

Project Manual For:

**Mt. Edgecumbe High School
Building 1330 Fire Alarm & Sprinkler Upgrades
Program No. 2501000056**



**State of Alaska
Department of Transportation and Public Facilities
Central Region
4111 Aviation Avenue, Anchorage, Alaska 99502**

Advertising Date: March 22, 2019

Document Fee: \$50.00



THE STATE
of **ALASKA**
GOVERNOR MICHAEL J. DUNLEAVY

Department of Labor and
Workforce Development
P.O. Box 111149
Juneau, Alaska 99811-1149
Main: 907.465.2700, Fax: 907.465.2784

Department of Transportation
and Public Facilities
P.O. Box 112500
Juneau, Alaska 99811-2500
Main: 907.465.3900, Fax: 907.586.8365

Dear Prospective Contractor:

If you are considering bidding on an Alaska public works project, please remember the positive benefits of hiring locally. Construction, maintenance, and operation of public works projects are vital to the local economy. Alaska Hire helps contractors too— your neighbors are more invested in our community than non-residents, they are more likely to show up to work on time and finish the job.

If you want to hire more Alaskans, we're here to help. Hiring local workers is cost-effective and can benefit your business in many ways. The Alaska Department of Labor and Workforce Development's Job Center staff can connect you with qualified, skilled Alaskan workers through the Alaska Labor Exchange (ALEXsys) employee/employer database. Call (907) 465-2712 to get connected with a Job Center and potential employees in your community.

Work Opportunity Tax Credits (WOTC) are available to employers who hire qualified new employees who are unemployed disabled veterans, recipients of Temporary Assistance or food stamps, ex-offenders, and residents of Empowerment Zones or Renewal Communities. The WOTC program saved employers operating in Alaska over \$3.2 million last year. For information on the tax credit program call (907) 465-5952 or visit the WOTC website, www.jobs.alaska.gov/wotc.htm.

The Department of Transportation and Public Facilities, the Department of Labor and Workforce Development, the Alaska Native Coalition on Employment and Training (ANCET), and other industry training providers work closely together to recruit women, Alaska Natives, minorities and veterans for training and job referral. We can assist your business in finding qualified employees right now, as well as help you institute training programs to ensure a stable and skilled workforce over the long term. There are many high school and adult training programs across the state that prepare Alaska residents for construction jobs and to learn a trade as registered apprentice. Alaska has over 1,500 registered apprentices and our Job Centers can assist employers that want to hire apprentices. Alaska's prevailing wage is adjusted to allow employers to pay apprentices a reduced rate while they are learning their trade, offsetting your costs of training the apprentice. Additionally, there are on-the-job training wage incentives available for employers that hire apprentices.

If you are awarded a contract, we will send you additional information on the business benefit of hiring locally and how to use the free Alaska Labor Exchange System to find qualified Alaska residents. Your effort to hire locally is appreciated very much. We wish you well in the upcoming construction season and thank you for putting Alaskans to work.

Sincerely,

Handwritten signature of Dr. Tamika L. Ledbetter.

Dr. Tamika L. Ledbetter, Commissioner
Department of Labor
and Workforce Development

Handwritten signature of John MacKinnon.

John MacKinnon, Commissioner
Department of Transportation
and Public Facilities

MT. EDGECUMBE HIGH SCHOOL
BUILDING 1330 FIRE ALARM & SPRINKLER UPGRADES
PROGRAM NO. 2501000056
(State Funded)

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	State wage rates can be obtained at http://www.labor.state.ak.us/lss/pamp600.htm . Use the State wage rates that are in effect 10 days before Proposal Due Date. The Department will include a paper copy of the State wage rates in the signed Contract.		
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STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES

REQUEST FOR PROPOSALS

For Construction Contract
Competitive Sealed Proposals - AS 36.30.200(b)

Date March 22, 2019

**Mt. Edgecumbe High School
Building 1330 Fire Alarm & Sprinkler Upgrades
Program No. 2501000056**

Location of Project: Sitka, Alaska
Contracting Officer: Mark A. Davis, Director, Facilities Services
Issuing Office: Department of Transportation & Public Facilities, Statewide Public Facilities
State Funded [] Federal Aid []

Description of Work:

This state funded project includes upgrades to the fire alarm system of the Mt. Edgecumbe High School Building 1330 in Sitka Alaska. Work also includes sprinkler upgrades, lighting fixture replacement and canopy removal and replacement as described in the Plans and Specifications.

The Engineer's Estimate is between **\$200,000 and \$500,000**

All work shall be substantially complete by August 15, 2019.

Proposers are invited to submit proposals consisting of a Price Proposal and a Technical Proposal (see Section 00022), for furnishing all labor, equipment, and materials and for performing all work for the project described above. Both Price Proposals and Technical Proposals must be received before 4:00 p.m. local time, at the office of the Central Region Chief of Contracts as indicated below, on April 12, 2019. Price Proposals will be publicly opened later, following evaluation and scoring of the Technical Proposals (see Sections 00021, 00022, and 00023).

SUBMISSION OF PROPOSALS

ALL PROPOSALS, INCLUDING ANY AMENDMENTS OR WITHDRAWALS, MUST BE RECEIVED PRIOR TO THE DATE AND TIME STATED. PROPOSALS SHALL BE SUBMITTED ON THE FORMS FURNISHED AND MUST BE IN A SEALED ENVELOPE MARKED AS FOLLOWS:

Proposal for Project: Mt. Edgecumbe High School Building 1330 Fire Alarm & Sprinkler Upgrade Program No. 2501000056	ATTN: State of Alaska Department of Transportation & Public Facilities 4111 Aviation Avenue Anchorage, AK 99502
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Proposals, amendments, or withdrawals transmitted by mail must be received in the above specified office no later than seven hours prior to the scheduled time of bid opening. Hand-delivered Proposals, amendments, or withdrawals must be received by **Sharon L. Smith P.E., Chief of Contracts** at the Contracts Section, 4111 Aviation Avenue, prior to the scheduled date and time. A proposer sending a bid amendment or withdrawal via email or fax must transmit its documentation to the Department at this email address: crdotpfcontracts@alaska.gov or fax number: (907) 269-0425.

A bid guaranty is required with each bid in the amount of 5% of the amount bid. (Alternate bid items as well as supplemental bid items appearing in the bid schedule shall be included as part of the total amount bid when determining the amount of bid guaranty required for the project.)

The Department hereby notifies all bidders that it will affirmatively insure that in any contract entered into pursuant to this Invitation, Disadvantaged Business Enterprises (DBEs) will be afforded full opportunity to submit bids and will not be discriminated against on the grounds of race, color, national origin, or sex in consideration for an award.

NOTICE TO PROPOSERS

Proposers must have a Vendor ID or your bid may not be accepted. More information can be obtained at the following website: <http://dot.alaska.gov/aashtoware/docs/AWP-Vendor-List-Guidance.pdf> Proposers are hereby notified that more information to assist in preparing Proposals is available as follows:

See attached Special Notice to Proposers.

The Request for Proposals may be ordered, for the price of **\$50.00** from:
State of Alaska, Department of Transportation & Public Facilities
Plans Room
4111 Aviation Avenue, Anchorage, AK 99519-6900
Phone: (907) 269-0408

If a proposer has a question relating to design features, constructability, quantities, or other technical aspects of the project, they may direct their inquiry to the questions and answers area of the Bid Express proposal page: <https://www.bidx.com/ak/lettings>

A proposer requesting assistance in viewing the project site must make arrangements at least 48 hours in advance. The point of contact for inquiries for this project is:

Christopher Hodgkin, P.E., Project Manager **E-mail: christopher.hodgin@alaska.gov** **Phone: (907) 269-7484**

All questions concerning proposal procedures should be directed to:

Sharon L. Smith, P.E., Chief of Contracts **Phone: (907) 269-0414**
P.O. Box 196900, Anchorage, AK 99519-6900

Other Information:

PROPRIETARY INFORMATION: Proposers should not include proprietary information in proposals if such information should not be disclosed to the public. Any language within a submittal purporting to render all or portions of a proposal confidential will be disregarded. Proprietary information which may be provided after selection for contract negotiations will be confidential if expressly agreed to by the Contracting Agency (AS 36.30.230).

COST INCURRED PRIOR TO CONTRACT: Proposers are specifically advised that a contract shall not be in effect until a written agreement is executed by an authorized agent of the Contracting Agency. The Contracting Agency shall not be liable for any cost incurred by a Proposer in response to this solicitation, including any work done, even in good faith, prior to execution of a contract and issuance of a Notice to Proceed.

MINOR INFORMALITIES: The Contracting Agency expressly reserves the right to waive minor informalities, negotiate changes or reject any and all proposals and to not award the proposed contract, if in its best interest. "Minor Informalities" means matters of form rather than substance which are evident from the submittal, or are insignificant matters that have a negligible effect on price, quantity, quality, delivery, or contractual conditions and can be waived or corrected without prejudice to other Offerors (2 AAC 12.990).

The Bid Calendar, Planholder lists, Bid Results and DBE information are available on the Internet at:
www.dot.state.ak.us under Procurement.

Reminder: Alaska Statute AS 36.30.210 requires all Proposers to have a valid Alaska Business License and an Alaska Contractor's Certificate of Registration prior to award. To qualify as an Alaskan Offeror (bidder) under AS 36.30.321, an Offeror shall have a valid Alaska business license at the time designated in the request for proposals for opening of the proposals and meets the definition of AS 36.30.990(2).

Special Notice to Proposers

1. A site visit has been scheduled for April 2, 2019 at 3:30 p.m. Meet at the front entrance to Building 1330 on the Mt Edgecumbe High School Campus, Sitka Alaska to be escorted through the work site. The work site is not available for inspection without prior notification of the Project Manager. If a proposer wishes to inspect the work site, they must first contact Project Manager Christopher Hodgkin at christopher.hodgin@alaska.gov to arrange a date and time. The bidder may only be escorted through the work areas by Mt. Edgecumbe High School authorized personnel.
2. The Laborers' and Mechanics' Minimum Rate of Pay contains information on remote sites and per diem. The Department of Labor has issued WHPL #197 (A3), which further clarifies this requirement. See Section 00115.

PROPOSAL EVALUATION PROCEDURE

Proposals will be evaluated by a committee (2 AAC 12, Article 4). Scoring of proposals will be accomplished as follows:

1.1 Each Evaluator will individually read and rate Proposer's response to each criterion, except for Alaska Bidder (Offeror) Preference and Price Proposal as described under Evaluation Criteria (Section 00023). Ratings will be based solely on contents of proposals. Except as may be stated within any criterion description, a rating of "5" indicates the most responsive; ratings of "4-1" indicate progressively less responsiveness; and a rating of "0" indicates Non-responsive. Tie scores are permissible for evaluation criteria addressing schedule. Ratings are multiplied by the assigned weights for each criterion to obtain criterion scores.

1.2 After completion of individual ratings, the Evaluation Committee will meet to discuss proposals. Evaluators may then alter their ratings; however, any changes shall be based solely on the Evaluation Criteria set forth in the RFP. Additional criteria may not be considered. (2 AAC 12.260(b)).

1.3 During the Evaluation Committee Meeting, Evaluators may discuss factual knowledge of, and may investigate Proposers' and proposed Subcontractors' prior work experience and performance, including projects referenced in proposal, available written evaluations, etcetera, and may contact listed references or other persons knowledgeable of a Contractor's and/or a Subcontractor's past performance. Factors such as overall experience relative to the proposed contract, quality of work, and ability to meet schedules may be addressed. If any issues of significant concern to the proposed contract are discovered, the Committee may:

- a. Provide written recommendations to the Contracting Officer for consideration prior to contract award;
- b. Recommend suspension of the Proposer from consideration for award of the contract if there is probable cause for debarment (AS 36.30.635); or
- c. Conduct discussions in accordance with paragraph 1.4, below.

1.4 The Committee may decide to conduct discussions (or "interviews") with responsible Proposers whose proposals are determined to be reasonably susceptible of being selected for award for the purpose of clarification to assure full understanding of, and responsiveness to, the solicitation requirements (AS 36.30.240 & 2 AAC 12.290). After discussions, Evaluators will determine the final scoring and ranking for award by evaluating written and oral responses using only the Evaluation Criteria set forth in the Project Manual. Additional criteria may not be considered. (2 AAC 12.260(b)).

1.5 The Contracting Agency will then open the Price Proposals in public and calculate scores for price in accordance with Section 00023.

1.6 All Proposers will be advised of the Proposer selected for award after completion of the evaluation process. A Notice of Intent to Award will be provided to all Offerors. **TECHNICAL AND PRICE PROPOSALS WILL NOT BE DISCLOSED TO THE PUBLIC OR TO COMPETING OFFERORS UNTIL AFTER A NOTICE OF INTENT TO AWARD IS ISSUED.**

(END OF SECTION 00021)

SUBMITTAL CHECKLIST

Competitive Sealed Proposals - AS 36.30.200(b)

Project: Mt. Edgecumbe High School Building 1330 Fire Alarm & Sprinkler Upgrades

Program No.: 2501000056

EXAMINATION OF WORK SITE AND RFP

- [] 1. Proposers are expected to examine carefully the site of the proposed work and the RFP Documents before submitting a proposal. The submission of a proposal shall be considered prima facie evidence that the Proposer has made such examination and is satisfied as to the conditions to be encountered in performing the work and as to the requirements of the Contract Documents.

PREPARATION OF PROPOSALS

- [] 2. Proposers must carefully review the RFP Documents for defects and questionable material and become familiar with submittal requirements before preparing proposals. Any explanation desired by Proposers regarding the meaning or interpretation of any of the project documents provided by the Contracting Agency must be requested in writing as indicated in the Request for Proposals (Document 00020). Substantive issues will be addressed in an addendum to all recipients on record as receiving the RFP Documents. Oral explanations or instructions given before the award of the contract will not be binding. Failure to comply with directions will result in lower score and may eliminate a submittal from consideration. **Protests based upon any omission, error or content of this solicitation may be disallowed at the discretion of the contracting agency if the protest is not received in writing at least ten agency work days prior to the submittal deadline (2 AAC 12.615(a)).**
- [] 3. Review all parts of the RFP Documents, and then focus on the following documents: RFP, this Submittal Checklist, Evaluation Criteria, and the Proposal Forms.
- [] 4. Review the Evaluation Criteria. Read the criteria in each section in light of the proposed project as portrayed in the RFP Documents. Be aware of the assigned weight for each criterion. Plan your proposal to address the applicable criteria. All criteria Responses shall not exceed the number of pages stated below.
- [] 5. Prepare a distinct Response for each criterion. Failure to respond directly to any criteria will result in an evaluation score of zero for that criterion. Acceptable Responses must be specific and directly related to the proposed project. Marketing brochures and photographs, federal standard forms 330s, marketing resumes, and other non-project specific materials will be discarded without evaluation and should not be submitted.
- [] 6. **Each criterion Response must be titled, numbered and assembled in the order in which the criteria are listed in Section 00023**, so the criterion to which information applies shall be plainly evident. Material not so identified or assembled may be discarded without evaluation. Responses shall be presented on 8 ½" X 11" paper, except for a minimal number of larger sheets (e.g. 11"x17") that may be used for drawings & schedules if they are folded to 8½ " x 11" size. Larger sheets will count as multiple pages at 93.5 square inches or fraction thereof unless otherwise noted. **CAUTION:** small print or typeface that is difficult to read will negatively influence evaluation of your submittal.
- [] 7. Complete all entries on the Price Proposal Form (Section 00310) and Contractor's Technical Proposal (Section 00313). Note the statutory requirements for Alaska Licenses and be sure to sign and date the Certification.
- [] 8. Attach criteria Responses (**EXCEPT PRICE PROPOSAL**) to the Contractor's Technical Proposal (Section 00313). The maximum number of attached pages (each printed side equals one page) for criteria Responses shall not exceed: **10 pages.**

Page limit applies solely to the attachments to the Contractor's Technical Proposal form. CAUTION: Criteria Responses which exceed the maximum page limit or otherwise do not meet requirements stated herein, may result in disqualification.

PRICE PROPOSAL

- [] 9. Review the Price Proposal, Bid Schedule, and Bid Bond documents. Prepare a Price Proposal for all labor, materials, equipment and services necessary to complete the Work in the RFP Documents. Complete the three documents on the forms furnished, or copies thereof.
- [] 9.1 The Bid Schedule will provide for quotation of a price or prices for one or more contract items which may include unit price or lump sum items and alternative, optional or supplemental price schedules or a combination thereof which will result in a total proposed price for the work
- [] 9.2 Where required, Proposers must quote on all items and **THEY ARE WARNED** that failure to do so will disqualify

them. When quotations on all items are not required, Proposers should insert the words "no bid" in the space provided for any item not requiring a quotation and for which no quotation is made.

- [] 9.3 On unit price contracts Proposers shall also show the products of the respective unit prices and quantities written in figures in the column provided for the purpose and the total amount of the proposal obtained by adding the amounts of the several items. All the figures shall be in ink or typed.
- [] 9.4 When provided within the supplements to the bid schedule Proposers shall specify those Alaska Bidder, Product Preference and Alaska Veteran Owned Business preferences applicable to their proposal. All entries made by Proposers and designating applicable preferences must conform to the requirements of AS 36.30 and the instructions on the forms to warrant consideration.
- [] 9.5 Neither conditional nor alternative bids will be considered unless called for.
- [] 9.6 Unless specifically called for, telegraphic or telefacsimile bids will not be considered.
- [] 9.7 The Proposal forms must be signed with ink. If the Proposer is a corporation, the proposal shall be signed by an individual having authority to sign the contract. If the Proposer is a partnership, the proposal shall be signed by any authorized member of the partnership. If the Proposer is a sole proprietorship, the proposal shall be signed by the owner. Any erasure or change on the forms must be initialed by the person signing the proposal.

ACKNOWLEDGEMENT OF ADDENDA

- [] 10. The Price Proposal and Technical Proposal forms provide for acknowledgement individually of all Addenda to the RFP Documents. All addenda shall be acknowledged on these forms or by telegram prior to the scheduled time for submittal of proposals. If no addenda are received, the word "None" should be shown as specified.

REQUIRED DOCUMENTS

- [] 11. Submittals shall consist of the following applicable items assembled as follows and in the order listed. Proposals will not be considered if documents are not completely filled out. Telegraphic or telefacsimile submittals are NOT acceptable.
- [] 11.1 Five (5) copies of Contractor's Technical Proposal Form Section 00313 (at least one copy with original signature) with attached responses to all Evaluation Criteria [**EXCEPT PRICE PROPOSAL**]. Each copy shall be fastened with one staple in the upper left corner. No other form of binding shall be used and no cover and no transmittal letter other than the Contractor's Technical Proposal form will be included. CAUTION: Failure to comply with this instruction will negatively influence evaluation of Submittal.
- [] 11.2 **One copy** of the Price Proposal (Section 00310), with the Bid Schedule (Section 00312), Alaska Products Preference Worksheet if claiming Alaska Products Preference (Section 00311), and Bid Bond (Section 00410) attached, with one staple in the upper left corner. The Price Proposal, Bid Schedule and Bid Bond shall be enclosed together in a separate sealed envelope marked on the outside to identify it as **PRICE PROPOSAL** and with the names of the Project and Proposer.

DO NOT place your Technical Proposal Form (Section 00313) in the sealed price proposal envelope.

- [] 11.3 **CAUTION:** If you replicate (other than by photocopy) any form in the Project Manual in lieu of filling out forms provided by the Contracting Agency, provide a signed certification that lists such forms and attests that they are exact replicas of that issued by the Contracting Agency. Changed forms may result in rejection at the Contracting Agency's discretion. Any alteration may be cause for rejection without recourse.

DELIVERY

- [] 12. Deliver **submittals in one sealed package** to the location and before the submittal deadline cited on page 1 of the Request for Proposals. Do not include in the package any proposals or bids for other projects. **Mark the outside of the package** to identify the Project and the Proposer. Proposals must be received prior to the specified date and time. Late proposals will not be opened (2 AAC 12.250).

WITHDRAWAL OR REVISION OF BIDS

- [] 13. A Proposer may withdraw or revise a proposal after it has been delivered to the Contracting Agency, provided that the request for such withdrawal or revision is received by the designated office, in writing, by telegram, or by telefacsimile, before the time set for submittal of proposals. If the Price Proposal is to be changed, the telegraphic or telefacsimile modifications shall include both the modification of the unit bid price and the total modification of each item modified, but shall not reveal the amount of the total original or revised Price Proposal.

(END OF SECTION 00022)

EVALUATION CRITERIA

Competitive Sealed Proposals - AS 36.30.200(b)

Project: Mt. Edgecumbe High School Building 1330 Fire Alarm & Sprinkler Upgrade

Program No. : 2501000056

1. Project Understanding and Methodology

1. Weight: 15

Response must **demonstrate your comprehension of the project objectives, requirements and services**. Identify any pertinent issues and potential problems related to the project. Describe the proposed methodologies to overcome potential problems to achieve project success. Response must demonstrate offeror's approaches to account for unique conditions of the facility.

Response must outline the methods for accomplishing the proposed contract. Describe what, when, where, how, and in what sequence the work will be done both during the periods of the facility being unoccupied and occupied. Describe specific safety and precaution measures to protect students and staff during construction operations during the periods of the facility being unoccupied and occupied. Identify the amount and type of work to be performed by any Subcontractors. Consider how each task may be carried out; what services or interaction required from/with the Contracting Agency; Using Agency; etcetera. Suggest alternatives, if appropriate. Identify any **distinct and substantive qualifications** for undertaking the proposed contract such as the availability of specialized equipment or unique approaches or concepts **relevant to the required services** which the firms may use. **Address how the existing fire alarm system will be maintained in service until the new system is accepted.**

2. Project Management, Safety and Quality Plan

2. Weight: 10

Response must describe the administrative and operational structures that will be used for performing the proposed contract. For example consider: who will have overall responsibility for the contract? What will the lines of authority be? Describe how communications will be maintained between your Project Staff and the Contracting Agency. Explain how your team will be completely accountable.

Address safety and fire prevention plan for all stages of the project to protect contractor employees, Using Agency occupants and property.

Also address the quality control plan for all stages of the project, including fire alarm system shop drawing design, construction, and systems operational testing.

3. Experience and Qualifications

3. Weight: 20

Response must describe the **relevant qualifications and experience** of the prime contractor (offeror) and major subcontractors including experience on similar projects (such as school renovation projects) and dates of construction. Describe the relevant qualifications and experience of key employees (of prime and subcontractors) who will actually perform the work. Describe the work to be performed by the individuals you name and detail specific **qualifications and substantive experience directly related to the proposed contract, years of experience and jobs completed with similar size and scope**. A response prepared specifically for this proposal is required. Resumes including non-relevant information may detract from the evaluation of your proposal. Focus on individual's specific duties and responsibilities and how project experience is relevant to the proposed contract.

For each person named, identify: employer, job classification, and state of residency. List at least 3 references (contact persons and telephone numbers) for each person.

If the team is composed of a prime and subcontractors, discuss any prior work relationships among the firms - in particular, regarding projects similar to this project. Discuss each firm's particular responsibilities for prior contracts that were similar to the work proposed in the Project Documents. Indicate which of the firms were involved in such contracts. For each contract, list the contracting entity and a reference (contact person and a telephone number).

4. Schedule

4. Weight: 15

All work shall be Substantially Complete by August 15, 2019. Final Completion of all work shall be 60 calendar days following the Substantial Completion date. Describe how you plan to meet or accelerate this schedule.

Response must show how the work of the proposer/contractor will align with school closure dates or propose potential alternative construction schedule phases that could better meet schedule and fit the needs of the Using Agency. Also, describe how proposer/contractor will deal with potential scheduling conflicts associated with school activities. In addition, discuss methods that will be employed to deal with incidental scheduling changes and provide specific examples and methods and solutions used to minimize delays and disruptions and accelerate progress.

The schedule may be on one (1) 11x17 sheet, which **will** be counted as **one (1)** page toward the proposal page limit.

5. Alaska Bidder (Offeror) Preference

5. Weight: 10

To be granted this preference:

Offeror must claim the Alaska Bidder (Offeror) Preference in Section 00313 AND provide a signed Alaska Bidder Preference Certification Form (Section 00411). In claiming the Alaska Bidder (Offeror) Preference, the Offeror is certifying that they meet the requirements of AS 36.30.990.

Response will be scored: Rating x Number of Evaluators x Weight = Criterion Score. Rating will be as follows:

An Alaska Offeror's preference (i.e. a Rating of 5) will be assigned to the proposal of an Offeror who certifies (by claiming the preference in Section 00313 and by submitting a signed Alaska Bidder Preference Certification) that they are an Alaska bidder (offeror).

No Alaska Offeror's preference (i.e. a Rating of 0) will be assigned to the proposal of an Offeror who does not certify that it qualifies as an Alaska bidder (offeror) as described above.

No narrative response to this criterion is required within the Offeror's Proposal.

PRICE EVALUATION

6. Price Proposal

7. Weight: 30

Provide a Price Proposal (as instructed by the Submittal Checklist) for all labor, subcontracts, equipment, expenses, etc., in compliance with the Project Manual. Submit a completed Price Proposal (Section 000310), the Bid Schedule (Section 00312) and Bid Bond (Section 00410).

The Price Proposal score will be calculated as follows:

$$\text{Criterion Score} = \frac{(\text{Lowest Bid Price} \times \text{MPP})}{\text{Offeror's Bid Price}}$$

Wherein: For purpose of scoring, the **Bid Price** will be the Adjusted Total Bid Amount as stated on the Bid Schedule, and:

The **MPP** (Maximum Possible Points) will equal (5) x (# of Evaluators) x (Weight assigned to Criterion).

