TEAL STREET RECONSTRUCTION

Contract No. BE23-123 File No. 2176



ENGINEERING DEPARTMENT

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

BIDDING and CONTRACT REQUIREMENTS

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See Cover Sheet of Drawings for Drawing Index

END OF SECTION

SECTION 00030 NOTICE INVITING BIDS

OBTAINING CONTRACT DOCUMENTS. The Contract Documents are entitled:

Teal Street Reconstruction Contract No. BE23-123

The Contract Documents may be downloaded from the CBJ Public Purchase webpage at <u>https://www.publicpurchase.com/juneau,ak</u>. Instructions for the Public Purchase registration process can be found here <u>https://juneau.org/engineering-public-works/bids-rfps</u>.

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 November 10, 2022, via teleconference. The object of the conference is to acquaint Bidders with the project and bid documents. Proposers intending to participate via teleconference shall notify the Contracts Department at Contracts@Juneau.Org by 4:30 p.m., November 9, 2022.

DESCRIPTION OF WORK. The WORK covered in the Contract Documents generally includes reconstruction of Teal Street from Jordan Avenue to Crest Street. WORK will include replacement of the water main and services, replacement of 18-inch AC sanitary sewer main and services, and installation of a new storm drain system. WORK will also include replacement of the roadway subbase to a depth of 24 inches, resurfacing with asphalt cement pavement, and the addition of curb and gutter with sidewalk along both sides of the roadway, and street lights along one side.

ENGINEER'S ESTIMATE RANGE: Between \$1,800,000 and \$2,000,000.

COMPLETION OF WORK. The WORK must be completed by September 23, 2023, or within 120 days of commencement of work, whichever occurs first.

DEADLINE FOR BIDDER QUESTIONS: 4:30pm Alaska Time on November 23, 2022.

DEADLINE FOR BIDS: Electronic bids must be received by the Purchasing Division **prior to 2:00 p.m.,** <u>Alaska Time on December 1, 2022</u>, or such later time as may be announced by addendum at any time prior to the deadline. Bids will be opened immediately thereafter via conference call, unless otherwise specified. Bidders may attend this bid opening on the conference call line 907-713-2140, with participant code 258358.

SUBMISSION INSTRUCTIONS: Timely responses are accepted via <u>Electronic Submission</u> at Public Purchase, <u>www.publicpurchase.com</u>, the CBJ's eProcurement Provider. Bidders must register online prior to submitting a bid, it may take up to 24 hours for registration to be complete.

Late responses will not be accepted.

To Respond, Bidders must complete an online registration.

- Registration is a two-step process, registering with Public Purchase, and then registering with CBJ within Public Purchase.
- Get help registering using the <u>Public Purchase</u> Help Menu Tab.
- Register early to avoid missing the deadline, as Registration may take up to 24 hours to complete.

Registered Bidders may submit a Bid Schedule to Public Purchase by downloading the provided PDF solicitation documents, filling out the fields indicated, and uploading the document to Public Purchase.

SECTION 00030 NOTICE INVITING BIDS

SITE OF WORK. The site of the WORK is on Teal Street in the Valley Centre subdivision in Juneau, Alaska.

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

Caleb Comas, Contract Administrator CBJ Engineering Department, 3rd Floor, Marine View Center Email: caleb.comas@juneau.org Telephone: (907) 586-0800 ext. 4196 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 provided as prescribed in Section 00100, Article 12, at the time of bid.

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 120 Days from the date of Bid opening. Any component of the Bid may be awarded anytime during the 120 Days.

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.

OWNER: City and Borough of Juneau

By: Caleb Comas

Caleb Comas, Contract Administrator

11/3/22

Date

END OF SECTION

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 RESPONSIBILITY OF BIDDERS.** Only responsive Bids from responsible Bidders will be considered. A Bid submitted by a Bidder determined to be not responsible may be rejected. The OWNER may find a bidder to be not responsible for any one of the following reasons, but is not limited in its responsibility analysis to the following factors:
 - A. Evidence of bid rigging or collusion;
 - B. Fraud or dishonesty in the performance of previous contracts;
 - C. Record of integrity;
 - D. More than one bid for the same work from an individual, firm, or corporation under the same or different name;
 - E. Unsatisfactory performance on previous or current contracts;
 - F. Failure to pay, or satisfactorily settle, all bills due for labor and material on previous contracts;

- G. Uncompleted work that, in the judgment of the OWNER, might hinder or prevent the bidder's prompt completion of additional work, if awarded;
- H. Failure to reimburse the OWNER for monies owed on any previous contracts;
- I. Default under previous contracts;
- J. Failure to comply with any qualification requirements of the OWNER; 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;
- K. Engaging in any activity that constitutes a cause for debarment or suspension under the CBJ Procurement Code 53.50 or submitting a bid during a period of debarment;
- L. Lack of skill, ability, financial resources, or equipment required to perform the contract.
- M. Lack of legal capacity to contract.
- N. Bidders must be registered as required by law and in good standing for all amounts owed to the OWNER per Paragraph 21.0 of this Section.
- O. Failure to submit <u>all</u> completed documents as required and specified on the Bid Form, Section 00300.

Nothing contained in this section deprives the OWNER of its discretion in determining the lowest responsible bidder. 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.
- J. Failure to submit <u>all</u> completed documents as required and specified on the Bid Form, Section 00300.
- 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 ENGINEER 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 Engineer 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 Engineer 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 Engineer 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 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 by another acceptable submission method as specified in Section 00030, Notice Inviting Bids, and shall contain the following: Sections 00300, 00310 or other specified acceptable form of Bid Schedule,

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</u> non-responsive and may cause its rejection.
- 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.** Substitution requests are not accepted during the bidding process.
- **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. Hand-delivered, mailed, courier-delivered, <u>oral, telegraphic, emailed, or faxed Bids will not be considered</u>.
- **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 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.

Bid Bonds shall be submitted by being scanned and uploaded to Public Purchase along with the other required Bid documents. When a Bid security check is used, it must be received by the Purchasing Division prior to the Deadline for Bids. Bid security checks will be time and date stamped by the Purchasing Division, which will establish the official time of receipt.

In addition to uploading a scanned file of the Bid Bond, the original hardcopy Bid Bond shall be submitted and received by the CBJ Contracts Office by 2:00 p.m. Alaska Time no more than seven calendar days after Bid Opening.

In lieu of the original hardcopy Bid Bond submittal requirement, bidders who have a Surety 2000 Bid Bond ID may validate their Bid Bond with Surety 2000 within the Bid Bond Response Information Form in the Public Purchase bid page.

Bid security checks shall be submitted in a sealed envelope that clearly indicates: that a bid security check is enclosed, the name of the bidding firm, and the project name and number. The envelope must not reveal the check amount so that the final Bid price will not be known until the sealed bids are opened.

Bid security checks delivered **in person** or by **<u>courier</u>** service must be delivered to:

PHYSICAL LOCATION:

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

Bid security checks delivered by <u>U.S. Postal</u> <u>Service</u> must be mailed to:

MAILING ADDRESS:

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

Mailing/delivery times to Alaska may take longer than other areas of the U.S. Late bid security checks may cause a Bid to be deemed non-responsive

- **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 (907-586-5215) prior to deadline.

- B. <u>Conditioned bids, limitations, or provisos attached to the Bid or bid modification will</u> render it unauthorized and cause its rejection as being non-responsive. 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.

C. Award of a contract is subject to the adoption of an appropriation of funds by the City Assembly.

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. 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) 586-5215 for a copy of the ordinance.
- B. Late protests shall not be considered by the CBJ Purchasing Officer.
- 21.0 <u>CONTRACTOR'S GOOD STANDING WITH CBJ FINANCE DEPARTMENT:</u> <u>Contractors must be in good standing with the CBJ prior to award, and prior to any contract</u> <u>renewals</u>, and in any event no later than <u>seven business days</u> following notification by the CBJ of intent to award. Good standing means: all amounts owed to the CBJ are current and the Contractor is not delinquent with respect to any taxes, fees, assessment, or other monies due and owed the CBJ, or a Confession of Judgment has been executed and the Contractor is in compliance with the terms of any stipulation associated with the Confession of Judgment, including being current as to any installment payments due; and Contractor is current in all CBJ reporting obligations (such as sales tax registration and reporting and business personal property declarations). Failure to meet these requirements may be cause for rejection of your bid</u>. To determine if your business is in good standing, or for further information, contact the CBJ Finance Department's Sales Tax Division at (907) 586-5215 for sales tax issues, Assessor's

Office at (907)586-5215 for business personal property issues, or Collections Division at (907) 586-5215 for all other accounts.

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

Modification Number:

Modification Page ____ of ____

Note: All modifications shall be made to the original bid amount(s). If more than one Modification form is submitted by any one bidder, changes from all Modification forms submitted will be combined and applied to the original bid. Changes to the modified Bid amounts will be calculated by the OWNER. Bidder may use multiple modification pages if required.

PAY ITEM NO.	PAY ITEM DESCRIPTION	MODIFICATIONS TO UNIT PRICE OR LUMP SUM (indicate +/-)

Bid Total Increase or Decrease: <u>\$</u>______

Name of Bidding Firm

Responsible Party Signature

Printed Name (must be an authorized signatory for Bidding Firm)

END OF SECTION

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

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- 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	By:	(2)	
Business License No:		(Signature)	
Alaska	Printed Name:		
CONTRACTOR's			
License No:	Title:		
Telephone No:	Address:		
		(Street or P.O. Box)	
Fax No:			
		(City, State, Zip)	
E-mail:			

9. <u>TO BE CONSIDERED, ALL BIDDERS MUST COMPLETE AND INCLUDE THE FOLLOWING</u> <u>AT THE TIME OF THE DEADLINE FOR BIDS. **MISSING DOCUMENTS WILL DEEM THIS** <u>**BID NON-RESPONSIVE**</u>:</u>

- Bid, Section 00300 (includes Addenda receipt statement)
- Completed Bid Schedule, Section 00310, or other acceptable form of Bid Schedule as specified in Section 00030, Notice Inviting Bids
- Bid Security (Bid Bond, Section 00320, or by a certified or cashier's check as stipulated in the Notice Inviting Bids, Section 00030)
- > Contractor Financial Responsibility, Section 00370
- 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 the 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

END OF SECTION

TEAL STREET RECONSTRUCTION Contract No. BE23-123

SECTION 00310 - BID SCHEDULE

				UNIT PRICE	3	AMOUN	Т
PAY ITEM	PAY ITEM DESCRIPTION	PAY	APPROX.				
NO.	TAT THEM DESCRIPTION	UNIT	QUANTITY	DOLLARS	CENTS	DOLLARS	CENTS
1505.1	Mobilization	Lump Sum	All Req'd	LUMP	SUM		
1550.1	Traffic Control	Lump Sum	All Req'd	LUMP	SUM		
1550.2	Pedestrian Barriers	Lump Sum	All Req'd	LUMP	SUM		
1570.1	Erosion and Sediment Control	Lump Sum	All Req'd	LUMP	SUM		
1570.2	Excavation and Dewatering Permit	Lump Sum	All Req'd	LUMP	SUM		
2202.1	Excavation	СҮ	2,838				
2202.2	Shot Rock Borrow	СҮ	1,545				
2202.3	Sideslopes and Ditch Grading	Lump Sum	All Req'd	LUMP	SUM		
2202.4	Road Cleaning & Mining Area Restoration Guarantee	Contingent Sum	All Req'd	CONTINGENT	SUM	\$5,000	00
2204.1	2-Inch Minus Shot Rock w/ Base Course	СҮ	1,016				
2401.1	Locate Sanitary Sewer Services	Lump Sum	All Req'd	LUMP	SUM		
2401.2	Sanitary Sewer Pipe 21-Inch PVC	LF	1,121				
2401.3	Sanitary Sewer Service Lateral with Cleanout, 6-Inch	EA	18				
2401.4	Sanitary Sewer Switchover	Lump Sum	All Req'd	LUMP	SUM		
2402.1	Sanitary Sewer Manhole, Type II	EA	3				
2501.1	Storm Sewer Service Lateral, 6-Inch PVC	LF	72				
2501.2	12-Inch CPP Pipe Culvert	LF	810				
2501.3	18-Inch CPP Pipe Culvert	LF	350				
2501.4	6-Inch Underdrain	LF	127				
2502.1	Storm Drain Manhole, Type I	EA	3				
2502.2	Catch Basin, Type III	EA	14				
2502.3	Catch Basin, Type IV	EA	5				
2502.4	Trench Drain	EA	1				
2601.1	10-Inch HDPE Water Pipe	LF	1,131				
2601.2	Corrosion Protection	EA	4				
2601.3	Connect to Existing Water Pipe	Lump Sum	All Req'd	LUMP	SUM		
2602.1	10-Inch Gate Valve	EA	4				
2603.1	Fire Hydrant Assembly with Guard Posts	EA	2				
2605.1	Locate Water Services	Lump Sum	All Req'd	LUMP	SUM		
2605.2	Water Service, 6-Inch HDPE	EA	17				
2607.1	Pipe Insulation	Boards	40				
2702.1	Construction Surveying	Lump Sum	All Req'd	LUMP	SUM		
2709.1	Topsoil	СҮ	221				
2709.2	Topsoil Finish Grading	MH	50				
2710.1	Seeding, Hydraulic Method, Type III	SU	4	LUMP	SUM		
2716.1	Remove and Dispose of Existing Storm and Sanitary Sewer Systems	Lump Sum	All Req'd				
2716.2	Fill Existing Water Pipe with Slurry	Lump Sum	All Req'd	LUMP	SUM		
2718.1	Sign Assemblies	Lump Sum	All Req'd	LUMP	SUM		

SECTION 00310 - BID SCHEDULE

				UNIT PRIC	Έ	AMOUN	Т
PAY ITEM NO.	PAY ITEM DESCRIPTION	PAY UNIT	APPROX. QUANTITY	DOLLARS	CENTS	DOLLARS	CENTS
2719.1	Reconstruct Mailbox	EA	1				
2720.1	Painted Traffic Markings	Lump Sum	All Req'd	LUMP	SUM		
2801.1	A.C. Pavement, Type II-A, Class B	Ton	785				
2806.1	Remove Existing Asphalt Surfacing	SY	3,923				
3302.1	Concrete Headwall	EA	8				
3302.2	Concrete Headwall w/Trashrack	EA	3				
3302.3	Concrete Area Drain	EA	10				
3303.1	Concrete Sidewalk, 4 and 6-Inch Thick	SY	1,284				
3303.2	Detectable Tile	SF	32				
3303.3	Curb and Gutter, Type I	LF	2,219				
16000.1	Lighting	Lump Sum	All Req'd	LUMP	SUM		

TOTAL BID: \$

COMPANY NAME:

SECTION 00320 - BID BOND

KNOW ALL PERSONS BY THESE PRESENTS, that

as Principal, and

as Surety, are held and firmly bound unto <u>THE CITY AND BOROUGH OF JUNEAU</u> hereinafter called "OWNER," in the sum of

dollars, (not less than five percent of the total amount of the Bid) for the payment of which sum, well and truly to be made, we bind ourselves, our heirs, executors, administrators, successors, and assigns, jointly and severally, firmly by these presents.

WHEREAS, said Principal has submitted a Bid to said OWNER to perform the WORK required under the Bid Schedule of the OWNER's Contract Documents entitled.

Teal Street Reconstruction Contract No. BE23-123

NOW THEREFORE, if said Principal is awarded a contract by said OWNER and, within the time and in the manner required in the "Notice Inviting Bids" and the "Instructions to Bidders" enters into a written Agreement on the form of Agreement bound with said Contract Documents, furnishes the required certificates of insurance, and furnishes the required Performance Bond and Payment Bond, then this obligation shall be null and void, otherwise it shall remain in full force and effect. In the event suit is brought upon this bond by said OWNER and OWNER prevails, said Surety shall pay all costs incurred by said OWNER in such suit, including a reasonable attorney's fee to be fixed by the court.

SIGNED AND SEALED, this _____ day of _____, 20

(SEAL)_____(Principal)

(SEAL)_____(Surety)

By:_____(Signature)

By:_____(Signature)

END OF SECTION

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.

SUBCONTRAC	TOR	¹ AK Contractor License No.	¹ Contact Name	<u>Type of</u>	<u>Contract</u>	✓ if
ADDRESS		² AK Business <u>License No.</u>	² Phone No.	<u>Work</u>	<u>Amount</u>	DBE
1		1			\$	
2		12			\$	
		2				
3		1			\$	
		2				
4		1			\$	
		2				

I certify that the above listed Alaska Business License(s) and CONTRACTOR Registration(s), if applicable, were valid at the time Bids were opened for this Project.

CONTRACTOR, Authorized Signature

CONTRACTOR, Printed Name

COMPANY

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.
 - 10. is not in "Good Standing" with the OWNER as required in Article 21.0 in Section 00100 – Instructions to Bidders.
- 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 all Subcontractors anticipated to perform WORK on the project.
- F. An apparent low Bidder who fails to submit a completed Subcontractor Report within the time specified in this section may 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.

END OF SECTION

SECTION 00370 - CONTRACTOR'S FINANCIAL RESPONSIBILITY

To be considered, all bidders must complete and include this form *at the time of the deadline for bids*. Attach additional sheets as necessary to respond to questions.

PROJECT: Teal Street Reconstruction

As the General Contractor on this project, I intend to subcontract _____% of the total value of this contract.

A. EXPERIENCE

- 1. Have you ever failed to complete a contract due to insufficient resources?
- [] No [] Yes If YES, explain:

2. Describe arrangements you have made to finance this work:

3. Have you had previous construction contracts or subcontracts with the City and Borough of Juneau?
[] Yes [] No

4. Describe your most recent or current contract, its completion date, and scope of work:

5. List below, and/or as an attachment to this questionnaire, other construction projects you have completed, dates of completion, scope of work, and total contract amount for each project completed in the past twelve months.

SECTION 00370 - CONTRACTOR'S FINANCIAL RESPONSIBILITY

6. Per Alaska Statute 36.90.210, on previously awarded public contracts (including contracts still in progress), have you ever failed to pay a subcontractor <u>or</u> material supplier <u>within eight working days</u> after receiving payment from the Owner (for projects occurring within the last 3 years)?

[] Yes [] No If yes, please attach a detailed explanation for <u>each</u> occurrence.

B. EQUIPMENT

1. Describe below, and/or as an attachment, the equipment you have available and intend to use for this project.

ITEM	QUANTITY	МАКЕ	MODEL	SIZE/CAPACITY	PRESENT MARKET VALUE

- 2. Do you propose to purchase any equipment for use on this project not listed on table B-1?
- [] No [] Yes If YES, describe type, quantity, and approximate cost:

3. Do you propose to rent any equipment for this work not listed on table B-1?[] No [] Yes If YES, describe type and quantity:

SECTION 00370 - CONTRACTOR'S FINANCIAL RESPONSIBILITY

4. Is your bid based on firm offers for all materials necessary for this project?[] Yes [] No If NO, please explain:

I hereby certify that the above statements are true and complete.

Signature

Company Name

Printed Name

Date

SECTION 00500 - AGREEMENT

THIS AGREEMENT is between <u>THE CITY AND BOROUGH 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 <u>Contract No. BE23-123 Teal Street Reconstruction</u>.

The WORK covered in the Contract Documents generally includes reconstruction of Teal Street from Jordan Avenue to Crest Street. WORK will include replacement of the water main and services, replacement of 18-inch AC sanitary sewer main and services, and installation of a new storm drain system. WORK will also include replacement of the roadway subbase to a depth of 24 inches, resurfacing with asphalt cement pavement, and the addition of curb and gutter with sidewalk along both sides of the roadway, and street lights along one side 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 September 15, 2023, or within 120 days of commencement of work, whichever occurs first.

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 **§1,000** 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: <u>Contract No. BE23-123 Teal Street Reconstruction</u>, 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.

SECTION 00500 - AGREEMENT

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, inclusive)
- Notice Inviting Bids (pages 00030-1 to 00030-2, inclusive).
- ▶ Instructions to Bidders (pages 00100-1 to 00100-10, inclusive).
- Bid (pages 00300-1 to 00300-2, inclusive).
- ▶ Bid Schedule (pages 00310-1 to 00310-2, inclusive).
- Bid Bond (page 00320-1, inclusive) or Bid Security.
- Subcontractor Report (pages 00360-1 to 00360-2, inclusive).
- Contractor Financial Responsibility (pages 00370-1 to 00370-3, 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 00800-8, inclusive).
- Alaska Labor Standards, Reporting, and Prevailing Wage Determination (page 00830-1).
- Permits, (page 00852-1).
- Standard Details (page 00853-1 to 00853-2, inclusive).
- Special Provisions (pages 1 to 40 inclusive)
- > Drawings consisting of 38 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.

SECTION 00500 - AGREEMENT

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:

(Company Name)
(Signature)
By:(Printed Name, Authority or Title)
CONTRACTOR Signature Date:
CONTRACTOR's address for giving notices:
(Telephone) (Fax)
(E-mail address)

AGREEMENT Page 00500-3

Contractor License No.

CERTIFICATE (if Corporation)

STATE OF)) SS: COUNTY OF)

I HEREBY CERTIFY that a meeting of the Board of Directors of the

_____a corporation existing under the laws of the State of ______, held on ______, 20____, the following resolution was duly passed and adopted:

"RESOLVED, that ______, as ______, as ______, resident of the Corporation, be and is hereby authorized to **execute the Agreement** with the CITY AND BOROUGH OF JUNEAU and this corporation and that the execution thereof, attested by the Secretary of the Corporation, and with the Corporate Seal affixed, shall be the official act and deed of this Corporation."

I further certify that said resolution is now in full force and effect.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed the official seal of the

corporation this ______ day of ______, 20 .

Secretary

(SEAL)

CERTIFICATE (if Partnership)

STATE OF)) SS: COUNTY OF)

I HEREBY CERTIFY that a meeting of the Partners of the

_____a partnership existing under the laws of the State

of ______, held on ______, 20____, the following resolution was duly passed 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.

IN WITNESS WHEREOF, I have hereunto set my hand this _____, day of _____,

20_____.

Secretary

(SEAL)

CERTIFICATE (if Joint Venture)

STATE OF)) SS: COUNTY OF)

I HEREBY CERTIFY that a meeting of the Principals of the

_____a joint venture existing under the laws of the State of ______, held on ______, 20____, the following resolution was duly passed and adopted:

"RESOLVED, that ______, as ______ of the Joint Venture, be and is hereby authorized to **execute the Agreement** with the CITY AND BOROUGH OF JUNEAU and this joint venture and that the execution thereof, attested by the _______ shall be the official act and deed of this Joint Venture."

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____.

Secretary

(SEAL)

END OF SECTION

SECTION 00610 - PERFORMANCE BOND

THE CONDITION OF THIS OBLIGATION is such that whereas, the CONTRACTOR has entered into a certain contract with the OWNER, the effective date of which is (CBJ Contracts Office to fill in effective date) ______, a copy of which is hereto attached and made a part hereof for the construction of:

Teal Street Reconstruction CBJ Contract No. BE23-123

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

Teal Street Reconstruction CBJ Contract No. BE23-123

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

CONTRACTOR:

By:_____

(Signature)

(Printed Name)

(Company Name)

(Mailing Address)

(City, State, Zip Code)

SURETY:

By: _____

(Signature of Attorney-in-Fact)

(Printed Name)

(Company Name)

(Mailing Address)

(City, State, Zip Code)

(Affix SURETY'S SEAL)

NOTE: If CONTRACTOR is Partnership, <u>all</u> Partners must execute bond.

END OF SECTION

TEAL STREET RECONSTRUCTION Contract No. BE23-123 PERFORMANCE BOND Page 00610-2

Date Issued:

SECTION 00620 - PAYMENT BOND

THE CONDITION OF THIS OBLIGATION is such that whereas, the CONTRACTOR has entered into a certain contract with the OWNER, the effective date of which is (CBJ Contracts Office to fill in effective date) ______, a copy of which is hereto attached and made a part hereof for the construction of:

Teal Street Reconstruction CBJ Contract No. BE23-123

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

Teal Street Reconstruction CBJ Contract No.BE23-123

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

CONTRACTOR:

By:

(Signature)

(Printed Name)

(Company Name)

(Mailing Address)

(City, State, Zip Code)

SURETY:

By:

(Signature of Attorney-in-Fact)

(Printed Name)

(Company Name)

(Mailing Address)

(City, State, Zip Code)

(Affix SURETY'S SEAL)

NOTE: If CONTRACTOR is Partnership, <u>all</u> Partners must execute bond.

END OF SECTION

Date Issued:

SECTION 00700 - GENERAL CONDITIONS

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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

4.1 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, contact Alec Venechuk, CBJ Material Source Manager, at (907) 586-0874 for the current material rates.
- 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 2008-00061. 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) 586-0874.
- 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 2008-00061 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 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.

- 6.7 PATENT 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.
- 6.8 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.
- 6.10 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	
Equipment	
	1

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

- The Contract Time may only be changed by a Change Order. Any claim for an extension of Α. 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, 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.
- 16.3 RIGHT TO AUDIT. If the CONTRACTOR submits a claim to the OWNER for additional 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.

END OF SECTION

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 two (2) hard copies of the Contract Documents, which will include bound reduced Drawings, and electronic files of the documents in pdf format. Additional copies of contract documents are the responsibility of the contractor.

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
- 13. <u>Standard Specifications for Civil Engineering Projects and Subdivision Improvements</u> December 2003 Edition with current Errata Sheets.
- 14. Technical Specifications
- 15. 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.

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.

Wherever the land use permits are referenced, *delete* and *replace with* the permit number USE2008-00061.

- Delete the last sentence of Paragraph A and replace with the following: "Contact Michael Eich, CBJ Material Source Manager, at (907) 586-0800 ext. 4192 for the current material rates."
- > **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 paragraphs:
 - J. Contractors choosing to mine material from CBJ material sources are also subject to the conditions contained in each site's Multi Sector General Permit for Stormwater Discharges associated with industrial activities (MSGP) and the Storm Water Pollution Prevention Plan (SWPPP).
 - K. Contractors choosing to perform screening or primary crushing shall comply with all requirements of Mine Safety and Health Administration (MSHA) Part 46, and must obtain a Contractor ID number (7000-52) from MSHA.

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. Contact Michael Eich, CBJ Material Source Manager, at (907) 586-0800 ext. 4192 for the current material rates.
- 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 USE2011-00017. 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) 586-0800 ext. 4192.
- 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 2011-00017 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 USE2011-00017.
- 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. USE2011-00017.
- 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.
- I. Contractors choosing to mine material from CBJ material sources are also subject to the conditions contained in each site's Multi Sector General Permit for Stormwater Discharges associated with industrial activities (MSGP) and the Storm Water Pollution Prevention Plan (SWPPP).

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. The CONTRACTOR must provide certification of proper insurance coverage and amendatory endorsements or copies of the applicable policy language affecting coverage required in this agreement to the City and Borough of Juneau. 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" for the Commercial General Liability policy and any other policies, if required in this Section. NOTE: This requirement has changed. The OWNER no longer requires certificates of insurance referencing project names and contract numbers.

Delete paragraph C and *Replace* with the following paragraph C:

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. Failure of CBJ to demand such certificate or other evidence of full compliance with these insurance requirements or failure of CBJ to identify a deficiency from evidence that is provided shall not be construed as a waiver of the obligation of the Contractor to maintain the insurance required by this contract. 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 the CONTRACTOR. 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. 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. **The CONTRACTOR grants a waiver of any right to subrogation against the OWNER by virtue of the payment of any loss under such insurance.** This provision applies regardless of whether or not the OWNER has received a waiver of subrogation endorsement from the insurer.

Workers' Compensation: (under Paragraph 5.2C.1 of the General Conditions) as in accordance with AS 23.30.045:

- a. State: Statutory
- b. 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.

a.	Employers Liability		
	Bodily Injury by Accident:	\$1,000,000.00	Each Accident
	Bodily Injury by Disease:	\$1,000,000.00	Each Employee
	Bodily Injury by Disease:	\$1,000,000.00	Policy Limit

- 1. CONTRACTOR agrees to waive all rights of subrogation against the OWNER for WORK performed under contract.
- 2. 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.
- 2. Commercial General Liability (CGL), including products and completed operations, property damage, bodily injury and personal and advertising injury, with limits no less than \$1,000,000 each occurrence and \$2,000,000 aggregate. (under Paragraph 5.2C.2 of the General Conditions) This insurance policy is to contain, or be endorsed to contain, additional

insured status for the CBJ, its officers, officials, employees, and volunteers. If Additional insured status is provided in the form of an endorsement to the Contractor's insurance, the endorsement shall be at least as broad as ISO Form CG 20 10 11 85 or **both** CG 20 10, CG 20 26, CG 20 33, or CG 20 38; **and** CG 20 37 forms if later revisions used).

3. 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

This insurance policy is to contain, or be endorsed to contain, additional insured status for the CBJ, its officers, officials, employees, and volunteers 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.

Add the following paragraphs:

- C. Builder's Risk: Builder's Risk insurance is not required.
- D. All Subcontractors are required to secure and maintain the insurance coverages listed above, unless otherwise noted.
- E. If the CONTRACTOR maintains higher limits than the minimums shown above, the OWNER requires and shall be entitled to coverage for the higher limits maintained by the CONTRACTOR. Any available insurance proceeds in excess of the specified minimum limits of insurance and coverage shall be available to the OWNER.
- F. Policies shall also specify insurance provided by CONTRACTOR will be considered primary and not contributory to any other insurance available to the OWNER.
- G. Should any of the policies described above be cancelled before the expiration date thereof, notice will be delivered in accordance with the policy provisions.

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

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

C. CONTRACTOR must pay Subcontractors and/or Suppliers within 30 days of receiving payment from the OWNER, if that payment was made for Work performed by the Subcontractor and/or materials received. Failure to pay Subcontractors within 30 days of receiving payment from which Subcontractor

and/or Supplier is to be paid may result in the OWNER initiating debarment proceedings as prescribed in the City and Borough of Juneau Purchasing Code. *The 30 day City and Borough of Juneau requirement does not supersede AS 36.90.210.*

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.

Add the following SGC 16.12.

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, sexual orientation, gender identity, gender expression, 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, sexual orientation, gender identity, gender expression, 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.

Department of Labor and Workforce Development ASKA



of

GOVERNOR MICHAEL J. DUNLEAVY

Division of Employment and Training Services Employment Security Tax

> P.O. Box 115509 Juneau, AK 99811-5509 Relay Alaska (in state): (800) 770-8973 or 7.1.1 Relay Alaska (out of state): (800) 770-8255 Toll free: (888) 448-2937 Phone: (907) 465-2787 Fax: (907) 465-2374

Tax Clearance Request Form for Contractors

Date of request:
Business name of the contractor a Tax Clearance is being requested for:
Business address:
Business contact phone number:
Federal Identification Number:
Alaska Employer Account Number:
Specific time period a tax clearance is being requested for (i.e. beginning and ending date of a subcontract agreement):
Subcontract project name:
Name and address of the person this Tax Clearance is to be returned to:
Comments or additional information:
For agency use only:
Tax Clearance is granted
Tax Clearance is not granted (please have employer contact the department)
No account on file, liability unknown (please have employer contact the department)
Employer has stated no employees, Tax Clearance not required.
Agency representative signature: Date:
Agency representative title:
8 7 T
We are an equal opportunity employer/program. Auxiliary aids and services are available upon request to individuals with disabilities. labor.alaska.gov/estax

SUPPLEMENTARY GENERAL CONDITIONS

Rev. 8/2018

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, is provided in its entirety in SECTION 00830 – APPENDIX A.

The rates that are in effect 10 days prior to the final date for submission of bids are the rates that will apply to this project. These rates will apply for 24 calendar months from the date the project is awarded to a prime contractor. At the end of the initial 24-month period, the latest wage rates issued by the Alaska Department of Labor shall become effective for the next 24-month period. This process repeats itself until the project is completed.

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 to ADOL electronically or paper copies can be submitted by mail. To submit Title 36 documents and certified payrolls electronically, go to https://myalaska.state.ak.us/home/app.

The CONTRACTOR and each Subcontractor shall submit Certified Payrolls to the CBJ Contract Administrator upon request. If the requested Certified Payrolls are not received by the Contract Administrator within five (5) working days, the Contract Administrator will request the Certified Payrolls from ADOL. The CONTRACTOR shall be responsible for all costs charged by ADOL for delivery of the requested Certified Payrolls, including those costs for Subcontractors.

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 Caleb Comas, Contract Administrator City and Borough of Juneau 155 S. Seward Street Juneau, AK 99801 (907) 586-0800 ext. 4196 caleb.comas@juneau.org

TEAL STREET RECONSTRUCTION CBJ Contract No. BE23-123 ALASKA LABOR STANDARDS, REPORTING AND PREVAILING WAGE RATE DETERMINATION Page 00830-1

SECTION 00830 APPENDIX A

Laborers' & Mechanics' Minimum Rates of Pay

Pamphlet 600 Effective September 1, 2022

MINIMUM RATES OF PAY For Laborers and Mechanics

Effective September 1, 2022

Issue 45

PAMPHLET No. 600

Title 36. Public Contracts AS 36.05

DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT

Wage and Hour

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Department of Labor and Workforce Development

Office of the Commissioner

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

September 1, 2022

TO ALL CONTRACTING AGENCIES:

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

This pamphlet identifies current prevailing wage rates for public construction contracts (any construction projects awarded for the State of Alaska or its political subdivisions, such as local governments and certain non-profit organizations). Because these rates may change in a subsequent determination, please be sure you are using the appropriate rates. The rates published in this edition become effective September 1, 2022.

The prevailing wage rates contained in this pamphlet are applicable to public construction projects with a final bid date of September 11, 2022, or later. As the law now provides, these rates will remain stable during the life of a contract or for 24 calendar months, whichever is shorter. **The 24-month period begins on the date the prime contract is awarded.** Upon expiration of the initial 24-month period, the <u>latest</u> wage rates issued by the department shall become effective for a subsequent 24-month period or until the original contract is completed, whichever occurs first. This process shall be repeated until the original contract is completed.

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

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

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

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

Sincerely,

anke >

Dr. Tamika L. Ledbetter Commissioner

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

EXCERPTS FROM ALASKA LAW

Sec. 36.05.005. Applicability.

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

Sec. 36.05.010. Wage rates on public construction.

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

Sec. 36.05.040. Filing schedule of employees, wages paid, and other information.

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

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

- (a) Before commencing work on a public construction contract, the person entering into the contract with a contracting agency shall designate a primary contractor for purposes of this section. Before work commences, the primary contractor shall file a notice of work with the Department of Labor and Workforce Development. The notice of work must list work to be performed under the public construction contract by each contractor who will perform any portion of work on the contract and the contract price being paid to each contractor. The primary contractor shall pay all filing fees for each contractor performing work on the contract, including a filing fee based on the contract price being paid for work performed by the primary contractor's employees. The filing fee payable shall be the sum of all fees calculated for each contractor. The filing fee shall be one percent of each contractor's contract price. The total filing fee payable by the primary contractor under this subsection may not exceed \$5,000. In this subsection, "contractor" means an employer who is using employees to perform work on the public construction contract under the contract or a subcontract.
- (b) Upon completion of all work on the public construction contract, the primary contractor shall file with the Department of Labor and Workforce Development a notice of completion together with payment of any additional filing fees owed due to increased contract amounts. Within 30 days after the department's receipt of the primary contractor's notice of completion, the department shall inform the contracting agency of the amount, if any, to be withheld from the final payment.
- (c) A contracting agency
 - (1) may release final payment of a public construction contract to the extent that the agency has received verification from the Department of Labor and Workforce Development that
 - (A) the primary contractor has complied with (a) and (b) of this section;
 - (B) the Department of Labor and Workforce Development is not conducting an investigation under this title; and
 - (C) the Department of Labor and Workforce Development has not issued a notice of a violation of this chapter to the primary contractor or any other contractors working on the public construction contract; and

- (2) shall withhold from the final payment an amount sufficient to pay the department's estimate of what may be needed to compensate the employees of any contractors under investigation on this construction contract, and any unpaid filing fees.
- (d) The notice and filing fee required under (a) of this section may be filed after work has begun if
 - (1) The public construction contract is for work undertaken in immediate response to an emergency; and
 - (2) The notice and fees are filed not later than 14 days after the work has begun.
- (e) A false statement made on a notice required by this section is punishable under AS 11.56.210.

Sec. 36.05.060. Penalty for violation of this chapter.

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

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

- (a) The advertised specifications for a public construction contract that requires or involves the employment of mechanics, laborers, or field surveyors must contain a provision stating the minimum wages to be paid various classes of laborers, mechanics, or field surveyors and that the rate of wages shall be adjusted to the wage rate under <u>AS 36.05.010</u>.
- (b) Repealed by §17 ch 142 SLA 1972.
- (c) A public construction contract under (a) of this section must contain provisions that
 - (1) the contractor or subcontractors of the contractor shall pay all employees unconditionally and not less than once a week;
 - (2) wages may not be less than those stated in the advertised specifications, regardless of the contractual relationship between the contractor or subcontractors and laborers, mechanics, or field surveyors;
 - (3) the scale of wages to be paid shall be posted by the contractor in a prominent and easily accessible place at the site of the work;
 - (4) the state or a political subdivision shall withhold so much of the accrued payments as is necessary to pay to laborers, mechanics, or field surveyors employed by the contractor or subcontractors the difference between
 - (A) the rates of wages required by the contract to be paid laborers, mechanics, or field surveyors on the work; and
 - (B) the rates of wages in fact received by laborers, mechanics, or field surveyors.

Sec. 36.05.080. Failure to pay agreed wages.

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

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

- (a) The state disbursing officer in the case of a state public construction contract and the local fiscal officer in the case of a political subdivision public construction contract shall pay directly to laborers, mechanics, or field surveyors from accrued payments withheld under the terms of the contract the wages due laborers, mechanics, or field surveyors under <u>AS 36.05.070</u>.
- (b) The state disbursing officer or the local fiscal officer shall distribute to all departments of the state government and to all political subdivisions of the state a list giving the names of persons who have disregarded their obligations to employees. A person appearing on this list and a firm, corporation, partnership, or association in which the person has an interest may not work as a contractor or

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

Sec. 36.05.900. Definition.

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

EXCERPTS FROM ALASKA ADMINISTRATIVE CODE

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

<u>8 AAC 30.900. General definitions</u> (selected excerpts only):

In this chapter and in AS 36

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

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

ADDITIONAL INFORMATION

PER DIEM

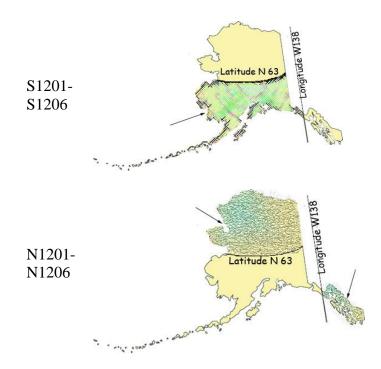
Notice: New regulations relating to board and lodging and per diem went into effect on November 25, 2018. The regulations provide a comprehensive set of requirements for the provision of board and lodging or per diem for workers on remote projects. Please refer to Alaska Administrative Code 8 AAC Chapter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

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

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

LABORER CLASSIFICATION CLARIFICATION

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



APPRENTICE RATES

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

FRINGE BENEFIT PLANS

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

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

SPECIAL PREVAILING WAGE RATE DETERMINATION

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

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

Requests made pursuant to the above should be addressed to:

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

EMPLOYMENT PREFERENCE INFORMATION

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

http://law.alaska.gov/pdf/opinions/opinions 2019/19-005 AK-hire.pdf

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

Anchorage

Juneau

1251 Muldoon Road, Suite 113 Anchorage, Alaska 99504-2098 Phone: (907) 269-4900

Email: statewide.wagehour@alaska.gov PO Box 111149 Juneau, Alaska 99811 Phone: (907) 465-4842

Email: statewide.wagehour@alaska.gov Fairbanks

Regional State Office Building 675 7th Ave., Station J-1 Fairbanks, Alaska 99701-4593 Phone: (907) 451-2886 Email: statewide.wagehour@alaska.gov

LABOR STANDARDS AND SAFETY NOTICE REQUESTS

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

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

DEBARMENT LIST

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

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

Company Name

Debarment Expires

No companies are currently debarred.

Laborers' & Mechanics' Minimum Rates of Pay

Class Code Classification of Laborers & Mechanics	BHR H&W	PEN	TRN	Other	Benefits	THR
Boilermakers						
*See per diem note on last page						
A0101 Boilermaker (journeyman)	46.97 8.57	18.08	1.90	VAC 4.25	SAF 0.34	80.11
Bricklayers & Blocklayers						
*See per diem note on last page						
A0201 Blocklayer	42.01 9.00	10.20	0.62	L&M 0.20		62.03
Bricklayer Marble or Stone Mason Refractory Worker (Firebrick, Plastic, Castable, and Gunite Refractory Applications) Terrazzo Worker Tile Setter						
A0202 Tuck Pointer Caulker	42.01 9.00	10.20	0.62	L&M 0.20		62.03
Cleaner (PCC) A0203 Marble & Tile Finisher	35.84 9.00	10.20	0.62	L&M 0.20		55.86
	55.04 7.00	10.20	0.02	0.20		55.00
A0204 Torginal Applicator	35.84 9.00	10.20	0.62	L&M 0.20		55.86
Carpenters, Region I (North of 63 latitude)						
*See per diem note on last page						
N0301 Carpenter (journeyman)	43.34 10.35	15.82	1.75		SAF 0.20	71.66
Lather/Drywall/Acoustical						
Carpenters, Region II (South of N63 latitude) *See per diem note on last page						
S0301 Carpenter (journeyman)	43.34 10.35	16.36	1.75	L&M 0.20	SAF 0.20	72.20
Lather/Drywall/Acoustical						
Cement Masons *See per diem note on last page						

Class Code	Classification of Laborers & Mechanics	BHR	H&W	PEN	TRN	Other Benefits	THR
	nt Masons						
2	*See per diem note on last page						
						L&M	
A0401	Group I, including:	40.13	8.70	11.80	1.43	0.10	62.16
	Application of Sealing Compound						
	Application of Underlayment						
	Building, General						
	Cement Finisher						
	Cement Mason (journeyman)						
	Concrete						
	Concrete Paving						
	Concrete Polishing						
	Concrete Repair						
	1						
	Curb & Gutter, Sidewalk Curing of All Concrete						
	General Concrete Pour Tender						
	Grouting & Caulking of Tilt-Up Panels						
	Grouting of All Plates						
	Patching Concrete						
	Screed Pin Setter						
	Screeder or Rodder						
	Spackling/Skim Coating						
10402	Group II, including:	40.13	8 70	11.80	1 / 3	L&M 0.10	62.16
A0402	Group II, including.	40.15	0.70	11.00	1.45	0.10	02.10
	Form Setter						
						L&M	
A0403	Group III, including:	40.13	8.70	11.80	1.43	0.10	62.16
	Concrete Saw Cutter Operator (All Control Joints and Self-powered)						
	Curb & Gutter Machine						
	Floor Grinder						
	Pneumatic Power Tools						
	Power Chipping & Bushing						
	Sand Blasting Architectural Finish						
	Screed & Rodding Machine Operator						
	Troweling Machine Operator (all concrete surfaces)					тем	
A 0404	Group IV, including:	40.13	8 70	11.80	1 43	L&M 0.10	62.16
A0404	Group IV, meruding.	40.15	0.70	11.00	1.+5	0.10	02.10
	Acoustical or Imitation Acoustical Finish						
	Application of All Composition Mastic						
	Application of All Epoxy Material						
	Application of All Plastic Material						
	Finish Colored Concrete						
	Gunite Nozzleman						
	Hand Powered Grinder						
Wa	ge benefits key: BHR=basic hourly rate; H&W=health and welfare; IAF=industry advancem	nent fund: LF	G=lega	l fund: I	&M=la	bor/management fun	d:

Class Code Classification of Laborers & Mechanics	BHR H&W PEN	TRN Other Benefits THR
Cement Masons *See per diem note on last page		
A0404 Group IV, including:	40.13 8.70 11.80	L&M 1.43 0.10 62.10
Preparing, scratching and browsing of all ceilings and walls, finished with terrazo or tile Tunnel Worker		
A0405 Group V, including:	40.13 8.70 11.80	L&M 1.43 0.10 62.10
Casting and finishing EIFS Systems Finishing of all interior and exterior plastering Fireproofing (Pryocrete, Cafco, Albi-Clad, sprayed fiberglass) Gypsum, Portland Cement Kindred material and products Operation and control of all types of plastering machines, including power tools and floats, used by the industry Overcoating and maintenance of interior/exterior plaster surfaces Plasterer Veneer plastering process (Rapid Plaster, U.S.G. "Imperial Systems", and Pabcoat Systems") Venetian plaster and color-integrated Italian/Middle-Eastern line plaster		
Culinary Workers		
A0501 Baker/Cook	29.12 7.31 8.68	LEG 45.1
A0503 General Helper	25.82 7.31 8.68	LEG 41.8
Housekeeper Janitor Kitchen Helper		
A0504 Head Cook	29.72 7.31 8.68	LEG 45.7
A0505 Head Housekeeper	26.20 7.31 8.68	LEG 42.19
Head Kitchen Help		
Dredgemen *See per diem note on last page		
A0601 Assistant Engineer	42.76 11.05 13.75	L&M 1.00 0.10 0.05 68.7
Craneman		

Class

Class Code	Classification of Laborers & Mechanics	BHR H&W	PEN	TRN	Other]	Benefits	THR
Dredg							
*	*See per diem note on last page						
<u>A0601</u>	Assistant Engineer	42.76 11.05	13.75	1.00	L&M 0.10	0.05	68.71
	Electrical Generator Operator (primary pump/power barge/dredge) Engineer Welder						
<u>A0602</u>	Assistant Mate (deckhand)	41.60 11.05	13.75	1.00	L&M 0.10	0.05	67.55
<u>A0603</u>	Fireman	42.04 11.05	13.75	1.00	L&M 0.10	0.05	67.99
<u>A0605</u>	Leverman Clamshell	45.29 11.05	13.75	1.00	L&M 0.10	0.05	71.24
<u>A0606</u>	Leverman Hydraulic	43.53 11.05	13.75	1.00	L&M 0.10	0.05	69.48
<u>A0607</u>	Mate & Boatman	42.76 11.05	13.75	1.00	L&M 0.10	0.05	68.71
<u>A0608</u>	Oiler (dredge)	42.04 11.05	13.75	1.00	L&M 0.10	0.05	67.99
Electri *	icians *See per diem note on last page						
A0701	Inside Cable Splicer	42.77 14.23	13.92	0.95	L&M 0.20	LEG 0.15	72.22
<u>A0702</u>	Inside Journeyman Wireman, including:	42.44 14.23	14.16	0.95	L&M 0.20	LEG 0.15	72.13
	Technicians (including use of drones in electrical construction)				I & M	LEG	
A0703	Power Cable Splicer	63.04 14.23	19.08	0.95	0.25	0.15	97.70
<u>A0704</u>	Tele Com Cable Splicer	50.53 14.23	17.17	0.95	L&M 0.20	LEG 0.15	83.23
<u>A0705</u>	Power Journeyman Lineman, including:	61.29 14.23	19.03	0.95	L&M 0.25	LEG 0.15	95.90
	Power Equipment Operator Technician (including use of drones in electrical construction)						
<u>A0706</u>	Tele Com Journeyman Lineman, including:	48.78 14.23	17.11	0.95	L&M 0.20	LEG 0.15	81.42
	Technician (including use of drones in telecommunications construction) Tele Com Equipment Operator						

