SECOND STREET DOUGLAS RECONSTRUCTION

VOLUME I OF II

Contract No. E11-152

File No. 1709



ENGINEERING DEPARTMENT

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DIVISION 0 - BIDDING AND CONTRACT REQUIREMENTS, CONTRACT FORMS, AND CONDITIONS OF THE CONTRACT

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SECTION 00030 NOTICE INVITING BIDS

OBTAINING CONTRACT DOCUMENTS. The Contract Documents are entitled:

Second Street Douglas Reconstruction

Contract No. E11-152

The Contract Documents may be obtained at the City & Borough of Juneau (CBJ) Engineering Department, 3rd Floor Marine View Center, upon payment of \$40.00 (non-refundable) for each set of Contract Documents (including Technical Specifications and Drawings).

PRE-BID CONFERENCE. Prospective Bidders are encouraged to attend a pre-Bid conference to discuss the proposed WORK, which will be conducted by the OWNER, at 10:00 a.m. on February 14, 2011, in CBJ Engineering Department Conference Room, 3rd Floor, Marine View Center. The object of the conference is to acquaint Bidders with the project and bid documents.

DESCRIPTION OF WORK. This Project consists of reconstruction Second Street in Douglas from the intersection of Second Street and F Street to the intersection of Second Street and Bradley Street including sanitary sewer replacements at G and H Street, Bradley Street water and sewer replacement. The WORK consists of erosion and pollution control, excavation, shot rock borrow placement, shoulder grading, 2" minus shot rock with base course grading D-1, sanitary sewer manholes, 8" PVC sanitary sewer pipe, sanitary sewer services, storm drain pipe, storm drain manhole, catch basins, 6" and 8" water pipe, gate valves, fire hydrant assembly, water services, pipe and structure removal, valley gutter, asphalt pavement, asphalt pavement removal, mailbox reconstruction, topsoil, hydroseeding, construction surveying, Bear Creek Crossing structure improvements, and miscellaneous related WORK.

COMPLETION OF WORK. The WORK must be completed by August 15, 2011.

DEADLINE FOR BIDS: Sealed bids must be received by the Purchasing Division **prior to 2:00 p.m.**, **Alaska Time on February 22, 2011**, or such later time as may be announced by addendum at any time prior to the deadline. Bids will be time and date stamped by the Purchasing Division, which will establish the official time of receipt of bids. Bids will be opened immediately thereafter in the Assembly Chambers of the Municipal Building, 155 S. Seward Street, unless otherwise specified.

Bid documents delivered in person or by courier service must be delivered to:

PHYSICAL LOCATION:

City and Borough of Juneau, Purchasing Division 105 Municipal Way, Room 300 Juneau, AK 99801

Bid documents delivered by the U.S. Postal Service must be mailed to:

MAILING ADDRESS:

City and Borough of Juneau, Purchasing Division 155 South Seward Street Juneau, AK 99801

SECTION 00030 NOTICE INVITING BIDS

Please affix the label below to outer envelope in the lower left hand corner.

IMPORTA	NT NOTICE TO BIDDER	
To submit	your Bid:	
1. Print y	our company name and address on the upper	r left corner
of your	envelope.	
	ete this label and place it on the lower lef	t corner
of you	r envelope.	1
S	BID NUMBER:	
\mathbf{E}	E11-152	В
A		I
L	SUBJECT:	D
\mathbf{E}	SECOND STREET DOUGLAS	
D	RECONSTRUCTION	
	DEADLINE DATE:	
	PRIOR TO 2:00PM ALASKA TIME	

Mailing/delivery times to Alaska may take longer than other areas of the U.S. Late bids will <u>not</u> be accepted and will be returned.

SITE OF WORK. The site of the WORK is Second Street from Bradley Street to H Street in Douglas, Alaska.

BIDDING, CONTRACT, or TECHNICAL QUESTIONS. All communications relative to this WORK, prior to opening Bids, shall be directed to the following:

Jennifer Mannix, Contract Administrator
CBJ Engineering Department, 3rd Floor, Marine View Center
Email: jennifer_mannix@ci.juneau.ak.us
Telephone: (907) 586-0873
Fax: (907) 586-4530

BID SECURITY. Each Bid shall be accompanied by a certified or cashier's check or Bid Bond, in the amount of 5% percent of the Bid, payable to the City and Borough of Juneau, Alaska, as a guarantee that the Bidder, if its Bid is accepted, will promptly execute the Agreement. A Bid shall not be considered unless one of the forms of Bidder's security is enclosed with it.

CONTRACTOR'S LICENSE. All contractors are required to have a current Alaska Contractor's License, prior to submitting a Bid, and a current Alaska Business License prior to award.

BID TO REMAIN OPEN. The Bidder shall guarantee the Bid for a period of 90 Days from the date of Bid opening. Any component of the Bid may be awarded anytime during the 90 Days.

SECTION 00030 NOTICE INVITING BIDS

OWNER'S RIGHTS RESERVED. The OWNER reserves the right to reject any or all Bids, to waive any informality in a Bid, and to make award to the lowest responsive, responsible Bidder as it may best serve the interests of the OWNER.

STANDARD SPECIFICATIONS. The Standard Specifications for Civil Engineering Projects and Subdivision Improvements, December 2003 with twelve Errata Sheets, as published by the City and Borough of Juneau, is part of these Contract Documents and shall pertain to all phases of the contract. This document is available for a fee from the City and Borough of Juneau Engineering Contracts Office, (907) 586-0490, or you may view it on line at: www.juneau.org/engineering.

OWNER: City and Borough of Juneau

By: Jennifer Mannix, Contract Administrator

1/28/2011

Date

1.0 DEFINED TERMS. Terms used in these Instructions to Bidders and the Notice Inviting Bids, which are defined in the General Conditions, have the meanings assigned to them in the General Conditions. The term "Bidder" means one who submits a Bid directly to the OWNER, as distinct from a sub-bidder, who submits a Bid to a Bidder.

2.0 INTERPRETATIONS AND ADDENDA.

- A. INTERPRETATIONS. All questions about the meaning or intent of the Contract Documents are to be directed to the Engineering Contracts Administrator. Interpretations or clarifications considered necessary by the Engineering Contracts Administrator in response to such questions will be issued by Addendum, mailed, faxed, or delivered to all parties recorded by the Engineering Contracts Administrator, or OWNER, as having received the Contract Documents. Questions received less than seven Days prior to the Deadline for Bids may not be answered. Only questions answered by formal written Addendum will be binding. Oral and other interpretations or clarifications will be without legal effect.
- B. ADDENDA. Addenda may be issued to modify the Contract Documents as deemed advisable by the OWNER. Addenda may be faxed or, if addendum format warrants, addenda may be posted to the CBJ Engineering Department website. In any event, notification of addendum issuance will be faxed to planholders. Hard copies are available upon request. The OWNER will make all reasonable attempts to ensure that all planholders receive notification of Addenda, however, it is strongly recommended by the OWNER that bidders independently confirm the contents, number, and dates of each Addendum prior to submitting a Bid.
- **3.0 FAIR COMPETITION**. More than one Bid from an individual, firm, partnership, corporation, or association under the same or different names will not be considered. If the OWNER believes that any Bidder is interested in more than one Bid for the WORK contemplated, all Bids in which such Bidder is interested will be rejected. If the OWNER believes that collusion exists among the Bidders, all Bids will be rejected.
- **4.0 RESPONSIBLE BIDDER**. Only responsive Bids from responsible Bidders will be considered. A Bid submitted by a Bidder determined to be not responsible may be rejected. A responsible Bidder is one who is considered to be capable of performing the WORK.
 - 1. financial resources
 - 2. ability to meet delivery standards
 - 3. past performance record
 - a. References from others on contractor's performance
 - b. Record of performance on prior OWNER contracts
 - 4. record of integrity
 - 5. obligations to OWNER
 - a. Bidders must be registered as required by law and in good standing for all amounts owed to the OWNER within ten Days of OWNER's Notice of Intent to Award.

- b. City and Borough of Juneau (CBJ) Finance Department, Treasury Division administers the registration and assessment of sales, business personal property and business real property taxes.
- A. Special standards for responsibility, if applicable, will be specified. These special standards establish minimum standards or experience required for a responsible Bidder on a specific contract.
- B. Before a Bid is considered for award, a Bidder may be requested to submit information documenting its ability and competency to perform the WORK, according to general standards of responsibility and any special standards which may apply. It is Bidder's responsibility to submit sufficient, relevant, and adequate information. OWNER will make its determination of responsibility and has no obligation to request clarification or supplementary information.
- **5.0 NON-RESPONSIVE BIDS**. Only responsive Bids will be considered. Bids may be considered non-responsive and may be rejected. Some of the reasons a Bid may be rejected for being non-responsive are:
 - A. If a Bid is received by the CBJ Purchasing Division after the Deadline for Bids.
 - B. If the Bid is on a form other than that furnished by the OWNER, or legible copies thereof; or if the form is altered or any part thereof is detached; or if the Bid is improperly signed.
 - C. If there are unauthorized additions, conditional or alternate Bids, or irregularities of any kind which may tend to make the bid incomplete, indefinite, ambiguous as to its meaning, or in conflict with the OWNER's Bid document.
 - D. If the Bidder adds any unauthorized conditions, limitations, or provisions reserving the right to accept or reject any award, or to enter into a contract pursuant to an award. This does not exclude a Bid limiting the maximum gross amount of awards acceptable to any one Bidder at any one Bid opening, provided that any selection of awards will be made by the OWNER.
 - E. If the Bid does not contain a Unit Price for each pay item listed, except in the case of authorized alternate pay items.
 - F. If the Bidder has not acknowledged receipt of each Addendum.
 - G. If the Bidder fails to furnish an acceptable Bid guaranty with the Bid.
 - H. If any of the Unit Prices Bid are excessively unbalanced (either above or below the amount of a reasonable Bid) to the potential detriment of the OWNER.
 - I. If a Bid modification does not conform to Article 15.0 of this Section.
- **6.0 BIDDER'S EXAMINATION OF CONTRACT DOCUMENTS AND SITE.** It is the responsibility of each Bidder before submitting a Bid:
 - A. To examine thoroughly the Contract Documents, and other related data identified in the Bidding documents (including "technical data" referred to below):

- 1. To visit the site to become familiar with and to satisfy the Bidder as to the general and local conditions that may affect cost, progress, or performance, of the WORK,
- 2. To consider federal, state and local laws and regulations that may affect cost, progress, or performance of the WORK,
- 3. To study and carefully correlate the Bidder's observations with the Contract Documents, and other related data; and
- 4. To notify the ARCHITECT of all conflicts, errors, or discrepancies in or between the Contract Documents and such other related data.

7.0 REFERENCE IS MADE TO THE SUPPLEMENTARY GENERAL CONDITIONS FOR IDENTIFICATION OF:

- A. Those reports of explorations and tests of subsurface conditions at the site which have been utilized by the Architect of Record in the preparation of the Contract Documents. The Bidder may rely upon the accuracy of the technical data contained in such reports, however, the interpretation of such technical data, including any interpolation or extrapolation thereof, together with non-technical data, interpretations, and opinions contained therein or the completeness thereof is the responsibility of the Bidder.
- B. Those Drawings of physical conditions in or relating to existing surface and subsurface conditions (except underground utilities) which are at or contiguous to the site have been utilized by the Architect of Record in the preparation of the Contract Documents. The Bidder may rely upon the accuracy of the technical data contained in such Drawings, however, the interpretation of such technical data, including any interpolation or extrapolation thereof, together with nontechnical data, interpretations, and opinions contained in such Drawings or the completeness thereof is the responsibility of the Bidder.
- C. Copies of such reports and Drawings will be made available by the OWNER to any Bidder on request if said reports and Drawings are not bound herein. Those reports and Drawings are not part of the Contract Documents, but the technical data contained therein upon which the Bidder is entitled to rely, as provided in Paragraph SGC-4.2 of the Supplementary General Conditions, are incorporated herein by reference.
- D. Information and data reflected in the Contract Documents with respect to underground utilities at or contiguous to the site is based upon information and data furnished to the OWNER and the Architect of Record by the owners of such underground utilities or others, and the OWNER does not assume responsibility for the accuracy or completeness thereof unless it is expressly provided otherwise in the Supplementary General Conditions, or in Section 01530 Protection and Restoration of Existing Facilities of the General Requirements.
- E. Provisions concerning responsibilities for the adequacy of data furnished to prospective Bidders on subsurface conditions, underground utilities and other physical conditions, and possible changes in the Contract Documents due to differing conditions appear in Paragraphs 4.2, 4.3, and 4.4 of the General Conditions.
- F. Before submitting a Bid, each Bidder will, at Bidder's own expense, make or obtain any additional examinations, investigations, explorations, tests, and studies and obtain any additional information and data which pertain to the physical conditions (surface, subsurface,

and underground utilities) at or contiguous to the site or otherwise which may affect cost, progress, or performance of the WORK and which the Bidder deems necessary to determine its Bid for performing the WORK in accordance with the time, price, and other terms and conditions of the Contract Documents.

- G. On request in advance, the OWNER will provide each Bidder access to the site to conduct such explorations and tests as each Bidder deems necessary for submission of a Bid. Bidder shall fill all holes and shall clean up and restore the site to its former condition upon completion of such explorations.
- H. The lands upon which the WORK is to be performed, rights-of-way and easements for access thereto and other lands designated for use by the CONTRACTOR in performing the WORK are identified in the Contract Documents. All additional lands and access thereto required for temporary construction facilities or storage of materials and equipment are to be provided by the CONTRACTOR. Easements for permanent structures or permanent changes in existing structures are to be obtained and paid for by the OWNER unless otherwise provided in the Contract Documents.
- I. The submission of a Bid will constitute an incontrovertible representation by the Bidder that the Bidder has complied with every requirement of Article 6.0, "Bidder's Examination of Contract Documents and Site" herein, that without exception the Bid is premised upon performing the WORK required by the Contract Documents and such means, methods, techniques, sequences, or procedures of construction as may be indicated in or required by the Contract Documents, and that the Contract Documents are sufficient in scope and detail to indicate and convey understanding of all terms and conditions for performance of the WORK.

8.0 BID FORM.

- A. The Bid shall be made on the Bid Schedule(s) bound herein, or on the yellow Bid packet provided, or on legible and complete copies thereof, and shall contain the following: Sections 00300, 00310, the required Bid Security, and any other documents required in Section 00300 Bid.
- B. All blanks on the Bid Form and Bid Schedule must be completed in ink or typed.
- C. Bids by corporations must be executed in the corporate name by the president, a vice-president (or other corporate officer). The corporate address and state of incorporation must appear below the signature.
- D. Bids by partnerships must be executed in the partnership name and be signed by a managing partner, and the official address of the partnership must appear below the signature.
- E. The Bidder's Bid must be signed. All names must be printed or typed below the signature.
- F. The Bid shall contain an acknowledgment of receipt of all Addenda, the numbers of which shall be filled in on the Bid form. <u>Failure to acknowledge Addenda may render Bid non-responsive and may cause its rejection.</u>
- G. The address to which communications regarding the Bid are to be directed must be shown.

- **9.0 QUANTITIES OF WORK**. The quantities of WORK, or material, stated in Unit Price items of the Bid are supplied only to give an indication of the general scope of the WORK; the OWNER does not expressly or by implication agree that the actual amount of WORK, or material, will correspond therewith, and reserves the right after award to increase or decrease the amount of any Unit Price item of the WORK by an amount up to and including 25 percent of any Bid item, without a change in the Unit Price, and shall include the right to delete any Bid item in its entirety, or to add additional Bid items up to and including an aggregate total amount not to exceed 25 percent of the Contract Price (see Section 00700 General Conditions, Article 10 Changes In the WORK).
- **10.0 SUBSTITUTE OR "OR-EQUAL" ITEMS.** The procedure for the submittal of substitute or "or-equal" products is specified in Section 01300 Submittals.
- 11.0 SUBMISSION OF BIDS. The Bid shall be delivered by the time and to the place stipulated in Section 00030 Notice Inviting Bids. It is the Bidder's sole responsibility to see that its Bid is received in proper time. Oral, telegraphic, emailed, or faxed Bids will not be considered. The envelope enclosing the sealed Bids shall be plainly marked in the upper left-hand corner with the name and address of the Bidder and shall also include the label included in Section 00030 Notice Inviting Bids. The Bid Security shall be enclosed in the same envelope with the Bid
- 12.0 BID SECURITY, BONDS, AND INSURANCE. Each Bid shall be accompanied by a certified, or cashier's check, or approved Bid Bond in an amount of at least 5 percent of the total Bid price. The "total Bid price" is the amount of the Base Bid, plus the amount of alternate Bids, if any, which total to the maximum amount for which the CONTRACT could be awarded. Said check or Bond shall be made payable to the OWNER and shall be given as a guarantee that the Bidder, if offered the WORK, will enter into an Agreement with the OWNER, and will furnish the necessary insurance certificates, Payment Bond, and Performance Bond; each of said Bonds, if required, and insurance amounts shall be as stated in the Supplementary General Conditions. In case of refusal or failure to enter into said Agreement, the check or Bid Bond, as the case may be, may be forfeited to the OWNER. If the Bidder elects to furnish a Bid Bond as its Bid security, the Bidder shall use the Bid Bond form bound herein, or one conforming substantially to it in form. Bid Bonds must be accompanied by a legible Power of Attorney.
- **13.0 RETURN OF BID SECURITY.** The OWNER will return all Bid security checks (certified or cashier's) accompanying such of the Bids as are not considered in making the award. All other Bid securities will be held until the Agreement has been executed. Following execution of the Agreement, all other Bid security checks will be returned to the respective Bidders whose Bids they accompanied and Bid security bonds will be appropriately discarded.
- 14.0 DISCREPANCIES IN BIDS. In the event there is more than one Pay Item in a Bid Schedule, the Bidder shall furnish a price for all Pay Items in the schedule, and failure to do so may render the Bid non-responsive and cause its rejection. In the event there are Unit Price Pay Items in a Bid Schedule and the "amount" indicated for a Unit Price Bid Item does not equal the product of the Unit Price and quantity, the Unit Price shall govern and the amount will be corrected accordingly, and the Bidder shall be bound by said correction. In the event there is more than one Pay Item in a Bid Schedule and the total indicated for the schedule does not agree with the sum of the prices Bid on the individual items, the prices Bid on the individual items shall govern and the total for the schedule will be corrected accordingly, and the Bidder shall be bound by said correction.

15.0 BID MODIFICATIONS AND UNAUTHORIZED ALTERNATIVE BIDS.

A. Any bidder may deliver a modification to a bid in person, by mail or fax (907-586-4561), provided that such modification is received by the Purchasing Division no later than the deadline for bids. Modifications will be time and date stamped by the Purchasing Division, which will establish the official time of receipt of the modification. The modification must not reveal the bid price but should be in the form of an addition or subtraction or other modification so that the final prices will not be known until the sealed bid is opened.

The Bid modifications shall be provided on the **Bid Modification Form** located at the end of this Section. Submittal of any other form by the vendor may deem the modification unacceptable by the OWNER **A mail or fax modification should not reveal the Bid price but should provide the addition or subtraction or other modification so that the final prices will not be known by the City and Borough until the sealed Bid is opened. Submitted Modification forms shall include the modification to the unit price or lump sum amount of each pay item modified.**

FAX DISCLAIMER: It is the responsibility of the bidder to submit modifications in a timely manner. Bidders' use of a fax machine to modify their bid shall be at bidders' sole risk. The Purchasing Division will attempt to keep the fax machine in good working order but will not be responsible for bid modifications that are late due to mechanical failure, a busy fax machine, or any other cause arising from bidder's use of a fax machine, even if bidder submits a transmission report or provides other confirmation indicating that the bidder transmitted a bid modification prior to the deadline. The City will not be responsible for its failure to receive the modification whether such failure is caused by equipment or human error, or otherwise. Bidders are therefore strongly encouraged to confirm receipt of their bid modification with the Purchasing Division (907-586-5258) prior to deadline.

- B. <u>Conditioned bids, limitations, or provisos attached to the Bid or bid modification will render it unauthorized and cause its rejection as being non-responsive</u>. The completed Bid forms shall be without interlineations, alterations, or erasures in the printed text. All changes shall be initialed by the person signing the Bid. Alternative Bids will not be considered unless called for.
- **16.0 WITHDRAWAL OF BID.** Prior to the Deadline for Bids, the Bid may be withdrawn by the Bidder by means of a written request, signed by the Bidder or its properly authorized representative. Such written request must be delivered to the place stipulated in the Notice Inviting Bids for receipt of Bids.

17.0 AWARD OF CONTRACT.

A. Award of a contract, if it is awarded, will be on the basis of materials and equipment described in the Drawings or specified in the Technical Specifications and will be made to the lowest responsive, responsible Bidder whose Bid complies with all the requirements prescribed. Unless otherwise specified, any such award will be made within the period stated in the Notice Inviting Bids that the Bids are to remain open. Unless otherwise indicated, a single award will be made for all the Bid items in an individual Bid Schedule.

B. If the OWNER has elected to advertise this Project with a Base Bid and Alternates, the OWNER may elect to award the contract for the Base Bid, or the Base Bid in combination with one or more Alternates selected by the OWNER. In either case, award shall be made to the responsive, responsible bidder offering the lowest total Bid for the WORK to be awarded.

18.0 EXECUTION OF AGREEMENT.

- A. All Bids of value greater than \$1,000,000 must be approved by the CBJ Assembly. After the CBJ Assembly has approved the award and after the Bid protest period, the OWNER will issue a Notice of Intent to Award to the approved Bidder. The Bidder to whom award is made shall execute a written Agreement with the OWNER on the Agreement form, Section 00500, collect insurance, and shall furnish all certificates and Bonds required by the Contract Documents within 10 Days (calendar) from the date of the Notice of Intent to Award letter.
- B. Failure or refusal to enter into the Agreement as herein provided or to conform to any of the stipulated requirements in connection therewith shall be just cause for annulment of the award and forfeiture of the Bid security. If the lowest responsive, responsible Bidder refuses or fails to execute the Agreement, the OWNER may award the contract to the second lowest responsive, responsible Bidder. If the second lowest responsive, responsible Bidder refuses or fails to execute the Agreement, the OWNER may award the contract to the third lowest responsive, responsible Bidder. On the failure or refusal of such second or third lowest Bidder to execute the Agreement, each such Bidder's Bid securities shall be likewise forfeited to the OWNER.
- **19.0 LIQUIDATED DAMAGES**. Provisions for liquidated damages if any, are set forth in Section 00500 Agreement.

20.0 FILING A PROTEST.

- A. A Bidder may protest the proposed award of a competitive sealed Bid by the City and Borough of Juneau. The protest shall be executed in accordance with CBJ Ordinance 53.50.062 PROTESTS and CBJ Ordinance 53.50.080 ADMINISTRATION OF PROTEST. The entire text of the CBJ Purchasing Ordinance can be accessed at the CBJ website, http://www.juneau.org/law/code/code.php, or call the CBJ Purchasing Division at (907) 586-5258 for a copy of the ordinance.
- B. Late protests shall not be considered by the CBJ Purchasing Officer.
- 21.0 JUNEAU BUSINESS SALES AND PERSONAL PROPERTY TAX: Vendors/merchants conducting business within the City are required by law to register with, and periodically report to, the City for sales and property taxes. CONTRACTORs and Subcontractors must be in good standing with the City prior to award, and prior to any contract renewals, and in any event no later than ten Days (calendar) following notification by the City of intent to award. Good standing means: all amounts owed to the City are paid in full, including Confession of Judgments; and vendor/merchant is current in reporting (sales tax filings, business personal property declarations). Failure to meet these requirements, if so subject, may be cause for rejection of your bid. To determine if your business is in good standing, or for further information, contact the City Finance Department's Sales Tax Division, at (907) 586-5265, concerning sales tax

and/or Treasury Division, at (907) 586-5268, concerning business personal property and real property tax.

22.0 PERMITS AND LICENSES. The CONTRACTOR is responsible for all WORK associated with meeting any local, state, and/or federal permit and licensing requirements.

CITY AND BOROUGH OF JUNEAU PURCHASING DIVISION FAX NO. 907-586-4561

BID MODIFICATION FORM

Note:	Modificatio forms subm	rations shall be made to the original bid among form is submitted by any one bidder, chan attend will be combined and applied to the original damounts will be calculated by the OWNER.	iges from all Modification ginal bid. Changes to the
-	PAY ITEM NO.	PAY ITEM DESCRIPTION	MODIFICATIONS TO UNIT PRICE OR LUMP SUM (indicate +/-)
-			
-			
Ĺ	Tot	al Increase or Decrease: \$	
		Name of Bidding Firm	
		Responsible Party Signature	

SECTION 00201 – INFORMATION TO BIDDERS

The Information to Bidders section is offered to provide information on the local weather conditions. This section in no way substitutes for a site visit and investigation of the local conditions by the bidder as required in Article 6.0 in the Instructions to Bidders. A site visit is strongly recommended.

1.0 WEATHER CONDITIONS

Juneau is located in a rainforest and the varying terrain causes the weather conditions to vary from location to location. The weather data listed below is from a weather station at the Juneau Airport, which is approximately 10.8 miles from the Second Street in Douglas Reconstruction project site. The following table shows general climate information gathered from the Western Regional Climate Center web page http://www.wrcc.dri.edu/summary/climsmak.html. The following graphs were developed from the same web page and show the likelihood of precipitation on any given day and the likelihood of precipitation on any given 5-day period.

JUNEAU 2, ALASKA (504094)

Period of Record Monthly Climate Summary Period of Record: 7/6/1965 to 12/31/2005

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
Average Max. Temperature (F)	33.2	37.2	40.9	48.8	56.1	62.2	63.8	63.4	56.7	48.7	39.9	35.9	48.9
Average Min. Temperature (F)	24.3	27.4	30.3	35.0	41.6	47.9	51.0	49.9	45.3	38.9	30.8	27.1	37.4
Average Total Precipitation (in.)	6.81	6.18	5.98	4.97	5.67	4.29	5.68	7.38	11.9	12.8 7	9.45	8.18	89.39
Average Total Snow Fall (in.)	23.8	12.7	7.7	0.8	0.0	0.0	0.0	0.0	0.0	0.3	8.0	15.9	69.2
Average Snow Depth (in.)	5	4	2	0	0	0	0	0	0	0	1	2	1

Percent of possible observations for period of record.

Max. Temp.: 76.5% Min. Temp.: 76.2% Precipitation: 77.8% Snowfall: 75.8% Snow Depth: 75.9%

Check Station Metadata or Metadata graphics for more detail about data completeness.

Western Regional Climate Center, wrcc@dri.edu

2.0 HEAVY EQUIPMENT OPERATION TIMES

The CBJ Disturbing the Peace Municipal Code, 42.20.095, restricts certain construction activities that generate noise. The CONTRACTOR will not be able to operate any heavy construction equipment before 7:00 a.m., or after 10:00 p.m., Monday through Friday, or before 9:00 a.m., or after 10:00 p.m. Saturday or Sunday, unless a permit is obtained from the CBJ Building Official.

SECTION 00300 - BID

BID TO: THE CITY AND BOROUGH OF JUNEAU

1. The undersigned Bidder proposes and agrees, if this Bid is accepted, to enter into an Agreement with the OWNER on the form included in the Contract Documents (as defined in Article 7 of Section 00500 - Agreement) to perform the WORK as specified or indicated in said Contract Documents entitled

Second Street Douglas Reconstruction Contract No. E11-152

- 2. Bidder accepts all of the terms and conditions of the Contract Documents, including without limitation those in the "Notice Inviting Bids" and "Instructions to Bidders," dealing with the disposition of the Bid Security.
- 3. This Bid will remain open for the period stated in the "Notice Inviting Bids" unless otherwise required by law. Bidder will enter into an Agreement within the time and in the manner required in the "Notice Inviting Bids" and the "Instructions to Bidders," and will furnish insurance certificates, Payment Bond, Performance Bond, and any other documents as may be required by the Contract Documents.
- 4. Bidder has familiarized itself with the nature and extent of the Contract Documents, WORK, site, locality where the WORK is to be performed, the legal requirements (federal, state and local laws, ordinances, rules, and regulations), and the conditions affecting cost, progress or performance of the WORK and has made such independent investigations as Bidder deems necessary.
- 5. This Bid is genuine and not made in the interest of or on behalf of any undisclosed person, firm or corporation and is not submitted in conformity with any agreement or rules of any group, association, organization or corporation; Bidder has not directly or indirectly induced or solicited any other Bidder to submit a false or sham Bid; Bidder has not solicited or induced any person, firm or corporation to refrain from bidding; and Bidder has not sought by collusion to obtain for itself any advantage over any other Bidder or over OWNER.
- 6. To all the foregoing, and including all Bid Schedule and information required of Bidder contained in this Bid Form, said Bidder further agrees to complete the WORK required under the Contract Documents within the Contract Time stipulated in said Contract Documents, and to accept in full payment therefore the Contract Price based on the total bid price(s) named in the aforementioned Bid Schedule.
- 7. Bidder has examined copies of all the Contract Documents including the following Addenda (receipt of all of which is hereby acknowledged by the Undersigned):

Addenda No.	Date Issued	 Addenda No.	Date Issued

Give number and date of each Addenda above. Failure to acknowledge receipt of all Addenda may cause the Bid to be non-responsive and may cause its rejection.

SECTION 00300 - BID

8. The Bidder has read this Bid and agrees to the conditions as stated herein by signing its signature in the space provided below.

Dated:	Bidder: _	(Company Name)
Alaska CONTRACTOR's Business License No:	Ву: _	(Signature)
Alaska CONTRACTOR's License No:		
Telephone No:	Address: _	(Street or P.O. Box) (City, State, Zip)

- 9. TO BE CONSIDERED, ALL BIDDERS MUST COMPLETE AND INCLUDE THE FOLLOWING AT THE TIME OF THE BID OPENING:
 - ➤ Bid, Section 00300 (includes Addenda receipt statement)
 - ➤ Completed Bid Schedule, Section 00310
 - ➤ Bid Security (Bid Bond, Section 00320, or by a certified or cashier's check as stipulated in the Notice Inviting Bids, Section 00030)
- 10. The apparent low Bidder is required to complete and submit the following documents by 4:30 p.m. on the *fifth business day* following the date of the Posting Notice.
 - ➤ Subcontractor Report, Section 00360

The apparent low Bidder who fails to submit a completed Subcontractor Report within the time specified in Section 00360 – Subcontractor Report may be found to be not a responsible Bidder and may be required to forfeit the Bid security. The OWNER may then consider the next lowest Bidder for award of the contract.

- 11. The successful Bidder will be required to submit, *within ten Days (calendar)* after the date of the "Notice of Intent to Award" letter, the following executed documents:
 - Agreement Forms, Section 00500
 - Performance Bond, Section 00610
 - ➤ Payment Bond, Section 00620
 - ➤ Certificates of Insurance, (CONTRACTOR) Section 00700 and Section 00800

				UNIT PRIC	Œ	AMOUNT	7
PAY ITEM NO.	PAY ITEM DESCRIPTION	PAY UNIT	APPROX. QUANTITY	DOLLARS	CENTS	DOLLARS	CENTS
110.			QOZIIVIIII	DOLLARS		DOLLARS	CENTS
1505.1	Mobilization	Lump Sum	All Req'd	Lump	Sum		
1570.1	Erosion and Sediment Control	Lump Sum	All Req'd	Lump	Sum		
2202.1	Excavation	CY	2,515				
2202.2	Shot Rock Borrow	CY	1,660				
2202.3	Shoulder Grading	Lump Sum	All Req'd	Lump	Sum		
2202.4	Mining Area Restoration and Road Cleaning Guarantee	Contingent Sum	All Req'd	Contingent	Sum	\$5,000	00
2202.5	Individual Mining Plans	Lump Sum	All Req'd	Lump	Sum		
2204.1	2-Inch Minus Shot Rock w/Base Course	CY	832				
2204.2	Recycled Asphalt Pavement	CY	80				
2401.1	Sanitary Sewer Pipe, 8-Inch PVC	LF	709				
2401.2	Service Connections and Laterals	Each	22				
2401.3	Locate Sewer Services	Lump Sum	All Req'd	Lump	Sum		
2402.1	Sanitary Sewer Manhole, Type I	Each	8				
2501.1	6-Inch Pipe Culvert	LF	361				
2501.2	12-Inch Pipe Culvert	LF	575				
2501.3	12-Inch Pipe Culvert w/ 6-Inch Underdrain	LF	134				
2501.4	CPP Saddle Tee	Each	7				
2502.1	Storm Drain Manhole, Type I	Each	2				
2502.2	Catch Basin, Type IV	Each	4				
2502.3	Catch Basin, Type III	Each	7				
2502.4	Connect to Existing Manhole	Lump Sum	All Req'd	Lump	Sum		
2601.1	6-Inch D.I. Water Pipe	LF	106				

COMPANY NAME:	
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				UNIT PRI	CE	AMOUN	Γ
PAY ITEM NO.	PAY ITEM DESCRIPTION	PAY UNIT	APPROX. QUANTITY	DOLLARS	CENTS	DOLLARS	CENTS
2601.2	8-Inch D.I. Water Pipe	LF	1,019				
2602.1	6-Inch Gate Valve	Each	1				
2602.2	8-Inch Gate Valve	Each	12				
2602.3	Replace Valve Box	Each	2				
2603.1	Fire Hydrant Assembly	Each	3				
2603.2	Guard Post	Each	6				
2605.1	1-Inch Water Service	Each	14				
2605.2	2-Inch Water Service	Each	2				
2605.3	Island Pub (1102 Second Street) Water Service	Lump Sum	All Req'd	Lump	Sum		
2605.4	Locate Water Services	Lump Sum	All Req'd	Lump	Sum		
2607.1	Pipe Insulation	Board	100				
2702.1	Construction Surveying	Lump Sum	All Req'd	Lump	Sum		
2709.1	Topsoil	CY	40				
2709.2	Topsoil Finish Grading	МН	16				
2710.1	Seeding, Hydraulic Method, Type III	SU	1				
2714.1	Filter Cloth, Type C	SY	190				
2715.1	6-Inch Underdrain	LF	248				
2716.1	Water, Storm and Sanitary Sewer Pipe Removal	Lump Sum	All Req'd	Lump	Sum		
2717.1	Storm and Sanitary Sewer Structure Removal	Lump Sum	All Req'd	Lump	Sum		
2718.1	Sign Assembly	Each	11				
2718.2	Project Sign Assembly	Lump Sum	All Req'd	Lump	Sum		

COMPANY NAME:		

				UNIT PRI	CE	AMOUN	Γ
PAY ITEM NO.	PAY ITEM DESCRIPTION	PAY UNIT	APPROX. QUANTITY	DOLLARS	CENTS	DOLLARS	CENTS
2719.1	Reconstruct Mailbox	Each	4	DOLLING	CEIVID	DOLLING	CENTS
2720.1	Painted Traffic Markings	Lump Sum	All Req'd	Lump	Sum		
2721.1	Metal Pipe Rail	LF	164.5	•			
2722.1	Remove and Reset Chain Link Fence	LF	120				
2722.2	Remove and Reset Wood Fence	LF	43				
2722.3	Bear Creek Chain Link Fence Removal	LF	177				
2723.1	Remove and Relocate Landscaping	Lump Sum	All Req'd	Lump	Sum		
2801.1	A.C. Pavement, Type II-A, Class B	Ton	455				
2801.2	A.C. Pavement for Driveways and Hydrant Pads	Ton	10				
2803.1	Fog Seal Coat	Ton	2				
2803.2	Blotting Sand	Ton	14				
2806.1	Remove Existing Asphalt Surfacing	SY	2,530				
3302.1	Concrete Barrier Curb	LF	179.5				
3303.1	Valley Gutter, Type III	LF	1,421				
3304.1	Removal of Curb and Gutter	LF	1,402				
3500.1	Concrete Repair Patching	Each	5				
3600.1	Bin Wall Rehabilitation	Lump Sum	All Req'd	Lump	Sum		
3600.2	Bin Wall Refinishing	SF	2,250				
3700.1	Concrete Arch Repair and Rehabilitation	Lump Sum	All Req'd	Lump	Sum		
3700.2	Bin Wall Excavation	CY	48				
3700.3	Bin Wall Backfill	CY	48				
3700.4	Flowable Backfill	CY	16				
3700.5	Concrete Blocks	Each	4				

TOTAL BID				
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				UNIT PRIC	CE	AMOUNT	r
PAY ITEM		PAY	APPROX.				
NO.	PAY ITEM DESCRIPTION	UNIT	QUANTITY	DOLLARS	CENTS	DOLLARS	CENTS

COMPANY NAME:

SECTION 00320 - BID BOND

KNOW ALL PERSONS BY	THESE PRESENTS	, that	
as Principal,	and		
as Surety, are held and firmly bound u	into THE CITY AN	D BOROUGH OH	F JUNEAU hereinafter called
"OWNER," in the sum of			
doll payment of which sum, well and truly successors, and assigns, jointly and se	y to be made, we bine	d ourselves, our he	tal amount of the Bid) for the irs, executors, administrators,
WHEREAS, said Principal h under the Bid Schedule of the OWNE			perform the WORK required
SECOND ST	TREET DOUGLAS	RECONSTRUCT	ΓΙΟΝ
	Contract No. E	11-152	
NOW THEREFORE, if said F in the manner required in the "Notice Agreement on the form of Agreement of insurance, and furnishes the require null and void, otherwise it shall remain said OWNER and OWNER prevails, including a reasonable attorney's feet	Inviting Bids" and the bound with said Control Performance Bond in full force and effect said Surety shall pay	ne "Instructions to ract Documents, fur and Payment Bon- ect. In the event sur all costs incurred	rnishes the required certificates d, then this obligation shall be it is brought upon this bond by
SIGNED AND SEALED, this	day of		20
(SEAL)(Principal)		(SEAL)	(Surety)
Ву:	<u></u>	By:	(Signature)
(Signature)			(Signature)

SECTION 00360 - SUBCONTRACTOR REPORT

LIST OF SUBCONTRACTORS (AS 36.30.115)

The apparent low Bidder must submit a list of Subcontractors that the Bidder proposes to use in the performance of this contract on the fifth business day following the Posting Notice of Bids. If the fifth day falls on a weekend or holiday, the report is due by close of business on the next business Day following the weekend or holiday. The Subcontractor Report list must include each Subcontractor's name, address, location, evidence of valid Alaska Business License, and valid Alaska Contractor's Registration under AS 08.18. If no Subcontractors are to be utilized in the performance of the WORK, write in ink or type "NONE" on line (1) below.