CAUTION – Funding is limited for this project. Price Proposals that exceed \$450,000.00 for the Total Bid (line a. on the Bid Schedule) may be considered nonresponsive.

End of Section 00023

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
INFORMATION TO BIDDERS

This Information to Bidders outlines requirements that a bidder must follow when submitting a bid. The Department will reject a noncompliant bid.

100.01 BIDDERS QUALIFICATIONS

A bidder shall:

Submit evidence of a valid Department of Commerce, Community, and Economic Development certificate of Contractor Registration (Contractor Registration), under AS 08.18, and submit evidence of a valid Alaska Business License prior to award; and

When requested, submit a completed Contractor's Questionnaire (Form 25D-8) stating previous experience in performing comparable work, business and technical organization, financial resources, and equipment available to be used in performing the work.

All firms desiring to participate in DOT&PF construction projects must register annually by submitting a completed Bidder Registration (Form 25D-6).

Before a bid is considered for award, the bidder may be requested by the Department to submit a statement of facts, in detail, as to his previous experience in performing comparable work, his business and technical organization, financial resources, and plant available to be used in performing the contemplated work.

100.02 CONTENTS OF BID PACKAGE

Upon request, the Department will furnish prospective bidders with a bid package, at the price stated in the Invitation To Bid.

The bid package includes the following:

- 1) Location and description of the project;
- 2) Time in which the work must be completed;
- 3) Amount of the bid guaranty;
- 4) Date, time, and place when bids are due;
- 5) Plans and specifications; and
- 6) Bid forms.

Unless otherwise stated in the bid package, the Plans, Contract Provisions and Specifications, Standard Modifications, Special Provisions, permits, forms and any other documents designated in the bid package are considered a part of the bid whether attached or not.

100.03 EXAMINATION OF CONTRACT REQUIREMENTS

Bidders are responsible for carefully examining the plans, specifications and all other documents incorporated in the contract to determine the requirements thereof before preparing bids.

Any explanation desired by bidders regarding the meaning or interpretation of drawings and specifications must be requested in writing and with sufficient time allowed for a reply to reach them before the submission of their bids. Oral explanations or instructions given before the award of the contract will not be binding. Any interpretation made will be in the form of an addendum to the specifications or drawings and will be furnished to all bidders and its receipt by the bidder shall be acknowledged.

100.04 CONDITIONS AT SITE OF WORK

Bidders are responsible for visiting the site to ascertain pertinent local conditions such as the location, accessibility and character of the site, labor conditions, the character and extent of the existing work within or adjacent thereto, and any other work being performed thereon.

100.05 PREPARATION OF BIDS

- A. A bidder shall prepare its bid using either the Department approved bid preparation software or the Department provided bid forms or legible copies of the Department's forms.

The bid must be signed in ink or by a digital signature by the person or persons authorized to sign the Contract for the bidder. If a bidder is a corporation, the bid must be signed by a corporate officer or agent with authority to bind the corporation. If a bidder is a partnership, a partner must sign. If the bidder is a joint venture, each principal member must sign. If a bidder is a sole proprietorship, the owner must sign. Each person signing the bid must initial any changes made to entries on the bid forms.

A bidder submitting an electronic bid agrees that its digital signature constitutes a binding signature.

The bidder shall make no claim against the Department in the event it is unable to submit its bid through approved online bidding service and/or approved online bidding service is unable to submit the bid(s) to the Department. The Department reserves the right to postpone the public bid opening in the event of technical problems.

- B. The bid schedule contains empty space(s) that call for the bidder to enter its proposed price for each corresponding item which may include unit price or lump sum items and alternative, optional or supplemental price schedules or a combination thereof which will result in a total bid amount for the proposed construction.
- C. The bidder shall specify the price or prices bid in figures. On unit price contracts the bidder shall also show the products of the respective unit prices and quantities written in figures in the column provided for the purpose and the total amount of the proposal obtained by adding the amounts of the several items. All the figures shall be in ink or typed.

D. Neither conditional nor alternative bids will be considered unless called for.

100.06 BID SECURITY

All bids shall be accompanied by a bid security in the amount specified on the Invitation to Bid. The bid security shall be unconditionally payable to the State of Alaska and shall be in the form of an acceptable paper Bid Bond (Form 25D-14), an electronic bid bond payable to the State of Alaska and verified through its online bidding service, or a certified check, a cashier's check or a money order made payable to the State of Alaska.

The surety of a Bid Bond may be any corporation or partnership authorized to do business in Alaska as an insurer under AS 21.09. A legible power of attorney shall be included with each paper Bid Bond (Form 25D-14).

A paper Bid Bond must be accompanied by a legible Power of Attorney.

An individual surety will not be accepted as a bid security.

100.07 ADDENDA REQUIREMENTS

The Department will issue addenda if it determines, in its discretion, that clarifications or changes to the Contract documents or bid due date are needed. The Department may send addenda by any reasonable method such as fax, email, or may post the addenda on its website or online bidding service. Unless picked up in person or included with the bid documents, addenda or notice that an addendum has been issued will be addressed to the individual or company to whom bidding documents were issued and sent to the email address or fax number on the plan holders' list. Notwithstanding the Department's efforts to distribute addenda, bidders are responsible for ensuring that they have received all addenda affecting the Invitation To Bid. Bidders must acknowledge all addenda on the Bid Forms, by fax, or by email before the deadline stated in the Invitation to Bid.

100.08 DELIVERY OF BIDS

Bids shall be submitted electronically to the Department through its online bidding service, or shall be submitted in a sealed envelope. When bids are submitted in a sealed envelope, the envelope shall clearly indicate its contents and the address of the Department's designated contracts office, as specified on the Invitation to Bid. Bids for other work may not be included in the envelope. Emailed or faxed bids will not be considered, unless specifically called for in the Invitation to Bid.

100.09 WITHDRAWAL OR REVISION OF BIDS

Manual Bids may be withdrawn or revised in writing delivered by mail, fax, or email, provided that the Department's designated office receives the withdrawal or revision before the deadline stated in the Invitation To Bid. Withdrawal requests must be signed and submitted by the bidder's duly appointed representative who is legally authorized to bind the bidder. Revisions shall include both the modification of the unit bid price and the total modification of each item modified but shall not reveal the amount of the total original or revised bids.

Electronic Bids may be withdrawn or resubmitted through the online bidding service. Revisions to electronic bids delivered by mail, fax, or email will not be permitted. If electronic bid withdrawal is unsuccessful, electronic bids may be withdrawn in writing delivered by mail, fax, or email provided that the designated office receives the withdrawal before the deadline stated in the Invitation To Bid. Written withdrawal requests must be signed and submitted by the bidder's duly appointed representative who is legally authorized to bind the bidder.

100.010 PROTEST OF INVITATION TO BID

An interested party, as defined in AS 36.30.699, may protest an Invitation to Bid before the bid opening in accordance with AS 36.30.560 and AS 36.30.565. The interested party must submit a protest to the Contracting Officer.

100.011 RECEIPT AND OPENING OF BIDS

The Department will only consider bids, revisions, and withdrawals received before the deadline stated in the Invitation to Bid.

The Department will assemble, open, and publicly announce bids at the time and place indicated in the Invitation to Bid, or as soon thereafter as practicable. The Department is not responsible for prematurely opening or for failing to open bids that are improperly addressed or identified.

100.012 NONRESPONSIVE BIDS

1. A bid shall be rejected as nonresponsive if it:
 - a. Is not properly signed by an authorized representative of the bidder and in a legally binding manner;
 - b. Contains unauthorized additions, conditional or alternative bids, or other irregularities that make the bid incomplete, indefinite, or ambiguous;
 - c. Includes a reservation of the right to accept or reject any award, or to enter into a contract pursuant to an award;
 - d. Fails to include an acceptable bid guaranty with the bid;
 - e. Is materially unbalanced; or
 - f. Fails to meet any other material requirement of the Invitation To Bid.
2. A bid may be rejected as nonresponsive, in the Department's discretion, if it:
 - a. Is not typed or completed in ink;
 - b. Fails to include an acknowledgement of receipt of each addendum by assigned number and date of issue; or
 - c. Is missing a bid price for any pay item, except when alternate pay items are authorized.

100.013 BIDDERS INTERESTED IN MORE THAN ONE BID

A party who has quoted prices to a bidder is not thereby disqualified from quoting prices to other bidders or from submitting a bid directly for the work.

100.014 ELECTRONIC MAIL

Within its submitted bid, a bidder must include a current electronic mail (email) address of bidder's representative who possesses authority to receive, process, and respond to Department emails regarding the advertised project.

The Department may send notices and information to a bidder by using the furnished email address of the bidder's authorized representative.

A bidder shall notify the Department if the bidder requests the Department to send email notices or information to an address different from the email address initially provided in its bid forms. The bidder shall notify the Department of such change by sending a request in writing to the Contract's point of contact identified on the Invitation to Bid that is signed by a representative who is authorized and empowered to legally bind the bidder.

Delivery of an email sent by the Department is complete upon receipt in the addressee's email account. An email sent after 4:30 pm shall be deemed to have occurred at the opening of business on the next working day.

If needed, the Department may demonstrate proof of email delivery by affidavit or certification that includes the following:

1. The date and time that the Department sent the email message;
2. The email address from which the Department sent the message;
3. The name and email address to which the Department sent the message;
4. A statement that the Department sent the email message and that the person signing the affidavit or certification believes the transmission to have been complete and without error; and
5. An attached copy of the subject email.

100.015 CONSIDERATION OF BIDS

Until the Award, the Department may reject any or all bids, waive minor informalities or advertise for new bids without liability to any bidder if the Department, in its discretion, determines that to do so is in the best interests of the State.

A bidder may request withdrawal of a bid after opening and before the Award only in accordance with AS 36.30.160(b) and State procurement regulations. The bidder must submit the request to the Contracting Officer.

An interested party, as defined in AS 36.30.699, may protest a proposed Award of contract as per AS 36.30.560 and AS 36.30.565. The bidder must submit the protest to the Contracting Officer.

WHOLLY STATE-FUNDED PROJECTS. On wholly state-funded projects, determination of the low bidder will include bidder preferences as required under AS 36.30.321, according to subsections 1-3 below. Alaska Bidder Preference, Alaska Veteran Preference, and Alaska Product Preference are not applicable on projects with federal funding.

1. Alaska Bidder Preference: A bidder claiming this preference shall provide with their bid an Alaska Bidder Preference Certification, certifying they qualify as an Alaska bidder eligible for Alaska Bidder Preference according to AS 36.30.

If the bidder qualifies as an Alaska bidder, a five percent (5%) preference will be applied to the price of the bid. "Alaska bidder" means a person who:

- a. holds a current Alaska business license;
 - b. submits a bid for goods, services, or construction under the name as appearing on the person's current Alaska business license;
 - c. has maintained a place of business within the state staffed by the bidder or an employee of the bidder for a period of six months immediately preceding the date of the bid;
 - d. is incorporated or qualified to do business under the laws of the state, is a sole proprietorship and the proprietor is a resident of the state, is a limited liability company organized under AS 10.50 and all members are residents of the state, or is a partnership under former AS 32.05, AS 32.06, or AS 32.11 and all partners are residents of the state; and
 - e. If a joint venture, is composed entirely of ventures that qualify under (a) through (d), above.
2. Alaska Veteran Preference: A bidder claiming this preference shall provide an Alaska Veteran Preference Certification, certifying they qualify as an Alaska bidder eligible for Alaska Veteran preference according to AS 36.30.

If a bidder qualifies as an Alaska bidder and is a qualifying entity, an Alaska Veteran Preference of 5 percent shall be applied to the bid price. The preference may not exceed \$5,000 (AS 36.30.321). A "qualifying entity" means a:

- a. sole proprietorship owned by an Alaska veteran;
- b. partnership under AS 32.06 or AS 32.11 if a majority of the partners are Alaska veterans;
- c. limited liability company organized under AS 10.50 if a majority of the members are Alaska veterans; or

- d. corporation that is wholly owned by individuals, and a majority of the individuals are Alaska veterans.

A preference under this section is in addition to any other preference for which the bidder qualifies.

To qualify for this preference, the bidder must add value by the bidder itself actually performing, controlling, managing and supervising a significant part of the services provided or the bidder must have sold supplies of the general nature solicited to other state agencies, governments, or the general public.

An Alaska veteran is a resident of Alaska who:

- 1) served in the Armed forces of the United States, including a reserve unit of the United States armed forces; or the Alaska Territorial Guard, the Alaska Army National Guard, the Alaska Air National Guard, or the Alaska Naval Militia; and
 - 2) was separated from service under a condition that was not dishonorable.
3. Alaska Product Preference: A bidder claiming this preference shall complete and sign the Alaska Product Preference Worksheet, according to the worksheet instructions, and submit the completed worksheet with their bid.

Except for timber, lumber and manufactured lumber products used in the construction project under AS 36.30.322(b), an Alaska products preference will be given as required under AS 36.30.326 - 36.30.332 when the bidder designates the use of Alaska products.

If the successful bidder/contractor proposes to use an Alaska product and does not do so, a penalty will be assessed against the successful bidder/contractor according to AS 36.30.330(a).

Each Alaska product declared on the Alaska Product Preference Worksheet must have an "Approval" date on the Alaska Product Preference Program List, that is on or before the bid opening date for this contract, and that does not expire before the bid opening date for this contract.

100.016 RESPONSIBILITY OF BIDDERS

The Department may find a bidder is nonresponsible for any one of the following reasons, but is not limited in its responsibility analysis to the following factors:

1. Evidence of bid rigging or collusion;
2. Fraud or dishonesty in the performance of previous contracts;
3. More than one bid for the same work from an individual, firm, or corporation under the same or different name;
4. Unsatisfactory performance on previous or current contracts;
5. Failure to pay, or satisfactorily settle, all bills due for labor and material on previous contracts;

6. Uncompleted work that, in the judgment of the Department, might hinder or prevent the bidder's prompt completion of additional work, if awarded;
7. Failure to reimburse the State for monies owed on any previous contracts;
8. Default under previous contracts;
9. Failure to submit evidence of registration and licensing;
10. Failure to comply with any qualification requirements of the Department;
11. Engaging in any activity that constitutes a cause for debarment or suspension under the State Procurement Code (AS 36.30) or submitting a bid during a period of debarment;
12. Failure to satisfy the responsibility standards set out in state regulations;
13. Lack of skill, ability, financial resources, or equipment required to perform the contract;
or
14. Lack of legal capacity to contract.

Nothing contained in this section deprives the Department of its discretion in determining the lowest responsible bidder.

100.017 SUBCONTRACTOR LIST

The apparent low bidder shall submit a completed Subcontractor List, Form 25D-5, within five working days following receipt of written notification by the Department that it is the low bidder.

An apparent low bidder who fails to submit a completed Subcontractor List form within the time allowed will be declared nonresponsible and may be required to forfeit the bid security. The Department will then consider the next lowest bidder for award of the Contract.

If a bidder fails to list a subcontractor, or lists more than one subcontractor for the same portion of work, and the value of that work is in excess of one-half of one percent of the total bid amount, the bidder agrees to perform that portion of work without a subcontractor and represents that it is qualified to perform that work.

A bidder who lists as a subcontractor another contractor who, in turn, sublets the majority of the work required under the Contract, violates this subsection.

A bidder or Contractor may, without penalty, replace a listed subcontractor who:

- 1) Fails to comply with licensing and registration requirements of AS 08.18;
- 2) Fails to obtain a valid Alaska business license;
- 3) Files for bankruptcy or becomes insolvent;
- 4) Fails to execute a subcontract for performance of the work for which the subcontractor was listed, and the bidder acted in good faith;

- 5) Fails to obtain bonding acceptable to the Department;
- 6) Fails to obtain insurance acceptable to the Department;
- 7) Fails to perform the subcontract work for which the subcontractor was listed;
- 8) Must be replaced to meet the bidder's required state or federal affirmative action requirements;
- 9) Refuses to agree or abide with the bidder's labor agreement; or
- 10) Is determined by the Department to be not responsible.

In addition to the circumstances described above, a Contractor may in writing request permission from the Department to add a new subcontractor or replace a listed subcontractor. The Department will approve the request if it determines in writing that allowing the addition or replacement is in the best interest of the State.

A bidder or Contractor shall submit a written request to add a new subcontractor or replace a listed subcontractor to the Contracting Officer a minimum of five working days before the date the new subcontractor is scheduled to begin work on the construction site. The request must state the basis for the request and include supporting documentation acceptable to the Contracting Officer.

If a bidder violates this subsection, the Contracting Officer may:

- 1) Cancel the Contract after Award without any damages accruing to the Department; or
- 2) After notice and a hearing, assess a penalty on the bidder in an amount not exceeding 10 percent of the value of the subcontract at issue.

100.018 AWARD OF CONTRACT

The Department will award the Contract to the lowest responsible and responsive bidder unless it rejects all bids. The Department will notify all bidders in writing via email, fax, or U.S. Mail of its intent to award.

In order to establish a clear and definitive basis of award for contracts with additive alternates, the State has established a budgeted amount from which the order of bidders will be determined. The amount will be disclosed when timely received bids are announced. The low bid will be determined by considering the basic bid and additive alternate(s) in the order listed on the Bid Schedule up to a total not to exceed the budgeted amount. The State reserves the right to reject all bids. The State also reserves the right to award the contract above or below the budgeted amount to the low bidder based on any combination of alternate(s) or no alternate(s), providing that the low bidder remains unchanged.

The Department will notify the successful bidder in writing of its intent to award the Contract and request that certain required documents, including the Contract Form, bonds, and insurance be submitted within the time specified. The successful bidder's refusal to sign the Contract and

provide the requested documents within the time specified may result in cancellation of the notice of intent to award and forfeiture of the bid security.

If an award is made, it will be made as soon as practicable and usually within 40 days after bid opening. Award may be delayed due to bid irregularities or a bid protest, or if the award date is extended by mutual consent. Bids shall be valid for 120 days after bid opening, and may be extended by mutual consent.

100.019 RETURN OF BID SECURITY

The Department will return bid securities, other than bid bonds:

1. To all except the two lowest responsive and responsible bidders, as soon as practicable after the opening of bids; and
2. To the two lowest responsive and responsible bidders immediately after Contract award.

100.020 PERFORMANCE AND PAYMENT BONDS

The successful bidder shall furnish all required Performance and Payment Bonds on forms provided by the Department for the sums specified in the Contract. If no sum is specified, the successful bidder shall comply with AS 36.25.010. The Surety on each bond may be any corporation or partnership authorized to do business in the state as an insurer under AS 21.09 or two individual sureties approved by the Contracting Officer.

If individual sureties are used, two individual sureties must each provide the Department with security assets located in Alaska equal to the penal amount of either the performance bond or the payment bond. Any costs incurred by the Contractor and the individual Surety are subsidiary and shall be borne by the Contractor or the individual Surety. In no event will the Department be liable for these costs.

Individual sureties shall provide security by one, or a combination, of the following methods:

1. Escrow Account, with a federally insured financial institution, in the name of the Department. Acceptable securities include, but are not limited to, cash, treasury notes, bearer instruments having a specific value, or money market certificates.
2. Irrevocable letters of credit, from a financial institution approved by the Contracting Officer, with the Department named as beneficiary.
3. Cashier's or certified check made payable to the State of Alaska issued by financial institutions approved by the Contracting Officer.

These bonds and security assets, as applicable, shall remain in effect for 12 months after the date of final payment or, if longer, until all obligations and liens under this Contract are satisfied, including, but not limited to, obligations under General Conditions, Subsection 12.7.

The Department may, in its discretion, notify the bonding company or Surety of any potential default or liability.

The Contractor shall substitute, within five working days, another bond or surety acceptable to the Department if an individual Surety or the Surety on any bond furnished in connection with the Contract:

1. Becomes insolvent or is declared bankrupt;
2. Loses its right to do business in any state affecting the work;
3. Ceases to meet Contract requirements;
4. Fails to furnish reports of financial condition upon request; or
5. Otherwise becomes unacceptable to the Department.

When approved by the Contracting Officer, the Contractor may replace:

1. An individual surety with a corporate surety; or
2. Posted collateral with substitute collateral.

Failure to maintain the specified bonds or to provide substitute bonds when required under this section may be grounds for withholding contract payments until substitute bonding is obtained, and may, in the Department's discretion, be grounds for declaring the Contractor in default.



STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

REQUIRED DOCUMENTS
State Funded Contracts

REQUIRED FOR PROPOSAL. Proposals will not be considered if the following documents are not completely filled out and submitted at the time proposals are due: Assemble documents in accordance with Section 00022.

1. **Price Proposal (Section 00310)**
2. **Bid Schedule (Section 00312)**
3. **Contractor's Technical Proposal (Section 00313)**
4. **Bid Security (Section 00410 or other permissible form of Security)**
5. Any bid revisions must be submitted by the bidder prior to proposal due date on the following form:
Bid Modification (Section 00420)
6. If claiming the Alaska Bidder Preference on the Bid Schedule, provide the following form:
Alaska Bidder Preference Certification (Section 00411)
7. If claiming the Alaska Veteran's Preference on the Bid Schedule, provide the following form:
Alaska Veteran's Preference Certification (Section 00415)
8. If claiming the Alaska Products Preference on the Bid Schedule, provide the following form:
Alaska Products Preference Worksheet (Section 00311)

REQUIRED AFTER NOTICE OF APPARENT HIGH-SCORING PROPOSER. The apparent highest scoring proposer is required to complete and submit the following document within 5 working days after receipt of written notification:

1. **Subcontractor List (Section 00430)**
-

REQUIRED FOR AWARD. In order to be awarded the contract, the successful highest scoring proposer must completely fill out and submit the following documents within the time specified in the intent to award letter:

1. **Construction Contract (Section 00510).**
2. **Payment Bond (Section 00620)**
3. **Performance Bond (Section 00610)**
4. **Certificate of Insurance (from carrier)**
5. Bidders must register annually with the Civil Rights Office in order to be eligible for award. If not registered, or if unsure, submit the following: **Bidder Registration (Section 00435)**

SECTION 00115

ITEM G-115 WORKER MEALS AND LODGING, OR PER DIEM

DESCRIPTION

115-1.1 This item consists of complying with the Alaska Department of Labor and Workforce Development (DOLWD) requirements for Worker Meals and Lodging, or Per Diem; as described in their May 10, 2013 memo WHPL #197(A4) and the State Laborer's and Mechanic's Minimum Rates of Pay (current issue).

Ensure subcontractors comply with the DOLWD requirements. The direct internet address is <http://www.labor.state.ak.us/lss/pamp600.htm>.

Ensure facilities meet the Alaska Administrative Code 8 AAC 61.1010 and 8 AAC 61.1040 *Occupational Safety and Health Standards*, 18 AAC 31 *Alaska Food Code*, and U. S. Code of Federal Regulations 29 CFR Section 1910.142 *Temporary Labor Camps*.

Do not consider the cost of Meals and Lodging or Per Diem in setting wages for the worker or in meeting wage requirements under AS 23.10.065 or AS 36.05.

METHOD OF MEASUREMENT

115-2.1 Worker Meals and Lodging, or Per Diem will not be measured.

BASIS OF PAYMENT

115-3.1 Payment for Worker Meals and Lodging, or Per Diem is subsidiary to the contract.



STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES

PRICE PROPOSAL
of

NAME _____

ADDRESS _____

To the CONTRACTING OFFICER, DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES:

In compliance with your Request for Proposals dated **March 22, 2019**, the Undersigned proposes to furnish and deliver all the materials and do all the work and labor required in the construction of Project:

**Mt. Edgecumbe High School
Building 1330 Fire Alarm & Sprinkler Upgrades
Program No. 2501000056**

Located at or near **Sitka, Alaska**, according to the RFP Documents, **and our Contractor's Technical Proposal (Section 00313)** and for the amount and prices named herein as indicated on the Bid Schedule consisting of 1 page, which is made a part of this Proposal.

The Undersigned declares that he has carefully examined the contract requirements and that he has made a personal examination of the site of the work; that he understands that the quantities, where such are specified in the Bid Schedule or on the plans for this project, are approximate only and subject to increase or decrease, and that he is willing to perform increased or decreased quantities of work at unit prices bid under the conditions set forth in the Contract Documents.

The Undersigned hereby agrees to execute the said contract and bonds within fifteen calendar days, or such further time as may be allowed in writing by the Contracting Officer, after receiving notification of the acceptance of this proposal, and it is hereby mutually understood and agreed that in case the Undersigned does not, the accompanying bid guarantee shall be forfeited to the State of Alaska, Department of Transportation & Public Facilities as liquidated damages, and the said Contracting officer may proceed to award the contract to others.

The Undersigned agrees to commence the work within 10 calendar days after the effective date of Notice to Proceed and **substantially complete the Work by August 15, 2019**, unless extended in writing by the Contracting Officer.

The Undersigned proposes to furnish Payment Bond in the amount of 50% (of the contract price) and Performance Bond in the amount of 50% (of the contract price), as surety conditioned for the full, complete and faithful performance of this contract.

The Undersigned acknowledges receipt of the following addenda to the drawings and/or specifications (give number and date of each).

Addenda Number	Date Issued	Addenda Number	Date Issued	Addenda Number	Date Issued

NON-COLLUSION AFFIDAVIT

The Undersigned declares, under penalty of perjury under the laws of the United States, that neither he nor the firm, association, or corporation of which he is a member, has, either directly or indirectly, entered into any agreement, participated in any collusion, or otherwise taken any action in restraint of free competition in connection with this proposal.

