expansion joints shall be placed at all structures such as catch basins and manholes, at driveways, and at all points of tangency and points of curvature.

Additional requirements for placing and finishing concrete in cold weather shall be as outlined in Section 30.01, Article 1.9 - Weather Limitations.

For all other exposed aggregate concrete sidewalks, Contractor shall float and trowel all surfaces to receive the exposed aggregate finish. Seeding the surface with aggregate shall not be allowed. After the concrete has taken its initial set, the surface aggregate shall be exposed using a water fog spray and brooms to remove the surface matrix. The coarse surface aggregate shall be exposed very lightly, approximately one-sixteenth inch (1/16"). After the concrete has taken its final set, a weak acid wash shall be applied to clean and wash the exposed aggregate surfaces. The weak acid wash shall be thoroughly neutralized and flushed from the finished surface. Under no circumstances shall Contractor allow the acid wash to enter the storm drain lines.

Contractor shall protect adjacent construction, plantings, finishings, structures, and the public from damage and harm due to the acid wash. The finished appearance of the exposed aggregate concrete sidewalk shall produce an appearance and texture that matches the adjacent exposed aggregate sidewalk. Any significant difference in texture or appearance between two adjacent concrete panels, as determined by the Engineer, shall result in removal and replacement of concrete panels by Contractor at no additional cost.

Contractor shall provide a two foot by two foot (2' x 2') exposed aggregate concrete test panel prior to constructing the exposed aggregate concrete sidewalk. Location of the test panel will be on-site as approved by the Engineer. Notification of providing this test panel shall be made to the Engineer no less than 24 hours prior to making the test panels to allow the Engineer and materials analysis personnel to be present. The Engineer may require the Contractor to provide additional panel(s) if the test panel does not produce an appearance that matches the adjacent exposed aggregate sidewalk.

Providing the test panel and any other required test panel shall be considered incidental to the bid item "P.C.C. Sidewalk 4" Thick (Exposed Aggregate)" and no separate payment shall be made.

D. Curing and Protection

The materials and procedures outlined in Section 30.02, Article 2.3 - Construction, shall prevail. The curing agent shall be applied immediately after finishing and be maintained for a period of seven (7) days. The curing agent(s) and/or concrete mixtures shall in no way deter or prevent final finishing of concrete. The use of surface retarders may be permitted if application methods are accepted by the Engineer, in writing, no less than twenty-four (24) hours prior to concrete placement.

The Contractor shall have readily available sufficient protective covering, such as waterproof paper or plastic membrane, to cover the pour of an entire day in event of rain or other unsuitable weather.

The sidewalk shall be protected against damage or defacement of any kind until it has been accepted by the Owner. Sidewalk which is not acceptable to the Engineer because of damage or defacement shall be removed and replaced at the expense of the Contractor. Additional requirements for curing in cold weather shall be as outlined in Section 30.01, Article 1.9 - Weather Limitations.

Article 3.4 Measurement

Sidewalk: Sidewalks shall be measured per square yard, complete in place, for both four (4") and six inch (6") thicknesses.

Sidewalk Retaining Walls: Sidewalks of specified thickness constructed in conjunction with sidewalk retaining walls constructed in accordance with Section 30.05 – Structures and Retaining Walls, shall be measured per square yard from the face of retaining wall, accepted in place.

Article 3.5 Basis of Payment

Payment for this item shall be in accordance with Division 10, Section 10.07 - Measurement and Payment and shall include full payment for all Work described in this Section.

Payment shall be made under the following units:

<u>ITEM</u>	<u>UNIT</u>
P.C.C. Sidewalk (Thick) (Type Finish)	Square Yard

SECTION 30.04 PORTLAND CEMENT CONCRETE CURB RAMPS

Delete the Section and add the following in its place:

Article 4.1 General

The Work under this Section consists of performing all operations pertaining to furnishing and constructing Portland Cement Concrete curb ramps with a detectable warning surfacing in conformance with the Drawings. The ramps shall comply with the Americans with Disabilities Act Title II as identified in 28 CFR Part 35 – Nondiscrimination on the Basis of Disability in State and Local Government Services.

Article 4.2 Materials

A. General

The Portland Cement Concrete (P.C.C.) materials and installation shall conform to the requirements of Section 30.03 - Portland Cement Concrete Sidewalk and the Drawings. The P.C.C. shall have a slump range of four to seven inches (4" to 7") to permit solid placement of the tactile warning panel. An overly wet mix will cause the tactile warning panel(s) to float. Contractor shall not add color to the concrete unless specified in the Drawings.

The Contractor shall not apply a troweled pattern to the curb ramps. Contractor shall provide a coarse broom finish for the ramps perpendicular to direction of pedestrian traffic.