SUBCONTRACTOR	¹ AK Contractor <u>License No.</u>	¹ Contact Name	Type of	Contract	<i>/</i> : c
<u>ADDRESS</u>	² AK Business <u>License No.</u>	² Phone No.	Work	Amount	✓ if <u>DBE</u>
1	2			\$	
2	2				_ 🗆
3	2			\$	_
4	2				_
I certify that the above liste were valid at the time Bids			ΓOR Registrati	on(s), if applicab	le,
CONTRACTOR, Authorize	ed Signature				
CONTRACTOR, Printed N	Jame				
COMPANY					

SECOND STREET DOUGLAST RECONSTRUCTION Contract No. E11-152

SECTION 00360 - SUBCONTRACTOR REPORT

- A. A Bidder may replace a listed Subcontractor if the Subcontractor:
 - 1. fails to comply with AS 08.18;
 - 2. files for bankruptcy or becomes insolvent;
 - 3. fails to execute a contract with the Bidder involving performance of the WORK for which the Subcontractor was listed and the Bidder acted in good faith;
 - 4. fails to obtain bonding;
 - 5. fails to obtain insurance acceptable to the OWNER;
 - 6. fails to perform the contract with the Bidder involving work for which the Subcontractor was listed;
 - 7. must be substituted in order for the CONTRACTOR to satisfy required state and federal affirmative action requirements;
 - 8. refuses to agree or abide with the Bidder's labor agreement; or
 - 9. is determined by the OWNER not to be responsible.
- B. If a Bidder fails to list a Subcontractor or lists more than one Subcontractor for the same portion of WORK, the Bidder shall be considered to have agreed to perform that portion of WORK without the use of a Subcontractor and to have represented the Bidder to be qualified to perform that WORK.
- C. A Bidder who attempts to circumvent the requirements of this section by listing as a Subcontractor another contractor who, in turn, sublets the majority of the WORK required under the contract violates this section.
- D. If a contract is awarded to a Bidder who violates this section, the OWNER may:
 - 1. cancel the contract; or
 - 2. after notice and a hearing, assess a penalty on the Bidder in an amount that does not exceed 10 percent of the value of the subcontract at issue.
- E. On the Subcontractor Report, the apparent low Bidder must list any Subcontractors anticipated to perform WORK with a value of greater than one-half of one percent of the intended award amount, or \$2,000, whichever is less.
- F. An apparent low Bidder who fails to submit a completed Subcontractor Report within the time specified in this section will be found to be not a responsible Bidder and may be required to forfeit the Bid security. The OWNER will then consider the next lowest Bidder for award of the contract.

THIS AGREEMENT is between THE CITY AND BORC	<u>OUGH OF JUNEAU</u> (hereinafter called OWNER)
and	(hereinafter called CONTRACTOR)
OWNER and CONTRACTOR, in consideration of the	mutual covenants hereinafter set forth, agree as
follows:	

ARTICLE 1. WORK.

CONTRACTOR shall complete the WORK as specified or as indicated under the Bid Schedule of the OWNER's Bid Documents entitled Contract No. E11-152, named Second Street Douglas Reconstruction.

The WORK is generally described as follows: Reconstruction of Second Street in Douglas from the intersection of Second Street and F Street to the intersection of Second Street and Bradley Street including sanitary sewer replacements at G and H Street, Bradley Street water and sewer replacement. The WORK consists of erosion and pollution control, excavation, shot rock borrow placement, shoulder grading, 2" minus shot rock with base course grading D-1, sanitary sewer manholes, 8" PVC sanitary sewer pipe, sanitary sewer services, storm drain pipe, storm drain manhole, catch basins, 6" and 8" water pipe, gate valves, fire hydrant assembly, water services, pipe and structure removal, valley gutter, asphalt pavement, asphalt pavement removal, mailbox reconstruction, topsoil, hydroseeding, construction surveying, Bear Creek Crossing structure improvements, and miscellaneous related WORK and miscellaneous related WORK.

The WORK to be paid under this contract shall include the following: Total Bid as shown in Section 00310 - Bid Schedule.

ARTICLE 2. CONTRACT COMPLETION TIME.

The WORK must be completed by August 15, 2011.

ARTICLE 3. DATE OF AGREEMENT

The date of this Agreement will be the date of the last signature on page three of this section.

ARTICLE 4. LIQUIDATED DAMAGES.

OWNER and the CONTRACTOR recognize that time is of the essence of this Agreement and that the OWNER will suffer financial loss if the WORK is not completed within the time specified in Article 2 herein, plus any extensions thereof allowed in accordance with Article 12 of the General Conditions. They also recognize the delays, expense, and difficulties involved in proving in a legal proceeding the actual damages suffered by the OWNER if the WORK is not completed on time. Accordingly, instead of requiring any such proof, the OWNER and the CONTRACTOR agree that as liquidated damages for delay (but not as a penalty) the CONTRACTOR shall pay the OWNER \$500.00 for each Day that expires after the completion time specified in Article 2 herein. The amount of liquidated damages specified above is agreed to be a reasonable estimate based on all facts known as of the date of this Agreement.

ARTICLE 5. CONTRACT PRICE.

OWNER shall pay CONTRACTOR for completion of the WORK in accordance with the Contract Documents in the amount set forth in the Bid Schedule. The CONTRACTOR agrees to accept as full and complete payment for all WORK to be done in this contract for: Contract No. E11-152, named Second Street Douglas Reconstruction, those Unit Price amounts as set forth in the Bid Schedule in the Contract Documents for this Project.

The total amount of this contract shall be	(\$),
except as adjusted in accordance with the provisions of the Bid Documents.		

ARTICLE 6. PAYMENT PROCEDURES.

CONTRACTOR shall submit Applications for Payment in accordance with Article 14 of the General Conditions. Applications for Payment will be processed by the ENGINEER as provided in the General Conditions.

Progress payments will be paid in full in accordance with Article 14 of the General Conditions until ninety (90) percent of the Contract Price has been paid. The remaining ten (10) percent of the Contract Price may be retained, in accordance with applicable Alaska State Statutes, until final inspection, completion, and acceptance of the Project by the OWNER.

ARTICLE 7. CONTRACT DOCUMENTS.

The Contract Documents which comprise the entire Agreement between OWNER and CONTRACTOR concerning the WORK consist of this Agreement (pages 00500-1 to 00500-6, inclusive) and the following sections of the Contract Documents:

- ➤ Table of Contents (pages 00005-1 to 00005-2, inclusive)
- Notice Inviting Bids (pages 00030-1 to 00030-2, inclusive).
- ➤ Instructions to Bidders (pages 00100-1 to 00100-9, inclusive).
- ➤ Bid (pages 00300-1 to 00300-2, inclusive).
- ➤ Bid Schedule (pages 00310-1, inclusive).
- ➤ Bid Bond (page 00320-1, inclusive) or Bid Security.
- Subcontractor Report (pages 00360-1 to 00360-2, inclusive).
- Performance Bond (pages 00610-1 to 00610-2, inclusive).
- Payment Bond (pages 00620-1 to 00620-2, inclusive).
- ➤ Insurance Certificate(s).
- ➤ General Conditions (pages 00700-1 to 00700-48, inclusive).
- Supplementary General Conditions (pages 00800-1 to 00800-5, inclusive).
- Alaska Labor Standards, Reporting, and Prevailing Wage Determination (page 00830-1).
- Permits, (page 00852-1).
- > Standard Details (page 00853-1).
- > Special Provisions (pages 1 to 61 inclusive)
- > Standard Specifications for Civil Engineering Projects and Subdivision Improvements
 December 2003 with current Errata Sheets.
- > Drawings consisting of 24 sheets, as listed in the Table of Contents.
- Addenda numbers _____ to ____, inclusive.
- > Change Orders which may be delivered or issued after the Date of the Agreement and which are not attached hereto.

There are no Contract Documents other than those listed in this Article 7. The Contract Documents may only be amended by Change Order as provided in Paragraph 3.3 of the General Conditions.

ARTICLE 8. MISCELLANEOUS.

Terms used in this Agreement which are defined in Article 1 of the General Conditions will have the

meanings indicated in the General Conditions.	

ARTICLE 8. MISCELLANEOUS. (Cont'd.)

No assignment by a party hereto of any rights under or interests in the Contract Documents will be binding on another party hereto without the written consent of the party sought to be bound; and specifically but without limitation monies that may become due and monies that are due may not be assigned without such consent (except to the extent that the effect of this restriction may be limited by law), and unless specifically stated to the contrary in any written consent to an assignment, no assignment will release or discharge the assignor from any duty or responsibility under the Contract Documents.

OWNER and CONTRACTOR each binds itself, its partners, successors, assigns and legal representatives to the other party hereto, its partners, successors, assigns and legal representatives in respect of all covenants, agreements and obligations contained in the Contract Documents. This Agreement shall be governed by the laws of the State of Alaska. Jurisdiction shall be in the State of Alaska, First Judicial District.

IN WITNESS WHEREOF, OWNER and CONTRACTOR have caused this Agreement to be executed on the date listed below by OWNER.

OWNER:	CONTRACTOR:
City and Borough of Juneau	
	(Company Name)
(Signature)	(Signature)
By: Rod Swope, City Manager	By:(Printed Name, Authority or Title)
(Printed Name)	(Printed Name, Authority or Title)
Date:	CONTRACTOR Signature Date:
OWNER's address for giving notices:	CONTRACTOR's address for giving notices:
155 South Seward Street	
Juneau, Alaska 99801	
907-586-0873 907-586-4530	
(Telephone) (Fax)	(Telephone) (Fax)
	(E-mail address)
	Contractor License No.

CERTIFICATE (if Corporation)

STATE OF)) SS:		
COUNTY OF)		
I HEREBY	CERTIFY that a meeting of the Boar	ed of Directors of	the
		a corporation e	xisting under the laws of
the State of was duly passed and	, held on l adopted:	, 20	, the following resolution
BOROUGE Secretary of deed of this	ED, that	nd that the execut rate Seal affixed,	ion thereof, attested by the
IN WITNE	SS WHEREOF, I have hereunto set n	ny hand and affixe	ed the official seal of the
corporation this	day of, 2	20	
		<u> </u>	
		Secretary	
(SEAL)			

CERTIFICATE (if Partnership)

STATE	E OF)) SS:
COUN	TY OF)
	I HEREBY CERTIFY that a meeting of the Partners of the
	a partnership existing under the laws of the State
	, held on, 20, the following resolution was duly and adopted:
	"RESOLVED, that, as of the Partnership, be and is hereby authorized to execute the Agreement with the CITY AND BOROUGH OF JUNEAU and this partnership and that the execution thereof, attested by the shall be the official act and deed of this Partnership." I further certify that said resolution is now in full force and effect.
20	IN WITNESS WHEREOF, I have hereunto set my hand this, day of,
	Secretary
(SEAL	

CERTIFICATE (if Joint Venture)

STATE	OF)	SS:				
COUNT	ΓY OF))	33.				
	I HEREI	BY C	ERTIFY that	a meeting of the I	Principals of the	;	
					_ a joint venture	e existing under	the laws of the
State of adopted	:		_, held on	, 20	, the following	ng resolution wa	s duly passed and
"RESOLVED, that, as					he CITY AND of, attested by the		
I further certify that said resolution is now in full force and effect. IN WITNESS WHEREOF, I have hereunto set my hand this, day of, 20							
						f	
					Secretar	у	
(SEAL)							

SECTION 00610 - PERFORMANCE BOND

KNOW	/ ALL PERSONS BY 1	THESE PRESENTS: That we _	
			(Name of Contractor)
	a		
		(Corporation, Partnership, Inc.	lividual)
hereinafter calle	ed "Principal" and		
	•	(Surety)	
of	, State of	hereinaft	er called the "Surety," are held and
•	(Owner)	(City and State)	A hereinafter called "OWNER,"
for the penal su	ım of		
		dollars (\$) in lawful money of the
	¥ •	nich sum well and truly to be ors, jointly and severally, firmly	made, we bind ourselves, our heirs by these presents.
THE C	ONDITION OF THIS (OBLIGATION is such that when	reas, the CONTRACTOR has entered
into a certain c	contract with the OWN	ER, the effective date of which	h is (CBJ Contracts Office to fill in
effective date)_		, a copy of which is here	to attached and made a part hereof for
the construction	n of:		-

Second Street Douglas Reconstruction

Contract No. E11-152

NOW, THEREFORE, if the Principal shall truly and faithfully perform its duties, all the undertakings, covenants, terms, conditions, and agreements of said contract during the original term thereof, and any extensions thereof, which may be granted by the OWNER, with or without notice to the Surety, and if it shall satisfy all claims and demands incurred under such contract, and shall fully indemnify and save harmless the OWNER from all costs and damages which it may suffer by reason of failure to do so, and shall reimburse and repay the OWNER all outlay and expense which the OWNER may incur in making 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 wise affect its obligation on this bond, and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the contract or to the WORK or to the Specifications.

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

SECTION 00610 - PERFORMANCE BOND

Second Street Douglas Reconstruction

Contract No. E11-152

IN WITNESS WHEREOF, this instrument is issued in two (2) identical counterparts, each one of which shall be deemed an original.

CONTRA	ACTOR:		
_			
Ву:	(Signature)	<u> </u>	
	(D.1., 1)	<u> </u>	
	(Printed Name)		
	(Company Name)	<u> </u>	
	(Street or P.0. Box)		
	(City, State, Zip Code)	<u>—</u>	
SURETY	:		
Ву:		Date Issued:	
	(Signature of Attorney-in-Fact)		
	(Printed Name)	<u>—</u>	
	(Company Name)	<u> </u>	
	(Street or P.0. Box)	_	
	(City, State, Zip Code)		
(Affix SU	RETY'S SEAL)		
NOTE:	If CONTRACTOR is Partnership, all F	artners must execute bond.	

END OF SECTION

PERFORMANCE BOND Page 00610-2

SECTION 00620 - PAYMENT BOND

KNOW A	LL PERSONS BY	THESE PRESENTS: That	we
			(Name of Contractor)
	a		
		(Corporation, Partnersh	ip, Individual)
hereinafter called	"Principal" and		
	•	(S	urety)
of	, State of	here	einafter called the "Surety," are held and
firmly bound to <u>t</u>		ROUGH of JUNEAU, AL. (City and State)	ASKA hereinafter called "OWNER,"
for the penal sum	· ·		
		dollars (\$) in lawful money of the
			o be made, we bind ourselves, our heirs,
executors, adminis	strators and successo	ors, jointly and severally, f	irmly by these presents.
THE CON	IDITION OF THIS	OBLIGATION is such that	whereas, the CONTRACTOR has entered
			which is (CBJ Contracts Office to fill in
		-	hereto attached and made a part hereof for
the construction of		10	•

Second Street Douglas Reconstruction

Contract No. E11-152

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 such WORK, and all insurance premiums on said work, and for all labor performed in such WORK, whether by Subcontractor or otherwise, then this obligation shall be void; otherwise to remain in full 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 wise affect its obligation on this bond, and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the contract or to the WORK or to the Specifications.

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

SECTION 00620 - PAYMENT BOND

Second Street Douglas Reconstruction

Contract No. E11-152

IN WITNESS WHEREOF, this instrument is issued in two (2) identical counterparts, each one of which shall be deemed an original.

CONTRACTOR:

NOTE:

By:	<u></u>	
(Signature)		
(Printed Name)		
(Company Name)	<u></u>	
(Street or P.0. Box)	<u> </u>	
(City, State, Zip Code)	<u> </u>	
SURETY:		
By:	Date Issued:	
By:(Signature of Attorney-in-Fact)		
(Printed Name)	<u></u>	
(Company Name)	<u> </u>	
(Street or P.0. Box)	<u> </u>	
(City, State, Zip Code)		
(Affix SURETY'S SEAL)		

END OF SECTION

If CONTRACTOR is Partnership, all Partners must execute bond.

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ARTICLE 1 DEFINITIONS

Wherever used in these General Conditions or in the Contract Documents the following terms have the meanings indicated which are applicable to both the singular and plural thereof. Where an entire word is capitalized in the definitions and is found not capitalized in the Contract Documents it has the ordinary dictionary definition.

Addenda - Written or graphic instruments issued prior to the opening of Bids which make additions, deletions, or revisions to the Contract Documents.

Agreement - The written contract between the OWNER and the CONTRACTOR covering the WORK to be performed; other documents are attached to the Agreement and made a part thereof as provided therein.

Application for Payment - The form furnished by the ENGINEER which is to be used by the CONTRACTOR to request progress or final payment and which is to be accompanied by such supporting documentation as is required by the Contract Documents.

Asbestos - Any material that contains more than one percent asbestos and is friable or is releasing asbestos fibers into the air above current action levels established by the United States Occupational Safety and Health Administration.

Bid - The offer or proposal of the Bidder submitted on the prescribed form setting forth the price or prices for the WORK.

Bonds - Bid, Performance, and Payment Bonds and other instruments which protect against loss due to inability or refusal of the CONTRACTOR to perform its contract.

CBJ Project Manager - The authorized representative of the City and Borough of Juneau Engineering Department, as OWNER, who is responsible for administration of the contract.

Change Order - A document recommended by the ENGINEER, which is signed by the CONTRACTOR and the OWNER and authorizes an addition, deletion, or revision in the WORK, or an adjustment in the Contract Price or the Contract Time, issued on or after the Effective Date of the Agreement.

Contract Documents - The Table of Contents, Notice Inviting Bids, Instructions to Bidders, Bid Forms (including the Bid, Bid Schedule(s), Information Required of Bidder, Bid Bond, and all required certificates and affidavits), Agreement, Performance Bond, Payment Bond, General Conditions, Supplementary General Conditions, Technical Specifications, Drawings, Permits, and all Addenda, and Change Orders executed pursuant to the provisions of the Contract Documents.

Contract Price - The total monies payable by the OWNER to the CONTRACTOR under the terms and conditions of the Contract Documents.

Contract Time - The number of successive calendar Days stated in the Contract Documents for the completion of the WORK.

CONTRACTOR - The individual, partnership, corporation, joint-venture or other legal entity with whom the OWNER has executed the Agreement.

Day - A calendar day of 24 hours measured from midnight to the next midnight.

Defective WORK - WORK that is unsatisfactory, faulty, or deficient; or that does not conform to the Contract Documents; or that does not meet the requirements of any inspection, reference standard, test, or approval referred to in the Contract Documents; or WORK that has been damaged prior to the ENGINEER's recommendation of final payment.

Drawings - The Drawings, plans, maps, profiles, diagrams, and other graphic representations which indicate the character, location, nature, extent, and scope of the WORK and which have been prepared by the ENGINEER and are referred to in the Contract Documents. Shop Drawings are not within the meaning of this paragraph.

Effective Date of the Agreement - The date indicated in the Agreement on which it becomes effective, but if no such date is indicated it means the date on which the Agreement is signed and delivered by the last of the two parties to sign and deliver.

Engineer of Record - The individual, partnership, corporation, joint-venture or other legal entity named as such in the Contract Documents.

ENGINEER - The ENGINEER is the firm or person(s) selected by the City and Borough of Juneau (CBJ) to perform the duties of project inspection and management. CBJ will inform the CONTRACTOR of the identity of the ENGINEER at or before the Notice to Proceed.

Field Order - A written order issued by the ENGINEER which may or may not involve a change in the WORK.

General Requirements - Division 1 of the Technical Specifications.

Hazardous Waste - The term Hazardous Waste shall have the meaning provided in Section 1004 of the Solid Waste Disposal Act (42 USC Section 9603) as amended from time to time.

Holidays - The CBJ legal holidays occur on:

- 1. New Year's Day January 1
- 2. Martin Luther King's Birthday Third Monday in January
- 3. President's Day Third Monday in February
- 4. Seward's Day Last Monday in March
- 5. Memorial Day Last Monday in May
- 6. Independence Day July 4
- 7. Labor Day First Monday in September
- 8. Alaska Day October 18
- 9. Veteran's Day November 11
- 10. Thanksgiving Day Fourth Thursday and the following Friday in November
- 11. Christmas Day December 25

If any holiday listed above falls on a Saturday, Saturday and the preceding Friday are both legal holidays. If the holiday should fall on a Sunday, Sunday and the following Monday are both legal holidays.

Inspector - The authorized representative of the ENGINEER assigned to make detailed inspections for conformance to the Contract Documents. Any reference to the Resident Project Representative in this document shall mean the Inspector.

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

Mechanic's Lien - A form of security, an interest in real property, which is held to secure the payment of an obligation. When referred to in these Contract Documents, "Mechanic's Lien" or "lien" means "Stop Notice".

Milestone - A principal event specified in the Contract Documents relating to an intermediate completion date of a portion of the WORK, or a period of time within which the portion of the WORK should be performed prior to Substantial Completion of all the WORK.

Notice of Award - The written notice by the OWNER to the apparent successful bidder stating that the apparent successful bidder has complied with all conditions for award of the contract.

Notice of Completion - A form signed by the ENGINEER and the CONTRACTOR recommending to the OWNER that the WORK is Substantially Complete and fixing the date of Substantial Completion. After acceptance of the WORK by the OWNER's governing body, the form is signed by the OWNER and filed with the County Recorder. This filing starts the 30-day lien filing period on the WORK.

Notice to Proceed - The written notice issued by the OWNER to the CONTRACTOR authorizing the CONTRACTOR to proceed with the WORK and establishing the date of commencement of the Contract Time.

Notice of Intent to Award - The written notice by the OWNER to the apparent successful bidder stating that upon compliance by the apparent successful bidder with the requirements listed therein, within the time specified, the OWNER will enter into an Agreement.

OWNER - The City and Borough of Juneau (CBJ), acting through its legally designated officials, officers, or employees.

Partial Utilization - Use by the OWNER or a substantially completed part of the WORK for the purpose for which it is intended prior to Substantial Completion of all the WORK.

PCB's - Polychlorinated biphenyls.

PERMITTEE – See definition for CONTRACTOR.

Petroleum - Petroleum, including crude oil or any fraction thereof which is liquid at standard conditions of temperature and pressure (60 degrees Fahrenheit and 14.7 pounds per square inch absolute), such as oil, petroleum, fuel oil, oil sludge, oil refuse, gasoline, kerosene, and oil mixed with other non-Hazardous Wastes and crude oils.

Project - The total construction of which the WORK to be provided under the Contract Documents may be the whole, or a part as indicated elsewhere in the Contract Documents.

Radioactive Material - Source, special nuclear, or byproduct material as defined by the Atomic Energy Act of 1954 (42 USC Section 2011 et seq.) as amended from time to time.

Shop Drawings - All Drawings, diagrams, illustrations, schedules and other data which are specifically prepared by or for the CONTRACTOR and submitted by the CONTRACTOR, to the ENGINEER, to illustrate some portion of WORK.

Specifications - Same definition as "Technical Specifications" hereinafter.

Stop Notice - A legal remedy for Subcontractors and suppliers who contribute to public works, but who are not paid for their WORK, which secures payment from construction funds possessed by the OWNER. For public property, the Stop Notice remedy is designed to substitute for mechanic's lien rights.

Sub-Consultant - The individual, partnership, corporation, joint-venture or other legal entity having a direct contract with ENGINEER, or with any of its Consultants to furnish services with respect to the Project.

Subcontractor - An individual, partnership, corporation, joint-venture or other legal entity having a direct contract with the CONTRACTOR, or with any of its Subcontractors, for the performance of a part of the WORK at the site.

Substantial Completion - Refers to when the WORK has progressed to the point where, in the opinion of the ENGINEER as evidenced by Notice of Completion as applicable, it is sufficiently complete, in accordance with the Contract Documents, so that the WORK can be utilized for the purposes for which it is intended; or if no such notice is issued, when final payment is due in accordance with Paragraph 14.8. The terms "substantially complete" and "substantially completed" as applied to any WORK refer to substantial completion thereof.

Supplementary General Conditions (SGC) - The part of the Contract Documents which make additions, deletions, or revisions to these General Conditions.

Supplier - A manufacturer, fabricator, supplier, distributor, materialman, or vendor.

Technical Specifications - Divisions 1 through 16 of the Contract Documents consisting of the General Requirements and written technical descriptions of products and execution of the WORK.

Underground Utilities - All pipelines, conduits, ducts, cables, wires, manholes, vaults, tanks, tunnels, or other such facilities or attachments, and any encasements containing such facilities which have been installed underground to furnish any of the following services or materials: water, sewage and drainage removal, electricity, gases, steam, liquid petroleum products, telephone or other communications, cable television, traffic, or other control systems.

WORK, Work - The entire completed construction or the various separately identifiable parts thereof required to be furnished under the Contract Documents. WORK is the result of performing, or furnishing labor and furnishing and incorporating materials and equipment into the construction, and performing or furnishing services and furnishing documents, all as required by the Contract Documents.

ARTICLE 2 PRELIMINARY MATTERS

- 2.1 DELIVERY OF BONDS/INSURANCE CERTIFICATES. When the CONTRACTOR delivers the signed Agreements to the OWNER, the CONTRACTOR shall also deliver to the OWNER such Bonds and Insurance Policies and Certificates as the CONTRACTOR may be required to furnish in accordance with the Contract Documents.
- 2.2 COPIES OF DOCUMENTS. The OWNER shall furnish to the CONTRACTOR the required number of copies of the Contract Documents specified in the Supplementary General Conditions.
- 2.3 COMMENCEMENT OF CONTRACT TIME; NOTICE TO PROCEED. The Contract Time will start to run on the commencement date stated in the Notice to Proceed.

2.4 STARTING THE WORK

- A. The CONTRACTOR shall begin to perform the WORK within 10 days after the commencement date stated in the Notice to Proceed, but no WORK shall be done at the site prior to said commencement date.
- B. Before undertaking each part of the WORK, the CONTRACTOR shall carefully study and compare the Contract Documents and check and verify pertinent figures shown thereon and all applicable field measurements. The CONTRACTOR shall promptly report in writing to the ENGINEER any conflict, error, or discrepancy which the CONTRACTOR may discover and shall obtain a written interpretation or clarification from the ENGINEER before proceeding with any WORK affected thereby.
- C. The CONTRACTOR shall submit to the ENGINEER for review those documents called for under Section 01300 CONTRACTOR Submittals in the General Requirements.
- 2.5 PRE-CONSTRUCTION CONFERENCE. The CONTRACTOR is required to attend a Pre-Construction Conference. This conference will be attended by the ENGINEER and others as appropriate in order to discuss the WORK in accordance with the applicable procedures specified in the General Requirements, Section 01010 Summary of WORK in the General Requirements.
- 2.6 FINALIZING CONTRACTOR SUBMITTALS. At least 7 days before submittal of the first Application for Payment a conference attended by the CONTRACTOR, the ENGINEER and others as appropriate will be held to finalize the initial CONTRACTOR submittals in accordance with the General Requirements. As a minimum the CONTRACTOR's representatives should include the project manager and schedule expert. The CONTRACTOR should plan on this meeting taking no less than 8 hours. If the submittals are not finalized at the end of the meeting, additional meetings will be held so that the submittals can be finalized prior to the submittal of the first application for payment. No application for payment will be processed until CONTRACTOR submittals are finalized.

ARTICLE 3 CONTRACT DOCUMENTS: INTENT, AMENDING, REUSE

3.1 INTENT

- A. The Contract Documents comprise the entire Agreement between the OWNER and the CONTRACTOR concerning the WORK. The Contract Documents shall be construed as a whole in accordance with Alaska Law.
- B. It is the intent of the Contract Documents to describe the WORK, functionally complete, to be constructed in accordance with the Contract Documents. Any work, materials, or equipment that may reasonably be inferred from the Contract Documents as being required to produce the intended result shall be supplied whether or not specifically called for. When words or phrases which have a well-known technical or construction industry or trade meaning are used to describe work, materials, or equipment such words or phrases shall be interpreted in accordance with that meaning, unless a definition has been provided in Article 1 of the General Conditions. Reference to standard specifications, manuals, or codes of any technical society, organization, or association, or to the Laws or Regulations of any governmental authority, whether such reference be specific or by implication, shall mean the latest standard specification, manual, code, or Laws or Regulations in effect at the time of opening of Bids, except as may be otherwise specifically stated. However, no provision of any referenced standard specification, manual, or code (whether or not specifically incorporated by reference in the Contract Documents) shall be effective to change the duties and responsibilities of the OWNER, the CONTRACTOR, or the ENGINEER or any of their consultants, agents, or employees from those set forth in the Contract Documents.
- C. If, during the performance of the WORK, CONTRACTOR discovers any conflict, error, ambiguity or discrepancy within the Contract Documents or between the Contract Documents and any provision of any such Law or Regulation applicable to the performance of the WORK or of any such standard, specification, manual or code or of any instruction of any Supplier referred to in paragraph 6.5, the CONTRACTOR shall report it to the ENGINEER in writing at once, and the CONTRACTOR shall not proceed with the WORK affected thereby (except in an emergency as authorized by the ENGINEER) until a clarification field order, or Change Order to the Contract Documents has been issued.

3.2 ORDER OF PRECEDENCE OF CONTRACT DOCUMENTS

- A. In resolving conflicts resulting from, errors, or discrepancies in any of the Contract Documents, the order of precedence shall be as follows:
 - 1. Permits from other agencies as may be required by law, excepting the definition of "PERMITEE" in these permits.
 - 2. Field Orders
 - 3. Change Orders
 - 4. ENGINEER's written interpretations and clarifications.
 - 5. Agreement
 - 6. Addenda
 - 7. CONTRACTOR's Bid (Bid Form)
 - 8. Supplementary General Conditions
 - 9. Notice Inviting Bids

- 10. Instructions to Bidders
- 11. General Conditions
- 12. Technical Specifications
- 13. Drawings
- B. With reference to the Drawings the order of precedence is as follows:
 - 1. Figures govern over scaled dimensions
 - 2. Detail Drawings govern over general Drawings
 - 3. Addenda/ Change Order drawings govern over Contract Drawings
 - 4. Contract Drawings govern over standard drawings
- 3.3 AMENDING AND SUPPLEMENTING CONTRACT DOCUMENTS. The Contract Documents may be amended to provide for additions, deletions, and revisions in the WORK or to modify the terms and conditions thereof by a Change Order (pursuant to Article 10 CHANGES IN THE WORK).
- 3.4 REUSE OF DOCUMENTS. Neither the CONTRACTOR, nor any Subcontractor or Supplier, nor any other person or organization performing any of the WORK under a contract with the OWNER shall have or acquire any title to or ownership rights in any of the Drawings, Technical Specifications, or other documents used on the WORK, and they shall not reuse any of them on the extensions of the Project or any other project without written consent of the OWNER.

ARTICLE 4 AVAILABILITY OF LANDS; PHYSICAL CONDITIONS; REFERENCE POINTS

AVAILABILITY OF LANDS. The OWNER shall furnish, as indicated in the Contract Documents, the lands upon which the WORK is to be performed, rights-of-way and easements for access thereto, and such other lands which are designated for the use of the CONTRACTOR. Easements for permanent structures or permanent changes in existing facilities will be obtained and paid for by the OWNER, unless otherwise provided in the Contract Documents. Nothing contained in the Contract Documents shall be interpreted as giving the CONTRACTOR exclusive occupancy of the lands or rights-of-way provided. The CONTRACTOR shall provide for all additional lands and access thereto that may be required for temporary construction facilities or storage of materials and equipment; provided, that the CONTRACTOR shall not enter upon nor use any property not under the control of the OWNER until a written temporary construction easement, lease or other appropriate agreement has been executed by the CONTRACTOR and the property owner, and a copy of said agreement furnished to the ENGINEER prior to said use; and, neither the OWNER nor the ENGINEER shall be liable for any claims or damages resulting from the CONTRACTOR's unauthorized trespass or use of any such properties.

4.2 PHYSICAL CONDITIONS - SUBSURFACE AND EXISTING STRUCTURES

A. Explorations and Reports. Reference is made to <u>SGC 4.2 Physical Conditions</u> of the Supplementary General Conditions for identification of those reports of explorations and tests of sub-surface conditions at the site that have been utilized by the ENGINEER in the preparation of the Contract Documents. The CONTRACTOR may rely upon the accuracy of the technical data contained in such reports, however, reports are not to be considered complete or comprehensive and nontechnical data, interpretations, and opinions contained in

- such reports are not to be relied on by the CONTRACTOR. The CONTRACTOR is responsible for any further explorations or tests that may be necessary and any interpretation, interpolation, or extrapolation that it makes of any information shown in such reports.
- B. Existing Structures. Reference is made to SGC 4.2 Physical Conditions of the Supplementary General Conditions for identification of those drawings of physical conditions in or relating to existing surface and subsurface structures (except Underground Utilities referred to in Paragraph 4.4 herein) which are at or contiguous to the site that have been utilized by the ENGINEER in the preparation of the Contract Documents. The CONTRACTOR may rely upon the accuracy of the technical data contained in such drawings, however, nontechnical data, interpretations, and opinions contained in such drawings are not to be relied on by the CONTRACTOR. The CONTRACTOR is also responsible for any interpretation, interpolation, or extrapolation that it makes of any information shown in such drawings.

4.3 DIFFERING SITE CONDITIONS

- A. The CONTRACTOR shall promptly upon discovery (but in no event later than 14 days thereafter) and before the following conditions are disturbed, notify the ENGINEER, in writing of any:
 - 1. Material that the CONTRACTOR believes may be material that is hazardous waste, as defined in Article 1 of these General Conditions, or asbestos, PCB's, petroleum or any other substance or material posing a threat to human or to the environment.
 - 2. Subsurface or latent physical conditions at the site differing from those indicated.
 - 3. Unknown physical conditions at the site of any unusual nature, different materially from those ordinarily encountered and generally recognized as inherent in WORK of the character provided for in the contract.
- B. The OWNER shall promptly investigate the conditions, and if it finds that the conditions do materially so differ, or do involve hazardous waste, and cause a decrease or increase in the CONTRACTOR's cost of, or the time required for, performance of any part of the WORK shall issue a Change Order under the procedures described in the contract.
- C. In the event that a dispute arises between the OWNER and the CONTRACTOR whether the conditions materially differ, or involved hazardous waste or other materials listed above, or cause a decrease or increase in the CONTRACTOR's cost of, or time required for, performance of any part of the WORK, the CONTRACTOR shall not be excused from any scheduled completion date provided for by the contract, but shall proceed with all WORK to be performed under the contract. The CONTRACTOR shall retain any and all rights provided either by contract or by Law which pertain to the resolution of disputes and protests between the contracting parties.

4.4 PHYSICAL CONDITIONS - UNDERGROUND UTILITIES

A. Indicated. The information and data indicated in the Contract Documents with respect to existing Underground Utilities at or contiguous to the site are based on information and data furnished to the OWNER or the ENGINEER by the owners of such Underground Utilities or by others. Unless it is expressly provided in the Supplementary General Conditions and/or Section 01530 - Protection and Restoration of Existing Facilities of the General

Requirements, the OWNER and the ENGINEER shall not be responsible for the accuracy or completeness of any such information or data, and the CONTRACTOR shall have full responsibility for reviewing and checking all such information and data, for locating all Underground Utilities indicated in the Contract Documents, for coordination of the WORK with the owners of such Underground Utilities during construction, for the safety and protection thereof and repairing any damage thereto resulting from the WORK, the cost of which will be considered as having been included in the Contract Price.

B. Not Indicated. If an Underground Utility is uncovered or revealed at or contiguous to the site which was not indicated in the Contract Documents and which the CONTRACTOR could not reasonably have been expected to be aware of, the CONTRACTOR shall identify the owner of such Underground Utility and give written notice thereof to that owner and shall notify the ENGINEER in accordance with the requirements of the Supplementary General Conditions and Section 01530 - Protection and Restoration of Existing Facilities of the General Requirements.

4.5 REFERENCE POINTS

- A. The ENGINEER will provide one bench mark, near or on the site of the WORK, and will provide two points near or on the site to establish a base line for use by the CONTRACTOR for alignment control. Unless otherwise specified in the General Requirements, the CONTRACTOR shall furnish all other lines, grades, and bench marks required for proper execution of the WORK.
- B. The CONTRACTOR shall preserve all bench marks, stakes, and other survey marks, and in case of their removal or destruction by its own employees or by its Subcontractor's employees, the CONTRACTOR shall be responsible for the accurate replacement of such reference points by personnel qualified under the Alaska Statute governing the licensing of Architects, Engineers, and Land Surveyors.

4.6 USE OF THE CBJ/STATE LEMON CREEK GRAVEL PIT

- A. On City and Borough of Juneau (CBJ) construction projects, the CBJ may make unclassified material available to CONTRACTORs, from the CBJ/State Lemon Creek gravel pit, at a rate less than charged other customers. CONTRACTORs are not required to use material from the CBJ/State pit and the CBJ makes no guarantee as to the quantity or quality of the available material. For this Project, the price shall be \$1.90 per ton.
- B. CONTRACTORs proposing to use gravel from the CBJ/State pit are required to be in good standing for all amounts owed to the CBJ, for previous gravel operations, prior to submitting a mining plan for approval. CONTRACTORs using the pit must comply with Allowable Use Permit USE 98-00047. Failure to meet these requirements, if so subject, shall be sufficient reason to deny use of the CBJ/State pit as a gravel source. To determine if your company is subject to these requirements, contact the CBJ Engineering Department, Gravel Pit Management, at (907) 586-0800.
- C. CONTRACTORs deciding to use material from the CBJ/State pit shall provide an Individual Mining Plan prepared by a professional engineer registered in the State of Alaska. The Individual Mining Plan must be reviewed and approved by the CBJ, prior to commencing

operations within the pit. CONTRACTORs shall also secure a Performance Bond to ensure compliance with contract provisions, including any Individual Mining Plan stipulations. The bond shall remain in full force and effect until a release is obtained from the CBJ.

- D. If CONTRACTOR operations for a project do not exceed 500 tons of material, the CONTRACTOR will not be required to provide an Individual Mining Plan prepared by an engineer. However, the CONTRACTOR must submit an Individual Mining Plan that is in compliance with Allowable Use Permit USE 98-00047 for gravel extraction within the CBJ/State pit. The CONTRACTOR must contact the CBJ Engineering Department for conditions for the extraction.
- E. CONTRACTORs using the CBJ material may do primary dry separation (screening) of materials within the pit. Crushing and washing of material will not be allowed. CONTRACTORs shall account for placement of materials removed from the pit. The CBJ may require CONTRACTORs to cross-check weight tickets, submit to an audit, or participate in other measures required by the CBJ to ensure accountability. Unprocessed overburden removed from the pit will not be weighed. All other material mined will be weighed at the CBJ scale. CONTRACTORs will be responsible for loading and/or screening their own material. If asphalt pavement is removed as part of the WORK, CONTRACTORs shall dispose of the material at a to-be-specified location within the pit area, as directed by the CBJ Project Manager.
- F. The gravel pit overhead charge shall be paid to the CBJ by the CONTRACTOR within 60 days after removal of all materials from the pit and prior to requesting and/or receiving final payment. Upon completion of each excavation CONTRACTORs shall notify the CBJ, in writing, in sufficient time to perform a field-compliance examination prior to vacating the pit. Any significant deviation from the stipulations of the Individual Mining Plan identified during the field inspection shall be corrected by the CONTRACTOR prior to release of the bond. A signed release from CBJ will be required prior to releasing the CONTRACTOR's bond.
- G. If asphalt pavement is removed as part of this WORK, the CONTRACTOR shall dispose of the material at the location designated as the Asphalt Storage Facility, or as directed by the ENGINEER.
- H. The CBJ/State pit is a seasonal operation. The hours of operation are from 7:00 a.m. to 6:00 p.m., Monday through Friday, from April 1 through October 15 of the year. CONTRACTORS may obtain gravel on weekends, or during the off-season, by applying for a separate agreement with the City and Borough of Juneau Engineering Department. The CONTRACTOR will be responsible for any additional costs incurred during weekend or off-season operations at the gravel pit.
- I. All Contractors/Equipment Operators using the CBJ/State Pit shall be in compliance with Federal Mine Safety and Health Administration regulations for quarry and gravel operations.