The Undersigned has read the foregoing proposal and hereby agrees to the conditions stated therein by affixing his signature below:

Signature

Name and Title of Person Signing

Telephone Number

Fax Number

INSTRUCTIONS FOR ALASKA PRODUCTS PREFERENCE WORKSHEET

Special Notice: All procurements, except those funded from Federal sources, shall contain Contract provisions for the preference of Alaska products. To be considered for the Alaska Product Preference, each product listed by the Bidder on this worksheet must have current certification from the Alaska Products Preference Program at the time of Bid Opening or the proposal due date. A product with expired certification at the bid opening or proposal due date will not be considered eligible. Products that are not specified for use on the project will not be considered eligible.

The Alaska Product Preference Program List of certified products is available online at:

<https://www.commerce.alaska.gov/web/ded/DEV/AlaskaProductPreferenceProgram.aspx> or may be obtained by contacting the local DCED office or writing: Dept. of Commerce & Economic Development, Alaska Products Preference List, P.O. Box 110800, Juneau, Alaska 99811-0800.

BIDDERS INSTRUCTIONS:

- A. General.** The contracting Agency may request documentation to support entries made on this form. False presentations may be subject to AS 36.30.687. All Bidder's entries must conform to the requirements covering bid preparations in general. Discrepancies in price extensions shall be resolved by multiplying the declared total value times the preference percentage and adjusting any resulting computation(s) accordingly.
- B. Form Completion – BASIC BIDS.**
- (1) Enter project number and name, the words "Basic Bid" and the CONTRACTOR'S name in the heading of each page as provided.
 - (2) The Bidder shall compare those candidate products appearing on the preference listing (see Special Notice comments above) against the requirements of the technical specifications appearing in the contract documents. If the Bidder determines that a candidate product can suitably meet the contract requirements, then that product may be included in the worksheet as follows.
 - (3) For each suitable product submitted under the "Basic Bid" enter:
 - The product name, generic description and its corresponding technical specification section number under the heading "PRODUCT",
 - The company name of the Alaska producer under the heading "Manufacturer", and
 - The product class (I, II, or III) and preference percentage (3, 5, or 7% respectively) under the "CLASS/% heading.
 - (4) For each product appearing on the list and to be utilized by the CONTRACTOR enter:
 - Under the heading "TOTAL DECLARED VALUE" the manufacturer's quoted price of the product, (caution: this value is to be the manufacturer's quoted price at the place of origin and shall not include costs for freight, handling or miscellaneous charges of incorporating the product into the Work,) and
 - The resulting preference – i.e. the preference percentage times the total declared value amount – under the heading "REDUCTION AMOUNT".
 - (5) Continue for all "suitable" basic bid products. If the listing exceeds one page enter the words "Page # __ SUB" in front of the word "TOTAL" and on the first line of the following pages enter "SUBTOTAL OF REDUCTION AMOUNT FROM PREVIOUS PAGE".
 - (6) On the final page of the listing enter "BASIC BID PREFERENCE GRAND" immediately before the word "TOTAL".
 - (7) Total the entries in the "REDUCTION AMOUNT" column for each page by commencing at the first entry for that page. If a continuation page exists, ensure that the subtotal from the previous page is computed into the running total. Number pages as appropriate.
 - (8) Compute a Grand Total for the Basic Bid Preference. Enter the amount on the final page of the worksheet. (Note: When solicitations require written bids this amount should also be entered on line "C" of the Basic Bid Schedule.) Submit worksheet(s) with the Bid Schedule.
- C. Form Completion – ALTERNATE BIDS.**
- (1) Enter project number and name, the words "ALTERNATE BID #__", and CONTRACTOR'S name in the heading of each page as provided.
 - (2) On the first entry line enter "ADDITIONAL ALASKA PRODUCTS FOR ALTERNATE BID #__", and repeat procedures 2 through 5 under part B these Bidder's instructions except that references to "Basic Bid" shall be replaced with the words "Alternate Bid #__."
 - (3) Following the listing of all additional Alaska products enter the words "ADDITIONAL PRODUCTS PREFERENCE FOR ALTERNATE BID #__ - SUBTOTAL" and enter a subtotal amount for all additional products as listed. Subtotal amount to be determined by adding all additional product entries in the "REDUCTION AMOUNT" column.
 - (4) Skip three lines and enter "LESS THE FOLLOWING NON-APPLICABLE ALASKA PRODUCTS:
 - (5) Beginning on the next line, enter the product name and manufacturer of each Alaska Product appearing on the "Basic Bid" listing which would be deleted or reduced from the Project should the "Alternate Bid" be selected. Details of entry need only be sufficient to clearly reference the subject product. (i.e. "Pre-hung doors by Alaska Door Co., Anchorage.") Products being reduced shall specify the amount of the reduction. Should no products require deletion enter "None". When a product is listed as a "NON-APPLICABLE ALASKA PRODUCT" for this alternate bid and if under the basic bid the Bidder received a preference on his basic bid as a result of that product, then the applicable entries under the headings "TOTAL DECLARED VALUE" and "REDUCTION AMOUNT" (for each product and from the basic bid listing) shall also be entered into the corresponding headings of this form. Where only a portion of the products has been deleted, the entry (which will differ from those on the basic bid listing) may be "pro-rated" or as otherwise substantiated.
 - (6) Following the listing of all non-applicable Alaska products enter the words "NON-APPLICABLE PRODUCTS PREFERENCE FROM BASIC BID __ SUBTOTAL" and enter a subtotal amount for all non-applicable products listed. Subtotal amount to be determined by adding all non-applicable entries in the "REDUCTION AMOUNT" column.
 - (7) At the bottom of the final page enter the words "ALTERNATE BID #__ PREFERENCE GRAND" immediately before the word "TOTAL".
 - (8) Compute a Grand Total for the Alternate Bid Preference (for Alternate #__) by subtracting the non-applicable product preference subtotal from the additional product preference subtotal. Enter on the final page. (Note: When solicitations require written bids this amount should also be entered on line "C" of the Alternate Bid Schedule.) Submit separate worksheet(s) with each Alternate Bid

BID SCHEDULE

**Mt. Edgecumbe High School
Building 1330 Fire Alarm & Sprinkler Upgrades
Program No. 2501000056**

Proposers Please Note: Before preparing this bid schedule, read carefully, "Information to Proposers", and the following:

The Proposer shall insert a fixed price in figures opposite each pay item that appears in the bid schedule to furnish all labor, material, equipment, supervision and provide all work for each item listed. No price is to be entered or tendered for any item not appearing in the bid schedule.

Conditioned or qualified bids will be considered non-responsive.

NOTICE: Bids will be compared on the Adjusted Total Bid Amount (e) and will be evaluated in accordance with Section 00023. Contract award will be made in the amount of the unadjusted amount (a).

PAY ITEM	DESCRIPTION OF PAY ITEM	TOTAL BID PRICE, IN FIGURES
Total Bid	All work described in the Total Bid description in Section 011113, Paragraph 1.02 and Project Plans.	(a)\$ _____
	Alaska Bidder's Preference: (5% of a.)	(b)\$ _____
	Alaska Veteran-Owned Business Preference: (5% of a. Not To Exceed \$5,000.00)	(c)\$ _____
	Alaska Products Preference: (Attach worksheet(s))	(d)\$ _____
	Adjusted Total Bid Amount: (a – b – c – d)	(e)\$ _____

Contractor's Name (Printed)

Alaska Contractor's Registration # Expires

Contractor's Vendor ID #

Contractor's Email Address



STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES

CONTRACTOR'S TECHNICAL PROPOSAL
of

NAME _____

ADDRESS _____

To the CONTRACTING OFFICER, DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES:

With regard to your Request for Proposals (RFP) dated 3/22/19, for the construction of the Project:
known as:

**Mt. Edgecumbe High School
Building 1330 Fire Alarm & Sprinkler Upgrades
Program No. 2501000034**

located at or near **Sitka, Alaska**; the Undersigned understands that a Proposal Evaluation Committee will evaluate all of the Proposals received and select for contract award the proposal which represents the best value to the State. The Undersigned offers for consideration the attached narrative proposal consisting of _____ single-sided pages. The narrative addresses each of the evaluation criteria described in Section 00023.

The Undersigned understands that the contract is intended to be awarded to the Proposer with the highest point score considering all of the evaluation criteria described in Section 00023.

ACKNOWLEDGEMENT OF ADDENDA

The undersigned acknowledges receipt of the following addenda to the RFP (give number and date of each).					
<u>Addenda</u>	<u>Date Issued</u>	<u>Addenda</u>	<u>Date Issued</u>	<u>Addenda</u>	<u>Date Issued</u>
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____

ALASKA STATUTORY PREFERENCES (IF NO FEDERAL FUNDING)

Check the applicable preferences that you claim for the proposed contract (reference Criteria 5 & 6 in Section 00023): Alaska Bidder (Offeror) **AND>>** Veterans **AND>>** Employment Program or Disabled Persons

The Undersigned has read the RFP Documents and hereby agrees to the conditions stated therein by affixing his signature below. The Undersigned also certifies the accuracy of statements made in the attached narratives.

Signature

Name and Title of Person Signing

Telephone Number

Email Address

Fax Number

Vendor ID



STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

BID BOND

For
Mt. Edgecumbe High School
Building 1330 Fire Alarm & Sprinkler Upgrades
Program No. 2501000056

DATE BOND EXECUTED: _____

PRINCIPAL (Legal name and business address):

TYPE OF ORGANIZATION:

	<input type="checkbox"/> Individual	<input type="checkbox"/> Partnership
	<input type="checkbox"/> Joint Venture	<input type="checkbox"/> Corporation
STATE OF INCORPORATION:		

SURETY(IES) (Name and business address):

A.	B.	C.

PENAL SUM OF BOND:

DATE OF BID:

We, the PRINCIPAL and SURETY above named, are held and firmly bound to the State (State of Alaska), in the penal sum of the amount stated above, for the payment of which sum will be made, we bind ourselves and our legal representatives and successors, jointly and severally, by this instrument.

THE CONDITION OF THE FOREGOING OBLIGATION is that the Principal has submitted the accompanying bid in writing, date as shown above, on the above-referenced Project in accordance with contract documents filed in the office of the Contracting Officer, and under the Invitation for Bids therefor, and is required to furnish a bond in the amount stated above.

If the Principal's bid is accepted and he is offered the proposed contract for award, and if the Principal fails to enter into the contract, then the obligation to the State created by this bond shall be in full force and effect.

If the Principal enters into the contract, then the foregoing obligation is null and void.

PRINCIPAL

Signature(s)	1.	2.	3.
Name(s) & Title(s) (Typed)	1.	2.	3.

Corporate Seal

See Instructions on Reverse

CORPORATE SURETY(IES)

Surety A	Name of Corporation	State of Incorporation	Liability Limit \$
Signature(s)	1.	2.	Corporate Seal
Name(s) & Titles (Typed)	1.	2.	

Surety B	Name of Corporation	State of Incorporation	Liability Limit \$
Signature(s)	1.	2.	Corporate Seal
Name(s) & Titles (Typed)	1.	2.	

Surety C	Name of Corporation	State of Incorporation	Liability Limit \$
Signature(s)	1.	2.	Corporate Seal
Name(s) & Titles (Typed)	1.	2.	

INSTRUCTIONS

1. This form shall be used whenever a bid bond is submitted.
2. Insert the full legal name and business address of the Principal in the space designated. If the Principal is a partnership or joint venture, the names of all principal parties must be included (e.g., "Smith Construction, Inc. and Jones Contracting, Inc. DBA Smith/Jones Builders, a joint venture"). If the Principal is a corporation, the name of the state in which incorporated shall be inserted in the space provided.
3. Insert the full legal name and business address of the Surety in the space designated. The Surety on the bond may be any corporation or partnership authorized to do business in Alaska as an insurer under AS 21.09. Individual sureties will not be accepted.
4. The penal amount of the bond may be shown either as an amount (in words and figures) or as a percent of the contract bid price (a not-to-exceed amount may be included).
5. The scheduled bid opening date shall be entered in the space marked Date of Bid.
6. The bond shall be executed by authorized representatives of the Principal and Surety. Corporations executing the bond shall also affix their corporate seal.
7. Any person signing in a representative capacity (e.g., an attorney-in-fact) must furnish evidence of authority if that representative is not a member of the firm, partnership, or joint venture, or an officer of the corporation involved.
8. The states of incorporation and the limits of liability of each surety shall be indicated in the spaces provided.
9. The date that bond is executed must not be later than the bid opening date.



STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

ALASKA BIDDER PREFERENCE CERTIFICATION

In response to the advertised procurement for:

Project Name: Mt. Edgecumbe High School Building 1330 Fire Alarm & Sprinkler Upgrades
Project Number: 2501000056
Bidder/Proposer (company name): _____

Operation of Alaska Bidder Preference

Procurement preferences under the Alaska Procurement Code are benefits that the State grants only to qualified bidders. Under AS 36.30.990(2), if a bidder is an eligible "Alaska Bidder", the Department will apply a five percent preference to the price of the bidder's proposal.

Instructions regarding Alaska Bidder Preference

A bidder that claims the Alaska Bidder Preference must review and then certify that each statement appearing under the heading "Alaska Bidder Certification" is true. The individual that signs the certification shall include his/her printed name and position within bidder's organization, e.g., sole proprietor, partner, etc. If a bidder fails to submit a signed certification, the Department will not apply the claimed preference.

Alaska Bidder Certification

The bidding entity for which I am the duly authorized representative:

- (A) Holds a current Alaska business license;
- (B) Is submitting a bid or proposal for goods, services, or construction under the name appearing on the bidder's current Alaska business license;
- (C) Has maintained a place of business in the State staffed by the bidder or an employee of the bidder for a period of six months immediately preceding the date of the proposal;
- (D) Is incorporated or qualified to do business under the laws of the State, is a sole proprietorship and the proprietor is a resident of the State, is a limited liability company organized under AS 10.50 and all members are residents of the State, or is a partnership under former AS 32.05, AS 32.06, or AS 32.11 and all partners are residents of the State; and
- (E) If a joint venture, is composed entirely of ventures that qualify under the four preceding paragraphs of this Alaska Bidder Certification.

By applying my signature below, I certify under penalty of perjury that I am the duly appointed representative of this bidder, which has authorized and empowered me to legally bind it concerning its proposal, and that the foregoing statements are true and correct.

By (signature)

Date

Printed name

Alaska Business License Number

Title:



STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

**ALASKA VETERAN PREFERENCE
CERTIFICATION**

In response to the advertised procurement for:

Project Name: Mt. Edgecumbe High School Building 1330 Fire Alarm & Sprinkler Upgrades

Project Number: 2501000056

Bidder (Contractor) _____

Operation of Alaska Veteran Preference

Procurement preferences under the Alaska Procurement Code are benefits that the State grants only to qualified bidders. Under AS 36.30.321, an eligible entity receives a five percent preference to the price of in the bidder's proposal if the bidder meets three requirements.

The bidder must be:

1. an "Alaska Veteran";
2. a "Qualifying Entity"; and
3. an "Alaska Bidder".

Unless a bidder satisfies all three requirements and furnishes corresponding certifications, it is not eligible for the Alaska Veteran Preference. This preference may not exceed \$5,000.

Instructions regarding Alaska Veteran Preference

A bidder that claims the Alaska Veteran Preference must review and complete the "Alaska Veteran Certification", the "Qualifying Entity Certification", and the "Alaska Bidder Certification". The individual that signs a certification shall include his/her printed name and position within bidder's organization, e.g., sole proprietor, partner, etc. If a bidder fails to submit properly completed certifications, the Department will not apply the claimed preference.

Alaska Veteran Certification

(To be completed by individual(s) upon whom the bidder relies in claiming the Alaska Veteran status. If bidder is a partnership, limited liability company, or corporation, then a majority of partners, members, or shareholders who are Alaska Veterans must sign this Alaska Veteran Certification for the Bidder to be eligible for this preference.)

I hereby represent to the Department that:

I served in the armed forces of the United States, a reserve unit of the United States armed forces, the Alaska Territorial Guard, the Alaska Army National Guard, the Alaska Air National Guard, or the Alaska Naval Militia; and

I was separated from service under a condition that was not dishonorable; and

I am Alaska resident in that I am physically present in the State of Alaska with the intent to remain in the State indefinitely and to make a home in the State.

I certify under penalty of perjury that the foregoing statements are true and correct as they apply to me.

By (signature)

Date

Printed name

Title

Qualifying Entity Veteran Certification

The bidding entity for which I am the duly authorized representative is a:

(Check the appropriate box)

- sole proprietorship owned by an Alaska Veteran;
- partnership under AS 32.06 or AS 32.11 and a majority of the partners are Alaska Veterans;
- limited liability company organized under AS 10.50 and a majority of the members are Alaska Veterans;
or
- corporation that is wholly owned by individuals and a majority of the individuals are Alaska Veterans.

By applying my signature below, I certify under penalty of perjury that I am the duly appointed representative of this bidder, which has authorized and empowered me to legally bind it concerning the proposal and that the statement I have acknowledged above by checking the appropriate box is true and correct.

By (signature)

Date

Printed name

Title

Alaska Bidder Certification

(To complete your claim for the Alaska Veteran Preference, you must also submit an Alaska Bidder Certification, which the bidder can view, download, and print from the AKDOT&PF's Bid Express Proposal page.)



STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

SUBCONTRACTOR LIST

**Mt. Edgecumbe High School
Building 1330 Fire Alarm & Sprinkler Upgrades
Program No. 2501000056**

The apparent low bidder shall complete this form and submit it so as to be received by the Contracting Officer prior to the close of business on the fifth working day after receipt of written notice from the Department.

An apparent low bidder who fails to submit a completed Subcontractor List form within the time allowed will be declared nonresponsible and may be required to forfeit the bid security.

Scope of work must be clearly defined. If an item of work is to be performed by more than one firm, indicate the portion or percent of work to be done by each.

Check as applicable: All Work on the above-referenced project will be accomplished without subcontracts

Or

List all first tier Subcontractors as follows:

FIRM NAME, ADDRESS, PHONE NO.	AK BUSINESS LICENSE NO., CONTRACTOR'S REGISTRATION NO.	SCOPE OF WORK TO BE PERFORMED

CONTINUE SUBCONTRACTOR INFORMATION ON REVERSE

For projects with federal-aid funding, I hereby certify Alaska Business Licenses and Contractor Registrations will be valid for all subcontractors prior to award of the subcontract. For projects without federal-aid funding (State funding only), I hereby certify the listed Alaska Business Licenses and Contractor Registrations were valid at the time bids were opened for this project.

Signature of Authorized Company Representative

Title

Company Name

Company Address (Street or PO Box, City, State, Zip)

Date

Phone Number



STATE OF ALASKA
 DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
 Civil Rights Office – DBE Program

BIDDER REGISTRATION

All firms are required to submit a Bidder's Registration form before an Alaska Department of Transportation and Public Facilities (DOT&PF) project can be awarded. The Bidder Registration form must be submitted to the Civil Rights Officer (CRO) on an annual basis by January 1 and is valid thru December 31. Complete this form for each contractor and subcontractor. Firms will be listed on the bidder registration online directory <http://www.dot.state.ak.us/cvlrts/bidreg.shtml>.

Name of Firm: _____

Street Address: _____

Mailing Address: _____

Contact Name: _____

Telephone Number: _____

Fax number: _____

E-mail Address: _____

Date Firm was Established: _____

The firm listed above is a (check all that apply):

- Prime Contractor?
- Subcontractor? Identify specialty: _____
- Service Provider? Identify service: _____
- Material Supplier? Identify material: _____
- Manufacturer? Identify product: _____
- Certified DBE? * *DBE- Disadvantaged Business Enterprise
- Self-Certified SBE? * *SBE- Small Business Enterprise *(Complete page 2 of this form.)*

Firm's gross annual receipts:

- < \$500,000
- \$500,000- \$999,999
- \$1,000,000- \$4,999,999
- \$5,000,000- \$9,999,999
- \$10,000,000- \$16,999,999
- > \$17,000,000

Type of contracts/proposals bid by the firm (check all that apply):

- Highways Airports Transit AMHS

Signature of Company Representative	Title	Date
-------------------------------------	-------	------

Send this completed form to: *OR* You may fax your completed form to:
ADOT&PF Civil Rights Office (907) 269-0847
PO Box 196900
Anchorage, Alaska 99519-6900

If you have any questions, please call (907) 269-0851.

SMALL BUSINESS ENTERPRISE PROGRAM (SBE) SELF-REGISTRATION

Fostering Small Business Participation (SBE) (49 CFR 26.39):

To meet the requirements of 49 CFR 26.39, DOT&PF has implemented a Small Business Enterprise Program. This component is only applicable to federally funded projects.

[Complete the Section below only if you are a Self-Certified SBE Firm] All businesses wishing to be eligible as a SBE are required to submit a SBE Self-Registration form. The SBE Self-Registration form must be submitted on an annual basis by January 1 and is valid thru December 31.

In order to verify your firm's compliance with business size standards under 49 CFR 26.67(2)(i) and 26.65(b), **at the time of award** you will be required to submit the following documents:

- SBE Affidavit of Certification Eligibility
- Personal Financial Statement
- Past three years of your corporations and/or individual tax returns
- If not a certified DBE, please provide documentation that you are self-certified as a small business (please contact Procurement Technical Assistance Center (PTAC) at 907-274-7232 if you require assistance on becoming a self-certified small business)

At time of award send required documentation to:

DOT&PF Civil Rights Office
Attn: Certification
PO Box 196900
Anchorage, Alaska 99519-690
Phone: (907) 269-0851
Fax: (907) 269-0847

A. SBE Directory Information

1. Can you verify at time of award that your firm (including affiliates) does not exceed the small business size standards as described by the Small Business Administration (SBA) for the last three years of gross annual receipts per 49 CFR 26.65(a)? To find more information about the SBA size standards, visit the SBA website <https://www.sba.gov/content/small-business-size-standards>. [] Yes [] No*

**If you marked "No" you do not qualify for the SBE Program*

2. Can you verify at time of award that your firm (including affiliates) does not exceed the personal net worth standards of \$1.32 million per 49 CFR 26.67(2)(i)? [] Yes [] No*

**If you marked "No" you do not qualify for the SBE Program*

3. Can you verify at time of award that each individual owner of your firm does not exceed the personal net worth standards of \$1.32 million per 49 CFR 26.67(2)(i)? [] Yes [] No*

**If you marked "No" you do not qualify for the SBE Program*

4. Contact Info.

Name of Firm

Contact Name

Telephone Number

Fax Number

Email Address

Company Website



STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

CONSTRUCTION CONTRACT

**Mt. Edgecumbe High School
Building 1330 Fire Alarm & Sprinkler Upgrades
Program No. 2501000056**

This CONTRACT, between the STATE OF ALASKA, DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES, herein called the Department, acting by and through its Contracting Officer, and

Company Name

Company Address (Street or PO Box, City, State, Zip)

a/an Individual Partnership Joint Venture Sole Proprietorship Corporation incorporated under the laws of the State of _____, its successors and assigns, herein called the Contractor, is effective the date of the signature of the Contracting Officer on this document.

WITNESSETH: That the Contractor, for and in consideration of the payment or payments herein specified and agreed to by the Department, hereby covenants and agrees to furnish and deliver all the materials and to do and perform all the work and labor required in the construction of the above-referenced project at the prices bid by the Contractor for the respective estimated quantities aggregating approximately the sum of

_____ Dollars
(\$ _____), and such other items as are mentioned in the original Bid, which Bid and prices named, together with the Contract Documents are made a part of this Contract and accepted as such.

It is distinctly understood and agreed that no claim for additional work or materials, done or furnished by the Contractor and not specifically herein provided for, will be allowed by the Department, nor shall the Contractor do any work or furnish any material not covered by this Contract, unless such work is ordered in writing by the Department. In no event shall the Department be liable for any materials furnished or used, or for any work or labor done, unless the materials, work, or labor are required by the Contract or on written order furnished by the Department. Any such work or materials which may be done or furnished by the Contractor without written order first being given shall be at the Contractor's own risk, cost, and expense and the Contractor hereby covenants and agrees to make no claim for compensation for work or materials done or furnished without such written order.

The Contractor further covenants and agrees that all materials shall be furnished and delivered and all labor shall be done and performed, in every respect, to the satisfaction of the Department, on or before: _____ or within _____ calendar days. It is expressly understood and agreed that in case of the failure on the part of the Contractor, for any reason, except with the written consent of the Department, to complete the furnishing and delivery of materials and the doing and performance of the work before the aforesaid date, the Department shall have the right to deduct from any money due or which may become due the Contractor, or if no money shall be due, the Department shall have the right to recover _____ Dollars (\$ _____) per day for each calendar day elapsing between the time stipulated for the completion and the actual date of completion in accordance with the terms hereof; such deduction to be made, or sum to be recovered, not as a penalty but as liquidated damages.

The bonds given by the Contractor in the sum of \$ _____ Payment Bond, and \$ _____ Performance Bond, to secure the proper compliance with the terms and provisions of this Contract, are submitted herewith and made a part hereof.

IN WITNESS WHEREOF, the parties hereto have executed this Contract and hereby agree to its terms and conditions.

CONTRACTOR

Company Name

Signature of Authorized Company Representative

Typed Name and Title

Date

(Corporate Seal)

**STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES**

Signature of Contracting Officer

Typed Name

Date

INSTRUCTIONS

1. This form shall be used whenever a performance bond is required. There shall be no deviation from this form without approval from the Contracting Officer.
2. The full legal name, business address, phone number, and point of contact of the Principal and Surety shall be typed on the face of the form. Where more than a single surety is involved, a separate form shall be executed for each surety.
3. The penal amount of the bond, or in the case of more than one surety the amount of obligation, shall be typed in words and in figures.
4. Where individual sureties are involved, a completed Affidavit of Individual Surety shall accompany the bond. Such forms are available upon request from the Contracting Officer.
5. The bond shall be signed by authorized persons. Where such person is signing in a representative capacity (e.g., an attorney-in-fact), but is not a member of the firm, partnership, or joint venture, or an officer of the corporation involved, evidence of authority must be furnished.



STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

PAYMENT BOND

Bond No. _____

For
Mt. Edgecumbe High School
Building 1330 Fire Alarm & Sprinkler Upgrades
Program No. 2501000056

KNOW ALL WHO SHALL SEE THESE PRESENTS:

That _____
of _____ as Principal,
and _____
of _____ as Surety,
firmly bound and held unto the State of Alaska in the penal sum of _____ Dollars

(\$ _____) good and lawful money of the United States of America for the payment whereof, well and truly to be paid to the State of Alaska, we bind ourselves, our heirs, successors, executors, administrators, and assigns, jointly and severally, firmly by these presents.

WHEREAS, the said Principal has entered into a written contract with said State of Alaska, on the _____ of _____ A.D., 20__, for construction of the above-referenced project, said work to be done according to the terms of said contract.

Now, THEREFORE, the conditions of the foregoing obligation are such that if the said Principal shall comply with all requirements of law and pay, as they become due, all just claims for labor performed and materials and supplies furnished upon or for the work under said contract, whether said labor be performed and said materials and supplies be furnished under the original contract, any subcontract, or any and all duly authorized modifications thereto, then these presents shall become null and void; otherwise they shall remain in full force and effect.

IN WITNESS WHEREOF, we have hereunto set our hands and seals at _____,
_____ this _____ day of _____ A.D., 20__.

Principal: _____
Address: _____
By: _____
Contact Name: _____
Phone: () _____

Surety: _____
Address: _____
By: _____
Contact Name: _____
Phone: () _____

The offered bond has been checked for adequacy under the applicable statutes and regulations:

Alaska Department of Transportation & Public Facilities Authorized Representative

Date

See Instructions on Reverse

INSTRUCTIONS

1. This form, for the protection of persons supplying labor and material, shall be used whenever a payment bond is required. There shall be no deviation from this form without approval from the Contracting Officer.
2. The full legal name, business address, phone number, and point of contact of the Principal and Surety shall be typed on the face of the form. Where more than a single surety is involved, a separate form shall be executed for each surety.
3. The penal amount of the bond, or in the case of more than one surety the amount of obligation, shall be typed in words and in figures.
4. Where individual sureties are involved, a completed Affidavit of Individual Surety shall accompany the bond. Such forms are available upon request from the Contracting Officer.
5. The bond shall be signed by authorized persons. Where such persons are signing in a representative capacity (e.g., an attorney-in-fact), but is not a member of the firm, partnership, or joint venture, or an officer of the corporation involved, evidence of authority must be furnished.

**STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
DOCUMENT 00700 - ISSUED DECEMBER 2011**

GENERAL CONDITIONS OF THE CONSTRUCTION CONTRACT FOR BUILDINGS

ARTICLE 1 - DEFINITIONS

ARTICLE 2 - AUTHORITIES AND LIMITATIONS

- 2.1 Authorities and Limitations
- 2.2 Evaluations by Contracting Officer
- 2.3 Means and Methods
- 2.4 Visits to Site

ARTICLE 3 - CONTRACT DOCUMENTS: INTENT, AMENDING, REUSE

- 3.1 Incomplete Contract Documents
- 3.2 Copies of Contract Documents
- 3.3 Scope of Work
- 3.4 Intent of Contract Documents
- 3.5 Discrepancy in Contract Documents
- 3.6 Clarifications and Interpretations
- 3.7 Reuse of Documents

ARTICLE 4 - LANDS AND PHYSICAL CONDITIONS

- 4.1 Availability of Lands
- 4.2 Visit to Site/Place of Business
- 4.3 Explorations and Reports
- 4.4 Utilities
- 4.5 Damaged Utilities
- 4.6 Utilities Not Shown or Indicated
- 4.7 Survey Control

ARTICLE 5 - BONDS AND INSURANCE

- 5.1 Delivery of Bonds
- 5.2 Bonds
- 5.3 Replacement of Bond and Surety
- 5.4 Insurance Requirements
- 5.5 Indemnification

ARTICLE 6 - CONTRACTOR'S RESPONSIBILITIES

- 6.1 Supervision of Work
- 6.2 Superintendence by CONTRACTOR
- 6.3 Character of Workers
- 6.4 CONTRACTOR to Furnish
- 6.5 Materials and Equipment
- 6.6 Anticipated Schedules
- 6.7 Finalizing Schedules
- 6.8 Adjusting Schedules
- 6.9 Substitutes or "Or-Equal" Items
- 6.10 Substitute Means and Methods
- 6.11 Evaluation of Substitution
- 6.12 Dividing the Work
- 6.13 Subcontractors
- 6.14 Use of Premises
- 6.15 Structural Loading
- 6.16 Record Documents

- 6.17 Safety and Protection
- 6.18 Safety Representative
- 6.19 Emergencies
- 6.20 Shop Drawings and Samples
- 6.21 Shop Drawing and Sample Review
- 6.22 Maintenance During Construction
- 6.23 Continuing the Work
- 6.24 Consent to Assignment
- 6.25 Use of Explosives
- 6.26 CONTRACTOR's Records
- 6.27 Load Restrictions

ARTICLE 7 - LAWS AND REGULATIONS

- 7.1 Laws to be Observed
- 7.2 Permits, Licenses, and Taxes
- 7.3 Patented Devices, Materials and Processes
- 7.4 Compliance of Specifications and Drawings
- 7.5 Accident Prevention
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ACKNOWLEDGMENT

"The State of Alaska, General Conditions of the Construction Contract for Buildings" is based on the "Standard General Conditions of the Construction Contract" as published by the National Society of Professional Engineers (document number 1910-8, 1983 edition) on behalf of the Engineers Joint Construction Documents Committee. Portions of the NSPE General Conditions are reprinted herein by the express permission of NSPE. Modifications to the NSPE text are made to provide for State laws, regulations, and established procedures.

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ARTICLE 1 - DEFINITIONS

Wherever used in the Contract Documents the following terms, or pronouns in place of them, are used, the intent and meaning, unless a different intent or meaning is clearly indicated, shall be interpreted as set forth below.

The titles and headings of the articles, sections, and subsections herein are intended for convenience of reference.

Terms not defined below shall have their ordinary accepted meanings within the context which they are used. Words which have a well-known technical or trade meaning when used to describe work, materials or equipment shall be interpreted in accordance with such meaning. Words defined in Article 1 are to be interpreted as defined.

Addenda - All clarifications, corrections, or changes issued graphically or in writing by the DEPARTMENT after the Advertisement but prior to the opening of Proposals.

Advertisement - The public announcement, as required by law, inviting bids for Work to be performed or materials to be furnished.

Application for Payment - The form provided by the DEPARTMENT which is to be used by the CONTRACTOR in requesting progress or final payments and which is to include such supporting documentation as is required by the Contract Documents.

Approved or Approval - 'Approved' or 'Approval' as used in this contract document shall mean that the Department has received a document, form or submittal from the contractor and that the Department has taken "No exceptions" to the item submitted. Unless the context clearly indicates otherwise, approved or approval shall not mean that the Department approves of the methods or means, or that the item or form submitted meets the requirements of the contract or constitutes acceptance of the Contractor's work. Where approved or approval means acceptance, then such approval must be set forth in writing and signed by the contracting officer or his designee.

Architect - Where used in the contract documents, "ARCHITECT" shall mean the DEPARTMENT'S ENGINEER.

Architect/Engineer - Where used in the contract documents, "ARCHITECT/ENGINEER" shall mean the DEPARTMENT'S ENGINEER.

A.S - Initials which stand for Alaska Statute.

Award - The acceptance, by the DEPARTMENT, of the successful bid.

Bid Bond - A type of Proposal Guaranty.

Bidder - Any individual, firm, corporation or any acceptable combination thereof, or joint venture submitting a bid for the advertised Work.

Calendar Day - Every day shown on the calendar, beginning and ending at midnight.

Change Order - A written order by the DEPARTMENT directing changes to the Contract Documents, within their general scope.

Consultant - The person, firm, or corporation retained directly by the DEPARTMENT to prepare Contract Documents, perform construction administration services, or other Project related services.

Contingent Sum Work Item - When the bid schedule contains a Contingent Sum Work Item, the Work covered shall be performed only upon the written Directive of the Project Manager. Payment shall be made as provided in the Directive.

Contract - The written agreement between the DEPARTMENT and the CONTRACTOR setting forth the obligations of the parties and covering the Work to be performed, all as required by the Contract Documents.

Contract Documents - The Contract form, Addenda, the bidding requirements and CONTRACTOR's bid (including all appropriate bid tender forms), the bonds, the Conditions of the Contract and all other Contract requirements, the Specifications, and the Drawings furnished by the DEPARTMENT to the CONTRACTOR, together with all Change Orders and documents approved by the Contracting Officer, for inclusion, modifications and supplements issued on or after the Effective Date of the Contract.

Contracting Officer - The person authorized by the Commissioner to enter into and administer the Contract on behalf of the DEPARTMENT. He has authority to make findings, determinations and decisions with respect to the Contract and, when necessary, to modify or terminate the Contract. The Contracting Officer is identified on the construction Contract.

CONTRACTOR - The individual, firm, corporation or any acceptable combination thereof, contracting with the DEPARTMENT for performance of the Work.

Contract Price - The total moneys payable by the DEPARTMENT to the CONTRACTOR under the terms of the Contract Documents.

Contract Time - The number of Calendar Days following issuance of Notice-to-Proceed in which the project shall be rendered Substantially Complete, or if specified as a calendar date, the Substantial Completion date specified in the Contract Documents

Controlling Item - Any feature of the Work on the critical path of a network schedule.

Defective - Work that is unsatisfactory, faulty or deficient, or does not conform to the Contract Documents.

DEPARTMENT - The Alaska Department of Transportation and Public Facilities. References to "Owner", "State", "Contracting Agency", mean the DEPARTMENT.

Directive - A written communication to the CONTRACTOR from the Contracting Officer interpreting or enforcing a Contract requirement or ordering commencement of an item of Work.

Drawings - The Drawings which show the character and scope of the Work to be performed and which have been furnished by the DEPARTMENT or the DEPARTMENT's Consultant and are by reference made a part of the Contract Documents.

ENGINEER - The DEPARTMENT'S authorized representative of the Contracting Officer, as defined in the DEPARTMENT'S *delegation of authority letter* to be issued after notice-to-proceed, who is responsible for administration of the contract.

Equipment - All machinery together with the necessary supplies for upkeep and maintenance, and also tools and apparatus necessary for the proper construction and acceptable completion of the work.

Final Acceptance - The DEPARTMENT's written acceptance of the Work following Final Completion and the performance of all Contract requirements by the CONTRACTOR.

Final Completion - The Project (or specified part thereof) has progressed to the point that all required Work is complete as determined by the Contracting Officer.

Furnish - To procure, transport, and deliver to the project site materials, labor, or equipment, for installation or use on the project.

General Requirements - Sections of Division 1 of the Specifications which contain administrative and procedural requirements as well as requirements for temporary facilities which apply to Specification Divisions 2 through 16.

Holidays - In the State of Alaska, Legal Holidays occur on:

1. New Years 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 in November
11. Christmas Day - December 25
12. Every Sunday
13. Every day designated by public proclamation by the President of the United States or the Governor of the State as a legal Holiday.

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, except (12) above, Sunday and the following Monday are both legal Holidays. See Title 44, Alaska Statutes.

Inspector - The Engineer's authorized representative assigned to make detailed observations relating to contract performance.

Install - Means to build into the Work, ready to be used in complete and operable condition and in compliance with Contract Documents.

Interim Work Authorization - A written order by the Engineer initiating changes to the Contract, within its general scope, until a subsequent Change Order is executed.

Invitation for Bids - A portion of the bidding documents soliciting bids for the Work to be performed.

Laboratory - The official testing laboratories of the DEPARTMENT or such other laboratories as may be designated by the Engineer or identified in the contract documents.

Materials - Any substances specified for use in the construction of the project.

Notice of Intent to Award - The written notice by the DEPARTMENT to all Bidders identifying the apparent successful Bidder and establishing the DEPARTMENT's intent to execute the Contract when all conditions required for execution of the Contract are met.

Notice to Proceed - A written notice to the CONTRACTOR to begin the Work and establishing the date on which the Contract Time begins.

Payment Bond - The security furnished by the CONTRACTOR and his Surety to guarantee payment of the debts covered by the bond.

Performance Bond - The security furnished by the CONTRACTOR and his Surety to guarantee performance and completion of the Work in accordance with the Contract.

Preconstruction Conference - A meeting between the CONTRACTOR and the Engineer, and other parties affected by the construction, to discuss the project before the CONTRACTOR begins work.

Project - The total construction, of which the Work performed under the Contract Documents is the whole or a part, where such total construction may be performed by more than one CONTRACTOR.

Project Manager - The authorized representative of the Contracting Officer who is responsible for administration of the Contract.

Proposal - The offer of a Bidder, on the prescribed forms, to perform the Work at the prices quoted.

Proposal Guaranty - The security furnished with a Proposal to guarantee that the bidder will enter into a Contract if his Proposal is accepted by the DEPARTMENT.

Quality Assurance (QA) - Where referred to in the technical specifications (Divisions 2 through 16), Quality Assurance refers to measures to be provided by the CONTRACTOR as specified.

Quality Control (QC) - Tests and inspections by the CONTRACTOR to insure the acceptability of materials incorporated into the work. QC test reports are used as a basis upon which to determine whether the Work conforms to the requirements of the Contract Documents and to determine its acceptability for payment.

Regulatory Requirements - Laws, rules, regulations, ordinances, codes and/or orders.

Schedule of Values - The DEPARTMENT's document, submitted by the CONTRACTOR and reviewed by the Contracting Officer, which shall serve as the basis for computing payment and for establishing the value of separate items of Work which comprise the Contract Price.

Shop Drawings - All drawings, diagrams, illustrations, schedules and other data which are specifically prepared by or for the CONTRACTOR to illustrate some portion of the Work and all illustrations, brochures, standard schedules, performance charts, instructions, diagrams and other information prepared by a Supplier and submitted by the CONTRACTOR to illustrate material, equipment, fabrication, or erection for some portion of the Work. Where used in the Contract Documents, "Shop Drawings" shall also mean "Submittals".

Specifications - Those portions of the Contract Documents consisting of written technical descriptions of materials, equipment, construction systems, standards and workmanship as applied to the Work and certain administrative and procedural details applicable thereto.

Subcontractor - An individual, firm, or corporation to whom the CONTRACTOR or any other Subcontractor sublets part of the Contract.

Substantial Completion - Although not fully completed, the Work (or a specified part thereof) has progressed to the point where, in the opinion of the Contracting Officer, as evidenced by the DEPARTMENT's written notice, it is sufficiently complete, in accordance with the Contract Documents, so that the Work (or specified part) can be utilized for the purposes for which it is intended. The terms "Substantially Complete" and "Substantially Completed" as applied to any Work refer to Substantial Completion thereof.

Supplemental Agreement - A written agreement between the CONTRACTOR and the DEPARTMENT covering work that is not within the general scope of the Contract.

Supplementary Conditions - The part of the Contract Documents which amends or supplements these General Conditions.

Supplier - A manufacturer, fabricator, distributor, materialman or vendor of materials or equipment.

Surety - The corporation, partnership, or individual, other than the CONTRACTOR, executing a bond furnished by the CONTRACTOR.

Traffic Control Plan (TCP) - A drawing of one or more specific plans that detail the routing of pedestrian, and/or vehicular traffic through or around a construction area.

Unit Price Work - Work to be paid for on the basis of unit prices.

Using Agency - The entity who will occupy or use the completed Project.

Utility - The privately, publicly or cooperatively owned lines, facilities and systems for producing, transmitting or distributing communications, power, electricity, light, heat, gas, oil, crude products, water, steam, waste, storm water not connected with highway or street drainage, and other similar commodities, including publicly owned fire and police signal systems, street lighting systems, and railroads which directly or indirectly serve the public or any part thereof. The term "utility" shall also mean the utility company, inclusive of any wholly owned or controlled subsidiary."

Work - Work is the act of, and the result of, performing services, furnishing labor, furnishing and incorporating materials and equipment into the Project and performing other duties and obligations, all as required by the Contract Documents. Such Work, however incremental, will culminate in the entire completed Project, or the various separately identifiable parts thereof.

ARTICLE 2 - AUTHORIZATION AND LIMITATIONS

2.1 Authorities and Limitations

- 2.1.1 The Contracting Officer alone, shall have the power to bind the DEPARTMENT and to exercise the rights, responsibilities, authorities and functions vested in the Contracting Officer by the Contract Documents. The Contracting Officer shall have the right to designate in writing authorized representatives to act for him. Wherever any provision of the Contract Documents specifies an individual or organization, whether governmental or private, to perform any act on behalf of or in the interest of the DEPARTMENT that individual or organization shall be deemed to be the Contracting Officer's authorized representative under this Contract but only to the extent so specified.
- 2.1.2 The CONTRACTOR shall perform the Work in accordance with any written order (including but not limited to instruction, direction, interpretation or determination) issued by an authorized representative in accordance with the authorized representative's authority to act for the Contracting Officer. The CONTRACTOR assumes all the risk and consequences of performing the Work in accordance with any order (including but not limited to instruction, direction, interpretation or determination) of anyone not authorized to issue such order, and of any order not in writing.
- 2.1.3 Should the Contracting Officer or his authorized representative designate Consultant(s) to act for the DEPARTMENT as provided for in Paragraph 2.1.1, the performance or nonperformance of the Consultant under such authority to act, shall not give rise to any contractual obligation or duty of the Consultant to the CONTRACTOR, any Subcontractor, any Supplier, or any other organization performing any of the Work or any Surety representing them.

2.2 Evaluations by Contracting Officer:

- 2.2.1 The Contracting Officer will decide all questions which may arise as to:
- a. Quality and acceptability of materials furnished;
 - b. Quality and acceptability of Work performed;
 - c. Compliance with the schedule of progress;
 - d. Interpretation of Contract Documents;
 - e. Acceptable fulfillment of the Contract on the part of the CONTRACTOR.
- 2.2.2 In order to avoid cumbersome terms and confusing repetition of expressions in the Contract Documents the terms "as ordered", "as directed", "as required", "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 it shall be understood as if the expression were followed by the words "the Contracting Officer".
- When such terms are used to describe a requirement, direction, review or judgment of the Contracting Officer 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 Contract Documents (unless there is a specific statement indicating otherwise).
- 2.2.3 The use of any such term or adjective shall not be effective to assign to the DEPARTMENT any duty of 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 2.3 or 2.4.

2.3 Means & Methods:

The means, methods, techniques, sequences or procedures of construction, or safety precautions and the program incident thereto, and the failure to perform or furnish the Work in accordance with the Contract Documents are the sole responsibility of the CONTRACTOR.

2.4 Visits to Site/Place of Business:

The Contracting Officer will make visits to the site and approved remote storage sites at intervals appropriate to the various stages of construction to observe the progress and quality of the executed Work and to determine, in general, if the Work is proceeding in accordance with the Contract Documents. The Contracting Officer may, at reasonable times, inspect that part of the plant or place of business of the CONTRACTOR or Subcontractor that is related to the performance of the Contract. Such observations or the lack of such observations shall in no way relieve the CONTRACTOR from his duty to perform the Work in accordance with the Contract Documents.

ARTICLE 3 - CONTRACT DOCUMENTS: INTENT, AMENDING, REUSE

3.1 Incomplete Contract Documents:

The submission of a bid by the Bidder is considered a representation that the Bidder examined the Contract Documents to make certain that all sheets and pages were provided and that the Bidder is satisfied as to the conditions to be encountered in performing the Work. The DEPARTMENT expressly denies any responsibility or liability for a bid submitted on the basis of an incomplete set of Contract Documents.

3.2 Copies of Contract Documents:

The DEPARTMENT shall furnish to the CONTRACTOR up to ten copies of the Contract Documents. Additional copies will be furnished, upon request, at the cost of reproduction.

3.3 Scope of Work:

The Contract Documents comprise the entire Contract between the DEPARTMENT and the CONTRACTOR concerning the Work. The Contract Documents are complementary; what is called for by one is as binding as if called for by all. The Contract Documents will be construed in accordance with the Regulatory Requirements of the place of the Project.

It is specifically agreed between the parties executing this Contract that it is not intended by any of the provisions of the Contract to create in the public or any member thereof a third party benefit, or to authorize anyone not a party to this Contract to maintain a suit pursuant to the terms or provisions of the Contract.

3.4 Intent of Contract Documents:

- 3.4.1 It is the intent of the Contract Documents to describe a functionally complete Project 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 will be supplied, without any adjustment in Contract Price or Contract Time, whether or not specifically called for.
- 3.4.2 Reference to standard specifications, manuals or codes of any technical society, organization or association, or to the Regulatory Requirements of any governmental authority, whether such reference be specific or by implication, shall mean the edition stated in the Contract Documents or if not stated the latest standard specification, manual, code or Regulatory Requirements in effect at the time of Advertisement for the Project (or, on the Effective Date of the Contract if there was no Advertisement). 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 DEPARTMENT and the CONTRACTOR, or any of their consultants, agents or employees from those set forth in the Contract Documents, nor shall it be effective to assign to the DEPARTMENT or any of the DEPARTMENT's 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 2.3 or 2.4.

3.5 Discrepancy in Contract Documents:

- 3.5.1 Before undertaking the Work, the CONTRACTOR shall carefully study and compare the Contract Documents and check and verify pertinent figures, and dimensions shown thereon and all applicable field measurements. Work in the area by the CONTRACTOR shall imply verification of figures, dimensions and field measurements. If, during the above study or during the performance of the Work, the CONTRACTOR finds a conflict, error, discrepancy or omission in the Contract Documents, or a discrepancy between the Contract Documents and any standard specification, manual, code, or Regulatory Requirement which affects the Work, the CONTRACTOR shall promptly report such discrepancy in writing to the Contracting Officer. The CONTRACTOR shall obtain a written interpretation or clarification from the Contracting Officer before proceeding with any Work affected thereby. Any adjustment made by the CONTRACTOR without this

determination shall be at his own risk and expense. However, the CONTRACTOR shall not be liable to the DEPARTMENT for failure to report any conflict, error or discrepancy in the Contract Documents unless the CONTRACTOR had actual knowledge thereof or should reasonably have known thereof.

3.5.2 Discrepancy - Order of Precedence:

When conflicts errors, or discrepancies within the Contract Documents exist, the order of precedence from most governing to least governing will be as follows:

- Contents of Addenda
- Supplementary Conditions
- General Conditions
- General Requirements
- Technical Specifications
- Drawings
- Recorded dimensions will govern over scaled dimensions
- Large scale details over small scale details
- Schedules over plans
- Architectural drawings over structural drawings Structural drawings over mechanical and electrical drawings

3.6 Clarifications and Interpretations:

The Contracting Officer will issue with reasonable promptness such written clarifications or interpretations of the requirements of the Contract Documents as the Contracting Officer may determine necessary, which shall be consistent with or reasonably inferable from the overall intent of the Contract Documents.

3.7 Reuse of Documents:

Neither the CONTRACTOR nor any Subcontractor, or Supplier or other person or organization performing or furnishing any of the Work under a direct or indirect contract with the DEPARTMENT shall have or acquire any title to or ownership rights in any of the Contract Documents (or copies thereof) prepared by or for the DEPARTMENT and they shall not reuse any of the Contract Documents on extensions of the Project or any other project without written consent of the Contracting Officer.

Contract Documents prepared by the CONTRACTOR in connection with the Work shall become the property of the DEPARTMENT.

ARTICLE 4 - LANDS AND PHYSICAL CONDITIONS

4.1 Availability of Lands:

The DEPARTMENT 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 use of the CONTRACTOR in connection with the Work. Easements for permanent structures or permanent changes in existing facilities will be obtained and paid for by the DEPARTMENT, unless otherwise provided in the Contract Documents. 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. The CONTRACTOR shall provide all waste and disposal areas, including disposal areas for hazardous or contaminated materials, at no additional cost to the DEPARTMENT.

4.2 Visit to Site:

The submission of a bid by the CONTRACTOR is considered a representation that the CONTRACTOR has visited and carefully examined the site and is satisfied as to the conditions to be encountered in performing the Work and as to the requirements of the Contract Documents.

4.3 Explorations and Reports:

Reference is made to the Supplementary Conditions for identification of those reports of explorations and tests of subsurface conditions at the site that have been utilized by the DEPARTMENT in preparation of the Contract Documents. The CONTRACTOR may for his purposes rely upon the accuracy of the factual data contained in such reports, but not upon interpretations or opinions drawn from such factual data contained therein or for the completeness or sufficiency thereof. Except as indicated in the immediately preceding sentence and in paragraphs 4.4 and 9.9, CONTRACTOR shall have full responsibility with respect to surface and subsurface conditions at the site.

4.4 Utilities:

The horizontal and vertical locations of known underground utilities as shown or indicated by the Contract Documents are approximate and are based on information and data furnished to the DEPARTMENT by the owners of such underground utilities.

4.4.2 The CONTRACTOR shall have full responsibility for:

- a. Reviewing and checking all information and data concerning utilities.
- b. Locating all underground utilities shown or indicated in the Contract Documents which are affected by the Work.
- c. Coordination of the Work with the owners of all utilities during construction.
- d. Safety and protection of all utilities as provided in paragraph 6.17.
- e. Repair of any damage to utilities resulting from the Work in accordance with 4.4.4 and 4.5.