B. Detectable Warning Panel

Each detectable warning panel shall have a truncated domed surface twenty-four inches (24") in depth for the width of the ramp. The truncated domes shall have a height of two-tenths inch (0.2"), a diameter of nine-tenths inch (0.9"), a center-to center spacing of one and six-tenth inches (1.6") minimum and two and four-tenth inches (2.4") maximum, and a base-to-base spacing of sixty-five one-hundredth inch (0.65"), measured between the most adjacent domes. Contractor shall provide panels federal yellow in color, or approved equal. The specified color shall be homogeneous throughout the panel.

Contractor shall provide Armor Tile Cast-In-Place In-Line Dome Tactile Panel detectable warning panel(s), manufactured by:

Engineered Plastics, Inc.
300 International Drive, Suite 100
Williamsville, NY 14221
Phone: 1-800-682-2525
Local Contact:
Polar Supply Company, Inc.
300 E. 54th Avenue
Anchorage, Alaska 99518-1230
Phone: 907-563-5000
Fax: 907-562-7001
or an approved equal.

Article 4.3 Construction

The Contractor shall construct each curb ramp and install the detectable warning panel(s) in conformance with the Contract Documents and the manufacturer's recommendations. No later than five (5) days prior to construction of the curb ramps, Contractor shall submit to the Engineer for review and approval, a layout drawing for each curb ramp to resolve issues related to pattern repeat, tile cuts, expansion joints, control joints, ramp curves, ramp end returns and surface interfaces, and truncated dome spacing. Contractor shall install and finish the P.C.C. in accordance with the Contract Documents prior to installation of the detectable warning panel(s). Contractor shall tamp the plate(s) or panel(s) with a small sledge hammer with a two inch by six inch by twenty inch (2" x 6" x 20") wood tamping plate, or lightly vibrate into the fresh concrete to ensure that the panel's field level (base of truncated dome) is flush with

the adjacent concrete and top back of curb. Contractor shall ensure that the panel's field level is flush with the adjacent concrete surface, proper water drainage is provided, and potential tripping hazards are eliminated.

Contractor shall ensure that the back edge of the detectable warning panel(s) form a smooth arc and is parallel to the top back of the curb.

Immediately after the panel placement, Contractor shall check and adjust accordingly the panel's or plate(s) field level to be flush with the adjacent concrete surface. Following final field-level adjustment(s), place suitable twenty-five (25) pound weights, conforming to the manufacturer's recommendations, on each panel and additional weights at panel-to-panel joints as necessary to provide a solid contact between the panel underside and the concrete.

During and after the panel installation and concrete curing time, Contractor shall ensure that there is no walking, leaning, or any external forces placed on the panel, thereby causing a void between the underside of the panel and the concrete. After the concrete has cured, Contractor shall remove protective plastic wraps. If "concrete bleeding" occurs between the panels, Contractor shall remove the residue without damage to the panel surfaces, in accordance with the manufacturer's recommendation.

Contractor shall maintain, on-site, an electronic level, a five foot (5') diameter circle template, and a three foot by five foot (3'x5') rectangular template. Template may be of any material, including paper. Contractor shall, when requested, demonstrate to the Engineer that there are adequate landing and turning areas that meet the dimensions and slopes required on the Drawings.

Backfill and grade areas disturbed by curb ramp construction and restore ground surface as shown on Drawings.

Article 4.4 Tolerances

In accordance with the Americans with Disabilities Act Public Rights-of-Way Accessibility Guidelines (PROWAG), dimension not stated as "maximum" or "minimum" are absolute. All dimensions are subject to conventional industry tolerances, except where the requirement is stated as a range with specific minimum and maximum end points. Conventional industry tolerances recognized by the ADAAG include those for field conditions that may be a necessary consequence of a particular manufacturing process.

Information on specific tolerances may be available from industry or trade organizations, code groups, building officials, and published references. (Example: American Concrete Institute Standard Specifications for tolerances for concrete construction and materials (ACI-117)).

Article 4.5 Measurement

The Work paid for under "P.C.C. Curb Ramp" shall be measured as furnished, constructed, finished, and accepted in place for each installation or the actual horizontal square yardage of curb ramp (including curb ramp under detectable warnings) and back curb.

The Work paid for under "Detectable Warnings" is measured by the actual horizontal square footage of detectable warning tiles furnished, installed, and accepted in place.

When P.C.C. Curb Ramp is paid per each, the Detectable Warnings are incidental to each installation and no separate payment shall be made.

Article 4.6 Basis of Payment

Payment for this Work shall be in accordance with Division 10, Section 10.07 - Measurement and Payment, and shall include full payment for all Work described in this Section.

Payment for restoration of existing ground surface disturbed by curb ramp construction is made under "A.C. Pavement," "P.C.C. Sidewalk," "Topsoil," and "Seeding," as applicable. No separate payment is made for backfilling and grading in preparation of paid surface treatment. No separate payment is made for backfilling and grading in locations where the existing surface is gravel.

Payment shall be made under the following unit:

<u>ITEM</u>	<u>UNIT</u>
P.C.C. Curb Ramp (Type)	Each
P.C.C. Curb Ramp (Type)	Square Yard
Detectable Warnings	Square Foot