ARTICLE 5 BONDS AND INSURANCE

5.1 PERFORMANCE, PAYMENT, AND OTHER BONDS

- A. The CONTRACTOR shall furnish, when required, Performance and Payment Bonds on forms provided by the CBJ for the penal sums of 100% of the amount of the Bid award. The surety on each bond may be any corporation or partnership authorized to do business in the State of Alaska as an insurer under AS 21.09. These bonds shall remain in effect for 12 months after the date of final payment and until all obligations and liens under this contract have been satisfied. The CONTRACTOR shall also furnish such other Bonds as are required by the Supplementary General Conditions. All Bonds shall be in the form prescribed by the Contract Documents except as provided otherwise by Laws or Regulations, and shall be executed by such sureties as are named in the current list of "Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and as Acceptable Reinsuring Companies" as published in Circular 570 (amended) by the Audit Staff, Bureau of Government Financial Operations, U.S. Treasury Department. All Bonds signed by an agent must be accompanied by a certified copy of such agent's authority to act.
- B. If the surety on any Bond furnished by the CONTRACTOR is declared bankrupt or becomes insolvent or its right to do business is terminated in any state where any part of the WORK is located, the CONTRACTOR shall within 7 days thereafter substitute another Bond and Surety, which must be acceptable to the OWNER.
- C. All Bonds required by the Contract Documents to be purchased and maintained by CONTRACTOR shall be obtained from surety companies that are duly licensed or authorized in the State of Alaska to issue Bonds for the limits so required. Such surety companies shall also meet such additional requirements and qualifications as may be provided in the Supplementary General Conditions. The City Engineer may, on behalf of the OWNER, notify the surety of any potential default or liability.

5.2 INSURANCE

- A. The CONTRACTOR shall purchase and maintain the insurance required under this paragraph. Such insurance shall include the specific coverages set out herein and be written for not less than the limits of liability and coverages provided in the Supplementary General Conditions, or required by law, whichever are greater. All insurance shall be maintained continuously during the life of the Agreement up to the date of Final Completion and at all times thereafter when the CONTRACTOR may be correcting, removing, or replacing Defective WORK in accordance with Paragraph 13.6, but the CONTRACTOR's liabilities under this Agreement shall not be deemed limited in any way to the insurance coverage required.
- B. All insurance required by the Contract Documents to be purchased and maintained by the CONTRACTOR shall be obtained from insurance companies that are duly licensed or authorized in the State of Alaska to issue insurance policies for the limits and coverages so required. Such insurance companies shall have a current Best's Rating of at least an "A" (Excellent) general policy holder's rating and a Class VII financial size category and shall also meet such additional requirements and qualifications as may be provided in the Supplementary General Conditions.
- C. The CONTRACTOR shall furnish the OWNER with certificates showing the type, amount, class of operations covered, effective dates and dates of expiration of policies. All of the policies of insurance so required to be purchased and maintained (or the certificates or other

evidence thereof) shall contain a provision or endorsement that the coverage afforded will not be cancelled, reduced in coverage, or renewal refused until at least 30 days' prior written notice has been given to the OWNER by certified mail. All such insurance required herein (except for Workers' Compensation and Employer's Liability) shall name the OWNER, its Consultants and subconsultants and their officers, directors, agents, and employees as "additional insureds" under the policies. The CONTRACTOR shall purchase and maintain the following insurance:

- 1. Workers' Compensation and Employer's Liability. This insurance shall protect the CONTRACTOR against all claims under applicable state workers' compensation laws. The CONTRACTOR shall also be protected against claims for injury, disease, or death of employees which, for any reason, may not fall within the provisions of a Workers' Compensation law. This policy shall include an "all states" endorsement. The CONTRACTOR shall require each Subcontractor similarly to provide Workers' Compensation Insurance for all of the latter's employees to be engaged in such WORK unless such employees are covered by the protection afforded by the CONTRACTOR's Workers' Compensation Insurance. In case any class of employees is not protected, under the Workers' Compensation Statute, the CONTRACTOR shall provide and shall cause each Subcontractor to provide adequate employer's liability insurance for the protection of such of its employees as are not otherwise protected.
- 2. Commercial General Liability. This insurance shall be written in comprehensive form and shall protect the CONTRACTOR against all claims arising from injuries to persons other than its employees or damage to property of the OWNER or others arising out of any act or omission of the CONTRACTOR or its agents, employees, or Subcontractors. The policy shall contain no exclusions for any operations within the scope of this contract.
- 3. Comprehensive Automobile Liability. This insurance shall be written in comprehensive form and shall protect the CONTRACTOR against all claims for injuries to members of the public and damage to property of others arising from the use of motor vehicles, and shall cover operation on or off the site of all motor vehicles licensed for highway use, whether they are owned, non-owned, or hired. Coverage for hired motor vehicles should include endorsement covering liability assumed under this Agreement.
- 4. Subcontractor's Commercial General Liability Insurance and Commercial Automobile Liability Insurance. The CONTRACTOR shall either require each of its Subcontractors to procure and to maintain Subcontractor's Commercial General Liability and Property Damage Insurance and Vehicle Liability Insurance of the type and in the amounts specified in the Supplementary General Conditions or insure the activities of its Subcontractors in the CONTRACTOR's own policy, in like amount.
- 5. Builder's Risk. This insurance shall be of the "all risks" type, shall be written in completed value form, and shall protect the CONTRACTOR, the OWNER, and the ENGINEER, against risks of damage to buildings, structures, and materials and equipment. The amount of such insurance shall be not less than the insurable value of the WORK at completion. Builder's risk insurance shall provide for losses to be payable to the CONTRACTOR and the OWNER, as their interests may appear. The policy shall contain a provision that in the event of payment for any loss under the

coverage provided, the insurance company shall have no rights of recovery against the CONTRACTOR, the OWNER, and the ENGINEER. The Builder's Risk policy shall insure against all risks of direct physical loss or damage to property from any external cause including flood and earthquake. Allowable exclusions, if any, shall be as specified in the Supplementary General Conditions.

ARTICLE 6 CONTRACTOR'S RESPONSIBILITIES

6.1 SUPERVISION AND SUPERINTENDENCE

- A. The CONTRACTOR shall supervise, inspect, and direct the WORK competently and efficiently, devoting such attention thereto and applying such skills and expertise as may be necessary to perform the WORK in accordance with the Contract Documents. The CONTRACTOR shall be solely responsible for the means, methods, techniques, sequences, and procedures of construction and safety precautions and programs incidental thereto. The CONTRACTOR shall be responsible to see that the completed WORK complies accurately with the Contract Documents.
- B. The CONTRACTOR shall designate in writing and keep on the WORK site at all times during its progress a technically qualified, English-speaking superintendent, who is an employee of the CONTRACTOR and who shall not be replaced without written notice to the OWNER and the ENGINEER. The superintendent will be the CONTRACTOR's representative at the site and shall have authority to act on behalf of the CONTRACTOR. All communications given to the superintendent shall be as binding as if given to the CONTRACTOR. The CONTRACTOR shall issue all its communications to the OWNER through the ENGINEER and the ENGINEER only.
- C. The CONTRACTOR's superintendent shall be present at the site of the WORK at all times while WORK is in progress. Failure to observe this requirement shall be considered suspension of the WORK by the CONTRACTOR until such time as such superintendent is again present at the site.

6.2 LABOR, MATERIALS, AND EQUIPMENT

- A. The CONTRACTOR shall provide competent, suitably qualified personnel to survey and lay out the WORK and perform construction as required by the Contract Documents. The CONTRACTOR shall furnish, erect, maintain, and remove the construction plant and any temporary works as may be required. The CONTRACTOR shall at all times maintain good discipline and order at the site. Except in connection with the safety or protection of persons or the WORK or property at the site or adjacent thereto, and except as otherwise indicated in the Contract Documents, all WORK at the site shall be performed during regular working hours, and the CONTRACTOR will not permit overtime work or the performance of work on Saturday, Sunday, or any legal holiday without the OWNER's written consent. The CONTRACTOR shall apply for this consent through the ENGINEER.
- B. Except as otherwise provided in this Paragraph, the CONTRACTOR shall receive no additional compensation for overtime work, i.e., work in excess of 8 hours in any one calendar day or 40 hours in any one calendar week, even though such overtime work may be required under emergency conditions and may be ordered by the ENGINEER in writing.

Additional compensation will be paid the CONTRACTOR for overtime work only in the event extra work is ordered by the ENGINEER and the Change Order specifically authorizes the use of overtime work and then only to such extent as overtime wages are regularly being paid by the CONTRACTOR for overtime work of a similar nature in the same locality.

- C. All costs of inspection and testing performed during overtime work by the CONTRACTOR which is allowed solely for the convenience of the CONTRACTOR shall be borne by the CONTRACTOR. The OWNER shall have the authority to deduct the cost of all such inspection and testing from any partial payments otherwise due to the CONTRACTOR.
- D. Unless otherwise specified in the Contract Documents, the CONTRACTOR shall furnish and assume full responsibility for all materials, equipment, labor, transportation, construction equipment and machinery, tools, appliances, fuel, power, light, heat, telephone, water, sanitary facilities, and all other facilities and incidentals necessary for the furnishing, performance, testing, start-up, and completion of the WORK.
- E. All materials and equipment to be incorporated into the WORK shall be of good quality and new, except as otherwise provided in the Contract Documents. All warranties and guarantees specifically called for by the Specifications shall expressly run to the benefit of the OWNER. If required by the ENGINEER, the CONTRACTOR shall furnish satisfactory evidence (including reports of required tests) as to the kind and quality of materials and equipment. All materials and equipment shall be applied, installed, connected, erected, used, cleaned, and conditioned in accordance with the instructions of the applicable Supplier except as otherwise provided in the Contract Documents; but no provisions of any such instructions will be effective to assign to the ENGINEER, or any of the ENGINEER consultants, agents, or employees, any duty or authority to supervise or direct the furnishing or performance of the WORK or any duty or authority to undertake responsibility contrary to the provisions of Paragraphs 9.9C and 9.9D.
- F. The CONTRACTOR shall at all times employ sufficient labor and equipment for prosecuting the several classes of WORK to full completion in the manner and time set forth in and required by these specifications. All workers shall have sufficient skill and experience to perform property the WORK assigned to them. Workers engaged in special WORK, or skilled WORK, shall have sufficient experience in such WORK and in the operation of the equipment required to perform all WORK, properly and satisfactorily.
- G. Any person employed by the CONTRACTOR or by any Subcontractor who, in the opinion of the ENGINEER, does not perform the WORK in a proper and skillful manner, or is intemperate or disorderly shall, at the written request of the ENGINEER, be removed forthwith by the CONTRACTOR or Subcontractor employing such person, and shall not be employed again in any portion of the WORK without the approval of the ENGINEER. Should the CONTRACTOR fail to remove such person or persons as required above, or fail to furnish suitable and sufficient personnel for the proper prosecution of the WORK, the ENGINEER may suspend the WORK by written notice until such orders are complied with.
- 6.3 ADJUSTING PROGRESS SCHEDULE. The CONTRACTOR shall submit monthly updates of the progress schedule to the ENGINEER for acceptance in accordance with the provisions in Section 01300 CONTRACTOR Submittals in the General Requirements.

- 6.4 SUBSTITUTES OR "OR-EQUAL" ITEMS. The CONTRACTOR shall submit proposed substitutes or "or-equal" items in accordance with the provisions in Section 01300 CONTRACTOR Submittals in the General Requirements.
- 6.5 CONCERNING SUBCONTRACTORS, SUPPLIERS, AND OTHERS.
 - A. The CONTRACTOR shall be responsible to the OWNER and the ENGINEER for the acts and omissions of its Subcontractors and their employees to the same extent as CONTRACTOR is responsible for the acts and omissions of its own employees. Nothing contained in this Paragraph shall create any contractual relationship between any Subcontractor and the OWNER or the ENGINEER nor relieve the CONTRACTOR of any liability or obligation under the prime contract.
 - B. The CONTRACTOR shall perform not less than 40% of the WORK with its own forces (i.e., without subcontracting). The 40% requirement shall be understood to mean that the CONTRACTOR shall perform, with its own organization, WORK amounting to at least 40% of the awarded contract amount. The 40% requirement will be calculated based upon the total of the subcontract amounts submitted for contract award, and any other information requested by the OWNER from the apparent low bidder.

6.6 PERMITS

- A. Unless otherwise provided in the Supplementary General Conditions, the CONTRACTOR shall obtain and pay for all construction permits and licenses from the agencies having jurisdiction, including the furnishing of insurance and bonds if required by such agencies. The enforcement of such requirements under this contract shall not be made the basis for claims for additional compensation. The OWNER shall assist the CONTRACTOR, when necessary, in obtaining such permits and licenses. The CONTRACTOR shall pay all governmental charges and inspection fees necessary for the prosecution of the WORK, which are applicable at the time of opening of Bids. The CONTRACTOR shall pay all charges of utility owners for connections to the WORK.
- B. These Contract Documents may require that the WORK be performed within the conditions and/or requirements of local, state and/or federal permits. These permits may be bound within the Contract Documents, included within the Contract Documents by reference, or included as part of the WORK, as designated in this Section. The CONTRACTOR is responsible for completing the WORK required for compliance with all permit requirements; this WORK is incidental to other items in the Contract Documents. Any reference to the PERMITTEE in the permits shall mean the CONTRACTOR. If any permits were acquired by the OWNER, this action was done to expedite the start of construction. If the CONTRACTOR does not complete the WORK within the specified permit window, the CONTRACTOR shall be responsible for the permit extension, and for completing any additional requirements placed upon the permit.
- C. The OWNER shall apply for, and obtain, the necessary building permit for this Project, however, the CONTRACTOR is responsible for scheduling and coordinating all necessary inspections. The CBJ Inspection number is 586-1703. All other provisions of this Section remain in effect.

- ATENT FEES AND ROYALTIES. The CONTRACTOR shall pay all license fees and royalties and assume all costs incident to the use in the performance of the WORK or the incorporation in the WORK of any invention, design, process, product, software or device which is the subject of patent rights or copyrights held by others. If a particular invention, design, process, product, or device is specified in the Contract Documents for use in the performance of the WORK and if to the actual knowledge of the OWNER or the ENGINEER its use is subject to patent rights or copyrights calling for the payment of any license fee or royalty to others, the existence of such rights shall be disclosed by the OWNER in the Contract Documents. The CONTRACTOR shall indemnify, defend and hold harmless the OWNER and the ENGINEER and anyone directly or indirectly employed by either of them from and against all claims, damages, losses, and expenses (including attorneys' fees and court costs) arising out of any infringement of patent rights or copyrights incident to the use in the performance of the WORK or resulting from the incorporation in the WORK of any invention, design, process, product, or device not specified in the Contract Documents, and shall defend all such claims in connection with any alleged infringement of such rights.
- LAWS AND REGULATIONS. The CONTRACTOR shall observe and comply with all federal, state, and local laws, ordinances, codes, orders, and regulations which in any manner affect those engaged or employed on the WORK, the materials used in the WORK, or the conduct of the WORK. If any discrepancy or inconsistency should be discovered in this contract in relation to any such law, ordinance, code, order, or regulation, the CONTRACTOR shall report the same in writing to the ENGINEER. The CONTRACTOR shall indemnify, defend, and hold harmless the OWNER, the ENGINEER, and their officers, agents, and employees against all claims or liability arising from violation of any such law, ordinance, code, order, or regulation, whether by CONTRACTOR or by its employees, Subcontractors, or third parties. Any particular law or regulation specified or referred to elsewhere in the Contract Documents shall not in any way limit the obligation of the CONTRACTOR to comply with all other provisions of federal, state, and local laws and regulations.

 The OWNER may, per AS 36.30, audit the CONTRACTOR's or Subcontractor(s) records that are related to the cost or pricing data for this contract, all related Change Orders, and/or contract modifications.
- 6.9 TAXES. The CONTRACTOR shall pay all sales, consumer, use, and other similar taxes required to be paid by the CONTRACTOR in accordance with the Laws and Regulations of the place of the Project which are applicable during the performance of the WORK.
- USE OF PREMISES. The CONTRACTOR shall confine construction equipment, the storage of materials and equipment, and the operations of workers to (1) the Project site, (2) the land and areas identified in and permitted by the Contract Documents, and (3) the other land and areas permitted by Laws and Regulations, rights-of-way, permits, leases and easements. The CONTRACTOR shall assume full responsibility for any damage to any such land or area, or to the owner or occupant thereof or of any land or areas contiguous thereto, resulting from the performance of the WORK. Should any claim be made against the OWNER or the ENGINEER by any such owner or occupant because of the performance of the WORK, the CONTRACTOR shall promptly attempt to settle with such other party by agreement or otherwise resolve the claim through litigation. The CONTRACTOR shall, to the fullest extent permitted by Laws and Regulations, indemnify, defend, and hold the OWNER and the ENGINEER harmless from and against all claims, damages, losses, and expenses (including, but not limited to, fees of engineers attorneys, and other professionals and court costs) arising directly, indirectly, or consequentially out of any action, legal or equitable, brought by any such owner or occupant against the OWNER, the ENGINEER, their Consultants, Sub-consultants,

and the officers, directors, employees and agents of each and any of them to the extent caused by or based upon the CONTRACTOR's performance of the WORK.

6.11 SAFETY AND PROTECTION

- A. The CONTRACTOR shall be responsible for initiating, maintaining, and supervising all safety precautions and programs in connection with the WORK. The CONTRACTOR shall take all necessary precautions for the safety of, and shall provide the necessary protection to prevent damage, injury or loss to:
 - 1. all employees on the WORK and other persons and organizations who may be affected thereby;
 - 2. all the WORK and materials and equipment to be incorporated therein, whether in storage on or off the site; and
 - 3. other property at the site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures, and utilities not designated for removal, relocation, or replacement in the course of construction.
- B. The CONTRACTOR shall comply with all applicable Laws and Regulations whether referred to herein or not) of any public body having jurisdiction for the safety of persons or property or to protect them from damage, injury, or loss and shall erect and maintain all necessary safeguards for such safety and protection. The CONTRACTOR shall notify owners of adjacent property and utilities when prosecution of the WORK may affect them, and shall cooperate with them in the protection, removal, relocation, and replacement of their property.
- C. The CONTRACTOR shall designate a qualified and experienced safety representative at the site whose duties and responsibilities shall be the prevention of accidents and the maintaining and supervising of safety precautions and program.
- D. Materials that contain hazardous substances or mixtures may be required on the WORK. A Material Safety Data Sheet shall be requested by the CONTRACTOR from the manufacturer of any hazardous product used.
- E. Material usage shall be accomplished with strict adherence to all safety requirements and all manufacturer's warnings and application instructions listed on the Material Safety Data Sheet and on the product container label.
- F. The CONTRACTOR shall be responsible for coordinating communications on any exchange of Material Safety Data Sheets or other hazardous material information that is required to be made available to, or exchanged between, or among, employers at the site in accordance with Laws or Regulations.
- G. The CONTRACTOR shall notify the ENGINEER if it considers a specified product or its intended usage to be unsafe. This notification must be given to the ENGINEER prior to the product being ordered, or if provided by some other party, prior to the product being incorporated in the WORK.

6.12 SHOP DRAWINGS AND SAMPLES

- A. After checking and verifying all field measurements and after complying with applicable procedures specified in the General Requirements, the CONTRACTOR shall submit to the ENGINEER for review, all Shop Drawings in accordance with Section 01300 CONTRACTOR Submittals in the General Requirements.
- B. The CONTRACTOR shall also submit to the ENGINEER for review all samples in accordance with Section 01300 CONTRACTOR Submittals in the General Requirements.
- C. Before submittal of each shop drawing or sample, the CONTRACTOR shall have determined and verified all quantities, dimensions, specified performance criteria, installation requirements, materials, catalog numbers, and similar data with respect thereto and reviewed or coordinated each Shop Drawing or sample with other Shop Drawings and samples and with the requirements of the WORK and the Contract Documents.
- 6.13 CONTINUING THE WORK. The CONTRACTOR shall carry on the WORK and adhere to the progress schedule during all disputes or disagreements with the OWNER. No work shall be delayed or postponed pending resolution of any disputes or disagreements, except as the CONTRACTOR and the OWNER may otherwise agree in writing.

6.14 INDEMNIFICATION

- A. To the fullest extent permitted by Laws and Regulations, the CONTRACTOR shall indemnify, defend, and hold harmless the OWNER, the ENGINEER, their Consultants, Subconsultants and the officers, directors, employees, and agents of each and any of them, against and from all claims and liability arising under, by reason of or incidentally to the contract or any performance of the WORK, but not from the sole negligence or willful misconduct of the OWNER, and the ENGINEER. Such indemnification by the CONTRACTOR shall include but not be limited to the following:
 - 1. Liability or claims resulting directly or indirectly from the negligence or carelessness of the CONTRACTOR, its employees, or agents in the performance of the WORK, or in guarding or maintaining the same, or from any improper materials, implements, or appliances used in its construction, or by or on account of any act or omission of the CONTRACTOR, its employees, agents, or third parties;
 - 2. Liability or claims arising directly or indirectly from bodily injury, occupational sickness or disease, or death of the CONTRACTOR's or Subcontractor's own employees engaged in the WORK resulting in actions brought by or on behalf of such employees against the OWNER, and the ENGINEER;
 - 3. Liability or claims arising directly or indirectly from or based on the violation of any law, ordinance, regulation, order, or decree, whether by the CONTRACTOR, its employees, or agents;
 - 4. Liability or claims arising directly or indirectly from the use or manufacture by the CONTRACTOR, its employees, or agents in the performance of this contract of any copyrighted or non-copyrighted composition, secret process, patented or non-patented invention, computer software, article, or appliance, unless otherwise specifically stipulated in this contract.

- 5. Liability or claims arising directly or indirectly from the breach of any warranties, whether express or implied, made to the OWNER or any other parties by the CONTRACTOR, its employees, or agents;
- 6. Liabilities or claims arising directly or indirectly from the willful or criminal misconduct of the CONTRACTOR, its employees, or agents; and,
- 7. Liabilities or claims arising directly or indirectly from any breach of the obligations assumed herein by the CONTRACTOR.
- B. The CONTRACTOR shall reimburse the ENGINEER and the OWNER for all costs and expenses, (including but not limited to fees and charges of engineers, attorneys, and other professionals and court costs including all costs of appeals) incurred by said OWNER, and the ENGINEER in enforcing the provisions of this Paragraph 6.14.
- C. The indemnification obligation under this Paragraph 6.14 shall not be limited in any way by any limitation of the amount or type of damages, compensation, or benefits payable by or for the CONTRACTOR or any such Subcontractor or other person or organization under workers' compensation acts, disability benefit acts, or other employee benefit acts.
- 6.15 CONTRACTOR'S DAILY REPORTS. The CONTRACTOR shall complete a daily report indicating total manpower for each construction trade, major equipment on site, each Subcontractor's manpower, weather conditions, etc., involved in the performance of the WORK. The daily report shall be completed on forms provided by the ENGINEER and shall be submitted to the ENGINEER at the conclusion of each workday. The report should comment on the daily progress and status of the WORK within each major component of the WORK. These components will be decided by the ENGINEER. CONTRACTOR shall record the name, affiliation, time of arrival and departure, and reason for visit for all visitors to the location of the WORK.
- 6.16 ASSIGNMENT OF CONTRACT. The CONTRACTOR shall not assign, sublet, sell, transfer, or otherwise dispose of the contract or any portion thereof, or its right, title, or interest therein, or obligations thereunder, without the written consent of the OWNER except as imposed by law. If the CONTRACTOR violates this provision, the contract may be terminated at the option of the OWNER. In such event, the OWNER shall be relieved of all liability and obligations to the CONTRACTOR and to its assignee or transferee, growing out of such termination.
- 6.17 CONTRACTOR'S RESPONSIBILITY FOR UTILITY PROPERTY AND SERVICES. It is understood that any turn-on or turn-off, line locates and any other work or assistance necessary by the CBJ Water Utilities Division, will be at the CONTRACTOR's expense unless otherwise stated in the bid documents. All cost must be agreed to prior to any related actions, and will be considered incidental to the project cost. Billing to the CONTRACTOR will be direct from the CBJ Water Utilities Division.

6.18 OPERATING WATER SYSTEM VALVES

A. The CONTRACTOR shall submit a written request, to the ENGINEER, for approval to operate any valve on any in-service section of the CBJ water system. The request must be submitted at least 24-hours prior to operating any valves. The CBJ Water Utilities Division reserves the right to approve or deny the request. The request shall specifically identify each valve to be operated, the time of operation, and the operation to be performed. The

- CONTRACTOR shall obtain the written approval of the ENGINEER for any scheduled operation before operating any valve.
- B. The CONTRACTOR shall be responsible for all damages, both direct and consequential, to the City or any other party, caused by unauthorized operation of any valve of the CBJ water system.
- 6.19 CONTRACTOR'S WORK SCHEDULE LIMITATIONS. Construction of Buildings and Projects. It is unlawful to operate any pile driver, power shovel, pneumatic hammer, derrick, power hoist, or similar heavy construction equipment before 7:00 a.m. or after 10:00 p.m., Monday through Friday, or before 9:00 a.m. or after 10:00 p.m., Saturday and Sunday, unless a permit shall first be obtained from the City and Borough Building Official. Such permit shall be issued by the Building Official only upon a determination that such operation during hours not otherwise permitted hereunder is necessary and will not result in unreasonable disturbance to surrounding residents.

ARTICLE 7 OTHER WORK

7.1 RELATED WORK AT SITE

- A. The OWNER may perform other work related to the Project at the site by the OWNER's own forces, have other work performed by utility owners, or let other direct contracts therefor which may contain General Conditions similar to these. If the fact that such other work is to be performed was not noted in the Contract Documents, written notice thereof will be given to the CONTRACTOR prior to starting any such other work.
- B. The CONTRACTOR shall afford each other contractor who is a party to such a direct contract and each utility owner (or the OWNER, if the OWNER is performing the additional work with the OWNER's employees) proper and safe access to the site and a reasonable opportunity for the introduction and storage of materials and equipment and the execution of such work, and shall properly connect and coordinate the WORK with theirs. The CONTRACTOR shall do all cutting, fitting, and patching of the WORK that may be required to make its several parts come together properly and integrate with such other work. The CONTRACTOR shall not endanger any work of others by cutting, excavating, or otherwise altering their work and will only cut or alter their work with the written consent of the ENGINEER and the others whose work will be affected.
- C. If the proper execution or results of any part of the CONTRACTOR's work depends upon the work of any such other contractor or utility owner (or OWNER), the CONTRACTOR shall inspect and report to the ENGINEER in writing any delays, defects, or deficiencies in such other work that render it unavailable or unsuitable for such proper execution and results. The CONTRACTOR's failure to report such delays, defects, or deficiencies will constitute an acceptance of the other work as fit and proper for integration with the CONTRACTOR's work except for latent or nonapparent defects and deficiencies in the other work.
- 7.2 COORDINATION. If the OWNER contracts with others for the performance of other work on the Project at the site, the person or organization who will have authority and responsibility for coordination of the activities among the various prime contractors will be identified in the Supplementary General Conditions, and the specific matters to be covered by such authority and

responsibility will be itemized and the extent of such authority and responsibilities will be provided in the Supplementary General Conditions.

ARTICLE 8 OWNER'S RESPONSIBILITIES

8.1 COMMUNICATIONS

- A. The OWNER shall issue all its communications to the CONTRACTOR through the ENGINEER.
- B. The CONTRACTOR shall issue all its communications to the OWNER through the ENGINEER.
- 8.2 PAYMENTS. The OWNER shall make payments to the CONTRACTOR as provided in Paragraphs 14.5, 14.8, 14.9 and 14.10.
- 8.3 LANDS, EASEMENTS, AND SURVEYS. The OWNER's duties in respect of providing lands and easements and providing surveys to establish reference points are set forth in Paragraphs 4.1 and 4.5.
- 8.4 CHANGE ORDERS. The OWNER shall execute Change Orders as indicated in Paragraph 10.1F.
- 8.5 INSPECTIONS AND TESTS. The OWNER's responsibility in respect of inspections, tests, and approvals is set forth in Paragraph 13.3.
- 8.6 SUSPENSION OF WORK. In connection with the OWNER's right to stop WORK or suspend WORK, see Paragraphs 13.4 and 15.1.
- 8.7 TERMINATION OF AGREEMENT. Paragraphs 15.2 and 15.3 deal with the OWNER's right to terminate services of the CONTRACTOR.

ARTICLE 9 ENGINEER'S STATUS DURING CONSTRUCTION

- 9.1 OWNER'S REPRESENTATIVE. The ENGINEER will be the OWNER's representative during the construction period. The duties and responsibilities and the limitations of authority of the ENGINEER as the OWNER's representative during construction are set forth in the Contract Documents.
- 9.2 VISITS TO SITE. The ENGINEER will make visits to the site during construction to observe the progress and quality of the WORK and to determine, in general, if the WORK is proceeding in accordance with the Contract Documents. Exhaustive or continuous on-site inspections to check the quality or quantity of the WORK will not be required of the ENGINEER. The ENGINEER will not, during such visits, or as a result of such observations of the CONTRACTOR's WORK in progress, supervise, direct, or have control over the CONTRACTOR's WORK.
- 9.3 PROJECT REPRESENTATION. The ENGINEER may furnish an Inspector to assist in observing the performance of the WORK. The duties, responsibilities, and limitations of authority are as follows:
 - A. Duties, Responsibilities and Limitations of Authority of Inspector

General. The Inspector, who is the ENGINEER's Agent, will act as directed by and under the supervision of the ENGINEER and will confer with the ENGINEER regarding its actions. The Inspector's dealings in matters pertaining to the on-site WORK shall, in general, be only with the ENGINEER and the CONTRACTOR, and dealings with Subcontractors shall only be through or with the full knowledge of the CONTRACTOR. Written communication with the OWNER will be only through or as directed by the ENGINEER.

Duties and Responsibilities. The Inspector may:

- 1. Review the progress schedule, list of Shop Drawing submittals and schedule of values prepared by the CONTRACTOR and consult with the ENGINEER concerning their acceptability.
- 2. Attend pre-construction conferences. Arrange a schedule of progress meetings and other job conferences as required in consultation with the ENGINEER and notify those expected to attend in advance. Attend meetings and maintain and circulate copies of minutes thereof.
- 3. Serve as the ENGINEER's liaison with the CONTRACTOR, working principally through the CONTRACTOR's superintendent and assist said superintendent in understanding the intent of the Contract Documents. Assist the ENGINEER in serving as the OWNER's liaison with the CONTRACTOR when the CONTRACTOR's operations affect the OWNER's on-site operations.
- 4. As requested by the ENGINEER, assist in obtaining from the OWNER additional details or information, when required at the site for proper execution of the WORK.
- 5. Receive and record date of receipt of Shop Drawings and samples, receive samples which are furnished at the site by the CONTRACTOR and notify the ENGINEER of their availability for examination.
- 6. Conduct on-site observations of the WORK in progress to assist the ENGINEER in determining if the WORK is proceeding in accordance with the Contract Documents.
- 7. Report to the ENGINEER whenever the Inspector believes that any WORK is unsatisfactory, faulty, or defective or does not conform to the Contract Documents, or does not meet the requirements of any inspection, tests or approval required to be made or has been damaged prior to final payment; and advise the ENGINEER when the Inspector believes WORK should be corrected or rejected or should be uncovered for observation, or requires special testing, inspection, or approval.
- 8. Verify that the tests, equipment, and systems startups and operating and maintenance instruction are conducted as required by the Contract Documents and in presence of the required personnel, and that the CONTRACTOR maintains adequate records thereof; observe, record and report to the ENGINEER appropriate details relative to the test procedures and start-ups.
- 9. Accompany visiting inspectors representing public or other agencies having jurisdiction over the WORK, record the outcome of these inspections, and report to the ENGINEER.
- 10. Transmit to the CONTRACTOR the ENGINEER's clarifications and interpretations of the Contract Documents.
- 11. Consider and evaluate the CONTRACTOR's suggestions for modifications in the Contract Documents and report them with recommendations to the ENGINEER.
- 12. Maintain at the job site orderly files for correspondence, reports of job conferences, Shop Drawings and sample submittals, reproductions of original Contract Documents

including all addenda, Change Orders, field orders, additional Drawings issued subsequent to the execution of the contract, the ENGINEER's clarifications and interpretations of the Contract Documents, progress reports, and other related documents.

- 13. Keep a diary or log book, recording hours on the job site, weather conditions, data relative to questions of extras or deductions, list all project visitors, daily activities, decisions, observations in general, and specific observations in more detail as in the case of performing and observing test procedures. Send copies to the ENGINEER.
- 14. Record names, addresses, and telephone numbers of the CONTRACTOR, Subcontractors, and major suppliers of materials and equipment.
- 15. Furnish the ENGINEER with periodic reports as required of progress of the WORK and the CONTRACTOR's compliance with the accepted progress schedule and schedule of CONTRACTOR submittals.
- 16. Consult with the ENGINEER in advance of scheduled major tests, inspections, or start of important phases of the WORK.
- 17. Report immediately to the ENGINEER upon the occurrence of any accident.
- 18. Review applications for payment with the CONTRACTOR for compliance with the established procedure for their submittal and forward them with recommendations to the ENGINEER, noting particularly their relation to the schedule of values, WORK completed, and materials and equipment delivered at the site but not incorporated in the WORK.
- 19. During the course of the WORK, verify that certificates, maintenance and operation manuals, and other data required to be assembled and furnished by the CONTRACTOR are applicable to the items actually installed; and deliver this material to the ENGINEER for its review and forwarding to the OWNER prior to final acceptance of the WORK.
- 20. Before the ENGINEER prepares a Certificate of Substantial Completion/Notice of Completion, as applicable, review the CONTRACTOR's punch list items requiring completion or correction and add any items that CONTRACTOR has omitted.
- 21. Conduct final inspection in the company of the ENGINEER, the OWNER, and the CONTRACTOR, and prepare a final punch list of items to be completed or corrected.
- 22. Verify that all items on the punch list have been completed or corrected and make recommendations to the ENGINEER concerning acceptance.

Limitations of Authority. Except upon written instruction of the ENGINEER, the Inspector:

- 1. Shall not authorize any deviation from the Contract Documents or approve any substitute material or equipment.
- 2. Shall not exceed limitations on the ENGINEER's authority as set forth in the Contract Documents.
- 3. Shall not undertake any of the responsibilities of the CONTRACTOR, Subcontractors or CONTRACTOR's superintendent, or expedite the WORK.
- 4. Shall not advise on or issue directions relative to any aspect of the means, methods, techniques, sequences, or procedures of construction unless such is specifically called for in the Contract Documents.
- 5. Shall not advise on or issue directions as to safety precautions and programs in connection with the WORK.

- 9.4 CLARIFICATIONS AND INTERPRETATIONS. The ENGINEER will issue with reasonable promptness such written clarifications or interpretations of the requirements of the Contract Documents (in the form of Drawings or otherwise) as the ENGINEER may determine necessary, which shall be consistent with, or reasonably inferred from, the overall intent of the Contract Documents.
- 9.5 AUTHORIZED VARIATIONS IN WORK. The ENGINEER may authorize variations in the WORK from the requirements of the Contract Documents. These may be accomplished by a Field Order and will require the CONTRACTOR to perform the WORK involved in a manner that minimizes the impact to the WORK and the contract completion date. If the CONTRACTOR believes that a Field Order justifies an increase in the Contract Price or an extension of the Contract Time, the CONTRACTOR may make a claim therefor as provided in Article 11 or 12.
- 9.6 REJECTING DEFECTIVE WORK. The ENGINEER will have authority to reject WORK which the ENGINEER believes to be defective and will also have authority to require special inspection or testing of the WORK as provided in Paragraph 13.3G, whether or not the WORK is fabricated, installed, or completed.

9.7 CONTRACTOR SUBMITTALS, CHANGE ORDERS, AND PAYMENTS

- A. In accordance with the procedures set forth in the General Requirements, the ENGINEER will review all CONTRACTOR submittals, including Shop Drawings, samples, substitutes, or "or equal" items, etc., in order to determine if the items covered by the submittals will, after installation or incorporation in the WORK, conform to the requirements of the Contract Documents and be compatible with the design concept of the completed project as a functioning whole as indicated by the Contract Documents. The ENGINEER's review will not extend to means, methods, techniques, sequences or procedures of construction or to safety precautions or programs incident thereto.
- B. In connection with the ENGINEER's responsibilities as to Change Orders, see Articles 10, 11, and 12.
- C. In connection with the ENGINEER's responsibilities in respect of Applications for Payment, see Article 14.

9.8 DECISIONS ON DISPUTES

A. The ENGINEER will be the initial interpreter of the requirements of the Contract Documents and judge of the acceptability of the WORK thereunder. Claims, disputes, and other matters relating to the acceptability of the WORK; the interpretation of the requirements of the Contract Documents pertaining to the performance of the WORK; and those claims under Articles 11 and 12 in respect to changes in the Contract Price or Contract Time will be referred initially to the ENGINEER in writing with a request for formal decision in accordance with this paragraph, which the ENGINEER will render in writing within 30 days of receipt of the request. Written notice of each such claim, dispute, and other matter will be delivered by the CONTRACTOR to the ENGINEER promptly (but in no event later than 30 days) after the occurrence of the event giving rise thereto. Written supporting data will be submitted to the ENGINEER within 60 days after such occurrence unless the ENGINEER allows an additional period of time to ascertain more accurate data in support of the claim.

B. The rendering of a decision by the ENGINEER with respect to any such claim, dispute, or other matter (except any which have been waived by the making or acceptance of final payment as provided in Paragraph 14.12) will be a condition precedent to any exercise by the OWNER or the CONTRACTOR of such rights or remedies as either may otherwise have under the Contract Documents or by Law or Regulations in respect of any such claim, dispute, or other matter.

9.9 LIMITATION ON ENGINEER'S RESPONSIBILITIES

- A. Neither the ENGINEER's authority to act under this Article or other provisions of the Contract Documents nor any decision made by the ENGINEER in good faith either to exercise or not exercise such authority shall give rise to any duty or responsibility of the ENGINEER to the CONTRACTOR, any Subcontractor, any Supplier, any surety for any of them, or any other person or organization performing any of the WORK.
- B. Whenever in the Contract Documents the terms "as ordered," "as directed," "as required," "as allowed," "as reviewed," "as approved," or terms of like effect or import are used, or the adjectives "reasonable," "suitable," "acceptable," "proper," or "satisfactory" or adjectives of like effect or import are used to describe a requirement, direction, review, or judgment of the ENGINEER as to the WORK, it is intended that such requirement, direction, review, or judgment will be solely to evaluate the WORK for compliance with the requirements of the Contract Documents, and conformance with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents, unless there is a specific statement indicating otherwise. The use of any such term or adjective shall not be effective to assign to the ENGINEER any duty or authority to supervise or direct the performance of the WORK or any duty or authority to undertake responsibility contrary to the provisions of Paragraph 9.9C or 9.9D.
- C. The ENGINEER will not supervise, direct, control, or have authority over or be responsible for the CONTRACTOR's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of the CONTRACTOR to comply with Laws and Regulations, applicable to the performance of the WORK. The ENGINEER will not be responsible for the CONTRACTOR's failure to perform the WORK in accordance with the Contract Documents.
- D. The ENGINEER will not be responsible for the acts or omissions of the CONTRACTOR nor of any Subcontractor, supplier, or any other person or organization performing any of the WORK.

ARTICLE 10 CHANGES IN THE WORK

10.1 GENERAL

A. Without invalidating the Agreement and without notice to any surety, the OWNER may at any time or from time to time, order additions, deletions, or revisions in the WORK; these will be authorized by a written Field Order and/or a Change Order issued by the ENGINEER.