Class Code	Classification of Laborers & Mechanics	BHR H&W PEN	TRN	Other I	Benefits	THR
<mark>Electri</mark>						
*	See per diem note on last page					
<u>A0707</u>	Straight Line Installer - Repairman	48.78 14.23 17.11	0.95	L&M 0.20		81.42
<u>A0708</u>	Powderman	59.29 14.23 18.97	0.95	L&M 0.25		93.84
<u>A0710</u>	Material Handler	26.57 13.92 5.80	0.15	L&M 0.15	LEG 0.15	46.74
A0712	Tree Trimmer Groundman	29.12 14.23 13.35	0.15	L&M 0.15		57.15
4.0512	L T T	20.05.14.22.12.62	0.15	L&M		(())
	Journeyman Tree Trimmer	38.05 14.23 13.62		0.15 L&M		66.35
<u>A0714</u>	Vegetation Control Sprayer	41.60 14.23 13.73	0.15	0.15	0.15	70.01
<u>A0715</u>	Inside Journeyman Communications CO/PBX	41.02 14.23 13.87	0.95	L&M 0.20	LEG 0.15	70.42
<mark>Elevat</mark> o	or Workers					
*	See per diem note on last page					
<u>A0802</u>	Elevator Constructor	44.21 16.02 20.21	0.65	L&M 0.60	VAC 4.90	86.59
<u>A0803</u>	Elevator Constructor Mechanic	63.16 16.02 20.21	0.65	L&M 0.60		107.65
Heat &	z Frost Insulators/Asbestos Workers					
*	See per diem note on last page					
<u>A0902</u>	Asbestos Abatement-Mechanical Systems	40.32 9.24 11.12	1.20	IAF 0.14	LML 0.05	62.07
<u>A0903</u>	Asbestos Abatement/General Demolition All Systems	40.32 9.24 11.12	1.20	IAF 0.14	LML 0.05	62.07
<u>A0904</u>	Insulator, Group II	40.32 9.24 11.12	1.20	IAF 0.14	LML 0.05	62.07
A0905	Fire Stop	40.32 9.24 11.12	1.20	IAF 0.14	LML 0.05	62.07
IronW *	orkers See per diem note on last page					
<u>A1101</u>	Ironworkers, including:	41.49 9.91 24.95	0.77	L&M 0.20	IAF 0.24	77.56

Bender Operators Bridge & Structural Hangar Doors Hollow Metal Doors Industrial Doors Industrial Doors Machinery Mover Ornamental Reinforcing Rigger Sheeter Signalman Stage Rigger Toxic Haz-Mat Work Welder Al102 Helicopter 42.49 9.91 24.95 0.77 0.20 0.24 78. Helicopter (used for rigging and setting) Tower (energy producing windmill type towers to include nacelle and blades) 1.4 1.4 0.20 0.24 74. A1103 Fence/Barrier Installer 37.99 9.91 24.95 0.77 0.20 0.24 74. A1104 Guard Rail Layout Man 38.73 9.91 24.95 0.77 0.20 0.24 75. Laborers (The Alaska areas north of N63 latitude and east of W138 longitude) *See per diem note on last page *See per diem note on last page 1.4 1.40 0.20 0.20 0.20 6.4 N1201 Group I, including: 33.00 8.95 21.16	Class Code Classification of Laborers & Mechanics	BHR H&W F	PEN '	TRN	Other B	Benefits	THR
A1101 Ironworkers, including: 41.49 9.91 24.95 0.77 0.20 0.24 77. Bridge & Structural Hagar Doors Hollow Metal Doors Industrial Doors Industrial Doors Industrial Doors Industrial Doors Machinery Mover Ornamental Reinforcing Rigger Structural Sheeter Signalman Stage Rigger Toxic Haz-Mat Work Welder 42.49 9.91 24.95 0.77 0.20 0.24 78. Helicopter 42.49 9.91 24.95 0.77 0.20 0.24 78. Helicopter 42.49 9.91 24.95 0.77 0.20 0.24 78. Helicopter (used for rigging and setting) Toxic Haz-Mat Work Welder 1.45 1.45 1.45 A1103 Fence/Barrier Installer 37.99 9.91 24.95 0.77 0.20 0.24 74. A1104 Guard Rail Layout Man 38.73 9.91 24.95 0.77 0.20 0.24 75. Laborers (The Alaska areas north of N63 latitude and east of W138 longitude) ** <	IronWorkers						
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Ornamenial Reinforcing Rigger Sheeter Signalman Stage Rigger Toxic Haz-Mat Work Welder A1102 Helicopter 42.49 9.91 24.95 0.70 0.20 0.24 78. A1103 Fence/Barrier Installer 37.99 9.91 24.95 0.77 0.20 0.24 74. A1104 Guard Rail Layout Man 38.73 9.91 24.95 0.77 0.20 0.24 74. A1105 Fence/Barrier Installer 37.99 9.91 24.95 0.77 0.20 0.24 74. A1104 Guard Rail Layout Man 38.73 9.91 24.95 0.77 0.20 0.24 74. A1105 Guard Rail Installer 38.99 9.91 24.95 0.77 0.20 0.24 74. A1105 Guard Rail Installer 38.99 9.91 24.95 0.77 0.20 0.24 74. A1105 Guard Rail Installer 38.99 9.91 24.95 0.77 0.20 0.24 75. <							
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Name Nam Name Name							
Toxic Haz-Mat Work Welder A1102 Helicopter 42.49 9.91 24.95 0.77 L&M IAF A1102 Helicopter (used for rigging and setting) Tower (energy producing windmill type towers to include nacelle and blades) 100 Fence/Barrier Installer 37.99 9.91 24.95 0.77 L&M IAF A1103 Fence/Barrier Installer 37.99 9.91 24.95 0.77 L&M IAF A1104 Guard Rail Layout Man 38.73 9.91 24.95 0.77 L&M IAF A1105 Guard Rail Installer 38.99 9.91 24.95 0.77 L&M IAF A1104 Guard Rail Installer 38.99 9.91 24.95 0.77 L&M IAF A1105 Guard Rail Installer 38.99 9.91 24.95 0.77 L&M IAF N1201 Group I, including: Aitof N63 latitude and east of W138 longitude) 24.95 0.77 L&M L&M L&M L L L L L L L L L L L L L<							
Welder 42.49 9.91 24.95 0.77 6.20 6.24 78. Helicopter (used for rigging and setting) Tower (energy producing windmill type towers to include nacelle and blades) 5.99 24.95 0.77 6.20 6.24 74. A1103 Fence/Barrier Installer 37.99 9.91 24.95 0.77 6.20 6.24 74. A1104 Guard Rail Layout Man 38.73 9.91 24.95 0.77 6.20 6.24 74. A1105 Guard Rail Installer 38.73 9.91 24.95 0.77 6.20 6.24 74. A1105 Guard Rail Installer 38.73 9.91 24.95 0.77 6.20 6.24 74. A1105 Guard Rail Installer 38.99 9.91 24.95 0.77 6.20 6.24 75. Labor Ferrer (The Alaska areas north of N63 latitude and east of W138 longitude) 8.95 1.40 1.40 0.20 0.24 75. N101 Group I, including: Asphalt Worker (shovelman, plant crew) 33.00 8.95 21.16 1.40 6.20 6.2							
A1102Helicopter42.499.9124.950.77L&MIAFHelicopter (used for rigging and setting) Tower (energy producing windmill type towers to include nacelle and blades)37.999.9124.950.770.200.2474.A1103Fence/Barrier Installer37.999.9124.950.770.200.2474.A1104Guard Rail Layout Man38.739.9124.950.770.200.2474.A1105Guard Rail Installer38.999.9124.950.770.200.2474.A1105Guard Rail Installer38.999.9124.950.770.200.2474.A1105Guard Rail Installer38.999.9124.950.770.200.2474.A1105Guard Rail Installer38.999.9124.950.770.200.2474.A1105Guard Rail Installer38.999.9124.950.770.200.2474.A1105Guard Rail Installer38.999.9124.950.770.200.2474.A1105Guard Rail Installer33.008.9521.161.400.20 </td <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>							
A1102Helicopter42.499.9124.950.770.200.2478.Helicopter (used for rigging and setting) Tower (energy producing windmill type towers to include nacelle and blades)37.999.9124.950.77L&MIAFA1103Fence/Barrier Installer37.999.9124.950.770.200.2474.A1104Guard Rail Layout Man38.739.9124.950.770.200.2474.A1105Guard Rail Layout Man38.739.9124.950.770.200.2474.A1105Guard Rail Installer38.999.9124.950.770.200.2475.Laborers (The Alaska areas north of N63 latitude and east of W138 longitude) *See per diem note on last page33.008.9521.161.400.200.2064.M1201Group I, including:33.008.9521.161.400.200.2064.Asphalt Worker (shovelman, plant crew) Brush Cutter Carpenter Tender or Helper Choke Setter, Hook Tender, Rigger, Signalman Concrete Labor (curb & gutter, chute handler, curing, grouting, screeding) Crusher Plant Laborer4.808.95 <td>Welder</td> <td></td> <td></td> <td></td> <td>TONE</td> <td>LAE</td> <td></td>	Welder				TONE	LAE	
Tower (energy producing windmill type towers to include nacelle and blades) A1103 Fence/Barrier Installer 37.99 9.91 24.95 0.77 L&M IAF A1104 Guard Rail Layout Man 38.73 9.91 24.95 0.77 D.20 0.24 74. A1105 Guard Rail Layout Man 38.73 9.91 24.95 0.77 D.20 0.24 74. A1105 Guard Rail Installer 38.99 9.91 24.95 0.77 D.20 0.24 74. A1105 Guard Rail Installer 38.99 9.91 24.95 0.77 D.20 0.24 75. Laborers (The Alaska areas north of N63 latitude and east of W138 longitude) * * * * * E KM IAF 0.20 0.24 75. Laborers (The Alaska areas north of N63 latitude and east of W138 longitude) *<	A1102 Helicopter	42.49 9.91 2	4.95	0.77			78.56
Tower (energy producing windmill type towers to include nacelle and blades)A1103Fence/Barrier Installer37.999.9124.950.77L&MIAF 0.2074.A1104Guard Rail Layout Man38.739.9124.950.77L&MIAF 0.2074.A1105Guard Rail Layout Man38.739.9124.950.77D.200.2474.A1105Guard Rail Installer38.999.9124.950.77D.200.2475.Laborers(The Alaska areas north of N63 latitude and east of W138 longitude) *See per diem note on last pageKee per diem note on last pageKee per diem note on last pageKee per diem note on last pageL&MLEG 0.20 <td>Helicopter (used for rigging and setting)</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>	Helicopter (used for rigging and setting)						
A1103Fence/Barrier Installer37.999.9124.950.770.200.2474.A1104Guard Rail Layout Man38.739.9124.950.770.200.2474.A1105Guard Rail Installer38.999.9124.950.770.200.2474.A1105Guard Rail Installer38.999.9124.950.770.200.2474.Laborers (The Alaska areas north of N63 latitude and east of W138 longitude) *See per diem note on last pageL&ML&ML&MLEGN1201Group I, including:33.008.9521.161.400.200.2064.Asphalt Worker (shovelman, plant crew) Brush Cutter Camp Maintenance Laborer Carpenter Tender or Helper Choke Setter, Hook Tender, Rigger, Signalman Concrete Labor (curb & gutter, chute handler, curing, grouting, screeding) Crusher Plant Laborer37.999.9124.950.770.200.2064.							
A1104Guard Rail Layout Man38.739.9124.950.770.200.2474.A1105Guard Rail Installer38.999.9124.950.770.200.2475.Laborers (The Alaska areas north of N63 latitude and east of W138 longitude) *See per diem note on last pageL&ML&ML&MLEGN1201Group I, including:33.008.9521.161.400.200.2064.Asphalt Worker (shovelman, plant crew) Brush Cutter Camp Maintenance Laborer Carpenter Tender or Helper Choke Setter, Hook Tender, Rigger, Signalman Concrete Labor (curb & gutter, chute handler, curing, grouting, screeding) Crusher Plant LaborerVIII (Line Maintenance) LaborerVIII (Line Maintenance) Line Maintenance LaborerVIII (Line Maintenance) LaborerVIII (Line Maintenance) LaborerVIII (Line Maintenance) Laborer	A1103 Fence/Barrier Installer	37.99 9.91 2	4.95	0.77			74.06
A1105 Guard Rail Installer L&M IAF A1105 Guard Rail Installer 38.99 9.91 24.95 0.77 0.20 0.24 75. Laborers (The Alaska areas north of N63 latitude and east of W138 longitude) *See per diem note on last page L&M LEG N1201 Group I, including: 33.00 8.95 21.16 1.40 0.20 0.20 64. Asphalt Worker (shovelman, plant crew) Brush Cutter Camp Maintenance Laborer Carpenter Tender or Helper Choke Setter, Hook Tender, Rigger, Signalman Concrete Labor (curb & gutter, chute handler, curing, grouting, screeding) Crusher Plant Laborer	A1104 Guard Rail Layout Man	38.73 9.91 2	4.95	0.77			74.80
A1105 Guard Rail Installer 38.99 9.91 24.95 0.77 0.20 0.24 75. Laborers (The Alaska areas north of N63 latitude and east of W138 longitude) *See per diem note on last page Image: Composition of N63 latitude and east of W138 longitude) Image: Composition of N63 latitude and east of W138 longitude) Image: Composition of N63 latitude and east of W138 longitude) Image: Composition of N63 latitude and east of W138 longitude) Image: Composition of N63 latitude and east of W138 longitude) Image: Composition of N63 latitude and east of W138 longitude) Image: Composition of N63 latitude and east of W138 longitude) Image: Composition of N63 latitude and east of W138 longitude) Image: Composition of N63 latitude and east of W138 longitude) Image: Composition of N63 latitude and east of W138 longitude) Image: Composition of N63 latitude and east of W138 longitude) Image: Composition of N63 latitude and east of W138 longitude) Image: Composition of N63 latitude and east of W138 longitude) Image: Composition of N63 latitude and east of W138 longitude) Image: Composition of N64 latitude and east of W138 longitude) Image: Composition of N64 latitude and east of W138 longitude) Image: Composition of N64 latitude and east of W138 longitude) Image: Composition of N64 latitude and east of W138 longitude) Image: Composition of N64 latitude and east of W138 longitude) Image: Composition of N64 latitude and east of W138 longitude) Image: Composition of N64 latitude and east of W138 longitude) Image: Composition of N64 latitu							
Laborers (The Alaska areas north of N63 latitude and east of W138 longitude) *See per diem note on last page N1201 Group I, including: L&M LEG Asphalt Worker (shovelman, plant crew) Brush Cutter Camp Maintenance Laborer Carpenter Tender or Helper Choke Setter, Hook Tender, Rigger, Signalman Concrete Labor (curb & gutter, chute handler, curing, grouting, screeding) Crusher Plant Laborer	A1105 Guard Dail Installar	28.00 0.01 2	4.05	0 77			75.06
*See per diem note on last page N1201 Group I, including: 33.00 8.95 21.16 1.40 0.20 0.20 64. Asphalt Worker (shovelman, plant crew) Brush Cutter Camp Maintenance Laborer Carpenter Tender or Helper Choke Setter, Hook Tender, Rigger, Signalman Concrete Labor (curb & gutter, chute handler, curing, grouting, screeding) Crusher Plant Laborer	AII05 Guard Rail Installer	38.99 9.91 2	4.95	0.77	0.20	0.24	/3.00
N1201 Group I, including: L&M LEG Asphalt Worker (shovelman, plant crew) 33.00 8.95 21.16 1.40 0.20 0.20 64. Asphalt Worker (shovelman, plant crew) Brush Cutter Camp Maintenance Laborer 7<	Laborers (The Alaska areas north of N63 latitude and east of W138 lo	ongitude)					
N1201Group I, including:33.008.9521.161.400.200.2064.Asphalt Worker (shovelman, plant crew)Brush CutterCamp Maintenance LaborerCarpenter Tender or HelperChoke Setter, Hook Tender, Rigger, SignalmanConcrete Labor (curb & gutter, chute handler, curing, grouting, screeding)Crusher Plant Laborer	*See per diem note on last page						
Asphalt Worker (shovelman, plant crew) Brush Cutter Camp Maintenance Laborer Carpenter Tender or Helper Choke Setter, Hook Tender, Rigger, Signalman Concrete Labor (curb & gutter, chute handler, curing, grouting, screeding) Crusher Plant Laborer	N1201 Group I, including:	33.00 8.95 2	1.16	1.40			64.91
Brush Cutter Camp Maintenance Laborer Carpenter Tender or Helper Choke Setter, Hook Tender, Rigger, Signalman Concrete Labor (curb & gutter, chute handler, curing, grouting, screeding) Crusher Plant Laborer							
Camp Maintenance Laborer Carpenter Tender or Helper Choke Setter, Hook Tender, Rigger, Signalman Concrete Labor (curb & gutter, chute handler, curing, grouting, screeding) Crusher Plant Laborer							
Carpenter Tender or Helper Choke Setter, Hook Tender, Rigger, Signalman Concrete Labor (curb & gutter, chute handler, curing, grouting, screeding) Crusher Plant Laborer							
Choke Setter, Hook Tender, Rigger, Signalman Concrete Labor (curb & gutter, chute handler, curing, grouting, screeding) Crusher Plant Laborer							
Concrete Labor (curb & gutter, chute handler, curing, grouting, screeding) Crusher Plant Laborer	· ·						
Crusher Plant Laborer	Concrete Labor (curb & gutter, chute handler, curing, grouting,						
	Demolition Laborer						

<u>N1201</u>	Group I, including:	33.00	8.95	21.16	1.40	L&M 0.20	LEG 0.20	64.91
	Ditch Digger							
	Dumpman							
	Environmental Laborer (hazard/toxic waste, oil spill)							
	Fence Installer							
	Fire Watch Laborer							
	Flagman							
	Form Stripper							
	General Laborer							
	Guardrail Laborer, Bridge Rail Installer							
	Hydro-seeder Nozzleman							
	Laborer, Building							
	Landscaper or Planter							
	Laying of Mortarless Decorative Block (retaining walls, flowered							
	decorative block 4 feet or less - highway or landscape work)							
	Material Handler							
	Pneumatic or Power Tools							
	Portable or Chemical Toilet Serviceman							
	Pump Man or Mixer Man							
	Railroad Track Laborer							
	Sandblast, Pot Tender							
	Saw Tender							
	Slurry Work							
	Steam Cleaner Operator							
	Steam Point or Water Jet Operator							
	Storm Water Pollution Protection Plan Worker (SWPPP Worker - erosion and sediment control Laborer)							
	Tank Cleaning							
	Utiliwalk & Utilidor Laborer							
	Watchman (construction projects)							
	Window Cleaner							
						L&M	LEG	
N1202	Group II, including:	34.00	8.95	21.16	1.40	0.20	0.20	65.91
	Burning & Cutting Torch							
	Cement or Lime Dumper or Handler (sack or bulk)							
	Certified Erosion Sediment Control Lead (CESCL Laborer)							
	Choker Splicer							

Chucktender (wagon, air-track & hydraulic drills) Concrete Laborer (power buggy, concrete saws, pumpcrete nozzleman, vibratorman) Culvert Pipe Laborer

Cured Inplace Pipelayer

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

Classification of Laborers & Mechanics

*See per diem note on last page

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

BHR H&W PEN TRN Other Benefits THR

Code	Classification of Laborers & Mechanics
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*See per diem note on last page

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

202 Group II, including:	34.00	8.95	21.16	1.40	L&N 0.20
Environmental Laborer (asbestos, marine work)					
Floor Preparation, Core Drilling					
Foam Gun or Foam Machine Operator					
Green Cutter (dam work)					
Gunite Operator					
Hod Carrier					
Jackhammer/Chipping Gun or Pavement Breaker					
Laser Instrument Operator					
Laying of Mortarless Decorative Block (retaining walls, flowered decorative block over 4 feet - highway or landscape work)					
Mason Tender & Mud Mixer (sewer work)					
Pilot Car					
Pipelayer Helper					
Plasterer, Bricklayer & Cement Finisher Tender					

Powderman Helper Power Saw Operator Railroad Switch Layout Laborer Sandblaster

Scaffold Building & Erecting

Sewer Caulker

Sewer Plant Maintenance Man

Thermal Plastic Applicator

Timber Faller, Chainsaw Operator, Filer Timberman

	N1203	Group III,	including:
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Bit Grinder Camera/Tool/Video Operator Guardrail Machine Operator High Rigger & Tree Topper High Scaler Multiplate Plastic Welding Slurry Seal Squeegee Man Traffic Control Supervisor Welding Certified (in connection with laborer's work)

N1204 Group IIIA

Page 8

Asphalt Raker, Asphalt Belly Dump Lay Down Drill Doctor (in the field)

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

LEG 0.20 65.91

L&M LEG

L&M LEG

0.20

70.09

0.20

66.81

0.20

34.90 8.95 21.16 1.40

38.18 8.95 21.16 1.40 0.20

Class

Laborary (The Alaska areas north of NG2 latitude and east of W129 lat	ngitud	.)					
Laborers (The Alaska areas north of N63 latitude and east of W138 log *See per diem note on last page	ngituae	9					
See per diem note on mot page					тем	LEC	
N1204 Group IIIA	38.18	8.95	21.16	1.40	L&M 0.20	0.20	70.09
Driller (including, but not limited to wagon drills, air-track drills,							
hydraulic drills)							
Pioneer Drilling & Drilling Off Tugger (all type drills)							
Pipelayers							
Powderman (Employee Possessor)							
Storm Water Pollution Protection Plan Specialist (SWPPP Specialist)							
Traffic Control Supervisor, DOT Qualified						LEO	
N1205 Group IV	22.57	8.95	21.16	1.40	L&M 0.20	LEG 0.20	54.48
Final Building Cleanup							
Permanent Yard Worker							
					L&M	LEG	
N1206 Group IIIB	41.97	6.24	21.16	1.40	0.20	0.20	71.17
Driller (including, but not limited to wagon drills, air-track drills, hydraulic drills)(over 5,000 hours)							
Federal Powderman (Responsible Person in Charge)							
Grade Checking (setting or transferring of grade marks, line and grade,							
GPS, drones)							
Pioneer Drilling & Drilling Off Tugger (all type drills)(over 5,000 hours))						
Stake Hopper							
Laborers (The area that is south of N63 latitude and west of W138 long	<mark>gitude)</mark>						
*See per diem note on last page	Č /						
					L&M	LEG	
S1201 Group I, including:	33.00	8.95	21.16	1.40	0.20	0.20	64.91
Asphalt Worker (shovelman, plant crew)							
Brush Cutter							
Camp Maintenance Laborer							
Carpenter Tender or Helper							
Choke Setter, Hook Tender, Rigger, Signalman							
Concrete Labor (curb & gutter, chute handler, curing, grouting, screeding)							
Crusher Plant Laborer							
Demolition Laborer							
Ditch Digger							
Dumpman							
Environmental Laborer (hazard/toxic waste, oil spill)							
Environmental Laborer (hazard/toxic waste, oil spill)							

	*See per diem note on last page							
1201	Group I, including:	33.00	8.95	21.16	1.40	L&M 0.20	LEG 0.20	64.9
	Form Stripper							
	General Laborer							
	Guardrail Laborer, Bridge Rail Installer							
	Hydro-seeder Nozzleman							
	Laborer, Building							
	Landscaper or Planter							
	Laying of Mortarless Decorative Block (retaining walls, flowered decorative block 4 feet or less - highway or landscape work)							
	Material Handler							
	Pneumatic or Power Tools							
	Portable or Chemical Toilet Serviceman							
	Pump Man or Mixer Man							
	Railroad Track Laborer							
	Sandblast, Pot Tender							
	Saw Tender							
	Slurry Work							
	Steam Cleaner Operator							
	Steam Point or Water Jet Operator							
	Storm Water Pollution Protection Plan Worker (SWPPP Worker - erosion and sediment control Laborer)							
	Tank Cleaning							
	Utiliwalk & Utilidor Laborer							
	Watchman (construction projects)							
	Window Cleaner							
						L&M	LEG	
202	Group II, including:	34.00	8.95	21.16	1.40	0.20	0.20	65.
	Burning & Cutting Torch							
	Cement or Lime Dumper or Handler (sack or bulk)							
	Certified Erosion Sediment Control Lead (CESCL Laborer)							
	Choker Splicer							
	Chucktender (wagon, air-track & hydraulic drills)							
	Concrete Laborer (nower buggy concrete saws pumpcrete nozzleman							

BHR H&W PEN TRN Other Benefits THR

Concrete Laborer (power buggy, concrete saws, pumpcrete nozzleman,

vibratorman) Culvert Pipe Laborer

Cured Inplace Pipelayer

Environmental Laborer (asbestos, marine work)

Classification of Laborers & Mechanics

Floor Preparation, Core Drilling

Foam Gun or Foam Machine Operator

Green Cutter (dam work)

Gunite Operator

Hod Carrier

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

Class

Code

Class	
Code	Classification of Laborers & Mechanics

Labore	rs (The area that is south of N63 latitude and west of W138 lon	gitude)							
*	See per diem note on last page								
S1202	Group II, including:	34.00	8.95	5 21	.16	1.40	L&M 0.20	LEG 0.20	65.91
	Jackhammer/Chipping Gun or Pavement Breaker								
	Laser Instrument Operator								
	Laying of Mortarless Decorative Block (retaining walls, flowered decorative block over 4 feet - highway or landscape work)								
	Mason Tender & Mud Mixer (sewer work)								
	Pilot Car								
	Pipelayer Helper								
	Plasterer, Bricklayer & Cement Finisher Tender								
	Powderman Helper								
	Power Saw Operator								
	Railroad Switch Layout Laborer								
	Sandblaster								
	Scaffold Building & Erecting								
	Sewer Caulker								
	Sewer Plant Maintenance Man								
	Thermal Plastic Applicator								
	Timber Faller, Chainsaw Operator, Filer								
	Timberman								
<u>S1203</u>	Group III, including:	34.90	8.95	5 21	.16	1.40	L&M 0.20	LEG 0.20	66.81
	Bit Grinder								
	Camera/Tool/Video Operator								
	Guardrail Machine Operator								
	High Rigger & Tree Topper								
	High Scaler								
	Multiplate								
	Plastic Welding								
	Slurry Seal Squeegee Man								
	Traffic Control Supervisor								
	Welding Certified (in connection with laborer's work)								
S1204	Group IIIA	38.18	8.95	5 21	.16	1.40	0.20	0.20	70.09
	Asphalt Raker, Asphalt Belly Dump Lay Down								
	Drill Doctor (in the field)								
	Driller (including, but not limited to wagon drills, air-track drills, hydraulic drills)								
	Pioneer Drilling & Drilling Off Tugger (all type drills)								
	Pipelayers Powderman (Employee Possessor)								

Class Code	Classification of Laborers & Mechanics	BHR	H&W	PEN	TRN	Other	Benefits	THR
	ers (The area that is south of N63 latitude and west of W138 long	<mark>itude)</mark>						
*	*See per diem note on last page							
<u>S1204</u>	Group IIIA	38.18	8.95	21.16	1.40	L&M 0.20	LEG 0.20	70.09
	Traffic Control Supervisor, DOT Qualified							
<u>S1205</u>	Group IV	22.57	8.95	21.16	1.40	L&M 0.20	LEG 0.20	54.48
	Final Building Cleanup Permanent Yard Worker					TONE		
S1206	Group IIIB	41.97	6.24	21.16	1.40	L&M 0.20	LEG 0.20	71.17
	 Driller (including, but not limited to wagon drills, air-track drills, hydraulic drills)(over 5,000 hours) Federal Powderman (Responsible Person in Charge) Grade Checking (setting or transferring of grade marks, line and grade, GPS, drones) Pioneer Drilling & Drilling Off Tugger (all type drills)(over 5,000 hours) Stake Hopper 							
Millw	rights							
×	*See per diem note on last page							
<u>A1251</u>	Millwright (journeyman)	46.48	10.35	12.87	1.10	L&M 0.40	0.05	71.25
<u>A1252</u>	Millwright Welder	47.48	10.35	12.87	1.10	L&M 0.40	0.05	72.25
Painte	ers, Region I (North of N63 latitude)							
	*See per diem note on last page							
N1301	Group I, including:	36.08	9.27	15.10	1.08	L&M 0.07		61.60
	Brush General Painter Hand Taping Hazardous Material Handler Lead-Based Paint Abatement Roll					1.025		
N1302	Group II, including:	36.60	9.27	15.10	1.08	L&M 0.07		62.12
Wa	Bridge Painter Epoxy Applicator General Drywall Finisher Hand/Spray Texturing Industrial Coatings Specialist ge benefits key: BHR=basic hourly rate; H&W=health and welfare; IAF=industry advancemen	fund-1 F	G=lega	l fund: I	&M=lai	hor/manag	rement fun	d:

Class Code Classification of Laborers & Mechanics	BHR H&W PEN TRN Other Benefits THR
Painters, Region I (North of N63 latitude)	
*See per diem note on last page	
N1302 Group II, including:	L&M 36.60 9.27 15.10 1.08 0.07 62.12
Machine/Automatic Taping	
Pot Tender	
Sandblasting	
Specialty Painter	
Spray	
Structural Steel Painter	
Wallpaper/Vinyl Hanger	
N1304 Group IV, including:	40.74 9.27 18.21 1.05 0.05 69.32
Glazier	
Storefront/Automatic Door Mechanic	
N1305 Group V, including:	39.44 9.27 5.00 1.10 0.10 54.91
Carpet Installer	
Floor Coverer	
Heat Weld/Cove Base	
Linoleum/Soft Tile Installer	
N1306 Group VI, including:	50.44 10.23 5.00 1.10 0.10 66.87
Traffic Control Striper	
Painters, Region II (South of N63 latitude)	
*See per diem note on last page	
S1301 Group I, including :	L&M 33.22 9.27 15.95 1.08 0.07 59.59
Brush	
General Painter	
Hand Taping	
Hazardous Material Handler	
Lead-Based Paint Abatement	
Roll	
Spray	
S1302 Group II, including :	L&M 34.47 9.27 15.95 1.08 0.07 60.84
General Drywall Finisher	
Hand/Spray Texturing	
Machine/Automatic Taping	
Wallpaper/Vinyl Hanger	

Class Code Cla	assification of Laborers & Mechanics	BHR H&W PEN TR	N Other 1	Benefits THR
Painters, R	egion II (South of N63 latitude)			
*See	per diem note on last page			
			L&M	
S1303 Grou	ıp III, including :	34.57 9.27 15.95 1.0		60.94
Brid	lge Painter			
	xy Applicator			
-	istrial Coatings Specialist			
	Tender			
San	dblasting			
Spe	cialty Painter			
Stru	ctural Steel Painter			
			L&M	
S1304 Grou	ip IV, including:	40.95 9.27 17.25 1.0	8 0.07	68.62
Glaz	zier			
Stor	efront/Automatic Door Mechanic			
			L&M	
S1305 Grou	ıp V, including:	39.44 9.27 5.00 1.1	0 0.10	54.91
Car	pet Installer			
-	or Coverer			
Hea	t Weld/Cove Base			
Line	bleum/Soft Tile Installer			
S1306 Grou	ıp VI, including:	50.44 10.23 5.00 1.1	0 0.10	66.87
Traf	fic Control Striper			
<mark>Piledrivers</mark>				
*See	per diem note on last page			
			L&M	IAF
A1401 Pileo	lriver	43.34 10.35 15.82 1.7	5 0.20	0.20 71.66
Ass	istant Dive Tender			
	penter/Piledriver			
Rig				
	et Stabber			
Skif	f Operator			
			L&M	IAF
A1402 Pileo	lriver-Welder/Toxic Worker	44.34 10.35 15.82 1.7	5 0.20	0.20 72.66
			L&M	IAF
A1403 Rem	otely Operated Vehicle Pilot/Technician	47.65 10.35 15.82 1.7		0.20 75.97
Sing	gle Atmosphere Suit, Bell or Submersible Pilot			
2			L&M	IAF
A1404 Dive	r (working) **See note on last page	87.45 10.35 15.82 1.7	5 0.20	0.20 115.77

Class Code Classification of Laborers & Mechanics	BHR H&W PEN TRN Other Benefits THR
Piledrivers	
*See per diem note on last page	
A1405 Diver (standby) **See note on last page	L&M IAF 47.65 10.35 15.82 1.75 0.20 0.20 75.94
A1406 Dive Tender **See note on last page	L&M IAF 46.65 10.35 15.82 1.75 0.20 0.20 74.97
A1407 Welder (American Welding Society, Certified Welding Inspector)	L&M IAF 48.90 10.35 15.82 1.75 0.20 0.20 77.22
Plumbers, Region I (North of N63 latitude)	
*See per diem note on last page	
N1501 Journeyman Pipefitter	L&M S&L 45.41 11.75 17.45 1.50 0.65 76.76
Plumber Welder	
Plumbers, Region II (South of N63 latitude) *See per diem note on last page	
S1501 Journeyman Pipefitter	L&M 41.00 11.88 15.27 1.55 0.20 69.90
Plumber Welder	
Plumbers, Region IIA (1st Judicial District) *See per diem note on last page	
	L&M
X1501 Journeyman Pipefitter	41.32 13.37 11.75 2.50 0.24 69.18
Plumber Welder	
Power Equipment Operators *See per diem note on last page	
A1601 Group I, including:	L&M 43.53 11.05 13.75 1.00 0.10 0.05 69.48
Asphalt Roller: Breakdown, Intermediate, and Finish Back Filler	
Barrier Machine (Zipper)	
Beltcrete with Power Pack & similar conveyors	
Bending Machine	
Boat Coxswain	
Bulldozer Cableways, Highlines & Cablecars	
Wage benefits key: BHR=basic hourly rate: H&W=health and welfare: IAF=industry adva	

Class Code C	lassification of Laborers & Mechanics
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BHR H&W PEN TRN Other Benefits THR

Power Equipment Operators

*See per diem note on last page

Group I, including:	43.53 1	<u>11.05</u> 1	3.75	1.00	L&M 0.10	0.05	69.4
Cleaning Machine							
Coating Machine							
Concrete Hydro Blaster							
Cranes (45 tons & under or 150 feet of boom & under (including jib &							
attachments))							
(a) Hydralifts or Transporters, (all track or truck type)							
(b) Derricks							
(c) Overhead							
Crushers							
Deck Winches, Double Drum							
Ditching or Trenching Machine (16 inch or over)							
Drag Scraper, Yarder, and similar types							
Drilling Machines, Core, Cable, Rotary and Exploration							
Finishing Machine Operator, Concrete Paving, Laser Screed, Sidewalk, Curb & Gutter Machine							
Grade Checker and/or Line and Grade including Drone							
Helicopters							
Hover Craft, Flex Craft, Loadmaster, Air Cushion, All-Terrain Vehicle, Rollagon, Bargecable, Nodwell, & Snow Cat							
Hydro Ax, Feller Buncher & similar							
Hydro Excavation (Vac-Truck and Similar)							
Loaders (2 1/2 yards through 5 yards, including all attachments):							
(a) Forklifts (with telescopic boom & swing attachment)							
(b) Front End & Overhead, (2-1/2 yards through 5 yards)							
(c) Loaders, (with forks or pipe clamp)							
(d) Loaders, (elevating belt type, Euclid & similar types)							
Material Transfer Vehicle (Elevating Grader, Pickup Machine, and similar types)							
Mechanic, Welder, Bodyman, Electrical, Camp & Maintenance Engineer							
Micro Tunneling Machine							
Mixers: Mobile type with hoist combination							
Motor Patrol Grader							
Mucking Machine: Mole, Tunnel Drill, Horizontal/Directional Drill							
Operator and/or Shield							
Off-Road Hauler (including Articulating and Haul Trucks)							
Operator on Dredges							
Piledriver Engineer, L.B. Foster, Puller or similar paving breaker							
Plant Operator (Asphalt & Concrete)							
Power Plant, Turbine Operator 200 k.w & over (power plants or combination of power units over 300 k.w.)							
Remote Controlled Equipment							
Scraper (through 40 yards)							

Class Code	Classification of Laborers & Mechanics	BHR H&W PEN	TRN	Other B	Benefits	5 THR
	Equipment Operators					
*	See per diem note on last page					
				L&M		
A1601	Group I, including:	43.53 11.05 13.75	1.00	0.10	0.05	69.48
	• •					
	Service Oiler/Service Engineer					
	Shot Blast Machine					
	Shovels, Backhoes, Excavators with all attachments, and Gradealls (3 yards & under)					
	Sideboom (under 45 tons)					
	Sub Grader (Gurries & similar types)					
	Tack Tractor					
	Truck Mounted Concrete Pump, Conveyor/Tele-belt, & Creter					
	Wate Kote Machine					
	wate Kote Machine			L&M		
A1602	Group IA, including:	45.29 11.05 13.75	1 00	0.10	0.05	71.24
111002		10.29 11.00 10.70	1.00	0.10	0.02	/ 1.2 1
	Camera/Tool/Video Operator (Slipline)					
	Certified Welder, Electrical Mechanic, Camp Maintenance Engineer,					
	Mechanic (over 10,000 hours)					
	Cranes (over 45 tons or 150 feet including jib & attachments)					
	(a) Clamshells & Draglines (over 3 yards)					
	(b) Tower Cranes					
	Licensed Water/Waste Water Treatment Operator					
	Loaders (over 5 yards)					
	Motor Patrol Grader, Dozer, Grade Tractor (finish: when finishing to final grade and/or to hubs, or for asphalt)					
	Power Plants (1000 k.w. & over)					
	Profiler, Reclaimer, and Roto-Mill					
	Quad					
	Scrapers (over 40 yards)					
	Screed					
	Shovels, Backhoes, Excavators with all attachments (over 3 yards)					
	Sidebooms (over 45 tons)					
	Slip Form Paver, C.M.I. & similar types					
	Topside (Asphalt Paver, Slurry machine, Spreaders, and similar types)					
	Topside (Asphalt Laver, Sturry machine, Spreaders, and similar types)			L&M		
A1603	Group II, including:	42.76 11.05 13.75	1.00	0.10	0.05	68.71
111000						
	Boiler - Fireman					
	Cement Hogs & Concrete Pump Operator					
	Conveyors (except those listed in Group I)					
	Hoists on Steel Erection, Towermobiles & Air Tuggers					
	Horizontal/Directional Drill Locator					
	Locomotives, Rod & Geared Engines					
	Mixers Screening, Washing Plant					

Class

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

Power Equipment Operators *See per diem note on last page	
A1603 Group II, including:	L&M 42.76 11.05 13.75 1.00 0.10 0.05 68
Sideboom (cradling rock drill, regardless of size) Skidder	
Trenching Machines (under 16 inches) Water/Waste Water Treatment Operator	
water/waste water Treatment Operator	L&M
A1604 Group III, including:	42.04 11.05 13.75 1.00 0.10 0.05 67.
"A" Frame Trucks, Deck Winches	
Bombardier (tack or tow rig)	
Boring Machine	
Brooms, Power (sweeper, elevator, vacuum, or similar)	
Bump Cutter	
Compressor	
Farm Tractor	
Forklift, Industrial Type	
Gin Truck or Winch Truck (with poles when used for hoisting)	
Hoists, Air Tuggers, Elevators	
Loaders:	
(a) Elevating-Athey, Barber Greene & similar types	
(b) Forklifts or Lumber Carrier (on construction job sites)	
(c) Forklifts, (with tower)	
(d) Overhead & Front End, (under 2-1/2 yards)	
Locomotives: Dinkey (air, steam, gas & electric) Speeders	
Mechanics, Light Duty	
Oil, Blower Distribution	
Posthole Digger, Mechanical	
Pot Fireman (power agitated)	
Power Plant, Turbine Operator, (under 200 k.w.)	
Pumps, Water	
Roller (other than Asphalt)	
Saws, Concrete	
Skid Hustler	
Skid Steer (with all attachments)	
Stake Hopper	
Straightening Machine	
Tow Tractor	
1605 Crown IV including:	L&M
A1605 Group IV, including:	35.83 11.05 13.75 1.00 0.10 0.05 61

Crane Assistant Engineer/Rig Oiler Drill Helper Parts & Equipment Coordinator

Class Code Classification of Laborers & Mechanics	BHR H&W PEN TRN Other Benefits TH
Power Equipment Operators *See per diem note on last page	
A1605 Group IV, including:	L&M 35.83 11.05 13.75 1.00 0.10 0.05 61.7
Spotter Steam Cleaner Swamper (on trenching machines or shovel type equipment)	
Roofers *See per diem note on last page	
See per diem note on last page	
A1701 Roofer & Waterproofer	L&M 44.62 13.75 3.91 0.81 0.10 0.06 63.2
A1702 Roofer Material Handler	L&M 31.23 13.75 3.91 0.81 0.10 0.06 49.8
Sheet Metal Workers, Region I (North of N63 latitude)	
*See per diem note on last page	
N1801 Sheet Metal Journeyman	L&M 49.04 11.85 14.61 1.80 0.12 77.4
 Air Balancing and duct cleaning of HVAC systems Brazing, soldering or welding of metals Demolition of sheet metal HVAC systems Fabrication and installation of exterior wall sheathing, siding, roofing, flashing, decking and architectural sheet metal work Fabrication and installation of heating, ventilation and air conducts and equipment Fabrication and installation of louvers and hoods Fabrication and installation of sheet metal lagging Fabrication and installation of stainless steel commercial or infood service equipment HVAC-R Service Mechanic, servicing and maintaining HVAC Systems Manufacture, fabrication assembly, installation and alteration ferrous and nonferrous metal work Metal lavatory partitions Preparation of drawings taken from architectural and engineer required for fabrication and erection of sheet metal work Sheet Metal shelving Sheet Metal venting, chimneys and breaching Skylight installation 	ditioning dustrial C-R of all

Class Code

Classification of Laborers & Mechanics

74.54

Sheet	Metal Workers, Region II (South of N63 latitude)					
:	*See per diem note on last page					
S1801	Sheet Metal Journeyman	45.35	12.23	14.70	1.83	L&M 0.43
51801	Air Balancing and duct cleaning of HVAC systems Brazing, soldering or welding of metals Demolition of sheet metal HVAC systems Fabrication and installation of exterior wall sheathing, siding, metal roofing, flashing, decking and architectural sheet metal work Fabrication and installation of heating, ventilation and air conditioning ducts and equipment Fabrication and installation of louvers and hoods Fabrication and installation of sheet metal lagging Fabrication and installation of stainless steel commercial or industrial food service equipment HVAC-R Service Mechanic, servicing and maintaining HVAC-R	43.33	12.23	14.70	1.83	0.43
	Systems					
	Manufacture, fabrication assembly, installation and alteration of all ferrous and nonferrous metal work					
	Metal lavatory partitions					
	Preparation of drawings taken from architectural and engineering plans required for fabrication and erection of sheet metal work					

Sheet Metal shelving

Sheet Metal venting, chimneys and breaching Skylight installation

Sprinkler Fitters *See per diem note on last page L&M A1901 Sprinkler Fitter 51.51 10.55 18.15 0.52 0.25 80.98 Surveyors *See per diem note on last page L&M A2001 Chief of Parties 46.16 12.23 13.64 1.15 0.10 73.28 L&M A2002 Party Chief 44.57 12.23 13.64 1.15 0.10 71.69 L&M A2003 Line & Grade Technician/Office Technician/GPS, Drones 43.97 12.23 13.64 1.15 0.10 71.09 L&M A2004 Associate Party Chief (including Instrument Person & Head Chain 41.85 12.23 13.64 1.15 0.10 68.97 Person)/Stake Hop/Grademan

Class Code	Classification of Laborers & Mechanics	BHR H&W	' PEN	TRN	Other Benefits	THR
<mark>Survey</mark>	ors					
*	See per diem note on last page					
					L&M	
A2006	Chain Person (for crews with more than 2 people)	37.51 12.23	13.64	1.15	0.10	64.63
Fundr	Drivers					
	See per diem note on last page					
	bee per diem note on hast page					
A2101	Group I, including:	42.94 12.23	13.64	1.15	L&M 0.10	70.06
	Air/Sea Traffic Controllers					
	Ambulance/Fire Truck Driver (EMT certified)					
	Boat Coxswain					
	Captains & Pilots (air & water)					
	Deltas, Commanders, Rollagons, & similar equipment (when pulling sleds, trailers or similar equipment)					
	Dump Trucks (including rockbuggy, side dump, belly dump, & trucks with pups) over 40 yards up to & including 60 yards					
	Helicopter Transporter					
	Liquid Vac Truck/Super Vac Truck					
	Material Coordinator or Purchasing Agent					
	Ready-mix (over 12 yards up to & including 15 yards) (over 15 yards to be negotiated)					
	Semi with Double Box Mixer					
	Tireman, Heavy Duty/Fueler					
	Water Wagon (250 Bbls and above)					
A 2102	Group 1A including	44 21 12 22	12.64	1 1 5	L&M 0.10	71 22
42102	Group 1A including:	44.21 12.23	13.04	1.13	0.10	71.33
	Dump Trucks (including rockbuggy, side dump, belly dump & trucks with pups) over 60 yards up to & including 100 yards (over 100 yards to be negotiated)					
	Jeeps (driver under load)					
	Lowboys, including tractor attached trailers & jeeps, up to & including					
	12 axles (over 12 axles or 150 tons to be negotiated)					
A2103	Group II, including:	41.68 12.23	13.64	1.15	L&M 0.10	68.80
	All Deltas, Commanders, Rollagons, & similar equipment					
	Batch Trucks (8 yards & up)					
	Batch Trucks (up to & including 7 yards)					
	Boom Truck/Knuckle Truck (over 5 tons)					
	Cacasco Truck/Heat Stress Truck					
	Construction and Material Safety Technician					
	Dump Trucks (including rockbuggy, side dump, belly dump, & trucks with pups) over 20 yards up to & including 40 yards					
	Gin Pole Truck, Winch Truck, Wrecker (truck mounted "A" frame manufactured rating over 5 tons)					

Class Code	Classification of Laborers & Mechanics	BHR H&W PEN	TRN	Other Benefits	THR
<mark>Truck</mark>	Drivers				
×	*See per diem note on last page				
				L&M	
A2103	Group II, including:	41.68 12.23 13.64	1.15	0.10	68.80
	Oil Distributor Driver				
	Partsman				
	Ready-mix (up to & including 12 yards)				
	Stringing Truck				
	Turn-O-Wagon or DW-10 (not self loading)			L&M	
A 2104	Group III, including:	40.86 12.23 13.64	1 1 5	0.10	67.98
A2104	Group III, moluding.	40.00 12.25 15.04	1.15	0.10	07.70
	Boom Truck/Knuckle Truck (up to & including 5 tons)				
	Dump Trucks (including rockbuggy, side dump, belly dump, & trucks				
	with pups) over 10 yards up to & including 20 yards				
	Expeditor (electrical & pipefitting materials)				
	Gin Pole Truck, Winch Truck, Wrecker (truck mounted "A" frame manufactured rating 5 tons & under)				
	Greaser - Shop				
	Semi or Truck & Trailer				
	Thermal Plastic Layout Technician				
	Traffic Control Technician				
	Trucks/Jeeps (push or pull)				
		40.00 10.00 10.00	1 1 7	L&M	(7.40
A2105	Group IV, including:	40.28 12.23 13.64	1.15	0.10	67.40
	Air Cushion or similar type vehicle				
	All Terrain Vehicle				
	Buggymobile				
	Bull Lift & Fork Lift, Fork Lift with Power Boom & Swing Attachment				
	(over 5 tons)				
	Bus Operator (over 30 passengers)				
	Cement Spreader, Dry				
	Combination Truck-Fuel & Grease				
	Compactor (when pulled by rubber tired equipment)				
	Dump Trucks (including rockbuggy, side dump, belly dump, & trucks				
	with pups) up to & including 10 yards				
	with pups) up to & including 10 yards Dumpster				
	Dumpster				
	Dumpster Expeditor (general)				
	Dumpster Expeditor (general) Fire Truck/Ambulance Driver				
	Dumpster Expeditor (general) Fire Truck/Ambulance Driver Flat Beds, Dual Rear Axle				
	Dumpster Expeditor (general) Fire Truck/Ambulance Driver Flat Beds, Dual Rear Axle Foam Distributor Truck Dual Axle				
	Dumpster Expeditor (general) Fire Truck/Ambulance Driver Flat Beds, Dual Rear Axle Foam Distributor Truck Dual Axle Front End Loader with Fork				
	Dumpster Expeditor (general) Fire Truck/Ambulance Driver Flat Beds, Dual Rear Axle Foam Distributor Truck Dual Axle Front End Loader with Fork Grease Truck				

Class

Code Classification of Laborers & Mechanics	BHR H&W PEN TRN	Other B	enefits TH
Fruck Drivers *See per diem note on last page			
		L&M	
A2105 Group IV, including:	40.28 12.23 13.64 1.15	0.10	67
• •			
Loadmaster (air & water operations)			
Lumber Carrier			
Ready-mix, (up to & including 7 yards)			
Rigger (air/water/oilfield) Tireman, Light Duty			
Track Truck Equipment			
Truck Vacuum Sweeper			
Warehouseperson			
Water Truck (Below 250 Bbls)			
Water Truck (straight)			
Water Wagon, Semi			
Water Wagen, Senn		L&M	
V2106 Group V, including:	39.52 12.23 13.64 1.15	0.10	66.
Buffer Truck			
Bull Lifts & Fork Lifts, Fork Lifts with Power Boom & Swing			
Attachments (up to & including 5 tons)			
Bus Operator (up to 30 passengers)			
Farm Type Rubber Tired Tractor (when material handling or pulling			
wagons on a construction project)			
Flat Beds, Single Rear Axle			
Foam Distributor Truck Single Axle			
Fuel Handler (station/bulk attendant)			
Gear/Supply Truck			
Gravel Spreader Box Operator on Truck			
Hydro Seeders, Single axle			
Pickups (pilot cars & all light-duty vehicles)			
Rigger/Swamper			
Tack Truck			
Team Drivers (horses, mules, & similar equipment)			
unnel Workers, Laborers (The Alaska areas north of N63 latitude :	and east of W138 longitud	e)	
*See per diem note on last page		-)	
17201 Crown Linchyding	26 20 8 05 21 16 1 40		LEG
2201 Group I, including:	36.30 8.95 21.16 1.40	0.20	0.20 68.
Brakeman			
Mucker			
Nipper			
Storm Water Pollution Protection Plan Worker (SWPPP Worker -			
erosion and sediment control Laborer)			
Topman & Bull Gang			

Class

Class Code	Classification of Laborers & Mechanics	BHR	H&V	V PEN	TRN	Other	Benefits	THR
	l Workers, Laborers (The Alaska areas north of N63 latitude and	d east	of W	138 loi	ngitud	le)		
~	See per diem note on last page							
N2201	Group I, including:	36.30	8.95	21.16	1.40	L&M 0.20	LEG 0.20	68.21
	Tunnel Track Laborer					L&M	LEG	
N2202	Group II, including:	37.40	8.95	21.16	1.40	0.20	0.20	69.31
	Burning & Cutting Torch Certified Erosion Sediment Control Lead (CESCL Laborer) Concrete Laborer Floor Preparation, Core Drilling Jackhammer/Chipping Gun or Pavement Breaker Laser Instrument Operator Nozzlemen, Pumpcrete or Shotcrete Pipelayer Helper							
N2203	Group III, including:	38.39	8.95	21.16	1.40	L&M 0.20	LEG 0.20	70.30
	Miner Retimberman					L&M	LEG	
N2204	Group IIIA, including:	42.00	8.95	21.16	1.40		0.20	73.91
	Asphalt Raker, Asphalt Belly Dump Lay Down Drill Doctor (in the field) Driller (including, but not limited to wagon drills, air-track drills, hydraulic drills) Pioneer Drilling & Drilling Off Tugger (all type drills) Pipelayer Powderman (Employee Possessor) Storm Water Pollution Protection Plan Specialist (SWPPP Specialist) Traffic Control Supervisor, DOT Qualified					I P.M	LEC	
N2206	Group IIIB, including:	46.17	6.24	21.16	1.40	L&M 0.20	LEG 0.20	75.37
	Driller (including, but not limited to wagon drills, air-track drills, hydraulic drills)(over 5,000 hours) Federal Powderman (Responsible Person in Charge) Grade Checking (setting or transferring of grade marks, line and grade, GPS, drones) Pioneer Drilling & Drilling Off Tugger (all type drills)(over 5,000 hours) Stake Hopper							

Class	
Code	Classification of Laborers & Mechanics

	el Workers, Laborers (The area that is south of N63 latitude and *See per diem note on last page	mest 0.		o iong	,uut	,		
						L&M	LEG	
52201	Group I, including:	36.30	8.95	21.16	1.40	0.20	0.20	68.2
	Brakeman							
	Mucker							
	Nipper							
	Storm Water Pollution Protection Plan Worker (SWPPP Worker - erosion and sediment control Laborer)							
	Topman & Bull Gang							
	Tunnel Track Laborer							
S2202	Group II, including:	37.40	8.95	21.16	1.40	L&M 0.20	LEG 0.20	69.3
	Burning & Cutting Torch							
	Certified Erosion Sediment Control Lead (CESCL Laborer)							
	Concrete Laborer							
	Floor Preparation, Core Drilling							
	Jackhammer/Chipping Gun or Pavement Breaker							
	Laser Instrument Operator							
	Nozzlemen, Pumpcrete or Shotcrete							
	Pipelayer Helper							
						L&M	LEG	
S2203	Group III, including:	38.39	8.95	21.16	1.40	0.20	0.20	70.3
	Miner							
	Retimberman							
						L&M	LEG	
S2204	Group IIIA, including:	42.00	8.95	21.16	1.40	0.20	0.20	73.9
	Asphalt Raker, Asphalt Belly Dump Lay Down							
	Drill Doctor (in the field) Driller (including, but not limited to wagon drills, air-track drills,							
	hydraulic drills)							
	Pioneer Drilling & Drilling Off Tugger (all type drills)							
	Pipelayer							
	Powderman (Employee Possessor)							
	Storm Water Pollution Protection Plan Specialist (SWPPP Specialist)							
	Traffic Control Supervisor, DOT Qualified						LEG	
S2206	Group IIIB, including:	46.17	6.24	21.16	1.40	L&M 0.20	LEG 0.20	75.3
	Driller (including, but not limited to wagon drills, air-track drills, hydraulic drills)(over 5,000 hours)							
	Federal Powderman (Responsible Person in Charge)							
	Grade Checking (setting or transferring of grade marks, line and grade,							
	GPS, drones)							
	Pioneer Drilling & Drilling Off Tugger (all type drills)(over 5,000 hours)						
Wa	ge benefits key: BHR=basic hourly rate; H&W=health and welfare; IAF=industry advanceme	ent fund: I	EG=lea	al fund: I	&M=la	hor/manage	ement fun	d٠

Class Code	Classification of Laborers & Mechanics	BHR H&W PEN	TRN	Other B	enefits	THR
	I Workers, Laborers (The area that is south of N63 latitude See per diem note on last page	and west of W138 long	itude))		
<u>S2206</u>	Group IIIB, including:	46.17 6.24 21.16	1.40	L&M 0.20	LEG 0.20	75.37
	Stake Hopper					
	I Workers, Power Equipment Operators See per diem note on last page					
<u>A2207</u>	Group I	47.88 11.05 13.75	1.00	L&M 0.10	0.05	73.83
A2208	Group IA	49.82 11.05 13.75	1.00	L&M 0.10	0.05	75.77
A2209	Group II	47.04 11.05 13.75	1.00	L&M 0.10	0.05	72.99
A2210	Group III	46.24 11.05 13.75	1.00	L&M 0.10	0.05	72.19
	Group IV	39.41 11.05 13.75	1.00	L&M 0.10	0.05	65.36

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

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

Shipyard Rates Addendum

This Addendum was developed to address the specialized industry of shipbuilding/repair in Alaska, as it relates to public works. For the purposes of providing rates for shipyard work the Department is adopting Shipyard rates from the state of Washington (King County). These rates only apply to work done in shipbuilding/repair in Alaska, under a public contract. This addendum will be updated two times a year to coincide with the corresponding Issue of *Laborers and Mechanics MINIMUM RATES OF PAY*.