4.4.3 If Work is to be performed by any utility owner, the CONTRACTOR shall cooperate with such owners to facilitate the Work.

4.4.4 In the event of interruption to any utility service as a result of accidental breakage or as result of being exposed or unsupported, the CONTRACTOR shall promptly notify the utility owner and the Contracting Officer. If service is interrupted, repair work shall be continuous until the service is restored. No Work shall be undertaken around fire hydrants until provisions for continued service has been approved by the local fire

authority.

4.5 Damaged Utilities:

When utilities are damaged by the CONTRACTOR, the utility owner shall have the choice of repairing the utility or having the CONTRACTOR repair the utility. In the following circumstances, the CONTRACTOR shall reimburse the utility owner for repair costs or provide at no cost to the utility owner or the DEPARTMENT, all materials, equipment and labor necessary to complete repair of the damage:

- a. When the utility is shown or indicated in the Contract Documents.
- b. When the utility has been located by the utility owner.
- c. When no locate was requested by the CONTRACTOR for utilities shown or indicated in the Contract Documents.
- d. All visible utilities.
- e. When the CONTRACTOR could have, otherwise, reasonably been expected to be aware of such utility.

4.6 Utilities Not Shown or Indicated:

If, while directly performing the Work, an underground utility is uncovered or revealed at the site which was not shown or indicated in the Contract Documents and which the CONTRACTOR could not reasonably have been expected to be aware of, the CONTRACTOR shall, promptly after becoming aware thereof and before performing any Work affected thereby (except in an emergency as permitted by paragraph 6.19) identify the owner of such underground utility and give written notice thereof to that owner and to the Contracting Officer. The Contracting Officer will promptly review the underground utility to determine the extent to which the Contract Documents and the Work should be modified to reflect the impacts of the discovered utility. The Contract Documents will be amended or supplemented in accordance with paragraph 9.2 and to the extent necessary through the issuance of a change document by the Contracting Officer. During such time, the CONTRACTOR shall be responsible for the safety and protection of such underground utility as provided in paragraph 6.17. The CONTRACTOR may be allowed an increase in the Contract Price or an extension of the Contract Time, or both, to the extent that they are directly attributable to the existence of any underground utility that was not shown or indicated in the Contract Documents and which the CONTRACTOR could not reasonably have been expected to be aware of.

4.7 Survey Control:

The DEPARTMENT will identify sufficient horizontal and vertical control data to enable the CONTRACTOR to survey and layout the Work. All survey work shall be performed under the direct supervision of a registered land surveyor when required by paragraph 7.8. Copies of all survey notes shall be provided to the DEPARTMENT at an interval determined by the Project Manager. The Project Manager may request submission on a weekly or longer period at his discretion. Any variations between the Contract Documents and actual field conditions shall be identified in the survey notes.

ARTICLE 5 - BONDS, INSURANCE, AND INDEMNIFICATION

5.1 Delivery of Bonds:

When the CONTRACTOR delivers the executed Contract to the Contracting Officer, the CONTRACTOR shall also deliver to the Contracting Officer such bonds as the CONTRACTOR may be required to furnish in accordance with paragraph 5.2.

5.2 Bonds:

The CONTRACTOR shall furnish Performance and Payment Bonds, each in an amount as shown on the Contract as security for the faithful performance and payment of all CONTRACTOR's obligations under the Contract Documents. These bonds shall remain in effect for one year after the date of Final Acceptance and until all obligations under this Contract, except special guarantees as per 12.7, have been met. All bonds shall be furnished on forms provided by the DEPARTMENT (or copies thereof) and shall be executed by such Sureties as are authorized to do business in the State of Alaska. The Contracting Officer may at his option copy the Surety with notice of any potential default or liability.

5.3 Replacement of Bond and Surety:

If the Surety on any bond furnished in connection with this Contract is declared bankrupt or becomes insolvent or its right to do business is terminated in any state where any part of the Project is located or it ceases to meet the requirements of paragraph 5.2, or otherwise becomes unacceptable to the DEPARTMENT, or if any such Surety fails to furnish reports as to his financial condition as requested by the DEPARTMENT, the CONTRACTOR shall within five days thereafter substitute another bond and Surety, both of which must be acceptable to DEPARTMENT.

An individual Surety may be replaced by a corporate Surety during the course of the Contract period. If the Surety desires to dispose of the collateral posted, the DEPARTMENT may, at its option, accept substitute collateral.

5.4 Insurance Requirements:

- 5.4.1 The CONTRACTOR shall provide evidence of insurance with a carrier or carriers satisfactory to the DEPARTMENT covering injury to persons and/or property suffered by the State of Alaska or a third party, as a result of operations which arise both out of and during the course of this Contract by the CONTRACTOR or by any Subcontractor. This coverage will also provide protection against injuries to all employees of the CONTRACTOR and the employees of any Subcontractor engaged in Work under this Contract. The delivery to the DEPARTMENT of a written 30 day notice is required before cancellation of any coverage or reduction in any limits of liability. Insurance carriers shall have an acceptable financial rating.
- 5.4.2 The CONTRACTOR shall maintain in force at all times during the performance of the work under this agreement the following policies and minimum limits of liability. Failure to maintain insurance may, at the option of the Contracting Officer, be deemed Defective Work and remedied in accordance with the Contract. Where specific limits and coverages are shown, it is understood that they shall be the minimum acceptable. The requirements of this paragraph shall not limit the CONTRACTOR's responsibility to indemnify under paragraph 5.5. Additional insurance requirements specific to this Contract are contained in the Supplementary Conditions, when applicable.
- a. Workers' Compensation Insurance: The Contractor shall provide and maintain, for all employees of the Contractor engaged in work under this contract, Workers' Compensation Insurance as required by AS 23.30.045. The Contractor shall be responsible for Workers' Compensation Insurance for any subcontractor who provides services under this contract, to include:
1. Waiver of subrogation against the State and Employer's Liability Protection in the amount of \$500,000 each accident/\$500,000 each disease.

2. If the 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.
 3. Whenever the work involves activity on or about navigable waters, the Workers' Compensation policy shall contain a United States Longshoreman's and Harbor Worker's Act endorsement, and when appropriate, a Maritime Employer's Liability (Jones Act) endorsement with a minimum limit of \$1,000,000.
- b. Comprehensive or Commercial General Liability Insurance: Such insurance shall cover all operations by or on behalf of the CONTRACTOR and provide insurance for bodily injury and property damage liability including coverage for:

premises and operations; products and completed operations; contractual liability insuring obligations assumed under paragraph 5.5, Indemnification; broad form property damage; and personal injury liability.

The minimum limits of liability shall be:

1. If the CONTRACTOR carries a *Comprehensive General Liability* policy, the limits of liability shall not be less than a Combined Single Limit for bodily injury, property damage and Personal Injury Liability of:
\$1,000,000 each occurrence
\$2,000,00 aggregate
2. If the CONTRACTOR carries a *Commercial General Liability* policy, the limits of liability shall not be less than:
\$1,000,000 each occurrence (Combined Single Limit for bodily injury and property damage)
\$1,000,000 for Personal Injury Liability

\$2,000,000 aggregate for Products-Completed Operations
\$2,000,000 general aggregate

The State of Alaska, DEPARTMENT of Transportation and Public Facilities shall be named as an "Additional Insured" under all liability coverages listed above.

- c. Automobile Liability Insurance:
Such insurance shall cover all owned, hired and non-owned vehicles and provide coverage not less than that of the Business Automobile Policy in limits not less than the following:

\$1,000,000 each occurrence
(Combined Single Limit for bodily injury and property damage.)

- d. Builder's Risk Insurance:
Coverage shall be on an "All Risk" completed value basis including "quake and flood" and protect the interests of the DEPARTMENT, the CONTRACTOR and his Subcontractors. Coverage shall include all materials, supplies and equipment that are intended for specific installation in the Project while such materials, supplies and equipment are located at the Project site, in transit from port of arrival to job site and while temporarily located away from the Project site.

In addition to providing the above coverages the CONTRACTOR shall ensure that Subcontractors provide insurance coverages as noted in clauses a., b., and c. of this subparagraph. Builders Risk Insurance will only be required of subcontractors if so stated in the Supplementary Conditions.

- e. Other Coverages:
As specified in the Supplementary Conditions.

- 5.4.3 In addition to providing the above coverages the Contractor shall, in any contract or agreement with subcontractors performing work, require that all indemnities and waivers of subrogation it obtains, and that any stipulation to be named as an additional insured it obtains, also be extended to waive rights of subrogation against the State of Alaska and to add the State of Alaska as additional named indemnitee and as additional insured.

Evidence of insurance shall be furnished to the Department prior to the award of the contract. Such evidence, executed by the carrier's representative and issued to the Department, shall consist of a certificate of insurance or the policy declaration page with required endorsements attached thereto which denote the type, amount, class of operations covered, effective (and retroactive) dates, and dates of expiration. Acceptance by the Department of deficient evidence does not constitute a waiver of contract requirements.

When a certificate of insurance is furnished, it shall contain the following statement:

"This is to certify that the policies described herein comply with all aspects of the insurance requirements of (Project Name and Number)"

5.5 Indemnification:

The CONTRACTOR shall indemnify, save harmless, and defend the DEPARTMENT, its agents and its employees from any and all claims, actions, or liabilities for injuries or damages sustained by any person or property arising directly or indirectly from the construction or the CONTRACTOR's performance of this Contract; however, this provision has no effect if, but only if, the sole proximate cause of the injury or damage is the DEPARTMENT's negligence.

ARTICLE 6 - CONTRACTOR'S RESPONSIBILITIES

6.1 Supervision of Work:

The CONTRACTOR shall supervise 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. All Work under this Contract shall be performed in a skillful and workmanlike manner. The CONTRACTOR shall be solely responsible for the means, methods, techniques, sequences and procedures of construction.

6.2 Superintendence by CONTRACTOR:

The CONTRACTOR shall keep on the Work at all times during its progress a competent resident superintendent. The Contracting Officer shall be advised in writing of the superintendent's name, local address, and telephone number. This written advice is to be kept current until Final Acceptance by the DEPARTMENT. The superintendent will be the CONTRACTOR's representative at the site and shall have full authority to act and sign documents on behalf of the CONTRACTOR.

All communications given to the superintendent shall be as binding as if given to the CONTRACTOR. The CONTRACTOR shall cooperate with the Contracting Officer in every way possible.

6.3 Character of Workers:

The CONTRACTOR shall provide a sufficient number of competent, suitably qualified personnel to survey and lay out the Work and perform construction as required by the Contract Documents. The CONTRACTOR shall at all times maintain good discipline and order at the site. The Contracting Officer may, in writing, require the CONTRACTOR to remove from the Work any employee the Contracting Officer deems incompetent, careless, or otherwise detrimental to the progress of the Work, but the Contracting Officer shall have no duty to exercise this right.

6.4 CONTRACTOR to Furnish:

Unless otherwise specified in the General Requirements, the CONTRACTOR shall furnish and assume full responsibility for all materials, equipment and machinery, tools, appliances, fuel, power, light, heat, telephone, water, sanitary facilities, temporary facilities and all other facilities and incidentals necessary for the furnishing, performance testing, start-up and completion of the Work.

6.5 Materials and Equipment:

All materials and equipment shall be of specified quality and new, except as otherwise provided in the Contract Documents. If required by the Contracting Officer, 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 provision of any such instructions will be effective to assign to the DEPARTMENT or any of the DEPARTMENT's 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 2.3 or 2.4.

6.6 Anticipated Schedules:

- 6.6.1 Within fourteen (14) calendar days after the date of the Notice to Proceed, the CONTRACTOR shall submit to the Contracting Officer for review an anticipated progress schedule indicating the starting and completion dates of the various stages of the Work. No individual stage of work shall exceed fourteen (14) calendar days.

- 6.6.2 Within twenty one (21) days after the date of the Notice to Proceed, the CONTRACTOR shall submit to the Contracting Officer for review an anticipated schedule of Shop Drawing submissions
- 6.6.3 Prior to submitting the CONTRACTOR's first Application for Payment, the CONTRACTOR shall submit for review and approval:

Anticipated Schedule of Values for all of the Work which will include quantities and prices of items aggregating the Contract Price and will subdivide the Work into component parts in sufficient detail to serve as the basis for progress payments during construction. Such prices will include an appropriate amount of overhead and profit applicable to each item of Work which will be confirmed in writing by the CONTRACTOR at the time of submission.

6.7 Finalizing Schedules:

Prior to processing the first Application for Payment the Contracting Officer and the CONTRACTOR will finalize schedules required by paragraph 6.6. The finalized progress schedule will be acceptable to the DEPARTMENT as providing information related to the orderly progression of the Work to completion within the Contract Time; but such acceptance will neither impose on the DEPARTMENT nor relieve the CONTRACTOR from full responsibility for the progress or scheduling of the Work. If accepted, the finalized schedule of Shop Drawing and other required submissions will be acknowledgment by the DEPARTMENT as providing a workable arrangement for processing the submissions. If accepted, the finalized Schedule of Values will be acknowledgment by the DEPARTMENT as an approximation of anticipated value of Work accomplished over the anticipated Contract Time. Receipt and acceptance of a schedule submitted by the CONTRACTOR shall not be construed to assign responsibility for performance or contingencies to the DEPARTMENT or relieve the CONTRACTOR of his responsibility to adjust his forces, equipment, and work schedules as may be necessary to insure completion of the Work within prescribed Contract Time. Should the prosecution of the Work be discontinued for any reason, the CONTRACTOR shall notify the Contracting Officer at least 24 hours in advance of resuming operations.

6.8 Adjusting Schedules:

Upon substantial changes to the schedule or upon request the CONTRACTOR shall submit to the Contracting Officer for acceptance (to the extent indicated in paragraph 6.7 and the General Requirements) adjustments in the schedules to reflect the actual present and anticipated progress of the Work.

6.9 Substitutes or "Or-Equal" Items:

- 6.9.1 Whenever materials or equipment are specified or described in the Contract Documents by using the name of a proprietary item or the name of a particular Supplier the naming of the item is intended to establish the type, function and quality required. Unless the name is followed by words indicating that substitution is limited or not permitted, materials or equipment of other Suppliers may be accepted by the Contracting Officer only if sufficient information is submitted by the CONTRACTOR which clearly demonstrates to the Contracting Officer that the material or equipment proposed is equivalent or equal in all aspects to that named. The procedure for review by the Contracting Officer will include the following as supplemented in the General Requirements.
- 6.9.2 Requests for review of substitute items of material and equipment will not be accepted by the Contracting Officer from anyone other than the CONTRACTOR.

- 6.9.3 If the CONTRACTOR wishes to furnish or use a substitute item of material or equipment, the CONTRACTOR shall make written application to the Contracting Officer for Approval thereof, certifying that the proposed substitute will perform adequately the functions and achieve the results called for by the general design, be similar and of equal substance to that specified and be suited to the same use as the specified. The application will state that the evaluation and Approval of the proposed substitute will not delay the CONTRACTOR's timely achievement of Substantial or Final Completion, whether or not acceptance of the substitute for use in the Work will require a change in any of the Contract Documents (or in the provisions of any other direct contract with the DEPARTMENT for Work on the Project) to adapt the design to the proposed substitute and whether or not incorporation or use of the substitute in connection with the Work is subject to payment of any license fee or royalty.
- 6.9.4 All variations of the proposed substitute from that specified will be identified in the application and available maintenance, repair and replacement service will be indicated. The application will also contain an itemized estimate of all costs that will result directly or indirectly from acceptance of such substitute, including costs of redesign and claims of other contractors affected by the resulting change, all of which shall be considered by the DEPARTMENT in evaluating the proposed substitute. The DEPARTMENT may require the CONTRACTOR to furnish at the CONTRACTOR's expense additional data about the proposed substitute. The Contracting Officer may reject any substitution request which the Contracting Officer determines is not in the best interest of the DEPARTMENT.
- 6.9.5 Substitutions shall be permitted during or after the bid period as allowed and in accordance with Document 00020 - Invitation for Bids, Document 00700 – General Conditions, and Document 01630 - Product Options and Substitutions.

6.10 Substitute Means and Methods:

If a specific means, method, technique, sequence or procedure of construction is indicated in or required by the Contract Documents, the CONTRACTOR may furnish or utilize a substitute means, method, sequence, technique or procedure of construction acceptable to the Contracting Officer, if the CONTRACTOR submits sufficient information to allow the Contracting Officer to determine that the substitute proposed is equivalent to that indicated or required by the Contract Documents. The procedure for review by the Contracting Officer will be similar to that provided in paragraph 6.9 as applied by the Contracting Officer and as may be supplemented in the General Requirements.

6.11 Evaluation of Substitution:

The Contracting Officer will be allowed a reasonable time within which to evaluate each proposed substitute. The Contracting Officer will be the sole judge of acceptability, and no substitute will be ordered, installed or utilized without the Contracting Officer's prior written Approval which will be evidenced by either a Change Order or a Shop Drawing Approved in accordance with Sections 6.20 and 6.21. The Contracting Officer may require the CONTRACTOR to furnish at the CONTRACTOR's expense a special performance guarantee or other Surety with respect to any substitute.

6.12 Dividing the Work:

The divisions and sections of the Specifications and the identifications of any Drawings shall not control the CONTRACTOR in dividing the Work among Subcontractors or Suppliers or delineating the Work to be performed by any specific trade.

6.13 Subcontractors:

The CONTRACTOR may utilize the services of appropriately licensed Subcontractors on those parts of the Work which, under normal contracting practices, are performed by Subcontractors, in accordance with the following conditions:

- 6.13.1 The CONTRACTOR shall not award any Work to any Subcontractor without prior written Approval of the Contracting Officer. This Approval will not be given until the CONTRACTOR submits to the Contracting Officer a written statement concerning the proposed award to the Subcontractor which shall contain required Equal Employment Opportunity documents, evidence of insurance whose limits are acceptable to the CONTRACTOR, and an executed copy of the subcontract. All subcontracts shall contain provisions for prompt payment, release of retainage, and interest on late payment amounts and retainage as specified in A.S. 36.90.210. Contracts between subcontractors, regardless of tier, must also contain these provisions. No acceptance by the Contracting Officer of any such Subcontractor shall constitute a waiver of any right of the DEPARTMENT to reject Defective Work.
- 6.13.2 The CONTRACTOR shall be fully responsible to the DEPARTMENT for all acts and omissions of the Subcontractors, Suppliers and other persons and organizations performing or furnishing any of the Work under a direct or indirect contract with CONTRACTOR just as CONTRACTOR is responsible for CONTRACTOR's own acts and omissions.
- 6.13.3 All Work performed for CONTRACTOR by a Subcontractor will be pursuant to an appropriate written agreement between CONTRACTOR and the Subcontractor which specifically binds the Subcontractor to the applicable terms and conditions of the Contract Documents for the benefit of the DEPARTMENT and contains waiver provisions as required by paragraph 13.17 and termination provisions as required by Article 14.
- 6.13.4 Nothing in the Contract Documents shall create any contractual relationship between the DEPARTMENT and any such Subcontractor, Supplier or other person or organization, nor shall it create any obligation on the part of the DEPARTMENT to pay or to see to the payment of any moneys due any such Subcontractor, Supplier or other person or organization except as may otherwise be required by Regulatory Requirements. The DEPARTMENT will not undertake to settle any differences between or among the CONTRACTOR, Subcontractors, or Suppliers.
- 6.13.5 The CONTRACTOR and Subcontractors shall coordinate their work and cooperate with other trades so to facilitate general progress of Work. Each trade shall afford other trades every reasonable opportunity for installation of their work and storage of materials. If cooperative work of one trade must be altered due to lack of proper supervision, or failure to make proper provisions in time by another trade, such conditions shall be remedied by the CONTRACTOR with no change in Contract Price or Contract Time.
- 6.13.6 The CONTRACTOR shall include on his own payrolls any person or persons working on this Contract who are not covered by written subcontract, and shall ensure that all Subcontractors include on their payrolls all persons performing Work under the direction of the Subcontractor.

6.14 Use of Premises:

The CONTRACTOR shall confine construction equipment, the storage of materials and equipment and the operations of workers to the Project limits and approved remote storage sites and lands and areas identified in and permitted by Regulatory Requirements, rights-of-way, permits and easements, and shall not unreasonably encumber the premises with construction equipment or other materials or equipment. 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 DEPARTMENT by any such owner or occupant because of the performance of the Work, the CONTRACTOR shall hold the DEPARTMENT harmless.

6.15 Structural Loading:

The CONTRACTOR shall not load nor permit any part of any structure to be loaded in any manner that will endanger the structure, nor shall the CONTRACTOR subject any part of the Work or adjacent property to stresses or pressures that will endanger it.

6.16 Record Documents:

The CONTRACTOR shall maintain in a safe place at the site one record copy of all Drawings, Specifications, Addenda, Directives, Change Orders, Supplemental Agreements, and written interpretations and clarifications (issued pursuant to paragraph 3.6) in good order and annotated to show all changes made during construction. These record documents together with all Approved samples and a counterpart of all Approved Shop Drawings will be available to the Contracting Officer for reference and copying. Upon completion of the Work, the annotated record documents, samples and Shop Drawings will be delivered to the Contracting Officer. Record documents shall accurately record variations in the Work which vary from requirements shown or indicated in the Contract Documents.

6.17 Safety and Protection:

The CONTRACTOR alone 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:

- 6.17.1 All employees on the Work and other persons and organizations who may be affected thereby;
- 6.17.2 All the Work and materials and equipment to be incorporated therein, whether in storage on or off the site; and
- 6.17.3 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.

The CONTRACTOR shall comply with all applicable Regulatory Requirements 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 utility owners when prosecution of the Work may affect them, and shall cooperate with them in the protection, removal, relocation and replacement of their property. All damage, injury or loss to any property caused, directly or indirectly, in whole or in part, by the CONTRACTOR, any Subcontractor, Supplier or any other person or organization directly or indirectly employed by any of them to perform or furnish any of the Work or anyone for whose acts any of them may be liable, shall be remedied by the CONTRACTOR with no change in Contract Price or Contract Time except as stated in 4.6, except damage or loss attributable to unforeseeable causes beyond the control of and without the fault or negligence of the CONTRACTOR, including but not restricted to acts of God, of the public enemy or governmental authorities. The CONTRACTOR's duties and responsibilities for the safety and protection of the Work shall continue until Final Acceptance (except as otherwise expressly provided in connection with Substantial Completion).

6.18 Safety Representative:

The CONTRACTOR shall designate a responsible safety representative at the site. This person shall be the CONTRACTOR's superintendent unless otherwise designated in writing by the CONTRACTOR to the Contracting Officer.

6.19 Emergencies:

In emergencies affecting the safety or protection of persons or the Work or property at the site or adjacent thereto, the CONTRACTOR, without special instruction or authorization from the DEPARTMENT, is obligated to act to prevent threatened damage, injury or loss. The CONTRACTOR shall give the Contracting Officer prompt written notice if the CONTRACTOR believes that any significant changes in the Work or variations from the Contract Documents have been caused thereby. If the DEPARTMENT determines that a change in the Contract Documents is required because of the action taken in response to an emergency, a change will be authorized by one of the methods indicated in Paragraph 9.2, as determined appropriate by the Contracting Officer.

6.20 Shop Drawings and Samples:

- 6.20.1 After checking and verifying all field measurements and after complying with applicable procedures specified in the General Requirements, the CONTRACTOR shall submit to the Contracting Officer for review and Approval in accordance with the accepted schedule of Shop Drawing submissions the required number of all Shop Drawings, which will bear a stamp or specific written indication that the CONTRACTOR has satisfied CONTRACTOR's responsibilities under the Contract Documents with respect to the review of the submission. All submissions will be identified as the Contracting Officer may require. The data shown on the Shop Drawings will be complete with respect to quantities, dimensions, specified performance and design criteria, materials and similar data to enable the Contracting Officer to review the information as required.
- 6.20.2 The CONTRACTOR shall also submit to the Contracting Officer for review and Approval with such promptness as to cause no delay in Work, all samples required by the Contract Documents. All samples will have been checked by and accompanied by a specific written indication that the CONTRACTOR has satisfied CONTRACTOR's responsibilities under the Contract Documents with respect to the review of the submission and will be identified clearly as to material, Supplier, pertinent data such as catalog numbers and the use for which intended.
- 6.20.3 Before submission 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.
- 6.20.4 At the time of each submission the CONTRACTOR shall give the Contracting Officer specific written notice of each variation that the Shop Drawings or samples may have from the requirements of the Contract Documents, and, in addition, shall cause a specific notation to be made on each Shop Drawing submitted to the Contracting Officer for review and Approval of each such variation. All variations of the proposed Shop Drawing from that specified will be identified in the submission and available maintenance, repair and replacement service will be indicated. The submittal will also contain an itemized estimate of all costs that will result directly or indirectly from acceptance of such variation, including costs of redesign and claims of other Contractors affected by the resulting change, all of which shall be considered by the DEPARTMENT in evaluating the proposed variation. If the variation may result in a change of Contract Time or Price, or Contract responsibility, and is not minor in nature; the CONTRACTOR must submit a written request for Change Order with the variation to notify the DEPARTMENT of his intent. The DEPARTMENT may require the CONTRACTOR to furnish at the CONTRACTOR's expense additional data about the proposed variation. The Contracting Officer may reject any variation request which the Contracting Officer determines is not in the best interest of the DEPARTMENT.