- B. If the CONTRACTOR believes that it is entitled to an increase or decrease in the Contract Price, or an extension or shortening in the Contract Time as the result of a Field Order, a claim may be made as provided in Articles 11 and 12.
- C. If the OWNER and CONTRACTOR agree on the value of any work, or the amount of Contract Time that should be allowed as a result of a Field Order, upon receiving written notice from the ENGINEER, the CONTRACTOR shall proceed so as to minimize the impact on and delays to the work pending the issuance of a Change Order.
- D. If the OWNER and the CONTRACTOR are unable to agree as to the extent, if any, of an increase or decrease in the Contract Price or an extension or shortening of the Contract Time that should be allowed as a result of a Field Order, the ENGINEER can direct the CONTRACTOR to proceed on the basis of Time and Materials so as to minimize the impact on and delays to WORK, and a claim may be made therefor as provided in Articles 11 and 12.
- E. The CONTRACTOR shall not be entitled to an increase in the Contract Price nor an extension of the Contract Time with respect to any work performed that is not required by the Contract Documents as amended, modified, supplemented by Change Order, except in the case of an emergency and except in the case of uncovering work as provided in Paragraph 13.3G.
- F. The OWNER and the CONTRACTOR shall execute appropriate Change Orders covering:
 - 1. changes in the WORK which are ordered by the OWNER pursuant to Paragraph 10.1A:
 - 2. changes required because of acceptance of Defective WORK under Paragraph 13.7;
 - 3. changes in the Contract Price or Contract Time which are agreed to by the parties; or
 - 4. changes in the Contract Price or Contract Times which embody the substance of any written decision rendered by the ENGINEER pursuant to Paragraph 9.8.
- G. If notice of any change is required by the provisions of any Bond to be given to a surety, the giving of any such notice will be the CONTRACTOR's responsibility, and the amount of each applicable Bond shall be adjusted accordingly.

10.2 ALLOWABLE QUANTITY VARIATIONS

- A. In the event of an increase or decrease in Bid item quantity of a unit price contract, the total amount of WORK actually done or materials or equipment furnished shall be paid for according to the unit price established for such WORK under the Contract Documents, wherever such unit price has been established; provided, that an adjustment in the Contract Price may be made for changes which result in an increase or decrease in excess of 25% of the estimated quantity of any major item of the WORK. Major Item is defined as any bid item amount that is ten percent (10%) or more of the total contract amount.
- B. In the event a part of the WORK is to be entirely eliminated and no lump sum or unit price is named in the Contract Documents to cover such eliminated work, the price of the eliminated work shall be agreed upon in writing by the OWNER and the CONTRACTOR. If the

OWNER and the CONTRACTOR fail to agree upon the price of the eliminated work, said price shall be determined in accordance with the provisions of Article 11.

ARTICLE 11 CHANGE OF CONTRACT PRICE

11.1 GENERAL

- A. The Contract Price constitutes the total compensation payable to the CONTRACTOR for performing the WORK. All duties, responsibilities, and obligations assigned to or undertaken by the CONTRACTOR to complete the WORK shall be at its expense without change in the Contract Price.
- B. The Contract Price may only be changed by a Change Order. Any claim for an increase in the Contract Price shall be based on written notice delivered by the CONTRACTOR to the ENGINEER promptly (but in no event later than 7 days) after the start of the occurrence or the event giving rise to the claim and stating the general nature of the claim. Notice of the amount of the claim with supporting data shall be delivered within 14 days after such occurrence (unless the ENGINEER allows an additional period of time to ascertain more accurate data in support of the claim) and shall be accompanied by the CONTRACTOR's written statement that the amount claimed covers all known amounts (direct, indirect, and consequential) to which the CONTRACTOR is entitled as a result of said occurrence or event. All claims for adjustment in the Contract Price shall be determined by the ENGINEER in accordance with Paragraph 9.8A if the OWNER and the CONTRACTOR cannot otherwise agree on the amount involved. No claim for an adjustment in the Contract Price will be valid if not submitted in accordance with this Paragraph 11.1B.
- C. The value of any WORK covered by a Change Order or of any claim for an increase or decrease in the Contract Price shall be determined in one of the following ways:
 - 1. Where the WORK involved is covered by unit prices contained in the Contract Documents, by application of unit prices to the quantities of the items involved.
 - 2. By mutual acceptance of a lump sum, which may include an allowance for overhead and profit not necessarily in accordance with Paragraph 11.4.
 - 3. On the basis of the cost of WORK (determined as provided in Paragraphs 11.3) plus a CONTRACTOR's fee for overhead and profit (determined as provided in Paragraph 11.4).
- 11.2 COSTS RELATING TO WEATHER. The CONTRACTOR shall have no claims against the OWNER for damages for any injury to WORK, materials, or equipment, resulting from the action of the elements. If, however, in the opinion of the ENGINEER, the CONTRACTOR has made all reasonable efforts to protect the materials, equipment and work, the CONTRACTOR may be granted a reasonable extension of Contract Time to make proper repairs, renewals, and replacements of the work, materials, or equipment.
- 11.3 COST OF WORK (BASED ON TIME AND MATERIALS)
 - A. General. The term "cost of work" means the sum of all costs necessarily incurred and paid by the CONTRACTOR for labor, materials, and equipment in the proper performance of extra work. Except as otherwise may be agreed to in writing by the OWNER, such costs shall be

in amounts no higher than those prevailing in the locality of the Project; shall include only the following items, and shall not include any of the costs itemized in Paragraph 11.5 EXCLUDED COSTS.

- B. Labor. The costs of labor will be the actual cost for wages prevailing for each craft or type of workers performing the extra work at the time the extra work is done, plus employer payments of payroll taxes, worker's compensation insurance, liability insurance, health and welfare, pension, vacation, apprenticeship funds, and other direct costs resulting from Federal, State or local laws, as well as assessments or benefits required by lawful collective bargaining agreements. Labor costs for equipment operators and helpers shall be paid only when such costs are not included in the invoice for equipment rental. The labor costs for forepersons shall be proportioned to all of their assigned work and only that applicable to extra work shall be paid. Non-direct labor costs including superintendence shall be considered part of the mark-up set out in paragraph 11.4.
- C. Materials. The cost of materials reported shall be at invoice or lowest current price at which materials are locally available and delivered to the job in the quantities involved, plus the cost of freight, delivery and storage, subject to the following:
 - 1. Trade discounts available to the purchaser shall be credited to the OWNER notwithstanding the fact that such discounts may not have been taken by the CONTRACTOR.
 - 2. For materials secured by other than a direct purchase and direct billing to the purchaser, the cost shall be deemed to be the price paid to the actual supplier as determined by the ENGINEER. Mark-up except for actual costs incurred in the handling of such materials will not be allowed.
 - 3. Payment for materials from sources owned wholly or in part by the purchaser shall not exceed the price paid by the purchaser for similar materials from said sources on extra work items or the current wholesale price for such materials delivered to the work site, whichever price is lower.
 - 4. If in the opinion of the ENGINEER the cost of material is excessive, or the CONTRACTOR does not furnish satisfactory evidence of the cost of such material, then the cost shall be deemed to be the lowest current wholesale price for the quantity concerned delivered to the work site less trade discount. The OWNER reserves the right to furnish materials for the extra work and no claim shall be allowed by the CONTRACTOR for costs and profit on such materials.
- D. Equipment. The CONTRACTOR will be paid for the use of equipment at the rental rate listed for such equipment specified in the Supplementary General Conditions. Such rental rate will be used to compute payments for equipment whether the equipment is under the CONTRACTOR's control through direct ownership, leasing, renting, or another method of acquisition. The rental rate to be applied for use of each item of equipment shall be the rate resulting in the least total cost to the OWNER for the total period of use. If it is deemed necessary by the CONTRACTOR to use equipment not listed in the publication specified in the Supplementary General Conditions, an equitable rental rate for the equipment will be established by the ENGINEER. The CONTRACTOR may furnish cost data which might assist the ENGINEER in the establishment of the rental rate.

- 1. All equipment shall, in the opinion of the ENGINEER, be in good working condition and suitable for the purpose for which the equipment is to be used.
- 2. Before construction equipment is used on the extra work, the CONTRACTOR shall plainly stencil or stamp an identifying number thereon at a conspicuous location, and shall furnish to the ENGINEER, in duplicate, a description of the equipment and its identifying number.
- 3. Unless otherwise specified, manufacturer's ratings and manufacturer approved modifications shall be used to classify equipment for the determination of applicable rental rates. Equipment which has no direct power unit shall be powered by a unit of at least the minimum rating recommended by the manufacturer.
- 4. Individual pieces of equipment or tools having a replacement value of \$200 or less, whether or not consumed by use, shall be considered to be small tools and no payment will be made therefor.
- 5. Rental time will not be allowed while equipment is inoperative due to breakdowns.
- 6. Equipment Rental Rates. Unless otherwise agreed in writing, the CONTRACTOR will be paid for the use of equipment at the rental rate listed for such equipment specified in the current edition of the following reference publication: "Rental Rate Blue Book" as published by Dataquest (a company of the Dunn and Bradstreet Corporation), 1290 Ridder Park Drive, San Jose, CA 95131, telephone number (800) 227-8444.
- E. Equipment on the Work Site. The rental time to be paid for equipment on the work site shall be the time the equipment is in productive operation on the extra work being performed and, in addition, shall include the time required to move the equipment to the location of the extra work and return it to the original location or to another location requiring no more time than that required to return it to its original location; except, that moving time will not be paid if the equipment is used on other than the extra work, even though located at the site of the extra work. Loading and transporting costs will be allowed, in lieu of moving time, when the equipment is moved by means other than its own power, except that no payment will be made for loading and transporting costs when the equipment is used at the site of the extra work on other than the extra work. The following shall be used in computing the rental time of equipment on the work site.
 - 1. When hourly rates are listed, any part of an hour less than 30 minutes of operation shall be considered to be 1/2-hour of operation, and any part of an hour in excess of 30 minutes will be considered one hour of operation.
 - 2. When daily rates are listed, any part of a day less than 4 hours operation shall be considered to be 1/2-day of operation. When owner-operated equipment is used to perform extra work to be paid for on a time and materials basis, the CONTRACTOR will be paid for the equipment and operator, as set forth in Paragraphs (3), (4), and (5), following.
 - 3. Payment for the equipment will be made in accordance with the provisions in Paragraph 11.3D, herein.
 - 4. Payment for the cost of labor and subsistence or travel allowance will be made at the rates paid by the CONTRACTOR to other workers operating similar equipment already on the work site, or in the absence of such labor, established by collective bargaining agreements for the type of worker and location of the extra work, whether or not the operator is actually covered by such an agreement. A labor surcharge will be added to the cost of labor described herein in accordance with the provisions of Paragraph 11.3B, herein, which surcharge shall constitute full compensation for

- payments imposed by state and federal laws and all other payments made to or on behalf of workers other than actual wages.
- 5. To the direct cost of equipment rental and labor, computed as provided herein, will be added the allowances for equipment rental and labor as provided in Paragraph 11.4, herein.
- F. Specialty Work. Specialty work is defined as that work characterized by extraordinary complexity, sophistication, or innovation or a combination of the foregoing attributes which are unique to the construction industry. The following shall apply in making estimates for payment for specialty work:
 - 1. Any bid item of WORK to be classified as Specialty Work shall be listed as such in the Supplementary General Conditions. Specialty work shall be performed by an entity especially skilled in the work to be performed. After validation of invoices and determination of market values by the ENGINEER, invoices for specialty work based upon the current fair market value thereof may be accepted without complete itemization of labor, material, and equipment rental costs.
 - 2. When the CONTRACTOR is required to perform work necessitating special fabrication or machining process in a fabrication or a machine shop facility away from the job site, the charges for that portion of the work performed at the off-site facility may, by agreement, be accepted as specialty work and accordingly, the invoices for the work may be accepted without detailed itemization.
 - 3. All invoices for specialty work will be adjusted by deducting all trade discounts offered or available, whether the discounts were taken or not. In lieu of the allowances for overhead and profit specified in Paragraph 11.4, herein, an allowance of 5 percent will be added to invoices for specialty work.
- G. Sureties. All work performed hereunder shall be subject to all of the provisions of the Contract Documents and the CONTRACTOR's sureties shall be bound with reference thereto as under the original Agreement. Copies of all amendments to surety bonds or supplemental surety bonds shall be submitted to the OWNER for review prior to the performance of any work hereunder.

11.4 CONTRACTOR'S FEE

A. Extra work ordered on the basis of time and materials will be paid for at the actual necessary cost as determined by the ENGINEER, plus allowances for overhead and profit. The allowance for overhead and profit shall include full compensation for superintendence, bond and insurance premiums, taxes, field office expense, extended overhead, home office overhead, and all other items of expense or cost not included in the cost of labor, materials, or equipment provided for under Paragraph 11.3. The allowance for overhead and profit will be made in accordance with the following schedule:

Actual Overhead and Profit Allowance	
Labor	15 percent
Materials	10 percent
Equipment	10 percent

To the sum of the costs and mark-ups provided for in this Article, one percent shall be added as compensation for bonding.

B. It is understood that labor, materials, and equipment may be furnished by the CONTRACTOR or by the Subcontractor on behalf of the CONTRACTOR. When all or any part of the extra work is performed by a Subcontractor, the allowance specified herein shall be applied to the labor, materials, and equipment costs of the Subcontractor, to which the CONTRACTOR may add 5 percent of the Subcontractor's total cost for the extra work. Regardless of the number of hierarchical tiers of Subcontractors, the 5 percent increase above the Subcontractor's total cost which includes the allowances for overhead and profit specified herein may be applied one time only.

11.5 EXCLUDED COSTS. The term "Cost of the Work" shall not include any of the following:

- A. Payroll costs and other compensation of CONTRACTOR's officers, executives, principals (of partnership and sole proprietorships), general managers, engineers, estimators, attorneys' auditors, accountants, purchasing and contracting agents, expenditures, timekeepers, clerks and other personnel employed by CONTRACTOR whether at the site or in CONTRACTOR's principal or a branch office for general administration of the work, or not specifically covered by paragraph 11.3, all of which are to be considered administrative costs covered by the CONTRACTOR's fee.
- B. Expenses of CONTRACTOR's principal and branch offices other than CONTRACTOR's office at the site.
- C. Any part of CONTRACTOR's capital expenses, including interest on CONTRACTOR's capital employed for the WORK and charges against CONTRACTOR for delinquent payments.
- D. Cost of premiums for all bonds and for all insurance whether or not CONTRACTOR is required by the Contract Documents to purchase and maintain the same (except for the cost of premiums covered by paragraph 11.4 above).
- E. Costs due to the negligence of CONTRACTOR, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, including but not limited to, the correction of Defective WORK, disposal of materials or equipment wrongly supplied and making good any damage to property.
- F. Other overhead or general expense costs of any kind and the cost of any item not specifically and expressly included in paragraph 11.4.

ARTICLE 12 CHANGE OF CONTRACT TIME

12.1 GENERAL

A. The Contract Time may only be changed by a Change Order. Any claim for an extension of the Contract Time (or Milestones) shall be based on written notice delivered by the CONTRACTOR to the ENGINEER promptly (but in no event later than 30 days) after the occurrence of the event giving rise to the claim and stating the general nature of the claim. Notice of the extent of the claim with supporting data shall be delivered within 60 days after such occurrence (unless the ENGINEER allows an additional period of time to ascertain more accurate data in support of the claim) and shall be accompanied by the

CONTRACTOR's written statement that the adjustment claimed is the entire adjustment to which the CONTRACTOR has reason to believe it is entitled as a result of the occurrence of said event. All claims for adjustment in the Contract Time shall be determined by the ENGINEER in accordance with Paragraph 9.8 if the OWNER and the CONTRACTOR cannot otherwise agree. No claim for an adjustment in the Contract Time will be valid if not submitted in accordance with the requirements of this Paragraph 12.1A. An increase in Contract Time does not mean that the Contractor is due an increase in Contract Price. Only compensable time extensions will result in an increase in Contract Price.

- B. All time limits stated in the Contract Documents are of the essence of the Agreement.
- C. Where CONTRACTOR is prevented from completing any part of the WORK within the Contract Times (or Milestones) due to delay beyond the control of CONTRACTOR, the Contract Times (or Milestones) will be extended in an amount equal to the time lost on the critical path of the project due to such delay if a claim is made therefor as provided in paragraph 12.1. Delays beyond the control of CONTRACTOR shall include, but not be limited to, acts or neglect by OWNER, acts or neglect of utility owners or other contractors performing other work as contemplated by Article 7, fires, floods, epidemics, unprecedented weather conditions or acts of God. Delays attributable to and within the control of a Subcontractor or Supplier shall be deemed to be delays within the control of CONTRACTOR.
- D. Where CONTRACTOR is prevented from completing any part of the WORK within the Contract Times (or Milestones) due to delay beyond the control of both OWNER and CONTRACTOR, an extension of the Contract Times (or Milestones) in an amount equal to the time lost on the critical path of the project due to such delay shall be CONTRACTOR's sole and exclusive remedy for such delay. In no event shall the OWNER be liable to CONTRACTOR, any Subcontractor, any Supplier, or any other person or organization, or to any surety for or employee or agent of any of them, for damages arising out of or resulting from (i) delays caused by or within the control of CONTRACTOR, or (ii) delays beyond the control of both parties including but not limited to fires, floods, epidemics abnormal weather conditions, acts of God or acts or neglect by utility owners or other contractors performing other work as contemplated by Article 7.
- 12.2 EXTENSIONS OF TIME FOR DELAY DUE TO WEATHER. Contract Time may be extended by the ENGINEER because of delays in completion of the WORK due to unusually severe weather, provided that the CONTRACTOR shall, within 10 days of the beginning of any such delay, notify the ENGINEER in writing of the cause of delay and request an extension of Contract Time. The ENGINEER will ascertain the facts and the extent of the delay and extend the time for completing the work when, in the ENGINEER's judgment, the findings of fact justify such an extension. Unprecedented, abnormal, or unusually severe weather will be defined as an event, or events, with a greater than 50-year recurrence interval, as determined by the National Weather Service, or equivalent State or Federal agency

ARTICLE 13 WARRANTY AND GUARANTEE; TESTS AND INSPECTIONS; CORRECTION, REMOVAL, OR ACCEPTANCE OF DEFECTIVE WORK

13.1 WARRANTY AND GUARANTEE. The CONTRACTOR warrants and guarantees to the OWNER and the ENGINEER that all work will be in accordance with the Contract Documents and will not be

defective. Prompt notice of defects known to the OWNER or ENGINEER shall be given to the CONTRACTOR. All defective work, whether or not in place, may be rejected, corrected, or accepted as provided in this Article 13.

13.2 ACCESS TO WORK. OWNER, ENGINEER, their Consultants, sub-consultants, other representatives and personnel of OWNER, independent testing laboratories and governmental agencies with jurisdictional interests will have access to the WORK at reasonable times for their observation, inspecting and testing. CONTRACTOR shall provide them proper and safe conditions for such access and advise them of CONTRACTOR's site safety procedures and programs so that they may comply therewith as applicable.

13.3 TESTS AND INSPECTIONS

- A. The CONTRACTOR shall give the ENGINEER timely notice of readiness of the WORK for all required inspections, tests, or approvals, and shall cooperate with inspection and testing personnel to facilitate required inspections or tests.
- B. If Laws or Regulations of any public body having jurisdiction other than the OWNER require any WORK to specifically be inspected, tested, or approved, the CONTRACTOR shall pay all costs in connection therewith. The CONTRACTOR shall also be responsible for and shall pay all costs in connection with any inspection or testing required in connection with the OWNER's or the ENGINEER's acceptance of a Supplier of materials or equipment proposed as a substitution or (or-equal) to be incorporated in the WORK, or of materials or equipment submitted for review prior to the CONTRACTOR's purchase thereof for incorporation in the WORK. The cost of all inspections, tests, and approvals in addition to the above which are required by the Contract Documents shall be paid by the OWNER (unless otherwise specified).
- C. The ENGINEER will make, or have made, such inspections and tests as the ENGINEER deems necessary to see that the WORK is being accomplished in accordance with the requirements of the Contract Documents. Unless otherwise specified in the Supplementary General Conditions, the cost of such inspection and testing will be borne by the OWNER. In the event such inspections or tests reveal non-compliance with the requirements of the Contract Documents, the CONTRACTOR shall bear the cost of corrective measures deemed necessary by the ENGINEER, as well as the cost of subsequent reinspection and retesting. Neither observations by the ENGINEER nor inspections, tests, or approvals by others shall relieve the CONTRACTOR from the CONTRACTOR's obligation to perform the WORK in accordance with the Contract Documents.
- D. All inspections, tests, or approvals other than those required by Laws or Regulations of any public body having jurisdiction shall be performed by organizations acceptable to the ENGINEER and the CONTRACTOR.
- E. If any WORK (including the work of others) that is to be inspected, tested, or approved is covered without written concurrence of the ENGINEER, it must, if requested by the ENGINEER, be uncovered for observation. Such uncovering shall be at the CONTRACTOR's expense unless the CONTRACTOR has given the ENGINEER timely notice of the CONTRACTOR's intention to perform such test or to cover the same and the ENGINEER has not acted with reasonable promptness in response to such notice.

- F. If any WORK is covered contrary to the written request of the ENGINEER, it must, if requested by the ENGINEER, be uncovered for the ENGINEER's observation and recovered at the CONTRACTOR's expense.
- G. If the ENGINEER considers it necessary or advisable that covered WORK be observed by the ENGINEER or inspected or tested by others, the CONTRACTOR, at the ENGINEER's request, shall uncover, expose, or otherwise make available for observation, inspection, or testing as the ENGINEER may require, that portion of the WORK in question, furnishing all necessary labor, material, and equipment. If it is found that such WORK is defective, the CONTRACTOR shall bear all direct, indirect, and consequential costs and damages of such uncovering, exposure, observation, inspection, and testing and of satisfactory reconstruction, including but not limited to fees and charges of engineers, attorneys, and other professionals. However, if such WORK is not found to be defective, the CONTRACTOR shall be allowed an increase in the Contract Price or an extension of the Contract Time, or both, directly attributable to such uncovering, exposure, observation, inspection, testing, and reconstruction; and, if the parties are unable to agree as to the amount or extent thereof, the CONTRACTOR may make a claim therefor as provided in Articles 11 and 12.
- 13.4 OWNER MAY STOP THE WORK. If the WORK is defective, or the CONTRACTOR fails to perform work in such a way that the completed WORK will conform to the Contract Documents, the OWNER may order the CONTRACTOR to stop the WORK, or any portion thereof, until the cause for such order has been eliminated; however, this right of the OWNER to stop the WORK shall not give rise to any duty on the part of the OWNER to exercise this right for the benefit of the CONTRACTOR or any other party.
- 13.5 CORRECTION OR REMOVAL OF DEFECTIVE WORK. If required by the ENGINEER, the CONTRACTOR shall promptly, either correct all defective work, whether or not fabricated, installed, or completed, or, if the WORK has been rejected by the ENGINEER, remove it from the site and replace it with non-defective work. The CONTRACTOR shall bear all direct, indirect and consequential costs and damages of such correction or removal, including but not limited to fees and charges of engineers, attorneys, and other professionals made necessary thereby.

13.6 ONE YEAR CORRECTION PERIOD

A. If within one year after the date of Substantial Completion or such longer period of time as may be prescribed by Laws or Regulations or by the terms of any applicable special guarantee required by the Contract Documents or by any specific provision of the Contract Documents, any work is found to be defective, the CONTRACTOR shall promptly, without cost to the OWNER and in accordance with OWNER's written notification, (i) correct such Defective WORK, or, if it has been rejected by the OWNER, remove it from the site and replace it with non-defective work, and (ii) satisfactorily correct or remove and replace any damage to other work of others resulting therefrom. If the CONTRACTOR does not promptly comply with such notification, or in an emergency where delay would cause serious risk of loss or damage, the OWNER may have the Defective WORK corrected or the rejected WORK removed and replaced, and all direct, indirect, and consequential costs and damages of such removal and replacement including but not limited to fees and charges of engineers, attorneys and other professionals will be paid by the CONTRACTOR.

- B. Where Defective WORK (and damage to other WORK resulting therefrom) has been corrected, removed or replaced under this paragraph 13.6, the correction period hereunder with respect to such WORK will be extended for an additional period of one year after such correction or removal and replacement has been satisfactorily completed.
- 13.7 ACCEPTANCE OF DEFECTIVE WORK. If, instead of requiring correction or removal and replacement of defective work, the OWNER prefers to accept the WORK, the OWNER may do so. The CONTRACTOR shall bear all direct, indirect, and consequential costs attributable to the OWNER's evaluation of and determination to accept such defective work. If any such acceptance occurs prior to final payment, a Change Order will be issued incorporating the necessary revisions in the Contract Documents with respect to the WORK, and the OWNER shall be entitled to an appropriate decrease in the Contract Price.

ARTICLE 14 PAYMENTS TO CONTRACTOR AND COMPLETION

- 14.1 SCHEDULE OF VALUES (LUMP SUM PRICE BREAKDOWN). The schedule of values or lump sum price breakdown established as provided in the General Requirements shall serve as the basis for progress payments and will be incorporated into a form of Application for Payment acceptable to the ENGINEER.
- 14.2 UNIT PRICE BID SCHEDULE. Progress payments on account of Unit Price work will be based on the number of units completed.

14.3 APPLICATION FOR PROGRESS PAYMENT

- A. Unless otherwise prescribed by law, on the 25th of each month, the CONTRACTOR shall submit to the ENGINEER for review, an Application for Payment filled out and signed by the CONTRACTOR covering the WORK completed as of the date of the Application and accompanied by such supporting documentation as is required by the Contract Documents.
- B. The Application for Payment shall identify, as a sub-total, the amount of the CONTRACTOR'S Total Earnings to Date, plus the Value of Materials Stored at the Site which have not yet been incorporated in the WORK, and less a deductive adjustment for materials installed which were not previously incorporated in the WORK, but for which payment was allowed under the provisions for payment for Materials Stored at the Site, but not yet incorporated in the WORK.
- C. The Net Payment Due the CONTRACTOR shall be the above-mentioned subtotal from which shall be deducted the total amount of all previous payments made to the CONTRACTOR. Progress payments will be paid in full in accordance with Article 14 of the General Conditions until 90% of the Contract Price has been paid. The remaining 10% of the Contract Price amount may be withheld until:
 - 1. final inspection has been made;
 - 2. completion of the Project; and
 - 3. acceptance of the Project by the OWNER.
- D. The Value of Materials Stored at the Site shall be an amount equal to the specified percent of the value of such materials as set forth in the Supplementary General Conditions. Said

amount shall be based upon the value of all acceptable materials and equipment not incorporated in the WORK but delivered and suitably stored at the site or at another location agreed to in writing; provided, each such individual item has a value of more than \$5,000.00 and will become a permanent part of the WORK. The Application for Payment shall also be accompanied by an invoice (including shipping), a certification that the materials meet the applicable contract specifications, and any evidence required by the OWNER that the materials and equipment are covered by appropriate property insurance and other arrangements to protect the OWNER's interest therein, all of which will be satisfactory to the OWNER. Payment for materials will not constitute final acceptance. It shall be the CONTRACTOR's responsibility to protect the material from damage, theft, loss, or peril while in storage. Unless otherwise prescribed by law, the Value of Materials Stored at the Site shall be paid at the invoice amount up to a maximum of 85% of the Contract Price for those items.

14.4 CONTRACTOR'S WARRANTY OF TITLE. The CONTRACTOR warrants and guarantees that title to all work, materials, and equipment covered by an Application for Payment, whether incorporated in the WORK or not, will pass to the OWNER no later than the time of payment free and clear of all liens.

14.5 REVIEW OF APPLICATIONS FOR PROGRESS PAYMENT

- A. The ENGINEER will, within 7 days after receipt of each Application for Payment, either indicate in writing a recommendation of payment and present the Application to the OWNER, or return the Application to the CONTRACTOR indicating in writing the ENGINEER's reasons for refusing to recommend payment. In the later case, the CONTRACTOR may make the necessary corrections and resubmit the Application. If the ENGINEER still disagrees with a portion of the Application, it will submit the Application recommending the undisputed portion of the Application to the OWNER for payment and provide reasons for recommending non-payment of the disputed amount. Thirty days after presentation of the Application for Payment with the ENGINEER's recommendation, the amount recommended will (subject to the provisions of Paragraph 14.5B) become due and when due will be paid by the OWNER to the CONTRACTOR.
- B. The OWNER may refuse to make payment of the full amount recommended by the ENGINEER because claims have been made against the OWNER on account of the CONTRACTOR's performance of the WORK or Liens have been filed in connection with the WORK or there are other items entitling the OWNER to a credit against the amount recommended, but the OWNER must give the CONTRACTOR written notice within 7 days (with a copy to the ENGINEER) stating the reasons for such action.

14.6 PARTIAL UTILIZATION

A. The OWNER shall have the right to utilize or place into service any item of equipment or other usable portion of the WORK prior to completion of the WORK. Whenever the OWNER plans to exercise said right, the CONTRACTOR will be notified in writing by the OWNER, identifying the specific portion or portions of the WORK to be so utilized or otherwise placed into service.

- B. It shall be understood by the CONTRACTOR that until such written notification is issued, all responsibility for care and maintenance of all of the WORK shall be borne by the CONTRACTOR. Upon issuance of said written notice of partial utilization, the OWNER will accept responsibility for the protection and maintenance of all such items or portions of the WORK described in the written notice.
- C. The CONTRACTOR shall retain full responsibility for satisfactory completion of the WORK, regardless of whether a portion thereof has been partially utilized by the OWNER and the CONTRACTOR's one year correction period shall commence only after the date of Substantial Completion for the WORK.
- 14.7 SUBSTANTIAL COMPLETION. When the CONTRACTOR considers the WORK ready for its intended use the CONTRACTOR shall notify the OWNER and the ENGINEER in writing that the WORK is substantially complete. The CONTRACTOR will attach to this request a list of all work items that remain to be completed and a request that the ENGINEER prepare a Notice of Completion. Within a reasonable time thereafter, the OWNER, the CONTRACTOR, and the ENGINEER shall make an inspection of the WORK to determine the status of completion. If the ENGINEER does not consider the WORK substantially complete, or the list of remaining work items to be comprehensive, the ENGINEER will notify the CONTRACTOR in writing giving the reasons therefor. If the ENGINEER considers the WORK substantially complete, the ENGINEER will prepare and deliver to the OWNER, for its execution and recording, the Notice of Completion signed by the ENGINEER and CONTRACTOR, which shall fix the date of Substantial Completion.
- 14.8 FINAL APPLICATION FOR PAYMENT. After the CONTRACTOR has completed all of the remaining work items referred to in Paragraph 14.7 and delivered all maintenance and operating instructions, schedules, guarantees, Bonds, certificates of inspection, record as-built documents (as provided in the General Requirements) and other documents, all as required by the Contract Documents, and after the ENGINEER has indicated that the WORK is acceptable, the CONTRACTOR may make application for final payment following the procedure for progress payments. The final Application for Payment shall be accompanied by all documentation called for in the Contract Documents, together with complete and legally effective releases or waivers (satisfactory to the OWNER) of all liens arising out of or filed in connection with the WORK.

14.9 FINAL PAYMENT AND ACCEPTANCE

- A. If, on the basis of the ENGINEER's observation of the WORK during construction and final inspection, and the ENGINEER's review of the final Application for Payment and accompanying documentation, all as required by the Contract Documents, the ENGINEER is satisfied that the WORK has been completed and the CONTRACTOR's other obligations under the Contract Documents have been fulfilled, the ENGINEER will, within 14 days after receipt of the final Application for Payment, indicate in writing the ENGINEER's recommendation of payment and present the Application to the OWNER for payment.
- B. After acceptance of the WORK by the OWNER's governing body, the OWNER will make final payment to the CONTRACTOR of the amount remaining after deducting all prior payments and all amounts to be kept or retained under the provisions of the Contract Documents, including the following items:
 - 1. Liquidated damages, as applicable.

2. Two times the value of outstanding items of correction work or punch list items yet uncompleted or uncorrected, as applicable. All such work shall be completed or corrected to the satisfaction of the OWNER within the time stated on the Notice of Completion, otherwise the CONTRACTOR does hereby waive any and all claims to all monies withheld by the OWNER to cover the value of all such uncompleted or uncorrected items.

14.10 RELEASE OF RETAINAGE AND OTHER DEDUCTIONS

- A. After executing the necessary documents to initiate the lien period, and not more than 45 days thereafter (based on a 30-day lien filing period and 15-day processing time), the OWNER will release to the CONTRACTOR the retainage funds withheld pursuant to the Agreement, less any deductions to cover pending claims against the OWNER pursuant to Paragraph 14.5B.
- B. After filing of the necessary documents to initiate the lien period, the CONTRACTOR shall have 30 days to complete any outstanding items of correction work remaining to be completed or corrected as listed on a final punch list made a part of the Notice of Completion. Upon expiration of the 45 days, referred to in Paragraph 14.10A, the amounts withheld pursuant to the provisions of Paragraph 14.9B herein, for all remaining work items will be returned to the CONTRACTOR; provided, that said work has been completed or corrected to the satisfaction of the OWNER within said 30 days. Otherwise, the CONTRACTOR does hereby waive any and all claims for all monies withheld by the OWNER under the Contract to cover 2 times the value of such remaining uncompleted or uncorrected items.
- 14.11 CONTRACTOR'S CONTINUING OBLIGATION. The CONTRACTOR's obligation to perform and complete the WORK in accordance with the Contract Documents shall be absolute. Neither recommendation of any progress or final payment by the ENGINEER, nor the issuance of a Notice of Completion, nor any payment by the OWNER to the CONTRACTOR under the Contract Documents, nor any use or occupancy of the WORK or any part thereof by the OWNER, nor any act of acceptance by the OWNER nor any failure to do so, nor any review of a Shop Drawing or sample submittal, will constitute an acceptance of work not in accordance with the Contract Documents or a release of the CONTRACTOR's obligation to perform the WORK in accordance with the Contract Documents.
- 14.12 FINAL PAYMENT TERMINATES LIABILITY OF OWNER. Final payment is defined as the last progress payment made to the CONTRACTOR for earned funds, less monies withheld as applicable, pursuant to Paragraph 14.10A. The acceptance by the CONTRACTOR of the final payment referred to in Paragraph 14.9 herein, shall be a release of the OWNER and its agents from all claims of liability to the CONTRACTOR for anything done or furnished for, or relating to, the WORK or for any act of neglect of the OWNER or of any person relating to or affecting the WORK, except demands against the OWNER for the remainder, if any, of the amounts kept or retained under the provisions of Paragraph 14.9 herein; and excepting pending, unresolved claims filed prior to the date of the Notice of Completion.

ARTICLE 15 SUSPENSION OF WORK AND TERMINATION

15.1 SUSPENSION OF WORK BY OWNER. The OWNER, acting through the ENGINEER, may, at any time and without cause, suspend the WORK or any portion thereof for a period of not more than 90 days by notice in writing to the CONTRACTOR. The CONTRACTOR shall resume the WORK on receipt from the ENGINEER of a notice of resumption of work. The CONTRACTOR shall be allowed an increase in the Contract Price or an extension of the Contract Time, or both, directly attributable to any suspension if the CONTRACTOR makes an approved claim therefor as provided in Articles 11 and 12.

15.2 TERMINATION OF AGREEMENT BY OWNER (CONTRACTOR DEFAULT)

- A. In the event of default by the CONTRACTOR, the OWNER may give 10 days written notice to the CONTRACTOR of OWNER's intent to terminate the Agreement and provide the CONTRACTOR an opportunity to remedy the conditions constituting the default. It shall be considered a default by the CONTRACTOR whenever CONTRACTOR shall: (1) declare bankruptcy, become insolvent, or assign its assets for the benefit of its creditors; (2) fail to provide materials or quality of work meeting the requirements of the Contract Documents; (3) disregard or violate provisions of the Contract Documents or ENGINEER's instructions; (4) fail to prosecute the WORK according to the approved progress schedule; or, (5) fail to provide a qualified superintendent, competent workers, or materials or equipment meeting the requirements of the Contract Documents. If the CONTRACTOR fails to remedy the conditions constituting default within the time allowed, the OWNER may then issue the Notice of Termination.
- B. In the event the Agreement is terminated in accordance with Paragraph 15.2A, herein, the OWNER may take possession of the WORK and may complete the WORK by whatever method or means the OWNER may select. The cost of completing the WORK shall be deducted from the balance which would have been due the CONTRACTOR had the Agreement not been terminated and the WORK completed in accordance with the Contract Documents. If such cost exceeds the balance which would have been due, the CONTRACTOR shall pay the excess amount to the OWNER. If such cost is less than the balance which would have been due, the CONTRACTOR shall not have claim to the difference.
- 15.3 TERMINATION OF AGREEMENT BY OWNER (FOR CONVENIENCE). The OWNER may terminate the Agreement at any time if it is found that reasons beyond the control of either the OWNER or CONTRACTOR make it impossible or against the OWNER's interests to complete the WORK. In such a case, the CONTRACTOR shall have no claims against the OWNER except: (1) for the value of work performed up to the date the Agreement is terminated; and, (2) for the cost of materials and equipment on hand, in transit, or on definite commitment, as of the date the Agreement is terminated which would be needed in the WORK and which meet the requirements of the Contract Documents. The value of work performed and the cost of materials and equipment delivered to the site, as mentioned above, shall be determined by the ENGINEER in accordance with the procedure prescribed for the making of the final application for payment and payment under Paragraphs 14.8 and 14.9.
- 15.4 TERMINATION OF AGREEMENT BY CONTRACTOR. The CONTRACTOR may terminate the Agreement upon 10 days written notice to the OWNER, whenever: 1) the WORK has been suspended under the provisions of Paragraph 15.1, herein, for more than 90 consecutive days through no fault or negligence of the CONTRACTOR, and notice to resume work or to terminate the

Agreement has not been received from the OWNER within this time period; or, 2) the OWNER should fail to pay the CONTRACTOR any monies due him in accordance with the terms of the Contract Documents and within 60 days after presentation to the OWNER by the CONTRACTOR of a request therefor, unless within said 10-day period the OWNER shall have remedied the condition upon which the payment delay was based. In the event of such termination, the CONTRACTOR shall have no claims against the OWNER except for those claims specifically enumerated in Paragraph 15.3, herein, and as determined in accordance with the requirements of said paragraph.

ARTICLE 16 MISCELLANEOUS

16.1 GIVING NOTICE. Whenever any provision of the Contract Documents requires the giving of written notice, it will be deemed to have been validly given if delivered in person to the individual or to a member of the firm or to an officer of the corporation for whom it is intended, or if delivered at or sent by registered or certified mail, postage prepaid, to the last business address known to the giver of the notice.

16.2 RIGHTS IN AND USE OF MATERIALS FOUND ON THE WORK

- A. The CONTRACTOR may use on the Project, with ENGINEER's approval, such stone, gravel, sand, or other material determined suitable by the ENGINEER, as may be found in the excavation. The CONTRACTOR will be paid for the excavation of such material at the corresponding contract unit price. No additional payment will be made for utilizing the material from excavation as borrow, or select borrow.
- B. The CONTRACTOR shall replace, at its own expense, with other acceptable material, all of that portion of the excavated material so removed and used which was needed for use on the project. No charge for the materials so used will be made against the CONTRACTOR except that the CONTRACTOR shall be responsible for payment of any royalties required.
- C. The CONTRACTOR shall not excavate or remove any material from within the Project location which is not within the grading limits, as indicated by the slope and grade lines, without written authorization from the ENGINEER.
- D. In the event the CONTRACTOR has processed materials from OWNER-furnished sources in excess of the quantities required for performance of this contract, including any waste material produced as a by-product, the CBJ may retain possession of such materials without obligation to reimburse the CONTRACTOR for the cost of their production. When such materials are in a stockpile, the ENGINEER may require: That it remain in stockpile; the CONTRACTOR level such stockpile(s); or that the CONTRACTOR remove such materials and restore the premises to a satisfactory condition at the CONTRACTOR's expense. This provision shall not preclude the CBJ from arranging with the CONTRACTOR to produce material over and above the contract needs, payment for which shall be by written agreement between the CBJ and the CONTRACTOR.
- E. Unless otherwise provided, the material from any existing old structure may be used temporarily by the CONTRACTOR in the erection of the new structure. Such material shall not be cut or otherwise damaged except with the approval of the ENGINEER.