Class Code		BHR H&W PEN TRN Other Benefits THR				
Shipyard Workers *See total hourly(THR) note below						
A2300	Ship Building/Repair Boilermaker	47.45				
A2305	Ship Building/Repair Carpenter	47.35				
A2310	Ship Building/Repair Crane Operator	45.06				
A2315	Ship Building/Repair Electrician	48.92				
A2320	Ship Building/Repair Heat & Frost Insulator	82.02				
A2325	Ship Building/Repair Laborer	47.35				
A2330	Ship Building/Repair Mechanist	47.35				
A2335	Ship Building/Repair Operating Engineer	45.06				
A2340	Ship Building/Repair Painter	47.35				
A2345	Ship Building/Repair Pipefitter	47.35				
A2350	Ship Building/Repair Rigger	47.45				
A2355	Ship Building/Repair Sheet Metal	47.35				
A2360	Ship Building/Repair Shipwright	47.35				
A2365	Ship Building/Repair Warehouse	45.06				

*The THR includes the base hourly rate (BHR) and fringe benefits. Employers must pay a BHR and fringe benefit package that adds up to the THR. Fringe benefits included in the THR can be paid to employees in three ways; paid into a union trust fund, into an approved benefit plan, or paid directly on the paycheck as gross wages.

PART 1 – GENERAL

1.1 INDEX OF PERMITS

A. CONTRACTOR shall prepare a Stormwater Pollution Prevention Plan for Construction Activities, obtain an Excavation and Dewatering Permit, and secure all other permits required to complete the Work.

PART 2 – PRODUCTS (Not Used)

PART 3 – EXECUTION (Not Used)

END OF SECTION

PART 1 – GENERAL

1.1 STANDARD DETAILS

- A. Whenever references are made to the Standard Drawings or Standard Details in these plans of Specifications the intent is to refer to the current City and Borough of Juneau Standard Details (currently the 4th Edition dated August 2011), copies of which may be purchased from the CBJ Engineering Department.
- B. City and Borough of Juneau Standard Details which specifically apply to the Project include but are not limited to the following:

LIST OF DETAILS

STANDARD DETAIL	
NO.	NAME OF DETAIL
104A	CULVERT HEADWALL WITH HINGED TRASH RACK
104B	CULVERT HEADWALL WITHOUT HINGED TRASH RACK
105	DRIVEWAY CURB CUT
106	ACCESSIBLE SIDEWALK RAMP
111A	CONCRETE SIDEWALK, TYPE I CURB & GUTTER
116	CANTILEVERED SINGLE MAILBOX
127A	SIGN ASSEMBLY SINGLE-POST
203	SANITARY SEWER MANHOLE TYPES I & II
205	MANHOLE HEIGHTS
206A	STANDARD MANHOLE COVER & FRAME
209	MANHOLE CONNECTION DETAILS
213	SANITARY SEWER SERVICE LATERAL
215	SANITARY SEWER CROSSING
218	COUPLING FOR DISSIMILAR SANITARY SEWER PIPES
303	STORM DRAIN MANHOLE TYPES I & II
304A	TYPE III CATCH BASIN
304B	TYPE IV CATCH BASIN
305	OIL-WATER SEPARATOR STORM DRAIN MANHOLE
306	STORM DRAIN MANHOLE COVER & FRAME
307	STORM DRAIN SERVICE LATERAL
308	CURB INLET FRAME, GRATE & HOOD
309	LOCAL DEPRESSION AT CATCH BASIN
310	AREA DRAIN DETAIL
403	FIRE HYDRANT
404	HYDRANT GUARD POSTS
405	HYDRANT PAD
407	MAINLINE VALVE
412	RIGID INSULATION

SECTION 00853 – STANDARD DETAILS

PART 2 – PRODUCTS (Not Used)

PART 3 – EXECUTION (Not Used)

END OF SECTION

<u>The Standard Specifications for Civil Engineering Projects and Subdivision Improvements</u> December 2003 Edition, with fourteen 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. <u>The Standard Specifications for Civil Engineering Projects and Subdivision Improvements</u> 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: <u>www.juneau.org/engineering</u>.

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Special Provisions - Table of Contents

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 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 WORK covered in the Contract Documents generally includes: Reconstruction of Teal Street from Jordan Avenue to Crest Street. WORK will include replacement of the water main and services, replacement of 18-inch AC sanitary sewer main and services, and installation of a new storm drain system. WORK will also include replacement of the roadway subbase to a depth of 24inches, resurfacing with asphalt cement pavement, and the addition of curb and gutter with sidewalk along both sides of the roadway, and street lights along one side.
- B. SITE OF WORK. The site of the WORK is on Teal Street in the Valley Centre subdivision in Juneau, 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. Temporary Traffic Control Plan (TTCP) in accordance with the Manual of Uniform Traffic Control Devices – Millennium Edition (MUTCD) and the current AKDOT&PF supplements.
 - h. Traffic Control Personnel certifications
 - 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 schedules.

- c. Transmittal, review, and distribution of CONTRACTOR's submittals.
- d. Processing applications for payment.
- e. Maintaining record documents.
- f. Critical WORK sequencing.
- 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. The 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) 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 the WORK:
 - 1. Maintenance of all services through the Project area including power, water, storm and sanitary sewers, garbage pickup, mail delivery, and emergency vehicles.
 - 2. Repair or replacement of existing adjacent facilities including piping, landscaping, steel, timber, concrete and asphalt items, if damaged by the CONTRACTOR.
 - 3. Final clean-up and site restoration.
 - 4. All WORK necessary for coordination of work to be accomplished by the private utility companies and property owners within the Project limits.
 - 5. Removal and replacement of survey monuments and markers disturbed during construction, whether shown on the Drawings or not.
 - 6. Watering of the roadway as necessary for dust control.
 - 7. Removal and disposal of the existing sign assemblies within the Project limits not shown to remain, or as indicated on the Drawings.
 - 8. All fittings required for storm, water and sanitary sewer pipes.

TEAL STREET RECONSTRUCTION Contract No. BE23-123 SPECIAL PROVISIONS Page 5

- 9. Usable material from excavation placed in the roadway under the shot rock borrow or within the fill slope outside the limits of the road and sidewalk prism.
- 10. Crack sealing all joints following paving operations.
- 11. All WORK required to notify utility users of pending utility shutdowns.
- 12. All sawcutting required for connections to existing asphalt pavement surfaces, and concrete curbs.
- 13. Shoring and supporting existing above ground utility poles.
- 14. Removal and disposal of existing thrust blocks.
- 15. Furnishing and installing any temporary construction fencing necessary during construction.
- 16. Regrading gravel driveways beyond back of existing curb.
- 17. Removal of sidewalk, curb and gutter at Crest Street per plan.
- 18. Removal and reinstalling "St. Vincent's" sign at STA "T" 18+75.00 RT.
- 19. Dewatering for water, sanitary sewer, and storm sewer installation.
- 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 TRAFFIC CONTROL (Pay Item No. 1550.1) PRICE BASED ON LUMP SUM PAY UNIT
 - A. Measurement for this Item will be made as a Lump Sum Pay Unit for completion of all Traffic Control in accordance with the Contract Documents.
 - B. WORK will include, but is not limited to, the preparation and implementation of all temporary traffic control plans and detours both within and adjacent to Teal Street, and other streets as required.
 - C. Payment for Traffic Control will be made at the amount shown on the Bid Schedule under Pay Item No. 1550.1, which payment will constitute full compensation for all WORK described in Section 01550 Site Access and Storage, as shown on the Drawings, and as directed by the ENGINEER.

- 1.4 PEDESTRIAN BARRIERS (Pay Item No. 1550.2) PRICE BASED ON LUMP SUM PAY UNIT
 - A. Measurement for payment for Pedestrian Barriers 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 will include, but is not limited to, provision, installation, relocation, maintenance, signage and all other WORK required to separate the American's with Disabilities Act accessible routes from the work zone.
 - C. WORK under this Pay Item will also include all materials, equipment and labor required to construct and maintain all accessible routes through and across the corridor.
 - D. Payment for Pedestrian Barriers will be made at the amount shown on the Bid Schedule under Pay Item No. 1550.2, which payment will constitute full compensation for all WORK described in Section 01550 – Site Access and Storage, as shown on the Drawings, and as directed by the ENGINEER.

1.5 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 all requirements described in Section 01570, including but not limited 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.
- C. Payment for Erosion and Sediment Control will be made at the amount shown on the Bid Schedule under Pay Item No. 1570.1, which payment will constitute full compensation for all WORK described in Section 01570 – Erosion and Sediment Control, as shown on the Drawings and as directed by the ENGINEER.

1.6 EXCAVATION AND DEWATERING PERMIT (Pay Item No. 1570.2) PRICE BASED ON LUMP SUM PAY UNIT

- A. Measurement for payment for Excavation and Dewatering Permit 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 Pay Item includes all WORK required to obtain and implement an Excavation Dewatering Permit from the Alaska Department of Environmental Conservation associated with contaminated site #27405 at the Saint Vincent Depaul property on Teal Street.
- C. Payment for Excavation and Dewatering Permit will be made at the amount shown on the Bid Schedule under Pay Item No. 1570.2, which payment will constitute full compensation for all WORK described in Section 01570 – Erosion and Sediment 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 as 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 (following pavement and concrete curbing, slabs or sidewalk removal where present), with the lower limits determined by a line 24" below finish grade elevations, 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 to other WORK under the contract:
 - 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. Roadbed material scarified in place and not removed.
 - 6. Material excavated when benching.
 - 7. Slide or slipout material attributable to the carelessness 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 new roadway and sidewalk as embankment or selected embankment, 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. Shot Rock Borrow 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 neatline 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 as directed by the ENGINEER will be deducted from borrow quantities for pay purposes.

- B. No Shot Rock Borrow shall be measured for payment below a line 24 inches below finish grade.
- C. 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 as and as directed by the ENGINEER.
- 2.3 SIDESLOPES AND DITCH GRADING (Pay Item No. 2202.3) PRICE BASED ON LUMP SUM PAY UNIT
 - A. Measurement for payment for Sideslopes and Ditch Grading will be based on the completion of the entire WORK as a Lump Sum Pay Unit, complete, including all excavation and placement of useable material from excavation into the sideslope, ditch, and swale areas, all in accordance with the requirements of the Contract Documents.
 - B. This Pay Item will include all WORK, including excavation, backfill with usable material from roadway and trench excavation, and all grading outside the shoulder limits as necessary to construct sideslopes, ditches, swales, and other graded areas, as shown on the Drawings and as directed by the ENGINEER.
 - C. In addition to the ditches shown along Jordan Avenue and Teal Street, this WORK also includes the approximate 175-ft of ditching along the east side of Alpine (referenced, but not fully shown on sheet C-201).
 - D. Removal of organics from existing ditchline prior to placement of useable material will be considered incidental.
 - E. Furnishing and placing 20 cubic yards of 6-inch minus shot rock borrow along the foreslope and backslope of the ditch at the outfall of SD-1 will be considered part of the WORK under this Pay Item.
 - F. Payment for Sideslopes and Ditch Grading will be made at the amount named 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 ROAD CLEANING AND MINING AREA RESTORATION GUARANTEE (Pay Item No. 2202.4) PRICE BASED ON CONTINGENT SUM PAY UNIT

- A. Measurement for this Item will be made as a Contingent Sum Pay Unit for satisfactory execution of Road Cleaning and Mining Area Restoration.
- B. 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 operations to and from the project job site and also CBJ material source operations. It is the intent that the traveled public way be kept clean (including dust) and to avoid unsafe traffic conditions. If the CONTRACTOR fails to perform necessary road cleaning in a timely manner, no later than

the end of each day, the CBJ may hire outside forces to perform the WORK and deduct the cost from this contract, beginning with the funds remaining within this contingent sum pay item.

- C. The CONTRACTOR shall be responsible for restoration of their work area and/or mining area in accordance to the conditions and specific operating agreements of the material source used. If the CONTRACTOR fails to perform the required mining area restoration prior to project completion, the CBJ may hire outside forces to perform the WORK and deduct the cost from this contract, beginning with the funds remaining within this contingent sum pay item.
- D. Release of final payment for Road Cleaning and Mining Area Restoration Guarantee will be made upon determination of completeness by the ENGINEER after deduction of OWNER incurred costs for necessary road cleaning and/or mining area restoration not completed in a timely manner by the CONTRACTOR.
- E. Payment for Road Cleaning and Mining Area Restoration 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 02202 Excavation and Embankment, as shown on the Drawings and as directed by the ENGINEER.
- 2.5 2-INCH MINUS SHOT ROCK w/ BASE COURSE (Pay Item No. 2204.1) PRICE BASED ON QUANTITY, CUBIC YARD
 - A. 2-Inch Minus Shot Rock w/ 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 neatline 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 w/Base Course quantities for pay purposes.
 - B. Base Course, Grading D-1, may be used under the driveways and curbing as a substitute for 2-Inch Minus Shot Rock w/ Base Course as a no cost change. This material will be measured for payment under this Pay Item.
 - C. Water needed for compaction and added to the base material on the grade will be considered incidental.
 - D. 2-Inch Minus Shot Rock will be placed and compacted into a layer 4- inches to 5-inches thick, and covered with Base Course, to a total thickness of 6-inches within the roadway. Both of these materials will be measured for payment under this Pay Item.
 - E. Base Course, Grading D-1 installed under curb and gutter, hydrant pads, driveways and additional Base Course, Grading D-1 at locations as shown in the Drawings will also be measured for payment under this Pay Item.
 - F. Payment for 2-Inch Minus Shot Rock w/ 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 02204 – Base Course, as shown on the Drawings and as directed by the ENGINEER.

2.6 LOCATE SANITARY SEWER SERVICES (Pay Item No.2401.1) PRICE BASED ON LUMP SUM PAY UNIT

- A. Measurement and payment for Locate Sanitary 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. The WORK under this Pay Item includes all excavation and backfill, and other WORK necessary to determine the location of all existing sanitary sewer services prior to installation of the new sewer services. Elevation checks shall be made with new water and storm drain piping to determine if pipe conflicts exist. If pipe conflicts exist, data shall be submitted to the ENGINEER so that a solution can be provided to the Contractor.
- C. Payment for Locate Sanitary Sewer Services 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 02401 – Sanitary Sewer Pipe, as shown on the Drawings and as directed by the ENGINEER.

2.7 SANITARY SEWER PIPE 21-INCH PVC (Pay Item No. 2401.2) PRICE BASED ON QUANTITY, LINEAR FEET

- A. Sanitary Sewer Pipe 21-Inch PVC 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. Trench excavation, bedding, backfill, and warning tape, will not be paid for but will be considered incidental to the WORK.
- C. Connection of SS-4 to the existing 21" PVC sewer main at Crest Street will be considered incidental to this WORK.
- D. The horizontal length of the two 21" PVC long-radius sweeps needed for the final connection on Jordan Avenue, and all 21-inch LSS-1 Stainless Steel couplings required shall not be measured for payment under this Pay Item but shall be considered part of the WORK under Pay Item 2401.3.
- E. All WORK required to prepare and execute each of the sanitary sewer shutdowns in order to switch the sanitary sewer over to the new pipe and manholes will be considered part of the WORK under Pay Item 2401.4.
- F. Payment for Sanitary Sewer Pipe 21-Inch PVC 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 02401 Sanitary Sewer Pipe, as shown on the Drawings and as directed by the ENGINEER.
- 2.8 SANITARY SEWER SERVICE LATERAL WITH CLEANOUT, 6-INCH (Pay Item No. 2401.3) PRICE BASED ON QUANTITY, EACH

- A. Sanitary Sewer Service Lateral with Cleanout will be measured per each, complete in place, including pipe, wyes, cleanouts and ductile iron or cast iron frame and cover, with "SEWER" cast on it, fittings and adapters, as required to connect to the mainline sewer and existing service at the property line in accordance with the requirements of the Contract Documents.
- B. Trench excavation, bedding, backfill, warning tape, trench shoring and bracing, will be considered incidental to the WORK.
- C. Payment for Sanitary Sewer Service Lateral with Cleanout, 6-Inch will be made at the Unit Price named 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.
- 2.9 SANITARY SEWER SWITCHOVER (Pay Item No.2401.4) PRICE BASED ON LUMP SUM PAY UNIT
 - A. Measurement and payment for Sanitary Sewer Switchover 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. The WORK under this Pay Item includes the preparation and execution of each sanitary sewer shutdown plan required to switch the sanitary sewer over to the new pipe and manholes. WORK will include all night work, excavation and backfill, temporary fittings, bypass pumping and/or provision of additional sanitary sewer storage capacity, and all coordination with the ENGINEER and CBJ Wastewater Division as required.
 - C. The two 21" PVC long-radius sweeps needed for the final connection on Jordan Avenue, and all 21-inch LSS-1 Stainless Steel couplings required shall also be considered part of the WORK under this Pay Item and shall not be measured for payment under Pay Item 2401.1.
 - D. Payment for Sanitary Sewer Switchover will be made at the Unit Price named in the Bid Schedule under Pay Item No, 2401.4, 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.
- 2.10 SANITARY SEWER MANHOLE, TYPE II (Pay Item No. 2402.1) PRICE BASED ON QUANTITY, EACH
 - A. Sanitary Sewer Manhole, Type II will be measured per each, complete in place, including new frame and cover, waterproofing, new adjusting rings, new recycled rubber rings, and all earthwork for manholes MH-1, MH-2, and MH-3.
 - B. All WORK required to reset the frame and cover to grade if not installed to proper grade tolerances during paving operations, 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 II 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 WORK described in Section 02402–Sanitary Sewer Manholes and Cleanouts, as shown on the Drawings, and as directed by the ENGINEER.

2.11 STORM SEWER SERVICE LATERAL, 6-INCH PVC (Pay Item No. 2501.1) PRICE BASED ON QUANTITY, LINEAR FEET

- A. Storm Sewer Service Lateral, including all coupling bands, bends and other items necessary for the proper joining of the culvert pipe sections, will be measured by the actual length of pipe installed in linear feet.
- B. WORK will include all culvert pipe, including all saddle tees, coupling bands, bends and other items necessary for the proper joining of the culvert pipe sections, as well as connections to catch basins and existing downspouts as shown on the Drawings.
- C. Trench excavation, bedding, backfill and imported backfill will not be measured for payment, but will be considered incidental to the WORK.
- D. Payment for Storm Sewer Service Lateral, 6-Inch PVC 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.
- 2.12 12-INCH PIPE CULVERT (Pay Item No. 2501.2) PRICE BASED ON QUANTITY, LINEAR FOOT
 - A. Culvert 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. Both corrugated polyethylene pipe and high pressure polyvinyl chloride pipe will be measured for payment under this Pay Item.
 - D. The 8-inch PVC culvert SD-8 will be measured for payment under this Pay Item.
 - E. Branch connections, coupling adapters and bends will be included in the linear foot measurement for conduit.
 - F. Trench excavation, bedding, backfill and imported backfill will not be measured for payment, but will be considered incidental to the WORK.
 - 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 18-INCH PIPE CULVERT (Pay Item No. 2501.3) 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. Both corrugated polyethylene pipe and high pressure polyvinyl chloride pipe will be measured for payment under this Pay Item.
- D. Branch connections, coupling adapters and bends will be included in the linear foot measurement for conduit.
- E. Trench excavation, bedding, backfill and imported backfill will not be measured for payment, but will be considered incidental to the WORK.
- F. Payment for 18-Inch Pipe Culvert will be made at the Unit Price named in the Bid Schedule under Pay Item No. 2501.3, 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.

2.14 6-INCH UNDERDRAIN (Pay Item No 2501.4) PRICE BASEC ON QUANTITY, LINEAR FOOT

- A. Underdrain pipe, including all coupling bands and other items necessary for the proper joining of the pipe sections, will be measured by the staked length.
- B. Underdrain pipe will be measured from center of structures or ends of pipe, as shown on the Drawings, or as directed by the ENGINEER.
- C. Pipe perforations, 2-inch minus shot rock and filter cloth will not be measured for payment but will be considered incidental to the WORK under this Pay Item.
- D. WORK will include all excavation, bedding and backfill required.
- E. 6-Inch Underdrain shall be installed at the location shown on the Drawings, or as directed by the ENGINEER.
- F. Payment for 6-Inch Underdrain 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 transition slab, if required, and all earthwork, adjusting rings, frames and grates.
- B. Installation of the Oil/Water Separator at CB-9 will be considered incidental to this WORK.
- C. 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 III (Pay Item No. 2502.2) PRICE BASED ON QUANTITY, EACH

- A. Catch Basins, Type III will be measured per each, complete in place, including all earthwork, frames and grates or covers.
- B. WORK will include the associated connections to the existing inlet and outlet culverts as required.
- C. Installation of the Oil/Water Separator at CB-1 will be considered incidental to this WORK.
- D. Connection to the existing 12-inch corrugated metal pipe at CB-16 will be considered incidental to this WORK.
- E. Payment for Catch Basin, Type III 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 IV (Pay Item No. 2502.3) PRICE BASED ON QUANTITY, EACH
 - A. Catch Basins, Type IV will be measured per each, complete in place, including all earthwork, frames and grates or covers.
 - B. WORK will include the associated connections to the existing inlet and outlet culverts as required.
 - C. Payment for Catch Basin, Type IV 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 TRENCH DRAIN (Pay Item No. 2502.4) PRICE BASED ON QUANTITY, EACH
 - A. Trench Drain will be measured per each, complete in place, in accordance with the Contract Documents.
 - B. WORK under this Pay Item will include all earthwork, curb openings, frames and covers, concrete, reinforcement steel, and 2-inch minus shot rock required for the trench drain TD-1.
 - C. Payment for Trench Drain will be made at the Unit Price named 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 10-INCH HDPE WATER PIPE (Pay Item No. 2601.1) PRICE BASED ON QUANTITY, LINEAR FOOT
 - A. Measurement of water pipe will be made along the slope of the water pipe from the centers of fittings and valves in linear feet. No deduction in length will be made for valves, fittings, or fused reducers. All fittings, other than valves, required for satisfactory installation of water pipe will be considered incidental to this Pay Item.

- B. All trench excavation, bedding, backfill, imported backfill, sheeting and bracing, dewatering, cleaning and testing, warning tape, tracer wire, concrete thrust blocks, compaction and all other items necessary for a complete installation will not be measured for payment, but will be considered incidental to the WORK.
- C. WORK under this Pay Item includes the installation of water pipe termination tracer wire boxes where shown on the Drawings, including the valve box, pressure treated board, stainless steel wire staples, and tracer wire.
- D. Payment for 10-Inch HDPE 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.
- 2.20 INSTALL CORROSION PROTECTION ANODE (Pay Item No. 2601.2) PRICE BASED ON QUANTITY, EACH
 - A. Measurement for payment for Install Corrosion Protection Anode will be based on the actual quantity of each 18-lb zinc anodes furnished and installed in accordance with the requirements of the Contract Documents.
 - B. WORK under this pay item includes all labor, equipment, materials, excavation, backfill, and all other WORK necessary to furnish and install galvanic anodes in the locations shown on the plans and as directed by the ENGINEER. The fire hydrant anodes will be measured for payment under this Pay Item.
 - C. Payment for Install Corrosion Protection Anode will be made at the amount 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.
- 2.21 CONNECT TO EXISTING WATER PIPE (Pay Item No. 2601.3) PRICE BASED ON LUMP SUM PAY UNIT
 - A. Measurement for payment for Connect to Existing Water Pipe 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. The WORK under this Pay Item included all excavation and backfill, cutting and removing sections of existing water pipe, and all materials including new couplers, bands, fittings, ductile iron sleeves, joint restraints, and all other WORK and materials necessary to complete connections of new 10" HDPE to existing 8" DI.
 - C. Payment for Connect to Existing Water Pipe will be made at the amount named in the Bid Schedule under Pay Item No. 2601.3, 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.
- 2.22 10-INCH GATE VALVE (Pay Item No. 2602.1) PRICE BASED ON QUANTITY, EACH

- A. Measurement and payment of 10-Inch Gate Valves will be based on the actual number of gate valves satisfactorily installed, complete and in place.
- B. WORK under this pay item includes all labor, equipment, materials, excavation, backfill, and all other WORK necessary to furnish and install gate valves in the locations shown on the plans and as directed by the ENGINEER.
- C. Furnish and installation of associated valve boxes will be considered incidental.
- D. Payment for 10-Inch Gate Valve will be made at the amount 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.

2.23 FIRE HYDRANT ASSEMBLY WITH GUARD POSTS (Pay Item No. 2603.1) PRICE BASED ON QUANTITY, EACH

- A. Measurement for payment of Fire Hydrant Assembly with Guard Posts will be based on the actual number of fire hydrant assemblies satisfactorily installed, complete and in place.
- B. Fire Hydrant Assembly includes the fire hydrant, guard posts, the mainline tee and associated fittings, thrust block, 8-inch HDPE leg from the main to the gate valve, eight-inch gate valve, valve box, adjustment of valve box, hydrant flag, 8x6 DI reducer and 6-inch DI from the gate valve to the barrel, joint restraints, tracer wires, warning tapes, and any other required fittings, including pipe to connect the hydrant leg from the mainline water pipe to the fire hydrant as shown on the Drawings.
- C. Removal and disposal of existing fire hydrants and associated fittings will be considered incidental to this pay item.
- D. The WORK to install an 18-lb zinc anode will be measured for payment under its respective Pay Item. The 2-Inch Minus Shot Rock w/Base Course and 4" Concrete will be measured for payment under their respective Pay Items.
- E. Payment for Fire Hydrant Assembly with Guard Posts will be made at the Unit Price named in the Bid Schedule under Pay Item No. 2603.1, 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.

2.24 LOCATE WATER SERVICES (Pay Item No. 2605.1) PRICE BASED ON LUMP SUM PAY UNIT

- 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. The WORK under this Item Pay includes all excavation and backfill and other WORK necessary to determine the location of all existing water service valve boxes and water services. Some existing water service boxes have not been field located. Service locations should be field verified by the Contractor.

- C. Payment for Locate Water Services will be made at the amount 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.
- 2.25 WATER SERVICE, 6-INCH HDPE (Pay Item No. 2605.2) PRICE BASED ON QUANTITY, EACH
 - A. Measurement for payment of Water Service, 6-Inch HDPE will be based on the actual number of water services satisfactorily installed, complete and in place.
 - B. WORK compensated under this Pay Item includes the tee at the mainline water pipe, thrust block, 6" HDPE leg from the main tee to connection with existing water pipe or service, joint restraints, tracer wires, warning tapes, 6" gate valve and valve box, and any other pipe and fittings to connect to the existing water service as shown on the Drawings and as directed by the ENGINEER.
 - C. Trench excavation, backfill, chlorination and pressure testing, shall be considered incidental to this Pay Item.
 - D. Payment for Water Service, 6-Inch HDPE will be made at the Unit Price named in the Bid Schedule under Pay Item No. 2605.2, which payment will constitute all WORK described in Section 02605 Water Services, as shown on the Drawings and as directed by the ENGINEER.
- 2.26 PIPE INSULATION (Pay Item No. 2607.1) PRICE BASED ON QUANTITY, BOARDS
 - 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.
- 2.27 CONSTRUCTION SURVEYING (Pay Item No. 2702.1) PRICE BASED ON LUMP SUM PAY UNIT
 - 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. The WORK required to remove and reset all survey monuments and other survey markers disturbed by construction activities will be considered incidental to the WORK.
 - C. Payment for Construction Surveying will be made at the Unit Price named 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.

- 2.28 TOPSOIL (Pay Item No. 2709.1) PRICE BASED ON QUANTITY, CUBIC YARD
 - A. Topsoil will be measured for payment by the cubic yard on the basis of truck measure for all WORK performed in accordance with the requirements of the Contract Documents.
 - 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 based on 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.
- 2.29 TOPSOIL FINISH GRADING (Pay Item No. 2709.2) PRICE BASED ON QUANTITY, MANHOUR
 - A. Topsoil Finish Grading will be measured per man-hour for each man-hour, or part thereof, that the labor personnel is at the Project 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. No measurement for Topsoil Finish Grading will be made until the topsoil has been graded to a uniform, well-drained appearance and approved by the ENGINEER.
 - C. 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.
- 2.30 SEEDING, HYDRAULIC METHOD, TYPE III (Pay Item No. 2710.1) PRICE BASED ON QUANTITY, SQUARE YARD
 - A. Seeding by the hydraulic method will be measured for payment by the number of square yards of surface area to actually receive seeding and establish vegetation, as directed by the ENGINEER.
 - B. No deduction will be made to the measurement under this Pay Item for the area included in the bioswale. The additional costs associated with furnishing, adding, and applying the biotic soil and erosion control media to the bioswale area will be considered part of the WORK under Pay Item 2202.5.
 - C. 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.
- 2.31 REMOVE AND DISPOSE OF EXISTING STORM AND SANITARY SEWER SYSTEMS (Pay Item No. 2716.1) PRICE BASED ON LUMP SUM PAY UNIT
 - A. Measurement for payment of Remove and Dispose of Existing Storm and Sanitary Sewer System 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 this item shall include removal and disposal of all existing storm drainage pipes, culverts, underdrains, roof drains, storm drain manholes, catch basins, concrete headwalls, trashracks, area drains, and storm water conveyance structures within the Project limits, unless otherwise indicated on the Drawings.
- C. All existing storm drain and sanitary sewer structures and pipes shall be removed in their entirety and disposed of, as shown in the Drawings and directed by the ENGINEER. Abandoning structures and culverts in place and filling with slurry is not an acceptable alternative.
- D. Payment for Remove and Dispose of Existing Storm and Sanitary Sewer shall include compaction and backfill to original grade or bottom of subgrade with useable excavation and returning disturbed areas to original or better condition.
- E. Payment for Remove and Dispose of Existing Storm and Sanitary Sewer will be made at the Unit Price named in the Bid Schedule under Pay Item No. 2716.1, which payment will constitute full compensation for all WORK described in Section 02716 Remove and Dispose of Culvert Pipe, as shown on the Drawings and as directed by the ENGINEER.
- 2.32 FILL WATER PIPE WITH SLURRY (Pay Item No. 2716.2) PRICE BASED ON LUMP SUM PAY UNIT
 - A. Measurement for payment for Fill Water Pipe with Slurry 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. The WORK under this pay item includes removal of existing water pipe, existing water service pipe, water service curb stops, valve boxes, fire hydrant valves, fire hydrant pipe, fire hydrant bollards, thrust blocks, pipe fittings, and other related features as shown in the Drawings or directed by the ENGINEER.
 - C. This WORK also includes removing sections of water pipe or adding pipe and making pipe connections to allow the slurry to be placed in the existing water pipe.
 - D. Payment for Fill Existing Water Pipe with Slurry will be made at the amount named in the Bid Schedule under Pay Item No. 2716.2, which payment will constitute full compensation for all WORK described in Section 02716 –Storm and Sanitary Sewer Pipe Removal and Water Pipe Slurry, as shown on the Drawings and as directed by the ENGINEER.
- 2.33 SIGN ASSEMBLIES (Pay Item No. 2718.1) PRICE BASED ON LUMP SUM PAY UNIT
 - A. Measurement for Sign Assemblies 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 providing new sign assembly panels, posts and hardware in accordance with the Contract Documents.
 - C. Removal and disposal of existing signs will be considered part of the WORK under this Pay Item.

- D. Payment for Sign Assemblies 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.
- 2.34 RECONSTRUCT MAILBOX (Pay Item No. 2719.1) PRICE BASED ON QUANTITY, EACH
 - A. Measurement for payment of Reconstruct Mailbox will be based on the actual number of mailboxes satisfactorily installed, complete and in place.
 - B. WORK will include removing and re-setting the existing mailbox at STA 14+67 RT on a new post and arm in accordance with CBJ STD 116.
 - C. 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 all WORK described in Section 02719 – Mailboxes, as shown on CBJ Standard Detail 116, and as directed by the ENGINEER.
- 2.35 PAINTED TRAFFIC MARKINGS (Pay Item No. 2720.1) PRICE BASED ON LUMP SUM PAY UNIT
 - 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.
- 2.36 A.C. PAVEMENT, TYPE II-A, CLASS B (Pay Item No. 2801.1) PRICE BASED ON QUANTITY, TON
 - A. Measurement of A.C. Pavement, Type II-A, Class B will be measured for payment 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 placed outside the tolerance allowed will be corrected by the CONTRACTOR at no cost to the OWNER.
 - 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 lb per square yard per inch of thickness.
 - D. WORK under this Pay Item will include all asphalt pavement placed within the project site including roadway, driveways, and hydrant pads, as shown on the Drawings.

- E. All resealing of joints 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 to other WORK under the contract.
- F. Tack Coat applied to existing joint surfaces prior to placement of A.C. pavement, will be considered incidental to other WORK under Pay Item No. 2801.1.
- G. A.C. pavement required for reconstructed collars around manholes and water valves, if any, will be considered incidental to other WORK under this Section.
- H. Payment for A.C. Pavement, Type II-A, Class B, will be made after any reductions /deductions have been made for asphalt quality deficiencies as outlined in section 2801. 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.
- 2.37 REMOVE EXISTING ASPHALT SURFACING (Pay Item No. 2806.1) PRICE BASED ON QUANTITY, SQUARE YARDS
 - A. Removing asphalt surfacing, including leveling course, will be measured for payment 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 the full thickness of all layers of existing asphalt, including leveling courses and underlying pavement.
 - C. No deduction shall be made to the area measured for payment under this Pay Item for the area within the existing road prism that consists of concrete patches. Removal and disposal of concrete roadway patches shall be considered incidental to this Pay Item.
 - D. 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 HEADWALL (Pay Item No. 3302.1) PRICE BASED ON QUANTITY, EACH
 - A. Concrete Headwall will be measured for payment per each, including all earth work, complete in place.
 - B. Payment for Concrete Headwall 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 CONCRETE HEADWALL w/TRASHRACK (Pay Item No. 3302.2) PRICE BASED ON QUANTITY, EACH
 - A. Concrete Headwall w/Trashrack will be measured for payment per each, including all earth work, complete in place.

- B. Payment for Concrete Headwall w/Trashrack will be made at the Unit Price named in the Bid Schedule under Pay Item No. 3302.2, 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.
- 3.3 CONCRETE AREA DRAIN (Pay Item No. 3302.3) PRICE BASED ON QUANTITY, EACH
 - A. Concrete Area Drains will be measured per each, including all earth work and formwork, complete in place.
 - B. Payment for Concrete Area Drains will be made at the Unit Price named in the Bid Schedule under Pay Item No. 3302.3, 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.
- 3.4 CONCRETE SIDEWALK, 4 and 6-INCH THICK (Pay Item No. 3303.1) PRICE BASED ON QUANTITY, SQUARE YARD
 - A. Measurement for payment of Concrete Sidewalks 4 and 6-Inch Thick will be based on the actual square yards complete in place and accepted.
 - B. Hydrant pads designated for concrete surfacing will also be measured for payment under this Pay Item.
 - C. Payment for Concrete Sidewalks 4 and 6-Inch Thick will be made at the amount 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.
- 3.5 DETECTABLE TILE (Pay Item No. 3303.2) PRICE BASED ON QUANTITY, SQUARE FOOT
 - A. Measurement of Detectable Tile will be based on the square foot, complete in place and accepted.
 - B. Measurements will be made to the outside dimensions of the detectable tiles. The concrete adjacent to and underneath will be measured for payment under Pay Item No. 3303.1.
 - C. Payment for Detectable Tile will be made at the Unit Price named in the Bid Schedule under Pay Item No. 3303.2, 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.
- 3.6 CURB AND GUTTER, TYPE I (Pay Item No. 3303.3) PRICE BASED ON QUANTITY, LINEAR FOOT
 - A. Curb and Gutter, Type I, will be measured for payment per linear foot actually installed, complete in place as shown on the Contract Documents. Measurements will be made along the face of the curb and will be continuous across catch basins.
 - B. Payment for Curb and Gutter, Type I, will be made at the Unit Price named in the Bid Schedule under Pay Item No. 3303.3, 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.

- 16.1 LIGHTING (Pay Item No. 16000.1) PRICE BASED ON LUMP SUM PAY UNIT
 - A. Measurement for payment for Lighting 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 includes the conduit, handholes, wiring, light poles, fixtures, and pole-mounted lighting as shown on the Drawings.
 - C. Payment for Lighting will be made at the amount shown in the Bid Schedule under Pay Item No. 16000.1, which payment will constitute full compensation for all WORK described in Section 16060 - Grounding and Bonding, Section 16073 – Hangers and Supports for Electrical Systems, Section 16075 – Electrical Identification, Section 16120 – Conductors and Cables, Section 16130 Raceways And Boxes, Section 16470 – Panelboards, Section 16476 Disconnect Switches and Circuit Breakers, and Section 16521 – Exterior Lighting, 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, *replace* Paragraph M with the following:

- M. An Americans with Disabilities Act (ADA) accessible route shall be provided through the Teal Street corridor (East and West) on at least one side of the street at all times. Access across the intersection (North and South) at Alpine Avenue shall also be provided on at least one side of the intersection at all times. The ADA accessible routes shall meet the following requirements:
 - 1. Minimum width of 4-feet.
 - 2. Surfacing material shall be base course, grading d-1, asphalt, or concrete.
 - 3. Vertical edges shall not exceed 1/4-inch.
 - 4. Running slopes and ramps shall be 8% or less.
 - 5. The route shall be separated from the construction zone with a physical barrier in accordance with Article 1.7 of this Section, Pedestrian Barriers.
 - 6. The route shall be delineated with signs and direction arrows as required.

SECTION 01550 - SITE ACCESS AND STORAGE, PART 1 - GENERAL, add the following Articles:

1.6 RESIDENT OWNER WORK

- A. Property owners within the Project area may have work done along their property during the Project construction period. This work may proceed following removal of the existing sidewalk and excavation work in the vicinity of their property by the CONTRACTOR.
- B. The CONTRACTOR shall provide each property owner a schedule for the installation of new curb and gutter and sidewalk along their property a minimum of seven (7) days in advance of concrete formwork.

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1.7 PEDESTRIAN BARRIERS

A. ADA accessible routes shall be separated from the construction zone with a physical barrier at least 3'-6" tall. The barrier may be a chain link fence, pedestrian fence, pedestrian barricade, or other physical barrier approved by the ENGINEER, and sufficient to reasonably discourage pedestrians from crossing into the work zone.

SECTION 01570 – EROSION AND SEDIMENT CONTROL, PART 1 – GENERAL, Article 1.1, THE REQUIREMENT, *add the following paragraphs:*

- D. The area of disturbance for this project is greater than 1 acre. The receiving water, Jordan Creek, is listed as an impaired water body under the Clean Water Act, Alaska Section 303(d).
- E. ADEC has identified 8617 Teal Street as an "Active" contaminated site within 1,500 feet of the Project Limits. It is the responsibility of the CONTRACTOR to consult with ADEC and obtain all necessary permits for performing excavation dewatering.

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 OWNER 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 propose is at the end of Section 00800 – supplementary General Conditions.

SECTION 01700 – PROJECT CLOSE-OUT, PART 1 – GENERAL, *Replace* the COMPLIANCE CERTIFICATE AND RELEASE FORM with the following forms:

COMPLIANCE CERTIFICATE AND RELEASE FORM

PROJECT: <u>Teal Street Reconstruction</u> CONTRACT NO: BE23-123

The **CONTRACTOR** must complete and submit this form to the Contract Administrator with respect to the entire contract and submit completed Subcontractor Compliance forms for each Subcontractor used on the Contract and listed on the Subcontractor report.

Completed forms shall 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 payments to Subcontractors and Suppliers have been made in accordance with Alaska Statute 36.90.210. If not, please provide written explanation, for each case, why and the specific mutual payment agreement reached with the Supplier or Subcontractor.
- CHECK ONE:
 - □ All Suppliers and Subcontractors have been paid in full with no claims for labor, materials or other services outstanding.
 - □ The following Suppliers and Subcontractors are due final payment which will be made upon the release of the final payment by the CBJ. List the Suppliers and Subcontractors and the amount they are due below (attach separate sheet if necessary) :

	Supplier or Subcontractor	Amount Owed
1.		\$
2.		\$
3.		\$
4.		\$
5.		\$
6.		\$
7.		\$

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- All employees have been paid not less than 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 City Engineer 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 City Engineer 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.

	Capacity: CONTRACTOR	
Firm Name		
Signature	Printed Name and Title	Date

Return completed form to: Engineering Contracts Division, City and Borough of Juneau, 155 South Seward Street, Juneau, AK 99801 or by email to: <u>contracts@juneau.org</u>

Call (907) 586-0800 ext. 4196 if we can be of further assistance or if you have any questions.

SUBCONTRACTOR COMPLIANCE CERTIFICATE AND RELEASE FORM

PROJECT: <u>Teal Street Reconstruction</u> CONTRACT NO: BE23-123

Each **SUBCONTRACTOR** must complete and submit this form to the Contract Administrator, through the General Contractor, with respect to the entire contract.

Completed forms shall 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.
- _____(name of firm) has been paid by the Contractor in accordance with Alaska Statute 36.90.210. (If not, please provide written explanation on an attached sheet, for each case. Provide specific details why payment was not made and the specific mutual payment agreement reached with the Contractor if it is still unresolved.)
- CHECK ONE:
 - □ I / WE have been paid in full by the Contractor, with no claims for labor, materials or other services outstanding.
 - □ I / WE are due the following amount from the Contractor which is included in the Contractors Request for Final Payment. WE are due a total of \$______ for the following individual items that have yet to be paid (attach separate sheet if necessary).

	Outstanding Payment Item	Outstanding Amount Owed
1.		\$
2.		\$
3.		\$
4.		\$
5.		\$
6.		\$
7.		\$

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- All employees have been paid not less than 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.

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.