6.21 Shop Drawing and Sample Review:

- 6.21.1 The Contracting Officer will review with reasonable promptness Shop Drawings and samples, but the Contracting Officer's review will be only for conformance with the design concept of the Project and for compliance with the information given in the Contract Documents and shall not extend to means, methods, techniques, sequences or procedures of construction (except where a specific means, method, technique, sequence or procedure of construction is indicated in or required by the Contract Documents) or to safety precautions or programs incident thereto. The review of a separate item as such will not indicate acceptance of the assembly in which the item functions. The CONTRACTOR shall make corrections required by the Contracting Officer and shall return the required number of corrected copies of Shop Drawings and submit as required new samples for review. The CONTRACTOR shall direct specific attention in writing to revisions other than the corrections called for by the Contracting Officer on previous submittals.
- 6.21.2 The Contracting Officer's review of Shop Drawings or samples shall not relieve CONTRACTOR from responsibility for any variation from the requirements of the Contract Documents unless the CONTRACTOR has in writing advised the Contracting Officer of each such variation at the time of submission as required by paragraph 6.20.4. The Contracting Officer if he so determines, may give written Approval of each such variation by Change Order, except that, if the variation is minor and no Change Order has been requested a

specific written notation thereof incorporated in or accompanying the Shop Drawing or sample review comments shall suffice as a modification. Approval by the Contracting Officer will not relieve the CONTRACTOR from responsibility for errors or omissions in the Shop Drawings or from responsibility for having complied with the provisions of paragraph 6.20.3.

- 6.21.3 The DEPARTMENT shall be responsible for all DEPARTMENT review costs resulting from the initial submission and the fors resubmittal. The CONTRACTOR shall, at the discretion of the Contracting Agency, pay all review costs incurred by the DEPARTMENT as a result of any additional re-submittals.
- 6.21.4 Where a Shop Drawing or sample is required by the Specifications, any related Work performed prior to the Contracting Officer's review and Approval of the pertinent submission will be the sole expense and responsibility of the CONTRACTOR.

6.22 Maintenance During Construction:

The CONTRACTOR shall maintain the Work during construction and until Substantial Completion, at which time the responsibility for maintenance shall be established in accordance with paragraph 13.10.

6.23 Continuing the Work:

The CONTRACTOR shall carry on the Work and adhere to the progress schedule during all disputes or disagreements with the DEPARTMENT. No Work shall be delayed or postponed pending resolution of any disputes, disagreements, or claims except as the CONTRACTOR and the Contracting Officer may otherwise agree in writing.

6.24 Consent to Assignment:

The CONTRACTOR shall obtain the prior written consent of the Contracting Officer to any proposed assignment of any interest in, or part of this Contract. The consent to any assignment or transfer shall not operate to relieve the CONTRACTOR or his Sureties of any of his or its obligations under this Contract or the Performance Bonds. Nothing herein contained shall be construed to hinder, prevent, or affect an assignment of monies due, or to become due hereunder, made for the benefit of the CONTRACTOR's creditors pursuant to law.

6.25 Use of Explosives:

- 6.25.1 When the use of explosives is necessary for the prosecution of the Work, the CONTRACTOR shall exercise the utmost care not to endanger life or property, including new Work and shall follow all Regulatory Requirements applicable to the use of explosives. The CONTRACTOR shall be responsible for all damage resulting from the use of explosives.
- 6.25.2 All explosives shall be stored in a secure manner in compliance with all Regulatory Requirements, and all such storage places shall be clearly marked. Where no Regulatory Requirements apply, safe storage shall be provided not closer than 1,000 feet from any building, camping area, or place of human occupancy.
- 6.25.3 The CONTRACTOR shall notify each public utility owner having structures in proximity to the site of his intention to use explosives. Such notice shall be given sufficiently in advance to enable utility owners to take such steps as they may deem necessary to protect their property from injury. However, the CONTRACTOR shall be responsible for all damage resulting from the use of the explosives, whether or not, utility owners act to protect their property.

6.26 CONTRACTOR's Records:

- 6.26.1 Records of the CONTRACTOR and Subcontractors relating to personnel, payrolls, invoices of materials, and any and all other data relevant to the performance of this Contract, must be kept on a generally recognized accounting system. Such records must be available during normal work hours to the Contracting Officer for purposes of investigation to ascertain compliance with Regulatory Requirements and provisions of the Contract

Documents.

- 6.26.2 Payroll records must contain the name and address of each employee, his correct classification, rate of pay, daily and weekly number of hours of work, deductions made, and actual wages paid. The CONTRACTOR and Subcontractors shall make employment records available for inspection by the Contracting Officer and representatives of the U.S. and/or State Department of Labor and will permit such representatives to interview employees during working hours on the Project.
- 6.26.3 Records of all communications between the DEPARTMENT and the CONTRACTOR and other parties, where such communications affected performance of this Contract, must be kept by the CONTRACTOR and maintained for a period of three years from Final Acceptance. The DEPARTMENT or its assigned representative may perform an audit of these records during normal work hours after written notice to the CONTRACTOR.
- 6.27 Load Restrictions

The CONTRACTOR shall comply with all load restrictions as set forth in the "Administrative Permit Manual", and Title 17, Chapter 25, of the Alaska Administrative Code in the hauling of materials on public roads, beyond the limits of the project, and on all public roads within the project limits that are scheduled to remain in use upon completion of the project.

Overload permits may, at the discretion of the State, be issued for travel beyond the project limits for purposes of mobilization and/or demobilization. Issuance of such a permit will not relieve the CONTRACTOR of liability for damage which may result from the moving of equipment.

The operation of equipment of such weight or so loaded as to cause damage to any type of construction will not be permitted. No overloads will be permitted on the base course or surface course under construction. No loads will be permitted on a concrete pavement, base or structure before the expiration of the curing period. The CONTRACTOR shall be responsible for all damage done by his equipment.

ARTICLE 7 - LAWS AND REGULATIONS

7.1 Laws to be Observed

The CONTRACTOR shall keep fully informed of all federal and state Regulatory Requirements and all orders and decrees of bodies or tribunals having any jurisdiction or authority, which in any manner affect those engaged or employed on the Work, or which in any way affect the conduct of the Work. The CONTRACTOR shall at all times observe and comply with all such Regulatory Requirements, orders and decrees; and shall protect and indemnify the DEPARTMENT and its representatives against claim or liability arising from or based on the violation of any such Regulatory Requirement, order, or decree whether by the CONTRACTOR, Subcontractor, or any employee of either. Except where otherwise expressly required by applicable Regulatory Requirements, the DEPARTMENT shall not be responsible for monitoring CONTRACTOR's compliance with any Regulatory Requirements.

7.2 Permits, Licenses, and Taxes

- 7.2.1 The CONTRACTOR shall procure all permits and licenses, pay all charges, fees and taxes, and give all notices necessary and incidental to the due and lawful prosecution of the Work. As a condition of performance of this Contract, the CONTRACTOR shall pay all federal, state and local taxes incurred by the CONTRACTOR, in the performance of this Contract. Proof of payment of these taxes is a condition precedent to final payment by the DEPARTMENT under this Contract.
- 7.2.2 The CONTRACTOR's certification that taxes have been paid (as contained in the *Release of Contract*) will be verified with the Department of Revenue and Department of Labor, prior to final payment.
- 7.2.3 If any federal, state or local tax is imposed, charged, or repealed after the date of bid opening and is made applicable to and paid by the CONTRACTOR on the articles or supplies herein contracted for, then the Contract shall be increased or decreased accordingly by a Change Order.

7.3 Patented Devices, Materials and Processes

If the CONTRACTOR employs any design, device, material, or process covered by letters of patent, trademark or copyright, the CONTRACTOR shall provide for such use by suitable legal agreement with the patentee or owner. The CONTRACTOR and the Surety shall indemnify and save harmless the DEPARTMENT, any affected third party, or political subdivision from any and all claims for infringement by reason of the use of any such patented design, device, material or process, or any trademark or copyright, and shall indemnify the DEPARTMENT for any costs, expenses, and damages which it may be obliged to pay by reason of any infringement, at any time during the prosecution or after the completion of the Work.

7.4 Compliance of Specifications and Drawings:

If the CONTRACTOR observes that the Specifications and Drawings supplied by the DEPARTMENT are at variance with any Regulatory Requirements, CONTRACTOR shall give the Contracting Officer prompt written notice thereof, and any necessary changes will be authorized by one of the methods indicated in paragraph 9.2. as determined appropriate by the Contracting Officer. If the CONTRACTOR performs any Work knowing or having reason to know that it is contrary to such Regulatory Requirements, and without such notice to the Contracting Officer, the CONTRACTOR shall bear all costs arising therefrom; however, it shall not be the CONTRACTOR's primary responsibility to make certain that the Specifications and Drawings supplied by the DEPARTMENT are in accordance with such Regulatory Requirements.

7.5 Accident Prevention:

The CONTRACTOR shall comply with AS 18.60.075 and all pertinent provisions of the Construction Code Occupational Safety and Health Standards issued by the Alaska Department of Labor.

7.6 Sanitary Provisions:

The CONTRACTOR shall provide and maintain in a neat and sanitary condition such accommodations for the use of his employees and DEPARTMENT representatives as may be necessary to comply with the requirements of the State and local Boards of Health, or of other bodies or tribunals having jurisdiction.

7.7 Business Registration:

Comply with AS 08.18.011, as follows: "it is unlawful for a person to submit a bid or work as a contractor until he has been issued a certificate of registration by the Department of Commerce. A partnership or joint venture shall be considered registered if one of the general partners or venturers whose name appears in the name under which the partnership or venture does business is registered."

7.8 Professional Registration and Certification:

All craft trades, architects, engineers and land surveyors, electrical administrators, and explosive handlers employed under the Contract shall specifically comply with applicable provisions of AS 08.18, 08.48, 08.40, and 08.52. Provide copies of individual licenses within seven days following a request from the Contracting Officer.

7.9 Local Building Codes:

The CONTRACTOR shall comply with AS 35.10.025 which requires construction in accordance with applicable local building codes to include the obtaining of required permits.

7.10 Air Quality Control:

The CONTRACTOR shall comply with all applicable provisions of AS 46.03.04 as pertains to Air Pollution Control.

7.11 Archaeological or Paleontological Discoveries:

When the CONTRACTOR's operation encounters prehistoric artifacts, burials, remains of dwelling sites, or paleontological remains, such as shell heaps, land or sea mammal bones or tusks, the CONTRACTOR shall cease operations immediately and notify the Contracting Officer. 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 Contracting Officer 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 shall be covered by an appropriate Contract change document.

7.12 Applicable Alaska Preferences:

- 7.12.1 In determining the low bidder for State funded projects, a 5% bid preference has been given to "Alaska bidders", as required under AS 36.30.170. "Alaska bidder" means a person who:
- (1) holds a current Alaska business license;
 - (2) submits a bid for goods, services, or construction under the name as appearing on the person's current Alaska business license
 - (3) has maintained a place of business within the state staffed by the bidder or an employee of the bidder for a period of six months immediately preceding the date of the bid;
 - (4) is incorporated or qualified to do business under the laws of the state, is a sole proprietorship, and the proprietor is a resident of the state or is a partnership, and all partners are residents of the state; and
 - (5) if a joint venture, is composed entirely of ventures that qualify under (1) through (4), above.
- 7.12.2 In determining the low bidder for State funded projects, an "Alaska products" preference has been given as required under AS 36.30.326 - 36.30.332, when the bidder designates the use of Alaska products. The Bidder shall complete the Alaska Products Preference Worksheet per its instructions and submit it with the Bid

Proposal. If the successful Bidder/CONTRACTOR proposes to use an Alaska product and does not do so, a penalty will be assessed against the successful Bidder/CONTRACTOR in an amount equal to the product preference percentage granted to the successful Bidder/CONTRACTOR plus one percent multiplied by the total declared value of the Alaska products proposed but not used.

- 7.12.3 Pursuant to AS 36.15.050 and AS 36.30.322, "agricultural/wood" products harvested in Alaska shall be used in State funded projects whenever they are priced no more than seven percent above agricultural/wood products harvested outside the state and are of a like quality as compared with agricultural/wood products harvested outside the state, when such products are not utilized, the CONTRACTOR shall document the efforts he made towards obtaining agricultural/wood products harvested in Alaska and include in this documentation a written statement that he contacted the manufacturers and suppliers identified on the Department of Commerce and Economic Development's list of suppliers of Alaska forest products concerning the availability of agricultural/wood products harvested in Alaska and, if available, the product prices. The CONTRACTOR's use of agricultural/wood products that fail to meet the requirements of this section shall be subject to the provisions of paragraphs 12.6 through 12.9 relating to Defective Work.
- 7.12.4 The CONTRACTOR shall maintain records, in a format acceptable to the Contracting Officer, which establish the type and extent of "agricultural/wood" and "Alaska" products utilized. All record keeping and documentation associated with the requirements 7.12.2 and 7.12.3 of this paragraph, must be provided to the DEPARTMENT upon written request or as otherwise provided within the Contract Documents.

7.13 Wages and Hours of Labor:

- 7.13.1 One certified copy of all payrolls shall be submitted weekly to the State Department of Labor and, upon request, to the Contracting Officer to assure to assure compliance with AS 36.05.040, *Filing Schedule of Employees Wages Paid and Other Information*. The CONTRACTOR shall be responsible for the submission of certified copies of payrolls of all Subcontractors. The certification shall affirm that the payrolls are current and complete, that the wage rates contained therein are not less than the applicable rates referenced in these Contract Documents, and that the classification set forth for each laborer or mechanic conforms with the Work he performed. The CONTRACTOR and his Subcontractors shall attend all hearings and conferences and produce such books, papers, and documents all as requested by the Department of Labor. Should federal funds be involved, the appropriate federal agency shall also receive a copy of the CONTRACTOR's certified payrolls. Regardless of project funding source, copies of all certified payrolls supplied to the State Department of Labor by the CONTRACTOR shall be supplied also to the Project Manager upon request, including submittals made by, or on behalf of, subcontractors.
- 7.13.2 The following labor provisions shall also apply to this Contract:
- a. The CONTRACTOR and his Subcontractors shall pay all employees unconditionally and not less than once a week;
 - b. wages may not be less than those stated under AS 36.05.010, regardless of the contractual relationship between the CONTRACTOR or Subcontractors and laborers, mechanics, or field surveyors;
 - c. 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;
 - d. the DEPARTMENT 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
 1. the rates of wages required by the Contract to be paid laborers, mechanics, or field surveyors on the Work, and
 2. the rates of wages in fact received by laborers, mechanics or field surveyors.

- 7.13.3 Within three calendar days of award of a construction contract, the CONTRACTOR shall file a "Notice of Work" with the Department of Labor and shall pay all related fees. The Contracting Officer will not issue Notice to Proceed to the CONTRACTOR until such notice and fees have been paid to the State Department of Labor. Failure of the CONTRACTOR to file the Notice of Work and pay fees within this timeframe shall not constitute grounds for an extension of contract time or adjustment of contract price.

7.14 Overtime Work Hours and Compensation:

Pursuant to 40 U.S.C. 327-330 and AS 23.10.060 -.110, the CONTRACTOR shall not require nor permit any laborer or mechanic in any workweek in which he is employed on any Work under this Contract to work in excess of eight hours in any Calendar Day or in excess of forty hours in such workweek on Work subject to the provisions of the *Contract Work Hours and Safety Standards Act* unless such laborer or mechanic receives compensation at a rate not less than one and one half times his basic rate of pay for all such hours worked in excess of eight hours in any Calendar Day or in excess of forty hours in such workweek whichever is the greater number of overtime hours. In the event of any violation of this provision, the CONTRACTOR shall be liable to any affected employee for any amounts due and penalties and to the DEPARTMENT for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic employed in violation of this provision in the sum of \$10.00 for each Calendar Day on which such employee was required or permitted to be employed on such Work in excess of eight hours or in excess of the standard workweek of forty hours without payment of the overtime wages required by this paragraph.

ARTICLE 8 - OTHER WORK

8.1 Related Work at Site:

- 8.1.1 The DEPARTMENT reserves the right at any time to contract for and perform other or additional work on or near the Work covered by the Contract.
- 8.1.2 When separate contracts are let within the limits of the Project, the CONTRACTOR shall conduct his Work so as not to interfere with or hinder the work being performed by other contractors. The CONTRACTOR when working on the same Project with other contractors shall cooperate with such other contractors. The CONTRACTOR shall join his Work with that of the others in an acceptable manner and shall perform it in proper sequence to that of others.
- 8.1.3 If the fact that other such work is to be performed is identified or shown in the Contract Documents the CONTRACTOR shall assume all liability, financial or otherwise, in connection with this Contract and indemnify and save harmless the DEPARTMENT from any and all damages or claims that may arise because of inconvenience, delay, or loss experienced by the CONTRACTOR because of the presence and operations of other contractors.
- 8.1.4 If the fact that such other work is to be performed was not identified or shown in the Contract Documents, written notice thereof will be given to the CONTRACTOR prior to starting any such other work. If the CONTRACTOR believes that such performance will require an increase in Contract Price or Contract Time, the CONTRACTOR shall notify the Contracting Officer of such required increase within fifteen (15) calendar days following receipt of the Contracting Officer's notice. Should the Contracting Officer find such increase(s) to be justified, a Change Order will be executed.

8.2 Access, Cutting, and Patching:

The CONTRACTOR shall afford each utility owner and any other contractor who is a party to such a direct contract with the DEPARTMENT (or the DEPARTMENT, if the DEPARTMENT is performing the additional work with the DEPARTMENT'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 the work of others. 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 such other work with the written consent of the Contracting Officer. The duties and responsibilities of the CONTRACTOR under this paragraph are for the benefit of other contractors to the extent that there are comparable provisions for the benefit of the CONTRACTOR in said direct contracts between the DEPARTMENT and other contractors.

8.3 Defective Work by Others:

If any part of the CONTRACTOR's Work depends for proper execution or results upon the work of any such other contractor, utility owner, or the DEPARTMENT, the CONTRACTOR shall inspect and promptly report to the Contracting Officer in writing any delays, defects or deficiencies in such work that render it unavailable or unsuitable for such proper execution and results. The CONTRACTOR's failure to so report will constitute an acceptance of the other work as fit and proper for integration with CONTRACTOR's Work except for latent or nonapparent defects and deficiencies in the other work.

8.4 Coordination:

If the DEPARTMENT contracts with others for the performance of other work at the site, Contracting Officer will have authority and responsibility for coordination of the activities among the various prime contractors.

ARTICLE 9 - CHANGES

9.1 DEPARTMENT's Right to Change:

Without invalidating the Contract and without notice to any Surety, the DEPARTMENT may, at any time or from time to time, order additions, deletions or revisions in the Work within the general scope of the Contract, including but not limited to changes:

- 9.1.1 In the Contract Documents;
- 9.1.2 In the method or manner of performance of the Work;
- 9.1.3 In State-furnished facilities, equipment, materials, services, or site;
- 9.1.4 Directing acceleration in the performance of the Work.

9.2 Authorization of Changes within the General Scope:

Additions, deletions, or revisions in the Work within the general scope of the Contract as specified in 9.1 shall be authorized by one or more of following ways:

- 9.2.1 Directive (pursuant to paragraph 9.3)
- 9.2.2 A Change Order (pursuant to paragraph 9.4)
- 9.2.3 DEPARTMENT's acceptance of Shop Drawing variations from the Contract Documents as specifically identified by the CONTRACTOR as required by paragraph 6.20.4.

9.3 Directive:

- 9.3.1 The Contracting Officer shall provide written clarification or interpretation of the Contract Documents (pursuant to paragraph 3.6).
- 9.3.2 The Contracting Officer may authorize minor variations in the Work from the requirements of the Contract Documents which do not involve an adjustment in the Contract Price or the Contract Time and are consistent with the overall intent of the Contract Documents.
- 9.3.3 The Contracting Officer may order the Contractor to correct Defective Work or methods which are not in conformance with the Contract Documents.
- 9.3.4 The Contracting Officer may direct the commencement or suspension of Work or emergency related Work (as provided in paragraph 6.19).
- 9.3.5 Upon the issuance of a Directive to the CONTRACTOR by the Contracting Officer, the CONTRACTOR shall proceed with the performance of the Work as prescribed by such Directive.
- 9.3.6 If the CONTRACTOR believes that the changes noted in a Directive may cause an increase in the Contract Price or an extension of Contract Time, the CONTRACTOR shall immediately provide written notice to the Contracting Officer depicting such increases before proceeding with the Directive, except in the case of an emergency. If the Contracting Officer finds the increase in Contract Price or the extension of Contract Time justified, a Change Order will be issued. If however, the Contracting Officer does not find that a Change Order is justified, the Contracting Officer may direct the CONTRACTOR to proceed with the Work. The CONTRACTOR shall cooperate with the Contracting Officer in keeping complete daily records of the cost of such Work. If a Change Order is ultimately determined to be justified, in the absence of agreed prices and unit prices, payment for such Work will be made on a "cost of the work basis" as provided in 10.4

9.4 Change Order:

A change in Contract Time, Contract Price, or responsibility may be made for changes within the scope of the Work by Change Order. Upon receipt of an executed Change Order, the CONTRACTOR shall promptly proceed with the Work involved which will be performed under the applicable conditions of the Contract Documents except as otherwise specifically provided. Changes in Contract Price and Contract Time shall be made in accordance with Articles 10 and 11. A Change Order shall be considered executed when it is signed by the DEPARTMENT.

9.5 Shop Drawing Variations:

Variations by shop drawings shall only be eligible for consideration under 9.4 when the conditions affecting the price, time, or responsibility are identified by the CONTRACTOR in writing and a request for a Change Order is submitted as per 6.20.4.

9.6 Changes Outside the General Scope; Supplemental Agreement:

Any change which is outside the general scope of the Contract, as determined by the Contracting Officer, must be authorized by a Supplemental Agreement signed by the appropriate representatives of the DEPARTMENT and the CONTRACTOR.

9.7 Unauthorized Work:

The CONTRACTOR shall not be entitled to an increase in the Contract Price or an extension of the Contract Time with respect to any work performed that is not required by the Contract Documents as amended, modified and supplemented as provided in this Article 9, except in the case of an emergency as provided in paragraph 6.19 and except in the case of uncovering Work as provided in paragraph 12.4.2.

9.8 Notification of Surety:

If notice of any change affecting the general scope of the Work or the provisions of the Contract Documents (including, but not limited to, Contract Price or Contract Time) 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 will be adjusted accordingly.

9.9 Differing Site Conditions:

9.9.1 The CONTRACTOR shall promptly, and before such conditions are disturbed (except in an emergency as permitted by paragraph 6.19), notify the Contracting Officer in writing of: (1) subsurface or latent physical conditions at the site differing materially from those indicated in the Contract, and which could not have been discovered by a careful examination of the site, or (2) unknown physical conditions at the site, of an unusual nature, differing materially from those ordinarily encountered and generally recognized as inherent in work of the character provided for in this Contract. The Contracting Officer shall promptly investigate the conditions, and if the Contracting Officer finds that such conditions do materially so differ and cause an increase or decrease in the CONTRACTOR's cost of, or time required for, performance of this Contract, an adjustment shall be made and the Contract modified in writing accordingly. An adjustment in compensation shall be computed under Article 10.

9.9.2 Any claim for additional compensation by the CONTRACTOR under this clause shall be made in accordance with Article 15. In the event that the Contracting Officer and the CONTRACTOR are unable to reach an agreement concerning an alleged differing site condition, the CONTRACTOR will be required to keep an accurate and detailed record which will indicate the actual "cost of the work" done under the alleged differing site condition. Failure to keep such a record shall be a bar to any recovery by reason of such alleged differing site conditions. The Contracting Officer shall be given the opportunity to supervise and check the keeping of such records.

9.10 **Interim Work Authorization:**

An Interim Work Authorization may be used to establish a change within the scope of the Work; however, only a Change Order shall establish associated changes in Contract Time and Price. Work authorized by Interim Work Authorization shall be converted to a Change Order. The basis of payment shall be as stated in the Interim Work Authorization, unless it states that the basis of payment has not been established and is to be negotiated, in which case the Cost of the Work shall be documented pursuant to Article 10.4, to establish a basis for negotiating a lump sum price for the Change Order.

ARTICLE 10 - CONTRACT PRICE; COMPUTATION AND CHANGE

10.1 Contract Price:

The Contract Price constitutes the total compensation (subject to authorized adjustments) payable to the CONTRACTOR for performing the Work. All duties, responsibilities and obligations assigned to or undertaken by the CONTRACTOR shall be at his expense without change in the Contract Price. The Contract Price may only be changed by a Change Order or Supplemental Agreement.

10.2 Claim for Price Change:

Any claim for an increase or decrease in the Contract Price shall be submitted in accordance with the terms of Article 15, and shall not be allowed unless notice requirements of this Contract have been met.