- RIGHT TO AUDIT. If the CONTRACTOR submits a claim to the OWNER for additional 16.3 compensation, the OWNER shall have the right, as a condition to considering the claim, and as a basis for evaluation of the claim, and until the claim has been settled, to audit the CONTRACTOR's books to the extent they are relevant. This right shall include the right to examine books, records, documents, and other evidence and accounting procedures and practices, sufficient to discover and verify all direct and indirect costs of whatever nature claimed to have been incurred or anticipated to be incurred and for which the claim has been submitted. The right to audit shall include the right to inspect the CONTRACTOR's plants, or such parts thereof, as may be or have been engaged in the performance of the WORK. The CONTRACTOR further agrees that the right to audit encompasses all subcontracts and is binding upon Subcontractors. The rights to examine and inspect herein provided for shall be exercisable through such representatives as the OWNER deems desirable during the CONTRACTOR's normal business hours at the office of the CONTRACTOR. The CONTRACTOR shall make available to the OWNER for auditing, all relevant accounting records and documents, and other financial data, and upon request, shall submit true copies of requested records to the OWNER.
- 16.4 ARCHEOLOGICAL OR HISTORICAL DISCOVERIES. When the CONTRACTOR's operation encounters prehistoric artifacts, burials, remains of dwelling sites, paleontological remains, such as shell heaps, land or sea mammal bones or tusks, or other items of historical significance, the CONTRACTOR shall cease operations immediately and notify the ENGINEER. No artifacts or specimens shall be further disturbed or removed from the ground and no further operations shall be performed at the site until so directed. Should the ENGINEER order suspension of the CONTRACTOR's operations in order to protect an archaeological or historical finding, or order the CONTRACTOR to perform extra work, such order(s) shall be covered by an appropriate contract change document.
- 16.5 CONSTRUCTION OVER OR ADJACENT TO NAVIGABLE WATERS. All work over, on, or adjacent to navigable waters shall be so conducted that free navigation of the waterways will not be interfered with and the existing navigable depths will not be impaired, except as allowed by permit issued the U.S. Coast Guard and/or the U.S. Army Corps of Engineers, as applicable.
- 16.6 GRATUITY AND CONFLICT OF INTEREST. The CONTRACTOR agrees to not extend any loan, gratuity or gift of money of any form whatsoever to any employee or elected official of the OWNER, nor will the CONTRACTOR rent or purchase any equipment or materials from any employee or elected official of the OWNER, or to the best of the CONTRACTOR's knowledge, from any agent of any employee or elected official of the OWNER. Before final payment, the CONTRACTOR shall execute and furnish the OWNER an affidavit certifying that the CONTRACTOR has complied with the above provisions of the contract.

16.7 SUITS OF LAW CONCERNING THE WORK

- A. Should a suit of law be entered into, either by the CONTRACTOR (or the CONTRACTOR's surety) against the OWNER, or by the OWNER against the CONTRACTOR (or the CONTRACTOR's surety), the suit of law shall be tried in the First Judicial District of Alaska.
- B. If one of the questions at issue is the satisfactory performance of the work by the CONTRACTOR and should the appropriate court of law judge the work of the CONTRACTOR to be unsatisfactory, then the CONTRACTOR (or the CONTRACTOR's

surety) shall reimburse the OWNER for all legal and all other expenses (as may be allowed and set by the court) incurred by the OWNER because of the suit of the law and, further, it is agreed that the OWNER may deduct such expense from any sum or sums then, or any that become due the CONTRACTOR under the contract.

16.8 CERTIFIED PAYROLLS

- A. All CONTRACTORs or Subcontractor who perform work on a public construction contract for the OWNER shall file a certified payroll with the Alaska Department of Labor before Friday of each week that covers the preceding week (Section 14-2-4 ACLA 1949; am Section 4 ch 142 SLA 1972).
- B. In lieu of submitting the State payroll form, the CONTRACTOR's standard payroll form may be submitted, provided it contains the information required by AS 36.05.040 and a statement that the CONTRACTOR is complying with AS 36.10.010.
- C. A contractor or subcontractor, who performs work on public construction in the State, as defined by AS 36.95.010(3), shall pay not less than the current prevailing rate of wages as issued by the Alaska Department of Labor before the end of the pay period. (AS 36.05.010).

16.9 PREVAILING WAGE RATES

- A. Wage rates for Laborers and Mechanics on Public Contracts, AS 36.05.070. The CONTRACTOR, or Subcontractors, shall pay all employees unconditionally and not less than once a week. Wages may not be less than those stated in Paragraph 16.8C, regardless of the contractual relationship between the CONTRACTOR or Subcontractors and laborers, mechanics, or field surveyors. The scale of wages to be paid shall be posted by the CONTRACTOR in a prominent, easily accessible place at the site of the WORK.
- B. Failure to Pay Agreed Wages, AS 36.05.080. 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 or wages less than the established rate, the OWNER may, by written notice, terminate the CONTRACTOR or Subcontractors right to proceed with the work. The OWNER may prosecute the work to completion by contract or otherwise, and the CONTRACTOR and sureties will be held liable to the OWNER for excess costs for completing the WORK. (Section 2 ch 52 SLA 1959).
- C. Listing Contractor's Who Violate Contracts, AS 36.05.090. In addition, a list giving the names of persons who have disregarded the rights of their employees shall be distributed to all departments of State government and all political subdivisions. No person appearing on this list, and no firm, corporation, partnership or association in which the person has an interest, may work as a CONTRACTOR or Subcontractor on a public construction contract for the State, or a political subdivision of the state, until three years after the date of publication of the list. (Section 3 ch 52 SLA 1959; am Section 9 ch 142 SLA).
- 16.10 EMPLOYMENT REFERENCE. Workers employed in the execution of the contract by the CONTRACTOR or by any Subcontractor under this contract shall not be required or permitted to labor more than 8 hours a day or 40 hours per week in violation of the provisions of the Alaska Wage and Hour Act, Section 23.10.060.

16.11 COST REDUCTION INCENTIVE

A. At any time within 45 days after the date of the Notice of Award, the CONTRACTOR may submit to the ENGINEER in writing, proposals for modifying the plans, specifications, or

other requirements of this contract for the sole purpose of reducing the total cost of construction. The cost reduction proposal shall not impair in any manner the essential functions or characteristics of the project, including but not limited to, service life, economy of operation, ease of maintenance, desired appearance or design and safety standards.

- B. The cost reduction proposal shall contain the following information:
 - 1. Description of both the existing contract requirements for performing the WORK and the proposed changes.
 - 2. An itemization of the contract requirements that must be changed if the proposal is adopted.
 - 3. A detailed estimate of the time required and the cost of performing the WORK under both the existing contract and the proposed change.
 - 4. A statement of the date by which the CONTRACTOR must receive the decision from the OWNER on the cost reduction proposal.
 - 5. The contract items of WORK effected by the proposed changes including any quantity variations.
 - 6. A description and estimate of costs the OWNER may incur in implementing the proposed changes, such as test and evaluation and operating and support costs.
 - 7. A prediction of any effects the proposed change would have on future operations and maintenance costs to the OWNER.
- C. The provisions of this section shall not be construed to require the OWNER to consider any cost reduction proposal which may be submitted; nor will the OWNER be liable to the CONTRACTOR for failure to accept or act upon any cost reduction proposal submitted, or for delays to the work attributable to the consideration or implementation of any such proposal.
- D. If a cost reduction proposal is similar to a change in the plans or specifications for the project under consideration by the OWNER at the time the proposal is submitted, the OWNER will not accept such proposal and reserves the right to make such changes without compensation to the CONTRACTOR under the provisions of this section.
- E. The CONTRACTOR shall continue to perform the work in accordance with the requirements of the contract until an executed Change Order incorporating the cost reduction proposal has been issued. If any executed Change Order has not been issued by the date upon which the CONTRACTOR's cost reduction proposal specifies that a decision should be made by the OWNER, in writing, the cost reduction proposal shall be considered rejected.
- F. The OWNER, shall be the sole judge of the acceptability of a cost reduction proposal and of the estimated net savings in Contract Time and construction costs resulting from the adoption of all or any part of such proposal. Should the CONTRACTOR disagree with OWNER's decision on the cost reduction proposal, there is no further consideration. The OWNER reserves the right to make final determination.
- G. If the CONTRACTOR's cost reduction proposal is accepted in whole or in part, such acceptance will be made by a contract Change Order, which specifically states that the change is executed pursuant to this cost reduction proposal section. Such Change Order shall incorporate the changes in the plans and specifications which are necessary to permit

the cost reduction proposal or such part of it as has been accepted to be put into effect and shall include any conditions upon which the OWNER's approval is based, if such approval is conditional. The Change Order shall also describe the estimated net savings in the cost of performing the work attributable to the cost reduction proposal, and shall further provide that the contract cost be adjusted by crediting the OWNER with the estimated net savings amount.

- H. Acceptance of the cost reduction proposal and performance of the work does not extend the time of completion of the contract, unless specifically provided in the Change Order authorizing the use of the submitted proposal. Should the adoption of the cost reduction proposal result in a Contract Time savings, the total Contract Time shall be reduced by an amount equal to the time savings realized.
- I. The amount specified to the CONTRACTOR in the Change Order accepted in the cost reduction proposal shall constitute full compensation for the performance of WORK. No claims for additional costs as a result of the changes specified in the cost reduction proposal shall be allowed.
- J. The OWNER reserves the right to adopt and utilize any approved cost reduction proposal for general use on any contract administered when it is determined suitable for such application. Cost reduction proposals identical, similar, or previously submitted will not be accepted for consideration if acceptance and compensation has previously been approved. The OWNER reserves the right to use all or part of any cost reduction proposal without obligation or compensation of any kind to the CONTRACTOR.
- K. The CONTRACTOR shall bear the costs, if any, to revise all bonds and insurance requirements for the project, to include the cost reduction WORK.

GENERAL. These Supplementary General Conditions make additions, deletions, or revisions to the General Conditions as indicated herein. All provisions which are not so added, deleted, or revised remain in full force and effect. Terms used in these Supplementary General Conditions which are defined in the General Conditions have the meanings assigned to them in the General Conditions.

SGC 1 DEFINITIONS. *Remove* the definition for Contract Documents and *replace* with the following:

Contract Documents - The Table of Contents, Notice Inviting Bids, Instructions to Bidders, Bid Forms (including the Bid, Bid Schedule(s), Subcontractor Report, Bid Bond, and all required certificates and affidavits), Agreement, Performance Bond, Payment Bond, General Conditions, Supplementary General Conditions, Alaska Labor Standards, Reporting, and Prevailing Wage Rate Determination, Special Provisions, Standard Specifications, Technical Specifications, Drawings, Permits, and all Addenda, and Change Orders executed pursuant to the provisions of the Contract Documents.

SGC 2.2 COPIES OF DOCUMENTS. *Add* the following:

The OWNER shall furnish to the CONTRACTOR up to ten (10) copies of the Contract Documents which may include bound reduced Drawings, if any, together with up to five (5) sets of full-scale Drawings. The CBJ Contracts Office shall contact the CONTRACTOR after issuance of Notice of Intent to Award to determine how many copies are needed. Additional quantities of the Contract Documents and full-scale Drawings will be furnished at reproduction cost.

SGC 3.2 ORDER OF PRECEDENCE OF CONTRACT DOCUMENTS. Remove No. 12. Technical Specifications and No. 13. Drawings, and *add* the following:

- 12. **Special Provisions Section**
- Standard Specifications for Civil Engineering Projects and Subdivision Improvements 13. December 2003 Edition with current Errata Sheets.
- 14. Drawings.

SGC 4.2 PHYSICAL CONDITIONS - SUBSURFACE AND EXISTING STRUCTURES. Add the following:

C. In the preparation of the Contract Documents, the Engineer of Record has relied upon field measurements and visual inspection of the existing structures and surface conditions.

Add the following SGC 4.6:

SGC - 4.6 USE OF THE CBJ/STATE LEMON CREEK GRAVEL PIT. Add the following.

The CBJ/State Lemon Creek Gravel Pit is available for this Project.

SGC - 4.6 USE OF THE CBJ/STATE LEMON CREEK GRAVEL PIT. Delete paragraph C., and *replace* with the following paragraph C.

C. CONTRACTORs deciding to use material from the CBJ/State pit shall provide an Individual Mining Plan prepared by a professional engineer registered in the State of Alaska. The Individual Mining Plan must be reviewed and approved by the CBJ, prior to commencing operations within the pit. CONTRACTORs shall also secure a Performance Bond to ensure compliance with contract provisions, including any Individual Mining Plan stipulations. The

bond shall remain in full force and effect until a release is obtained from the CBJ. A \$10,000 cash processing restoration bond is required prior to screening or primary crushing operations.

Add the following SGC 4.7:

SGC 4.7 USE OF CITY/STATE STABLER'S POINT ROCK QUARRY. Add the following:

The CBJ/State Stabler's Point Rock Quarry is available for this Project.

Add the following SGC 4.7:

SGC 4.7 USE OF CITY/STATE STABLER'S POINT ROCK QUARRY.

- A. On City and Borough of Juneau construction projects, the CBJ may make unclassified material available to the CONTRACTOR, from the City/State Stabler's Point rock quarry, at a rate less than charged other customers. The CONTRACTOR is not required to use material from the CBJ/State quarry and the CBJ makes no guarantee as to the quantity or quality of material. For this Project, the price shall be \$1.60 per ton.
- B. The CONTRACTOR proposing to use material from the City/State quarry is required to be in good standing for all amounts owed to the CBJ, for previous gravel operations, prior to submitting a mining plan for approval. The CONTRACTOR using the quarry must comply with Conditional Use Permit USE2001-00022 and VAR2001-00017. Failure to meet these requirements, if so subject, shall be sufficient reason to deny use of the City/State Stabler's Point rock quarry as a rock source. To determine if your company is subject to these requirements, contact the CBJ Engineering Department, Rock Quarry Management, at 907-586-0883.
- C. The CONTRACTOR deciding to use material from the CBJ/State Stabler's Point rock quarry shall provide an Individual Mining Plan prepared by a professional engineer registered in the State of Alaska. The Individual Mining Plan must be reviewed and approved by the CBJ, prior to commencing operations with the pit. The CONTRACTOR shall also secure a Performance Bond to ensure compliance with contract provisions, including any Individual Mining Plan stipulations. The bond shall remain in full force and effect until a release is obtained from the CBJ. A \$10,000.00 cash processing restoration bond is required prior to screening or primary crushing operations.
- D. The CONTRACTOR must submit an Individual Mining Plan that is in compliance with Conditional Use Permit No. USE 2001-00022 and VAR2001-00017 for rock extraction with the City/State Stabler's Point rock quarry. The CONTRACTOR must contact the CBJ Engineering Department for conditions for the extraction.
- E. The CONTRACTOR shall account for placement of materials removed from the quarry. The CBJ may require the CONTRACTOR to cross-check weight tickets, submit to an audit, or participate in other measures required by the CBJ to ensure accountability. Unprocessed overburden removed from the quarry will not be weighed. All other material mined will be measured by truck load or survey. The CONTRACTOR will be responsible for loading, screening and sorting their own material. Primary screening may be allowed in the quarry. Primary crushing may be allowed according to the conditions of the Conditional Use Permit No USE2001-00022.
- F. The rock quarry overhead charge shall be paid to the CBJ within 60 days after removing material

from the quarry and prior to requesting and/or receiving final payment. Upon completion of the excavation the CONTRACTOR shall notify the CBJ, in writing, in sufficient time to perform a field-compliance examination prior to vacating the quarry. Any significant deviation from the stipulations of the Individual Mining Plan identified during the field inspection shall be corrected by the CONTRACTOR prior to release of the bond. A signed release from CBJ will be required prior to releasing the CONTRACTOR's bond.

- G. The City/State Stabler's Point rock quarry is a by-project operation. The hours of operation are stipulated in Conditional Use Permit No. USE2001-00022.
- H. All Contractors/Equipment Operators using the CBJ/State Stabler's Point rock quarry shall be in compliance with Federal Mine Safety and Health Administration regulations for quarry and gravel operations.

SGC 5.1 PERFORMANCE, PAYMENT, AND OTHER BONDS. The Contractor shall furnish Performance and Payment Bonds in the amount of 100% of the Bid.

SGC 5.2 INSURANCE AMOUNTS. The limits of liability for the insurance required by Paragraph 5.2 of the General Conditions shall provide coverage for not less than the following amounts or greater where required by Laws and Regulations. All certificates of insurance supplied to the OWNER shall state that the OWNER is named as "Additional Insured for any and all work performed for the City & Borough of Juneau." The Additional Insured requirement does not apply to Workers Compensation insurance. NOTE: This requirement has changed. The OWNER no longer requires certificates of insurance referencing project names and contract numbers.

- A. Workers' Compensation: (under Paragraph 5.2C.1 of the General Conditions) as in accordance with AS 23.30.045: (Additional Insured requirements not necessary for Workers' Compensation coverage.)
 - 1. State: Statutory
 - 2. Applicable Federal (e.g., Longshore): Statutory

Note: If the WORK called for in the Contract Documents involves work in or on any navigable waters, the CONTRACTOR shall provide Workers' Compensation coverage which shall include coverage under the Longshore and Harbor Workers' Compensation Act, the Jones Act, and any other coverage required under Federal or State laws pertaining to workers in or on navigable waters.

3. Employers Liability

Bodily Injury by Accident: \$100,000.00 Each Accident
Bodily Injury by Disease: \$100,000.00 Each Employee
Bodily Injury by Disease: \$500,000.00 Policy Limit

- a. CONTRACTOR agrees to waive all rights of subrogation against the OWNER for WORK performed under contract.
- b. If CONTRACTOR directly utilizes labor outside of the State of Alaska in the prosecution of the WORK, "Other States" endorsement shall be required as a condition of the contract.

B. Commercial General Liability: (under Paragraph 5.2C.2 of the General Conditions):

1.	General Policy	\$1,000,000.00 \$2,000,000.00	Each Occurrence Annual Aggregate
2.	Products/Completed Operations	\$1,000,000.00 \$2,000,000.00	Each Occurrence Annual Aggregate
3.	Personal Injury	\$1,000,000.00	Each Occurrence

C. Commercial Automobile Liability: (under Paragraph 5.2C.3 of the General Conditions) including Owned, Hired, and Non-Owned Vehicles:

Combined Single Limit, Bodily Injury and Property Damage \$1,000,000.00

The CONTRACTOR shall require each Subcontractor similarly to provide Commercial Automobile Liability Insurance for all of the latter's employees to be engaged in such WORK unless such employees are covered by the protection afforded by the CONTRACTOR's Commercial Automobile Liability Insurance.

- D. BUILDERS RISK is not required for this project.
- E. Policies shall also specify insurance provided by CONTRACTOR will be considered primary and not contributory to any other insurance available to the OWNER.
- F. All policies will provide for 30 Days written notice prior to any cancellation or nonrenewal of insurance policies required under contract. "Will endeavor" and "but failure to mail such notice shall impose no obligation or liability of any kind upon the Company, its agents or representatives" wording will be deleted from certificates.

SGC 6.5 CONCERNING SUBCONTRACTORS, SUPPLIERS, AND OTHERS. *Add* the following:

The CONTRACTOR shall perform not less than 40% of the WORK with its own forces (i.e., without subcontracting). The 40% requirement shall be understood to mean that the CONTRACTOR shall perform, with its own organization, WORK amounting to at least 40% of the original contract amount. The 40% requirement will be calculated based upon the total of the subcontract amounts submitted for Contract Award, and any other information requested by the OWNER from the apparent low Bidder.

SGC 6.6 PERMITS *Add* the following paragraph:

D. Contractor is responsible for obtaining a Hot Works permit from the CBJ Permit Center, if performing work which requires such a permit. Work requiring a Hot Works Permit includes but is not limited to the following: cutting, welding, Thermit welding, brazing, soldering, grinding, thermal spraying, thawing pipe, installation of torch-applied roof systems or any other similar activity.

SGC 14.3 APPLICATION FOR PROGRESS PAYMENT. Paragraph D.

D. The Value of Materials Stored at the site shall be an amount equal to 85%.

SGC 14.9 FINAL PAYMENT AND ACCEPTANCE. *Add* the following paragraph:

C. Prior to the final payment the CONTRACTOR shall contact the Alaska Department of Labor and Workforce Development (ADOL) and provide the OWNER with clearance from the ADOL for the CONTRACTOR and all Subcontractors that have worked on the Project. This clearance shall indicate that all Employment Security Taxes have been paid. A sample form for this purpose is at the end of this section. The CONTRACTOR shall also submit a "NOTICE OF COMPLETION OF PUBLIC WORKS" signed by ADOL.

SGC 16.8 CERTIFIED PAYROLLS. *Change* paragraph A. to read:

A. All CONTRACTORs or Subcontractors who perform work on a public construction contract for the OWNER shall file a certified payroll with Alaska Department of Labor. See Section 00830 - Alaska Labor Standards, Reporting, and Prevailing Wage Rate Determination.

SGC 16.12 EQUAL EMPLOYMENT OPPORTUNITY (EEO)

The CONTRACTOR may not discriminate against any employee or applicant for employment because of race, religion, color, national origin, age, disability, sex, marital status, changes in marital status, pregnancy or parenthood. The CONTRACTOR shall post a notice setting out the provisions of this paragraph in a conspicuous place available to employees and applicants for employment.

The CONTRACTOR and each Subcontractor shall state in all solicitations and advertisements for employees to work on this Project, that it is an Equal Opportunity Employer and that all qualified applicants will receive consideration for employment without regard to race, religion, color, national origin, age, disability, sex, marital status, changes in marital status, pregnancy or parenthood.

The CONTRACTOR shall include the provisions of this EEO article in every contract relating to this Project and shall require the inclusion of these provisions in every agreement entered into for this Project, so that those provisions will be binding upon the CONTRACTOR and each Subcontractor.

Add the following SGC 17:

SGC 17 GENERAL INFORMATION. This Project is currently funded by the City and Borough of Juneau, Alaska, Area Wide Street Sales Tax.

Employment Security Tax Clearance

Date:		
То:	Alaska Department of Labor Juneau Field Tax Office PH 907-465-2787 FAX 907-465-2374	
From:		
Subject:	Second Street Douglas Reconstruction Contract No. E11-152	
Timeframe of	of Contract	
	e whether or not clearance is granted for the follows the CONTRACTOR or Subcontractor per page.)	owing CONTRACTOR or Subcontractor:
Name	Address	
clearance an	0.265 of the Alaska Employment Security Act, the drelease to make final payment for WORK performance your response to:	
	ska 99801	
	arance is granted. arance is NOT granted.	
Remarks:		
Signature		Date
Title		

END OF SECTION

SECOND STREET DOUGLAS RECONSTRUCTION Contract No. E11-152 SUPPLEMENTARY GENERAL CONDITIONS
Page 00800-6

SECTION 00830 - ALASKA LABOR STANDARDS, REPORTING, AND PREVAILING WAGE RATE DETERMINATION

State of Alaska, Department of Labor, Laborers' and Mechanics' Minimum Rates of Pay, AS 36.05.010 and AS 36.05.050, Wage and Hour Administration Pamphlet No. 600, the latest edition published by the State of Alaska, Department of Labor inclusive, are made a part of this contract by reference.

The CONTRACTOR is responsible for contacting the Alaska Department of Labor to determine compliance with current regulations.

Correspondence regarding Title 36 requirements may be submitted electronically or paper copies can be submitted by mail. To submit Title 36 documents electronically, go to https://myalaska.state.ak.us/home/app. If filing electronically, submit certified payrolls to ADOL at the website above and email a copy of all certified payrolls to Jennifer Mannix at the email address below. If Contractor elects to submit paper copies, they should be submitted to the physical addresses below.

Within 10 Days of "Notice of Award/Notice to Proceed" make a list of <u>all</u> Subcontractors. Include their name, address, phone, estimated subcontract amount, and estimated start and finish dates. Send this list to the Wage and Hour Section (contact information below).

Certified Payrolls must be submitted every two weeks. Before the second Friday, each CONTRACTOR and Subcontractor must file Certified Payrolls with Statements of Compliance for the previous two weeks. Indicate "Start" on your first payroll, and "Final" on your last payroll for this Project.

As part of the **final payment request package**, CONTRACTOR must submit a "NOTICE OF COMPLETION OF PUBLIC WORKS" form signed by ADOL personnel.

Contact Information:

Wage and Hour Section
State of Alaska

Department of Labor and Workforce Development
Labor Standards and Safety Division and
Wage and Hour Administration
P.O. Box 11149
Juneau, AK 99811-1149
907-465-4842
http://labor.state.ak.us/lss/home.htm

Jennifer Mannix, Contract Administrator
City and Borough of Juneau
155 S. Seward Street
Juneau, AK 99801
(907) 586-0873
jennifer mannix@ci.juneau.ak.us

SECTION 00852 - PERMITS

PART 1 - GENERAL

1.1 INDEX OF PERMITS

- A. CONTRACTOR will be required to submit a Traffic Control Plan and a CBJ Right-of-Way permit application to CBJ Engineering Department for approval at the pre-construction conference.
- B. U.S. Army Corps of Engineers Alaska District Permit POA–2010-918. (The above mentioned permit is located in the back of this Section 7 pages).

PART 2 – PRODUCTS (Not Used)

PART 3 – EXECUTION (Not Used)

SECTION 00853 - STANDARD DETAILS

PART 1 - GENERAL

1.1 STANDARD DETAILS

- A. Whenever references are made to the Standard Drawings or Standard Details in these Drawings or Specifications, the intent is to refer to the current City and Borough of Juneau Standard Details (currently the 3rd Edition dated April 2000), copies of which may be purchased from the CBJ Engineering Department Contracts Office, (907) 586-0490.
- B. City and Borough of Juneau Standard Details which specifically apply to this Project include but are not limited to the following:

CBJ Standard Detail No.	Name of Detail
105	CONCRETE DRIVEWAY
111B	CURB & GUTTER (TYPE II & III)
116	CANTILEVER SINGLE MAILBOX
117	CANTILEVER GANG MAILBOX
125	PAVEMENT RESURFACING AND TRENCH DETAIL
127	SIGN ASSEMBLY
127A	PROJECT SIGN DISPLAY
203	SANITARY SEWER MANHOLE TYPE I & II
205	MANHOLE HEIGHTS
206A	SANITARY SEWER MANHOLE COVER & FRAME
209	MANHOLE CONNECTION DETAILS
210	SANITARY SEWER SADDLE TEE
213	SANITARY SEWER SERVICE LATERAL
214	SANITARY SEWER CONNECTION
218	COUPLING FOR DISSIMILAR SANITARY SEWER PIPES
303	STORM DRAIN MANHOLES TYPES I & II
304A	TYPE III CATCH BASIN
304B	TYPE IV CATCH BASIN
306	STORM DRAIN MANHOLE COVER & FRAME
309	LOCAL DEPRESSION AT CATCH BASIN
403	FIRE HYDRANT
404	HYDRANT GUARD POSTS
405	HYDRANT PAD
406	WATER SERVICE
407	MAINLINE VALVE
412	RIGID INSULATION
414A	DOWNWARD CONCAVE THRUST BLOCK
414B	HORIZONTAL AND CONCAVE UPWARD THRUST BLOCK
419	RESIDENTIAL WATER SERVICE CONNECTION

PART 2 – PRODUCTS (Not Used)

PART 3 – EXECUTION (Not Used)

PROJECT MANUAL

SECOND STREET DOUGLAS RECONSTRUCTION

Juneau, Alaska

CBJ Contract No. E11-152

January 18, 2011



R&M ENGINEERING, INC.

6205 Glacier Highway Juneau, Alaska 99801 Phone (907) 780-6060 Fax (907) -780-4611 mpusich@rmjuneau.com

The Standard Specifications for Civil Engineering Projects and Subdivision Improvements December 2003 Edition, with twelve errata sheets and as published by the City and Borough of Juneau, is part of these Contract Documents and shall pertain to all phases of the contract. The Standard Specifications for Civil Engineering Projects and Subdivision Improvements December 2003 Edition, is available for a fee from the City and Borough of Juneau Engineering Contracts Office, (907) 586-0490, or you may view them online at: www.juneau.org/engineering.

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Add the following Section:

SECTION 01010 - SUMMARY OF WORK

PART 1 - GENERAL

1.1 GENERAL

A. The WORK to be performed under this contract shall consist of furnishing all plant, tools, equipment, materials, supplies, manufactured articles and furnishing all labor, transportation and services, including all fuel, power, water and essential communications and performing all WORK, or other operations required for the fulfillment of the contract in strict accordance with the Contract Documents. The WORK shall be complete, and all WORK, materials, and services, not expressly indicated or called for in the Contract Documents which may be necessary for the complete and proper construction of the WORK in good faith shall be provided by the CONTRACTOR as though originally so indicated, at no increase in cost to the OWNER.

1.2 WORK COVERED BY CONTRACT DOCUMENTS

- A. The Project consists of reconstructing Second Street in Douglas from the intersection of Second Street and F Street to the intersection of Second Street and Bradley Street including sanitary sewer replacements at G and H Street, Bradley Street water and sewer replacement. The WORK consists of erosion and pollution control, excavation, shot rock borrow placement, shoulder grading, 2" minus shot rock with base course grading D-1, sanitary sewer manholes, 8" PVC sanitary sewer pipe, sanitary sewer services, storm drain pipe, storm drain manhole, catch basins, 6" and 8" water pipe, gate valves, fire hydrant assembly, water services, pipe and structure removal, valley gutter, asphalt pavement, asphalt pavement removal, mailbox reconstruction, topsoil, hydroseeding, construction surveying, Bear Creek Crossing structure improvements, and miscellaneous related WORK.
- B. SITE OF WORK. The site of the WORK is Second Street from Bradley Street to H Street in Douglas, Alaska.

1.3 WORK BY OTHERS

- A. The CONTRACTOR's attention is directed to the fact that work may be conducted at the site by other contractors during the performance of the WORK under this contract. The CONTRACTOR shall conduct its operations so as to cause a minimum of interference with the WORK of such other contractors, and shall cooperate fully with such contractors to provide continued safe access to their respective portions of the site, as required to perform work under their respective contracts.
- B. Interference with Work On Utilities. The CONTRACTOR shall cooperate fully with all utility forces of the OWNER or private agencies engaged in the relocation, altering, or otherwise rearranging of any facilities which interfere with the progress of the WORK, and shall schedule the WORK so as to minimize interference with said relocation, altering, or other rearranging of facilities.

1.4 CONTRACTOR USE OF PROJECT SITE

A. The CONTRACTOR's use of the Project site shall include construction operations and storage of materials, fabrication facilities, and field offices only in those areas identified on the Drawings.

1.5 OWNER USE OF THE PROJECT SITE

A. The OWNER may utilize all or part of the existing site during the entire period of construction for the conduct of the OWNER's normal operations. The CONTRACTOR shall cooperate and coordinate with the ENGINEER to facilitate the OWNER's operations and to minimize interference with the CONTRACTOR's operation at the same time. In any event, the OWNER shall be allowed access to the Project site during the period of construction.

1.6 PROJECT MEETINGS

A. Pre-Construction Conference

- 1. Prior to the commencement of WORK at the site, a Pre-Construction Conference will be held at a mutually agreed time and place which shall be attended by the CONTRACTOR's Project Manager, its superintendent, and its Subcontractors as the CONTRACTOR deems appropriate. Other attendants will be:
 - a. ENGINEER and Inspector.
 - b. Representatives of OWNER.
 - c. Governmental representatives as appropriate.
 - d. Others as requested by CONTRACTOR, OWNER, or ENGINEER.
- 2. Unless previously submitted to the ENGINEER, the CONTRACTOR shall bring to the Pre-Construction Conference one copy each of the following:
 - a. Plan of Operation.
 - b. Project Overview Bar Chart Schedule.
 - c. Procurement schedule of major equipment and materials and items requiring long lead time.
 - d. Shop Drawing/Sample/Substitute or "Or Equal" submittal schedule.
 - e. Name and telephone number of CONTRACTOR's Project Supervisor.
 - f. Erosion Control Plan with Storm Water Pollution Prevention Plan.
 - g. Traffic Control Plan and CBJ Right-of-Way permit application.
- 3. The purpose of the Pre-Construction Conference is to designate responsible personnel and establish a working relationship. Matters requiring coordination will be discussed and procedure for handling such matters established. The complete agenda will be furnished to the

CONTRACTOR prior to the meeting date. The CONTRACTOR should be prepared to discuss all of the items listed below:

- a. Status of CONTRACTOR's insurance and bonds.
- b. CONTRACTOR's tentative construction schedules.
- c. Transmittal, review, and distribution of CONTRACTOR's submittals.
- d. Processing applications for payment.
- e. Maintaining record documents.
- f. Critical WORK sequencing and long lead items.
- g. Field decisions and Change Orders.
- h. Use of Project site, office and storage areas, security, housekeeping, and OWNER's needs.
- i. Major equipment deliveries and priorities.
- j. CONTRACTOR's assignments for safety and first aid.
- 4. The OWNER will preside at the Pre-Construction Conference and will arrange for keeping and distributing the minutes to all persons in attendance.
- 5. The CONTRACTOR and its Subcontractors should plan on the conference taking no longer than three hours. Items listed in paragraph 3 will be covered as well as a review of the Drawings and Specifications with the ENGINEER and OWNER.

B. Progress Meetings

- 1. The CONTRACTOR shall schedule and hold regular on-site progress meetings at least weekly and at other times as requested by the ENGINEER, or as required by the progress of the WORK. The CONTRACTOR, ENGINEER, and all Subcontractors active on the site must attend each meeting. CONTRACTOR may at its discretion request attendance by representatives of its Suppliers, manufacturers, and other Subcontractors.
- 2. The ENGINEER shall conduct the meeting and will arrange for recording and distributing the minutes. The purpose of the meetings will be to review the progress of the WORK, maintain coordination of efforts, discuss changes in scheduling, and resolve other problems which may develop. During each meeting, the CONTRACTOR is required to present any issues which may impact the WORK, with a view toward resolving these issues expeditiously.

1.7 DEFINITIONS APPLICABLE TO TECHNICAL SPECIFICATIONS

- A. The following words have the meaning defined in the Technical Portions of the WORK:
 - 1. Furnish means to supply and deliver to the site, to unload and unpack ready for assembly, installation, testing, and start-up.
 - 2. Indicated is a word used to direct the CONTRACTOR to information contained on the drawings or in the Specifications. Terms such as "shown", "noted"," "scheduled", and "specified" also may be used to

- assist in locating information but no limitation of location is implied or intended.
- 3. Install defines operations at the site including assembly, erection, placing, anchoring, applying, shaping to dimension, finishing, curing, protecting, and cleaning, ready for the OWNER's use.
- 4. Installer a person or firm engaged by the CONTRACTOR or its subcontract, or any Subcontractor, for the performance of installation, erection, or application WORK at the site. Installers must be expert in the operations they are engaged to perform.
- 5. Provide is defined as furnish and install, ready for the intended use.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION

Add the following Section:

SECTION 01025 - MEASUREMENT AND PAYMENT

PART 1 - GENERAL

1.1 SCOPE

- A. Payment for the various items of the Bid Schedule, as further specified herein, shall include all compensation to be received by the CONTRACTOR for furnishing all tools, equipment, supplies, and manufactured articles, and for all labor, operations, and incidentals appurtenant to the items for WORK being described, as necessary to complete the various items of the WORK all in accordance with the requirements of the Contract Documents, including all appurtenances thereto, and including all costs of permits and cost of compliance with the regulations of public agencies having jurisdiction, including Safety and Health Requirements of Occupational Safety and Health Administration of the U.S. Department of Labor (OSHA), Mining Safety Health Administration (MSHA) and Occupational Safety and Health Standards of the Alaska Department of Labor, Division of Labor Standards and Safety.
- B. No separate payment will be made for any Pay Item that is not specifically set forth in the Bid Schedule, and all costs therefore shall be included in the prices named in the Bid Schedule for the various appurtenant items of WORK.
- C. In addition to the other incidental items of WORK listed elsewhere in the contract, the following items shall also be considered as incidental to other items of WORK under this contract:
 - 1. Maintenance of all services through the Project area including power, water, storm and sanitary sewers, garbage pickup, mail delivery and emergency vehicles.
 - 2. CONTRACTOR shall provide access to local traffic at all times and traffic control, including flaggers, and installation and maintenance of traffic control devices in accordance with the Manual of Uniform Traffic

- Control Devices Millennium Edition (MUTCD) and the current AKDOT&PF supplements.
- 3. Repair or replacement of existing adjacent facilities including piping, landscaping, steel, timber, concrete and asphalt items which are damaged during the course of construction activities.
- 4. Final clean-up and site restoration.
- 5. All WORK necessary for coordination of work to be accomplished by the private utility companies and property owners within the Project limits.
- 6. Removal and replacement of survey monuments and markers disturbed during construction, whether shown on the Drawings or not.
- 7. All fittings (except CPP saddle tees) required for storm, water and sanitary sewer pipes.
- 8. Watering of the roadway as necessary for dust control.
- 9. The CONTRACTOR shall protect all structures adjacent to the WORK. The CONTRACTOR shall be responsible for all damage to adjacent property, including structures and appurtenances. Repairs to structures damaged by the CONTRACTOR, including providing suitable temporary access, will be completed by the CONTRACTOR, at no cost to the OWNER, and as directed by the ENGINEER.
- 10. Any clearing and grubbing required for the Project.
- 11. Set aside landscape items for property owners
- 12. Providing vehicle and pedestrian access to the Island Pub parking lot and business entrance during Island Pub business hours, including maintenance of such.
- 13. Crack sealing all asphalt saw cut joints following pavement operations with PG 58-22 asphalt oil.
- 14. Restrained joints required for the D.I. water pipe.
- 15. All WORK required to provide temporary water and sanitary sewer services to existing residents and businesses within the project limits.
- 16. Placement of usable excavation against the galvanized bin wall to provide protection from the shot rock borrow.

1.2 MOBILIZATION (Pay Item No. 1505.1) PRICE BASED ON LUMP SUM PAY UNIT

- A. Measurement for payment for Mobilization will be based upon the completion of the entire WORK as a Lump Sum Pay Unit, complete, all in accordance with the requirements of the Contract Documents.
- B. Payment for Mobilization will be made at the amount shown on the Bid Schedule under Pay Item No. 1505.1, which payment will constitute full compensation for all WORK described in Section 01505 Mobilization, as shown on the Drawings and as directed by the ENGINEER.
- C. Partial payments will be made as the WORK progresses as follows:
 - 1. When 5% of the total original contract amount is earned from other Pay Items, 50% of the amount bid for Mobilization, or 5% of the original contract amount, whichever is lesser, will be paid.
 - 2. When 10% of the total original contract amount is earned from other Pay Items, 100% of the amount bid for Mobilization, or 10% of the original contract amount, whichever is lesser, will be paid.