	Capacity: CO	_ Capacity: CONTRACTOR	
Firm Name			
Signature	Printed Name and Title	Date	

Prime Contractor shall return completed form to: Engineering Contracts Division, City and Borough of Juneau, 155 South Seward Street, Juneau, AK 99801 or email: <u>contracts@juneau.org</u> Call (907) 586-0800 ext. 4196 if we can be of further assistance or if you have any questions.

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

2.9 USABLE MATERIAL FROM EXCAVATION

A. Usable material from excavation shall meet the requirements for Embankment.

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

F. The shot rock borrow shall be brought to its full depth and capped with a 3-inch minimum thickness of 2-inch minus shot rock within a maximum of ten (10) days following the initial placement of the shot rock borrow into the subcut area. The 2-inch minus shot rock shall be placed to a minimum width of 10-feet and shall be placed to within 10-feet of the ends of the shot rock borrow segment.

SECTION 02203 – TRENCHING, PART 2 - MATERIALS, Article 2.2, BEDDING, *replace* paragraph *A* and *add* paragraphs *D* and *E* with the following:

- A. Pea gravel, or similar product, shall not be used for bedding.
- D. Class A bedding shall be used for all water and sanitary sewer pipe.
- E. Class B bedding shall be used for all storm sewer pipe.

SECTION 02204 – BASE COURSE, PART 2 – PRODUCTS Article 2.1, MATERIALS, *add the following paragraphs:*

- E. Related Section Section 02202 EXCAVATION AND EMBANKMENT, Article 2.8, 2-INCH MINUS SHOT ROCK
- F. 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.
- G. Stabilization Base Course shall meet the requirements of base course, grading D-1.

SECTION 02204 – BASE COURSE, PART 3 – EXECUTION Article 3.1, GENERAL, *replace Paragraph I with the following:*

I. The surface of the base course, when using a taut string line or straight edge of adequate length, spanning between two known grade control points (blue top hubs, lip of gutter, edge existing asphalt etc.) shall not show any deviation in excess of 3/8 inch. This shall be checked perpendicular and longitudinally to the grade control points and be documented by the INSPECTOR. The finish surface shall not vary more than 1/2 inch from established grade. Additionally, the algebraic average of all deviations from established grade of the finish base course surface elevations taken at 50-foot intervals shall be less than 0.02 foot.

SECTION 02401 – SANITARY SEWER PIPE, PART 2 – PRODUCTS, Article 2.2, PVC SEWER PIPE, *add* the following:

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E. Sanitary sewer pipe SS-4 shall have a standard dimension ratio (SDR) of 26 with a pipe stiffness of 115psi. It shall meet the requirements of ASTM F679 with an ASTM D1784 12364 Cell Class. Gaskets shall meet the requirements of ASTM F477, and it shall have an integral bell joint meeting ASTM D3212.

SECTION 02402 – SANITARY SEWER MANHOLES AND CLEANOUTS, PART 3 - EXECUTION, Article 3.1 CONSTRUCTION, Paragraph M, *delete* sub-paragraph 4 and *replace* with the following:

4. Rubber grade ring adjustment risers shall be bonded to adjacent surfaces by laying at least 3 beads, a minimum of 5/16" thick of *Liquid Nails- Polyurethane Construction Adhesive* on each side of the rubber risers or the top surface of the concrete course. Two of the adhesive beads shall be within 1" of the edges of the rubber grade ring adjustment riser, the third shall be equidistant between the two outer beads. The beads shall be continuous around the rubber grade ring adjustment riser.

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

2.10 6 -INCH UNDERDRAIN

- A. Pipe shall be perforated, smooth interior pipe and shall meet the requirements of Article 2.6, corrugated polyethylene pipe, of this Section.
- B. Drainage rock shall be 2-inch minus shot rock and shall meet the requirements of Section 02202 Excavation and Embankment, Article 2.8, 2-Inch Minus Shot Rock.
- C. Filter cloth shall be Type A and shall meet the requirements of Section 02714 Filter Cloth.

SECTION 02501 – STORM SEWER PIPE, PART 2 – PRODUCTS, Article 2.6, CORRUGATED POLYETHYLENE PIPE, *delete* paragraphs B and C and *replace* with the following:

- B. Pipe shall be joined with "ADS, Inc. N-12" (bell-and-spigot) water-tight (WTIB), or approved equal, meeting the requirements of AASHTO M252 or AASHTO M 294 or ASTM F2306. The pipe joining system shall be a water-tight integral bell & gasketed spigot meeting the requirements of ASTM D3212 or equivalent standard.
- C. The bell-and-spigot joint shall be water-tight and incorporate a gasket meeting the requirements of ASTM F477 or equivalent standard. Gaskets shall be installed in the bell, or on the pipe, by the pipe manufacturer and covered with a removable wrap to ensure the gasket is free from debris at the time of installation. A joint lubricant shall be used on the gasket and bell during assembly.

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

2.10 HP PVC PIPE

A. High pressure PVC pipe conduit for storm sewer shall have a dimension ratio (DR) of 25 (165psi pressure class and a pipe stiffness of 129psi). It shall meet the requirements of ANSI/AWWA C900-16, with an ASTM D1784 Cell Class 12454. Gaskets shall meet the requirements of ASTM F477, and it shall have an integral bell joint meeting ASTM D3139.

SECTION 02502 – STORM SEWER MANHOLES, INLETS, AND CATCH BASINS, PART 2 – PRODUCTS, *add the following Articles*:

2.8 TRENCH DRAIN

A. Trench drains shall be by Evergrate, a division of J.R. Hoe (<u>www.evergrate.com</u>) or approved equal. The curb opening shall be product no. C-1246T, and the covers shall be T-12A 12" wide cast iron (diamond style) with penta-lock angle frames.

2.9 TYPE III CATCH BASIN OIL/WATER SEPARATOR

A. The oil/water separator for a type III catch basin shall be by BMP Inc. (<u>www.bmpinc.com</u>) or approved equal. The oil water separator for a 12-inch diameter outlet culvert shall be a snout 18FRS.

SECTION 02601 – WATER PIPE, PART 2 – PRODUCTS, Article 2.3, FITTINGS, *delete* paragraph J and *replace* with the following:

J. Electrofusion couplers are discouraged and may only be allowed with prior, written approval of the Engineer. Not having a fusion machine capable of being placed in the excavation to accomplish butt fusion is not an acceptable reason for use of an electrofusion coupler.

SECTION 02601 – WATER PIPE, PART 3 – EXECUTION, Article 3.5, HYDROSTATIC TESTING, *add the following paragraphs*:

- K. At no time shall the CONTRACTOR pressure test against existing valves, plugs, caps, fire hydrants or curb stops. At no time shall the CONTRACTOR use disinfection water or untreated water to pressure test against any valve or curb stop that is connected to a public water system.
- L. Pressure testing shall be completed for the entire length of new water pipe and services to the limits where new water pipes and services connect to existing water pipes and services, including pressure testing to the limits of connection to existing fire hydrant legs. The CONTRACTOR is responsible for providing all temporary or permanent joint restraints, thrust blocks, fittings, caps, plugs, curb stops and valves necessary for completion of pressure testing activities in accordance with SECTION 02601 and to the satisfaction of the ENGINEER.

SECTION 02601 – WATER PIPE, PART 3 – EXECUTION, Article 3.8, CONNECTIONS TO EXISTING PIPES, *add* the following paragraph:

C. All flushing, pressure testing, and disinfection of new water pipes shall be completed in accordance with SECTION 02601 and accepted by the ENGINEER prior to making final or permanent connections to existing water pipes and services. At no time during flushing, pressure testing or disinfection activities shall there be a temporary or permanent cross connection between new water pipe and existing water pipe or services, unless otherwise approved by the ENGINEER or a backflow prevention assembly meeting ANSI/AWWA Standards C510-97 or C511-97 is used to ensure no backflow into the existing and unprotected public water system occurs.

SECTION 02605 – WATER SERVICES, PART 3, EXECUTION, Article 3.1, CONSTRUCTION, *add the following paragraphs:*

- G. Locate Water Services shall require that the CONTRACTOR verify the location, material, size, and depth of each water service pipe. These verifications will require that the water service pipe be exposed at the storm drain pipe, valve or curb stop, and ditch crossings so a visual check can be made so that no damage occurs during trenching and backfilling operations, except excavation at service locations will be to 60 inches below pipe and ditch grade if no service pipe is found within 20 feet either side of location shown on plans and install appropriate insulation over water service to ensure a minimum of 60" bury depth is maintained.
 - 1. The CONTRACTOR shall notify the ENGINEER when each crossing will occur with sufficient time for the ENGINEER to be present during the excavation operation.
 - 2. The location of each service shall be referenced so that the service pipe alignment can be marked along the ground prior to subcutting operations. The CONTRACTOR shall spray paint these alignments prior to proof compacting the subgrade.
 - 3. All water service piping damaged as a result of the CONTRACTOR's operations shall be repaired at the CONTRACTOR's expense.
- H. Each electrofusion service saddle shall be pressure tested to 120 psi after completion of the electrofusion process and prior to tapping into the mainline. It shall hold the test pressure for at 5 minutes, any drop in pressure will indicate a faulty connection and require installation and testing of a new electrofusion saddle. The intent of this informal test is verification of a sound electrofusion connection to the mainline. This testing requirement does not remove any of the requirements for pressure testing the entire system as specified in Section 02601 Water Pipe.

SECTION 02702 – CONSTRUCTION SURVEYING, PART 3 – EXECUTION, Article 3.1, CONSTRUCTION, *add the following paragraphs:*

- M. A closed level loop is required through TBMs listed in the Drawings. No side shots will be permitted. A copy of the surveyor's notes shall be provided to the ENGINEER. No payment will be made for Pay Item No. 2702.1 until the Engineer has received a copy of these surveyor's notes.
- N. Global Position System (GPS) survey methods shall not be used for grading control unless approved in writing by the ENGINEER.

SECTION 02709 – TOPSOIL, PART 2, - PRODUCTS, Article 2.1, MATERIALS, *revise* the first sentence of paragraph C to read:

C. Topsoil shall contain not less than 8% or more than 20% organic matter by weight, as determined by loss-on-ignition of oven-dried samples in accordance with ASTM T-6.

SECTION 02709 – TOPSOIL, PART 3, - EXECUTION, Article 3.1, CONSTRUCTION, *revise* paragraph A to read:

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A. All areas beyond the roadway shoulder and driveway edges that require regrading or are otherwise disturbed during construction, shall be graded to neat, uniform, well-drained grade lines and appearance, as determined by the ENGINEER. These areas shall be hydroseeded, unless otherwise shown on the Drawings, or directed by the ENGINEER.

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

SECTION 02716 – STORM AND SANITARY SEWER PIPE REMOVAL AND WATER PIPE SLURRY

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 storm drainage pipe, sanitary sewer pipe, and the existing water system or filling the existing water pipes with Cement Slurry within the Project limits designated for removal.

PART 2 – PRODUCTS (Not Used)

2.1 MATERIALS

A. Cement Slurry used to fill conveyance structures prior to abandonment shall consist of a flowable mixture of cement, water, sand, and additives that, when cured for three (3) days, will have a minimum compressive strength of 150 pounds per square inch (psi). A Cement Slurry design shall be submitted by the CONTRACTOR for approval by the ENGINEER prior to use.

PART 3 – EXECUTION

- 3.1.1 GENERAL
 - A. All storm drainage 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 excavation shall be used as backfill. Disposal of the pipe shall be in accordance with these Specifications.
 - B. Existing water main pipe, services, water valves, valve boxes, fittings, thrust blocks, and other water system components shall be removed in their entirety and disposed of in accordance with the Contract Documents, as shown on the Drawings and as directed by the ENGINEER.
 - C. All materials removed during performance of the WORK described herein shall become the property and responsibility of the CONTRACTOR.
 - D. Voids shall be backfilled with suitable material to match the adjacent ground surface or bottom of subcut, and placement of material used for backfill shall not exceed 2-ft lifts. Usable material from excavation may be used as backfill as approved by the ENGINEER, and all backfill placed shall be compacted to the satisfaction of the ENGINEER.

E. Where shown on the Drawings, existing water pipes shall be abandoned in place by filling with Cement Slurry to a minimum of eighty percent (80%) capacity of the calculated volume based on the length and inside diameter of the conveyance structure being abandoned. If necessary, all pumps, vent tubes, and WORK to open or remove additional sections of the existing conveyance structure for meeting the minimum volume filled requirement shall be the responsibility of the CONTRACTOR.

END OF SECTION

SECTION 02717 – STORM AND SANITARY STRUCTURE REMOVAL, *delete* in its entirety and replace with the following Section:

SECTION 02717 – FILL EXISTING WATER PIPE WITH SLURRY

PART 1 - GENERAL

1.1 DESCRIPTION

A. The WORK under this Section includes providing all labor, tools, materials, and equipment necessary for removal and disposal of the existing water system or filling the existing pipes with Cement Slurry.

PART 2 – PRODUCTS

2.1 MATERIALS

A. Cement Slurry used to fill conveyance structures prior to abandonment shall consist of a flowable mixture of cement, water, sand, and additives that, when cured for three (3) days, will have a minimum compressive strength of 150 pounds per square inch (psi). A Cement Slurry design shall be submitted by the CONTRACTOR for approval by the ENGINEER prior to use.

PART 3 – EXECUTION

3.1 GENERAL

- A. Existing water main pipe, services, water valves, valve boxes, fittings, thrust blocks, and other water system components shall be removed in their entirety and disposed of in accordance with the Contract Documents, as shown on the Drawings and as directed by the ENGINEER.
- B. All materials removed during performance of the WORK described herein shall become the property and responsibility of the CONTRACTOR.
- C. Voids shall be backfilled with suitable material to match the adjacent ground surface or bottom of subcut, and placement of material used for backfill shall not exceed 2-ft lifts. Usable material from excavation may be used as backfill as approved by the ENGINEER, and all backfill placed shall be compacted to the satisfaction of the ENGINEER.

D. Where shown on the Drawings, existing water pipes shall be abandoned in place by filling with Cement Slurry to a minimum of eighty percent (80%) capacity of the calculated volume based on the length and inside diameter of the conveyance structure being abandoned. If necessary, all pumps, vent tubes, and WORK to open or remove additional sections of the existing conveyance structure for meeting the minimum volume filled requirement shall be the responsibility of the CONTRACTOR.

END OF SECTION

Add the following Section:

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

- B. Asphaltic concrete mix for this Project shall be Type IIA, Class B.
- C. Asphaltic concrete mix for driveways for this project may be either type II-A, Class B, or Type III, Class B. See Table 02801-1 and Table 02081-2.

SECTION 02801 – ASPHALT CONCRETE PAVEMENT, PART 1 – GENERAL, Article 1.1, DESCRIPTION, *revise* TABLE 02801-1, ASPHALTIC CONCRETE MIX REQUIREMENTS, *as follows:*

Design Parameters	Class A	Class B
Voids in total mix, percent	2.5 - 4.0	2.5 - 4.0%
Percent oil content	5.8 - 6.8	5.8 - 6.8%

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

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

SECTION 02801 – ASPHALT CONCRETE PAVEMENT, PART 2 - PRODUCTS, Article 2.3, ASPHALT MATERIALS, *revise paragraph B as follows:*

B. Asphalt cement shall be designated PG 58-28 Plus.

SECTION 02801 – ASPHALT CONCRETE PAVEMENT, PART 2 - PRODUCTS, add the following section:

- 2.6 RECLAIMED ASPHALT PAVEMENT
 - A. Reclaimed Asphalt Pavement (RAP) may be used in the asphalt mix up to 20% of the total mix.
 - B. RAP will be available at no cost from the CBJ Lemon Creek Stockpile. The contractor will notify Michael Eich, CBJ Pits and Quarries Manager, 586-0874, of quantity needed, to coordinate access and for Lemon Creek Gravel Pit permit compliance requirements, prior to taking any RAP. The Contractor shall weigh each load at the CBJ scales and record on a CBJ scale ticket. The CBJ makes no guarantees of the quantity or quality of the RAP.
 - C. The Contractor shall provide a mix design showing the inclusion of the specified percentage of RAP according to the mix design requirements in this section.

D. Use of RAP in the Contractor's asphalt mix does not nullify any of the other specification requirements or associated asphalt quality deductions.

SECTION 02801 – **ASPHALT CONCRETE PAVEMENT**, PART 3 - EXECUTION, Article 3.2, EQUIPMENT, Paragraph C, *delete item 2 and replace with the following:*

- 2. Each truck shall have a watertight canvas cover of such size as to extend at least one foot over the sides and end of the truck bed and be adequately secured to protect the asphalt concrete mixture. The use of canvas covers will be required at all times.
- 3. The Contractor shall make the trucks to be used for hauling the asphalt concrete mixture available for inspection by the Engineer prior to paving day and shall be identified in the Paving Plan. Trucks that do not meet the requirements of this section may be rejected by the Engineer and not allowed on the project unless the deficiencies are remedied and approved by the Engineer in advance of hauling asphalt. Use of trucks not approved for delivery by the Engineer may result in the rejection of the asphalt concrete mixture within the unapproved truck.

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

E. Heavy, full size, self-propelled laydown 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. Manhole frame and covers and water valve boxes shall be set to final grade in accordance to CBJ Standard Details 205 – MANHOLE HEIGHTS and 407 – MAINLINE VALVE, prior to paving operations. If the cover lugs or frame, whichever is higher, does not meet the required depression range following the finish paving operations, the CONTRACTOR shall construct a transition slab with asphalt pavement overlay, per CBJ Standard 126 – CONCRETE COLLAR or as approved by the Engineer, at no additional cost to the OWNER.

SECTION 02801 – **ASPHALT CONCRETE PAVEMENT**, PART 3 - EXECUTION, Article 3.8, SPREADING AND PLACING, *add the following paragraph:*

K. The Contractor shall hold in a pre-paving conference on site to review and verify the accuracy of the Paving Plan prior to paving day. The paving foreman shall be present to explain each of the operational details included in the paving plan.

SECTION 02801 -- ASPHALT CONCRETE PAVEMENT, PART 3 – EXECUTION, Article 3.10, JOINTS, *replace* Paragraph C with the following:

C. Improperly formed joints resulting in surface irregularities or rock segregation shall be removed, full road width, replaced with new material, and thoroughly compacted. The edge of pavement along the centerline joint shall not be allowed to drop below 200 degrees Fahrenheit prior to the asphalt mix form the adjacent lane being placed against this edge.

SECTION 02801 -- ASPHALT CONCRETE PAVEMENT, PART 3 – EXECUTION,

Article 3.10, JOINTS, add the following paragraph:

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J. All joints with existing asphalt pavement shall be resealed with asphalt cement after the new pavement has cooled to ambient temperature.

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, at least two (2) samples 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 use. The sample shall be taken according to proper sampling methods, from the asphalt pavement on the grade.

The deduction amounts will be determined from the OWNER's acceptance testing results. The values will be calculated by averaging the amount of the absolute value of the two tests outside the job mix design tolerance (the difference between the actual test result and the job mix design tolerance range). A test value within the job mix design tolerance will be considered a zero (0) value for averaging the two values. Deduction from the asphalt pavement pay item shall be made at the following amounts:

- 1. #200 Sieve: the greater of either 1.0% the contract price for asphalt pavement placed within the sampled lot or \$500 per each 0.1% outside the job mix design tolerance, not exceeding 6% maximum, of the percent passing the #200 sieve. The allowable tolerance for this Contract shall be +/-1.0% of the target mix design value and shall not exceed the content limits specified in this Contract. If values fall outside of the allowable tolerance, deductions shall be calculated from the mix design target value.
- 2. Asphalt Content: the greater of either 1.0% of the contract price for asphalt pavement placed within the sampled lot or \$500 per each 0.1% outside the allowable job mix design asphalt content tolerance. The allowable asphalt content tolerance for this Contract shall be +/- 0.4% of the target job mix design value and not to fall below a value of 5.6%. If values fall outside of the allowable tolerance, deductions shall be calculated from the mix design target value.
- 3. The pay deductions for exceeding the job mix design tolerances does not constitute acceptance of a mix that does not meet the specifications. Variations that are excessively large in a lot may be considered for larger deductions or non-payment. 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.
- 4. For the purposes of this Contract, one lot of asphalt pavement is defined as 500 tons, or a single day's asphalt pavement production of at least 100 tons.

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

3.4 CONCRETE HEADWALL WITH HINGED TRASHRACK

A. The concrete headwall shall conform to CBJ Standard Detail 104A – Culvert Headwall with Hinged Trash Rack, with adjustments to match the site conditions and grades, as approved by

the ENGINEER. No concrete shall be placed until the formwork has been approved by the ENGINEER.

3.5 CONCRETE HEADWALL WITHOUT HINGED TRASH RACK

A. The headwall shall conform to CBJ Standard Detail 104B – Culvert Headwall without Hinged Trash Rack, with modifications shown in the drawings, including but not limited to a 1h:1v face slope with adjustments to match the site conditions and grades, as approved by the ENGINEER. No concrete shall be placed in the until the formwork has been approved by the ENGINEER.

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 curb and gutter, concrete hydrant pads, and concrete sidewalk replacements, except a 6-foot length of No. 4 reinforcing bar shall be centered across catch basins centered in the curb. Except as described above, reinforcing steel or wire mesh shall not be used unless approved by the ENGINEER. Curbs, gutters and sidewalk shall utilize a fibrillated product, Fibermesh 300, or approved equal. Application rates shall be at least 1.5 pounds per cubic yard of concrete. Fibermesh shall be as manufactured by "SI Concrete Systems," or approved equal.

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

C. Detectable tiles shall be cast iron detectable warning plates with truncated dome pattern, a slip resistant surface, and with handle or flange on bottom or approved equal. Detectable warning plates shall be coated with yellow polymer-soaked finish and manufactured according to the 2006 U.S. DOT ADA Standards for Transportation Facilities.

SECTION 03303 – SIDEWALK, CURB AND GUTTER, PART 3 – EXECUTION, Article 3.1, METHODS OF CONSTRUCTION, *add* the following paragraphs:

- K. All forms for segments between PC's and PT's with a radius less than 100' shall be arced to match the required curvature. No straight forms will be permitted for use within any curved segments with a radius of less than 100'. Straight forms used for any arced segment with a radius of more than 100' shall not exceed 10' in length.
- L. The CONTRACTOR shall cure and protect all newly placed concrete as required to prevent cracking or disfigurement during the curing period. Damaged concrete shall be repaired or replaced to the ENGINEER's satisfaction at no additional cost.
- M. All concrete sidewalk, curb ramps, and pedestrian access ramps shall meet the current requirements of the Americans with Disabilities Act (ADA) regulations for new construction. WORK that is found not to be in compliance with ADA regulations shall be immediately remedied by the CONTRACTOR, included replacement of non-conforming ADA facilities at no additional cost to the OWNER, unless ADA standards cannot be met due to site constraints and the WORK has been constructed in accordance with the contract documents.
- N. Construct detectable warnings according to the details and the locations shown on the Drawings. Install detectable warning plates by embedding plate flanges into cast in place

concrete construction so there are no vertical changes in grade exceeding 0.25 inch or horizontal gaps exceeding 0.5 inch. Align pattern on a square grid in the predominant direction of travel.

END OF SPECIAL PROVISIONS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section includes grounding and bonding systems and equipment.

1.3 QUALITY ASSURANCE

- A. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application.
- B. Comply with UL 467 for grounding and bonding materials and equipment.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
 - 1. <u>Burndy; Part of Hubbell Electrical Systems</u>.
 - 2. <u>Dossert; AFL Telecommunications LLC</u>.
 - 3. <u>ERICO International Corporation</u>.
 - 4. Fushi Copperweld Inc.
 - 5. <u>Galvan Industries, Inc.</u>; Electrical Products Division, LLC.
 - 6. <u>Harger Lightning and Grounding</u>.
 - 7. <u>ILSCO</u>.
 - 8. <u>O-Z/Gedney; A Brand of the EGS Electrical Group</u>.
 - 9. <u>Robbins Lightning, Inc</u>.
 - 10. <u>Siemens Power Transmission & Distribution, Inc</u>.

2.2 SYSTEM DESCRIPTION

- A. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application.
- B. Comply with UL 467 for grounding and bonding materials and equipment.

2.3 CONDUCTORS

A. Insulated Conductors: Copper or tinned-copper wire or cable insulated for 600 V unless otherwise required by applicable Code or authorities having jurisdiction.

- B. Bare Copper Conductors:
 - 1. Stranded Conductors: ASTM B 8.
 - 2. Tinned Conductors: ASTM B 33.
 - 3. Bonding Cable: 28 kcmil, 14 strands of No. 17 AWG conductor, 1/4 inch (6 mm) in diameter.
 - 4. Bonding Conductor: No. 4 or No. 6 stranded conductor.
 - 5. Bonding Jumper: Copper tape, braided conductors terminated with copper ferrules; 1-5/8 inches (41 mm) wide and 1/16 inch (1.6 mm) thick.
 - 6. Tinned Bonding Jumper: Tinned-copper tape, braided conductors terminated with copper ferrules; 1-5/8 inches (41 mm) wide and 1/16 inch (1.6 mm) thick.
- 2.4 CONNECTORS
 - A. Listed and labeled by an NRTL acceptable to authorities having jurisdiction for applications in which used and for specific types, sizes, and combinations of conductors and other items connected.
 - B. Bolted Connectors for Conductors: Copper or copper alloy.

2.5 GROUNDING ELECTRODES

A. A steel copper clad grounding rod, not less than 5/8 in. (15.9mm) in diameter and 8 feet (2438mm) long.

PART 3 - EXECUTION

3.1 APPLICATIONS

- A. Conductors: Install stranded conductors unless otherwise indicated.
- B. Underground Grounding Conductors: Install bare copper conductor.
 - 1. Bury at least 24 inches (600 mm) below grade.
 - 2. Duct-Bank Grounding Conductor: Bury 12 inches (300 mm) above duct bank when indicated as part of duct-bank installation.
- C. Conductor Terminations and Connections:
 - 1. Equipment Grounding Conductor Terminations: Bolted connectors.
 - 2. Underground Connections: Hi compression connectors except as otherwise indicated.
 - 3. Connections to Ground Rods: Bolted connectors.

3.2 GROUNDING UNDERGROUND DISTRIBUTION SYSTEM COMPONENTS

- A. Comply with IEEE C2 grounding requirements.
- B. Grounding Handholes: Install a driven ground rod through handhole floor, close to wall, and set rod depth so 4 inches (100 mm) will extend above floor. Bond with all metallic conduits and lid.

3.3 EQUIPMENT GROUNDING

A. Install insulated equipment grounding conductors with all circuits.

END OF SECTION

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.
- 1.2 SUMMARY
 - A. This Section includes the following:
 - 1. Hangers and supports for electrical equipment and systems.
 - 2. Construction requirements for concrete bases.

1.3 DEFINITIONS

- A. EMT: Electrical metallic tubing.
- B. IMC: Intermediate metal conduit.
- C. RMC: Rigid metal conduit.

1.4 PERFORMANCE REQUIREMENTS

A. Rated Strength: Adequate in tension, shear, and pullout force to resist maximum loads calculated or imposed for this Project, with a minimum structural safety factor of five times the applied force.

1.5 ACTION SUBMITTALS

- A. Product Data: For the following:
 - 1. Steel slotted support systems.

1.6 QUALITY ASSURANCE

- A. Welding: Qualify procedures and personnel according to AWS D1.1/D1.1M, "Structural Welding Code - Steel."
- B. Comply with NFPA 70.
- 1.7 COORDINATION
 - A. Coordinate size and location of concrete bases. Cast anchor-bolt inserts into bases. Concrete, reinforcement, and formwork requirements are specified together with concrete Specifications.

PART 2 - PRODUCTS

2.1 SUPPORT, ANCHORAGE, AND ATTACHMENT COMPONENTS

- A. Steel Slotted Support Systems: Comply with MFMA-4, factory-fabricated components for field assembly.
 - 1. Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
 - a. <u>Allied Tube & Conduit</u>.
 - b. Cooper B-Line, Inc.
 - c. <u>ERICO International Corporation</u>.
 - d. <u>GS Metals Corp</u>.
 - e. <u>Thomas & Betts Corporation</u>.
 - f. <u>Unistrut; Atkore International</u>.
 - g. <u>Wesanco, Inc</u>.
 - 2. Metallic Coatings: Hot-dip galvanized after fabrication and applied according to MFMA-4.
 - 3. Channel Dimensions: Selected for applicable load criteria.
- B. Raceway and Cable Supports: As described in NECA 1 and NECA 101.
- C. Conduit and Cable Support Devices: Steel and malleable-iron clamps, and associated fittings, designed for types and sizes of raceway or cable to be supported.
- D. Structural Steel for Fabricated Supports and Restraints: ASTM A 36/A 36M, steel plates, shapes, and bars; black and galvanized.
- E. Mounting, Anchoring, and Attachment Components: Items for fastening electrical items or their supports to building surfaces include the following:
 - 1. Powder-Actuated Fasteners: Threaded-steel stud, for use in hardened Portland cement concrete, steel, or wood, with tension, shear, and pullout capacities appropriate for supported loads and building materials where used.
 - A. Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
 - 1) <u>Hilti, Inc.</u>
 - 2) <u>ITW Ramset/Red Head; Illinois Tool Works, Inc.</u>
 - 3) <u>MKT Fastening, LLC.</u>
 - 4) <u>Simpson Strong-Tie Co., Inc.</u>
 - 2. Mechanical-Expansion Anchors: Insert-wedge-type, stainless steel, for use in hardened Portland cement concrete with tension, shear, and pullout capacities appropriate for supported loads and building materials in which used.

- A. Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
 - 1) <u>Cooper B-Line, Inc</u>.
 - 2) <u>Empire Tool and Manufacturing Co., Inc.</u>
 - 3) <u>Hilti, Inc</u>.
 - 4) ITW Ramset/Red Head; Illinois Tool Works, Inc.
 - 5) <u>MKT Fastening, LLC</u>.
- 3. Concrete Inserts: Steel or malleable-iron, slotted support system units similar to MSS Type 18; complying with MFMA-4 or MSS SP-58.
- 4. Clamps for Attachment to Steel Structural Elements: MSS SP-58, type suitable for attached structural element.
- 5. Through Bolts: Structural type, hex head, and high strength. Comply with ASTM A 325.
- 6. Toggle Bolts: All-steel springhead type.
- 7. Hanger Rods: Threaded steel.

2.2 FABRICATED METAL EQUIPMENT SUPPORT ASSEMBLIES

A. Description: Welded or bolted, structural-steel shapes, shop or field fabricated to fit dimensions of supported equipment.

PART 3 - EXECUTION

3.1 APPLICATION

- A. Comply with NECA 1 and NECA 101 for application of hangers and supports for electrical equipment and systems except if requirements in this Section are stricter.
- B. Maximum Support Spacing for Raceway: Space supports for IMC and RMC as required by NFPA 70.

3.2 SUPPORT INSTALLATION

- A. Comply with NECA 1 and NECA 101 for installation requirements except as specified in this Article.
- B. Strength of Support Assemblies: Where not indicated, select sizes of components so strength will be adequate to carry present and future static loads within specified loading limits. Minimum static design load used for strength determination shall be weight of supported components plus 200 lb (90 kg).
- C. Mounting and Anchorage of Surface-Mounted Equipment and Components: Anchor and fasten electrical items and their supports to building structural elements by the following methods unless otherwise indicated by code:

- 1. To Wood: Fasten with lag screws or through bolts.
- 2. To New Concrete: Bolt to concrete inserts.
- 3. To Masonry: Approved toggle-type bolts on hollow masonry units and expansion anchor fasteners on solid masonry units.
- 4. To Existing Concrete: Expansion anchor fasteners.
- 5. Instead of expansion anchors, powder-actuated driven threaded studs provided with lock washers and nuts may be used in existing standardweight concrete 4 inches (100 mm) thick or greater. Do not use for anchorage to lightweight-aggregate concrete or for slabs less than 4 inches (100 mm) thick.
- 6. To Light Steel: Sheet metal screws.
- 7. Items Mounted on Hollow Walls and Nonstructural Building Surfaces: Mount cabinets, panelboards, disconnect switches, control enclosures, pull and junction boxes, transformers, and other devices on slotted- channel racks attached to substrate.
- D. Drill holes for expansion anchors in concrete at locations and to depths that avoid reinforcing bars.

3.3 INSTALLATION OF FABRICATED METAL SUPPORTS

- A. Cut, fit, and place miscellaneous metal supports accurately in location, alignment, and elevation to support and anchor electrical materials and equipment.
- B. Field Welding: Comply with AWS D1.1/D1.1M.

3.4 CONCRETE BASES

- A. Construct concrete bases of dimensions indicated but not less than 4 inches (100 mm) larger in both directions than supported unit, and so anchors will be a minimum of 10 bolt diameters from edge of the base.
- B. Use 3000-psi (20.7-MPa), 28-day compressive-strength concrete.
- C. Anchor equipment to concrete base.
 - 1. Place and secure anchorage devices. Use supported equipment manufacturer's setting drawings, templates, diagrams, instructions, and directions furnished with items to be embedded.
 - 2. Install anchor bolts to elevations required for proper attachment to supported equipment.
 - 3. Install anchor bolts according to anchor-bolt manufacturer's written instructions.

3.5 PAINTING

- 1. Touchup: Clean field welds and abraded areas of shop paint. Paint exposed areas immediately after erecting hangers and supports. Use same materials as used for shop painting. Comply with SSPC-PA 1 requirements for touching up field- painted surfaces.
- 2. Apply paint by brush or spray to provide minimum dry film thickness of 2.0 mils (0.05 mm).
- B. Galvanized Surfaces: Clean welds, bolted connections, and abraded areas and apply galvanizing-repair paint to comply with ASTM A 780.

END OF SECTION

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section Includes:
 - 1. Identification for conductors.
 - 2. Underground-line warning tape.
 - 3. Miscellaneous identification products.

1.3 QUALITY ASSURANCE

- A. Comply with ANSI A13.1 and IEEEC2.
- B. Comply with NFPA 70.
- C. Comply with 29 CFR 1910.144 and 29 CFR 191.145
- D. Comply with ANSI Z535.4 for safety signs and labels.
- E. Adhesive-attached labeling materials, including label stocks, laminating adhesives, and inks used by label printers, shall comply with UL 969.

PART 2 - PRODUCTS

2.1 CONDUCTOR IDENTIFICATION MATERIALS

- A. Color-Coding Conductor Tape: Colored, self-adhesive vinyl tape not less than 3 mils (0.08 mm) thick by 1 to 2 inches (25 to 50 mm) wide.
- B. Self-Adhesive, Self-Laminating Polyester Labels: Preprinted, 3-mil- (0.08-mm-) thick flexible label with acrylic pressure-sensitive adhesive that provides a clear, weather- and chemical-resistant, self-laminating, protective shield over the legend. Labels sized to fit the conductor diameter such that the clear shield overlaps the entire printed legend.
- C. Marker Tapes: Vinyl or vinyl-cloth, self-adhesive wraparound type, with circuit identification legend machine printed by thermal transfer or equivalent process.
- D. Write-On Tags: Polyester tag, 0.015 inch (0.38 mm) thick, with corrosion- resistant grommet and cable tie for attachment to conductor or cable.
- E. Labels for Tags: Self-adhesive label, machine-printed with permanent, waterproof, black ink recommended by printer manufacturer, sized for attachment to tag.

2.2 UNDERGROUND-LINE WARNING TAPE

- A. Tape
 - 1. Recommended by manufacturer for the method of installation and suitable to identify and locate underground electrical utility lines.
 - 2. Printing on tape shall be permanent and shall not be damaged by burial operations.
 - Tape material and ink shall be chemically inert, and not subject to
 - 3. degrading when exposed to acids, alkalis, and other destructive substances commonly found in soils.

2.3 CABLE TIES

- A. UV-Stabilized Cable Ties: Fungus inert, designed for continuous exposure to exterior sunlight, self-extinguishing, one piece, self-locking, Type 6/6 nylon.
 - 1. Minimum Width: 3/16 inch (5 mm)
 - 2. Tensile Strength at 73 deg F (23 deg C), According to ASTM D 638: 12,000 psi (82.7 MPa).
 - 3. Temperature Range: Minus 40 to plus 185 deg F (Minus 40 to plus 85 deg
 - 4. Color: Black.

PART 3 - EXECUTION

- 3.1 INSTALLATION
 - A. Verify identity of each item before installing identification products.
 - B. Apply identification devices to surfaces that require finish after completing finish work.
 - C. Self-Adhesive Identification Products: Clean surfaces before application, using materials and methods recommended by manufacturer of identification device.
 - D. Cable Ties: For attaching tags. Use UV-stabilized nylon.
 - E. Underground-Line Warning Tape: During backfilling of trenches install continuous underground-line warning tape directly above line at 6 to 8 inches (150 to 200 mm) below finished grade. Use multiple tapes where width of multiple lines installed in a common trench or concrete envelope exceeds 16 inches (400 mm) overall.

3.2 IDENTIFICATION SCHEDULE

- A. Power-Circuit Conductor Identification, 600 V or Less: For conductors in vaults, pull and junction boxes, and handholes, use color-coding conductor tape to identify the phase.
- B. Color-Coding for Phase and Voltage Level Identification, 600 V or Less: Use colors listed below for ungrounded conductors.

SECTION 16075 - ELECTRICAL IDENTIFICATION

- a. Color shall be factory applied or field applied for sizes larger than No. 8 AWG, if authorities having jurisdiction permit.
- b. Colors for 208/120-V Circuits:
 - 1) Phase A: Black.
 - 2) Phase B: Red.
 - 3) Phase C: Blue.
- c. Colors for 480/120-V Circuits:
 - 1) Phase A: Brown.
 - 2) Phase B: Orange.
 - 3) Phase C: Yellow.
- C. Locations of Underground Lines: Identify with underground-line warning tape for lighting wiring.

END OF SECTION

PART 1 – GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.
- 1.2 SUMMARY
 - A. Section Includes:
 - 1. Building wires and cables rated 600 V and less.
 - 2. Connectors, splices, and terminations rated 600 V and less.

1.3 ACTION SUBMITTALS

- A. Product Data: For each type of product.
- 1.4 INFORMATIONAL SUBMITTALS
 - A. Field quality-control reports.

PART 2 - PRODUCTS

2.1 CONDUCTORS AND CABLES

- A. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
 - 1. <u>Alcan Products Corporation; Alcan Cable Division</u>.
 - 2. <u>Alpha Wire</u>.
 - 3. <u>Belden Inc</u>.
 - 4. <u>Encore Wire Corporation</u>.
 - 5. <u>General Cable Technologies Corporation</u>.
 - 6. <u>Southwire Incorporated</u>.
- B. Copper Conductors: Comply with NEMA WC 70/ICEA S-95-658.
- C. Conductor Insulation: Comply with NEMA WC 70/ICEA S-95-658 for Type XHHW-2.
- 2.2 CONNECTORS AND SPLICES
 - A. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:

SECTION 16120 - CONDUCTORS AND CABLES

- 1. <u>AFC Cable Systems, Inc</u>.
- 2. <u>Gardner Bender</u>.
- 3. <u>Hubbell Power Systems, Inc</u>.
- 4. <u>Ideal Industries, Inc</u>.
- 5. <u>Ilsco;</u> a branch of Bardes Corporation.
- 6. <u>NSi Industries LLC.</u>
- 7. <u>O-Z/Gedney;</u> a brand of the EGS Electrical Group.
- 8. <u>3M;</u> Electrical Markets Division.
- 9. <u>Tyco Electronics</u>.
- B. Description: Factory-fabricated connectors and splices of size, ampacity rating, material, type, and class for application and service indicated.

2.3 SYSTEM DESCRIPTION

- A. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application.
- B. Comply with NFPA 70.

PART 3 - EXECUTION

- 3.1 CONDUCTOR MATERIAL APPLICATIONS
 - A. Branch Circuits: Stranded copper.
- 3.2 CONDUCTOR INSULATION AND MULTICONDUCTOR CABLE APPLICATIONS AND WIRING METHODS
 - A. Branch Circuits Concealed in Concrete, below Slabs-on-Grade, and Underground: Type XHHW-2, single conductors in raceway.
- 3.3 INSTALLATION OF CONDUCTORS AND CABLES
 - A. Complete raceway installation between conductor termination points according to Section 16130 "Raceways and Boxes" prior to pulling conductors and cables.
 - B. Use manufacturer-approved pulling compound or lubricant where necessary; compound used must not deteriorate conductor or insulation. Do not exceed manufacturer's recommended maximum pulling tensions and sidewall pressure values.
 - C. Use pulling means, including fish tape, cable, rope, and basket-weave wire/cable grips, that will not damage cables or raceway.

3.4 CONNECTIONS

- A. Tighten electrical connectors and terminals according to manufacturer's published torque-tightening values. If manufacturer's torque values are not indicated, use those specified in UL 486A-486B.
- B. Make splices, terminations, and taps that are compatible with conductor material.
 - 1. Use oxide inhibitor in each splice, termination, and tap.
- C. Wiring at Outlets: Install conductor at each outlet, with at least 12 inches (300 mm) of slack.

3.5 IDENTIFICATION

- A. Identify and color-code conductors and cables according to Section 16075 "Electrical Identification."
- B. Identify each spare conductor at each end with identity number and location of other end of conductor, and identify as spare conductor.

END OF SECTION

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.
- 1.2 SUMMARY
 - A. Section Includes:
 - 1. Metal wireways.
 - 2. Nonmetal wireways.
 - 3. Boxes, enclosures, and cabinets.
 - 4. Handholes and boxes for exterior underground cabling.

1.3 **DEFINITIONS**

- A. GRC: Galvanized rigid steel conduit.
- B. IMC: Intermediate metal conduit.
- C. RNC: Rigid Nonmetallic Conduit.

PART 2 - PRODUCTS

2.1 METAL CONDUITS, TUBING, AND FITTINGS

- A. <u>Manufacturers</u>: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
 - 1. <u>AFC Cable Systems, Inc</u>.
 - 2. <u>Allied Tube & Conduit</u>.
 - 3. <u>Anamet Electrical, Inc</u>.
 - 4. <u>Electri-Flex Company</u>.
 - 5. <u>O-Z/Gedney</u>.
 - 6. <u>Picoma Industries</u>.
 - 7. <u>Republic Conduit</u>.
 - 8. Robroy Industries.
 - 9. <u>Southwire Company.</u>
 - 10. Thomas & Betts Corporation.
 - 11. <u>Western Tube and Conduit Corporation</u>.
 - 12. <u>Wheatland Tube Company</u>.
- B. Listing and Labeling: Metal conduits, tubing, and fittings shall be listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application.

SECTION 16130 - RACEWAYS AND BOXES

- C. GRC: Comply with ANSI C80.1 and UL 6.
- D. IMC: Comply with ANSI C80.6 and UL 1242.
- E. RNC: Type EPC-40-PVC, complying with NEMA TC 2 and UL 651.
- F. Fittings for Metal Conduit: Comply with NEMA FB 1 and UL 514B.
- G. Joint Compound for IMC or GRC: Approved, as defined in NFPA 70, by authorities having jurisdiction for use in conduit assemblies, and compounded for use to lubricate and protect threaded conduit joints from corrosion and to enhance their conductivity.

2.2 NONMETALLIC CONDUITS, TUBING, AND FITTINGS

- A. <u>Manufacturers</u>: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
 - 1. <u>AFC Cable Systems, Inc</u>.
 - 2. <u>Anamet Electrical, Inc</u>.
 - 3. <u>Arnco Corporation</u>.
 - 4. <u>CANTEX Inc.</u>
 - 5. <u>CertainTeed Corporation</u>.
 - 6. <u>Condux International, Inc</u>.
 - 7. <u>Electri-Flex Company</u>.
 - 8. <u>Kraloy</u>.
 - 9. <u>Lamson & Sessions;</u> Carlon Electrical Products.
 - 10. <u>Niedax-Kleinhuis USA, Inc</u>.
 - 11. <u>RACO; Hubbell</u>.
 - 12. <u>Thomas & Betts Corporation</u>.
- B. Listing and Labeling: Nonmetallic conduits, tubing, and fittings shall be listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application.
- C. RNC: Type EPC-40-PVC, complying with NEMA TC 2 and UL 651 unless otherwise indicated.
- D. Fittings for RNC: Comply with NEMA TC 3; match to conduit and material.
- E. Solvent cements and adhesive primers shall have a VOC content of 510 and 550 g/L or less, respectively, when calculated according to 40 CFR 59, Subpart D (EPA Method 24).

2.3 BOXES, ENCLOSURES, AND CABINETS

- A. <u>Manufacturers</u>: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
 - 1. <u>Adalet</u>.
 - 2. <u>Cooper Technologies Company</u>; Cooper Crouse-Hinds.
 - 3. <u>EGS/Appleton Electric</u>.
 - 4. <u>Erickson Electrical Equipment Company</u>.
 - 5. $\underline{FSR Inc}$.
 - 6. <u>Hoffman</u>.
 - 7. <u>Hubbell Incorporated</u>.
 - 8. <u>Kraloy</u>.
 - 9. <u>Milbank Manufacturing Co</u>.
 - 10. <u>Mono-Systems, Inc</u>.
 - 11. <u>O-Z/Gedney</u>.
 - 12. <u>RACO; Hubbell</u>.
 - 13. <u>Robroy Industries</u>.
 - 14. Spring City Electrical Manufacturing Company.
 - 15. <u>Stahlin Non-Metallic Enclosures</u>.
 - 16. <u>Thomas & Betts Corporation</u>.
 - 17. <u>Wiremold / Legrand</u>.
- B. General Requirements for Boxes, Enclosures, and Cabinets: Boxes, enclosures, and cabinets installed in wet locations shall be listed for use in wet locations.
- C. Cast-Metal Outlet and Device Boxes: Comply with NEMA FB 1, aluminum, Type FD, with gasketed cover.
- D. Device Box Dimensions: 4 inches square by 2-1/8 inches deep (100 mm square by 60 mm deep).

2.4 HANDHOLES AND BOXES FOR EXTERIOR UNDERGROUND WIRING

- A. General Requirements for Handholes and Boxes:
 - 1. Boxes and handholes for use in underground systems shall be designed and identified as defined in NFPA 70, for intended location and application.
 - 2. Boxes installed in wet areas shall be listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application.
- B. Polymer-Concrete Handholes and Boxes: Molded of sand and aggregate, bound together with polymer resin, and reinforced with steel, fiberglass, or a combination of the two.
 - 1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
 - a. <u>Armorcast Products Company</u>.

SECTION 16130 - RACEWAYS AND BOXES

- b. <u>Carson Industries LLC</u>.
- c. <u>NewBasis</u>.
- d. <u>Oldcastle Precast, Inc</u>.
- e. <u>Quazite: Hubbell Power System, Inc</u>.
- f. <u>Synertech Moulded Products</u>.
- 2. Standard: Comply with SCTE 77.
- 3. Configuration: Designed for flush burial with open bottom unless otherwise indicated.
- 4. Cover: Weatherproof, cast steel, secured by tamper-resistant locking devices and having structural load rating consistent with enclosure and handhole location.
- 5. Cover Finish: Nonskid finish shall have a minimum coefficient of friction of 0.50.
- 6. Cover Legend: Molded lettering, "LIGHTING.".
- 7. Conduit Entrance Provisions: Conduit-terminating fittings shall mate with entering ducts for secure, fixed installation in enclosure wall.

2.5 SOURCE QUALITY CONTROL FOR UNDERGROUND ENCLOSURES

- A. Handhole and Pull-Box Prototype Test: Test prototypes of handholes and boxes for compliance with SCTE 77. Strength tests shall be for specified tier ratings of products supplied.
 - 1. Tests of materials shall be performed by an independent testing agency.
 - 2. Strength tests of complete boxes and covers shall be by either an independent testing agency or manufacturer. A qualified registered professional engineer shall certify tests by manufacturer.
 - 3. Testing machine pressure gages shall have current calibration certification complying with ISO 9000 and ISO 10012 and traceable to NIST standards.

PART 3 - EXECUTION

3.1 RACEWAY APPLICATION

- A. Outdoors: Apply raceway products as specified below unless otherwise indicated:
 - 1. Exposed Conduit: GRC or IMC.
 - 2. Underground Conduit: RNC, Type EPC-40-PVC, direct buried.
- B. Minimum Raceway Size: 3/4-inch (21-mm) trade size.
- C. Raceway Fittings: Compatible with raceways and suitable for use and location.
 - 1. Rigid and Intermediate Steel Conduit: Use threaded rigid steel conduit fittings unless otherwise indicated. Comply with NEMA FB 2.10.