10.3 Change Order Price Determination:

The value of any Work covered by a Change Order for an increase or decrease in the Contract Price shall be determined in one of the following ways:

- 10.3.1 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 (subject to the provisions of subparagraphs 10.9.1 through 10.9.3, inclusive).
- 10.3.2 By mutual acceptance of a lump sum (fixed price) which includes overhead and profit. The lump sum (fixed price) shall be negotiated on the basis of the estimated "cost of the work" in accordance with Articles 10.4 and 10.5. The following maximum rates of cost markup (to cover both overhead and profit of the CONTRACTOR) shall be used in the negotiation of a Lump Sum Change Order:
 - a. For costs incurred under paragraphs 10.4.1 and 10.4.2, the CONTRACTOR's fee shall be twenty percent;
 - b. For costs incurred under paragraph 10.4.3, the CONTRACTOR's fee shall be ten percent; and if a subcontract is on the basis of "cost of the work" plus a fee, the maximum allowable to CONTRACTOR on account of overhead and profit for itself and all Subcontractors and multiple tiers thereof shall be fifteen percent of the cost incurred by the subcontractor actually performing the work;
 - c. No fee shall be payable on the basis of costs itemized under paragraphs 10.4.4, 10.4.5 and 10.5;
 - d. The amount of credit to be allowed by the CONTRACTOR to the DEPARTMENT for any such change which results in a net decrease in cost will be the amount of the actual net decrease plus a deduction in CONTRACTOR's fee by an amount equal to twenty percent of the net decrease; and
 - e. When both additions and credits are involved in any one change, the adjustment in CONTRACTOR's fee shall be computed on the basis of the net change in accordance with paragraphs 10.3.2.a through 10.3.2.d, inclusive
- 10.3.3 When 10.3.1 and 10.3.2 are inapplicable, on the basis of the "cost of the work" (determined as provided in paragraphs 10.4 and 10.5) plus a CONTRACTOR's fee for overhead and profit (determined as provided in paragraph 10.6).
- 10.3.4 Before a Change Order or Supplemental Agreement is Approved, the CONTRACTOR shall submit cost or pricing data regarding the changed or extra Work. The CONTRACTOR shall certify that the data submitted is, to his best knowledge and belief, accurate, complete and current as of a mutually determined specified date and that such data will continue to be accurate and complete during the performance of the changed or extra Work.

10.4 Cost of the Work:

The term "cost of the work" means the sum of all costs necessarily incurred and paid by the CONTRACTOR in the proper performance of the Work. Except as otherwise may be agreed to in writing by the DEPARTMENT, such costs shall be in amount 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 subparagraph 10.5:

- 10.4.1 Payroll costs for employees in the direct employ of the CONTRACTOR in the performance of the Work under schedules of job classifications agreed upon by the DEPARTMENT and the CONTRACTOR. Payroll costs for employees not employed full time on the Work shall be apportioned on the basis of their time spent on the Work. Payroll costs shall be limited to, salaries and wages plus the cost of fringe benefits which shall include social security contributions, unemployment, excise and payroll taxes, workers' or workmen's compensation, health and retirement benefits, bonuses, sick leave, vacation and holiday pay applicable thereto. Such employees shall include manual workers up through the level of foreman but shall not include general foremen, superintendents, and non-manual employees. The expenses of performing Work after regular working hours, on Saturday, Sunday or legal holidays, shall be included in the above to the extent authorized by the DEPARTMENT.
- 10.4.2 Cost of all materials and equipment furnished and incorporated or consumed in the Work, including costs of transportation and storage thereof, and Suppliers' field services required in connection therewith. All cash discounts shall accrue to the CONTRACTOR unless the DEPARTMENT deposits funds with the CONTRACTOR with which to make payments, in which case the cash discounts shall accrue to the DEPARTMENT. All trade discounts, rebates and refunds and all returns from sale of surplus materials and equipment shall accrue to the DEPARTMENT, and the CONTRACTOR shall make provisions so that they may be obtained.
- 10.4.3 Payments made by the CONTRACTOR to Subcontractors for Work performed by Subcontractors. If required by the DEPARTMENT, CONTRACTOR shall obtain competitive quotes from Subcontractors or Suppliers acceptable to the CONTRACTOR and shall deliver such quotes to the DEPARTMENT who will then determine which quotes will be accepted. If a subcontract provides that the Subcontractor is to be paid on the basis of "cost of the work" plus a fee, the Subcontractor "cost of the work" shall be determined in the same manner as the CONTRACTOR's "cost of work" as described in paragraphs 10.4 through 10.5; and the Subcontractor's fee shall be established as provided for under subparagraph 10.6.2 clause b. All subcontracts shall be subject to the other provisions of the Contract Documents insofar as applicable.
- 10.4.4 Costs of special consultants (including but not limited to engineers, architects, testing laboratories, and surveyors) employed for services necessary for the completion of the Work.
- 10.4.5 Supplemental costs including the following:
 - a. The proportion of necessary transportation, travel and subsistence expenses of the CONTRACTOR's employees incurred in discharge of duties connected with the Work.
 - b. Cost, including transportation and maintenance, of all materials, supplies, equipment, machinery, appliances, office and temporary facilities at the site and hand tools not owned by the workers, which are consumed in the performance of the Work, and cost less market value of such items used but not consumed which remain the property of the CONTRACTOR.
 - c. Rentals of all construction equipment and machinery and the parts thereof whether rented from the CONTRACTOR or others in accordance with rental agreements Approved by the DEPARTMENT and the costs of transportation, loading, unloading, installation, dismantling and removal thereof - all in accordance with terms of said rental agreements. The rental of any such equipment, machinery or parts shall cease when the use thereof is no longer necessary for the Work.

For any machinery or special equipment (other than small tools) which has been authorized by the Project

Manager, the CONTRACTOR shall receive the rental rates in the current edition and appropriate volume of the "Rental Rate Blue Book for Construction Equipment", published by Dataquest, Inc., 1290 Ridder Park Drive, San Jose, CA 95131. Hourly rental rates shall be determined as follows:

The established hourly rental rate shall be equal to the adjusted monthly rate for the basic equipment plus the adjusted monthly rate for applicable attachments, both divided by 176, and multiplied by the area adjustment factor, plus the estimated hourly operating cost.

The adjusted monthly rate is that resulting from application of the rate adjustment formula in order to eliminate replacement cost allowances in machine depreciation and contingency cost allowances.

Attachments shall not be included unless required for the time and materials work.

For equipment not listed in The Blue Book, the CONTRACTOR shall receive a rental rate as agreed upon before such work is begun. If agreement cannot be reached, the DEPARTMENT reserves the right to establish a rate based on similar equipment in the Blue Book or prevailing commercial rates in the area.

These rates shall apply for equipment used during the CONTRACTOR's regular shift of 10 hours per day. Where the equipment is used more than 10 hours per day, either on the CONTRACTOR's normal work or on time and materials, and either on single or multiple shifts, an overtime rate, computed as follows, shall apply:

The hourly overtime rate shall be equal to the adjusted monthly rate for the basic equipment plus the adjusted monthly rate for applicable attachments, both divided by 352, and multiplied by the area adjustment factor, plus the estimated hourly operating cost.

Equipment which must be rented or leased specifically for work required under this section shall be authorized in writing by the Project Manager. The CONTRACTOR shall be paid invoice price plus 15%.

When it is necessary to obtain equipment from sources beyond the project limits exclusively for time and materials, work, the actual cost of transferring the equipment to the site of the work and return will be allowed as an additional item of expense. Where the move is made by common carrier, the move-in allowance will be limited to the amount of the freight bill or invoice. If the CONTRACTOR hauls the equipment with his own forces, the allowance will be limited to the rental rate for the hauling unit plus operator wages. In the event that the equipment is transferred under its own power, the moving allowance will be limited to one-half of the normal hourly rental rate plus operator's wages. In the event that the move-out is to a different location, payment will in no instance exceed the amount of the move-in. Move-in allowance shall not be made for equipment brought to the project for time and materials work which is subsequently retained on the project and utilized for completion of contract items, camp maintenance, or related work.

Equipment ordered to be on a stand-by basis shall be paid for at the stand-by rental rate for the number of hours in the CONTRACTOR'S normal work shift, but not to exceed 8 hours per day. The stand-by rental rate shall be computed as follows:

The hourly stand-by rate shall be equal to the adjusted monthly rate for the basic equipment plus the adjusted monthly rate for applicable attachments, both divided by 352, all multiplied by the area adjustment factor.

Time will be recorded to the nearest one-quarter hour for purposes of computing compensation to the CONTRACTOR for equipment utilized under these rates.

The equipment rates as determined above shall be full compensation, including overhead and profit, for providing the required equipment and no additional compensation will be made for other costs such as, but not limited to, fuels, lubricants, replacement parts or maintenance costs. Cost of repairs, both major and minor, as well as charges for mechanic's time utilized in servicing equipment to ready it for use prior to moving to the project and similar charges will not be allowed.

- d. Sales, consumer, use or similar taxes related to the Work, and for which the CONTRACTOR is liable, imposed by Regulatory Requirements.
- e. Deposits lost for causes other than negligence of the CONTRACTOR, any Subcontractor or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, and royalty payments and fees for permits and licenses.
- f. Losses and damages (and related expenses), not compensated by insurance or otherwise, to the Work or otherwise sustained by the CONTRACTOR in connection with the performance and furnishing of the Work provided they have resulted from causes other than the negligence of the CONTRACTOR, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable. Such losses shall include settlements made with the written consent and Approval of the DEPARTMENT. No such losses, damages and expenses shall be included in the "cost of the work" for the purpose of determining the CONTRACTOR's fee. If, however, any such loss or damage requires reconstruction and the CONTRACTOR is placed in charge thereof, the CONTRACTOR shall be paid for services a fee proportionate to that stated in paragraphs 10.6.2.a and 10.6.2.b.
- g. The cost of utilities, fuel and sanitary facilities at the site.
- h. Minor expenses such as telegrams, long distance telephone calls, telephone service at the site, expressage and similar petty cash items in connection with the Work.
- I. Cost of premiums for additional bonds and insurance required because of changes in the Work and premiums for property insurance coverage within the limits of the deductible amounts established by the DEPARTMENT in accordance with Article 5.

10.5 Excluded Costs:

The term "cost of the work" shall not include any of the following:

- 10.5.1 Payroll costs and other compensation of CONTRACTOR's officers, executives, principals (of partnership and sole proprietorships), general managers, engineers, architects, estimators, attorneys, auditors, accountants, purchasing and contracting agency, expeditors, 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 and not specifically included in the agreed upon schedule of job classifications referred to in paragraph 10.4.1 or specifically covered by paragraph 10.4.4 all of which are to be considered administrative costs covered by the CONTRACTOR's fee.
- 10.5.2 Expenses of CONTRACTOR's principal and branch offices other than CONTRACTOR's office at the site.
- 10.5.3 Any part of CONTRACTOR's capital expenses including interest on CONTRACTOR's capital employed for the Work and charges against CONTRACTOR for delinquent payments.
- 10.5.4 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 subparagraph 10.4.5.i above).
- 10.5.5 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.
- 10.5.6 Other overhead or general expense costs of any kind and the costs of any item not specifically and expressly included in paragraph 10.4.

10.6 CONTRACTOR's Fee:

The CONTRACTOR's fee allowed to CONTRACTOR for overhead and profit shall be determined as follows.

- 10.6.1 A mutually acceptable fixed fee; or if none can be agreed upon.
- 10.6.2 A fee based on the following percentages of the various portions of the "cost of the work":
 - a. For costs incurred under paragraphs 10.4.1 and 10.4.2, the CONTRACTOR's fee shall be fifteen percent;
 - b. For costs incurred under paragraph 10.4.3, the CONTRACTOR's fee shall be ten percent; and if a subcontract is on the basis of "cost of the work" plus a fee, the maximum allowable to CONTRACTOR on account of overhead and profit for itself and all Subcontractors and multiple tiers thereof shall be fifteen percent of the cost incurred by the subcontractor actually performing the work;
 - c. No fee shall be payable on the basis of costs itemized under paragraphs 10.4.4, 10.4.5 and 10.5;
 - d. The amount of credit to be allowed by the CONTRACTOR to the DEPARTMENT for any such change which results in a net decrease in cost will be the amount of the actual net decrease plus a deduction in CONTRACTOR's fee by an amount equal to fifteen percent of the net decrease; and
 - e. When both additions and credits are involved in any one change, the adjustment in CONTRACTOR's fee shall be computed on the basis of the net change in accordance with paragraphs 10.6.2.a through 10.6.2.d, inclusive.

10.7 Cost Breakdown:

Whenever the cost of any Work is to be determined pursuant to paragraphs 10.4 and 10.5, the CONTRACTOR will submit in a form acceptable to the DEPARTMENT an itemized cost breakdown together with supporting data.

10.8 Cash Allowances:

It is understood that CONTRACTOR has included in the Contract Price all allowances so named in the Contract Documents and shall cause the Work so covered to be done by such Subcontractors or Suppliers and for such sums within the limit of the allowances as may be acceptable to the Contracting Officer. CONTRACTOR agrees that:

- 10.8.1 The allowances include the cost to CONTRACTOR (less any applicable trade discounts) of materials and equipment required by the allowances to be delivered at the site, and all applicable taxes; and
- 10.8.2 CONTRACTOR's cost for unloading and handling on the site, labor, installation costs, overhead, profit and other expenses contemplated for the allowances have been included in the Contract Price and not in the allowances. No demand for additional payment on account of any thereof will be valid.

Prior to final payment, an appropriate Change Order will be issued to reflect actual amounts due the CONTRACTOR on account of Work covered by allowances, and the Contract Price shall be correspondingly adjusted.

10.9 Unit Price Work:

- 10.9.1 Where the Contract Documents provide that all or part of the Work is to be Unit Price Work, initially the Contract Price will be deemed to include for all Unit Price Work an amount equal to the sum of the established unit prices for each separately identified item of Unit Price Work times the estimated quantity of each item as indicated in the Contract. The estimated quantities of items of Unit Price Work are not guaranteed and are solely for the purpose of comparison of bids and determining an initial Contract Price. Determinations of the actual quantities and classifications of Unit Price Work performed by the CONTRACTOR will be made by the

DEPARTMENT in accordance with paragraph 10.10.

- 10.9.2 Each unit price will be deemed to include an amount considered by the CONTRACTOR to be adequate to cover the CONTRACTOR's overhead and profit for each separately identified item. If the "Basis of Payment" clause in the Contract Documents relating to any unit price in the bid schedule requires that the said unit price cover and be considered compensation for certain work or material essential to the item, this same work or material will not also be measured or paid for under any other pay item which may appear elsewhere in the Contract Documents.
- 10.9.3 Payment to the CONTRACTOR shall be made only for the actual quantities of Work performed and accepted or materials furnished, in conformance with the Contract Documents. When the accepted quantities of Work or materials vary from the quantities stated in the bid schedule, or change documents, the CONTRACTOR shall accept as payment in full, payment at the stated unit prices for the accepted quantities of Work and materials furnished, completed and accepted; except as provided below:
- a. When the quantity of Work to be done or material to be furnished under any item, for which the total cost of the item exceeds 10% of the total Contract Price, is increased by more than 25 percent of the quantity stated in the bid schedule, or change documents, either party to the Contract, upon demand, shall be entitled to an equitable unit price adjustment on that portion of the Work above 125 percent of the quantity stated in the bid schedule.
 - b. When the quantity of Work to be done or material to be furnished under any major item, for which the total cost of the item exceeds 10% of the total Contract Price, is decreased by more than 25 percent of the quantity stated in the bid schedule, or change documents either party to the Contract, upon demand, shall be entitled to an equitable price adjustment for the quantity of Work performed or material furnished, limited to a total payment of not more than 75 percent of the amount originally bid for the item.

10.10 Determinations for Unit Prices:

The Contracting Officer will determine the actual quantities and classifications of Unit Price Work performed by the CONTRACTOR. The Contracting Officer will review with the CONTRACTOR preliminary determinations on such matters before finalizing the costs and quantities on the Schedule of Values. The Contracting Officer's acknowledgment thereof will be final and binding on the CONTRACTOR, unless, within 10 days after the date of any such decisions, the CONTRACTOR delivers to the Contracting Officer written notice of intention to appeal from such a decision.

ARTICLE 11 - CONTRACT TIME; COMPUTATION AND CHANGE

11.1 Commencement of Contract Time; Notice to Proceed:

The Contract Time will commence to run on the day indicated in the Notice to Proceed.

11.2 Starting the Work:

No Work on Contract items shall be performed before the effective date of the Notice to Proceed. The CONTRACTOR shall notify the Contracting Officer at least 24 hours in advance of the time actual construction operations will begin. The CONTRACTOR may request a limited Notice to Proceed after Award has been made, to permit him to order long lead materials which could cause delays in Project completion. However, granting is within the sole discretion of the Contracting Officer, and refusal or failure to grant a limited Notice to Proceed shall not be a basis for claiming for delay, extension of time, or alteration of price.

11.3 Computation of Contract Time:

11.3.1 When the Contract Time is specified on a Calendar Day basis, all Work under the Contract shall be completed within the number of Calendar Days specified. The count of Contract Time begins on the day following receipt of the Notice to Proceed by the CONTRACTOR, if no starting day is stipulated therein.

Calendar Days shall continue to be counted against Contract Time until and including the date of Substantial Completion of the Work.

11.3.2 When the Contract completion time is specified as a fixed calendar date, it shall be the date of Substantial Completion.

11.3.3 The Contract Time shall be as stated on form 25D-9, Proposal.

11.4 Time Change:

The Contract Time may only be changed by a Change Order or Supplemental Agreement.

11.5 Extension Due to Delays:

The right of the CONTRACTOR to proceed shall not be terminated nor the CONTRACTOR charged with liquidated or actual damages because of delays to the completion of the Work due to unforeseeable causes beyond the control and without the fault or negligence of the CONTRACTOR, including, but not restricted to the following: acts of God or of the public enemy, acts of the DEPARTMENT in its contractual capacity, acts of another contractor in the performance of a contract with the DEPARTMENT, floods, fires, epidemics, quarantine restrictions, strikes, freight embargoes, unusually severe weather and delays of Subcontractors or Suppliers due to such causes. Any delay in receipt of materials on the site, caused by other than one of the specifically mentioned occurrences above, does not of itself justify a time extension, provided that the CONTRACTOR shall within twenty four (24) hours from the beginning of any such delay (unless the Contracting Officer shall grant a further period of the time prior to the date of final settlement of the Contract), notify the Contracting Officer in writing of the cause of delay. The Contracting Officer shall ascertain the facts and the extent of the delay and extend the time for completing the Work when the findings of fact justify such an extension.

11.6 Essence of Contract:

All time limits stated in the Contract Documents are of the essence of the Contract.

11.7 Reasonable Completion Time:

It is expressly understood and agreed by and between the CONTRACTOR and the DEPARTMENT that the date of

beginning and the time for Substantial Completion of the Work described herein are reasonable times for the completion of the Work.

11.8 Delay Damages:

Whether or not the CONTRACTOR's right to proceed with the Work is terminated, he and his Sureties shall be liable for damages resulting from his refusal or failure to complete the Work within the specified time.

Liquidated and actual damages for delay shall be paid by the CONTRACTOR or his Surety to the DEPARTMENT in the amount as specified in the Supplementary Conditions for each Calendar Day the completion of the Work or any part thereof is delayed beyond the time required by the Contract, or any extension thereof. If a listing of incidents resulting from a delay and expected to give rise to actual or liquidated damages is not established by the Contract Documents, then the CONTRACTOR and his Surety shall be liable to the DEPARTMENT for any actual damages occasioned by such delay. The CONTRACTOR acknowledges that the liquidated damages established herein are not a penalty but rather constitute an estimate of damages that the DEPARTMENT will sustain by reason of delayed completion. These liquidated and actual damages are intended as compensation for losses anticipated to arise, and include those items enumerated in the Supplementary Conditions.

These damages will continue to run both before and after termination in the event of default termination. These liquidated damages do not cover excess costs of completion or DEPARTMENT costs, fees, and charges related to reprourement. If a default termination occurs, the CONTRACTOR or his Surety shall pay in addition to these damages, all excess costs and expenses related to completion as provided by Article 14.2.5.

ARTICLE 12 - QUALITY ASSURANCE

12.1 Warranty and Guaranty:

The CONTRACTOR warrants and guarantees to the DEPARTMENT that all Work will be in accordance with the Contract Documents and will not be Defective. Prompt notice of all defects shall be given to the CONTRACTOR. All Defective Work, whether or not in place, may be rejected, corrected or accepted as provided for in this article.

12.2 Access to Work:

The DEPARTMENT and the DEPARTMENT's representatives, testing agencies and governmental agencies with jurisdiction interests will have access to the Work at reasonable times for their observation, inspecting and testing. The CONTRACTOR shall provide proper and safe conditions for such access.

12.3 Tests and Inspections:

- 12.3.1 The CONTRACTOR shall give the Contracting Officer timely notice of readiness of the Work for all required inspections, tests or Approvals.
- 12.3.2 If Regulatory Requirements of any public body having jurisdiction require any Work (or part thereof) to specifically be inspected, tested or approved, the CONTRACTOR shall assume full responsibility therefor, pay all costs in connection therewith and furnish the Contracting Officer the required certificates of inspection, testing or approval. The CONTRACTOR shall also be responsible for and shall pay all costs in connection with any inspection or testing required in connection with DEPARTMENT's acceptance of a Supplier of materials or equipment proposed to be incorporated in the Work, or of materials or equipment submitted for Approval 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 CONTRACTOR. The DEPARTMENT may perform additional tests and inspections which it deems necessary to insure quality control. All such failed tests or inspections shall be at the CONTRACTOR's expense.
- 12.3.4 If any Work (including the work of others) that is to be inspected, tested or Approved is covered without written concurrence of the Contracting Officer, it must, if requested by the Contracting Officer, be uncovered for observation. Such uncovering shall be at the CONTRACTOR's expense unless the CONTRACTOR has given the Contracting Officer timely notice of CONTRACTOR's intention to cover the same and the Contracting Officer has not acted with reasonable promptness in response to such notice.
- 12.3.5 Neither observations nor inspections, tests or Approvals by the DEPARTMENT or others shall relieve the CONTRACTOR from the CONTRACTOR's obligations to perform the Work in accordance with the Contract Documents.

12.4 Uncovering Work:

- 12.4.1 If any Work is covered contrary to the written request of the Contracting Officer, it must, if requested by the Contracting Officer, be uncovered for the Contracting Officer's observation and replaced at the CONTRACTOR's expense.

12.4.2 If the Contracting Officer considers it necessary or advisable that covered Work be observed inspected or tested, the CONTRACTOR, at the Contracting Officer's request, shall uncover, expose or otherwise make available for observation, inspection or testing as the Contracting Officer 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 of such uncovering, exposure, observation, inspection and testing and of satisfactory reconstruction, (including but not limited to fees and charges of engineers, architects, attorneys and other professionals) and the DEPARTMENT shall be entitled to an appropriate decrease in the Contract Price. If, however, such Work is not found to be Defective, the CONTRACTOR shall be allowed an increase in the Contract Price or an extension of the Contract Time, or both, directly attributable to such uncovering, exposure, observation, inspection, testing and reconstruction.

12.5 DEPARTMENT May Stop the Work:

If the Work is Defective, or the CONTRACTOR fails to supply suitable materials or equipment, or fails to furnish or perform the Work in such a way that the completed Work will conform to the Contract Documents, the Contracting Officer 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 Contracting Officer to stop the Work shall not give rise to any duty on the part of the Contracting Officer to exercise this right for the benefit of the CONTRACTOR or any other party.

12.6 Correction or Removal of Defective Work:

If required by the Contracting Officer, the CONTRACTOR shall promptly, as directed, either correct all Defective Work, whether or not fabricated, installed or completed, or, if the Work has been rejected by the Contracting Officer, remove it from the site and replace it with Work which conforms to the requirements of the Contract Documents. The CONTRACTOR shall bear all direct, indirect and consequential costs of such correction or removal (including but not limited to fees and charges of engineers, architects, attorneys and other professionals) made necessary thereby.

12.7 One Year Correction Period:

If within one year after the date of Substantial Completion of the relevant portion of the work or such longer period of time as may be prescribed by Regulatory Requirements 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 DEPARTMENT and in accordance with the Contracting Officer's written instructions, either correct such Defective Work, or, if it has been rejected by the Contracting Officer, remove it from the site and replace it with conforming Work. If the CONTRACTOR does not promptly comply with the terms of such instructions, or in an emergency where delay would cause serious risk of loss or damage, the DEPARTMENT may have the Defective Work corrected or the rejected Work removed and replaced, and all direct, indirect and consequential costs of such removal and replacement (including but not limited to fees and charges of engineers, architects, attorneys and other professionals) will be paid by the CONTRACTOR. In special circumstances where a particular item of equipment is placed in continuous service for the benefit of the DEPARTMENT before Substantial Completion of all the Work, the correction period for that item may begin on an earlier date if so provided in the Specifications or by Change Order. Provisions of this paragraph are not intended to shorten the statute of limitations for bringing an action.

12.8 Acceptance of Defective Work:

Instead of requiring correction or removal and replacement of Defective Work, the Contracting Officer may accept Defective Work, the CONTRACTOR shall bear all direct, indirect and consequential costs attributable to the Contracting Officer's evaluation of and determination to accept such Defective Work (costs to include but not be limited to fees and charges of engineers, architects, attorneys and other professionals). 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 DEPARTMENT shall be entitled to an appropriate decrease in the Contract Price. If the DEPARTMENT has already made final payment to the CONTRACTOR, an appropriate amount shall be paid by the CONTRACTOR or his Surety to the DEPARTMENT.