- 3. Upon completion of all WORK on the Project, payment of any amount bid for Mobilization in excess of 10% of the total contract amount will be paid.
- 1.3 EROSION AND SEDIMENT CONTROL (Pay Item No. 1570.1) PRICE BASED ON LUMP SUM PAY UNIT
 - A. Measurement for payment for Erosion and Sediment Control will be based upon the completion of the entire WORK as a Lump Sum Pay Unit, complete, all in accordance with the requirements of the Contract Documents.
 - B. WORK under this Pay Item includes obtaining all necessary permits for storm water control as required by Alaska Department of Environmental Conservation and the Environmental Protection Agency. This includes furnishing, installing and maintaining all measures required by these permits. This also includes sweeping and vacuuming of the intersecting side streets of Second Street within the Project limits that are paved.
 - C. Payment for Erosion and Sediment Control will be made at the amount shown in the Bid Schedule under Pay Item No. 1570.1, which payment will constitute full compensation for all WORK described in Section 01570 Erosion Control, as shown on the Drawings and as directed by the ENGINEER.
- 2.1 EXCAVATION (Pay Item No. 2202.1) PRICE BASED ON QUANTITY, CUBIC YARD
 - A. Measurement for payment for Excavation will be based on the number of cubic yards of unclassified material actually excavated, as determined by the average end area method. Where impractical to measure by the average end area method, the ENGINEER may approve other acceptable methods involving three-dimensional measurements. Excavation outside of the subcut limits indicated in the Drawings, or directed by the ENGINEER will not be measured for payment.
 - B. No deduction in the measurement for Excavation will be made for the trenching required for pipe and structure installations above the bottom of, or within the subcut limits as shown on the Typical Sections.
 - C. Measurement for payment may be selected by the CONTRACTOR from one of the following methods:
 - 1. From actual cross sections taken by the CONTRACTOR's surveyor, with the lower limits determined by the neat line subcut limits as indicated on the Typical Sections, or as directed by the ENGINEER.
 - 2. The CONTRACTOR may review and utilize the ENGINEER's design earthwork quantity computations in lieu of providing its own quantity determinations.
 - D. The following will not be measured for direct payment; the cost of such WORK will be considered incidental:
 - 1. Overburden and other spoil material from borrow sources.

- 2. Removal of water by aeration of material to obtain required moisture content.
- 3. Any volumes of water or other liquid material.
- 4. Material used for the purpose other than directed.
- 5. Material excavated when benching.
- 6. Slide or slipout material attributable to the carelessness of the CONTRACTOR.
- 7. The volume of conserved materials stockpiled at the option of the CONTRACTOR.
- 8. The volume of conserved materials stockpiled at the option of the CONTRACTOR.
- 9. Placement of usable, or otherwise suitable material from excavation, as determined by the ENGINEER, into the roadway as embankment or selected embankment, or between the bottom of the shot rock borrow level and the top of the underdrain level, or as embankment for any areas outside the roadway subcut within the project limits.
- E. Payment for Excavation will be made at the Unit Price named in the Bid Schedule under Pay Item No. 2202.1, which payment will constitute full compensation for all WORK described in Section 02202 Excavation and Embankment, as shown on the Drawings and as directed by the ENGINEER.

2.2 SHOT ROCK BORROW (Pay Item No. 2202.2) PRICE BASED ON QUANTITY, CUBIC YARD

- A. Measurement for payment for Shot Rock Borrow will be based on the number of cubic yards of material in place as determined by the average end area method and will be determined on a neat line basis. Where impractical to measure by the average end area method, the ENGINEER may approve other acceptable methods involving three-dimensional measurements. Embankment outside of the lines, grades and cross sections indicated in the Drawings, or directed by the ENGINEER will be deducted from borrow quantities for pay purposes.
- B. Payment for Shot Rock Borrow will be made at the Unit Price named in the Bid Schedule under Pay Item No. 2202.2, which payment will constitute full compensation for all WORK described in Section 02202 Excavation and Embankment, as shown on the Drawings and as directed by the ENGINEER.

2.3 SHOULDER GRADING (Pay Item No. 2202.3) PRICE BASED ON LUMP SUM

- A. Measurement for payment for Shoulder Grading will be based on the completion of the entire WORK as a Lump Sum Pay Unit, complete, including all excavation and placement of usable material from excavation into the shoulder areas outside of the 1' base course shoulder areas, all in accordance with the requirements of the Contract Documents.
- B. This Pay Item will include all WORK, including excavation, backfill with suitable material from roadway and trench excavation, and all grading outside the roadway subcut limits as necessary to restore driveways and shoulders that were disturbed as shown on the Drawings and as directed by the ENGINEER.
- C. Payment for Shoulder Grading will be made at the amount shown in the Bid Schedule under Pay Item No. 2202.3, which payment will constitute full

compensation for all WORK described in Section 02202 – Excavation and Embankment, as shown on the Drawings and as directed by the ENGINEER.

- 2.4 MINING AREA RESTORATION AND ROAD CLEANING GUARANTEE (Pay Item No. 2202.4) PRICE BASED ON CONTINGENT SUM
 - A. Measurement for this Item will be made as a Contingent Sum Pay Unit for completion of Mining Area Restoration and Road Cleaning.
 - B. The CONTRACTOR shall be responsible for restoration of mining areas(s) according to the approved mining plan and non mining areas to existing or better than pre-construction conditions. If the CONTRACTOR fails to perform necessary mining area restoration, the CBJ reserves the right to hire outside forces to perform the WORK and deduct the cost from this contingent sum item.
 - C. The CONTRACTOR shall be responsible for removal of dirt, mud, rocks and other debris from CBJ and State Right-of-Ways accumulated from the hauling and quarry operations. It is the intent that the traveled public way be kept as clean as practical to minimize dust and to avoid unsafe traffic conditions. If the CONTRACTOR fails to perform necessary road cleaning, the CBJ may hire outside forces to perform the WORK and deduct the cost from this contingent sum item.
 - D. Release of final payment for Mining Area Restoration and Road Cleaning Guarantee will be made upon determination of completeness by the ENGINEER after deduction of OWNER incurred costs for necessary road cleaning, or mining area restoration not completed by the CONTRACTOR.
 - E. Payment for Mining Area Restoration and Road Cleaning Guarantee will be made at the amount named in the Bid Schedule under Pay Item No. 2202.4, which payment will constitute full compensation for all WORK described in Section 2202 Excavation and Embankment, as shown on the Drawings and as directed by the ENGINEER.
- 2.5 INDIVIDUAL MINING PLANS (Pay Item No. 2202.5) PRICE BASED ON LUMP SUM
 - A. Measurement for payment for Individual Mining Plans will be based on the completion of the entire WORK as a Lump Sum Pay Unit, complete, including preparation and approval of the Individual Mining Plans by a registered Civil Engineer in the State of Alaska, all in accordance with the requirements of the Contract Documents.
 - B. Payment for Individual Mining Plans will be made at the amount shown in the Bid Schedule under Pay Item No. 2202.5, which payment will constitute full compensation for all WORK described in Section 2202 Excavation and Embankment, as shown on the Drawings and as directed by the ENGINEER.

- 2.6 2-INCH MINUS SHOT ROCK/BASE COURSE (Pay Item No. 2204.1) PRICE BASED ON QUANTITY, CUBIC YARD
 - A. 2-Inch Minus Shot Rock/Base Course will be measured by the number of cubic yards of material in place as determined by the average end area method, and will be determined on a neat line basis. Where impractical to measure by the average end area method, the ENGINEER may approve other acceptable methods involving three-dimensional measurements. Material outside of the lines, grades and cross sections indicated in the Drawings, or as directed by the ENGINEER, will be deducted from 2-Inch Minus Shot Rock/Base Course quantities for pay purposes.
 - B. Water needed for compaction and added to the base material on the grade will be considered incidental.
 - C. 2-Inch Minus Shot Rock will be placed and compacted into a layer 7-1/2-inches to 8-1/2-inches thick, and covered with Base Course, to a total thickness of 9-1/2-inches for the area under the street pavement. The thickness of these materials under the sidewalk shall be 2-inches to 3-inches of 2-Inch Minus Shot Rock and covered with Base Course to a total thickness of 4-inches. Both of these materials will be measured for payment under this Pay Item. 2-Inch Minus Shot Rock shall meet the requirements of Section 2202 Excavation and Embankment.
 - D. Base Course, Grading D-1, used for finish grading of gravel driveways to match the new curbing will be measured by the cubic yard by conversion from weight tickets, or other acceptable methods as approved by the ENGINEER.
 - E. Payment for 2-Inch Minus Shot Rock/Base Course, will be made at the Unit Price named in the Bid Schedule under Pay Item No. 2204.1, which payment will constitute full compensation for all WORK described in Section 2204 Base Course, as shown on the Drawings and as directed by the ENGINEER.
- 2.7 RECYCLED ASPHALT PAVEMENT (Pay Item No. 2204.2) PRICE BASED ON QUANTITY, CUBIC YARD
 - A. Recycled Asphalt Pavement will be measured by the number of cubic yards of material in place as determined by the average end area method and will be determined by a neat line basis.
 - B. CBJ will furnish the recycled asphalt material to the CONTRACTOR from the CBJ Lemon Creek pit site.
 - C. WORK under this Pay Item includes hauling, placing, grading and compacting 6-inch depth of recycled asphalt pavement on Bradley Street to match preconstruction elevations and grades.
 - D. Payment for Recycled Asphalt Pavement will be made at the Unit Price named in the Bid Schedule under Pay Item No. 2204.2, which payment will constitute full compensation for all WORK described in Section 2204 Base Course, as shown on the Drawings, or as directed by the ENGINEER.

- 2.8 SANITARY SEWER PIPE, 8-INCH PVC (Pay Item No. 2401.1) PRICE BASED ON OUANTITY, LINEAR FOOT
 - A. Sanitary Sewer Pipe will be measured along the slope of the pipe in feet, from center to center of manholes, from center of manholes to end of pipe, or to limits of payment as shown on the Drawings. The aggregate laid lengths of wyes will not be deducted from lengths of pipes so measured.
 - B. WORK necessary to determine the actual location and depth of the existing sewer laterals will be measured for payment under Pay Item No. 2401.3 Locate Sewer Services.
 - C. Payment for Sanitary Sewer Pipe, 8-Inch PVC will be made at the Unit Price named in the Bid Schedule under Pay Item No. 2401.1, which payment will constitute full compensation for all WORK described in Section 2401 Sanitary Sewer Pipe, as shown on the Drawings and as directed by the ENGINEER.
- 2.9 SERVICE CONNECTIONS AND LATERALS (Pay Item No. 2401.2) PRICE BASED ON QUANTITY, EACH
 - A. Service Connections and Laterals smaller than 6-inches will be measured per each, complete in place, including pipe, cleanouts and cast iron frame and cover, with "SEWER" cast on it, fittings, and adapters, as required to connect to main line sewer and existing services, trench excavation, bedding, backfill, sewer warning ribbon, sheeting and bracing, routing sewer services through bin wall where shown and treating bin wall cuts with galvanized material, dewatering, cleaning and testing, and all other items necessary for a complete installation.
 - B. The determination of the connection point to the existing service pipe will be made by the ENGINEER at the time the existing service pipe has been exposed to view. The CONTRACTOR shall proceed with trenching towards the residence or business until the ENGINEER has determined a suitable connection point is reached.
 - C. Payment for Service Connections and Laterals will be made at the Unit Price named in the Bid Schedule under Pay Item No. 2401.2, which payment will constitute full compensation for all WORK described in Section 2401 Sanitary Sewer Pipe, as shown on the Drawings and as directed by the ENGINEER.
- 2.10 LOCATE SEWER SERVICES (Pay Item No. 2401.3) PRICE BASED ON LUMP SUM
 - A. Measurement for payment for Locate Sewer Services will be based upon the completion of the entire WORK as a Lump Sum Pay Unit, complete, all in accordance with the requirements of the Contract Documents.
 - B. WORK under this Item includes all excavation and backfill, and other WORK necessary to determine the location of all existing sewer services to be served by the new sewer system prior to installation of the sewer service wyes along the

- mainline pipe. No service saddles will be permitted along the new sewer main piping.
- C. Payment for Locate Sewer Services will be made at the amount shown in the Bid Schedule under Pay Item No. 2401.3, which payment will constitute full compensation for all WORK described in Section 02401 Sanitary Sewer Pipe, as shown on the Drawings and as directed by the ENGINEER.

2.11 SANITARY SEWER MANHOLE, TYPE I (Pay Item No. 2402.1) PRICE BASED ON QUANTITY, EACH

- A. Sanitary Sewer Manholes will be measured per each, complete in place, including all earthwork, water proofing, frame and lid assembly, Infra-Riser adjustment rings, temporary sewer bypass, and transition slab with asphalt pavement overlay, if required.
- B. All WORK required to reset the frame and cover to grade, including construction of a concrete transition slab with pavement overlay, if necessary, will be considered incidental to other work under this Contract.
- C. Payment for Sanitary Sewer Manhole, Type I will be made at the Unit Price named in the Bid Schedule under Pay Item No. 2402.1, which payment will constitute full compensation for all WOR described in Section 02402 Sanitary Sewer Manholes and Cleanouts, as shown on the Drawings and as directed by the ENGINEER.

2.12 []-INCH PIPE CULVERT (Pay Item Nos. 2501.1 and 2501.2) PRICE BASED ON QUANTITY, LINEAR FOOT

- A. Culverts Pipes, including all coupling bands, bends and other items necessary for the proper joining of the culvert pipe sections, will be measured by the staked length in linear feet.
- B. Pipes for storm drains shall be measured by the staked length, from center to center of structures or to ends of pipe, if no structure is present. No deduction shall be made for footage through inlets, catch basins, or manholes.
- C. Branch connections, coupling adapters and bends will be included in the linear foot measurement for conduit.
- D. Trench excavation, bedding, backfill and imported backfill will not be measured for payment, but will be considered incidental.
- E. Field locating, exposing, cutting and capping of existing lines as shown on the Drawings shall not be measured for payment and will be considered incidental.
- F. Payment for 6-Inch Pipe Culvert will be made at the Unit Price named in the Bid Schedule under Pay Item No. 2501.1, which payment will constitute full compensation for all WORK described in Section 02501 Storm Sewer Pipe, as shown on the Drawings and as directed by the ENGINEER.

- G. Payment for 12-Inch Pipe Culvert will be made at the Unit Price named in the Bid Schedule under Pay Item No. 2501.2, which payment will constitute full compensation for all WORK described in Section 02501 Storm Sewer Pipe, as shown on the Drawings and as directed by the ENGINEER.
- 2.13 12-INCH PIPE CULVERT w/6-INCH UNDERDRAIN (Pay Item No. 2501.3) PRICE BASED ON QUANTITY, LINEAR FOOT.
 - A. Culvert pipe and underdrain pipe, including all coupling bands, and other items necessary for proper joining of the pipe sections, will be measured by the staked lengths.
 - B. Culvert pipe and underdrain pipe will be measured from center to center of structures, or to ends of pipe if no structure is present. No deduction will be made for footage through inlets, catch basins or manholes.
 - C. Pipe perforations, 2-inch minus clean shot rock, and filter cloth will not be measured for payment, but will be considered incidental to other WORK.
 - D. Excavation, bedding, backfill, 2-inch minus clean shot rock and imported backfill will not be measured for payment, but will be considered incidental to other WORK.
 - E. Payment for 12-Inch Pipe Culvert w/6-Inch Underdrain will be made at the Unit Price named in the Bid Schedule under Pay Item No. 2501.3, which will constitute full compensation for all WORK described in Section 02501 Storm Sewer Pipe, as shown on the Drawings, and as directed by the ENGINEER.
- 2.14 CPP SADDLE TEE (Pay Item No. 2501.4) PRICE BASED ON QUANTITY, EACH
 - A. CPP Saddle Tees will be measured per each, complete in place, regardless of size.
 - B. This Pay Item will include those CPP Saddle Tees shown on the Drawings, and also will be used to connect to the storm drain mains at locations as required to intercept unknown underground drainage pipes and flows.
 - C. Only those CPP Saddle Tees actually required, as shown on the Drawings, and as determined by the ENGINEER, will be measured for payment.
 - D. Payment for CPP Saddle Tee will be made at the Unit Price named in the Bid Schedule under Pay Item No. 2501.4, which payment will constitute full compensation for all WORK described in Section 02501 Storm Sewer Pipe, as shown on the Drawings and as directed by the ENGINEER.
- 2.15 STORM DRAIN MANHOLE, TYPE I (Pay Item No. 2502.1) PRICE BASED ON QUANTITY, EACH
 - A. Storm Drain Manhole, Type I will be measured per each, complete in place, including all earthwork, frames and grates or covers, as shown on the Drawings.

- B. Payment for Storm Drain Manhole, Type I will be made at the Unit Price named in the Bid Schedule under Pay Item No. 2502.1 which payment will constitute full compensation for all WORK described in Section 02502 Storm Sewer Manholes, Inlets and Catch Basins, as shown on the Drawings and as directed by the ENGINEER.
- 2.16 CATCH BASIN, TYPE IV (Pay Item No. 2502.2) PRICE BASED ON QUANTITY, EACH
 - A. Catch Basin Type IV will be measured per each, complete in place, including all earthwork, frames, grates or covers as shown on the Drawings.
 - B. Payment for Catch Basin, Type IV will be made at the Unit Price named in the Bid Schedule under Pay Item No. 2502.2, which payment will constitute full compensation for all WORK described in Section 02502 Storm Sewer Manholes, Inlets and Catch Basins, as shown on the Drawings and as directed by the ENGINEER.
- 2.17 CATCH BASIN, TYPE III (Pay Item No. 2502.3) PRICE BASED ON QUANTITY, EACH
 - A. Catch Basin Type III will be measured per each, complete in place, including all earthwork, frames and grates or covers as shown on the Drawings.
 - B. Payment for Catch Basin, Type III will be made at the Unit Price named in the Bid Schedule under Pay Item No. 2502.3, which payment will constitute full compensation for all WORK described in Section 02502 Storm Sewer Manholes, Inlets and Catch Basins, as shown on the Drawings and as directed by the ENGINEER.
- 2.18 CONNECT TO EXISTING MANHOLE (Pay Item No. 2502.4) PRICE BASED ON LUMP SUM
 - A. Connect to Existing Manhole will be based upon the completion of the entire WORK as a Lump Sum Pay Unit, complete in place, all in accordance with the requirements of the Contract Documents.
 - B. WORK under this item applies to the new storm drain pipe connecting to existing storm structures on the project at the Second Street and Bradley intersection, near the State of Alaska Department of Fish and Game parking lot.
 - C. Payment for Connect to Existing Manhole will be made at the amount shown in the Bid Schedule under Pay Item No. 2502.4, which payment will constitute full compensation for all WORK described in Section 02502 Storm Sewer Manholes, Inlets and Catch Basins, as shown on the Drawings and as directed by the ENGINEER.
- 2.19 []-INCH D.I. WATER PIPE (Pay Item Nos. 2601.1 and 2601.2) PRICE BASED ON QUANTITY, LINEAR FOOT
 - A. Measurement of D.I. Water Pipe will be made along the slope of the pipe from centers of fittings and valves. No deduction in length will be made for valves

- and fittings. All fittings, other than valves, required for satisfactory installation of water pipe will be considered incidental to the water pipe pay items.
- B. Measurement for 6 and 8-Inch D.I. Water Pipe will include any smaller pipe necessary to connect to the existing pipe. 6" D.I. water pipe pay limits are from the tee location at Second Street and Bradley intersection to the 90 degree bend for the fire hydrant near the Fish and Game parking lot.
- C. All restrained joint gaskets will be considered incidental.
- D. Connection to existing 4" cast iron, 6" D.I.P. or 8" D.I.P. water mains shall not be measured for payment and will be considered incidental.
- E. Payment for 6-Inch D.I. Water Pipe will be made at the Unit Price named in the Bid Schedule under Pay Item No. 2601.1, which payment will constitute full compensation for all WORK described in Section 02601 Water Pipe, as shown on the Drawings and as directed by the ENGINEER.
- F. Payment for 8-Inch D.I. Water Pipe will be made at the Unit Price named in the Bid Schedule under Pay Item No. 2601.2, which payment will constitute full compensation for all WORK described in Section 02601- Water Pipe, as shown on the Drawings and as directed by the ENGINEER.
- 2.20 6-INCH GATE VALVE (Pay Item No. 2602.1) PRICE BASED ON QUANTITY, EACH
 - A. Measurement for payment of 6-Inch Gate Valves will be based on the actual quantity, each, of such valves and new valve boxes furnished and installed in accordance with the requirements of the Contract Documents.
 - B. Payment for 6-Inch Gate Valve will be made at the Unit Price named in the Bid Schedule under Pay Item No. 2602.1, which payment will constitute full compensation for all WORK described in Section 02602 Valves, as shown on the Drawings and as directed by the ENGINEER.
- 2.21 8-INCH GATE VALVE (Pay Item No. 2602.2) PRICE BASED ON QUANTITY, EACH
 - A. Measurement for payment of 8-Inch Gate Valves will be based on the actual quantity, each, of such valves and new valve boxes furnished and installed in accordance with the requirements of the Contract Documents.
 - B. Payment for 8-Inch Gate Valve will be made at the Unit Price named in the Bid Schedule under Pay Item No. 2602.2, which payment will constitute full compensation for all WORK described in Section 02602 Valves, as shown on the Drawings and as directed by the ENGINEER.
- 2.22 REPLACE VALVE BOX (Pay Item No. 2602.3) PRICE BASED ON QUANTITY, EACH
 - A. Measurement for payment for Replace Valve Box will be the actual quantity, each, of such valve boxes completely replaced and adjusted to finish grade in accordance with the requirements of the Contract Documents.

- B. The WORK includes all excavation, backfill, removal of existing valve boxes and installation of new valve boxes as shown on the Drawings at "H" Street.
- C. Payment for Replace Valve Box will be made at the Unit Price named in the Bid Schedule under Pay Item No. 2602.3, which payment will constitute full compensation for all WORK described in Section 02602 Valves, as shown on the Drawings and as directed by the ENGINEER.
- 2.23 FIRE HYDRANT ASSEMBLY (Pay Item No. 2603.1) PRICE BASED ON QUANTITY, EACH
 - A. Measurement for payment for Fire Hydrant Assemblies will be actual number of fire hydrant assemblies satisfactorily installed, complete, in place.
 - B. A Fire Hydrant Assembly includes the fire hydrant, the tee or required fitting at the mainline water pipe, barrel extension (if required), thrust block, six-inch gate valve, valve box, joint restraints, continuity wires, thaw wires, warning tapes, and any other required fittings, including 6-inch water pipe, to connect the hydrant leg from the mainline water pipe to the fire hydrant or from the stubbed water pipe to the fire hydrant as shown on the Drawings.
 - C. Trench excavation and backfill shall be considered incidental.
 - D. Payment for Fire Hydrant Assembly will be made at the Unit Price named in the Bid Schedule under Pay Item No. 2603.1 which payment shall constitute full compensation for all WORK described in Section 02603 Fire Hydrants, as shown on the Drawings and as directed by the ENGINEER.
- 2.24 GUARD POST (Pay Item No. 2603.2) PRICE BASED ON QUANTITY, EACH
 - A. Measurement of Guard Post will be the actual number of Guard Posts satisfactorily installed, complete in place.
 - B. Payment for Guard Post will be made at the Unit Price named in the Bid Schedule under Pay Item No. 2603.2, which payment will constitute full compensation for all WORK described in Section 02603 Fire Hydrants, as shown on the Drawings and as directed by the ENGINEER.
- 2.25 []-INCH WATER SERVICES (Pay Item No. 2605.1 and 2605.2) PRICE BASED ON QUANTITY, EACH
 - A. Measurement for payment for water services 2-inches and smaller will be the actual number of water services satisfactorily installed from the water pipe to the property line or tie in location as shown on the Drawings, and as directed by the Engineer.
 - B. A water service includes the curb stop, service box, corporation stop, thaw wires, service saddle, all required fittings, warning tape, service pipe, connecting to existing water service pipe, and all WORK necessary to install the water service to the locations shown on the Drawings.

- C. Trench excavation and backfill shall be considered incidental to the water service installation.
- D. No separate payment will be made for dealing with the water service at 1106 Second Street that penetrates the existing bin wall.
- E. Payment for 1-Inch Water Service will be made at the Unit Price named in the Bid Schedule under Pay Item No. 2605.1, which payment will constitute full compensation for all WORK described in Section 02605 Water Services, as shown on the Drawings and as directed by the ENGINEER.
- F. Payment for 2-Inch Water Service will be made at the Unit Price named in the Bid Schedule under Pay Item No. 2605.2, which payment will constitute full compensation for all WORK described in Section 02605 Water Services, as shown on the Drawings and as directed by the ENGINEER.

2.26 ISLAND PUB (1102 Second Street) WATER SERVICE (Pay Item No. 2605.3), PRICE BASED ON LUMP SUM

- A. Measurement for payment for Island Pub Water Service will be based upon the completion of the entire WORK as a Lump Sum Pay Unit, complete, all in accordance with the requirements of the Contract Documents.
- B. WORK under this pay item includes furnishing and installing a new 6-inch ductile iron water service from the new 8-inch water main to the location shown on the Drawings. This WORK also includes the tee at the water main, thrust block, 6-inch gate valve, valve box, joint restraints, continuity wires, thaw wires, warning tape, and any other required fittings to connect the new water service to the existing pipe, as shown on the Drawings.
- C. The WORK also includes removal and reinstallation of the existing wooden steps and wooden deck at the Island Pub to make this installation.
- D. The WORK also includes maintaining 6-inch water service to Island Pub during construction with no interruption of water service during the Island Pub business hours. Any interruption of water service shall be performed during non-working hours of Island Pub and approved by Island Pub owner and the ENGINEER.
- E. Trench excavation and backfill shall be considered incidental.
- F. Payment for Island Pub Water Service will be made at the amount shown in the Bid Schedule under Pay Item No. 2605.3, which payment will constitute full compensation for all WORK described in Section 02605 Water Services, as shown on the Drawings, and as described by the ENGINEER.

2.27 LOCATE WATER SERVICES (Pay Item No. 2605.4) PRICE BASED ON LUMP SUM

- A. Measurement for payment for Locate Water Services will be based upon the completion of the entire WORK as a Lump Sum Pay Unit, complete, all in accordance with the requirements of the Contract Documents.
- B. WORK under this Item includes all excavation and backfill, and other WORK necessary to determine the location of all existing water services to be served by

the new water system prior to installation of the water main to determine where potential conflicts may occur with the new storm drain and sanitary sewer system piping.

C. Payment for Locate Water Services will be made at the amount shown in the Bid Schedule under Pay Item No. 2605.4, which payment will constitute full compensation for all WORK described in Section 02605 – Water Services, as shown on the Drawings and as directed by the ENGINEER.

2.28 PIPE INSULATION (Pay Item No. 2607.1) PRICE BASED ON QUANTITY, BOARD

- A. Measurement for payment of Pipe Insulation will be the actual number of 2" x 2' x 8' boards installed.
- B. Payment for Pipe Insulation will be made at the Unit Price named in the Bid Schedule under Pay Item No. 2607.1, which payment will constitute full compensation for all WORK described in Section 02607 Pipe Insulation, as shown on the Drawings and as directed by the ENGINEER.

2.29 CONSTRUCTION SURVEYING (Pay Item No. 2702.1) PRICE BASED ON LUMP SUM

- A. Measurement for payment of Construction Surveying will be based upon the completion of the entire WORK as a Lump Sum Pay Unit, complete, all in accordance with the requirements of the Contract Documents.
- B. Payment for Construction Surveying will be made at the amount shown in the Bid Schedule under Pay Item No. 2702.1, which payment will constitute full compensation for all WORK described in Section 02702 Construction Surveying, as shown on the Drawings and as directed by the ENGINEER.

2.30 TOPSOIL (Pay Item No. 2709.1) PRICE BASED ON QUANTITY, CUBIC YARD

- A. Measurement for payment of Topsoil will be by the cubic yard on the basis of truck measure for all WORK performed in the Contract under Section 02709 Topsoil, completed and accepted.
- B. Topsoil found to be in excess of 3-inches thick, in place and to final grade, will be deducted from the quantity measured by truck measure based on depths measured at randomly selected locations. Deductions will be computed on the basis of the average end area method.
- C. Payment for Topsoil will be made at the Unit Price named in the Bid Schedule under Pay Item No. 2709.1, which payment will constitute full compensation for all WORK described in Section 02709 Topsoil, as shown on the Drawings and as directed by the ENGINEER.

2.31 TOPSOIL FINISH GRADING (Pay Item 2709.2) PRICE BASED ON QUANTITY, MAN-HOUR

A. Topsoil Finish Grading will be measured per man-hour for each man-hour, or part thereof, that the labor personnel is actually at the work site working as

- directed by the ENGINEER. No measurement for payment will be made for any man-hours not actually working on the finish grading of the topsoil as directed, including travel time, materials and tools expediting, or supervisory personnel.
- B. Payment for Topsoil Finish Grading will be made at the Unit Price named in the Bid Schedule under Pay Item No. 2709.2, which payment will constitute full compensation for all WORK described in Section 02709 Topsoil, as shown on the Drawings and as directed by the ENGINEER
- 2.32 SEEDING, HYDRAULIC METHOD, TYPE III (Pay Item No. 2710.1) PRICE BASED ON QUANTITY, SLURRY UNIT
 - A. Seeding by the hydraulic method will be measured for payment by the number of slurry units (to the nearest 1/10 unit) of mixture actually applied to the designated area as directed by the ENGINEER.
 - B. Payment for Seeding, Hydraulic Method, Type III will be made at the Unit Price named in the Bid Schedule under Pay Item No. 2710.1, which payment will constitute full compensation for all WORK described in Section 02710 Seeding, as shown on the Drawings and as directed by the ENGINEER.
- 2.33 FILTER CLOTH, TYPE C (Pay Item No. 2714.1) PRICE BASED ON QUANTITY, SQUARE YARD
 - A. Measurement for payment for Filter Cloth, Type C will be by the square yard, measured complete in place, all in accordance with the requirements of the Contract Documents.
 - B. Seams, when required, will be constructed in accordance with requirements of Section 02714 Filter Cloth, and will be considered incidental to other items of WORK under this Section.
 - C. Torn fabric will be repaired or replaced as directed by the ENGINEER, and will be considered incidental to other items of WORK under this Section.
 - D. Payment for Filter Cloth, Type C will be made at the Unit Price named in the Bid Schedule under Pay Item No. 2714.1, which payment will constitute full compensation for all WORK described in Section 02714 Filter Cloth, as shown on the Drawings and as directed by the ENGINEER.
- 2.33 6-INCH UNDERDRAIN (Pay Item No. 2715.1) PRICE BASED ON QUANTITY, LINEAR FOOT
 - A. Underdrain will be measured along the slope of the underdrain pipe, from capped end to centerline of structure, or from centerline of structure to centerline of structure in linear feet.
 - B. Underdrain includes trench excavation, backfill, 6-inch perforated CPP pipe, cleanout with cast iron frame and cover with "STORM" cast on it, 2-inch minus clean shot rock surrounding the pipe, and the filter cloth as required to completely enclose the 2-inch minus shot rock, as shown on the typical section on the Drawings.

C. Payment for 6-Inch Underdrain will be made at the Unit Price named in the Bid Schedule under Pay Item No. 2715.1, which payment will constitute full compensation for all WORK described in Section 02715 – Underdrain, as shown on the Drawings and as directed by the ENGINEER.

2.34 WATER, STORM AND SANITARY SEWER PIPE REMOVAL (Pay Item No 2716.1) PRICE BASED ON LUMP SUM

- A. Measurement for payment for Water, Storm and Sanitary Sewer Pipe Removal will be based upon the completion of the entire WORK as a Lump Sum Pay Unit, complete, all in accordance with the requirements of the Contract Documents.
- B. This WORK shall also include disposal of water, storm and sanitary sewer pipes to be removed on the Project.
- C. The WORK also includes the removal and disposal of existing thrust blocks, fittings, fire hydrants, hydrant valves, water service curb stops, main line valves, and valve boxes as shown on the Drawings.
- D. Payment for Water, Storm and Sanitary Sewer Pipe Removal will be made at the amount shown in the Bid Schedule under Pay Item No. 2716.1, which payment will constitute full compensation for all WORK described in Section 02716 Water, Storm and Sanitary Pipe Removal, as shown on the Drawings and as directed by the ENGINEER.

2.35 STORM AND SANITARY SEWER STRUCTURE REMOVAL (Pay Item No. 2717.1) PRICE BASED ON LUMP SUM

- A. Measurement for payment for Storm and Sanitary Sewer Structure Removal will be based upon the completion of the entire WORK as a Lump Sum Pay Unit, complete all in accordance with the requirements of the Contract Documents.
- C. Payment for Storm and Sanitary Sewer Structure Removal will be made at the amount shown in the Bid Schedule under Pay Item No. 2717.1, which payment will constitute full compensation for all WORK described in Section 02717 Storm and Sanitary Structure Removal, as shown on the Drawings and as directed by the ENGINEER.

2.36 SIGN ASSEMBLY (Pay Item No. 2718.1) PRICE BASED ON QUANTITY, EACH

- A. Sign Assemblies will be measured per each, as described in Section 02718 Sign Assembly, and as shown in the Sign Assembly Table on Drawing Sheet No. C100.
- B. WORK under this Pay Item includes providing all new sign assembly materials, except as noted in the Sign Assembly Table on Drawing Sheet No. C100. No used materials shall be used, except as noted in the Sign Assembly Table.
- C. Removal and disposal of existing signs not be reused will be considered incidental to other WORK under this Section.

- D. Those sign panels to be relocated that are designated in the Sign Assembly Table as incidental, will not be measured for payment, but will be considered incidental.
- E. Payment for Sign Assembly will be made at the Unit Price named in the Bid Schedule under Pay Item No. 2718.1, which payment will constitute full compensation for all WORK described in Section 02718 Sign Assembly, as shown on the Drawings and as directed by the ENGINEER.

2.37 PROJECT SIGN ASSEMBLY (Pay Item No. 2718.2) PRICE BASED ON LUMP SUM

- A. Measurement for payment for Project Sign Assembly will be based on the completion of the entire WORK as a Lump Sum Pay Unit, complete, all in accordance with the requirements of the Contract Documents.
- B. The sign panel will be provided by the OWNER and installed by the CONTRACTOR at the location, as directed by the ENGINEER. All other required materials shall be provided by the CONTRACTOR.
- C. Payment for Project Sign Assembly will be made at the amount shown in the Bid Schedule under Pay Item No. 2718.2, which payment will constitute full compensation for all WORK described in Section 02718 Sign Assembly, as shown on the Drawings and as directed by the ENGINEER.

2.38 RECONSTRUCT MAILBOX (Pay Item No. 2719.1) PRICE BASED ON QUANTITY, EACH

- A. Measurement for payment for Reconstruct Mailbox will be the actual number of mailboxes satisfactorily removed, reconstructed and relocated, as shown on CBJ Standard Details 116 and 117, and as directed by the ENGINEER.
- B. Mailboxes relocated, but not requiring reconstruction, as determined by the ENGINEER, will not be measured for payment, but will be considered incidental.
- C. A gang-type mailbox constructed with two receptacles on one post assembly will be measured for payment as one unit. All clustered mailboxes receptacles shall be constructed in pairs per CBJ Standard Detail 117.
- D Payment for Reconstruct Mailbox will be made at the Unit Price named in the Bid Schedule under Pay Item No. 2719.1, which payment will constitute full compensation for all WORK described in Section 02719 Mailboxes, as shown on CBJ Standard Detail 116, and as directed by the ENGINEER.

2.39 PAINTED TRAFFIC MARKINGS (Pay Item No. 2720.1) PRICE BASED ON LUMP SUM

A. Measurement for payment for Painted Traffic Markings will be based upon the completion of the entire WORK as a Lump Sum Pay Unit, complete, all in accordance with the requirements of the Contract Documents.

- B. WORK under this Pay Item includes the painted traffic markings as shown on the Drawings.
- C. Payment for Painted Traffic Markings will be made at the amount shown in the Bid Schedule under Pay Item No. 2720.1, which payment will constitute full compensation for all WORK described in Section 02720 Painted Traffic Markings, as shown on the Drawings and as directed by the ENGINEER.
- 2.40 METAL PIPE RAIL (Pay Item No. 2721.1) PRICE BASED ON QUANTITY, LINEAR FOOT
 - A. Metal Pipe Rail will be measured per linear foot along the face of railing, including end sections, complete in place, from outside to outside of end rail elements including all fasteners and connections required.
 - B. Payment for Metal Pipe Rail will be made at the Unit Price named in the Bid Schedule under Pay Item No. 2721.1, which payment will constitute full compensation for all WORK described in Section 02721 Metal Pipe Rail, as shown on the Drawings and as directed by the ENGINEER.
- 2.41 REMOVE AND RESET CHAIN LINK FENCE (Pay Item No. 2722.1) PRICE BASED ON QUANTITY, LINEAR FOOT
 - A. Remove and Reset Chain Link Fence will be measured per linear foot along the face of the relocated fence, complete in place and accepted. The length of the removed fence that is not relocated will not be measured for payment, but is considered incidental to this Section.
 - B. WORK under this Pay Item includes removing and resetting existing chain link fences along Second Street as shown in the Drawings. No other fencing will be measured for payment under this Pay Item unless approved by the ENGINEER. The pay length will be the length of the reset fence to the limits as approved by the ENGINEER. WORK shall include all materials, labor and equipment necessary to make a complete and satisfactory installation.
 - C. Payment for Remove and Reset Chain Link Fence will be made at the Unit Price named in the Bid Schedule under Pay Item No. 2722.1, which payment will constitute full compensation for all WORK described in Section 02722 Remove and Reset Fence, as shown on the Drawings and as directed by the ENGINEER.
- 2.42 REMOVE AND RESET WOOD FENCE (Pay Item No. 2722.2) PRICE BASED ON QUANTITY, LINEAR FOOT
 - A. Remove and Reset Wood Fence will be measured per linear foot along the face of the relocated fence, complete in place and accepted. The length of the removed fence that is not relocated will not be measured for payment, but is considered incidental to this Section.
 - B. WORK under this Pay Item includes removing and resetting existing wooden fences along Second Street as shown in the Drawings. No other fencing will be measured for payment under this Pay Item unless approved by the ENGINEER.

The pay length will be the length of the reset fence to the limits as approved by the ENGINEER. WORK shall include all materials, labor and equipment necessary to make a complete and satisfactory installation.

- C. Payment for Remove and Reset Wood Fence will be made at the Unit Price named in the Bid Schedule under Pay Item No. 2722.2, which payment will constitute full compensation for all WORK described in Section 02722 Remove and Reset Fence, as shown on the Drawings and as directed by the ENGINEER.
- 2.43 BEAR CREEK CHAIN LINK FENCE REMOVAL (Pay Item No. 2722.3) PRICE BASED ON QUANTITY, LINEAR FOOT
 - A. Bear Creek Chain Link Fence Removal will be measured per linear foot along the fence line of actual fence removed and disposed of.
 - B. Payment for Bear Creek Chain Link Fence Removal will be made at the Unit Price named in the Bid Schedule under Pay Item No. 2722.3, which payment will constitute full compensation for all WORK described in Section 02722 Remove and Reset Fence, as shown on the Drawings and as directed by the ENGINEER.
- 2.44 REMOVE AND RELOCATE LANDSCAPING (Pay Item No. 2723.1) PRICE BASED ON LUMP SUM
 - A. Measurement for Remove and Relocate Landscaping will be based upon the completion of the entire WORK as a Lump Sum unit, complete, all in accordance with the requirements of the Contract documents.
 - B. Only those landscaping items actually found to be in direct conflict with the construction improvements and as approved by the ENGINEER for removal and relocation, will be measured for payment.
 - C. Payment for Remove and Relocate Landscaping will be made at the amount shown in the Bid Schedule under Pay Item No. 2723.1, which payment will constitute full compensation for all WORK described in Section 02723 Remove and Relocate Landscaping, as shown on the Drawings and as described by the ENGINEER.
- 2.45 A.C. PAVEMENT, TYPE II-A, CLASS B (Pay Item No. 2801.1) PRICE BASED ON QUANTITY, TON
 - A. Asphalt Concrete Pavement, Type II-A, Class B will be measured by the ton.
 - B. The tolerance for thickness of asphalt concrete pavement under square yard measurement shall be plus or minus one-quarter inch from design mat thickness, as shown on the typical section. This one-quarter inch tolerance shall be the exception only, with the average variance for the job being not more than plus or minus one-eighth inch from the design mat thickness. All asphalt concrete pavement placed outside the tolerance allowed will be corrected by the CONTRACTOR at no cost to the CBJ.