3.2 INSTALLATION

- A. Comply with NECA 1 and NECA 101 for installation requirements except where requirements on Drawings or in this article are stricter. Comply with NFPA 70 limitations for types of raceways allowed in specific occupancies and number of floors.
- B. Complete raceway installation before starting conductor installation.
- C. Comply with requirements in Section 16073 "Hangers and Supports for Electrical Systems" for hangers and supports.
- D. Arrange stub-ups so curved portions of bends are not visible above finished slab.
- E. Install no more than the equivalent of three 90-degree bends in any conduit run for which fewer bends are allowed. Support within 12 inches (300 mm) of changes in direction.
- F. Support conduit within 12 inches (300 mm) of enclosures to which attached.
- G. Threaded Conduit Joints, Exposed to Wet, Damp, Corrosive, or Outdoor Conditions: Apply listed compound to threads of raceway and fittings before making up joints. Follow compound manufacturer's written instructions.
- H. Terminate threaded conduits into threaded hubs or with locknuts on inside and outside of boxes or cabinets. Install bushings on conduits up to 1-1/4-inch (35mm) trade size and insulated throat metal bushings on 1-1/2-inch (41-mm) trade size and larger conduits terminated with locknuts. Install insulated throat metal grounding bushings on service conduits.
- I. Install raceways square to the enclosure and terminate at enclosures with locknuts. Install locknuts hand tight plus 1/4 turn more.
- J. Do not rely on locknuts to penetrate nonconductive coatings on enclosures. Remove coatings in the locknut area prior to assembling conduit to enclosure to assure a continuous ground path.
- K. Cut conduit perpendicular to the length. For conduits 2-inch (53-mm) trade size and larger, use roll cutter or a guide to make cut straight and perpendicular to the length.
- L. Install pull wires in empty raceways. Use polypropylene or monofilament plastic line with not less than 200-lb (90-kg) tensile strength. Leave at least 12 inches (300 mm) of slack at each end of pull wire. Cap underground raceways designated as spare above grade alongside raceways in use.
- M. Comply with manufacturer's written instructions for solvent welding RNC and fittings.
- N. Fasten junction and pull boxes to or support from building structure. Do not support boxes by conduits.

3.3 INSTALLATION OF UNDERGROUND CONDUIT

- A. Direct-Buried Conduit:
 - 1. Excavate trench bottom to provide firm and uniform support for conduit. Prepare trench bottom as specified in Section 02203 "Trenching" for pipe less than 6 inches (150 mm) in nominal diameter.
 - 2. Install backfill as specified in 02203 "Trenching."
 - 3. After installing conduit, backfill and compact. Start at tie-in point, and work toward end of conduit run, leaving conduit at end of run free to move with expansion and contraction as temperature changes during this process. Firmly hand tamp backfill around conduit to provide maximum supporting strength. After placing controlled backfill to within 12 inches (300 mm) of finished grade, make final conduit connection at end of run and complete backfilling with normal compaction as specified in 02203 "Trenching."
 - 4. Install manufactured rigid steel conduit elbows for stub-ups at poles and equipment and at building entrances through floor.
 - a. Couple steel conduits to ducts with adapters designed for this purpose.
 - b. For stub-ups at equipment mounted on outdoor concrete bases and where conduits penetrate building foundations, extend steel conduit horizontally a minimum of 60 inches (1500 mm) from edge of foundation or equipment base. Install insulated grounding bushings on terminations at equipment.
 - c. Underground Warning Tape: Comply with requirements in Section 16075 "Electrical Identification."

3.4 INSTALLATION OF UNDERGROUND HANDHOLES AND BOXES

- A. Install handholes and boxes level and plumb and with orientation and depth coordinated with connecting conduits to minimize bends and deflections required for proper entrances.
- B. Unless otherwise indicated, support units on a level bed of crushed stone or gravel, graded from 1/2-inch (12.5-mm) sieve to No. 4 (4.75-mm) sieve and compacted to same density as adjacent undisturbed earth.
- C. Elevation: In paved areas, set so cover surface will be flush with finished grade. Set covers of other enclosures 1 inch (25 mm) above finished grade.
- D. Field-cut openings for conduits according to enclosure manufacturer's written instructions. Cut wall of enclosure with a tool designed for material to be cut. Size holes for terminating fittings to be used, and seal around penetrations after fittings are installed.

3.5 **PROTECTION**

- A. Protect coatings, finishes, and cabinets from damage and deterioration.
 - 1. Repair damage to galvanized finishes with zinc-rich paint recommended by manufacturer.

END OF SECTION

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section Includes:
 - 1. Exterior luminaires with light engines and drivers.
 - 2. Poles and accessories.

1.3 DEFINITIONS

- A. CCT: Correlated color temperature.
- B. CRI: Color-rendering index.
- C. LER: Luminaire efficacy rating.
- D. Luminaire: Complete lighting fixture, including ballast housing if provided.
- E. Pole: Luminaire support structure, including tower used for large area illumination.
- F. Standard: Same definition as "Pole" above.

1.4 STRUCTURAL ANALYSIS CRITERIA FOR POLE SELECTION

- A. Dead Load: Weight of luminaire and its horizontal and vertical supports, lowering devices, and supporting structure, applied as stated in AASHTO LTS-4- M.
- B. Live Load: Single load of 500 lbf (2224 N), distributed as stated in AASHTO LTS-4-M.
- C. Ice Load: Load of 3 lbf/sq. ft. (145 Pa), applied as stated in AASHTO LTS-4-M Ice Load Map.
- D. Wind Load: Pressure of wind on pole and luminaire and banners and banner arms, calculated and applied as stated in AASHTO LTS-4-M.
 - 1. Basic wind speed for calculating wind load for poles 50 feet (15 m) high or less is 100 mph (45 m/s).
 - a. Wind Importance Factor: 1.0.
 - b. Minimum Design Life: 25 years.

SECTION 16521 - EXTERIOR LIGHTING

c. Velocity Conversion Factors: 1.0.

1.5 ACTION SUBMITTALS

- A. Product Data: For each luminaire, pole, and support component, arranged in order of lighting unit designation. Include data on features, accessories, finishes, and the following:
 - 1. Physical description of luminaire, including materials, dimensions, effective projected area, and verification of indicated parameters.
 - 2. Details of attaching luminaires and accessories.
 - 3. Details of installation and construction.
 - 4. Luminaire materials.
 - 5. Photometric data based on laboratory tests of each luminaire type, complete with indicated light engines, drivers, and accessories.
 - 6. Manufacturer Certified Data: Photometric data shall be certified by manufacturer's laboratory with a current accreditation under the National Voluntary Laboratory Accreditation Program for Energy Efficient Lighting Products.
 - 7. Drivers, including energy-efficiency data.
 - 8. Light engines, including life, output, CCT, CRI, lumens, and energy- efficiency data.
 - 9. Materials, dimensions, and finishes of poles.
 - 10. Means of attaching luminaires to supports, and indication that attachment is suitable for components involved.
 - 11. Anchor bolts for poles.
 - 12. Manufactured pole foundations.
- B. Shop Drawings: Include plans, elevations, sections, details, and attachments to other work.
 - 1. Detail equipment assemblies and indicate dimensions, weights, loads, required clearances, method of field assembly, components, and location and size of each field connection.
 - 2. Anchor-bolt templates keyed to specific poles and certified by manufacturer.

1.6 INFORMATIONAL SUBMITTALS

- A. Field quality-control reports.
- B. Warranty: Sample of special warranty.
- 1.7 QUALITY ASSURANCE
 - A. Luminaire Photometric Data Testing Laboratory Qualifications: Provided by manufacturers' laboratories that are accredited under the National Volunteer Laboratory Accreditation Program for Energy Efficient Lighting Products.

- B. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application.
- C. Comply with IEEE C2, "National Electrical Safety Code."
- D. Comply with NFPA 70.

1.8 DELIVERY, STORAGE, AND HANDLING

- A. Store poles on decay-resistant-treated skids at least 12 inches (300 mm) above grade and vegetation. Support poles to prevent distortion and arrange to provide free air circulation.
- B. Retain factory-applied pole wrappings on metal poles until right before pole installation. For poles with nonmetallic finishes, handle with web fabric straps.

1.9 WARRANTY

- A. Special Warranty: Manufacturer's standard form in which manufacturer agrees to repair or replace products that fail in materials or workmanship; that corrode; or that fade, stain, perforate, erode, or chalk due to effects of weather or solar radiation within specified warranty period. Manufacturer may exclude lightning damage, hail damage, vandalism, abuse, or unauthorized repairs or alterations from special warranty coverage.
 - 1. Warranty Period for Luminaires: All mechanical components (other than LED drivers) and LED components in the product as well as the fixture housing will be free of defects in material and workmanship for a period of ten (10) years from the date of original purchase.
 - 2. All LED drivers in the Product will be free of defects in material and workmanship for a period equal to the shorter of ten (10) years from the date of original purchase, or fifty thousand (50,000) hours of operation.
 - 3. Warranty Period for Poles: Repair or replace lighting poles and standards that fail in finish, materials, and workmanship within manufacturer's standard warranty period, but not less than three years from date of Substantial Completion.

1.10 EXTRA MATERIALS

- A. Furnish extra materials described below that match products installed and that are packaged with protective covering for storage and identified with labels describing contents.
 - 1. Lamps: Provide one spare luminaire for each type installed.
 - 2. Glass and Plastic Lenses, Covers, and Other Optical Parts: Furnish at least 1 for each type and rating installed.
 - 3. Ballasts/Drivers: Provide at least 1 for each type and rating installed.

SECTION 16521 - EXTERIOR LIGHTING

4. Reflectors, Glare Shields, Globes and Guards: Furnish at least 1 for each type and rating installed.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. Products: Subject to compliance with requirements, basis of design is Cree, RSW series.

2.2 GENERAL REQUIREMENTS FOR LUMINAIRES

- A. Luminaires shall comply with UL 1598 and be listed and labeled for installation in wet locations by an NRTL acceptable to authorities having jurisdiction.
 - 1. LER Tests Fixtures: Where LER is specified, test according to NEMA LE 5 and NEMA LE 5A as applicable.
- B. Lateral Light Distribution Patterns: Comply with IESNA RP-8 for parameters of lateral light distribution patterns indicated for luminaires.
- C. Metal Parts: Free of burrs and sharp corners and edges.
- D. Housings: Rigidly formed, weather- and light-tight enclosures that will not warp, sag, or deform in use. Provide filter/breather for enclosed luminaires.
- E. Doors, Frames, and Other Internal Access: Smooth operating, free of light leakage under operating conditions, and designed to permit servicing without use of tools. Designed to prevent doors, frames, lenses, diffusers, and other components from falling accidentally during servicing and when secured in operating position. Doors shall be removable for cleaning or replacing lenses.
- F. Exposed Hardware Material: Stainless steel.
- G. Plastic Parts: High resistance to yellowing and other changes due to aging, exposure to heat, and UV radiation.
- H. Lenses and Refractors Gaskets: Use heat- and aging-resistant resilient gaskets to seal and cushion lenses and refractors in luminaire doors.
- I. Luminaire Finish: Manufacturer's standard paint applied to factory-assembled and tested luminaire before shipping. Where indicated, match finish process and color of pole or support materials.
 - Exterior Surfaces: Manufacturer's standard finish for corrosion protection.
 a. Color: As indicated by the specifications in the drawings.
- J. Factory-Applied Labels: Comply with UL 1598. Labels shall be located where they will be readily visible to service personnel, but not seen from normal viewing angles when lamps are in place.

2.3 DRIVERS FOR LED'S

- A. General Requirements for Electronic Drivers
 - 1. Comply with UL and ANSI C82.11
 - 2. Designed for type and quantity of lamps served.
 - 3. Drivers shall be designed for full light output.
 - 4. Drivers shall operate at 60 Hz.
 - 5. Sound Rating: Class A.
 - 6. Total Harmonic Distortion Rating: Less than 20 percent.
 - 7. Transient Voltage Protection IEEE C62.41.1 and IEEE C62.41.2, Category A or better.
 - 8. BF: 0.90, or higher.
 - 9. Power Factor: 0.95, or higher.

2.4 GENERAL REQUIREMENTS FOR POLES AND SUPPORT COMPONENTS

- A. Structural Characteristics: Comply with AASHTO LTS-4-M.
 - 1. Wind-Load Strength of Poles: Adequate at indicated heights above grade without failure, permanent deflection, or whipping in steady winds of speed indicated in "Structural Analysis Criteria for Pole Selection" Article.
 - 2. Strength Analysis: For each pole, multiply the actual equivalent projected area of luminaires and brackets by a factor of 1.1 to obtain the equivalent projected area to be used in pole selection strength analysis.
- B. Luminaire Attachment Provisions: Comply with luminaire manufacturers' mounting requirements. Use stainless-steel fasteners and mounting bolts unless otherwise indicated.
- C. Mountings, Fasteners, and Appurtenances: Corrosion-resistant items compatible with support components.
 - 1. Materials: Shall not cause galvanic action at contact points.
 - 2. Anchor Bolts, Leveling Nuts, Bolt Caps, and Washers: Hot-dip galvanized after fabrication unless otherwise indicated.
 - 3. Anchor-Bolt Template: Plywood or steel.
- D. Handhole: Rectangular-shaped, with minimum clear opening of 2-1/2 by 5 inches (65 by 130 mm), with cover secured by stainless-steel captive screws.
- E. Concrete Pole Foundations: Precast, with anchor bolts to match pole-base flange.

2.5 STEEL POLES

- A. Poles: Comply with ASTM A 500, Grade B, carbon steel with a minimum yield of 42 ksi (290 MPa); one-piece construction up to 40 feet (12 m) in height with access handhole in pole wall.
 - 1. Shape: Per Drawings.
 - 2. Mounting Provisions: Butt flange for bolted mounting on

foundation or breakaway support.

- B. Steel Mast Arms: Per Drawings. Material and finish same as pole.
- C. Grounding and Bonding: Grounding provision is provided at handhole, complying with requirements in Section 16060 "Grounding and Bonding," listed for attaching grounding and bonding conductors of type and size listed in that Section, and accessible through handhole.
- D. Cable Support Grip: Wire-mesh type with rotating attachment eye, sized for diameter of cable and rated for a minimum load equal to weight of supported cable times a 5.0 safety factor.
- E. Factory-Painted Finish: Comply with NAAMM's "Metal Finishes Manual for Architectural and Metal Products" for recommendations for applying and designating finishes.
 - 1. Interior Surfaces of Pole: One coat of bituminous paint, or otherwise treat for equal corrosion protection.
 - Exterior Surfaces: Per manufacturer's standard for corrosion protection.
 a. Color: As indicated by the specifications in the drawings.

PART 3 - EXECUTION

3.1 LUMINAIRE INSTALLATION

A. Fasten luminaire to indicated structural supports.

3.2 POLE INSTALLATION

- A. Alignment: Align pole foundations and poles for optimum directional alignment of luminaires and their mounting provisions on the pole.
- B. Clearances: Maintain the following minimum horizontal distances of poles from surface and underground features unless otherwise indicated on Drawings:
 - 1. Fire Hydrants and Storm Drainage Piping: 60 inches (1520 mm).
- C. Concrete Pole Foundations: Anchor bolts in precast arranged according to anchorbolt templates furnished by pole manufacturer. Concrete materials, installation, and finishing requirements are specified in Section 03302 "Concrete Structures.".
- D. Foundation-Mounted Poles: Mount pole with leveling nuts, and tighten top nuts to torque level recommended by pole manufacturer.
 - 1. Use anchor bolts and nuts defined for the application and approved by manufacturer.
- E. Raise and set poles using web fabric slings (not chain or cable).

3.3 CORROSION PREVENTION

A. Steel Conduits: Comply with Section 16130 "Raceways and Boxes." In concrete foundations, wrap conduit with 0.010-inch- (0.254-mm-) thick, pipe-wrapping plastic tape applied with a 50 percent overlap.

3.4 GROUNDING

- A. Ground metal poles and support structures according to Section 16060 "Grounding and Bonding."
 - 1. Install grounding conductor pigtail in the base for connecting luminaire to grounding system.

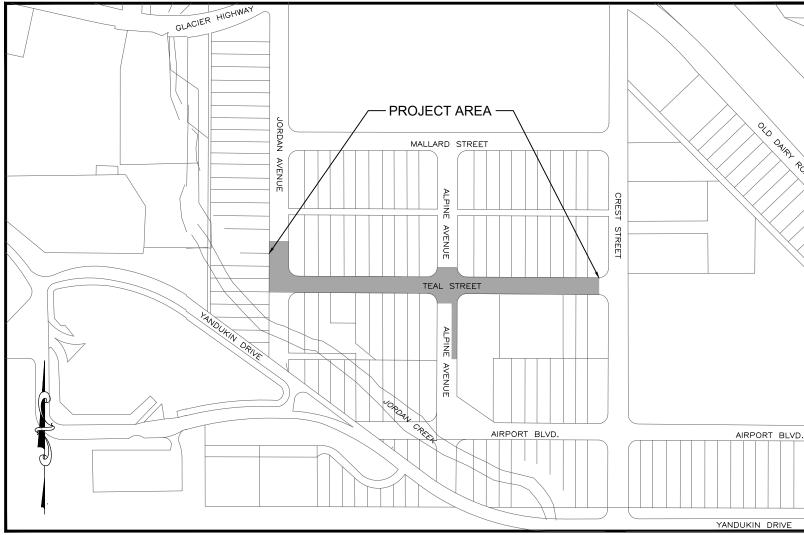
3.5 FIELD QUALITY CONTROL

- A. Inspect each installed fixture for damage. Replace damaged fixtures and components.
- B. Illumination Observations: Verify normal operation of lighting units after installing luminaires and energizing circuits with normal power source.

END OF SECTION

TEAL STREET RECONSTRUCTION CBJ CONTRACT No. BE23-123

SHEET INDEX				
SHEET NO.	TITLE			
GENERAL				
G-001	COVER SHEET			
G-002	LEGEND, ABBREVIATIONS, AND GENERAL NOTES			
G-003	TRAFFIC CONTROL AND ACCESS REQUIREMENTS			
G-004	SURVEY CONTROL			
G-005	EROSION AND SEDIMENT CONTROL PLAN			
CIVIL				
C-100	TYPICAL SECTIONS A, B & C			
C-101	TYPICAL SECTIONS D, E & F			
C-102	SUMMARY TABLES			
C-201	PLAN – TEAL STREET JORDAN AVENUE TO STA "T" 12+95			
C-202	PLAN – TEAL STREET STA "T" 12+95 TO 15+50			
C-203	PLAN – TEAL STREET STA "T" 15+50 TO 17+00			
C-204	PLAN – TEAL STREET STA "T" 17+00 TO 19+50			
C-205	PLAN – TEAL STREET STA "T" 19+50 TO CREST STREET			
C-301	CURB AND GUTTER LAYOUT AND GRADES – TEAL STREET JORDAN AVENUE TO STA "T" 12+95			
C-302	CURB AND GUTTER LAYOUT AND GRADES – TEAL STREET STA "T" 12+95 TO 15+50			
C-303	CURB AND GUTTER LAYOUT AND GRADES – TEAL STREET STA "T" 15+50 TO 17+00			
C-304	CURB AND GUTTER LAYOUT AND GRADES – TEAL STREET STA "T" 17+00 TO 19+50			
C-305	CURB AND GUTTER LAYOUT AND GRADES – TEAL STREET STA "T" 19+50 TO CREST STREET			



PROJECT LOCATION MAP

CITY & BOROUGH OF JUNEAU, ALASKA



907-463-53 Toby Lockl oby@homeshorellc. Candy

SHEET NO.	TITLE			
CIVIL CON'T				
C-401 WATER SYSTEM DETAILS				
C-402	STORM DRAIN DETAILS			
C-403	MISCELLANEOUS DETAILS			
C-404	SANITARY SEWER SWITCHOVER REQUIREMENTS			
C-501	SIGNING AND STRIPING – TEAL STREET JORDAN AVENUE TO STA "T" 12+95			
C-502	SIGNING AND STRIPING – TEAL STREET STA "T" 12+95 TO 15+50			
C-503	SIGNING AND STRIPING – TEAL STREET STA "T" 15+50 TO 17+00			
C-504	SIGNING AND STRIPING – TEAL STREET STA "T" 17+00 TO 19+50			
C-505	SIGNING AND STRIPING – TEAL STREET STA "T" 19+50 TO CREST STREET			
C-601	PROFILE – TEAL STREET JORDAN AVE TO STA "T" 16+00			
C-602	PROFILE – TEAL STREET STA "T" 16+00 TO CREST STREET			
ELECTRICAL				
E-201	PLAN – TEAL STREET JORDAN AVENUE TO STA "T" 13+00			
E-202	PLAN – TEAL STREET STA "T" 13+00 TO 15+50			
E-203	PLAN – TEAL STREET STA "T" 15+50 TO 17+00			
E-204	PLAN – TEAL STREET STA "T" 17+00 TO 19+50			
E-205	PLAN – TEAL STREET STA "T" 19+50 TO CREST STREET			
E-300	ONE LINE LIGHTING CONTROLS			
E-301	STREET LIGHT POLE AND LAYOUT INFORMATION			
E-302	PRECAST FOOTING JUNCTION BOX			
E-303	TRENCH DETAIL			



PROJECT DATE 22-01 10/24/202

COVER SHEET

SHEET G-001



LEGEND			
DESCRIPTION	EXISTING	REMOVE	PROPOSED
ADA TILE & RAMP			
AREA DRAIN			
UTILITIES	— — — — —UGE — — — — —UGE — ——— E ——— E ——— E ———		E E E
CAP			
CATCH BASIN			
CONTROL POINT	$\odot(209)$		
CURB & GUTTER - TYPE I			
CURB & GUTTER - SPILL			$\Delta \Delta \Delta$
CUT LIMITS			
DEPRESSED CURB AND GUTTER			
DITCH CENTER LINE			
EDGE OF ASPHALT			
FENCE			
FILL LIMITS			
FIRE HYDRANT	400	a (i) b	Ø
GRADE BREAK	_	_	GBGBGBGB
HEADWALL			
HOUSE NO	XXXX		
JUNCTION BOX	J		
LIGHT POLE	\sim		۰ 🔶 🔶
MAILBOX			
PROPERTY LINE			
SANITARY SEWER CLEANOUT	\bigcirc		
SANITARY SEWER GRAVITY PIPE			$ \leftarrow \leftarrow \\ - \\ - \\ - \\ - \\ - \\ - \\ - \\ - $
SANITARY SEWER MANHOLE	(\bigcirc)	(\bigcirc)	
SAWCUT	\smile		
SHOULDER	I	1	
SIGN	C	0	
STORM DRAIN PIPE	I		SD
TREE	(\cdot)		
UTILITY POLE	-0-		-
WATER LINE PIPE		H	— — — — — – –
WATER VALVE BOX	\searrow		

BBRE	VIAT	IONS	
	ASPHALT	CONCRETE	

A

AC

ADA

BOP

CB

CB

CH

CL

CMF

CPP

CONC

CTE

DI

DIA

FΙ

FOF

FF

FL

FG

GV

HDPE

INV

LG

LT

MH

MN

MTF

NIC

NO

NTS

PC

PT

POC

PVC

ROW

RT SD SHLD SS STA STD SVC TBC TP TYP

DRE	VIATIONS
	ASPHALT CONCRETE
	AMERICAN DISABILITIES ACT
	BEGINNING OF PROJECT
	CATCH BASIN
	CITY AND BOROUGH OF JUNEAU
	CHORD
	CENTERLINE
	CORRUGATED METAL PIPE
	CORRUGATED POLYETHYLENE PIPE
	CONCRETE
	CONNECT TO EXISTING
	DUCTILE IRON
	DIAMETER
	ELEVATION
	END OF PROJECT
	EDGE OF PAVEMENT
	FLOWLINE
	FINISHED GRADE
	GATE VALVE
	HIGH DENSITY POLYETHYLENE PIPE
	INVERT
	LIP OF GUTTER
	LEFT
	MANHOLE
	MAGNETIC NAIL
	MATCH TO EXISTING
	NOT IN CONTRACT
	NUMBER
	NOT TO SCALE
	POINT OF CURVATURE
	POINT OF TANGENT
	POINT ON CURVE
	POLYVINYL CHLORIDE
	RIGHT-OF-WAY
	RIGHT
	STORM DRAIN
	SHOULDER
	SANITARY SEWER
	STATION
	STANDARD
	SERVICE
	TOP BACK OF CURB
	TOP OF PAVEMENT
	TYPICAL

GENERAL NOTES

- 1 APPROACHES TO PROVIDE A NEAT MATCH LINE.
- PROJECT

- AND GCI PRIOR TO ANY EXCAVATION ACTIVITIES.
- 6. THE GRADING AND ALIGNMENT ARE SUBJECT TO MINOR REVISIONS BY THE ENGINEER.
- LEAST 48-HOURS PRIOR TO SHUTDOWN OR FLUSHING.
- PLANS ARE A BEST FIT APPROXIMATION OF CLOSURE.
- CONTRACT DOCUMENTS.

- NECESSARY FOR UTILITIES COMPANIES TO CONDUCT THEIR WORK.
- BY THE ENGINEER
- ON PRIVATE PROPERTY, WITHOUT WRITTEN APPROVAL OF THE PROPERTY OWNER

- SECTION 01570.

		REVISION		STRUCTURE AND		
No.	DATE	DESCRIPTION.	BY	★ 49th ★ Tobics & Lockhart No.CE12602	6035 Sunset Street Juneau, Alaska 99801 907-463-5395 Toby Lockhart toby@homeshorellc.com Candy Sims candy@homeshorellc.com	

BEGIN SUBCUT AT 24 INCHES FROM PAVEMENT SAWCUT LINE AT STREET CONNECTIONS, UNLESS OTHERWISE SHOWN ON THE DRAWINGS, OR DIRECTED BY THE ENGINEER. REMOVE AND REPLACE BASE COURSE WITH 6 INCHES OF 2" MINUS SHOT ROCK W/BASE COURSE TO 12 INCHES FROM PAVEMENT SAWCUT LINE. SAWCUT AS NECESSARY ALONG ALL STREET AND DRIVEWAY

2. CONTRACTOR SHALL ENSURE UNINTERRUPTED GARBAGE PICKUP AND DAILY MAIL SERVICE TO ALL RESIDENCES IMPACTED BY THIS

3. THE 4TH EDITION OF THE CBJ STANDARD DETAILS, DATED AUGUST 14 2011 AND STANDARD SPECIFICATIONS DATED 2003 AND ALL FRRATA ARE MADE PART OF THIS CONTRACT WITH CURRENT REVISIONS AS APPLICABLE

4. ALL EXISTING STORM DRAIN PIPES (6 INCH DIAMETER AND LARGER), AND APPURTENANCES (TO BE ABANDONED) THAT ARE WITHIN THE STREET LIMITS, SHALL BE REMOVED AND DISPOSED OF, UNLESS OTHERWISE NOTED.

5. EXISTING PIPE LOCATIONS ARE DERIVED FROM CBJ AS-BUILTS OR FIELD LOCATED. ACTUAL LOCATIONS MAY VARY FROM THOSE SHOWN. DEPTH OF THE EXISTING WATER PIPES SHOWN ON THE PROFILES ARE ASSUMED. CONTRACTOR SHALL FIELD VERIFY THE LOCATION OF EACH EXISTING SERVICE PIPE PRIOR TO INSTALLING MAIN LINE TEES AND WYES FOR THE STORM AND SANITARY SEWER. CALL "DIAL BEFORE YOU DIG" AT 586-1333 FOR UNDERGROUND UTILITY LOCATES AND 811 ALASKA DIG LINE FOR ACS

7 LOCATION OF CUIVERTS AND CUIVERT LENGTHS ARE SUBJECT TO MINOR REVISIONS BY THE ENGINEER

8. THE CONTRACTOR SHALL NOTIFY CBJ WATER UTILITIES, LONI VANKIRK AT 907-723-4975 OF ANY WATER MAIN INTERRUPTION AT

9. A MINIMUM CLEARANCE OF 18-INCHES SHALL BE OBTAINED BETWEEN WATER AND SEWER PIPES. IN SOME LOCATIONS STORM SEWER CULVERTS WILL REQUIRE THAT THE WATER MAINS BE INSTALLED WITH MORE THAN 60-INCHES OF COVER

10. PROPERTY LINE LOCATIONS USED IN THESE PLANS ARE DERIVED FROM RECORD PLATS AND DO NOT REPRESENT A BOUNDARY SURVEY. EXISTING RECORD PLATS DO NOT CLOSE WITH EACH OTHER IN SOME CASES. THE PROPERTY LINES SHOWN ON THESE

11. ALL ITEMS DESIGNATED FOR REMOVAL SHALL BE DISPOSED OF AT AN APPROVED DISPOSAL SITE, EXCEPT AS NOTED IN THE

12. CONTRACTOR SHALL REFERENCE ALL EXISTING PROPERTY CORNER MONUMENTS (I.E. REBARS, CONCRETE NAILS, BRASS CAP MONUMENT, ETC.) PRIOR TO CONSTRUCTION, REMONUMENT AFTER SURFACING IS REPLACED, AND SUBMIT A RECORD OF MONUMENT TO THE ENGINEER. ALL WORK SHALL BE DONE BY, OR UNDER THE DIRECTION OF, AN ALASKA REGISTERED LAND SURVEYOR.

13. ALL ASPHALT PAVEMENT TO BE REMOVED AND DISPOSED OF SHALL BE DELIVERED TO A STOCKPILE AREA AT THE LEMON CREEK CITY PIT TO BE DESIGNATED BY THE ENGINEER. CONTACT THE ENGINEER FOR THE EXACT LOCATION OF THE STOCKPILE.

14. AEL&P, ACS, AND GCI MAY CONDUCT WORK WITHIN THE PROJECT LIMITS TO RELOCATE UTILITIES AND UPGRADE THEIR RESPECTIVE SYSTEMS. THE CONTRACTOR SHALL COORDINATE ITS ACTIVITIES WITH EACH UTILITY COMPANY AND PROVIDE ACCESS AS

15. THE CONTRACTOR SHALL RESTRICT ITS COMPACTION AND OTHER VIBRATION INDUCING OPERATIONS AS NECESSARY TO ENSURE NO DAMAGE OCCURS TO ADJACENT BUILDINGS OR STRUCTURES. REFER TO SECTION 01530, ARTICLE 1.7 FOR FURTHER REQUIREMENTS.

16. THE PLAN SHEETS DO NOT SHOW ALL OF THE TREES AND OTHER VEGETATION THAT WILL BE ENCOUNTERED DURING CONSTRUCTION ACTIVITIES. NO TREES OR OTHER VEGETATION ARE TO BE REMOVED OR DAMAGED, UNLESS SHOWN ON THE DRAWINGS OR DIRECTED

17. THE CONTRACTOR SHALL NOT STORE MATERIALS OR EQUIPMENT, OR OPERATE EQUIPMENT WITH ITS TRACKS OR WHEELS PLACED

18. THE CONTRACTOR SHALL NOTIFY EACH RESIDENT OF EACH DRIVEWAY CLOSURE THE DAY PRECEDING THE DAY THE DRIVEWAY IS TO BE CLOSED TO VEHICULAR ACCESS. THE RESIDENT SHALL BE INFORMED OF THE PERIOD OF TIME THE CLOSURE WILL BE IN EFFECT. NO DRIVEWAY CLOSURES WILL BE PERMITTED UNTIL THIS REQUIREMENT HAS BEEN MET TO THE SATISFACTION OF THE ENGINEER.

19. "JUMPING JACK" OR SIMILAR TYPE COMPACTION SHALL BE USED TO THOROUGHLY COMPACT ALL LAYERS OF MATERIAL AROUND WATER VALVE BOXES, CATCH BASINS, MANHOLES AND OTHER STRUCTURES.

20. THE CONTRACTOR SHALL INSTALL AND MAINTAIN ENGINEER APPROVED EROSION CONTROL DEVICES DURING CONSTRUCTION PER

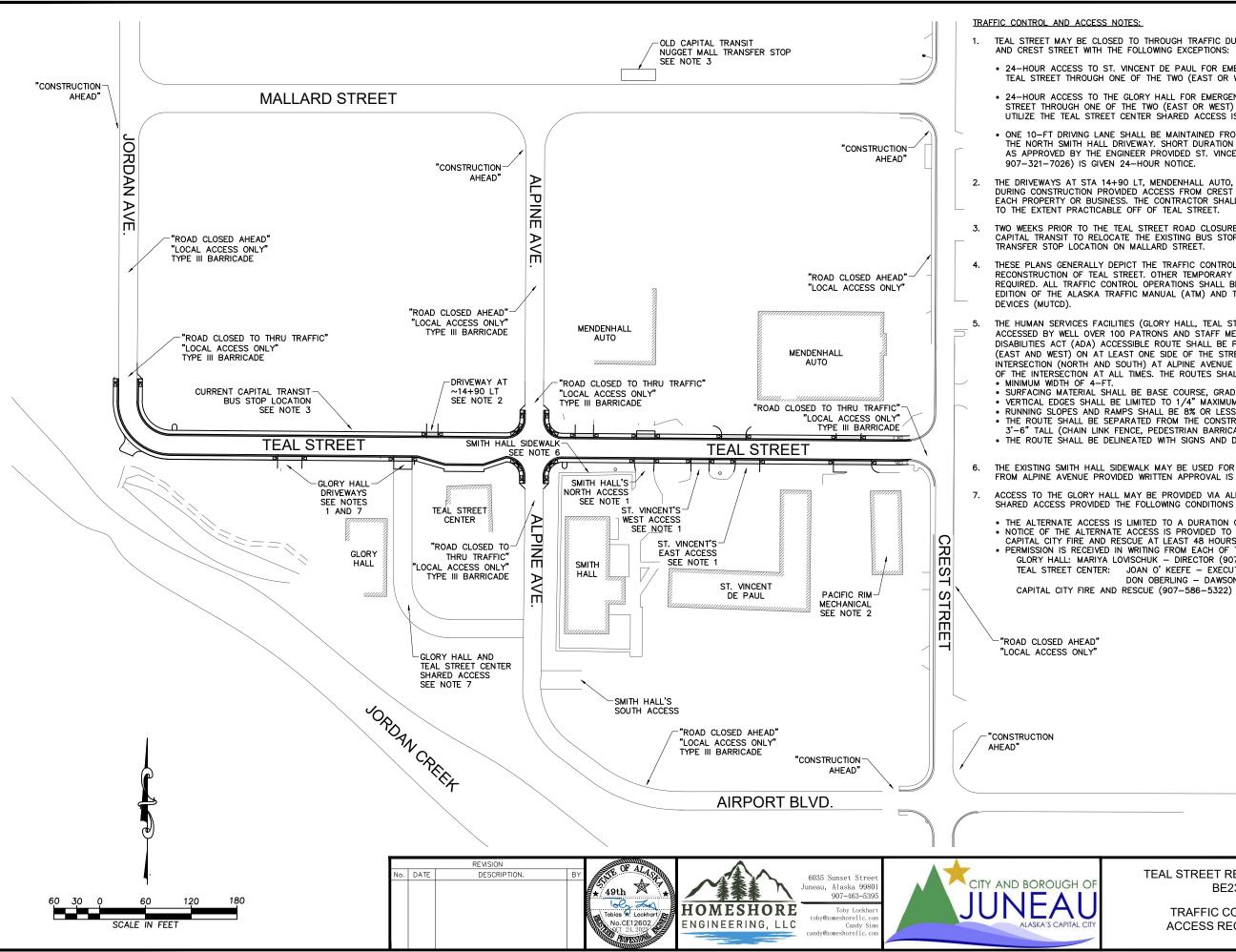


TEAL STREET RECONSTRUCTION BE23-123

ROJEC1 22-0 ATE 10/24/202

LEGEND. ABBREVIATIONS. AND GENERAL NOTES

SHEET G-002



· 24-HOUR ACCESS TO THE GLORY HALL FOR EMERGENCY VEHICLES SHALL BE MAINTAINED FROM TEAL STREET THROUGH ONE OF THE TWO (EAST OR WEST) DRIVEWAYS AT ALL TIMES UNLESS APPROVAL TO UTILIZE THE TEAL STREET CENTER SHARED ACCESS IS OBTAINED. SEE NOTE 7.

• ONE 10-FT DRIVING LANE SHALL BE MAINTAINED FROM EITHER ALPINE AVENUE OR CREST STREET TO THE NORTH SMITH HALL DRIVEWAY. SHORT DURATION CLOSURES OF THIS DRIVEWAY WILL BE PERMITTED AS APPROVED BY THE ENGINEER PROVIDED ST. VINCENT DE PAUL (DAVE RINGLE - EXECUTIVE DIRECTOR 907-321-7026) IS GIVEN 24-HOUR NOTICE.

THE DRIVEWAYS AT STA 14+90 LT, MENDENHALL AUTO, AND PACIFIC RIM MECHANICAL MAY BE CLOSED DURING CONSTRUCTION PROVIDED ACCESS FROM CREST STREET OR ALPINE AVENUE IS MAINTAINED TO EACH PROPERTY OR BUSINESS. THE CONTRACTOR SHALL PERMIT DELIVERIES AND SHORT DURATION ACCESS TO THE EXTENT PRACTICABLE OFF OF TEAL STREET.

TWO WEEKS PRIOR TO THE TEAL STREET ROAD CLOSURE, THE CONTRACTOR SHALL COORDINATE WITH CAPITAL TRANSIT TO RELOCATE THE EXISTING BUS STOP ON TEAL STREET TO THE OLD NUGGET MALL TRANSFER STOP LOCATION ON MALLARD STREET.

THESE PLANS GENERALLY DEPICT THE TRAFFIC CONTROL DEVICES THAT WILL BE REQUIRED FOR THE RECONSTRUCTION OF TEAL STREET. OTHER TEMPORARY TRAFFIC CONTROL (TTC) MEASURES MAY BE REQUIRED. ALL TRAFFIC CONTROL OPERATIONS SHALL BE IMPLEMENTED IN ACCORDANCE WITH THE LATEST EDITION OF THE ALASKA TRAFFIC MANUAL (ATM) AND THE MANUAL ON UNIFORM TRAFFIC CONTROL

THE HUMAN SERVICES FACILITIES (GLORY HALL, TEAL STREET CENTER AND ST. VINCENT DE PAUL) ARE ACCESSED BY WELL OVER 100 PATRONS AND STAFF MEMBERS EACH DAY. AN AMERICAN'S WITH DISABILITIES ACT (ADA) ACCESSIBLE ROUTE SHALL BE PROVIDED THROUGH THE TEAL STREET CORRIDOR (EAST AND WEST) ON AT LEAST ONE SIDE OF THE STREET AT ALL TIMES. ACCESS ACROSS THE INTERSECTION (NORTH AND SOUTH) AT ALPINE AVENUE SHALL ALSO BE PROVIDED ON AT LEAST ONE SIDE OF THE INTERSECTION AT ALL TIMES. THE ROUTES SHALL MEET THE FOLLOWING REQUIREMENTS: MINIMUM WIDTH OF 4-FT.

ACCESS TO THE GLORY HALL MAY BE PROVIDED VIA ALPINE AVENUE ACROSS THE TEAL STREET CENTER SHARED ACCESS PROVIDED THE FOLLOWING CONDITIONS ARE MET:

THE ALTERNATE ACCESS IS LIMITED TO A DURATION OF 48 HOURS.
NOTICE OF THE ALTERNATE ACCESS IS PROVIDED TO THE GLORY HALL, TEAL STREET CENTER, AND CAPITAL CITY FIRE AND RESCUE AT LEAST 48 HOURS IN ADVANCE OF THE ALTERNATE ACCESS. · PERMISSION IS RECEIVED IN WRITING FROM EACH OF THE FOLLOWING CONTACTS: GLORY HALL: MARIYA LOVISCHUK - DIRECTOR (907-957-2885) JOAN O' KEEFE - EXECUTIVE DIRECTOR (907-321-3156) TEAL STREET CENTER: DON OBERLING - DAWSON CONSTRUCTION SUPERINTENDENT (907-821-3328) CAPITAL CITY FIRE AND RESCUE (907-586-5322)

TEAL STREET MAY BE CLOSED TO THROUGH TRAFFIC DURING CONSTRUCTION BETWEEN JORDAN AVENUE AND CREST STREET WITH THE FOLLOWING EXCEPTIONS:

• 24-HOUR ACCESS TO ST. VINCENT DE PAUL FOR EMERGENCY VEHICLES SHALL BE MAINTAINED FROM TEAL STREET THROUGH ONE OF THE TWO (EAST OR WEST) DRIVEWAYS AT ALL TIMES.

• SURFACING MATERIAL SHALL BE BASE COURSE, GRADING D-1, ASPHALT, OR CONCRETE.

• VERTICAL EDGES SHALL BE LIMITED TO 1/4" MAXIMUM.

• THE ROUTE SHALL BE SEPARATED FROM THE CONSTRUCTION ZONE WITH A PHYSICAL BARRIER AT LEAST 3'-6" TALL (CHAIN LINK FENCE, PEDESTRIAN BARRICADE, OR PEDESTRIAN FENCING). THE ROUTE SHALL BE DELINEATED WITH SIGNS AND DIRECTION ARROWS AS REQUIRED.

THE EXISTING SMITH HALL SIDEWALK MAY BE USED FOR PEDESTRIAN ACCESS TO ST. VINCENT DE PAUL FROM ALPINE AVENUE PROVIDED WRITTEN APPROVAL IS GRANTED BY ST. VINCENT DE PAUL.

> TEAL STREET RECONSTRUCTION BE23-123

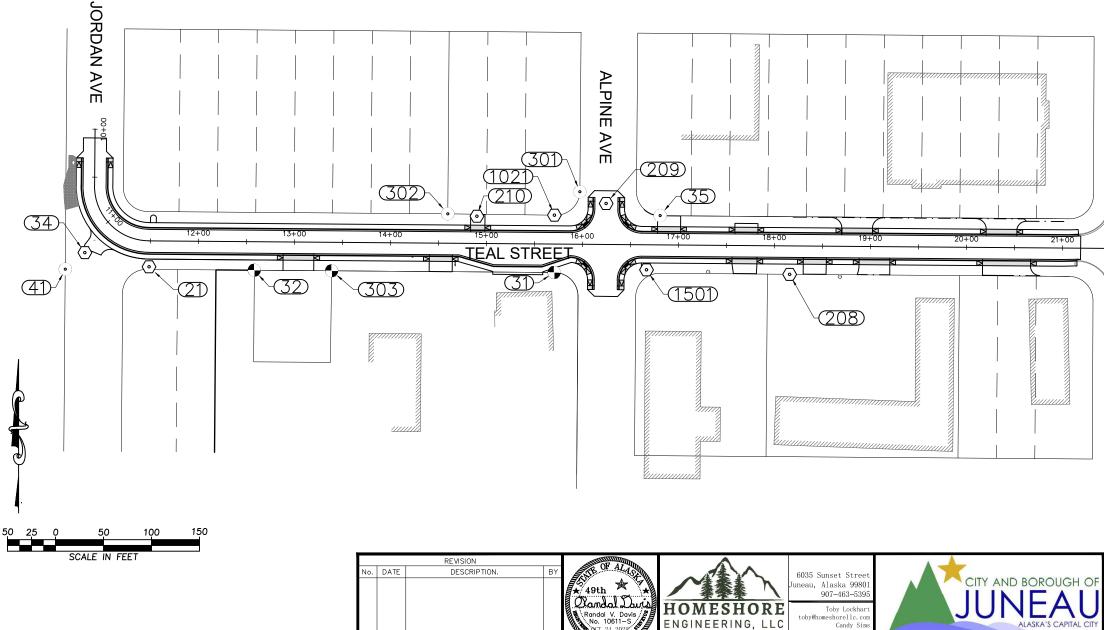
> > TRAFFIC CONTROL AND ACCESS REQUIREMENTS

ROJEC1 22-01 ATE 10/24/202

> SHEET G-003

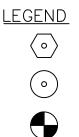
	HORIZONTAL & VERTICAL CONTROL							
POINT #	STATION	OFFSET	NORTHING	EASTING	ELEVATION	DESCRIPTION		
34	11+05.00	39.43 RT	2385032.92	2510598.81	25.82'	YELLOW PLASTIC CAP ON REBAR		
208	18+16.14	29.67 RT	2385010.23	2511332.95	27.71'	MAGNAIL EPOXIED IN TOP OF ALUM. ROD.		
209	16+24.43	42.64 LT	2385084.03	2511141.80	28.50'	MAGNAIL & PLASTIC "CONTROL" WASHER		
210	14+89.93	28.31 LT	2385070.76	2511007.19	27.32'	MAGNAIL & PLASTIC "CONTROL" WASHER		
1501	16+67.02	26.10 RT	2385014.96	2511183.86	30.12'	NORTH MOST BOLT ON TOP FH FLANGE		
21	11+48.82	26.99 RT	2385018.12	2510665.67	28.02'	NORTH MOST BOLT ON TOP FH FLANGE		

PROPERTY CORNERS/MARKERS (recovered this project)							
POINT #	STATION	OFFSET	NORTHING	EASTING	DESCRIPTION		
35	16+80.79	30.53 LT	2385071.49	2511198.07	2" ALUMINUM CAP, SCRAPED, UNREADABLE		
301	15+96.94	54.69 LT	2385096.30	2511114.41	2" ALUMINUM CAP "JW BEAN"		
1021	15+70.65	30.05 LT	2385071.87	2511087.93	PLASTIC CAP ON REBAR "JW BEAN"		
302	14+59.56	30.65 LT	2385073.33	2510976.84	PLASTIC CAP ON REBAR "JW BEAN"		
31	15+70.83	29.56 RT	2385012.26	2511087.64	3.25" ALUMINUM PRIMARY MONUMENT		
303	13+39.03	29.66 RT	2385013.97	2510855.85	3.25" ALUMINUM PRIMARY MONUMENT		
32	12+58.46	29.67 RT	2385014.59	2510775.28	3.25" ALUMINUM PRIMARY MONUMENT		
41	11+03.80	66.04 RT	2385015.65	2510578.44	2" ALUMINUM CAP "CITY & BOROUGH OF JUNEAU"		



SURVEY CONTROL NOTES:

- 1. THE BASIS OF HORIZONTAL (X,Y/N,E) CONTROL IS ALASKA, STATE PLANE, ZONE 1 (AK SP Z1).
- 2. THE BASIS OF VERTICAL (Z/EL) CONTROL IS DERIVED FROM, AND CORRELATED TO THE VERTICAL DATUM USED FOR CITY AND BOROUGH OF JUNEAU, PROJECT "CREST STREET RECONSTRUCTION BE21-219."
- 3. THE BASIS OF BEARING FOR THE PROPERTY LINES AS PRESENTED UPON THIS PLANSET IS THE MEASURED (NOT RECORD) BEARING OF S89'33'29"E BETWEEN POINTS 32 & 303, BOTH BEING 3.25" DIA. ALUMINUM CAPS ON ALUMINUM PIPE (AKA "PRIMARY MONUMENTS"). ALL OTHER PROPERTY/BOUNDARY LINES AS DISPLAYED UPON THIS PLANSET ARE PROTRACTED FROM THIS BASIS, WITH THEIR RECORD DATA HELD, BUT BEARINGS ROTATED TO THIS PLANSET'S BASIS OF BEARING. *EXCEPT: THE PROPERTY BOUNDARY AT THE NW CORNER OF TEAL & ALPINE. IN THIS INSTANCE THE THREE RECOVERED "JW BEAN" MARKERS (POINTS 301, 302, & 1021) WERE HELD AS THE PROPERTY'S BOUNDARY.
- 4. ALTHOUGH DUE DILIGENCE WAS GIVEN TO SEARCHING FOR AND RECOVERING PROPERTY CORNERS, THE CONTRACTOR MAY ENCOUNTER MARKERS AND CORNERS NOT SHOWN ON THIS PLANSET. IN THIS INSTANCE THE CONTRACTOR SHALL PRESERVE THE MONUMENT'S POSITION, OR REFERENCE AND REPLACE IT (IN KIND; LIKE-FOR-LIKE) IF IT IS DISTURBED OR DESTROYED.
- 5. THE CONTRACTOR SHALL RUN AN INDEPENDENT DIFFERENTIAL LEVEL LOOP BETWEEN THE VERTICAL CONTROL OF THIS PLANSET PRIOR TO INITIATING CONSTRUCTION.
- 6. PROPERTY CORNER/MARKER COORDINATES ARE GIVEN FOR INFORMATIONAL PURPOSES ONLY, AND SHALL NOT BE USED FOR CONTROL.