- C. No measurement will be made for asphalt concrete pavement that exceeds 12% more than the neat line quantity, as determined by the nominal design thickness multiplied by the actual area paved, with a conversion factor of 119.0 lbs. per square yard, per inch of thickness.
- D. All resealing of joints with PG 58-22 oil with existing pavement, including those resealed after the pavement has cooled to ambient temperatures, will not be measured for payment, but will be considered incidental.
- E. Tack Coat applied to existing joint surfaces and along edge of gutters prior to placement of asphalt concrete pavement, will be considered incidental.
- F. Asphalt Pavement required for reconstructed collars around manholes and water valves, if any, will be considered incidental.
- G. Payment for Pay Item No. 2801.1 will be made at a maximum value of 75% of the Unit Bid Price until the fog seal coat and blotting sand has been applied and accepted by the ENGINEER. Upon acceptance of the fog seal coat application, the remaining balance for Pay Item No. 2801.1 will be paid with the following Pay Request.
- H. Payment under this Pay Item may include deductions in the final price if, after asphalt laboratory testing, the asphalt pavement does not meet the required specification. Deductions are further described in Section 02801 Asphalt Concrete Pavement, Part 3 Execution, Article 3.13 Acceptance Sampling and Testing, Paragraph K.
- I. Payment for A.C. Pavement, Type II-A, Class B, will be made at the Unit Price named in the Bid Schedule under Pay Item No. 2801.1, which payment will constitute full compensation for all WORK described in Section 02801 Asphalt Concrete Pavement, as shown on the Drawings and as directed by the ENGINEER.
- 2.46 A.C. PAVEMENT FOR DRIVEWAYS AND HYDRANT PADS (Pay Item No. 2801.2) PRICE BASED ON QUANTITY, TON
 - A. Asphalt Concrete Pavement for Driveways and Hydrant Pads will be measured by the ton.
 - B. No measurement will be made for asphalt concrete pavement that exceeds 12% more than the neat line quantity, as determined by the nominal design thickness multiplied by the actual area paved, with a conversion factor of 119.0 lbs. per square yard, per inch of thickness.
 - C. WORK under this Pay Item will include all pavement placed outside the Valley Gutter, Type III, for driveways and hydrant access pads, as shown on the Drawings.
 - D. All resealing of joints with PG 58-22 oil with existing pavement will not be measured for payment, but will be considered incidental.

E. Payment for A.C. Pavement for Driveways and Hydrant Pads will be made at the Unit Price named in the Bid Schedule under Pay Item No. 2801.2, which payment will constitute full compensation for all WORK described in Section 02801 – Asphalt Concrete Pavement, as shown on the Drawings and as directed by the ENGINEER.

2.47 FOG SEAL COAT (Pay Item 2803.1) PRICE BASED ON QUANTITY, TON

- A. Fog Seal Coat shall be measured by the ton, delivered and placed in accordance with the Contract Documents.
- B. Payment for Fog Seal Coat will be made at the Unit Price named in the Bid Schedule under Pay Item No. 2803.1, which payment will constitute full compensation for all WORK described in Section 02803 Fog Seal Coat, as shown on the Drawings and as directed by the ENGINEER.

2.48 BLOTTING SAND (Pay Item 2803.2) PRICE BASED ON QUANTITY, TON

- A. Blotting Sand shall be measured by the ton delivered and placed in accordance with the Contract Documents.
- B. Payment for Blotting Sand will be made at the Unit Price named in the Bid Schedule under Pay Item No. 2803.2, which payment will constitute full compensation for all WORK described in Section 02803 Fog Seal Coat, as shown on the Drawings and as directed by the ENGINEER.

2.49 REMOVE EXISTING ASPHALT SURFACING (Pay Item No. 2806.1) PRICE BASED ON QUANTITY, SQUARE YARD

- A. Removing Existing Asphalt Surfacing will be measured per square yard, complete, except that no measurement will be made for removing asphaltic surfacing less than one inch thick.
- B. Removal of existing asphalt surfacing will be measured per top square yard, which will include full thickness of all layers of existing asphalt and underlying pavement.
- C. Payment for Remove Existing Asphalt Surfacing will be made at the Unit Price named in the Bid Schedule under Pay Item No. 2806.1, which payment will constitute full compensation for all WORK described in Section 02806 Remove Existing Asphalt Surfacing, as shown on the Drawings and as directed by the ENGINEER.

3.1 CONCRETE BARRIER CURB (Pay Item No. 3302.1) PRICE BASED ON QUANTITY, LINEAR FOOT

- A. Concrete Barrier Curb will be measured per linear foot actually installed, complete in place as shown on the Contract Documents. Pay limits will be as shown on Sheet No. C300.
- B. Concrete Barrier Curb unit price shall include all materials, labor and equipment to complete the installation, as shown in the Drawings. This includes, but is not

- limited to forming, reinforcing steel, construction joints, concrete, curing agent, earthwork, filling voids behind barrier curb adjacent to the bin wall and all other work to make a complete installation, as shown on the Drawings.
- C. Payment for Concrete Barrier Curb will be made at the Unit Price named in the Bid Schedule under Pay Item No. 3302.1, which payment will constitute full compensation for all WORK described in Section 03302 Concrete Structures, as shown on the Drawings, and as directed by the ENGINEER.
- 3.2 VALLEY GUTTER, TYPE III (Pay Item No. 3303.1) PRICE BASED ON QUANTITY, LINEAR FOOT
 - A. Valley Gutter, Type III, will be measured per linear foot actually installed, complete in place as shown on the Contract Documents. Measurements will be made along the flowline of the valley gutter and will be continuous across alleys, curb units, and catch basins.
 - B. Payment for Valley Gutter, Type III, will be made at the Unit Price named in the Bid Schedule under Pay Item No. 3303.1, which payment will constitute full compensation for all WORK described in Section 03303 Sidewalk, Curb And Gutter, as shown on the Drawings, and as directed by the ENGINEER.
- 3.3 REMOVAL OF CURB AND GUTTER (Pay Item No. 3304.1) PRICE BASED ON OUANTITY, LINEAR FOOT
 - A. Removal of Curb and Gutter will be measured for payment by the actual linear foot of concrete curb and gutter originally in place, removed and disposed of in accordance with the Contract Document.
 - B. Asphalt pavement found over concrete gutter will not be measured for payment but considered incidental to other items of WORK under this Section.
 - C. Payment for Removal of Curb and Gutter will be made at the Unit Price named in the Bid Schedule under Pay Item No. 3304.1, which payment will constitute full compensation for all WORK described in Section 03304 Remove Existing Sidewalk, Concrete Slab, or Curb and Gutter, as shown on the Drawings and as directed by the ENGINEER.
- 3.4 CONCRETE REPAIR PATCHING (Pay Item No. 3500.1) PRICE BASED ON QUANTITY, EACH
 - A. Measurement for payment for Concrete Repair Patching will be the actual number of concrete patches made, as shown in the Contract Drawings.
 - B. WORK under this Pay Item includes sawcutting, removal and disposal of existing concrete in the Bear Creek Crossing structure, prepping the concrete surfaces to be patched, and placing the mortar patching material as shown in the Drawings or as directed by the Engineer.
 - C. Payment for Concrete Repair Patching will be made at the unit price shown in the Bid Schedule under Pay Item No. 3500.1, which payment will constitute full

compensation for all WORK described in Section 03500 – Concrete Repair Patching, as shown on the Drawings and as directed by the ENGINEER.

- 3.5 BIN WALL REHABILITATION (Pay Item No. 3600.1) PRICE BASED ON LUMP SUM
 - A. Measurement for payment for Bin Wall Rehabilitation will be based upon the completion of the entire WORK as a Lump Sum Pay Unit, complete, all in accordance with the requirements of the Contract Documents.
 - B. WORK under this Pay Item includes all removal and disposal of rusted pipe rail and brackets, field welding repair, surface preparation, cleaning and coating of all repaired areas of existing bin wall surfaces (including the bottom coat of all areas shown as receiving two coats) where shown in the Drawings or as directed by the ENGINEER.
 - C. Payment for Bin Wall Rehabilitation will be made at the amount shown in the Bid Schedule under Pay Item No. 3600.1, which payment will constitute full compensation for all WORK described in Section 03600 Bin Wall Rehabilitation, as shown on the Drawings and as directed by the ENGINEER.
- 3.6 BIN WALL REFINISHING (Pay Item No. 3600.2) PRICE BASED ON QUANTITY, SQUARE FOOT
 - A. Measurement for payment for Bin Wall Refinishing will be the vertical projected area of the refinished bin wall area (length along the top rib of the wall x height measured at each vertical bin wall rib), complete and accepted by the ENGINEER in accordance with the requirements of the Contract Documents.
 - B. WORK under this Pay Item includes cleaning, surface preparation, and coating of all visible bin wall surfaces, including over-coating of areas included in Pay Item No. 3600.1, as shown on the Drawings. Where there is coating of horizontal, sloping, or both sides of wall surfaces, these areas shall be considered incidental to the vertical, projected area measured.
 - C. Payment for Bin Wall Refinishing will be made at the Unit Price shown in the Bid Schedule under Pay Item No. 3600.2, which payment will constitute full compensation for all refinishing WORK described in Section 03600 Bin Wall Rehabilitation, as shown on the Drawings and as directed by the ENGINEER.
- 3.7 CONCRETE ARCH REPAIR AND REHABILITATION (Pay Item No. 3700.1) PRICE BASED ON LUMP SUM
 - A. Measurement for payment for Concrete Arch Repair and Rehabilitation will be based upon the completion of the entire WORK as a Lump Sum Pay Unit, complete, all in accordance with the requirements of the Contract Documents.
 - B. WORK under this Pay Item includes all demolition and reconstruction of the two areas of the Bear Creek Crossing arch structure as shown on the Drawings. This includes but is not limited to sawcutting and removal of concrete, concrete demolition, concrete surface preparation, excavation of weathered rock, diversion of Bear Creek as necessary to perform the Work, concrete wingwall and

headwall construction, epoxy dowels, reinforcing steel, forming, concrete placement, concrete plug, and other WORK as shown in the Drawings, or as directed by the Engineer.

C. Payment for Concrete Arch Repair and Rehabilitation will be made at the amount shown in the Bid Schedule under Pay Item No. 3700.1, which payment will constitute full compensation for all WORK described in Section 03700 – Concrete Repair Arch and Rehabilitation, as shown on the Drawings and as directed by the ENGINEER. Bin Wall Excavation and Backfilling, Flowable Backfill, and Concrete Blocks will be paid for under Pay Item Nos. 3700.2, 3700.3, 3700.4, and 3700.5, respectively.

3.8 BIN WALL EXCAVATION (Pay Item No. 3700.2) PRICE BASED ON QUANTITY, CUBIC YARD

- A. Measurement for payment for Bin Wall Excavation will be the volume computed by multiplying the length, by height, by width of the actual bin wall cell excavated. Length and width shall be measured to the outer surface of the bin wall rib members and height from the top to the bottom of the rear bin wall member.
- B. WORK under this Pay Item includes excavation within the bin wall cell, by whatever means; protection, shoring, and alignment monitoring of bin wall members during construction; stockpiling of excavated materials, and protection of excavated surfaces.
- C. Payment for Bin Wall Excavation will be made at the unit price shown in the Bid Schedule under Pay Item No. 3700.2, which payment will constitute full payment for the WORK described in Section 03700 Concrete Arch Repair and Rehabilitation, as shown on the Drawings and as directed by the ENGINEER.

3.9 BIN WALL BACKFILL (Pay Item No. 3700.3) PRICE BASED ON QUANTITY, CUBIC YARD

- A. Measurement for payment for Bin Wall Backfill will be the volume measured for Bin Wall Excavation, Pay Item No. 3700.2.
- B. WORK under this Pay Item includes backfilling from the base to the top of the bin wall cell, placing and compacting stockpiled excavated material from the bin wall excavation and placing and compacting base course, grading D-1 material as required.
- C. Payment for Bin Wall Backfill will be made at the unit price shown in the Bid Schedule under Pay Item No. 3700.3, which payment will constitute full payment for the WORK described in Section 03700 Concrete Arch Repair and Rehabilitation, as shown on the Drawings and as directed by the ENGINEER.

- 3.10 FLOWABLE BACKFILL (Pay Item No. 3700.4) PRICE BASED ON QUANTITY, CUBIC YARD
 - A. Flowable Backfill will be measured as the actual volume placed below the bottom of the rear bin wall stringer, as determined by dimensions measured in the field, or as directed by the ENGINEER.
 - B. WORK under this Pay Item includes probing and exploring for voids, placement and consolidation of flowable backfill and protection from cold weather conditions. Flowable backfill placed above the base of the bin wall rear stringer will be paid for at the unit price named in the Bid Schedule for Pay Item No. 3700.3.
 - C. Payment for Flowable Backfill will be made at the Unit Price shown in the Bid Schedule under Pay Item No. 3700.3, which payment will constitute full payment for the WORK described in Section 03700 Concrete Arch Repair and Rehabilitation, as shown on the Drawings and as directed by the ENGINEER.
- 3.11 CONCRETE BLOCKS (Pay Item No. 3700.5) PRICE BASED ON QUANTITY, EACH
 - A. Measurement of Concrete Blocks will be per each, complete in place, including all necessary excavation and leveling course, all in accordance with the requirements of the Contract Documents.
 - B. All necessary block wall excavation, leveling course, backfill placement and compaction, temporary support of embankment, slope grading, riprap rock removal and replacement, including all such work associated with the wing wall construction, and other work necessary to complete the WORK will be considered incidental to this Pay Item.
 - C. Payment for Concrete Blocks will be made at the Unit Price shown in the Bid Schedule under Pay Item No. 3700.5, which payment will constitute full payment for the WORK described in Section 03700 Concrete Arch Repair and Rehabilitation, as shown on the Drawings and as directed by the ENGINEER.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION

SECTION 01550 – SITE ACCESS AND STORAGE, PART 1 – GENERAL, Article 1.3, MAINTENANCE OF TRAFFIC, *revise paragraph M to read:*

M. Special pedestrian detours are often necessary in areas adjacent to new construction due to demolition of existing sidewalks and other structures. The CONTRACTOR shall provide smooth, graded pathways, free of mud, muck and other materials that will be objectionable to people in street shoes. The pathways shall be a minimum of 36-inches wide, and shall be clearly marked with staking, warning ribbons, or other methods to guide pedestrians through the construction areas and to their residence walkways, if applicable.

SECTION 01550 – SITE ACCESS AND STORAGE, PART 1 – GENERAL, Article 1.3, MAINTENANCE OF TRAFFIC, paragraph S., **add** the following:

- 5. Several businesses are located within, or adjacent to, the Project site. Specifically, the Island Pub, State of Alaska Department of Fish and Game and United States Post Office, Douglas, Station. The following business hours are noted for each:
 - Island Pub: Monday Sunday, 11:30 a.m. Midnight.
 - State of Alaska, Department of Fish and Game: Monday Friday, 7:00 a.m. 5:00 p.m.
 - U.S. Post Office: Monday Saturday, 8:00 a.m. 7:00 p.m.

The CONTRACTOR shall provide pedestrian access to the Island Pub restaurant during Island Pub business hours. Temporary walkways and ramps for accessibility access shall be provided to ensure a smooth pathway free of muck, mud, large stones, and other materials that would create a safety hazard to people walking in street shoes.

The CONTRACTOR shall provide vehicle access to the Island Pub paved parking lot during the Island Pub business hours. Temporary vehicle ramps will be permitted. Island Pub deliveries are made Monday through Friday in the mornings. The CONTRACTOR will coordinate with the Island Pub owner on assuring vehicle access for deliveries to the Island Pub. Maintenance of the temporary accesses is the responsibility of the CONTRACTOR.

Vehicle access to the State of Alaska Department of Fish and Game and the U.S. Post Office must be maintained.

Add the following Section:

SECTION 01570 – EROSION CONTROL

PART 1 - GENERAL

1.1 DESCRIPTION

- A. The CONTRACTOR shall provide for erosion control during construction in accordance with the requirements of the Alaska Department of Environmental Conservation (ADEC) and the Environmental Protection Agency (EPA). All sedimentation from on-site drainage shall be caught on-site.
- B. The WORK under this Section includes providing all labor, materials, tools and equipment necessary to construct and maintain temporary erosion control devices; including but not limited to, wattles, silt fences, rock check dams, ditches, drain guards, sediment basins, cleaning and sweeping Second Street and the intersecting side streets, including, but not limited to I Street, H Street, F

Street, E Street, D Street and Bradley Street, as shown on the Drawings, or as directed by the ENGINEER.

PART 2 - PRODUCTS

2.1 MATERIALS

A. Materials shall be suitable for the intended use and perform effectively to control silt and surface erosion. All materials shall remain the property of the CONTRACTOR.

PART 3 - EXECUTION

3.1 GENERAL

- A. The CONTRACTOR shall install temporary erosion control structures as necessary and/or as directed by the ENGINEER. They shall be maintained in effective operating condition at all times. Rock check dams and silt fences shall be cleaned whenever they have become half-filled with silt or debris, and other items shall be cleaned, repaired, or replaced as necessary.
- B. Temporary erosion control structures shall remain in place until replaced by permanent erosion control WORK, or until the ENGINEER approves their removal.
- C. Second Street shall be kept free of mud, silt, rocks, gravel, etc. from the CONTRACTOR's hauling operation. These roads shall be kept clean by use of power sweepers, capable of picking up debris from the road and washing on a routine basis during hauling operations, or more frequently, as directed by the ENGINEER.
- D. The CONTRACTOR is responsible to prepare, submit and maintain a Storm Water Pollution Prevention Plan (SWPPP) in accordance with the Alaska Construction General Permit (CGP) to the EPA and ADEC that is in accordance with their construction methodologies and sequence. This includes submission of a Notice of Intent (NOI) to the EPA. The CONTRACTOR shall provide a copy of the NOI to the CBJ Project Manager at the time of submission of the NOI.
- E. The CONTRACTOR shall submit to the ENGINEER an Erosion and Sediment Control Plan, a copy of the NOI and documentation of their submittal of the NOI to ADEC prior to beginning any WORK at the Project site. WORK at the Project site will not be permitted until approval of this Plan has been obtained from the governing agency or agencies.
- F. The CONTRACTOR shall submit NOT (Notice of Termination) at completion of the WORK and removal of all SWPPP items.

END OF SECTION

SECTION 01700 – PROJECT CLOSE-OUT, PART 1 - GENERAL, Article 1.3 FINAL SUBMITTALS, Paragraph A. *Delete Items 6, 7 and 8 and replace with the following subparagraph:*

6. Compliance Certificate and Release, signed by the CONTRACTOR, shall be submitted to the Engineering Contract Administrator.

SECTION 01700 – PROJECT CLOSE-OUT, PART 1 - GENERAL, Article 1.3 FINAL SUBMITTALS, *add* the following paragraph:

C. Before final payment, the CONTRACTOR shall provide the Engineering Contract Administrator with clearance from the Alaska Department of Labor and Workforce Development for the CONTRACTOR and all Subcontractors that have worked on the Project. This clearance shall indicate that all Employment Security Taxes have been paid. A sample form for this purpose is at the end of Section 00800 – Supplementary General Conditions.

SECTION 01700 – PROJECT CLOSE-OUT, PART 1 - GENERAL, *add* the following Article:

- 1.5 PROJECT SIGN ASSEMBLY REMOVAL
 - A. The Project sign assembly shall be removed and the Project sign panel delivered to the CBJ Project Manager, as directed by the ENGINEER.
 - B. No progress payments will be processed by the OWNER after the CONTRACTOR has been directed by the ENGINEER to remove and deliver the Project sign panel to the CBJ, until the Project sign panel has been received by the CBJ.

SECTION 01700 – PROJECT CLOSE-OUT, PART 1 – GENERAL. *Replace* the COMPLIANCE CERTIFICATE AND RELEASE FORM with the following form located on the next page.

COMPLIANCE CERTIFICATE AND RELEASE FORM

PROJECT: Second Street Douglas Reconstruction

CONTRACT NO: E11-152

The CONTRACTOR must complete and submit this to the Engineering Contracts Administrator with respect to the entire contract.

Completed forms may be submitted upon completion of the Project. All requirements and submittals must be met before final payment will be made to the CONTRACTOR.

I certify that the following and any referenced attachments are true:

- All WORK has been performed, materials supplied, and requirements met in accordance with the applicable Drawings, Specifications, and Contract Documents.
- All Suppliers and Subcontractors have been paid in full with no claims for labor, materials or other services outstanding. If all Subcontractors and suppliers are not paid in full, please explain on a separate sheet.
- All employees have been paid not less that the current prevailing wage rates set by the State of Alaska (or U.S. Department of Labor, as applicable).
- All equal employment opportunity, certified payroll and other reports have been filed in accordance with the prime contract.
- The attached list of Subcontractors is complete (required from CONTRACTOR). The Contracts Administrator was advised and approved of all Subcontractors before WORK was performed and has approved any substitutions of Subcontractors.
- All DBE firms listed as a precondition of the prime contract award must have performed a commercially useful function in order for the WORK to count to a DBE goal. All DBE firms performed the WORK stated and have received at least the amount claimed for credit in the Contract Documents.
- All DBE Subcontractors must attach a signed statement of the payment amount received, the nature of WORK performed, whether any balance is outstanding, and indicate that no rebates are involved.
- If the amount paid is less than the amount originally claimed for DBE credit, the CONTRACTOR has attached approval from the Contracts Administrator for underutilization.

I understand it is unlawful to misrepresent information in order to receive a payment which would otherwise be withheld if these conditions were not met. I am an authorized agent of this firm and sign this freely and voluntarily. The foregoing statements are true and apply to the following project contractor.

Firm Name	Capacity: CONTRACTOR	
Signed	Printed Name and Title	Date

Return completed form to: Jennifer Mannix, Engineering Contracts Administrator, City and Borough of Juneau, 155 South Seward Street, Juneau, AK 99801. Call (907) 586-0873 if we can be of further assistance or if you have any questions.

END OF SECTION

Add the following Section:

SECTION 01704 - FINAL CLEAN-UP AND SITE RESTORATION

PART 1 - GENERAL

1.1 DESCRIPTION

A. The WORK under this Section includes providing all supervision, labor, materials, tools and equipment necessary for final clean-up and restoration of all areas disturbed by construction activities, to a condition equal to, or better than, before construction started. This does not include clean-up or restoration incidental to, or directly provided for by, other construction items.

PART 2 - PRODUCTS

2.1 MATERIALS

A. Any materials required shall conform to the appropriate section of these Specifications.

PART 3 - EXECUTION

3.1 CONSTRUCTION

- A. The CONTRACTOR shall clean up all sites disturbed during construction of the Project. This includes removal of all construction equipment, disposal of all excess materials, disposal of all rubbish and debris, removal of all temporary structures, and grading of the sites so that no standing water is evident.
- B. If the CONTRACTOR has obtained material from the CBJ/State pit, the excavated area shall be cleaned up and any stipulations required by the Individual Mining Plan shall be completed. The gravel pit overhead charge shall be paid to CBJ within 60 days after receiving the invoice from CBJ.

END OF SECTION

SECTION 02201 – CLEARING AND GRUBBING, PART 3 – EXECUTION, *add* the following *Articles*:

3.6 REMOVE AND SET ASIDE PLANTINGS

- A. The CONTRACTOR shall notify each property owner whose plantings, or other landscape items are to be disturbed, a minimum of seven (7) days in advance of disturbing these plantings, or other landscape items. This includes all items fronting on the property from the edge of the paved street towards the residence.
- B. If the property owner requests to have the plantings or other landscaping items disposed of, the CONTRACTOR shall remove and dispose of these items at no additional cost to the OWNER.

C. If the property owner requests to remove and set aside the plantings, or other landscaping items themselves, the CONTRACTOR shall provide a minimum of seven (7) days to the property owner for this WORK.

SECTION 02202 – EXCAVATION AND EMBANKMENT, PART 2 - PRODUCTS, *add* the following Article:

2.8 2-INCH MINUS SHOT ROCK

- A. 2-Inch Minus Shot Rock shall contain no mulch, frozen material, roots sod or other deleterious matter.
- B. The shot rock shall have a plasticity index not greater than 6, as determined by AASHTO T 90. It shall consist of not more than 3% by weight of particles that pass the No. 200 sieve, as determined by ATM T-7.
- C. At least 50% by weight of the particles retained on the 3/8-inch sieve shall have at least two fractured faces as determined by ATM T-4.
- D. At least 70% by weight of particles shall be retained on the 1-inch sieve.
- E. Elongation Specifications:
 The length of the crushed stone backfill shall not be more than twice the designated screen dimensions.
- F. Sodium Sulfate Loss:
 Aggregate shall pass the percent sodium sulfate loss per AASHTO T 104 with 9% maximum.
- G. LA Abrasion:
 Percent of wear per AASHTO T 96 shall be 45% maximum.
- H. 2-Inch Shot Rock for this Project shall have a maximum Nordic Abrasion value of 22. Test procedure for Nordic Abrasion is Alaska Test Method 312. This is available at the CBJ Engineering Department and State of Alaska Department of Transportation and Public Facilities Southeast Region Materials Laboratory.

SECTION 02202 – EXCAVATION AND EMBANKMENT, PART 3 - EXECUTION, Article 3.4, EMBANKMENTS CONSTRUCTED FROM ROCK FRAGMENTS, *add* the following paragraphs:

- C. Shot Rock Borrow may be placed within the embankment in a single lift of 18-inches maximum.
- D. All rock embankment surfaces shall be rolled full width with as many passes of a vibratory roller as required to obtain a solid mass of interlocking rock fragments, prior to placement of subsequent layers of material.
- E. The surface of the shot rock borrow shall be sealed with fines from the shot rock materials, or shall have imported clean sand or other non-frost susceptible material used to seal the surface, as approved by the ENGINEER, before

placemen of the 2-inch minus shot rock base course. This work shall be considered incidental to other WORK under the contract.

SECTION 02202 – EXCAVATION AND EMBANKMENT, PART 3 - EXECUTION, *add* the following Articles:

3.6 SHOULDER GRADING

- A. Shoulder Grading shall include all excavation, backfill, compaction, grading and other WORK necessary to reconstruct shoulders outside of the typical section 1 foot D-1 shoulder and to restore the existing driveways where disturbed as shown or described on the Drawings or as directed by the ENGINEER.
 - 1. All areas beyond the roadway and 1 foot shoulders that are disturbed during construction shall be graded to a smooth, uniform grade and appearance, free of humps or low areas that cause standing water.
 - 2. Shoulder Grading, which will include all grading of areas beyond the back of the 1 foot roadway shoulder and shall extend to the limits shown on the Drawings, or to the limits necessary to restore the driveways and disturbed areas to preconstruction conditions or better as shown on the Drawings or as approved by the ENGINEER.

3.7 2-INCH MINUS SHOT ROCK w/BASE COURSE

- A. The full depth of 2-inch minus shot rock shall be graded to a uniform surface and compacted with a vibratory roller prior to placing base course, Grading D-1. No base course, Grading D-1 shall be placed until the 2-inch minus shot rock layer has been approved by the ENGINEER.
- B. If base course, Grading D-1, is used as a leveling course for the curb and gutter, all of this base course material shall be removed from the 2-inch minus shot rock to the front face of the concrete gutter, and the additional 2-inch minus shot rock required to bring the street area to its required full depth shall be placed, graded and compacted prior to placing the top layer of base course, Grading D-1.

3.8 INDIVIDUAL MINING PLANS

- A. If the CONTRACTOR decides to use the material form the CBJ/State Lemon Creek Borrow Pit or Stablers Point Rock Quarry, the CONTRACTOR shall provide an Individual Mining Plan that conforms to the requirements of Section 00700-General Conditions, Article 4.6.
- B. The Individual Mining Plan shall be developed using the survey information provided by the OWNER, or the CONTRACTOR may provide an independent survey with 2-foot contours of the Pit and Quarry property. The survey shall provide sufficient survey information to calculate quantities, show drainage features and property boundaries. If the CONTRACTROR uses the OWNER furnished survey information, the Individual Mining Plans shall be done in AutoCAD format.

SECTION 02203 – TRENCHING, PART 2 - MATERIALS, Article 2.2 BEDDING, *delete* paragraph A.

SECTION 02204 – BASE COURSE, PART 2 - PRODUCTS, Article 2.1 MATERIAL, *add* the following paragraph:

E. Base course for this Project shall have a maximum Nordic Abrasion Value of 18, as determined by ATM 312, and shall meet the gradation requirements for grading D-1.

SECTION 02401 – SANITARY SEWER PIPE, PART 2 - PRODUCTS, *add* the following Article:

2.9 PIPE CONNECTORS

A. "Mission Flex Seal" connectors will not be acceptable for use on this project.

SECTION 02401 – SANITARY SEWER PIPE, PART 3 - EXECUTION, Article 3.1, CONSTRUCTION, *add* the following paragraphs:

- S. Service Connections and Laterals shall be 4-inch PVC, and shall be provided with a cleanout as shown on CBJ Standard Detail 214 Sanitary Sewer Connection. The cleanout shall be located with the cleanout cover 6-inches from the property line, unless otherwise shown on the Drawings, or as directed by the ENGINEER. The cleanout shall be provided with a locking ductile iron, or cast iron frame and cover with the word "SEWER" cast on the lid.
- T. Sewer Services shall be graded at 2% from the connection at the main through the cleanout, unless otherwise approved by the ENGINEER. Bends (45° or less) shall be used as required to connect to the existing pipe.

SECTION 02402 – SANITARY SEWER MANHOLES AND CLEANOUTS, PART 2 - PRODUCTS, Article 2.3, MISCELLANEOUS, *delete* Paragraph F and *add* the following:

- F. Manhole exterior joint waterproofing shall be a Miradri system as manufactured by Carlisle CCW, including Carlisle CCW 704 primer, CCW Miradri 861 Membrane, and CCW 704 mastic, or approved equal that includes a membrane and adhesive system for positive water exclusion. The membrane shall extend at least 18-inches each side of manhole joints, except this width may be reduced to 9-inches each side of manhole joints if the joint is less than 4-feet below finish grade and the joint is above the maximum water table.
- G. Delete the requirement for the flexible annular space filler, as shown on CBJ Standard Detail 209 Manhole Connection Details, for the Flexible Seal Adapter.
- H. Manhole Grade Ring Adjustment Units:
 - 1. Manhole grade adjustment units shall be Recycled Adjustment Risers, "Infra-RISER," as manufactured by GNR Technologies, or approved equal.

2. The adjustment riser shall consist of no less than 80% by weight recycled rubber from tires, and no less than 10% by volume shredder fiber. The riser shall meet or exceed the following when tested on units not less than 24 hours old, and not more than 60 days old, and maintained at 23±2°C (73±3°F) for at least 12 hours prior to and during testing.

Physical Property Density	Test Method ASTM C642-90	Acceptable Results 1.098±0.05g/cm ³
Durometer hardness - molded surface	GNR method based on ASTM D 2240	75A±5 points
Durometer Hardness - interior surface	GNR method based on ASTM D 2240	73A± 5 points
Tensile Strength	ASTM 412-87	1.6 MPa (232 pai) (not < 1 Mpa)
Compression Deformation - initial deformation	GNR method based on ASTM D 575	under 1 MPa (145 psi) 6±2%
Compression Deformation - final deformation	GNR method based or ASTM D 575	under 1 MPa (145 psi) 6±2%
Compression Set	GNR method based On ASTM 395	under 1 MPa (145 psi) 0.4% (=4% max.)
Brittleness at low temperature	ASTM D 746-79	-40° F (-40°C)
Freeze/Thaw when exposed to deicing chemicals	ASTM 672-91	no loss after 50 cycles
Coefficient of thermal Expansion	ASTM C 531-85	1.6 X 10 ⁴ mm/mm/°C (8 X 10 ⁵ in/in/°F
Weathering 70 hr. @ 70°C - hardness retained - compressive strength retained - tensile strength retained - elongation retained	ASTM D 573-88	100% 100% 100% 100%

- 3. Each adjustment riser shall be clearly marked on the inside surface with the manufacturer's name and location of the manufacturer.
- 4. The manufacturing process shall be such that individual units will be consistent in quality and appearance. All rough edges shall be trimmed prior to shipping.
- 5. The thickness of the adjustment riser shall be within 3 mm of the manufacturer's stated dimensions. All other dimensions shall be within 5 mm.
- 6. Except for shim or wedge units, the deviation from the plane parallel to the theoretical surface shall not be greater than 1 in 500.

SECTION 02402 – SANITARY SEWER MANHOLES AND CLEANOUTS, PART 3 - EXECUTION, Article 3.1 CONSTRUCTION, *delete* paragraphs M through R and replace with the following paragraphs M-Q:

- M. A minimum of 24-inches thick 2" minus shot rock shall be placed beneath each manhole to provide a stable base pad.
- N. The CONTRACTOR shall repair all imperfections and leaks disclosed by either visual inspection or testing. The method of repair shall be subject to the ENGINEER's approval.
- O. Manhole Grade Ring Adjustment Units are required for each new sanitary sewer manhole, reconstructed sanitary sewer manhole, and adjustment of existing manhole to grade.
 - 1. Each manhole shall contain at least one recycled rubber riser, with thickness varying to match frame and cover to finish grade requirements, to form the final surface for installation of the frame.
 - 2. The total height of the rubber adjustment riser shall be a minimum of 1" and a maximum of 3".
 - 3. Concrete and steel surfaces to receive sealing compound shall be clean, dry and free of grease or oils.
 - 4. Adjustment risers shall be bonded to adjacent surfaces by laying a continuous bead, 5/16" thick cold applied joint sealant compound conforming to ASTM-D 1850 (PL Premium POLYURETHANE Door, Window & Siding Sealant *or* PL Premium POLYURETHANE Concrete & Masonry Sealant, formerly Chemrex CX-22) or equivalent, on the top surface of the concrete course, or the bottom surface of the riser, on a diameter 1" smaller than the outside diameter of the rubber adjustment riser.
 - 5. The adjustment riser shall then be seated firmly in place, ensuring it is centered over the opening. Apply a second continuous strip of sealant to the top surface of adjustment riser, 0.5" from the outside diameter of the rubber adjustment riser or manhole frame.
 - 6. The adjustment riser must form the final surface for the seating of the frame and cover assembly. Concrete adjustment units must not form the final surface for seating the frame.
 - 7. If more than one adjustment riser is required, a continuous bead of sealant shall be applied between each unit in the same manner as in paragraph 4 above. A continuous bead of sealant shall also be placed on the top surface of the concrete course or on the bottom surface of the bottom riser and to the top surface of the top adjustment riser.
 - 8. The frame shall then be set firmly in place ensuring that it is properly centered over the structure opening and is firmly contacting the rubber riser through the sealant.
 - 9. Adjustment risers shall have an inside diameter that is within 2" of the inside diameter of the concrete structure, and equal to the outside diameter of the concrete structure ±2".
- P. Manhole frames and covers shall be set to final grade prior to final paving operations, with the compacted pavement to provide a depression to the top of manhole frame within the allowable limits of 3/8-inch minimum to 3/4-inch

maximum, as determined by using an 8-foot long straight edge across the frame in all directions.

- 1. The frame can be set to final position prior to the laydown machine passing over the structure, or immediately following the laydown machine passing over the structure.
- 2. The intended purpose of these requirements is that the asphalt pavement is compacted to grade around the frame and cover with no cut out of compacted pavement allowed.
- 3. If the depression of the frame and cover below finish pavement is found to be out of allowable tolerances after the pavement has cooled to the point that sawcutting and removal of the pavement is necessary, the following corrective action will be required:
 - a. A square cut-out of the pavement shall be made to a minimum of 6-inches and maximum of 8-inches outside the edge of frame flange, with this cut-out oriented with the sides at 45° to traffic.
 - b. A concrete transition slab shall be constructed as shown in the detail on the Drawings. This slab shall be allowed to cure for a minimum of 48 hours before placing the hot asphalt mix over the transition slab.
 - c. This WORK shall be completed prior to the street fog sealing operation.
- Q. Manhole riser rings shall be sealed to the top of manhole cone or flattop and to each other with one run of "RAM-NEK" or "RUB-R-NEK" around the inside edge and one run around the outside edge of the riser ring. The units shall be heated and compressed to at least 50% of original thickness of the "RAM-NEK" or "RUB-R-NEK." No grout shall be used to seal the riser rings.

SECTION 02501 – STORM SEWER PIPE, PART 2 - PRODUCTS, *add* the following Article:

2.9 UNDERGROUND MARKING TAPE

A. Underground Marking Tape shall be yellow, at least 4-inches wide, 4-mil thick, polyethylene tape with a metallic backing capable of being traced with locators. The tape shall have black letters with the following wording: "Caution: Storm Sewer Line Buried Below," or similar. The marking tape shall be installed 12-inches above the top of all storm sewer mains and services.

SECTION 02502 – STORM SEWER MANHOLES, INLETS AND CATCH BASINS, PART 3 - EXECUTION, Article 3.1, CONSTRUCTION, *delete* paragraph C and *replace* with the following paragraph C:

C. Metal frames shall be set over the cast-in-place concrete support structure with a maximum ¼-inch thick mortar bed. See the Drawings for the catch basin frame support structure requirements.

SECTION 02502 – STORM SEWER MANHOLES, INLETS AND CATCH BASINS, PART 3 - EXECUTION, Article 3.1, CONSTRUCTION, *delete* paragraph P and *replace* with the following:

P. All storm drain manholes and storm drain catch basin structures shall be bedded with a minimum 24-inches thick of 2" minus shot rock to provide a stable base pad.

SECTION 02601 – WATER PIPE, PART 2 – PRODUCTS, Article 2.9, TEMPORARY WATER SYSTEM, *add* the following Paragraphs:

- B. The use of garden hoses shall be restricted to a maximum length of 20-feet for each residence.
- C. No WORK shall begin with the installation of a temporary water system until all affected residents and businesses have been notified a minimum of 24 hours in advance. At least one member of each household or business shall have the installation method explained to them, with an estimate of the duration of the use of the temporary water system.

SECTION 02602 – VALVES, PART 2 – MATERIALS, Article 2.3, VALVE BOXES, Paragraph A, delete the last sentence and replace with the following:

The valve box base section shall be an East Jordan Iron Works 8555 30-B slide valve box bottom section, or approved equal. The valve box top section shall be an East Jordan Iron Works 8555 Slide 26T valve box top or approved equal.

SECTION 02605 – WATER SERVICES, PART 2 – PRODUCTS, Article 2.1, *delete* the Paragraph C and replace with the following:

C. Water service pipe and materials shall be cold drawn, seamless annealed Type K Copper. Fittings for water pipe less than 2-inches in diameter shall be flared bronze fittings. Fittings for 2-inch pipe shall be bronze grip-lock compression fittings.