PROJECT CONTROL POINT

2-INCH ALUMINUM CAP

3.25-INCH PRIMARY MONUMENT



CREST

STREET

22+00

TEAL STREET RECONSTRUCTION BE23-123

SURVEY CONTROL

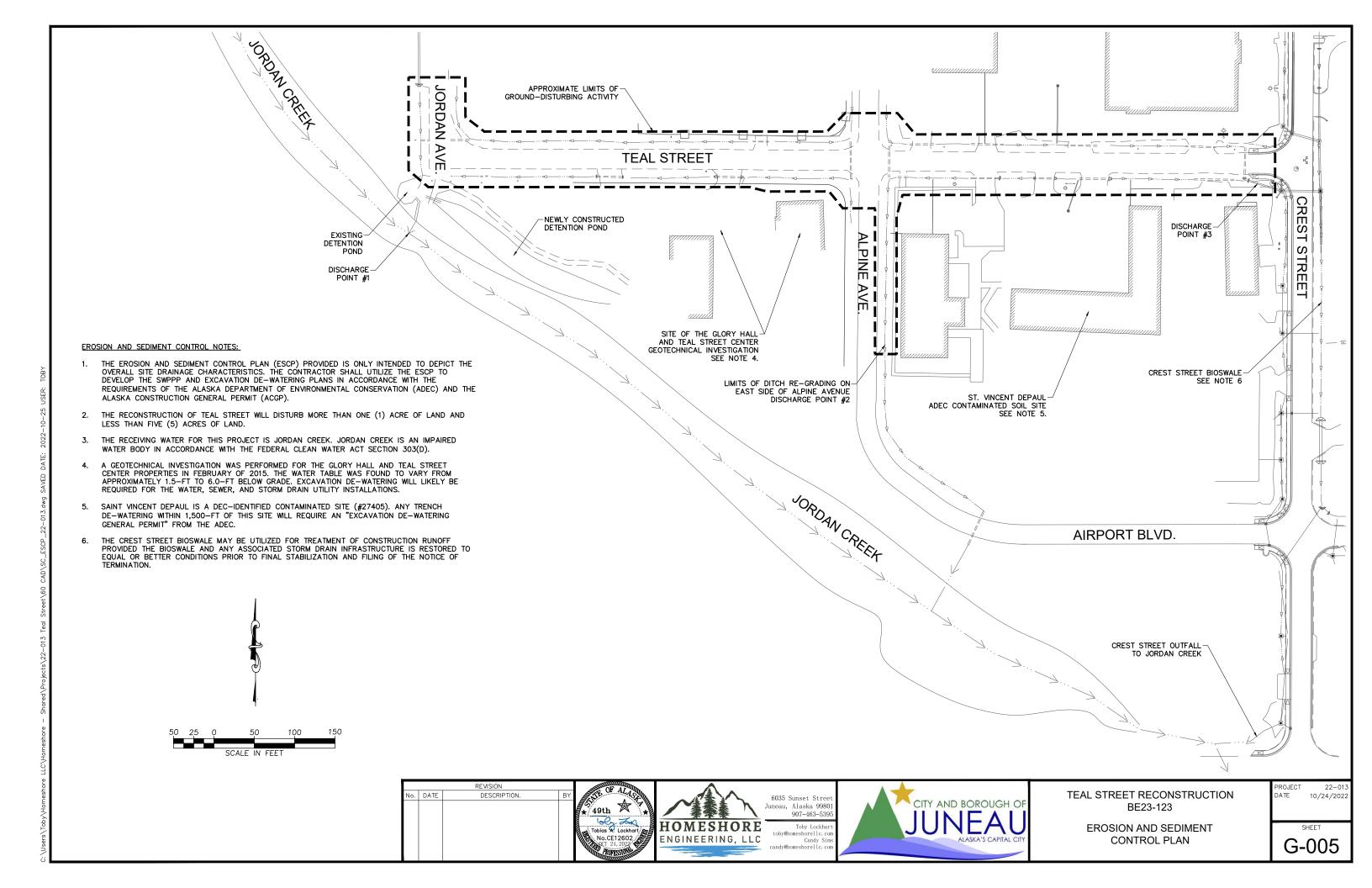
SHEET G-004

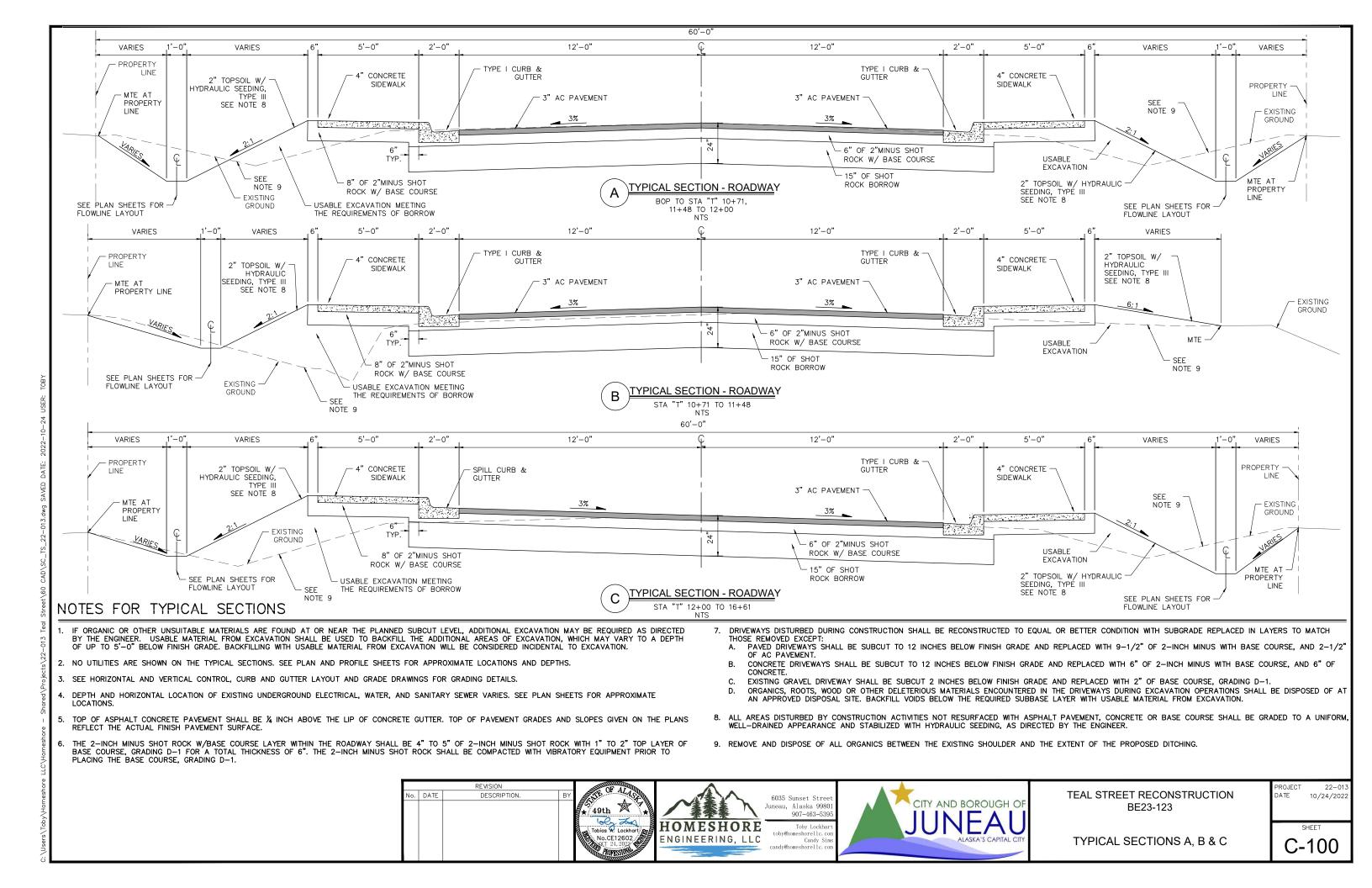
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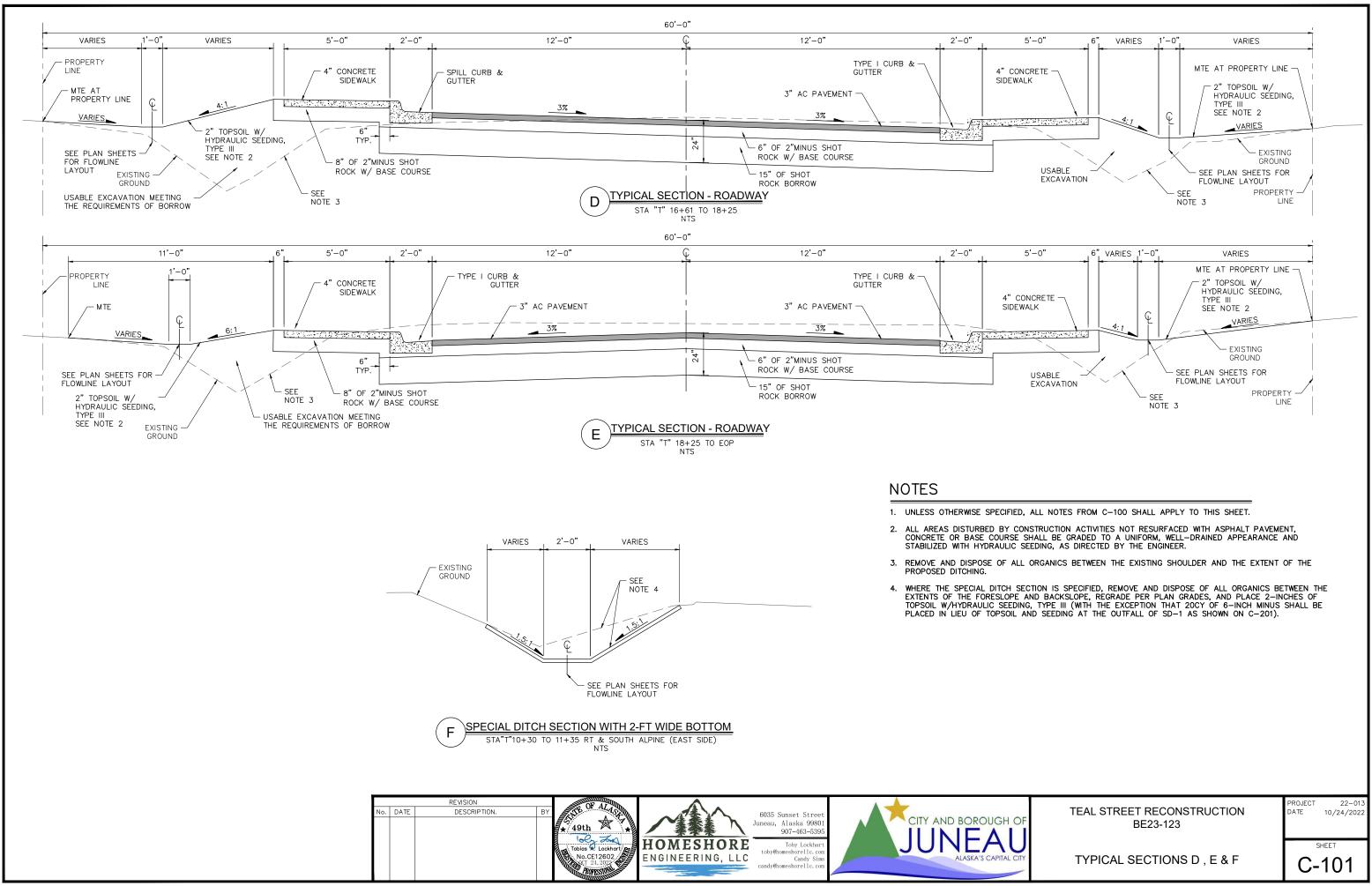
10/24/2022

ROJECT

ATE







CATCH	BASIN FRAME AND GRATE					
SUMMARY						
FAST JORDAN IRON WORKS OF YMPIC						
	FOUNDRY CO., CBJ STANDARD No.,					
BASIN NO.	OR APPROVED EQUAL					
CB-1	OF SM18DI-P					
CB-2	OF SM18DI-P					
CB-3	EJ 7701M3 GRATE, 7701Z FRAME, & 7701T1 HOOD					
CB-4	EJ 7701M3 GRATE, 7701Z FRAME, & 7701T1 HOOD					
CB-5	EJ7701M3 GRATE, 7701Z FRAME, & 7701T1 HOOD					
CB-6	EJ 3721Z FRAME & 3700M GRATE					
CB-7	EJ 7701M3 GRATE, 7701Z FRAME, & 7701T1 HOOD					
CB-8	CBJ STD 306					
CB-9	CBJ STD 306					
CB-10	CBJ STD 306					
CB-11	EJ 3721Z FRAME & 3700M GRATE					
CB-12	EJ 3721Z FRAME & 3700M GRATE					
CB-13	EJ 3721Z FRAME & 3700M GRATE					
CB-14	EJ 7700M2 GRATE, 7701Z FRAME, & 7701T1 HOOD					
CB-15	EJ 3721Z FRAME & 3700M GRATE					
CB-16	CBJ STD 306					
CB-17	EJ 3721Z FRAME & 3700M GRATE					
CB-18	EJ 3721Z FRAME & 3700M GRATE					
CB-19	EJ 7701M3 GRATE, 7701Z FRAME, & 7701T1 HOOD					
CB-20	EJ 7701M3 GRATE, 7701Z FRAME, & 7701T1 HOOD					
CB-21	EJ 3721Z FRAME & 3700M GRATE					
CB-21 CB-22	EU 37212 FRAME & 3700M GRATE					
CB-22 CB-23	EU 37212 FRAME & 3700M GRATE					
CB-23	EXISTING TO REMAIN					
NOTES:						
1.) CATCH BAS THE FRAME DIN CONSTRUCTION BE DUCTILE IRC						
FRAME AT THE APPLICATION O	ED GRADES (FG) PROVIDED ARE TO THE FLOWLINE OF LONGITUDINAL CENTER OF THE FRAME AFTER F THE LOCALIZED DEPRESSION. FOR TYPE I CURB AND G WILL BE 0.56' BELOW THE TBC AND 0.14' BELOW THE					
FÓLLOWS: THE BE ¾", WITH 6 OTHERWISE DIR SHALL BE MAIN	OR TYPE I CURB AND GUTTER SHALL BE MODIFIED AS LOCALIZED DEPRESSION AT THE CATCH BASIN SHALL "TRANSITIONS TO EACH SIDE OF THE FRAME, UNLESS ECTED BY THE ENGINEER. THE ROADWAY CROSS-SLOPE ITAINED AND THE EDGE OF ASPHALT SHALL NOT DIP RAME AND TRANSITIONS, SEE DETAIL 1, SHEET C-403.					

USER:

WATER SERVICE SUMMARY

PROPERTY NUMBER	LOCATION	SIZE/TYPE	COMMENTS
8916	11+77.56, 29.00' LT	6"HDPE	CAP AT PROPERTY LINE
8906	11+81.56, 29.00' LT	6" HDPE	CAP AT PROPERTY LINE
BLOCK H, LOT 1&2	12+13.50, 28.00' RT	6" HDPE	CAP AT PROPERTY LINE
8896	12+54.56, 29.00' LT	6" HDPE	CAP AT PROPERTY LINE
8886	12+65.45, 29.00' LT	6" HDPE	CAP AT PROPERTY LINE
BLOCK H, LOT 4	12+69.49, 28.00' RT	6" HDPE	CAP AT PROPERTY LINE
8876	13+37.56, 29.00' LT	6" HDPE	CAP AT PROPERTY LINE
BLOCK E, LOT 17	13+41.56, 29.00' LT	6" HDPE	CAP AT PROPERTY LINE
BLOCK E, LOT 16	14+17.56, 29.00' LT	6" HDPE	CAP AT PROPERTY LINE
BLOCK E, LOT 15	14+21.56, 29.00' LT	6" HDPE	CAP AT PROPERTY LINE
8711	14+49.82, 28.00' RT	6" HDPE	CTE
BLOCK E, LOT 14	14+70.26, 29.00' LT	6" HDPE	CAP AT PROPERTY LINE
8715	15+25.66, 28.00' RT	6" HDPE	CTE
8619	17+44.28, 28.00' RT	6" HDPE	CTE
1990	17+60.69, 29.00' LT	6" HDPE	VERIFY CTE OR CAP
8617	19+90.22, 28.00' RT	6" HDPE	CTE
1850	20+00.01, 28.00' RT	6"HDPE	CAP AT PROPERTY LINE
NOTES		-	-

NOTES:

1.) INSTALL NEW WATER SERVICE WITH WARNING TAPE, 6"GV, VALVE BOX AND TRACE WIRE. STATION AND OFFSET ARE GIVEN TO THE CENTER OF THE VALVE BOX AT THE APPROXIMATE POINT OF CONNECTION. FIELD VERIFY EXISTING SERVICE. LOCATION PRIOR TO INSTALLING MAINLINE TEE.

SEWER SERVICE SUMMARY

PROPERTY NUMBER	LOCATION	COMMENTS		
8916	11+74.56, 29.00' LT	CAP AT PROPERTY LINE		
8906	11+84.56, 29.00' LT	CAP AT PROPERTY LINE		
BLOCK H, LOT 1&2	12+17.50, 28.00' RT	CAP AT PROPERTY LINE		
8896	12+57.56, 29.00' LT	CAP AT PROPERTY LINE		
8886	12+61.45, 29.00' LT	CTE		
BLOCK H, LOT 4	12+65.12, 28.00' RT	CTE		
8876	13+34.56, 29.00' LT	CAP AT PROPERTY LINE		
BLOCK E, LOT 17	13+44.56, 29.00' LT	CAP AT PROPERTY LINE		
BLOCK E, LOT 16	14+14.56, 29.00' LT	CAP AT PROPERTY LINE		
BLOCK E, LOT 15	14+24.56, 29.00' LT	CAP AT PROPERTY LINE		
8711	14+45.54, 28.00' RT	CTE		
BLOCK E, LOT 14	14+66.25, 29.00' LT	CTE		
8715	14+68.46 28.00' RT	CTE		
1990	17+94.49, 29.00' LT	CTE		
8617	17+97.91, 28.00' RT	CTE		
8617	18+99.66, 28.00' RT	CTE		
8602	19+98.30, 29.00' LT	CTE		
1850	1850 20+04.01, 28.00' RT CTE			
NOTES:				
	FFSET ARE GIVEN TO THE LOCATIONS ARE BASED ON D AS REQUIRED.			

INSTALL NEW 6" PVC SEWER SERVICE WITH CLEANOUT PER DETAIL 3 ON SHEET C-403 AND CONNECT TO EXISTING SEWER SERVICE AT PROPERTY LINE.

No.	DATE	REVISION DESCRIPTION.	BY OF ALAS	Jun	6035 Sunset Street neau, Alaska 99801	CITY AND BOROUGH
			*/49th * Tobias & Lockhart No.CE12602 NOT 24.802	HOMESHORE ENGINEERING, LLC	907-463-5395 Toby Lockhart toby@homeshorellc.com Candy Sims andy@homeshorellc.com	JUNEA

GALVANIC ANODE SUMMARY						
LOCATION	DESCRIPTION					
10+11.78, 12.59 LT	1 ANODE, 8" DI					
11+53.00, 23.49 LT	1 ANODE, FIRE HYDRANT					
16+64.66, 23.70 RT	1 ANODE, FIRE HYDRANT					
16+16.16, 50.31' RT	1 ANODE, INSTALL IF CONNECTION TO EXISTING 8" DI OCCURS PER C-203.					

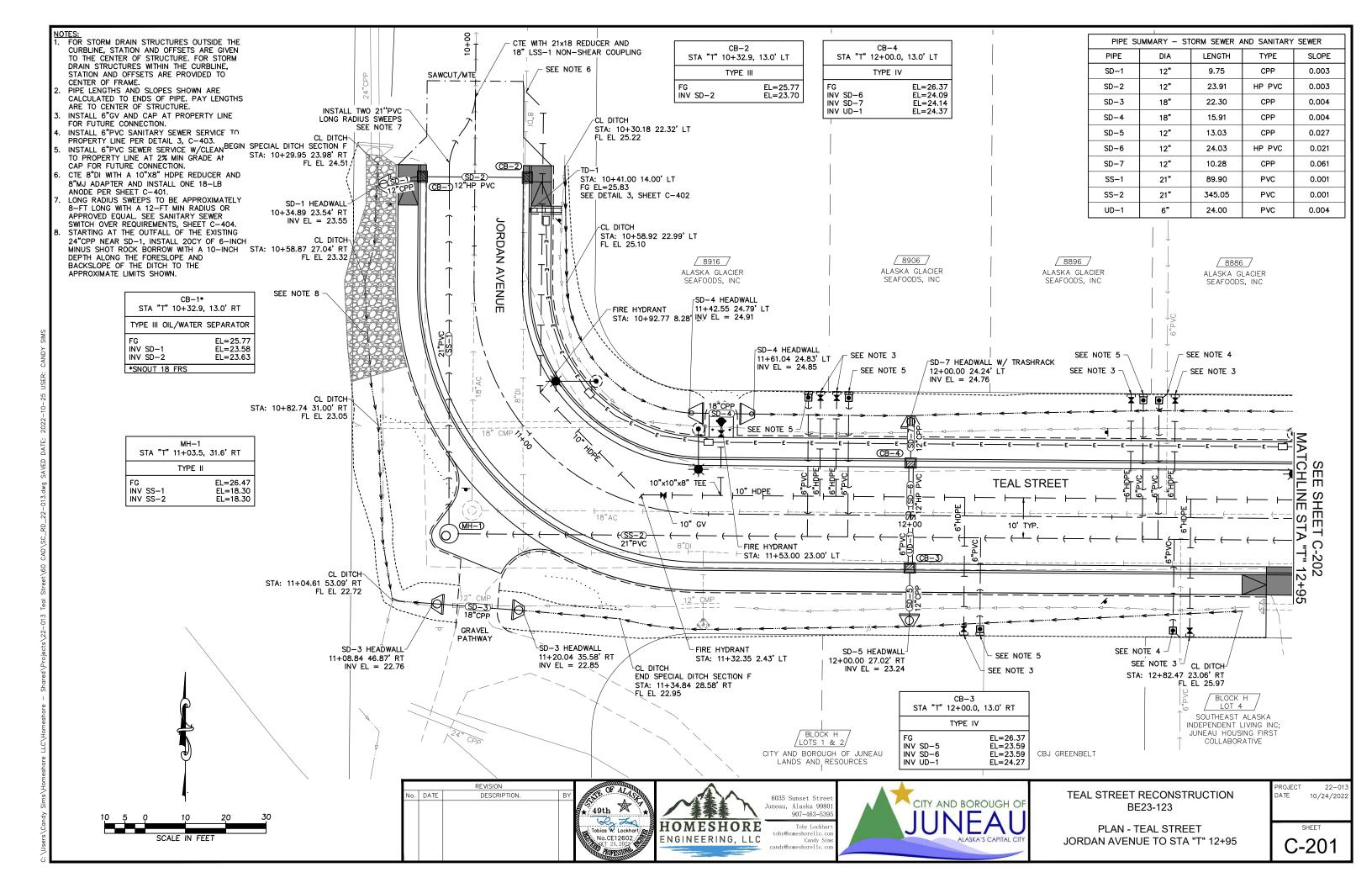


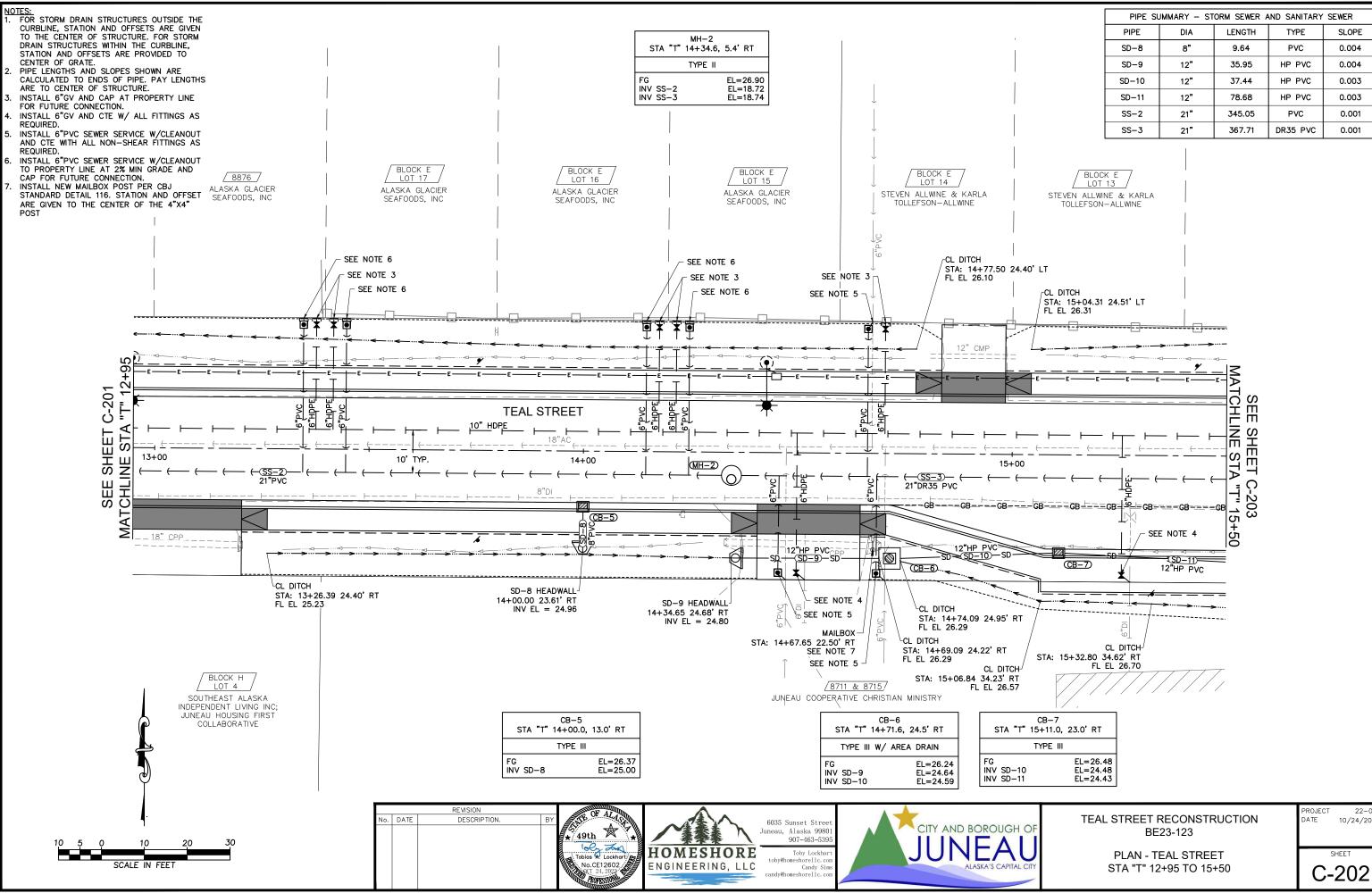
TEAL STREET RECONSTRUCTION BE23-123

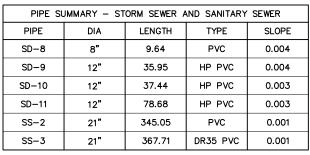
PROJECT DATE 22-013 10/24/2022

SUMMARY TABLES



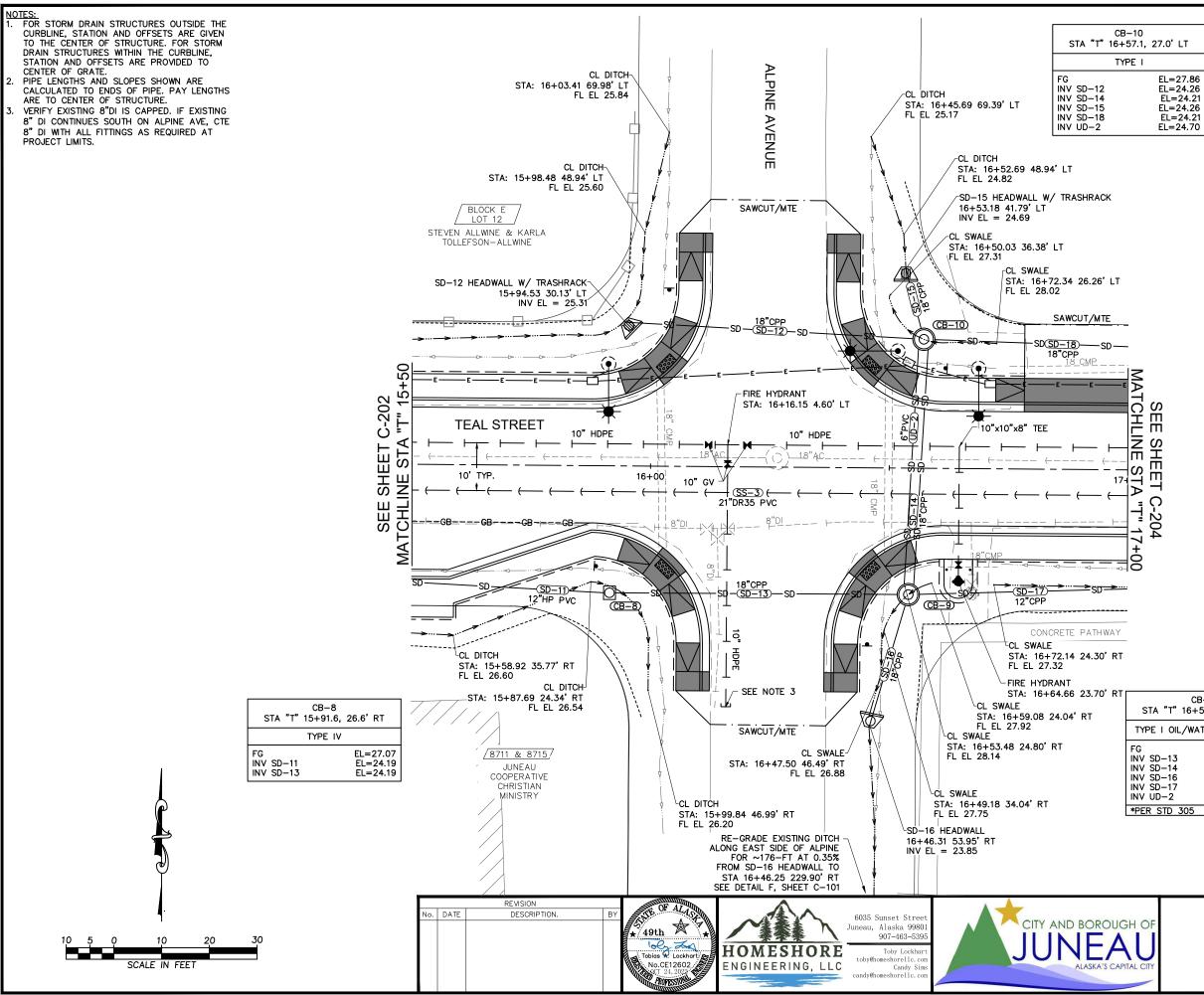








22-01 10/24/202



PIPE SUMMARY - STORM SEWER AND SANITARY SEWER									
PIPE	DIA	LENGTH	TYPE	SLOPE					
SD-11	12"	78.68	HP PVC	0.003					
SD-12	18"	60.63	CPP	0.017					
SD-13	18"	59.61	CPP	0.003					
SD-14	18"	49.61	CPP	0.004					
SD-15	18"	13.30	CPP	0.032					
SD-16	18"	26.56	CPP	0.006					
SD-17	12"	47.17	CPP	0.004					
SD-18	18"	86.58	СРР	0.002					
SS-3	21"	367.71	DR35 PVC	0.001					
UD-2	6"	49.61	PVC	0.004					

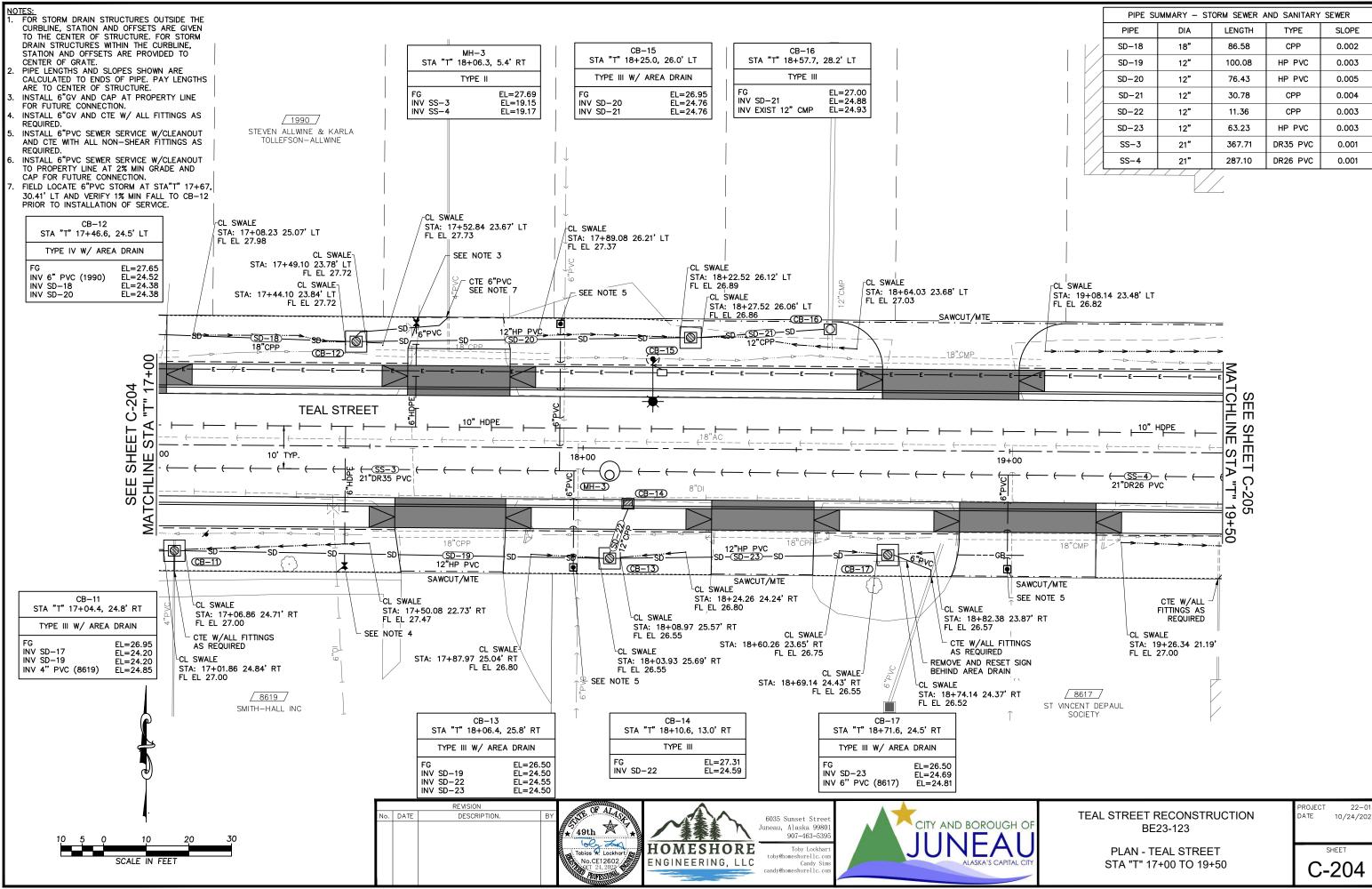
CB-9 STA "T" 16+54.2	, 26.5'RT				
TYPE I OIL/WATER SEPARATOR*					
FG INV SD-13 INV SD-14 INV SD-16 INV SD-17 INV UD-2	EL=27.80 EL=24.01 EL=24.01 EL=24.01 EL=24.01 EL=24.49				
*PER STD 305					

TEAL STREET RECONSTRUCTION BE23-123

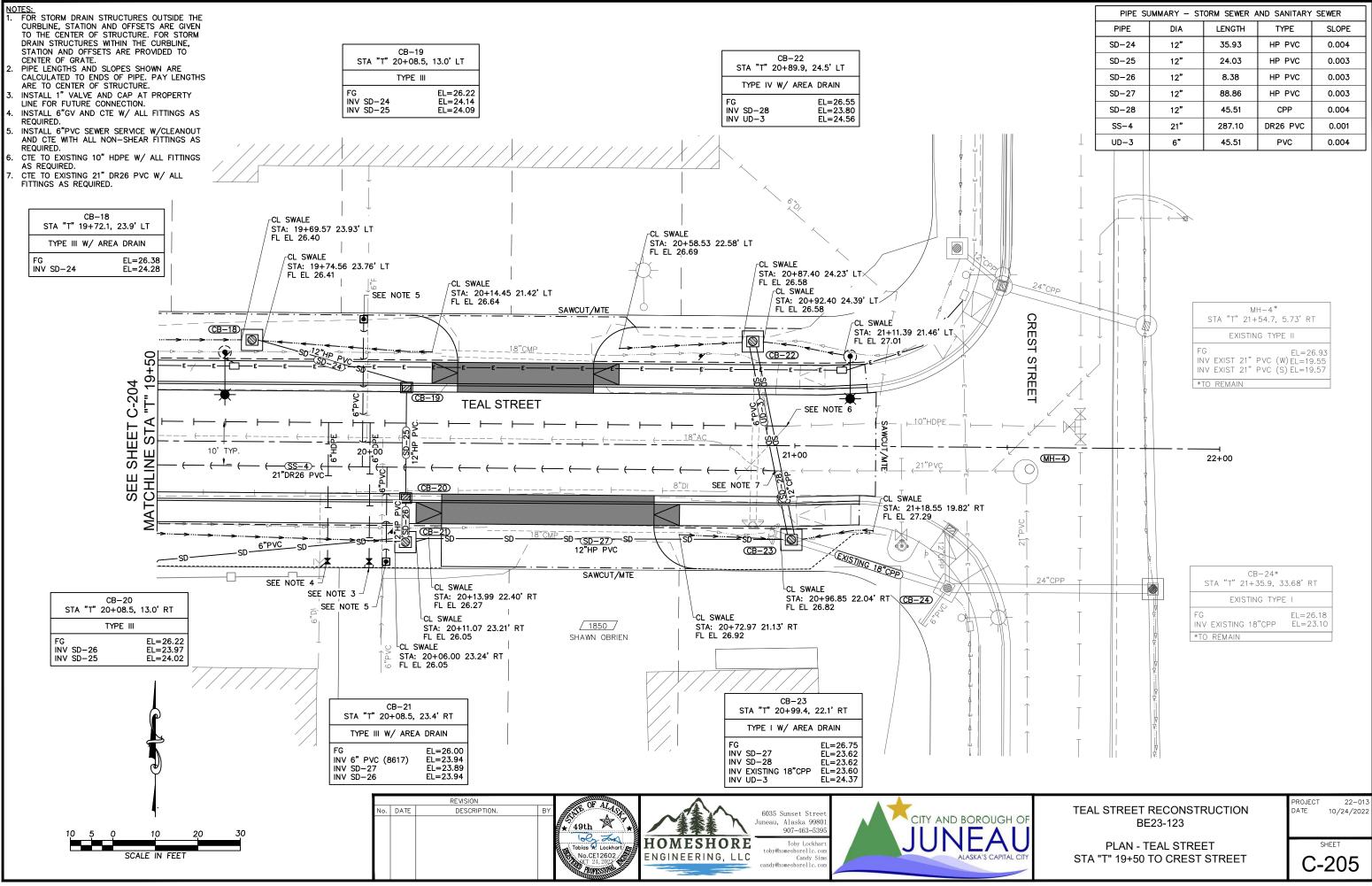
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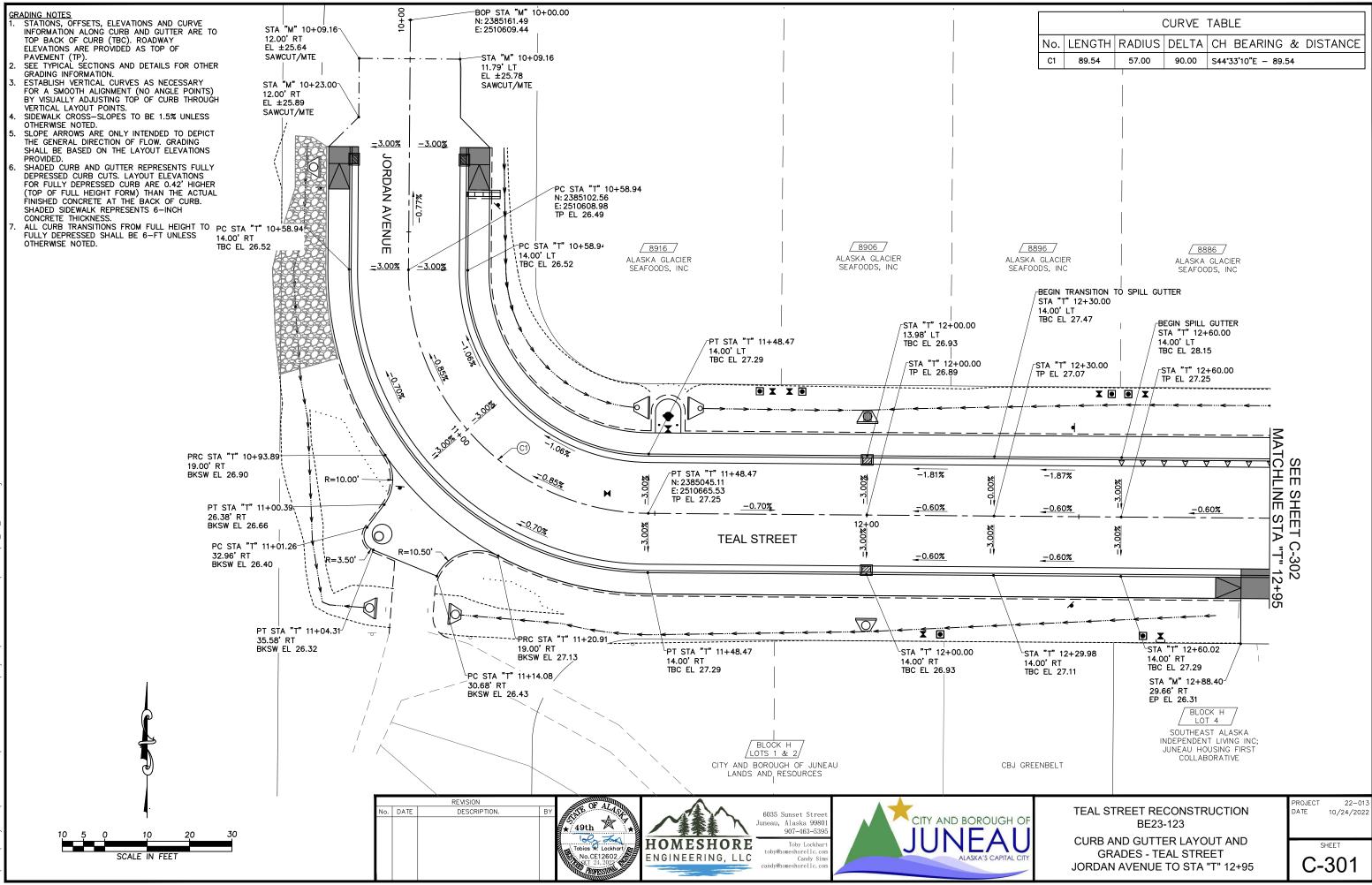
PLAN - TEAL STREET STA "T" 15+50 TO 17+00

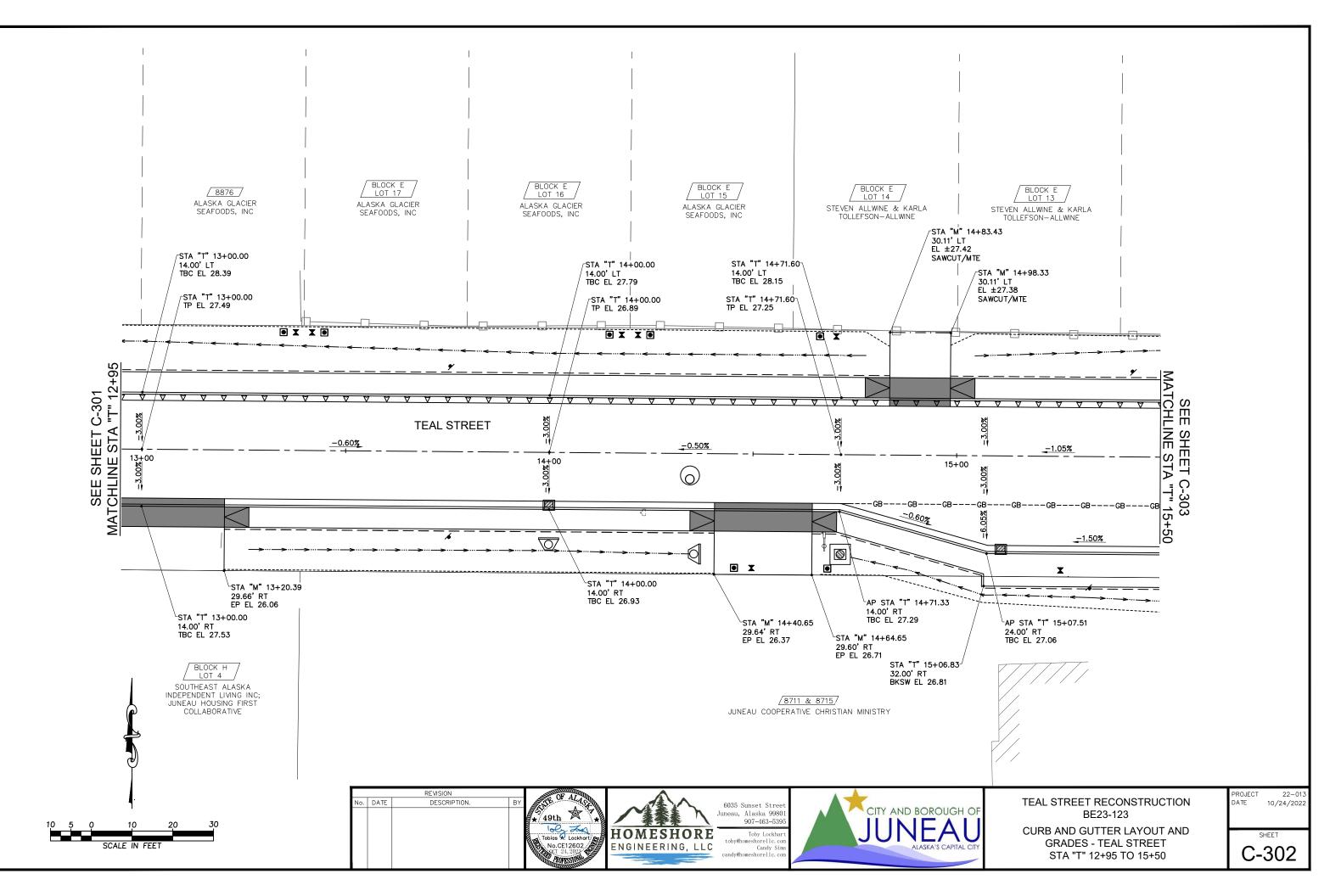


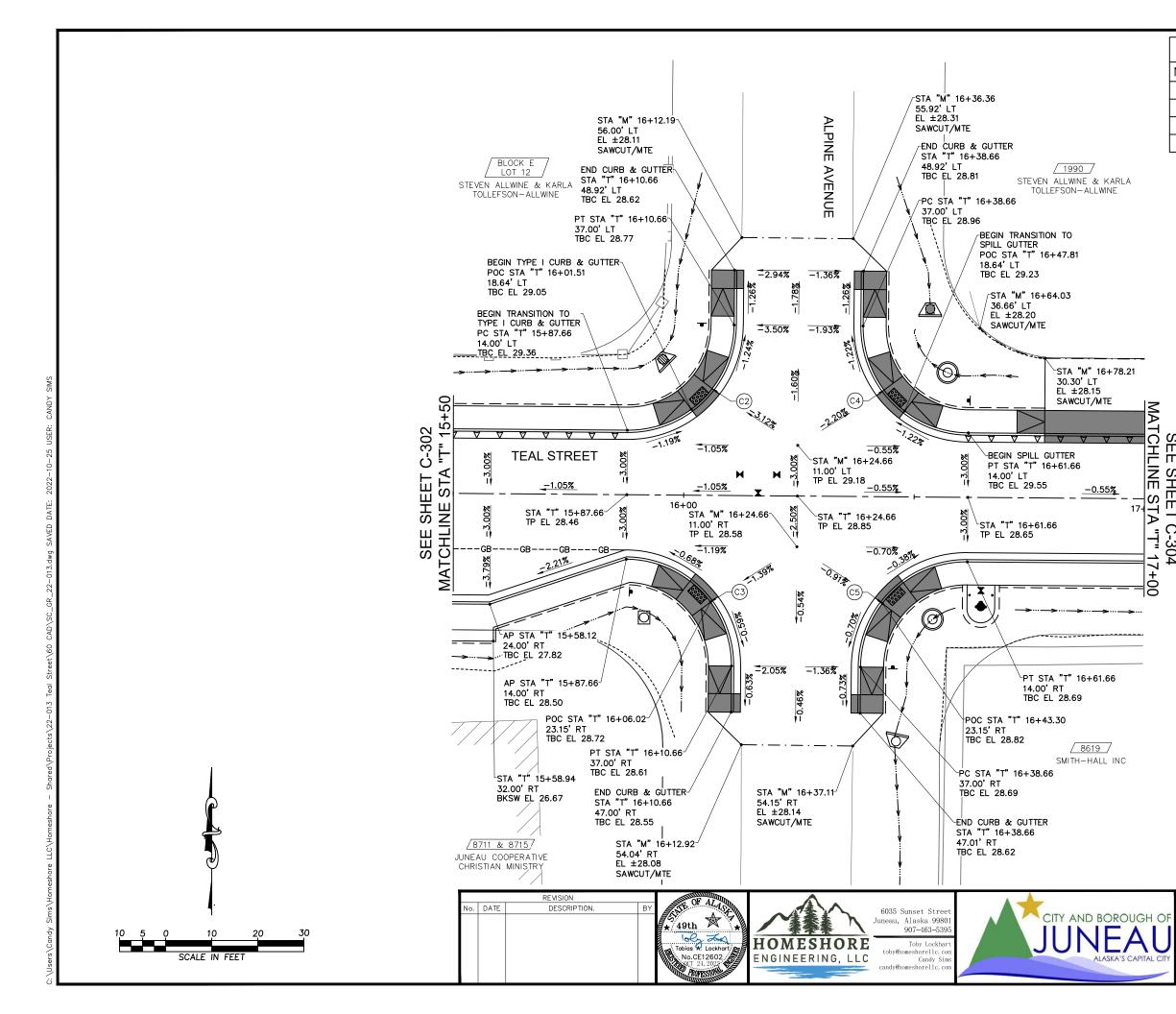


1	PIPE SUMMARY - STORM SEWER AND SANITARY SEWER							
	PIPE	DIA	LENGTH	TYPE	SLOPE			
/	SD-18	18"	86.58	CPP	0.002			
	SD-19	12"	100.08	HP PVC	0.003			
	SD-20	12"	76.43	HP PVC	0.005			
	SD-21	12"	30.78	CPP	0.004			
	SD-22	12"	11.36	CPP	0.003			
	SD-23	12"	63.23	HP PVC	0.003			
	SS-3	21"	367.71	DR35 PVC	0.001			
	SS-4	21"	287.10	DR26 PVC	0.001			









CURVE TABLE				
No.	LENGTH	RADIUS	DELTA	CH BEARING & DISTANCE
C2	36.13	23.00	90.00	N45°26'46"E – 36.13
C3	36.12	23.00	89.97	S44*32'33"E – 36.12
C4	36.13	23.00	90.00	S44•33'14"E – 36.13
C5	36.13	23.00	90.00	N45°26'46"E – 36.13



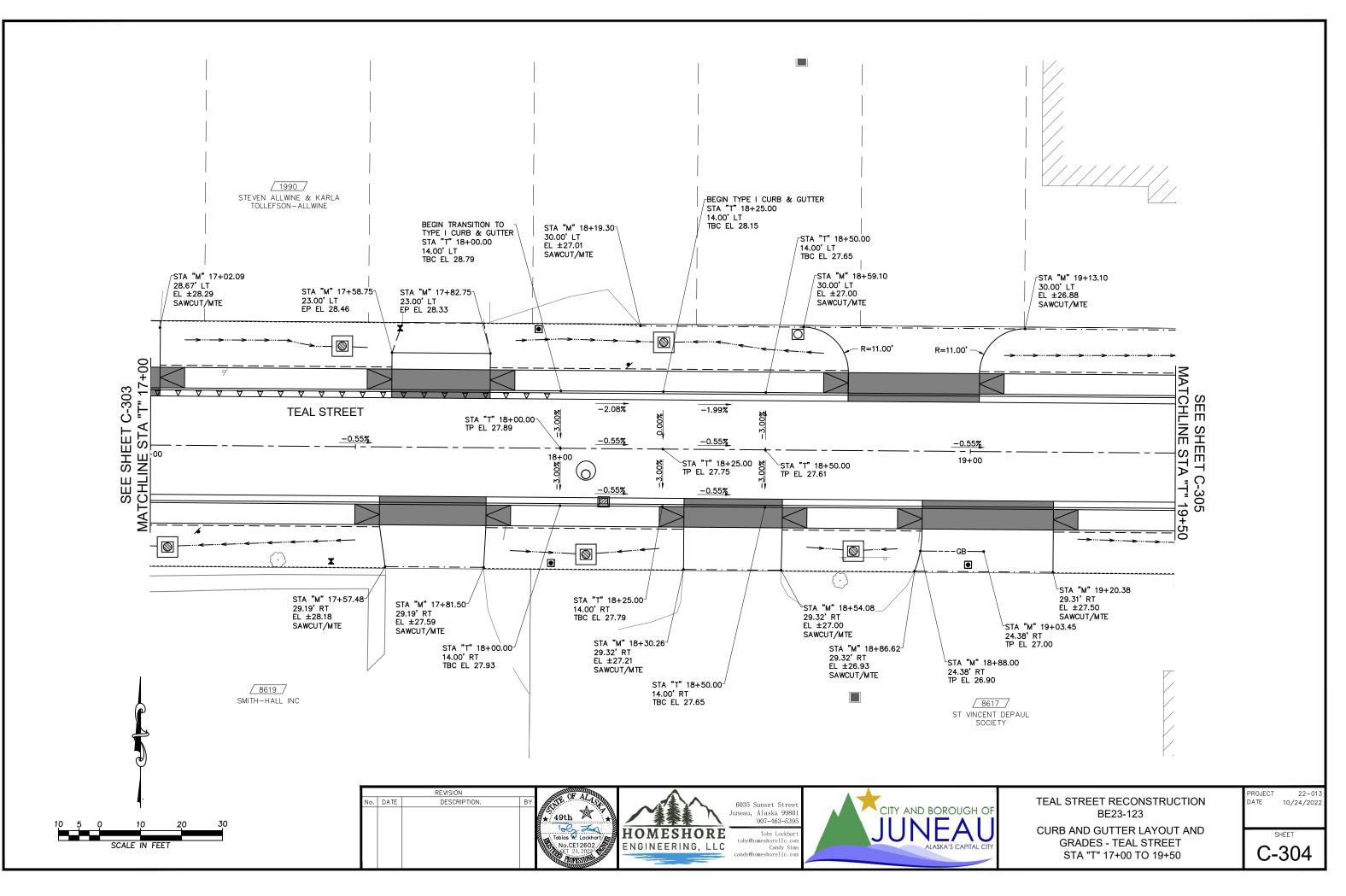
TEAL STREET RECONSTRUCTION BE23-123 CURB AND GUTTER LAYOUT AND

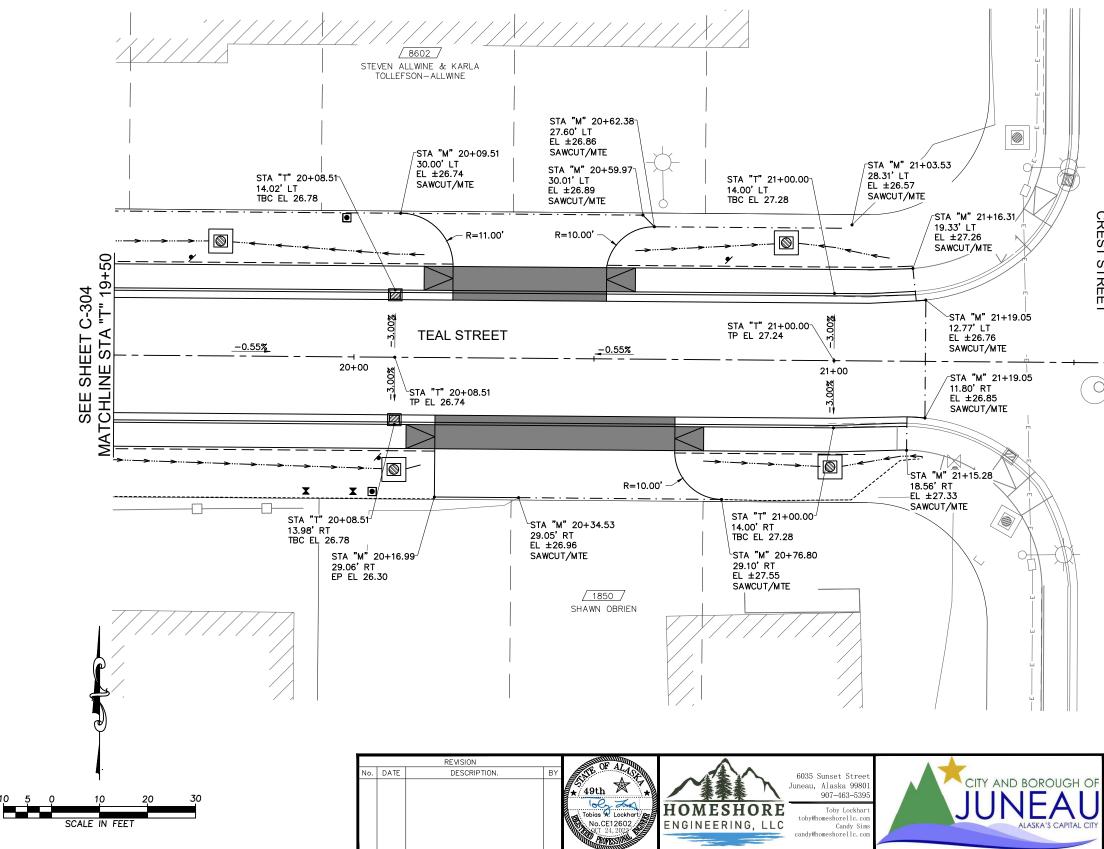
ROJECT 22-01 DATE 10/24/202

SHEET

C-303

GRADES - TEAL STREET STA "T" 15+50 TO 17+00





10



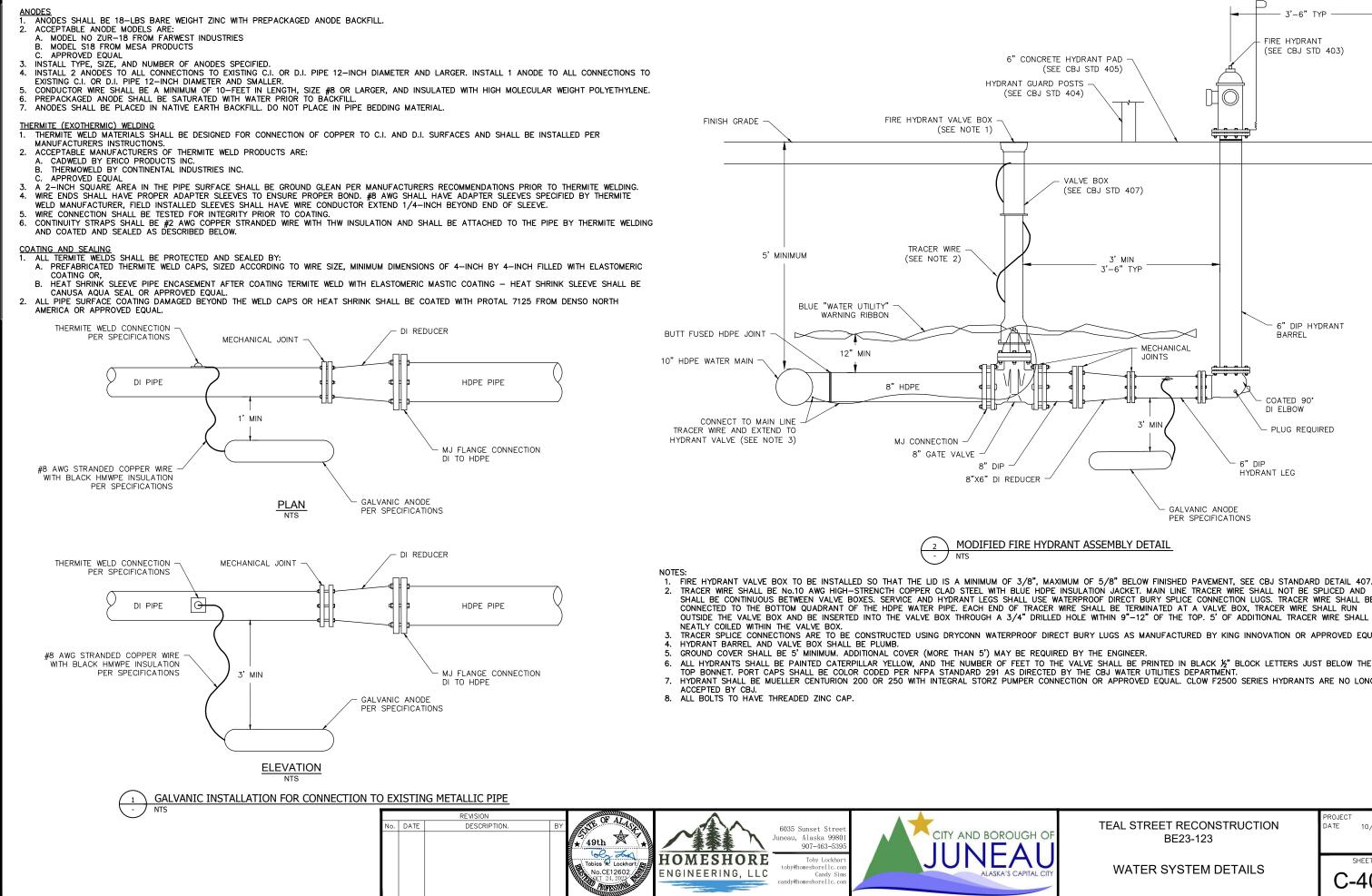
BE23-123 CURB AND GUTTER LAYOUT AND **GRADES - TEAL STREET** STA "T" 19+50 TO CREST STREET

10/24/2022

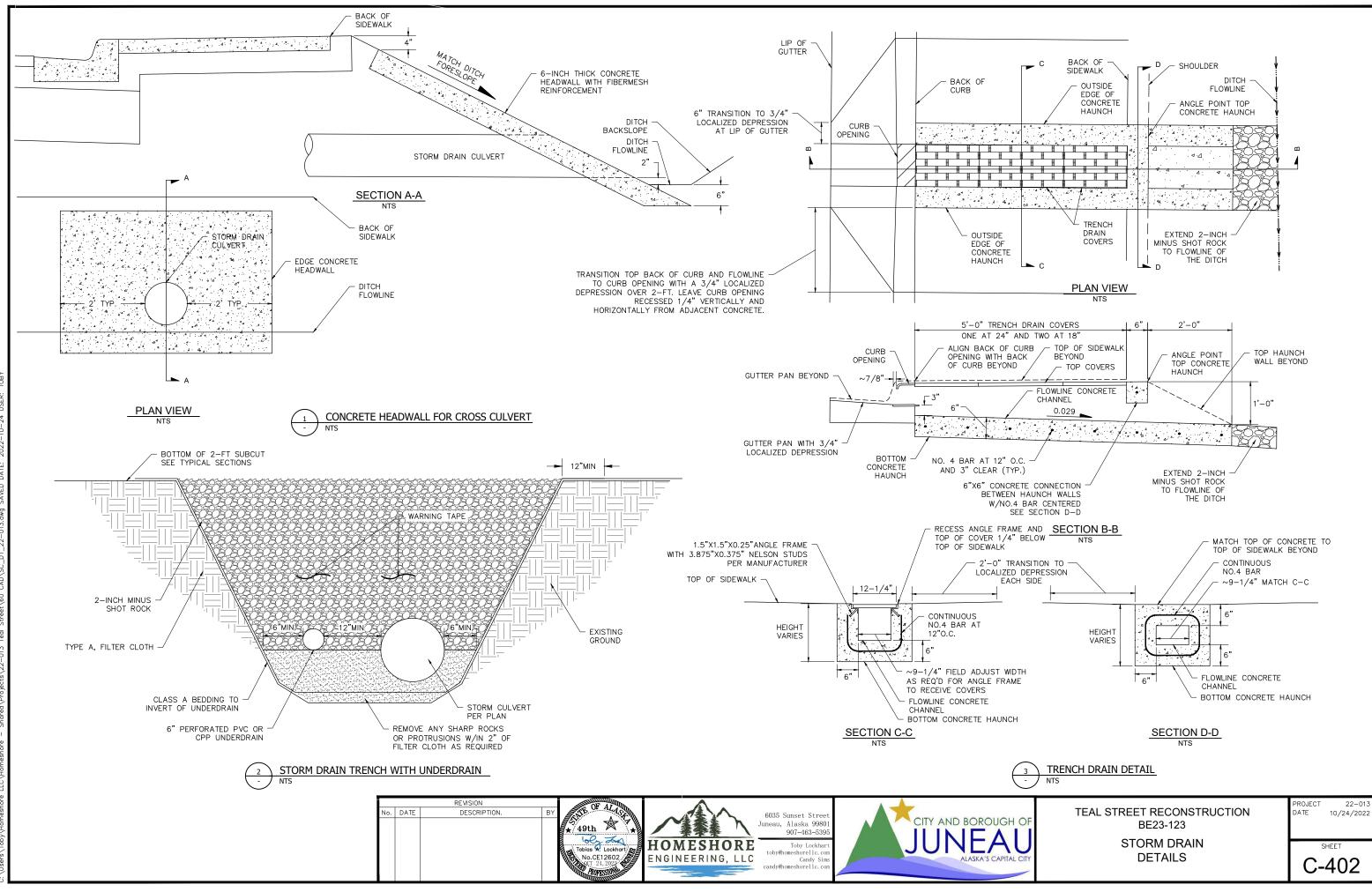
SHEET

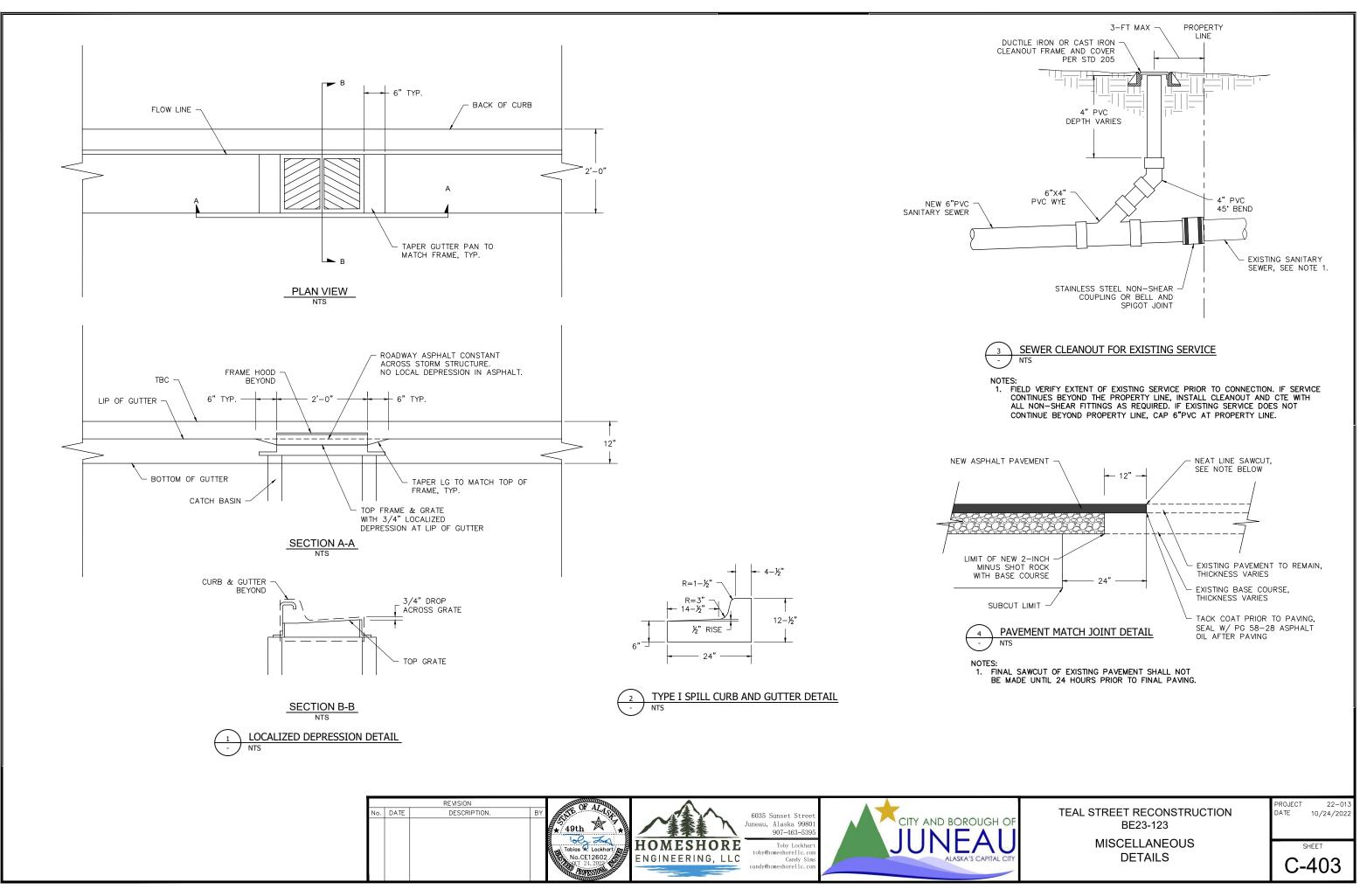
C-305

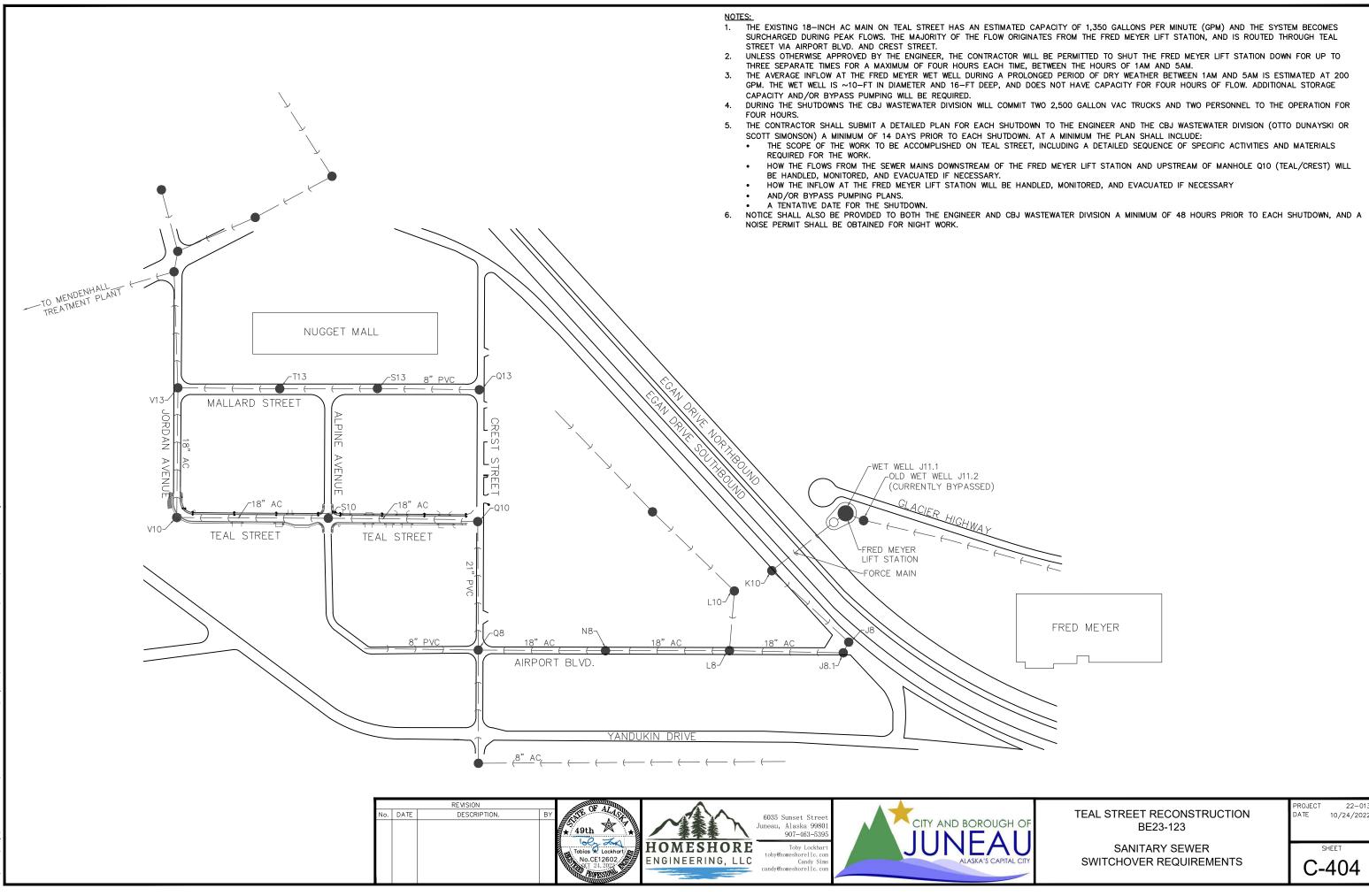
CREST STREET $\overset{\times}{\bowtie}$ 22+00 OPROJECT DATE 22-01 TEAL STREET RECONSTRUCTION

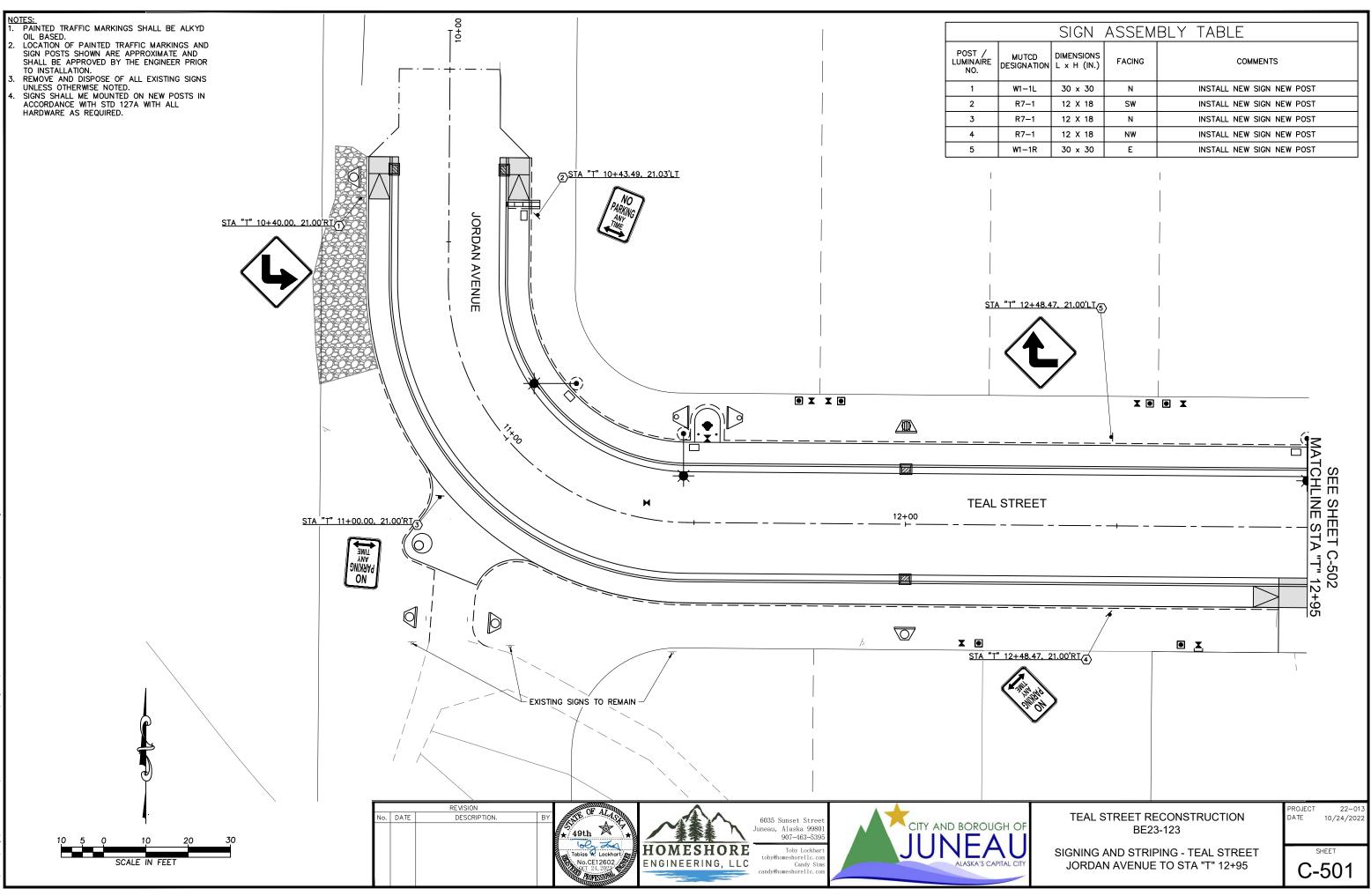


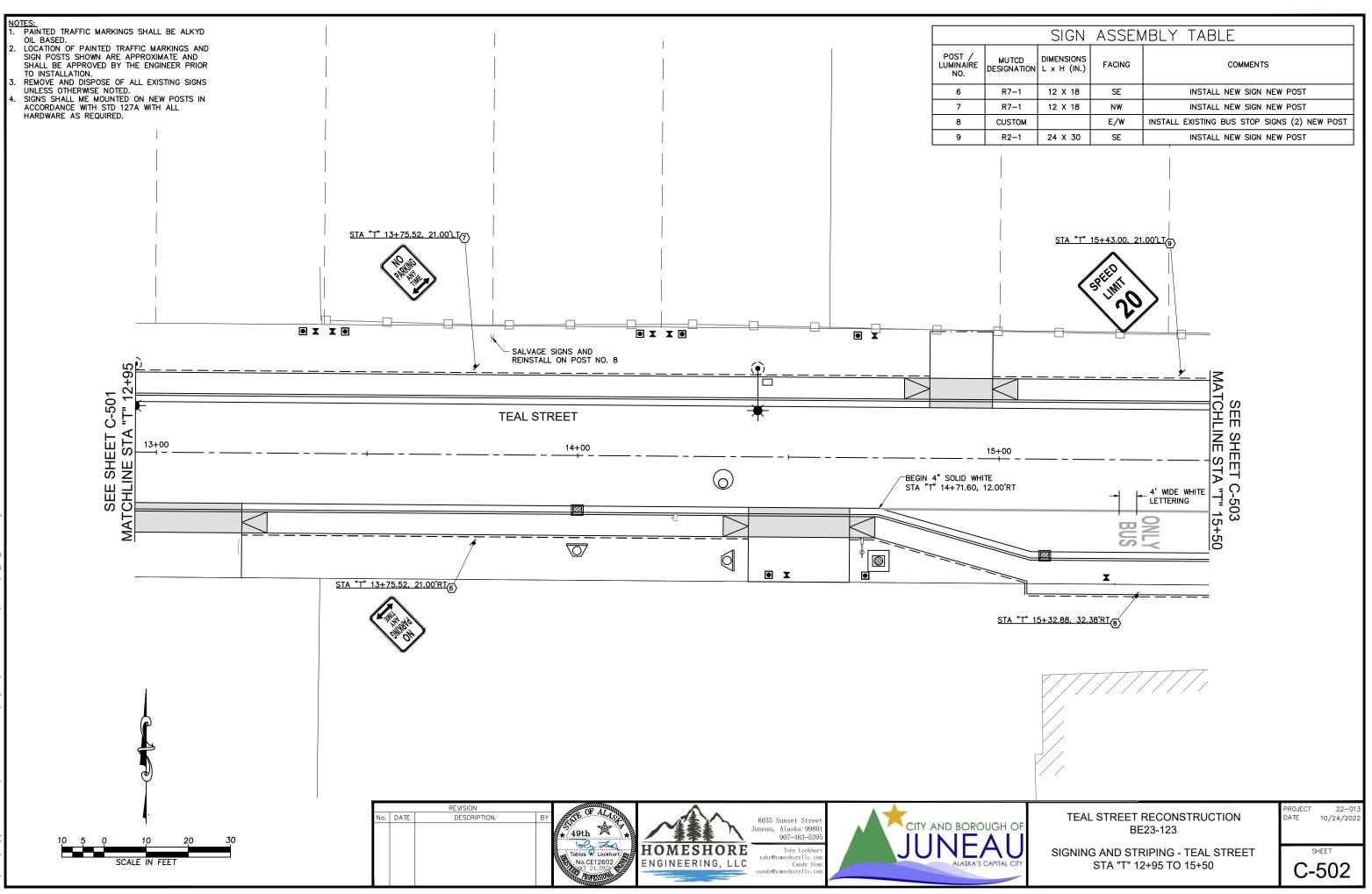
GALVANIC ANODE PER SPECIFICATIONS	
HYDRANT ASSEMBLY DETAIL	
3", MAXIMUM OF 5/8" BELOW FINISHED PAVEMENT, SEE CBJ STANDARD DETAIL 407. HDPE INSULATION JACKET. MAIN LINE TRACER WIRE SHALL NOT BE SPLICED AND USE WATERPROOF DIRECT BURY SPLICE CONNECTION LUGS. TRACER WIRE SHALL BE RACER WIRE SHALL BE TERMINATED AT A VALVE BOX, TRACER WIRE SHALL RUN DRILLED HOLE WITHIN 9"-12" OF THE TOP. 5' OF ADDITIONAL TRACER WIRE SHALL OF DIRECT BURY LUGS AS MANUFACTURED BY KING INNOVATION OR APPROVED EQU REQUIRED BY THE ENGINEER. TO THE VALVE SHALL BE PRINTED IN BLACK ½" BLOCK LETTERS JUST BELOW THE RECTED BY THE CBJ WATER UTILITIES DEPARTMENT. R CONNECTION OR APPROVED EQUAL. CLOW F2500 SERIES HYDRANTS ARE NO LONG	E BE AL.
H OF BE23-123	22–013 ′24/2022
WATER SYSTEM DETAILS	

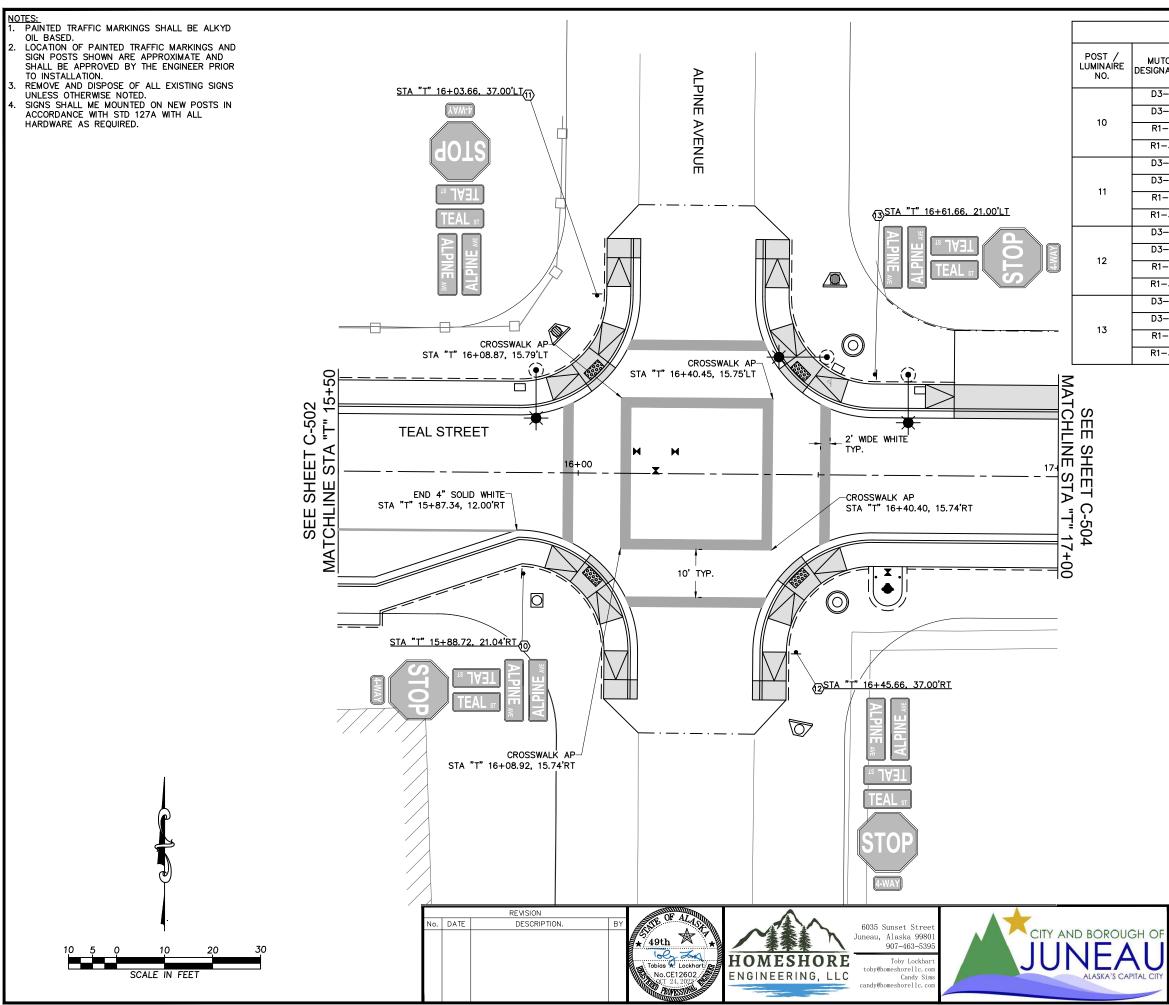












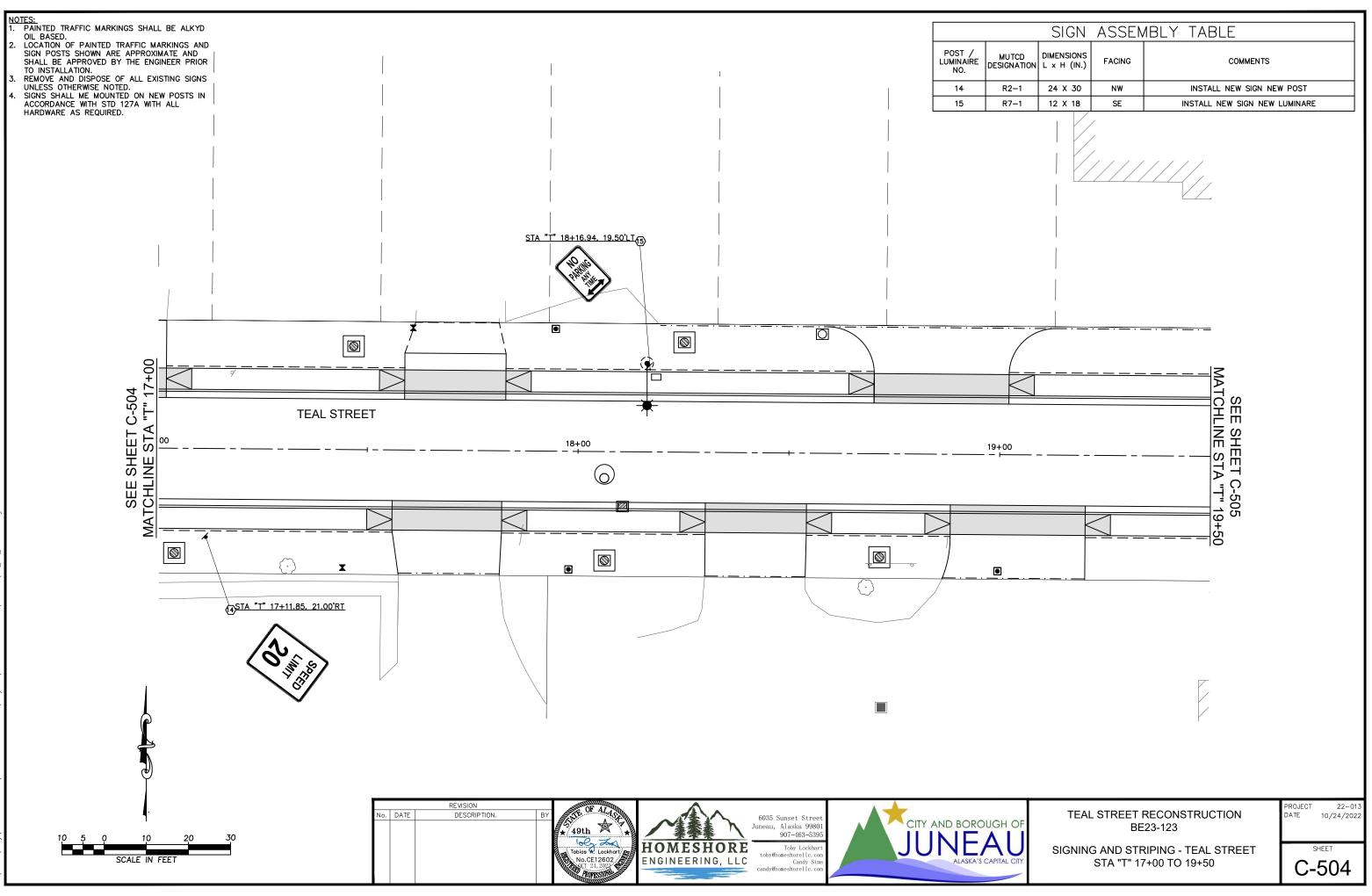
SIGN ASSEMBLY TABLE				
MUTCD ESIGNATION	DIMENSIONS LxH (IN.)	FACING	COMMENTS	
D3—1	26 x 8	E/W	INSTALL NEW SIGNS (2) ON NEW POST	
D3-1	24 x 8	N/S	INSTALL NEW SIGNS (2) ON NEW POST	
R1-1	30 x 30	W	INSTALL NEW SIGN NEW POST	
R1-3	12 x 6	W	INSTALL NEW SIGN NEW POST	
D3-1	26 x 8	E/W	INSTALL NEW SIGNS (2) ON NEW POST	
D3-1	24 x 8	N/S	INSTALL NEW SIGNS (2) ON NEW POST	
R1-1	30 x 30	N	INSTALL NEW SIGN NEW POST	
R1-3	12 x 6	N	INSTALL NEW SIGN NEW POST	
D3-1	26 x 8	E/W	INSTALL NEW SIGNS (2) ON NEW POST	
D3-1	24 x 8	N/S	INSTALL NEW SIGNS (2) ON NEW POST	
R1-1	30 x 30	S	INSTALL NEW SIGN NEW POST	
R1-3	12 x 6	S	INSTALL NEW SIGN NEW POST	
D3-1	26 x 8	E/W	INSTALL NEW SIGNS (2) ON NEW POST	
D3-1	24 x 8	N/S	INSTALL NEW SIGNS (2) ON NEW POST	
R1-1	30 x 30	E	INSTALL NEW SIGN NEW POST	
R1-3	12 x 6	E	INSTALL NEW SIGN NEW POST	