Add the following Section:

SECTION 02607 - PIPE INSULATION

PART 1 - GENERAL

1.1 DESCRIPTION

A. The WORK under this Section includes providing all labor, materials, tools and equipment necessary for furnishing and installing pipe insulation for water pipe and service pipe at locations shown on the Drawings and as directed by the ENGINEER.

PART 2 - PRODUCTS

2.1 RIGID INSULATION

A. Rigid insulation shall be rigid board closed cell polystyrofoam material containing a flame retardant additive specifically designed for underground pipe or pavement installations, equivalent to Dow Chemical Company Styrofoam HI, and approved by the ENGINEER.

2.2 SPRAYED-ON INSULATION

A. Sprayed-on urethane foam insulation applied directly to the pipe exterior with an elastomeric coating, may be approved by the ENGINEER, provided the material has demonstrated a satisfactory performance history in underground installation and has the following physical properties:

Density 2 pcf, Minimum

Compressive Strength 35 psi, Minimum at 5% (ASTM D 1621) Deflective or Yield

Water Absorption 0.25% by Vol. Maximum

(ASTM C 177)

Thermal Conductivity Max. 0.23 BTU

(ASTM C 177) Hr. Ft.² EF. In. Thickness

PART 3 - EXECUTION

3.1 CONSTRUCTION

- A. When water pipes or service pipes have less than 5-feet of cover to finished grade or vertical clearance at a culvert crossing, either above or below, they shall be insulated as shown on CBJ Engineering Standard Detail 412 Rigid Insulation.
- B. Rigid insulation shall be a minimum of 2-feet wide and 2-inches thick. The length of insulation required shall be as shown on the Drawings or as directed by the ENGINEER. Insulation shall be placed between 6 and 12-inches from the water pipe or service pipe with the width centered on the longitudinal axis of the water pipe or service pipe as shown on CBJ Engineering Standard Detail 412 Rigid Insulation.
- C. Sprayed-on urethane foam insulation shall be a minimum of 4-inches thick and be installed in strict conformance to the manufacturer's recommendations. Precautions to protect CONTRACTOR personnel, Project inspectors, and the public in general shall be taken by the CONTRACTOR in compliance with OSHA Standards and the manufacturer's recommendations.

END OF SECTION

SECTION 02709 – TOPSOIL, PART 3 – EXECUTION, Article 3.1, CONSTRUCTION, *add the following paragraph:*

F. No topsoil shall be placed on the slope, ditch or drainage swales areas unless these areas can be finish graded and seeded within 30 days of the date originally placed. Topsoil placed, but not finish graded, or seeded within 30 days, will be deducted from payment until the topsoil has been rescarified, regraded and

supplemented with additional topsoil as required to provide a smooth, well graded and scarified surface suitable for seeding, as determined by the ENGINEER. All additional topsoil required after 30 days of the original placement will not be measured for payment, but will be considered incidental to other WORK.

SECTION 02710 – SEEDING, PART 3 – EXECUTION, *add* the following Article:

3.6 AREAS TO BE SEEDED

- A. The following areas are expected to be disturbed during construction activities and shall be covered with topsoil and seeded:
 - 1. Lawn areas behind back of proposed valley gutter.
 - 2. Lawn areas disturbed during construction including the Bear Creek slope regrading.

SECTION 02715 – UNDERDRAIN, PART 2 – PRODUCTS, Article 2.1 MATERIAL, *delete* paragraphs A through H and substitute the following:

- A. Pipe shall be perforated and shall meet the requirements of Article 2.6, Corrugated Polyethylene Pipe, of Section 02501 Storm Sewer Pipe.
- B. Drainage rock shall be 2-inch minus shot rock and shall meet the requirements of Section 02202 Execution and Embankment, Article 2.8, of these Special Provisions.
- C. Filter cloth shall be Type A and meet the requirements of Section 02714 Filter Cloth.
- D. Cleanout and cleanout cover shall be installed at the upstream end of the Underdrain. Cover shall be a locking ductile iron or cast iron frame and lid with the word "STORM" cast on the lid.

SECTION 02715 – UNDERDRAIN, PART 3 – EXECUTION, Article 3.1 CONSTRUCTION, *delete paragraph D and E and substitute the following:*

- D. After the subgrade at the bottom of the underdrain has been inspected and approved, the bottom layer of filter cloth shall be placed and the underdrain pipe installed. 2-inch minus shot rock shall be placed carefully around the pipe and to within 1-foot of the finish grade for the full width of the underdrain trench and compacted thoroughly. The top layer of filter cloth shall then be placed over the 2-inch minus shot rock with 12-inch minimum overlaps. Cleanouts are required at the upstream end of each underdrain as shown on the Drawings.
- E. Any remaining portion of trench above the 2-inch minus shot rock shall be filled with either granular material or impervious material and thoroughly compacted. Compaction shall be as specified in Section 02203 Trenching.

SECTION 02716 – REMOVE AND DISPOSE OF CULVERT PIPE, *delete* in its entirety and *replace* with the following Section:

SECTION 02716 - WATER, STORM AND SANITARY PIPE REMOVAL

PART 1 - GENERAL

1.1 DESCRIPTION

A. The WORK under this Section includes providing all labor, tools and equipment necessary for removal and disposal of existing water, storm drainage and sanitary sewer pipe and culvert headwalls within the Project limits designated for removal as shown on the Drawings, or as directed by the ENGINEER.

PART 2 – PRODUCTS (Not Used)

PART 3 – EXECUTION

3.1 GENERAL

- A. All water, storm drainage and sanitary sewer pipe, 6-inches or larger, shown on the Drawings for removal shall be removed and backfilled with suitable material to match the adjacent ground surface. Usable material from Project trench excavation shall be used as backfill. Disposal of the pipe shall be in accordance with these Specifications.
- B. Existing piping required for removal for this Project includes all water, storm and sanitary sewer pipe encountered within the pipe trenches. All pipe 4-inches, or larger, removed to the trench walls shall be plugged with grout. Existing piping located outside the trench limits may be left in place, except that all open pipe ends shall be plugged.

END OF SECTION

SECTION 02718 – SIGN ASSEMBLY, PART 3 – EXECUTION, Article 3.1, GENERAL, *add the following*:

H. Sign assemblies shall be installed as detailed in the Sign Assembly Table on Drawing Sheet No. C100.

SECTION 02720 – PAINTED TRAFFIC MARKINGS, PART 2 – PRODUCTS, Article 2.1 – MATERIAL, *delete* paragraph A and *replace* with the following:

A. White and yellow traffic marking paint shall conform to AASHTO M248, Type III, or Type F.

Add the following Section:

SECTION 02721 – METAL PIPE RAIL

PART 1 - GENERAL

1.1 DESCRIPTION

A. The WORK under this Section includes providing all labor, materials, tools and equipment necessary for furnishing and installing metal pipe rail on the concrete barrier curb above Bear Creek as shown on the Drawings.

1.2 REQUIRED SUBMITTALS

A. Shop Drawings for the Metal Pipe Rails.

PART 2 - PRODUCTS

2.1 GENERAL

- A. Metal pipe railing shall be 1-1/2 inch diameter schedule 40 pipe hot-dip galvanized and conform to ASTM A53—Grade B. The metal pipe railing shall be continuous and joined by sleeving. Metal pipe rail shall conform to the details shown on the Drawings.
- B. Post brackets shall be hot-dip galvanized in conformance with AASHTO M36 and as shown on the Drawings.
- C. Wedge anchor bolts for connecting the metal railing to the top of the concrete barrier curb shall be Simpson "Wedge All" anchors, or approved equal.

PART 3 - EXECUTION

3.1 GENERAL

- A. Railing shall be set parallel with the top surface of the concrete barrier curb with all posts and end rail elements set vertical. All joints shall be made with concealed but-joint connectors, or welded and re-galvanized in conformance with AASHTO M36. Pipe railing and brackets shall be installed to conform to the details shown on the Drawings.
- B. Wedge anchor bolts shall be installed per manufacturer's recommendations.

END OF SECTION

Add the following Section:

SECTION 02722 – REMOVE AND RESET FENCE

PART 1 - GENERAL

1.1 DESCRIPTION

- A. The WORK under this Section includes providing all labor, materials, tools and equipment necessary for removing and salvaging existing chain link or wooden fences and resetting it in the location, as directed by the ENGINEER.
- B. The WORK under this Section also includes removal and disposal of the existing chain link fence located along the Bear Creek crossing, including fence fabric, metal posts and post footings as shown in the Drawings and as directed by the ENGINEER.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. All materials which can be reused shall be salvaged from the existing fence. Those materials which cannot be salvaged, or are damaged by the CONTRACTOR's operations, shall be replaced at the CONTRACTOR's expense with new materials which, as nearly as possible, duplicate the kind and quality of materials in the original installation. Existing fences are chain link and wooden.
- B. Fastening wires or devices, and all material required for the construction of end posts or other portions of the fence which can be replaced more efficiently than they can be moved, shall be furnished by the CONTRACTOR.
- C. If the property owner elects to replace any of the existing fencing materials with other materials in better condition, the property owner will furnish and deliver such materials of the site of the WORK.

PART 3 - EXECUTION

3.1 CONSTRUCTION

- A. The fence shall be carefully removed to avoid damage to salvaged materials. Salvaged materials shall be stored at a location approved by the ENGINEER. The CONTRACTOR will be responsible for protecting stored materials from theft, vandalism, or other damage. Any materials lost or damaged will be replaced at the CONTRACTOR's expense.
- B. The fence shall be reset as directed by the ENGINEER. Posts shall be set at the same depth and spacing as in the original fence installation. End posts, or other parts which cannot be economically moved, shall be replaced by equivalent or better construction. The reset fence shall be placed in at least as good condition as the original installation.

- C. The removal and resetting of the fence shall be done in a manner that will not cause any damage to surrounding landscaping.
- D. WORK under this Section includes removal and resetting of existing fences along Second Street, as shown on the Drawing Sheets.

END OF SECTION

Add the following Section:

SECTION 02723 – REMOVE AND RELOCATE LANDSCAPING

PART 1 - GENERAL

1.1 DESCRIPTION

- A. The WORK under this Section includes providing all labor, materials, tools and equipment necessary for removing existing landscaping items and relocating onto private property those landscaping items that conflict with the proposed construction improvements that have not been relocated by the owner of such landscaping, as directed by the ENGINEER.
- B. The existing landscaping improvements within the Project limits include, but are not limited to the following: landscaping trees, landscaping shrubs, flowers, timber flower planter boxes, timber landscaping borders, and rock gardens.

PART 2 - PRODUCTS

2.1 MATERIALS

A. Materials shall be existing landscaping features and improvements left within the construction limits.

PART 3 - EXECUTION

3.1 GENERAL

- A. Existing landscaping in conflict with the construction shall be removed and relocated onto private property as directed by the ENGINEER. The CONTRACTOR shall coordinate this WORK with the ENGINEER and property owner.
- B. All WORK under this Section shall include careful uprooting of the existing landscaping items in accordance to American Association of Nursery Standards.
- C. This WORK item is a contingency item. WORK under this item includes only those landscaping items actually removed and relocated onto private property that is in conflict with construction.

END OF SECTION

SECTION 02801 – ASPHALT CONCRETE PAVEMENT, PART 1 – GENERAL, Article 1.1, DESCRIPTION, *revise* paragraph B as follows:

- B. Asphalt concrete mix for this Project for the paved street section shall be Type II-A. Class B. See Table 02801-1 and Table 02801-2.
- C. Asphalt concrete mix for driveways and hydrant pads for this Project may be either Type III, Class B, or Type II-A, Class B. See Table 02801-1 and Table 02801-2.

SECTION 02801 – ASPHALT CONCRETE PAVEMENT, PART 1 – GENERAL, Article 1.1, DESCRIPTION, *revise Table 02801-1 Asphaltic Concrete Mix Requirements as follows:*

For Class B, Voids in total mix, percent shall be 2.5 - 4.0. For Class B, Percent Oil Content shall be 6.0 - 6.8%.

SECTION 02801 – ASPHALT CONCRETE PAVEMENT, PART 2 - PRODUCTS, Article 2.1, COMPOSITION OF ASPHALT CONCRETE MIXTURES – JOB MIX DESIGN, Paragraph C: *delete sub-paragraph* 6 *and replace with the following*:

6. The mix design shall be 50 blow Marshall Method.

SECTION 02801 – ASPHALT CONCRETE PAVEMENT, PART 3 - EXECUTION, Article 3.2, EQUIPMENT, *add the following:*

F. Sidewalks shall be paved with a pull box-type paver, as manufactured by Layton Manufacturing Co., or similar equipment. Heavy, self-propelled lay down units that will place concentrated loading on curb and gutter sufficient to cause breakage, or other damage to the concrete, will not be permitted.

SECTION 02801 – ASPHALT CONCRETE PAVEMENT, PART 3 - EXECUTION, Article 3.8, SPREADING AND PLACING, *delete* paragraph H and replace with the following:

H. Manholes, cleanouts and water valve boxes shall be raised to grade prior to paving the final lift. The structures shall have no less than 3/8" and no greater than 3/4" depression from adjacent asphalt to top of the lid. Manholes not meeting tolerances will be repaired as per Concrete Transition Slab detail shown in the Drawings.

SECTION 02801 – ASPHALT CONCRETE PAVEMENT, PART 3 - EXECUTION, Article 3.10, JOINTS, *add* the following paragraph:

J. All joints with existing asphalt pavement shall be resealed with PG 58-22 asphalt cement after the new pavement has cooled to ambient temperature. All joints with concrete gutters found to have a gap shall be blown out using a weed burner torch, filled with PG 58-22 asphalt cement and covered with a layer of dry sand. Excess sand shall be removed and asphalt cement placed on the concrete gutter more than one-inch from the edge of gutter shall be removed using solvent or other approving methods.

SECTION 02801 – ASPHALT CONCRETE PAVEMENT, PART 3 - EXECUTION, Article 3.13, Acceptance Sampling and Testing, *add the following paragraph:*

K. For each lot of asphalt pavement produced, a sample shall be taken by the CONTRACTOR for purposes of acceptance testing by the OWNER. The CONTRACTOR shall split the sample with the OWNER to retain a portion for their own use. The sample shall be taken according to proper sampling methods, from the asphalt pavement on the grade.

Based on the results of the acceptance testing, a deduction from the asphalt concrete pavement pay item may be made at the following amounts:

#200 Sieve: \$2,000.00 per each 0.1% outside the job mix design tolerance, not exceeding 6% maximum, of the percent passing the #200 sieve.

Asphalt Content: \$2,000.00 per each 0.1% outside the allowable job mix design asphalt content tolerance. The allowable asphalt content tolerance for this Contract shall be +/- 0.2% of the target job mix design asphalt content and shall not exceed the asphalt oil content limits specified in this Contract

The pay deductions for exceeding the job mix design tolerances does not constitute acceptance of a mix that does not meet the specifications. Further acceptance testing will be performed to determine if the asphalt pavement specifications have been met. No payment for asphalt pavement will be made for asphalt pavement exceeding job mix design tolerances, or not meeting asphalt pavement specifications, until additional testing determines whether the asphalt pavement meets all other specifications.

For the purposes of this Contract, one lot of asphalt pavement is defined as 250 tons or a single day's asphalt pavement production of at least 100 tons.

SECTION 02803 – FOG SEAL COAT, PART 2 - PRODUCTS, Article 2.1, MATERIALS, *revise* paragraph C to read as follows:

C. The blotter material shall be suitable, dry, clean sand. Weight scale tickets shall be provided to the project inspector at the time of spreading. Any partial loads of sand shall be reweighed and scale tickets submitted to the inspector.

SECTION 02806 – REMOVE EXISTING ASPHALT SURFACING, PART 3 - EXECUTION, Article 3.1, GENERAL, *add paragraph D*:

D. Use of grinding or milling equipment will be allowed to remove existing asphalt under the requirements of this section. Pavement grindings from this Project shall be disposed of at the CBJ Asphalt disposal area in Lemon Creek pit area. Grindings shall not be re-used on the Project.

SECTION 03302 – CONCRETE STRUCTURES, PART 3 - EXECUTION, *add* the following *Article*:

3.4 CONCRETE BARRIER CURB

- A. Concrete Barrier Curb rail shall conform to the dimensions shown in the Drawings and shall be constructed with concrete achieving a minimum compressive strength of 3,000 psi after 28 days.
- B. Finishing of the concrete barrier curb surfaces shall be an ordinary finish. All exposed concrete surfaces will receive Ashford curing compound.

SECTION 03303 – SIDEWALK, CURB AND GUTTER, PART 2 - PRODUCTS, Article 2.1, MATERIALS, *revise Paragraph B to read:*

B. Synthetic fibers shall be used for reinforcement with valley gutter.

SECTION 03303 – SIDEWALK, CURB AND GUTTER, PART 2 - MATERIALS, Article 2.1, MATERIALS, *add the following paragraph:*

- C. Synthetic fibers shall be added to concrete at the batch plant with the types and weights as follows:
 - 1. Sidewalk Fibermesh 150 (formerly Stealth), as manufactured by "SI Concrete Systems," or approved equal, at 1.5 pounds per cubic yard of concrete.
 - 2. Curb and Gutter, Valley Gutter and Curb Fibermesh 300 (fibrillated fibers), as manufactured by "SI Concrete Systems," or approved equal, at 1.5 pounds per cubic yard of concrete.

Add the following Section:

SECTION 03500 - CONCRETE REPAIR PATCHING

PART 1 - GENERAL

1.1 DESCRIPTION

- A. The WORK under this Section includes repair of spalled or damaged concrete where designated on the Drawings or as directed by the ENGINEER. Surfaces to be repaired may be on horizontal, vertical, or inclined surfaces, including the exposed arch surface of the Bear Creek Crossing structure beneath Second Street.
- B. Work under this Section includes repair of up to 5 patches.
- C. Provide and remove upon completion all necessary staging, shoring, safety equipment, environmental protection. Clean up and remove from site all surplus materials and debris.

For Cutting & Patching refer to Section 01405. For Concrete refer to Sections 03301 and 03302.

1.2 SUBMITTALS

A. Product Data for each product indicated.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Patching Mortar shall be polymer or microsilica modified Portland cement with non-sag filler. It shall be suitable for overhead and vertical surface placement in depths from ¼-inch to 3-inches. It shall meet the requirements of ASTM C928 Standard Specification for Packaged, Dry, Rapid Hardening Cementitious Materials for Concrete Repair.
- B. Bonding Agents shall meet the requirements of ASTM C1059 Standard specification for Latex Agents for Bonding Fresh to Hardened Concrete.
- C. Submit two (2) copies of product manufacturer's technical literature and Material Safety Data Sheets (MSDS).
- D. Compressive strength (per ASTM C109/C109M-02 Standard Test Method for Compressive Strength of Hydraulic Cement Mortars) shall be 2,500 psi after 24 hours, 5,000 psi after 7 days.

PART 3 - EXECUTION

3.1 SURFACE PREPARATION

- A. The perimeter of the area to be repaired shall be saw cut, slightly undercutting the sound concrete (without cutting reinforcing steel) to a minimum depth of 1-1/2 inches. Patch areas shall be roughly rectangular in shape.
- B. Mechanically remove unsound concrete or debris to a minimum depth of 1-1/2 inches. The aggregate fractured surface shall have a minimum profile of 1/8 inch. (i.e. a minimum 1/8" projection of aggregate pieces beyond the cement mortar substrate). Sound surface after initial removal to detect delaminations or subsurface voids. If such areas are detected, break out to greater depth.
- C. Concrete must be free of materials such as paint, oil, curing compound, bond breaker, etc. that will inhibit bonding.
- D. Clean reinforcing steel, if exposed, by wire-brushing or other mechanical means to remove all rust.
- E. Thoroughly clean extraneous material such as dirt, loose chips and dust from concrete surface. If compressed air is used, it shall be free of oil.
- F. Concrete surface shall be saturated with potable water and standing water shall be removed from surface to achieve a Saturated, Surface Dry (SSD) condition.
- G. Apply bonding agent in accordance with manufacturer's direction to the prepared surface. Place mortar before bonding agent dries.

3.2 MIXING

- A. Organize personnel and equipment before mixing.
- B. Use amount of water in the range specified by the manufacturer per bag of patching mortar. Do not exceed the maximum amount specified. Less water may be used to permit overhead placement.
- C. Mixed material should have a temperature of about 70°F. Warmer material will set faster than expected and cooler material will have slower strength gain. Control the mixed temperature by protecting the bags of repair material from temperature extremes and adjust the mixed temperature by using hot or cold water.
- D. Place dry materials in the mixer. Mix additives specified by the manufacturer, if necessary, into the water and add that water to the mixer. Mix for 2 to 3 minutes to achieve a uniform, lump-free consistency.
- E. Do not add any other admixtures. Do not add sand, aggregate, or cement.
- F. Do not re-temper.

3.3 PLACEMENT

- A. Place repair material onto the Saturated, Surface Dry (SSD) substrate, coated with bonding agent.
- B. Place repair material only if surface and ambient temperatures are above 45°F and rising.
- C. Place protective screens to prevent dropped material falling into Bear Creek.
- D. Place bonding agent and then place patching mortar immediately after mixing.
- E. Work repair material firmly into sides and bottom of repair area to achieve good bond. Place in layers, compacted with hand troweling. Roughen layer surface to enhance bond with subsequent layers.
- F. Do not feather edge repair material. Begin final finishing as soon as possible.

3.4 CURING

A. Begin water cure when repair area begins to lose its moist sheen and keep continuously wet until 1 hour after final set.

3.5 CLEAN UP

- A. Clean mixer immediately after use, or add mix water and begin mixing immediately for the next batch. Do not allow buildup of hardened repair material in the mixer, since this creates inefficient mixing and the heat generated accelerates later batches.
- B. Clean all tools immediately after use.

C. Clean excess material from surrounding areas immediately.

END OF SECTION

Add the following Section:

SECTION 03600 - BIN WALL REHABILITATION

PART 1-GENERAL

1.1 DESCRIPTION

- A. The WORK under this Section includes repair, surface preparation, cleaning, and coating (cold galvanizing) of bin wall surfaces as shown on the Drawings and as directed by the ENGINEER. The extent of work shall be as shown on the Drawings and in general shall include; the top surface of all exposed bin walls, including the entire top rib; the area around the old pipe rail brackets, situated at 5 foot centers along the top, outer surface of the walls; the upstream face of the bin wall, where abraded by surface runoff and rusted, the uncoated steel washer plates with exposed nuts and tie rod ends, at the base of each vertical member.
- B. Repairs include removal of the existing, cut off and rusted pipe rail sections, with associated steel brackets and field welding of tie rod plates as shown on the Drawings and as directed by the ENGINEER.

1.2 REFERENCES:

- A. ASTM A780 Standard Practice for Repair of Damaged and Uncoated areas of Hot Dip Galvanized Coatings.
- B. ASTM E376 Standard Practice for Measuring coating Thickness by Magnetic Field or Eddy Current Examination Methods.
- C. Society for Protective Coatings:
 SSPC Surface Preparation Specification No. 1 (SP1) Solvent Cleaning.
 SSPC SP3 Power Tool Cleaning.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. ZRC Worldwide, 145 Enterprise Drive, Marshfield, Massachusetts 02050, Tel. 1-800-831-3275 - Product Names: Z.R.C. Cold Galvanizing Compound – Galvilite, or equivalent, as approved by the ENGINEER.

2.2 MATERIALS

A. SPECIFICATIONS:

Type -Single pack, premixed, ready to apply, U.L. recognized, liquid organic zinc compound.

Finish -Flat light gray.

Metallic zinc content -95% by weight in dry film.

Solids content -52% by volume (ASTM D-2832).

VOC content –less than 500 g/l (ASTM D-1475).

Viscosity -1900 cps. - Brookfield spindle #6 at 100 RPM at 25 degrees C (ASTM D-2196).

Maximum service temp. -750 degrees F (ASTM D-2485).

Specific gravity -2.797 (ASTM D-1963)

Electrical conductivity -73 million ohms per 3 mil dry.(Resistivity).

Impact resistance -Greater than 30 inch lbs. (extrusion per ASTM D-2794).

Abrasion resistance -11.5 liters per dry mil (tested at 3 dry mils per ASTM D-968).

Pot life -At least 24 hours.

Shelf life -Bulk type, 3 years minimum. Aerosol type, 1 year minimum.

Dry time (Set to touch) When ambient air dried, less than 2 hours (ASTM D-1640).

Recoat time (Second coat) After not less than 12 hrs.

2.3 EQUIPMENT

- A. Coating shall be applied by brush, roller, low pressure compressor-type spray or airless-type spray.
- B. Refer to Section 3.3B for specific equipment information.

2.4 MIXES

- A. Coating herein specified is a one-component, premixed, ready to apply compound.
- B. Contents of containers shall be stirred well upon opening and during application to ensure homogeneous mix.

2.5 PROJECT/SITE CONDITIONS

- A. Drying time of coating is dependent upon temperatures, but product has no application temperature limit.
- B. Surface temperature of the substrate to be coated shall be at least 5°F above the dew point to avoid possible condensation.
- C. Humidity shall be less than 85% relative humidity.

2.6 CERTIFICATIONS

A. CONTRACTOR shall submit copies of current AWS certified welding certificates to the ENGINEER 7 days prior to beginning WORK.

PART 3 – EXECUTION

3.1 REPAIR

A. Carry out cutting and field welding of existing tie rod as shown on the Drawings, prior to refinishing.

B. Remove and dispose of all steel pipe rail sections with associated brackets. Cut off, remove, and/or grind flat all projecting studs, bolts or other protrusions outside the bin wall surface. Remove rust scale around brackets to bright metal. Coating shall be applied directly to metal surface to be galvanically active.

3.2 PREPARATION

- A. Surface preparation is dependent upon substrate condition and intended service. Steel surfaces to be coated shall be clean; i.e. devoid of dirt, grease, oil, mill scale, oxidation, loosely adherent rust, paint, etc.
- B. Typical conditions are as follows:
 - Dirt, Rust wash on top of sound galvanized surface, Grease and Oils -Solvent clean to SSPC-SP1.
 - Rust scale or easy to remove galvanizing coating Power tool clean to SSPC-SP3.
- C. Clear brush, vegetation, debris, or loose soils, as necessary to ensure that surface preparation and coating is done uniformly to a neat line, where the bin wall meets the adjacent ground surface.

3.3 APPLICATION

A. GENERAL APPLICATION INFORMATION

- 1. The coating shall be applied at sufficient wet film thickness to achieve a minimum dry film build of 2.5 3.5 mils, where one coat is specified, or 5.0 mils, where two coats are specified, using manufacturer's recoat time directions.
- 2. Thinning with appropriate thinners as recommended by the manufacturer is allowed provided film thickness requirements can be maintained and other properties of the coating remain uncompromised.
- 3. The coating shall be well stirred before use so that it is completely homogeneous during application.
- 4. Continuous agitation (by means of an in-pot power mixer) is required to ensure the continuous application of a completely homogeneous material at all times
- 5. Complete any field welding and surface preparation prior to coating of surfaces.
- 6. Areas to receive one or two coats of cold galvanizing shall be as shown on the Plans. All visible bin wall surfaces shall receive at least one coat. Two coats shall be applied where designated and wherever there is existing rust. The area receiving the second coat shall extend at least one inch beyond the limit of previously rusted areas. Apply the first coat to the rusted and repaired areas shown on the Plans, then apply a final coat over the entire, visible bin wall surface.
- 7. Material partially used at the end of any day shall be protected from skinning by placing thin blanket of solvent over remaining coating followed by careful closing of containers. Coating may be reused on the following day after total rehomogenization.

B. SPECIFIC APPLICATION INFORMATION

1. Application by brush or roller:

Apply as received in container.

2. Application by low-pressure compressor type spray:

Atomized air pressure - 50 lbs.

Fluid pressure - 15-20 lbs.

Orifice of tip -80/1000ths (.80).

Viscosity reduction - 4 parts Coating to 1 part XXX Thinner or 16 parts Coating to 1 part Xylol/Xylene.

3. Application by airless type spray:

Pump - 30:1.

Hose - 1/2" (I.D.) Airless type.

Orifice of tip - 600 - 26/1000 ths. (.026).

Type of tip - Tungsten carbide, reversing (self-cleaning).

Filter screens - Complete removal is recommended. If screens are employed, use no less than 30 mesh.

Viscosity - No reduction required.

Recommended procedure - Connect hose directly to pump without filter assembly, ensuring a hose length of 50 feet maximum. Use least pressure possible. Start at 1,500 lbs. and increase as required for good spraying properties.

C. CLEAN-UP

1. Use XXX Thinner (from ZRC Worldwide) or Xylol/Xylene.

END OF SECTION

Add the following Section:

SECTION 03700 – CONCRETE ARCH REPAIR AND REHABILITATION

PART 1- GENERAL

1.1 DESCRIPTION

- A. The WORK under this Section includes the demolition and reconstruction of two areas of the existing concrete arch structure as shown on the Drawings and as directed by the ENGINEER. The two areas are the east side of the downstream head wall, hereinafter designated as the Northeast Headwall, and the west side of the upstream headwall, designated as the Southwest Headwall. This may include work within and below the ordinary water level of Bear Creek.
- B. Excavation and backfilling with base course, grading D-1, or flowable backfill, will be required below the typical road reconstruction depth, within or below isolated bin wall cells, where fine material has washed out from behind or below the Bear Creek crossing structure.

- C. The wingwall at the Southwest Headwall shall be extended as shown on the plans and mass concrete "Eco-blocks" installed upstream.
- D. Provide and remove upon completion all staging, shoring, safety equipment, environmental protection necessary to complete the work and protect the public, and adjacent property. Clean up and remove from site all surplus materials and debris.

For Cutting & Patching refer to Section 01405.

For Excavation and Embankment refer to Section 02202 and 02204.

For Concrete refer to Sections 03301 and 03302.

For Permit conditions for work within Bear Creek refer to Section 00852.

1.2 SUBMITTALS

A. Product data for each material, including mix designs.

PART 2 – PRODUCTS

2.1 MATERIALS

- A. Provide concrete, reinforcement, and other materials in accordance with Section 03301. For reinforced structural concrete, minimum compressive strength, at 28 days, shall be 3,000 psi. No backfill or other loads shall be applied against any new concrete structure until the concrete strength has achieved at least 80% of the 28 day strength.
- B. Epoxy adhesive shall be a two-component high-solids epoxy based system supplied in manufacturer's standard cartridge and dispensed through a static-mixing nozzle supplied by the manufacturer. Epoxy shall meet the minimum requirements of ASTM C-881 specification for Type I, II, IV, and V, Grade 3, Class B and C and must develop a minimum 10,000 psi compressive yield strength after 7 day cure. Adhesive shall be SET Epoxy-Tie adhesive from Simpson Strong-Tie, Pleasanton, CA, or HIT-RE 500 adhesive from Hilti North America, Inc, Tulsa, OK.
- C. Concrete Blocks (Eco-blocks) shall be pre-cast concrete blocks, of minimum size 2 feet, by 2 feet, by 4 feet, with cast-in lifting anchors, for placement. They shall be manufactured of concrete with minimum compressive strength, at 28 days of 3,000 psi. They shall have shear keys to ensure 2-inch offset between lower and upper rows of blocks, except that the top row of blocks shall be recessed 6-inches below the top surface, over 75% of the plan area. The side of the block which is exposed shall be the full 2-foot height. The finish of all exposed block surfaces shall be textured with a natural rock finish.
- D. Flowable Backfill. Flowable backfill is a mixture of Portland cement, fly ash, fine aggregate, water, and may contain other cementitious materials or concrete admixtures, to improve flowability or other performance characteristics.

Submit mix designs for flowable backfill for approval. The mix design shall meet the following performance requirements.

FLOWABLE BACKFILL PERFORMANCE RQUIREMENTS

	<u> </u>
28-Day Compressive Strength	Minimum 100 PSI
	Maximum 500 PSI

Mix designs shall produce a consistency that will result in a flowable self-leveling product at time of placement.

Flowable backfill will be manufactured and mixed in accordance with Section 03301 or other approved methods. Revolution counter requirements are waived.

PART 3 – EXECUTION

3.1 DEMOLITION

- A. Demolish existing reinforced concrete where shown on the Drawings, using hand-held power tools and hand tools only. Heavy equipment may only be used to support or lift away sections to be demolished, but not to break out or apply force to any part of the existing structure. Take every necessary precaution to protect and preserve sections of the structure which are to remain.
- B. Saw cut along the perimeter of areas to be demolished, in neat, straight lines, prior to commencing breaking work. Break out with care to ensure no areas outside the saw cuts are damaged.
- C. Where steel reinforcement is encountered, still cast into a portion of concrete which is to remain, do not cut off at the limit of demolition, but preserve at least 12 inches of steel to be cast into the new concrete.

3.2 EXCAVATION

- A. Break out weathered rock, where indicated on the Drawings, using hand-held power tools. Break back to the point where rock cannot be easily removed by this method.
- B. Excavate below water where necessary, to the extent shown on the Drawings. Foundation excavation shall be stopped on firm, unyielding, undisturbed native material. Foundation excavation shall be stopped at any point where sound, unweathered bedrock is encountered, which cannot easily be removed using hand-held power tools.

3.3 BIN WALL EXCAVATION, BACKFILL AND SOIL STABILIZATION

- A. Excavation and backfilling below the typical road reconstruction depth, within the bin wall cells, will be required where indicated on the Drawings, or as directed by the ENGINEER. This is to allow for exposing and backfilling voids in or below the bin wall structure caused by migration of fines through the Bear Creek crossing structure.
- B. Excavation shall be by any method permitted by the specifications, including, but not limited to, vacuum excavation of granular material. Stockpile excavated material from within the bin wall cells for reuse in backfilling the same bin wall

areas. No equipment or method shall be used which results in damage or disturbance to the bin wall members, or which results in undermining or removing support from the bin wall members.

- C. Any damage done to the bin wall structures by the CONTRACTOR's equipment or excavation methods shall be repaired by regalvanizing the damaged metal bin wall member. The CONTRACTOR shall shore and support within the bin wall to prevent undermining of adjacent bin wall cell. If undermining occurs, the CONTRACTOR is responsible at his own expense to excavate adjacent undermined area, place flowable backfill and backfill.
- D. During excavation work within the bin wall cells, the CONTRACTOR shall monitor the alignment of the outside face of the wall by means of horizontal string lines and vertical plumb lines. In the event of measurable movement of the bin wall, the CONTRACTOR shall cease excavation using that means or method and inform the ENGINEER. WORK shall recommence using a method approved by the ENGINEER, which does not disturb the existing bin wall. Protect excavated surfaces from the weather and sub-surface drainage flows and maintain in dry condition until backfilled.
- E. After excavation has reached the base of the bin wall, the CONTRACTOR shall probe for voids or loose soils below the bin wall, as directed by the ENGINEER, using rebar or pipes. Voids exposed during exploration shall be filled with flowable backfill. Plug any openings in the Bear Creek Crossing headwall and arch to prevent flowable backfill leaking out. Place flowable backfill by any suitable means, including, but not limited to, chutes, pump, pipes, or buckets. During placement, consolidate the flowable fill by mechanical vibration, using properly sized internal vibrators placed near the point of deposition. Manipulate vibration to produce fill that is free from voids and well consolidated. Place flowable backfill up to the bottom of the bin wall rear stringer.
- F. The minimum temperature for placement of flowable backfill shall be 40°F and rising, at the point of deposition. Protect the flowable backfill from freezing for a period of 36 hours after placement. This backfill shall be placed prior to demolition work at the Bear Creek Crossing headwalls. Demolition work, within 10 feet of flowable backfill, shall not commence until at least 3 days after placement of the same.
- G. Backfilling above the flowable backfill shall not begin until the underlying fill has set and at least 24 hours after placement. Backfilling of the bin wall cells, above the bottom of the bin wall stringers shall be done by placing the excavated material in layers not to exceed 8-inches uncompacted depth and compacting to 95% of optimum density. Compaction equipment shall be appropriate for use within the bin wall cell. If there is a shortfall of stockpiled excavation the CONTRACTOR shall import Base Course, Grading D-1 material, as fill, at no additional cost. At the CONTRACTOR's option, the bin wall cell may be backfilled with flowable fill. The maximum lift height of flowable backfill within the bin wall cell shall be 4 feet. Subsequent lifts shall not be placed until the previous layer has set and at least 24 hours after the previous lift is placed.

3.4 CONCRETE SURFACE PREPARATION

- A. The perimeter of the area to be repaired shall be saw cut, slightly undercutting the sound concrete (without cutting reinforcing steel) to a minimum depth of 1-1/2 inches.
- B. Mechanically roughen the exposed concrete surface to produce an exposed aggregate surface. The aggregate fractured surface shall have a minimum profile of 1/8 inch. Sound surface after initial removal to detect delaminations or subsurface voids. If such areas are detected break out to greater depth.
- C. Concrete surfaces must be free of materials such as paint, oil, curing compound, bond breaker, etc. that will inhibit bonding.
- D. Clean reinforcing steel, if exposed, by wire-brushing, or other mechanical means, to remove all rust.
- E. Thoroughly clean extraneous material such as dirt, loose chips and dust from concrete surface. If compressed air is used, it shall be free of oil.
- F. Concrete surface shall be saturated with potable water and standing water shall be removed from surface to achieve a Saturated, Surface Dry (SSD) condition, immediately prior to placing new concrete.

3.5 EPOXY DOWELS

- A. Steel rebar dowels shall be installed where shown on the plans.
- B. Drill holes using an impact drill with carbide tipped bits or a diamond tipped core drill. Size to be within manufacturer's specified tolerances. Depth to be as shown on the plans.
- C. Clean out holes using a nylon, or wire brush; flush with compressed air or water.
- D. Prepare and mix resin per manufacturer's directions. Inject resin into each hole starting at the bottom and filling until half to two-thirds full, or sufficient to completely fill the hole with the dowel inserted. Use mixer filler tube extensions when needed to reach the bottom of the hole.
- E. Insert rebar dowel, turning steadily during insertion.
- F. Resin may be installed in wet holes or submerged holes, but all drilling debris or sludge must be cleaned from the hole before resin injection.

3.6 CONCRETE CONSTRUCTION

- A. All concrete construction including reinforcement, forms and support staging, placement, finishing and testing shall be in accordance with the requirements of Section 03301.
- B. Provide temporary shoring or other support to maintain fill material not required to be excavated adjacent to the areas of concrete construction.

- C. Where needed, forms shall be provided with closable openings to permit placement of concrete via pump pipe or chute and inspection of the same during placement.
- D. Use pumps and coffer dams as necessary to divert flowing water away from the concrete forms.
- E. Some static, standing water may be acceptable within the forms so long as it can be displaced by flowing concrete, in such a way that the concrete surface is not scoured by flowing water, nor is cement grout washed out of the concrete mix.

3.7 CONCRETE BLOCK INSTALLATION

- A. Excavate loose rocks and soil from the upstream bank of the creek only as necessary to install the concrete Eco-blocks where shown on the plans. Should hard-packed cobbles or bedrock be encountered during excavation the foundation level may be raised, or block location adjusted, as directed in the field by the Engineer.
- B. Excavate to expose a firm, unyielding foundation grade in undisturbed native soils. If necessary, mass, in-fill concrete may be placed as a leveling course.
- C. Place blocks level. Fill in front of the blocks with rip rap excavated from the stream bank where the blocks are being placed, to match the original bank alignment. Back fill behind the blocks with suitable common fill and rocks excavated for placement of the blocks. Compact with jumping jack compactors.

END OF SECTION

END OF SPECIAL PROVISIONS