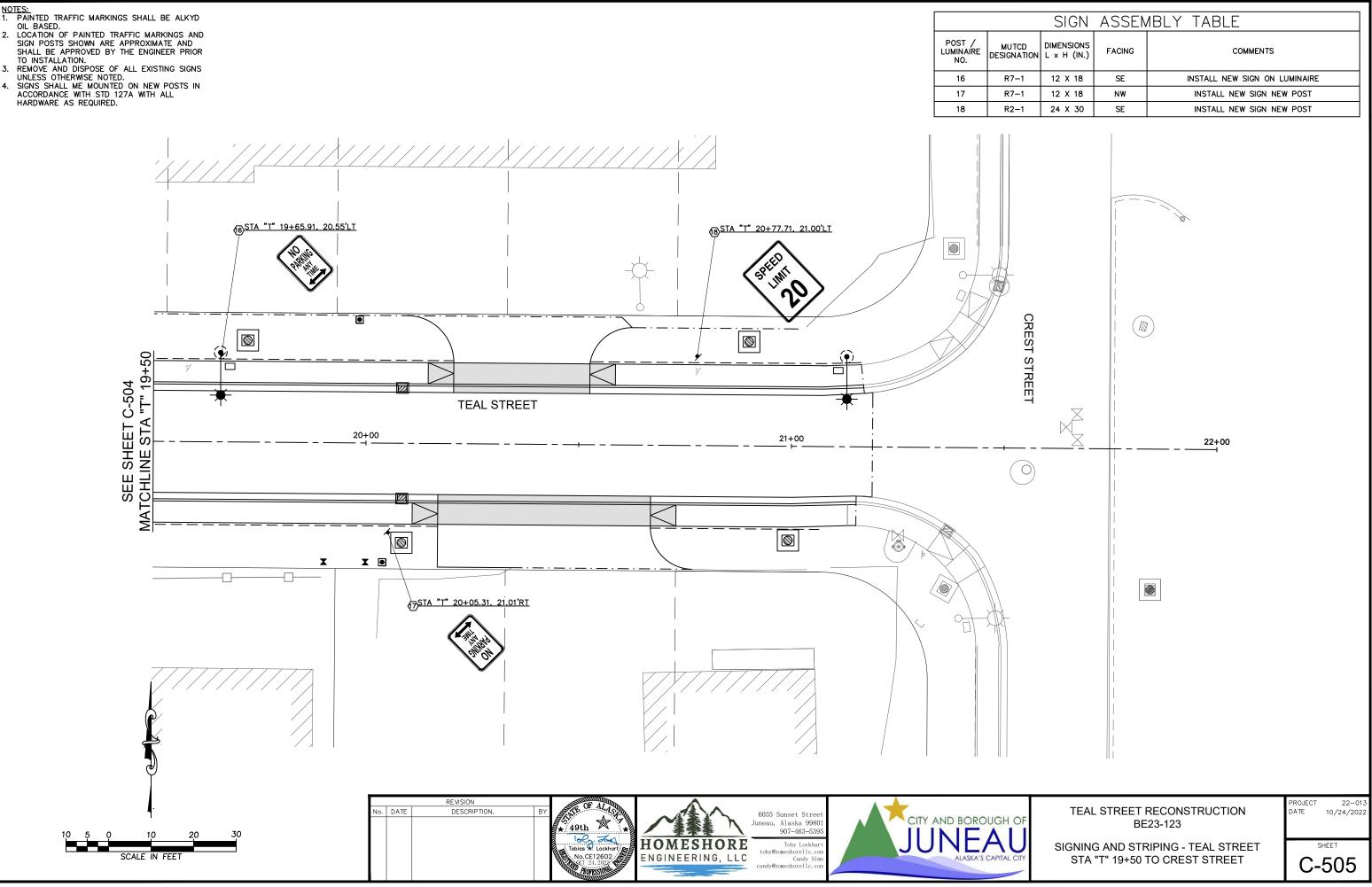
TEAL STREET RECONSTRUCTION BE23-123

SIGNING AND STRIPING - TEAL STREET STA "T" 15+50 TO 17+00 PROJECT 22-013 DATE 10/24/2022

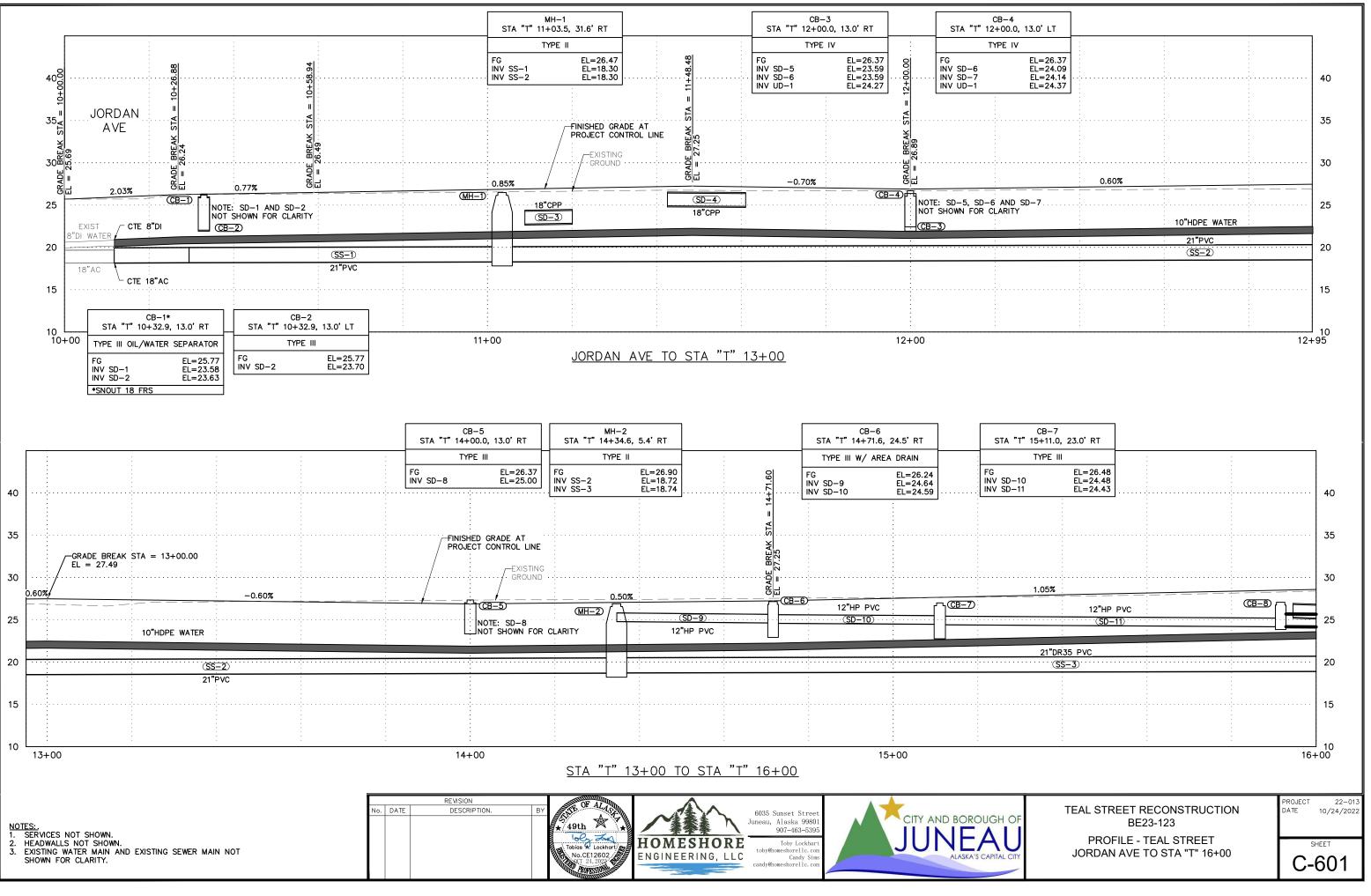
SHEET

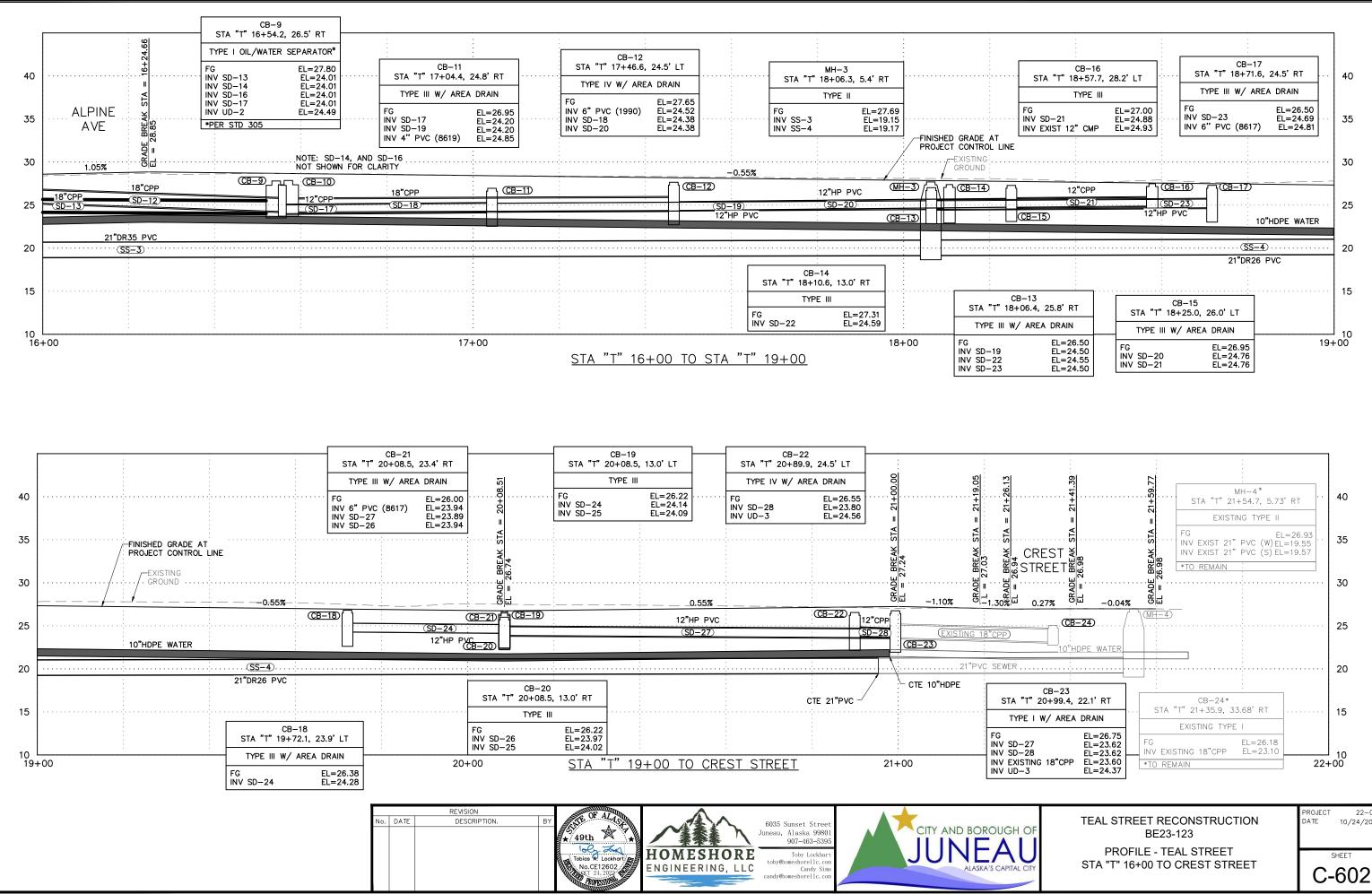
C-503





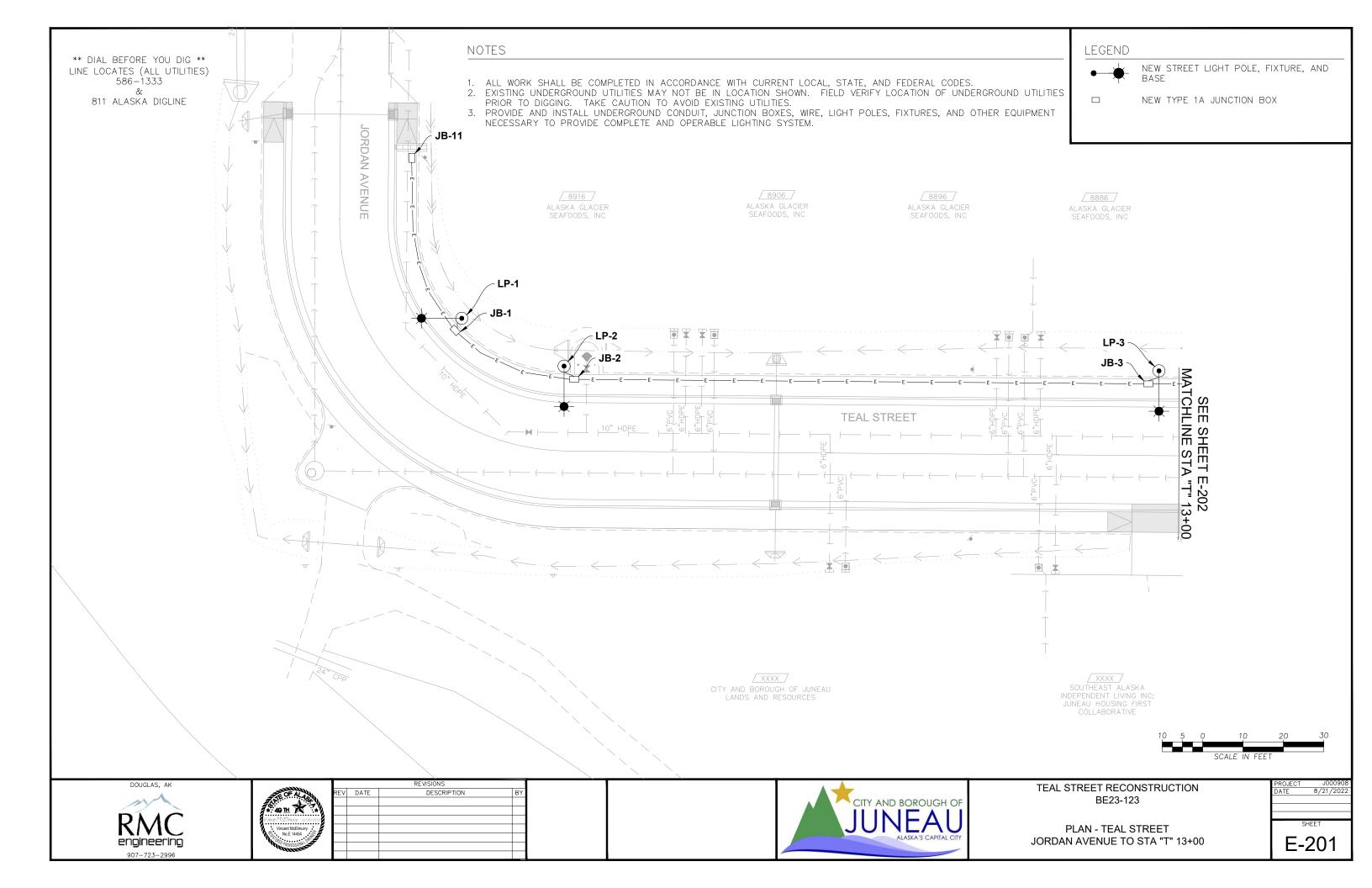
SIGN ASSEMBLY TABLE				
IUTCD IGNATION	DIMENSIONS L × H (IN.)	FACING	COMMENTS	
R7—1	12 X 18	SE	INSTALL NEW SIGN ON LUMINAIRE	
R7–1	12 X 18	NW	INSTALL NEW SIGN NEW POST	
R2-1	24 X 30	SE	INSTALL NEW SIGN NEW POST	

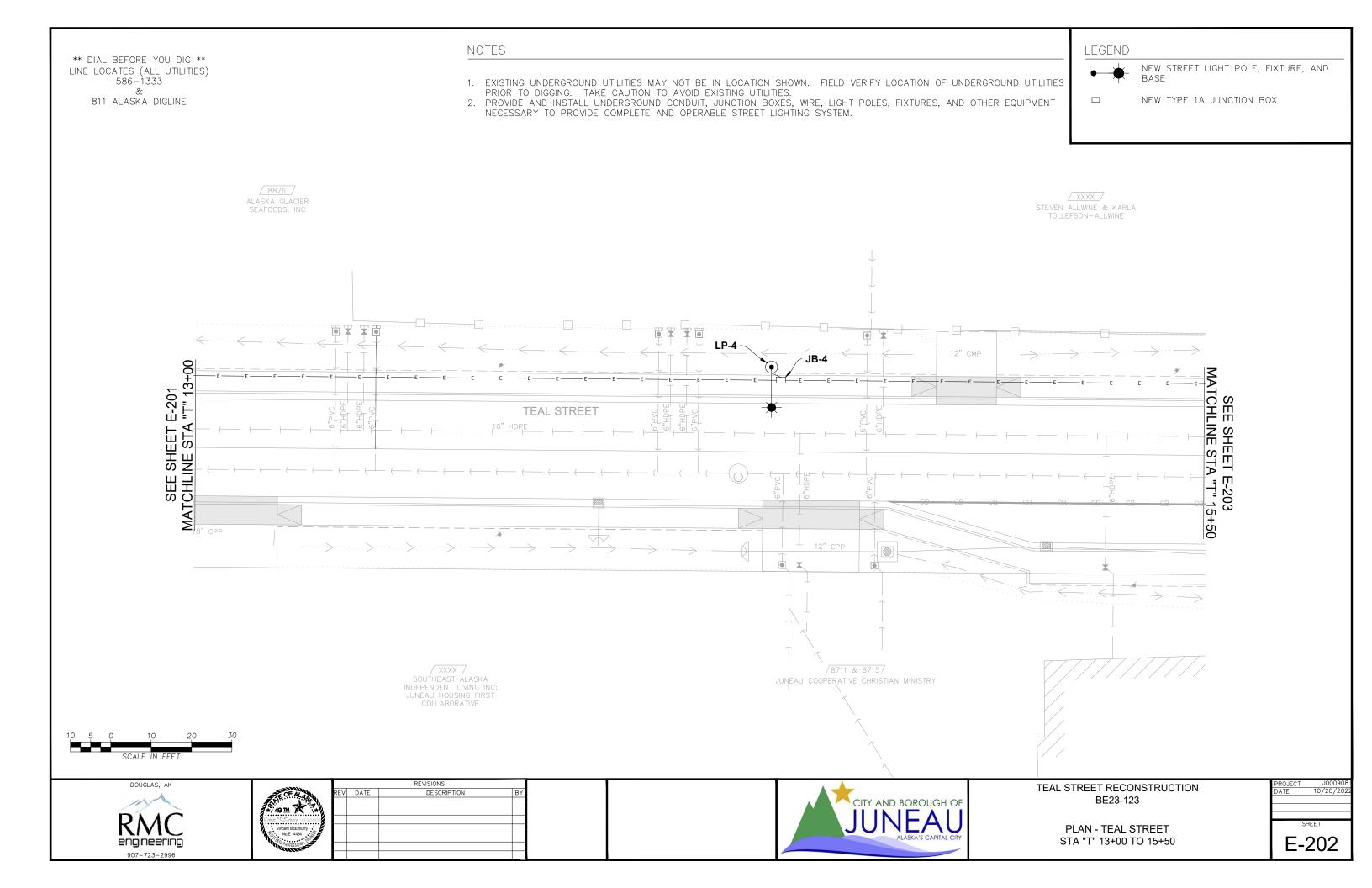


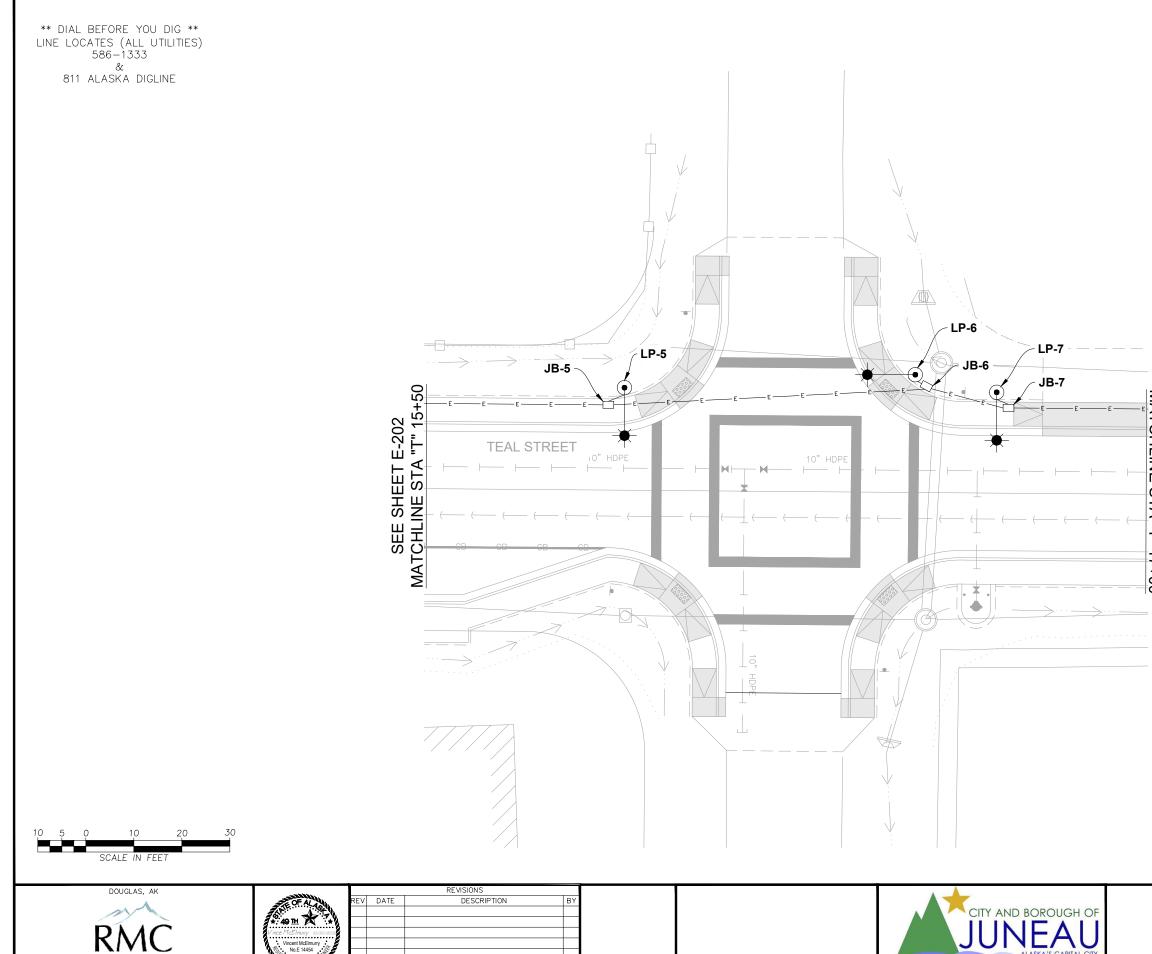


10/24/202

22-01







engineering

907-723-2996

LEGEND	
•	NEW STREET LIGHT POLE, FIXTURE, AND BASE
	NEW TYPE 1A JUNCTION BOX

NOTES

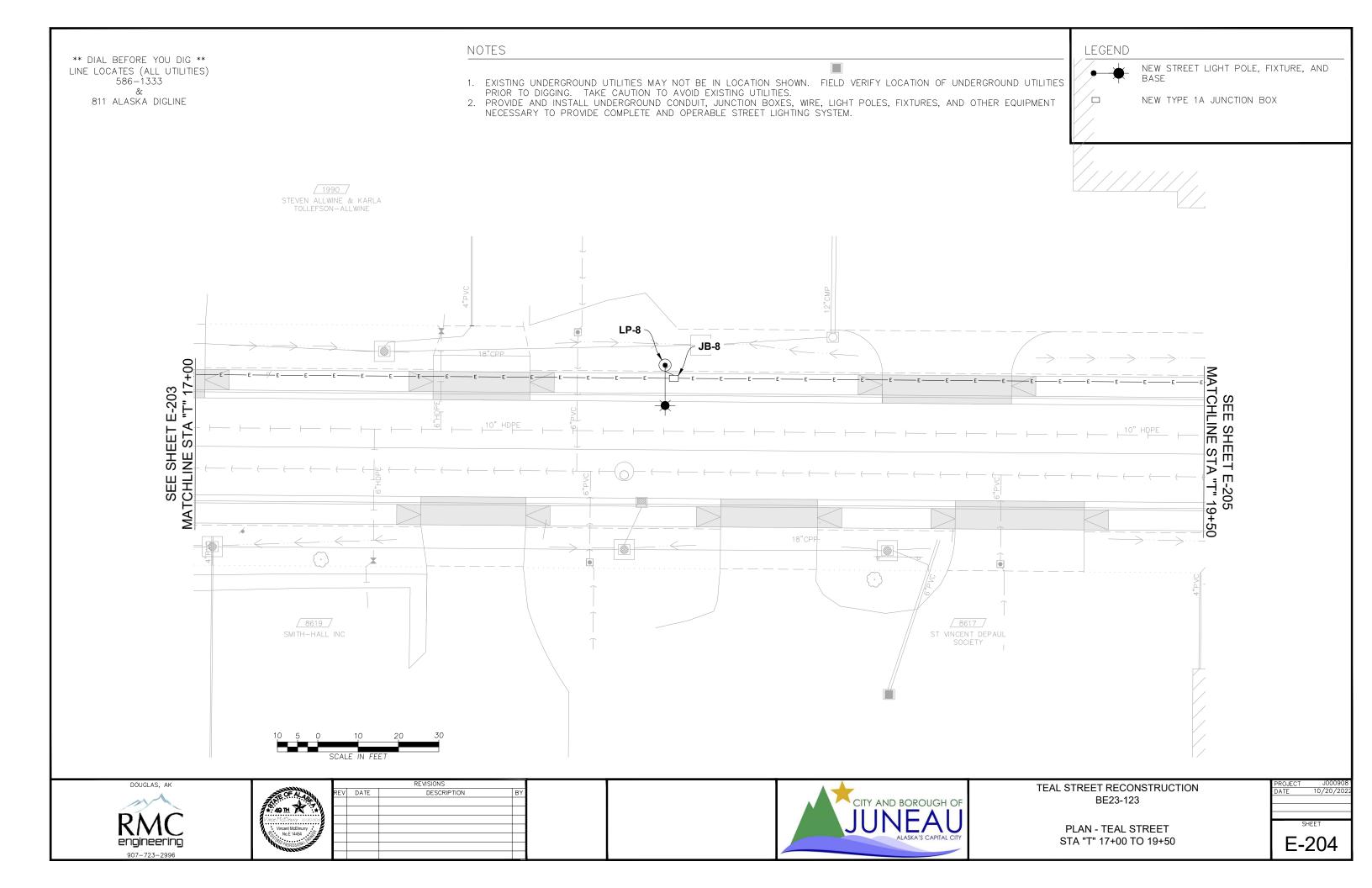
- 1. EXISTING UNDERGROUND UTILITIES MAY NOT BE IN LOCATION SHOWN. FIELD VERIFY LOCATION OF UNDERGROUND UTILITIES PRIOR TO DIGGING.
- TAKE CAUTION TO AVOID EXISTING UTILITIES.
 PROVIDE AND INSTALL UNDERGROUND CONDUIT, JUNCTION BOXES, WIRE, LIGHT POLES, FIXTURES, AND OTHER EQUIPMENT NECESSARY TO PROVIDE COMPLETE AND OPERABLE STREET LIGHTING SYSTEM.

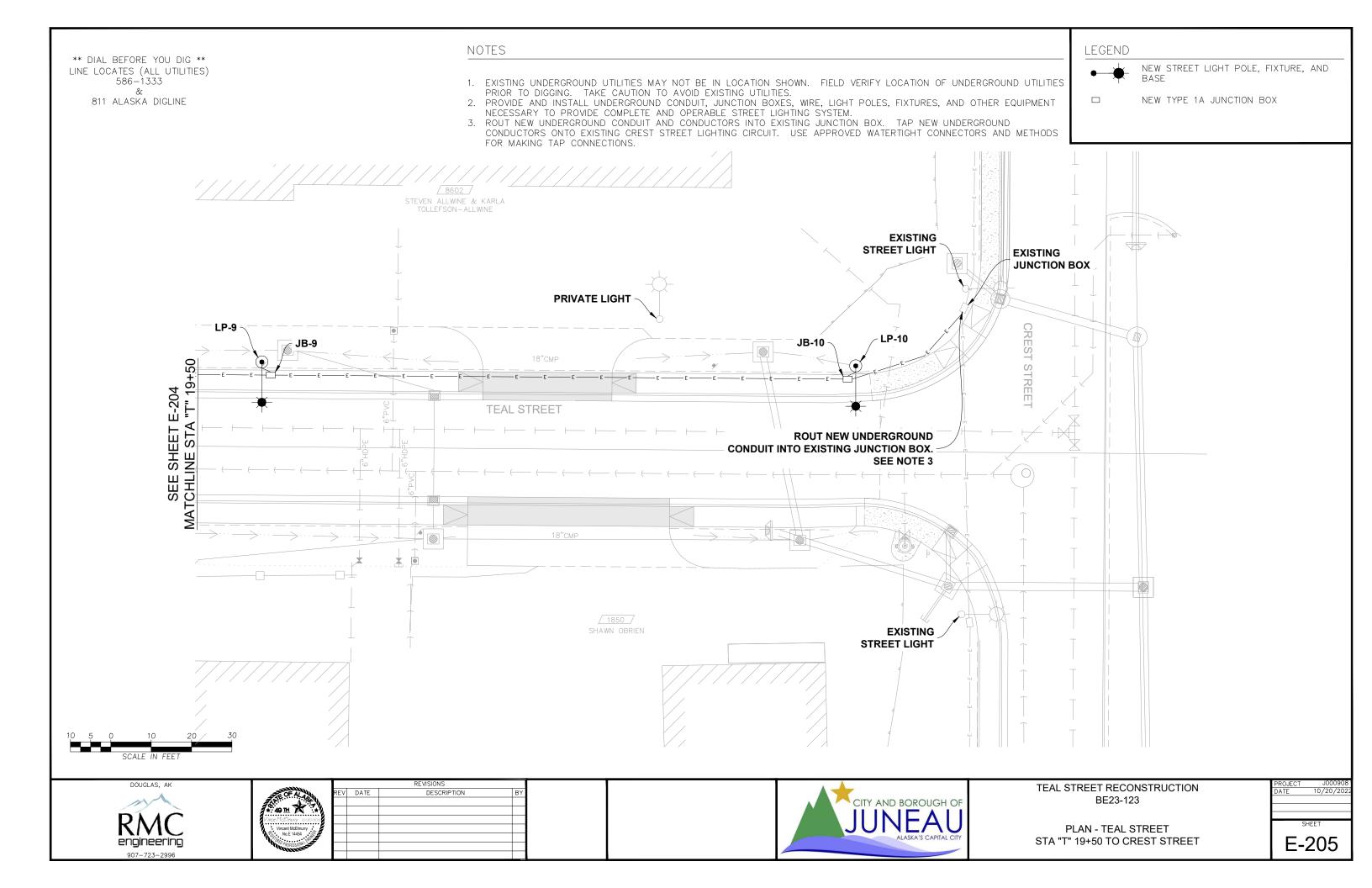
TEAL STREET RECONSTRUCTION BE23-123

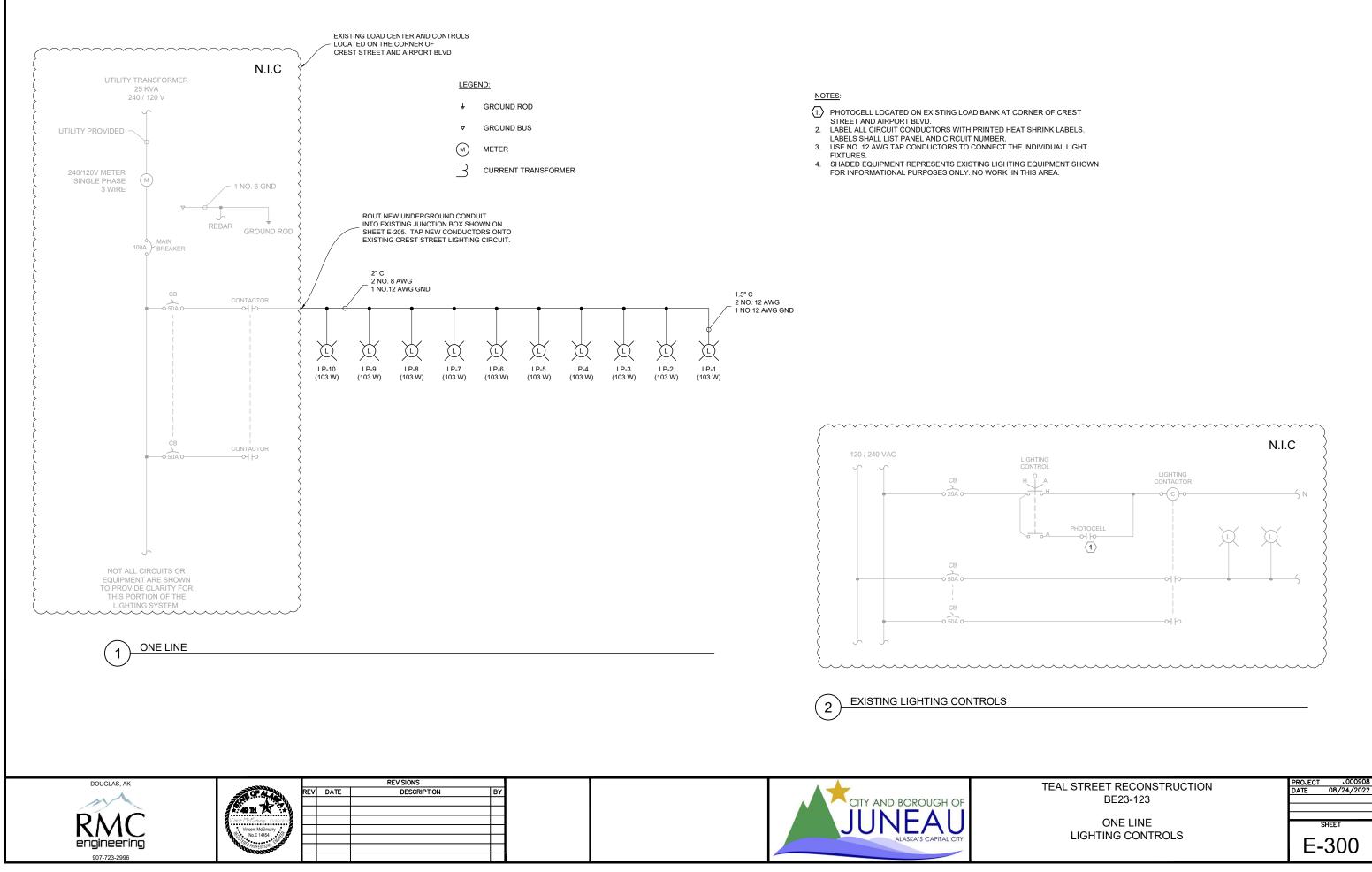
> PLAN - TEAL STREET STA "T" 15+50 TO 17+00

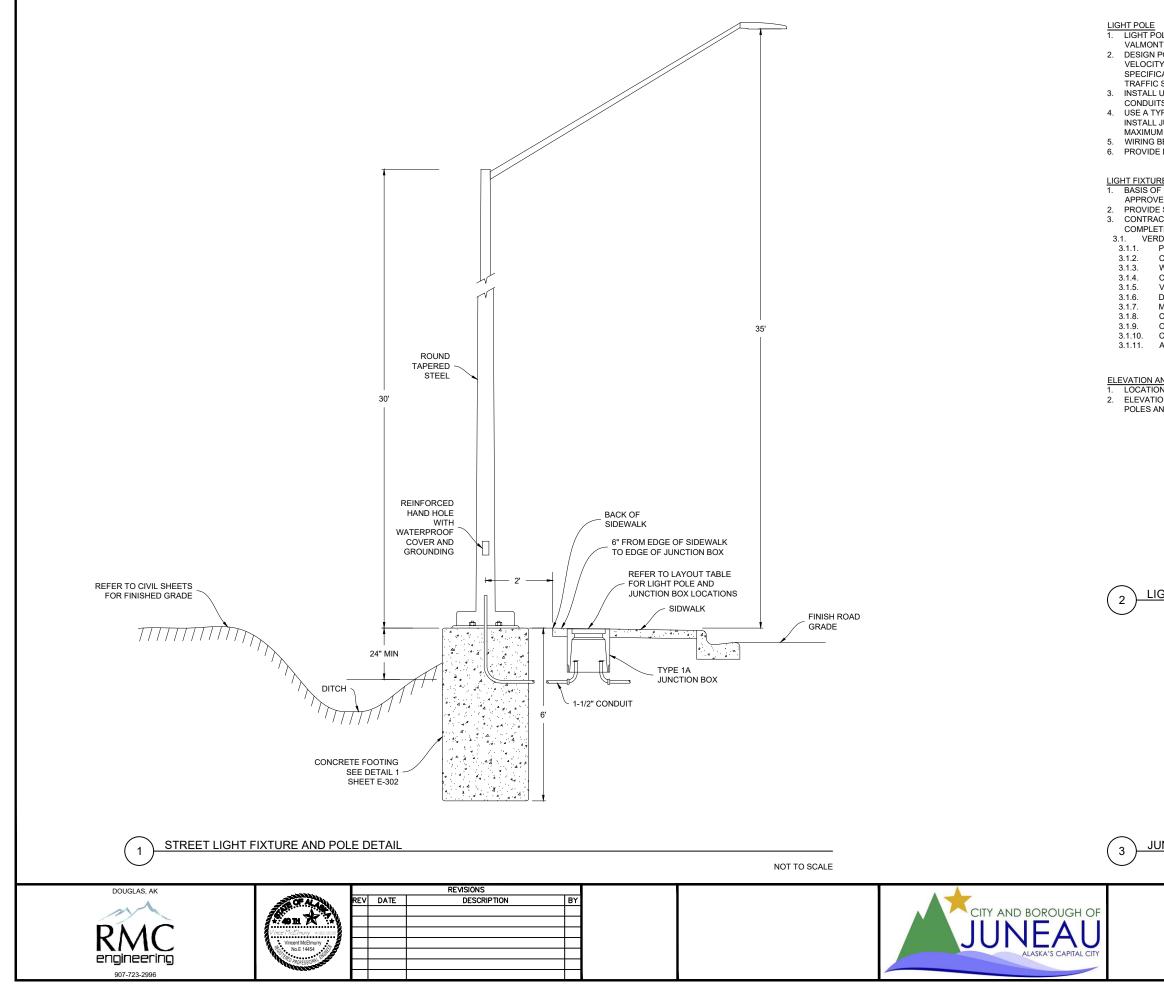
PROJECT J000908 DATE 10/20/202











1. LIGHT POLES SHALL BE 30' ROUND TAPERED GALVANIZED STEEL, 10' MAST ARM 5' RISE. VALMONT OR APPROVED EQUAL.

2. DESIGN POLES TO WITHSTAND FORCES EQUIVALENT TO A 110 MPH ISOTACH WIND VELOCITY, WITH A 1.3 GUST FACTOR. AS DEFINED BY THE AASHTO STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINARIES AND TRAFFIC SIGNALS". 1994

3. INSTALL UNDERGROUND WIRING BETWEEN LIGHTS IN PVC CONDUIT. ABOVE GROUND

CONDUITS SHALL BE GALVANIZED RIGID STEEL. 4. USE A TYPE 1A JUNCTION BOX AT EACH LIGHT POLE, SEE SITE PLAN FOR LOCATIONS. INSTALL JUNCTION BOXES WITHIN THE SIDEWALK. KEEP LID OF JUNCTION BOX A MAXIMUM OF QUARTER INCH BELOW THE GRADE OF THE FINISHED SIDEWALK.

WIRING BETWEEN JUNCTION BOXES SHALL BE CONTINUOUS AND FREE OF SPLICES. 6. PROVIDE DOUBLE FUSED CONNECTOR KITS WITH FUSES IN THE BASE OF EACH POLE.

LIGHT FIXTURE 1. BASIS OF DESIGN IS COOPER LIGHTING VERD SERIES. PROVIDE VERD SERIES, OR APPROVED EQUAL.

PROVIDE SHORTING CAPS FOR EACH FIXTURE.
 CONTRACTOR SHALL COORDINATE WITH OWNER AND MANUFACTURER TO PROVIDE COMPLETE LIGHT FIXTURE PART NUMBER.
 VERD-G-CA2-110-730-U-T3-_-AP-_-__

PRODUCT:	VERD-G	COOPER LIGHTING VERD SERIES
CONFIGURATION:	CA2	
WATTAGE:	110	103 WATTS
COLOR TEMP:	730	70CRI, 3000K
VOLTAGE:	U	UNIVERSAL (120-277V)
DISTRIBUTION:	Т3	TYPE III
MOUNTING:	AS REQU	IRED
COLOR:	AP	GRAY
OPTIONS:	AS REQU	IRED
CONTROLS:	AS REQU	IRED
ACCESSORIES:	AS REQU	IRED

ELEVATION AND LOCATION TABLES 1. LOCATION IS GIVEN TO CENTER OF STRUCTURE. 2. ELEVATION IS FINISHED GRADE, GIVEN TO TOP OF PRECAST FOOTING FOR LIGHT POLES AND TOP OF IRON LID FOR JUNCTION BOXES.

	Light Pole Layout	
ID	Location	Elevation
LP-1	11+01.25, 21.00' LT	26.93
LP-2	11+46.71, 21.00' LT	27.34
LP-3	12+94.79, 21.00' LT	28.43
LP-4	14+42.58, 21.00' LT	27.34
LP-5	15+91.07, 21.00' LT	29.24
LP-6	16+51.63, 24.53' LT	29.25
LP-7	16+68.60, 21.00' LT	29.59
LP-8	18+16.20, 21.00' LT	28.54
LP-9	19+65.69, 21.00' LT	27.08
LP-10	21+12.88, 21.17' LT	27.2

LIGHT POLE LOCATION AND ELEVATION TABLE

	J-Box Layout	
ID	Location	Elevation
JB-1	11+0285, 17.76' LT	26.95
JB-2	11+49.90, 17.76' LT	27.32
JB-3	12+92.20, 17.76' LT	28.4
JB-4	14+44.90, 17.76' LT	28.09
JB-5	15+87.72, 17.76' LT	29.42
JB-6	16+53.94, 22.16' LT	29.17
JB-7	16+71.08, 17.76' LT	29.55
JB-8	18+18.39, 17.76' LT	28.48
JB-9	19+67.92, 17.76' LT	27.05
JB-10	21+10.89, 17.88' LT	27.2
JB-11	10+43.63, 17.76' LT	26.45

JUNCTION BOX LOCATION AND ELEVATION TABLE

TEAL STREET RECONSTRUCTION BE23-123 STREET LIGHT POLE AND LAYOUT INFORMATION

SHEET
E-301

08/24/2022

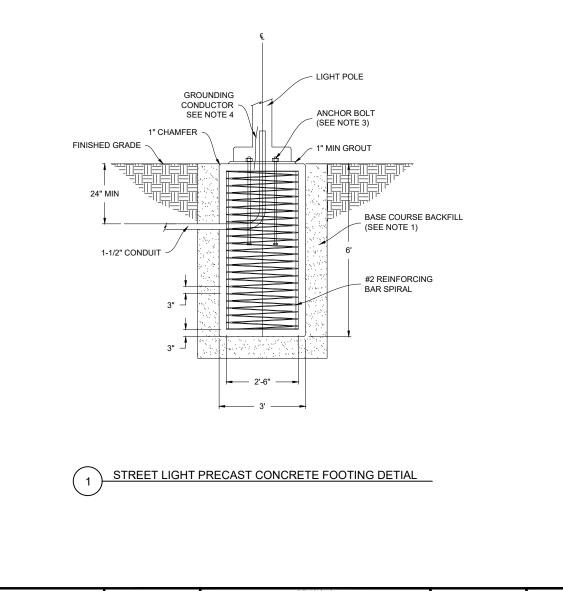
PROJECT DATE

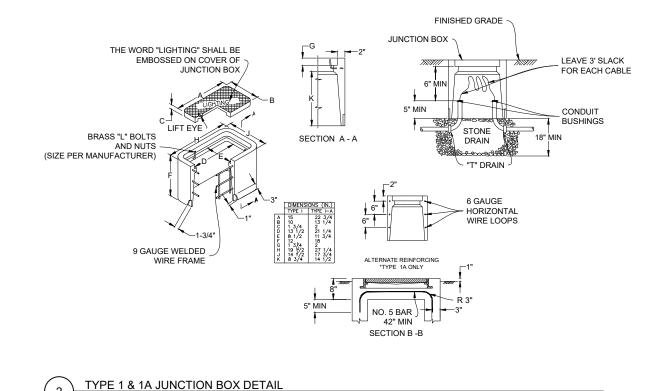
STREET LIGHT PRECAST CONCRETE FOOTING DETAIL:

- 1. BACKFILL WITH BASE COURSE AROUND FOOTING, 12 INCHES ALL SIDES. COMPACT TO 95%.
- NO. 2 REBAR SPIRAL INSTALLATION. SPIRAL SHALL HAVE 30 INCH DIAMETER WITH 1 TURN EVERY 3 INCHES. MAINTAIN MINIMUM 3" COVER.
- 3. PROVIDE GALVANIZED ANCHOR BOLTS AND LEVELING NUTS AS RECOMMENDED BY POLE MANUFACTURER. SPACE ANCHOR BOLTS EVENLY WITHIN THE REBAR SPIRAL. EMBED BOLTS IN CONCRETE TO DEPTH AS RECOMMENDED BY POLE MANUFACTURER.
- 4. PROVIDE NO. 8 CU GROUNDING CONDUCTOR, BOND GROUNDING CONDUCTOR TO FOOTING REBAR, ANCHOR BOLTS, LIGHT POLE, AND
- EQUIPMENT GROUNDING CONDUCTOR. 5. CONCRETE SHALL BE PER CITY AND BOROUGH OF JUNEAU SPECS SECTION 03302.

CONCRETE JUNCTION BOX DETAIL:

- EACH COVER FOR TYPE 1A JUNCTION BOXES SHALL BE CAST IRON. JUNCTION BOXES LOCATED IN A SIDEWALK SHALL BE INSTALLED WITH A 1/2" PREFORMED BITUMINOUS JOINT MATERIAL AROUND ITS PERIMETER. 2.
- ALL CONDUITS SHALL BE BONDED TO FORM A CONTINUOUS ELECTRICAL 3.
- SECURE SYSTEM WITH THE GROUND AT THE LOAD CENTER JUNCTION BOX. 4. ALL LIDS SHALL BE GROUNDED IN ACCORDANCE WITH MANUFACTURER'S
- INSTRUCTION, STATE, AND LOCAL CODES. 5. ALL CONDUITS SHALL BE GROUTED IN KNOCKOUT SECTIONS IN ACCORDANCE
- WITH THE ALASKA SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, LATEST EDITION.







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			REVISIONS
STATE AL	REV	DATE	DESCRIPTION
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Vince McElmurry 4/20/2021			
Vincent McElmurry			
No.E 14454			
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TEAL STREET RECONSTRUCTION
BE23-123

PRECAST FOOTING
JUNCTION BOX

SHEET
E-302

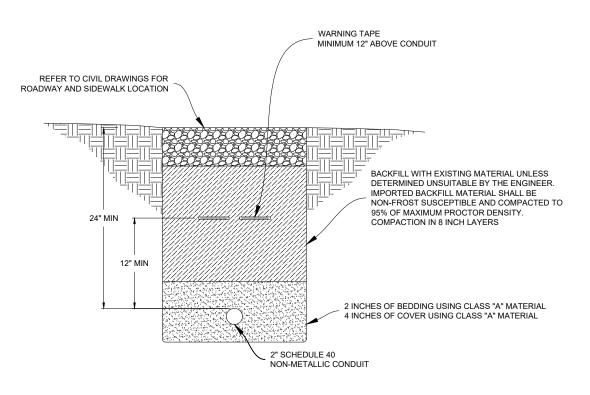
08/24/2022

PROJECT DATE

NOTES:

8.

- 1. REFER TO CIVIL DRAWINGS FOR BACKFILL AND COMPACTION REQUIREMENTS WHEN UNDERGROUND RACEWAY IS IN ROADWAY.
- 2. TRENCH DEPTH SHALL BE PER THE TRENCH DETAIL DRAWING. MINIMUM CONDUIT BURIAL DEPTH SHALL BE 24 INCHES. THIS DEPTH MAY BE REDUCED IF CONCRETE ENCASEMENT OR OTHER SUPPLEMENTAL PROTECTION IS PROVIDED. THE BOTTOM OF THE TRENCH SHALL BE FREE OF ANY SHARP ROCKS OR MATERIAL THAT MAY CAUSE DAMAGE TO CABLES AND CONDUIT. AT NO POINT SHALL THE CABLES SUSPEND OVER A HOLE OR GAP IN THE TRENCH, SUCH VOIDS SHALL BE FILLED WITH APPROPRIATE MATERIAL.
- 3. ALL TRENCHING DEPTHS SPECIFIED ARE MINIMUM AS MEASURED FROM THE FINAL GRADE TO THE TOP SURFACE OF THE CONDUIT. THE TRENCH ROUTING MAY BE ALTERED FROM THE LOCATION SHOWN ON THE SITE PLAN TO MAINTAIN THE MINIMUM DEPTH. COORDINATE WITH THE OWNER TO DETERMINE THE FINAL LOCATION. 4. CARE SHALL BE EXERCISED TO MINIMIZE THE RISK OF WATER FLOW SINCE THIS MAY CAUSE TRENCH DAMAGE AND A
- REDUCTION IN TRENCH DEPTH. IF THIS OCCURS, THE TRENCH MUST BE CLEARED TO THE SPECIFIED DEPTH BEFORE INSTALLING THE CONDUIT AND CABLE.
- 5. CONSTRUCTION SHALL BE ARRANGED SO THAT TRENCHES MAY BE LEFT OPEN FOR THE SHORTEST PRACTICAL TIME TO AVOID CREATING A HAZARD TO THE PUBLIC AND TO MINIMIZE THE LIKELIHOOD OF COLLAPSE OF THE TRENCH DUE TO OTHER CONSTRUCTION ACTIVITY, RAIN, ACCUMULATION OF WATER IN THE TRENCH, ETC.
- 6. THE FIRST 6 INCHES OF TRENCH BACKFILL SHALL BE CLASS A BEDDING MATERIAL. THIS BACKFILL LAYER MUST BE CAREFULLY COMPACTED SO THAT THE CABLE CONDUIT WILL NOT BE DAMAGED.
- BACKEILLING MUST BE COMPLETED IN SUCH A MANNER THAT VOIDS WILL BE FLIMINATED
- PIECES OF SCRAP CABLE OR OTHER MATERIAL REMAINING AFTER INSTALLATION MUST NOT BE BURIED IN THE TRENCH AS A MEANS OF DISPOSAL.
- BACKFILLED MATERIAL SHALL BE COMPACTED FOR ALL ROAD CROSSINGS.
 ALL EXPOSED ENDS OF CONDUIT MUST BE PLUGGED DURING CONSTRUCTION TO PREVENT THE ENTRANCE OF FOREIGN MATTER AND MOISTURE INTO THE CONDUIT. BURRS OR SHARP PROJECTIONS WHICH MIGHT DAMAGE THE CABLE MUST BE REMOVED.
- 11. ENSURE THE MINIMUM BENDING RADIUS OF THE CABLE IS 12 TIMES THE OVERALL DIAMETER OF THE CABLE OR PER THE MANUFACTURER'S INSTRUCTIONS, WHICHEVER IS LARGER. THE BENDING RADIUS IS MEASURED TO THE SURFACE OF THE CABLE ON THE INSIDE OF THE BEND.
- 12. CABLES SHALL BE TAGGED AND IDENTIFIED AT ALL ACCESSIBLE LOCATIONS AS THE CABLES ARE LAID. THE IDENTIFICATION MUST BE OF A PERMANENT TYPE, SUCH AS THAT DONE ON PLASTIC OR CORROSION RESISTANT METAL TAGS. THE TAG MUST BE SECURELY ATTACHED TO THE CABLE. PAPER OR CLOTH TAGS ARE NOT ACCEPTABLE.
- 13. CONDUIT SHALL BE 2 INCH NON-METALLIC, SCHEDULE 40.



TRENCH DETAIL



			REVISIONS		
STATE AL	REV	DATE	DESCRIPTION	BY	
/*: 40 H 🗙 👬					
Vince McElmurry 4/20/2021					
Vincent McElmurry					
NO.E 14454					
PROFESSION R					



TEAL STREET RECONSTRUCTION BE23-123

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TRENCH DETIAL

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