12.9 DEPARTMENT May Correct Defective Work:

If the CONTRACTOR fails within a reasonable time after written notice from the Contracting Officer to proceed to correct Defective Work or to remove and replace rejected Work as required by the Contracting Officer in accordance with paragraph 12.6, or if the CONTRACTOR fails to perform the Work in accordance with the Contract Documents, or if the CONTRACTOR fails to comply with any other provision of the Contract Documents, the DEPARTMENT may, after 7 days' written notice to the CONTRACTOR, correct and remedy any such deficiency. In exercising the rights and remedies under this paragraph the DEPARTMENT shall proceed expeditiously. To the extent necessary to complete corrective and remedial action, the Contracting Officer may exclude the CONTRACTOR from all or part of the site, take possession of all or part of the Work, and suspend the CONTRACTOR's services related thereto, take possession of the CONTRACTOR's tools, appliances, construction equipment and machinery at the site and incorporate in the Work all materials and equipment stored at the site or approved remote storage sites or for which the DEPARTMENT has paid the CONTRACTOR but which are stored elsewhere. The CONTRACTOR shall allow the Contracting Officer and his authorized representatives such access to the site as may be necessary to enable the Contracting Officer to exercise the rights and remedies under this paragraph. All direct, indirect and consequential costs of the DEPARTMENT in exercising such rights and remedies will be charged against the CONTRACTOR, and a Change Order will be issued incorporating the necessary revisions in the Contract Documents with respect to the Work; and the DEPARTMENT shall be entitled to an appropriate decrease in the Contract Price. Such direct, indirect and consequential costs will include but not be limited to fees and charges of engineers, architects, attorneys and other professionals, all court and arbitration costs and all costs of repair and replacement of work of others destroyed or damaged by correction, removal or replacement of the CONTRACTOR's Defective Work. The CONTRACTOR shall not be allowed an extension of time because of any delay in performance of the work attributable to the exercise, by the Contracting Officer, of the DEPARTMENT's rights and remedies hereunder.

ARTICLE 13 - PAYMENTS TO CONTRACTOR AND COMPLETION

13.1 Schedule of Values:

The Schedule of Values established as provided in paragraph 6.6 will serve as the basis for progress payments and will be incorporated into a form of Application for Payment acceptable to the Contracting Officer. Progress payments on account of Unit Price Work will be based on the number of units completed.

13.2 Preliminary Payments:

Upon approval of the Schedule of Values the CONTRACTOR may be paid for direct costs substantiated by paid invoices and other prerequisite documents required by the General Requirements. Direct costs shall include the cost of bonds, insurance, approved materials stored on the site or at approved remote storage sites, deposits required by a Supplier prior to fabricating materials, and other approved direct mobilization costs substantiated as indicated above. These payments shall be included as a part of the total Contract Price as stated in the Contract.

13.3 Application for Progress Payment:

The CONTRACTOR shall submit to the Contracting Officer for review an Application for Payment filled out and signed by the CONTRACTOR covering the Work completed as of the date of the Application for Payment and accompanied by such supporting documentation as is required by the Contract Documents. Progress payments will be made as the Work progresses on a monthly basis.

13.4 Review of Applications for Progress Payment:

Contracting Officer will either indicate in writing a recommendation of payment or return the Application for Payment to the CONTRACTOR indicating in writing the Contracting Officer's reasons for refusing to recommend payment. In the latter case, the CONTRACTOR may make the necessary corrections and resubmit the Application for Payment.

13.5 Stored Materials and Equipment:

If payment is requested on the basis of materials and equipment not incorporated in the Work but delivered and suitably stored at the site or at another location agreed to in writing, the Application for Payment shall also be accompanied by a bill of sale, paid invoice or other documentation warranting that the DEPARTMENT has received the materials and equipment free and clear of all charges, security interests and encumbrances and evidence that the materials and equipment are covered by appropriate property insurance and other arrangements to protect the DEPARTMENT's interest therein, all of which will be satisfactory to the Contracting Officer. No payment will be made for perishable materials that could be rendered useless because of long storage periods. No progress payment will be made for living plant materials until planted.

13.6 CONTRACTOR's Warranty of Title:

The CONTRACTOR warrants and guarantees that title to all Work, materials and equipment covered by any Application for Payment, whether incorporated in the Project or not, will pass to the DEPARTMENT no later than the time of payment free and clear of any claims, liens, security interests and further obligations.

13.7 Withholding of Payments:

The DEPARTMENT may withhold or refuse payment for any of the reasons listed below provided it gives written notice of its intent to withhold and of the basis for withholding:

- 13.7.1 The Work is Defective, or completed Work has been damaged requiring correction or replacement, or has been installed without Approval of Shop Drawings, or by an unapproved Subcontractor, or for unsuitable storage of materials and equipment.

- 13.7.2 The Contract Price has been reduced by Change Order,
- 13.7.3 The DEPARTMENT has been required to correct Defective Work or complete Work in accordance with paragraph 12.9.
- 13.7.4 The DEPARTMENT's actual knowledge of the occurrence of any of the events enumerated in paragraphs 14.2.1.a through 14.2.1.k inclusive.
- 13.7.5 Claims have been made against the DEPARTMENT or against the funds held by the DEPARTMENT on account of the CONTRACTOR's actions or inactions in performing this Contract, or there are other items entitling the DEPARTMENT to a set off.
- 13.7.6 Subsequently discovered evidence or the results of subsequent inspections or test, nullify any previous payments for reasons stated in subparagraphs 13.7.1 through 13.7.5.
- 13.7.7 The CONTRACTOR has failed to fulfill or is in violation of any of his obligations under any provision of this Contract.

13.8 Retainage:

At any time the DEPARTMENT finds that satisfactory progress is not being made it may in addition to the amounts withheld under 13.7 retain a maximum amount equal to 10% of the total amount earned on all subsequent progress payments. This retainage may be released at such time as the Contracting Officer finds that satisfactory progress is being made.

13.9 Request for Release of Funds:

If the CONTRACTOR believes the basis for withholding is invalid or no longer exists, immediate written notice of the facts and Contract provisions on which the CONTRACTOR relies, shall be given to the DEPARTMENT, together with a request for release of funds and adequate documentary evidence proving that the problem has been cured. In the case of withholding which has occurred at the request of the Department of Labor, the CONTRACTOR shall provide a letter from the Department of Labor stating that withholding is no longer requested. Following such a submittal by the CONTRACTOR, the DEPARTMENT shall have a reasonable time to investigate and verify the facts and seek additional assurances before determining whether release of withheld payments is justified.

13.10 Substantial Completion:

When the CONTRACTOR considers the Work ready for its intended use the CONTRACTOR shall notify the Contracting Officer in writing that the Work or a portion of Work which has been specifically identified in the Contract Documents is substantially complete (except for items specifically listed by the CONTRACTOR as incomplete) and request that the DEPARTMENT issue a certificate of Substantial Completion. Within a reasonable time thereafter, the Contracting Officer, the CONTRACTOR and appropriate Consultant(s) shall make an inspection of the Work to determine the status of completion. If the Contracting Officer does not consider the Work substantially complete, the Contracting Officer will notify the CONTRACTOR in writing giving the reasons therefor. If the Contracting Officer considers the Work substantially complete, the Contracting Officer will within fourteen days execute and deliver to the CONTRACTOR a certificate of Substantial Completion with tentative list of items to be completed or corrected. At the time of delivery of the certificate of Substantial Completion the Contracting Officer will deliver to the CONTRACTOR a written division of responsibilities pending Final Completion with respect to security, operation, safety, maintenance, heat, utilities, insurance and warranties which shall be consistent with the terms of the Contract Documents.

The DEPARTMENT shall be responsible for all DEPARTMENT costs resulting from the initial inspection and the first re-inspection, the CONTRACTOR shall pay all costs incurred by the DEPARTMENT resulting from re-

inspections, thereafter.

13.11 Access Following Substantial Completion:

The DEPARTMENT shall have the right to exclude the CONTRACTOR from the Work after the date of Substantial Completion, but the DEPARTMENT shall allow CONTRACTOR reasonable access to complete or correct items on the tentative list.

13.12 Final Inspection:

Upon written notice from the CONTRACTOR that the entire Work or an agreed portion thereof is complete, the Contracting Officer will make a final inspection with the CONTRACTOR and appropriate Consultant(s) and will notify the CONTRACTOR in writing of all particulars in which this inspection reveals that the Work is incomplete or Defective. The CONTRACTOR shall immediately take such measures as are necessary to remedy such deficiencies. The CONTRACTOR shall pay for all costs incurred by the DEPARTMENT resulting from re-inspections.

13.13 Final Completion and Application for Payment:

After the CONTRACTOR has completed all such corrections to the satisfaction of the Contracting Officer and delivered all schedules, guarantees, bonds, certificates of payment to all laborers, Subcontractors and Suppliers, and other documents - all as required by the Contract Documents; and after the Contracting Officer has indicated in writing that the Work has met the requirements for Final Completion, and subject to the provisions of paragraph 13.18, the CONTRACTOR may make application for final payment following the procedure for progress payments. The final Application for Payment shall be accompanied by all remaining certificates, warranties, guarantees, releases, affidavits, and other documentation required by the Contract Documents.

13.14 Final Payment:

13.14.1 If on the basis of the Contracting Officer's observation of the Work during construction and final inspection, and the Contracting Officer's review of the final Application for Payment and accompanying documentation - all as required by the Contract Documents; and the Contracting Officer is satisfied that the Work has been completed and the CONTRACTOR's other obligations under the Contract Documents have been fulfilled, the DEPARTMENT will process final Application for Payment. Otherwise, the Contracting Officer will return the Application for Payment to the CONTRACTOR, indicating in writing the reasons for refusing to process final payment, in which case the CONTRACTOR shall make the necessary corrections and resubmit the final Application for Payment.

13.14.2 If, through no fault of the CONTRACTOR, Final Completion of the Work is significantly delayed, the Contracting Officer shall, upon receipt of the CONTRACTOR's final Application for Payment, and without terminating the Contract, make payment of the balance due for that portion of the Work fully completed and accepted. If the remaining balance to be held by the DEPARTMENT for Work not fully completed or corrected is less than the retainage provided for in paragraph 13.9, and if bonds have been furnished as required in paragraph 5.1, the written consent of the Surety to the payment of the balance due for that portion of the Work fully completed and accepted shall be submitted by the CONTRACTOR to the DEPARTMENT with the application for such payment. Such payment shall be made under the terms and conditions governing final payment, except that it shall not constitute a waiver of claims.

13.15 Final Acceptance:

Following certification of payment of payroll and revenue taxes, and final payment to the CONTRACTOR, the DEPARTMENT will issue a letter of Final Acceptance, releasing the CONTRACTOR from further obligations under the Contract, except as provided in paragraph 13.17.

13.16 CONTRACTOR's Continuing Obligation:

The CONTRACTOR's obligation to perform and complete the Work and pay all laborers, Subcontractors, and materialmen in accordance with the Contract Documents shall be absolute. Neither any progress or final payment by the DEPARTMENT, nor the issuance of a certificate of Substantial Completion, nor any use or occupancy of the Work or any part thereof by the DEPARTMENT or Using Agency, nor any act of acceptance by the DEPARTMENT nor any failure to do so, nor any review and Approval of a Shop Drawing or sample submission, nor any correction of Defective Work by the DEPARTMENT 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.

When it is anticipated that restarting, testing, adjusting, or balancing of systems will be required following Final Acceptance and said requirements are noted in Section(s) 01650, such Work shall constitute a continuing obligation under the Contract.

13.17 Waiver of Claims by CONTRACTOR:

The making and acceptance of final payment will constitute a waiver of all claims by the CONTRACTOR against the DEPARTMENT other than those previously made in writing and still unsettled.

13.18 No Waiver of Legal Rights:

The DEPARTMENT shall not be precluded or be estopped by any payment, measurement, estimate, or certificate made either before or after the completion and acceptance of the Work and payment therefor, from showing the true amount and character of the Work performed and materials furnished by the CONTRACTOR, nor from showing that any payment, measurement, estimate or certificate is untrue or is incorrectly made, or that the Work or materials are Defective. The DEPARTMENT shall not be precluded or estopped, notwithstanding any such measurement, estimate, or certificate and payment in accordance therewith, from recovering from the CONTRACTOR or his Sureties, or both, such damages as it may sustain by reason of his failure to comply with requirements of the Contract Documents. Neither the acceptance by the DEPARTMENT, or any representative of the DEPARTMENT, nor any payment for or acceptance of the whole or any part of the Work, nor any extension of the Contract Time, nor any possession taken by the DEPARTMENT, shall operate as a waiver of any portion of the Contract or of any power herein reserved, or of any right to damages. A waiver by the DEPARTMENT of any breach of the Contract shall not be held to be a waiver of any other subsequent breach.

ARTICLE 14 - SUSPENSION OF WORK, DEFAULT AND TERMINATION

14.1 DEPARTMENT May Suspend Work:

- 14.1.1 The DEPARTMENT may, at any time, suspend the Work or any portion thereof by notice in writing to the CONTRACTOR. If the Work is suspended without cause 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 Article 15. However, no adjustment shall be made under this clause for any suspension, delay, or interruption to the extent that suspension is due to the fault or negligence of the CONTRACTOR, or that suspension is necessary for Contract compliance, or that performance would have been so suspended, delayed, or interrupted by any other cause, including the fault or negligence of the CONTRACTOR.
- 14.1.2 In case of suspension of Work, the CONTRACTOR shall be responsible for preventing damage to or loss of any of the Work already performed and of all materials whether stored on or off the site or Approved remote storage sites.

14.2 Default of Contract:

- 14.2.1 The Contracting Officer may give the CONTRACTOR and its surety a written Notice to Cure Default if the CONTRACTOR:
- a. fails to begin work in the time specified,
 - b. fails to use sufficient resources to assure prompt completion of the work,
 - c. performs the work unsuitably or neglects or refuses to remove and replace rejected materials or work,
 - d. stops work,
 - e. fails to resume stopped work after receiving notice to do so,
 - f. becomes insolvent (except that if the CONTRACTOR declares bankruptcy, termination will be under Title 11 US Code 362 and/or 365. The CONTRACTOR'S bankruptcy does not relieve the surety of any obligations to assume the Contract and complete the work in a timely manner.
 - g. Allows any final judgment to stand against him unsatisfied for period of 60 days, or
 - h. Makes an assignment for the benefit of creditors without the consent of the Contracting Officer, or
 - i. Disregards Regulatory Requirements of any public body having jurisdiction, or
 - j. Otherwise violates in any substantial way any provisions of the Contract Documents, or
 - k. fails to comply with Contract minimum wage payments or civil rights requirements, or
 - l. is a party to fraud, deception, misrepresentation , or
 - m. for any cause whatsoever, fails to carry on the Work in an acceptable manner.
- 14.2.2 The Notice to Cure Default will detail the conditions determined to be in default, the time within which to cure the default and may, in the Contracting Officer's discretion, specify the actions necessary to cure the default. Failure to cure the delay, neglect or default within the time specified in the Contracting Officer's written notice to cure authorizes the DEPARTMENT to terminate the contract. The Contracting Officer may allow more time to cure than originally stated in the Notice to Cure Default if he deems it to be in the best interests of the DEPARTMENT. The DEPARTMENT will provide the CONTRACTOR or its surety with a written Notice of Default Termination that details the default and the failure to cure it.
- 14.2.3 If the CONTRACTOR or its Surety, within the time specified in the above notice of default, shall not proceed in accordance therewith, then the DEPARTMENT may, upon written notification from the Contracting Officer of the fact of such delay, neglect or default and the CONTRACTOR's failure to comply with such notice, have full power and authority without violating the Contract, to take the prosecution of the Work out of the hands of the CONTRACTOR. The DEPARTMENT may terminate the services of the CONTRACTOR, exclude the CONTRACTOR from the site and take possession of the Work and of all the CONTRACTOR's tools, appliances, construction equipment and machinery at the site and use the same to the full extent they could be

used by the CONTRACTOR (without liability to the CONTRACTOR for trespass or conversion), incorporate in the Work all materials and equipment stored at the site or for which the DEPARTMENT has paid the CONTRACTOR but which are stored elsewhere, and finish the Work as the DEPARTMENT may deem expedient. The DEPARTMENT may enter into an agreement for the completion of said Contract according to the terms and provisions thereof, or use such other methods that in the opinion of the Contracting Officer are required for the completion of said Contract in an acceptable manner.

- 14.2.4 The Contracting Officer may, by written notice to the CONTRACTOR and its Surety or its representative, transfer the employment of the Work from the CONTRACTOR to the Surety, or if the CONTRACTOR abandons the Work undertaken under the Contract, the Contracting Officer may, at its option with written notice to the Surety and without any written notice to the CONTRACTOR, transfer the employment for said Work directly to the Surety. The Surety shall submit its plan for completion of the Work, including any contracts or agreements with third parties for such completion, to the DEPARTMENT for approval prior to beginning completion of the Work. Approval of such contracts shall be in accordance with all applicable requirements and procedures for approval of subcontracts as stated in the Contract Documents.
- 14.2.5 After the notice of termination is issued, the DEPARTMENT may take over the work and complete it by contract or otherwise and may take possession of and use materials, appliances, equipment or plant on the work site necessary for completing the work.
- 14.2.6 Rather than taking over the work itself, the DEPARTMENT may transfer the obligation to perform the work from the CONTRACTOR to its surety. The surety must submit its plan for completion of the work, including any contracts or agreements with third parties for completion, to the DEPARTMENT for approval prior to beginning work. The surety must follow the Contract requirements for approval of subcontracts, except that the limitation on percent of work subcontracted will not apply.
- 14.2.7 On receipt of the transfer notice, the surety must take possession of all materials, tools, and appliances at the work site, employ an appropriate work force, and complete the Contract work, as specified. The Contract specifications and requirements shall remain in effect. However the DEPARTMENT will make subsequent Contract payments directly to the Surety for work performed under the terms of the Contract. The CONTRACTOR shall forfeit any right to claim for the same work or any part thereof. The CONTRACTOR shall not be entitled to receive any further balance of the amount to be paid under the Contract.
- 14.2.8 Upon receipt of the notice terminating the services of the CONTRACTOR, the Surety shall enter upon the premises and take possession of all materials, tools, and appliances thereon for the purpose of completing the Work included under the Contract and employ by contract or otherwise any person or persons to finish the Work and provide the materials therefore, without termination of the continuing full force and effect of this Contract. In case of such transfer of employment to the Surety, the Surety shall be paid in its own name on estimates covering Work subsequently performed under the terms of the Contract and according to the terms thereof without any right of the CONTRACTOR to make any claim for the same or any part thereof.
- 14.2.9 If the Contract is terminated for default, the CONTRACTOR and the Surety shall be jointly and severally liable for damages for delay as provided by paragraph 11.8, and for the excess cost of completion, and all costs and expenses incurred by the DEPARTMENT in completing the Work or arranging for completion of the Work, including but not limited to costs of assessing the Work to be done, costs associated with advertising, soliciting or negotiating for bids or proposals for completion, and other procurement costs. Following termination the CONTRACTOR shall not be entitled to receive any further balance of the amount to be paid under the Contract until the Work is fully finished and accepted, at which time if the unpaid balance exceeds the amount due the DEPARTMENT and any amounts due to persons for whose benefit the DEPARTMENT has withheld funds, such excess shall be paid by the DEPARTMENT to the CONTRACTOR. If the damages, costs, and expenses due the DEPARTMENT exceed the unpaid balance, the CONTRACTOR and its Surety shall pay the difference.
- 14.2.10 If, after notice of termination of the CONTRACTOR's right to proceed under the provisions of this clause, it is determined for any reason that the CONTRACTOR was not in default under the provisions of this clause, or that the delay was excusable under the provisions of this clause, or that termination was wrongful, the rights and obligations of the parties shall be determined in accordance with the clause providing for convenience termination.

14.3 Rights or Remedies:

Where the CONTRACTOR's services have been so terminated by the DEPARTMENT, the termination will not affect any rights or remedies of the DEPARTMENT against the CONTRACTOR then existing or which may thereafter accrue. Any retention or payment of moneys due the CONTRACTOR by the DEPARTMENT will not release the CONTRACTOR from liability.

14.4 Convenience Termination:

14.4.1 The performance of the Work may be terminated by the DEPARTMENT in accordance with this section in whole or in part, whenever, for any reason the Contracting Officer shall determine that such termination is in the best interest of the DEPARTMENT. Any such termination shall be effected by delivery to the CONTRACTOR of a Notice of Termination, specifying termination is for the convenience of the DEPARTMENT the extent to which performance of Work is terminated, and the date upon which such termination becomes effective.

14.4.2 Immediately upon receipt of a Notice of Termination and except as otherwise directed by the Contracting Officer, the CONTRACTOR shall:

- a. Stop Work on the date and to the extent specified in the Notice of Termination;
- b. Place no further orders or subcontracts for materials, services, or facilities except as may be necessary for completion of such portion of the Work as is not terminated;
- c. Terminate all orders and subcontracts to the extent that they relate to the performance of Work terminated by the Notice of Termination;
- d. With the written Approval of the Contracting Officer, to the extent he may require, settle all outstanding liabilities and all claims arising out of such termination of orders and subcontracts, the cost of which would be reimbursable, in whole, or in part, in accordance with the provisions of the Contract;
- e. Submit to the Contracting Officer a list, certified as to quantity and quality, of any or all items of termination inventory exclusive of items the disposition of which had been directed or authorized by the Contracting Officer;
- f. Transfer to the Contracting Officer the completed or partially completed record drawings, Shop Drawings, information, and other property which, if the Contract had been completed, would be required to be furnished to the DEPARTMENT;
- g. Take such action as may be necessary, or as the Contracting Officer may direct, for the protection and preservation of the property related to the Contract which is in the possession of the CONTRACTOR and in which the DEPARTMENT has or may acquire any interest.

The CONTRACTOR shall proceed immediately with the performance of the above obligations.

14.4.3 When the DEPARTMENT orders termination of the Work effective on a certain date, all Work in place as of that date will be paid for in accordance with Article 13 of the Contract. Materials required for completion and on hand but not incorporated in the Work will be paid for at invoice cost plus 15% with materials becoming the property of the DEPARTMENT - or the CONTRACTOR may retain title to the materials and be paid an agreed upon lump sum. Materials on order shall be cancelled, and the DEPARTMENT shall pay reasonable factory cancellation charges with the option of taking delivery of the materials in lieu of payment of cancellation charges. The CONTRACTOR shall be paid 10% of the cost, freight not included, of materials cancelled, and direct expenses only for CONTRACTOR chartered freight transport which cannot be cancelled without charges, to the extent that the CONTRACTOR can establish them. The extra costs due to cancellation of bonds and insurance and that part of job start-up and phase-out costs not amortized by the amount of Work accomplished shall be paid by the DEPARTMENT. Charges for loss of profit or consequential damages shall not be recoverable except as provided above.

- a. The following costs are not payable under a termination settlement agreement or Contracting Officer's determination of the termination claim:
 1. Loss of anticipated profits or consequential or compensatory damages

2. Unabsorbed home office overhead (also termed "General & Administrative Expense") related to ongoing business operations
 3. Bidding and project investigative costs
 4. Direct costs of repairing equipment to render it operable for use on the terminated work
- 14.4.4 The termination claim shall be submitted promptly, but in no event later than 90 days from the effective date of termination, unless extensions in writing are granted by the Contracting Officer upon written request of the CONTRACTOR made within the 90-day period. Upon failure of the CONTRACTOR to submit his termination claim within the time allowed, the Contracting Officer may determine, on the basis of information available to him, the amount, if any, due to the CONTRACTOR by reason of the termination and shall thereupon pay to the CONTRACTOR the amount so determined.
- 14.4.5 The CONTRACTOR and the Contracting Officer may agree upon whole or any part of the amount or amounts to be paid to the CONTRACTOR by reason of the total or partial termination of Work pursuant to this section. The Contract shall be amended accordingly, and the CONTRACTOR shall be paid the agreed amount.
- 14.4.6 In the event of the failure of the CONTRACTOR and the Contracting Officer to agree in whole or in part, as provided heretofore, as to the amounts with respect to costs to be paid to the CONTRACTOR in connection with the termination of the Work the Contracting Officer shall determine, on the basis of information available to him, the amount, if any, due to the CONTRACTOR by reason of the termination and shall pay to the CONTRACTOR the amount determined as follows:
- a. All costs and expenses reimbursable in accordance with the Contract not previously paid to the CONTRACTOR for the performance of the Work prior to the effective date of the Notice of Termination;
 - b. So far as not included under "a" above, the cost of settling and paying claims arising out of the termination of the Work under subcontracts or orders which are properly chargeable to the terminated portions of the Contract;
 - c. So far as practicable, claims by the CONTRACTOR for idled or stand-by equipment shall be made as follows: Equipment claims will be reimbursed as follows:
 1. Contractor-owned equipment usage, based on the CONTRACTOR'S ownership and operating costs for each piece of equipment as determined from the CONTRACTOR'S accounting records. Under no circumstance, may the CONTRACTOR base equipment claims on published rental rates.
 2. Idle or stand-by time for Contractor-owned equipment, based on the CONTRACTOR'S internal ownership and depreciation costs. Idle or stand-by equipment time is limited to the actual period of time equipment is idle or on stand-by as a direct result of the termination, not to exceed 30 days. Operating expenses will not be included for payment of idle or stand-by equipment time.
 3. Rented equipment, based on reasonable, actual rental costs. Equipment leased under "capital leases" as defined in Financial Accounting Standard No. 13 will be considered Contractor-owned equipment. Equipment leased from an affiliate, division, subsidiary or other organization under common control with the CONTRACTOR will be considered Contractor-owned equipment, unless the lessor has an established record of leasing to unaffiliated lessees at competitive rates consistent with the rates the CONTRACTOR has agreed to pay and no more than forty percent of the lessor's leasing business, measured in dollars, is with organizations affiliated with the lessor.
- 14.4.7 The CONTRACTOR shall have the right of appeal under the DEPARTMENT's claim procedures, as defined in Article 15, for any determination made by the Contracting Officer, except if the CONTRACTOR has failed to submit his claim within the time provided and has failed to request extension of such time, CONTRACTOR shall have no such right of appeal. In arriving at the amount due the CONTRACTOR under this section, there shall be deducted:
- a. All previous payments made to the CONTRACTOR for the performance of Work under the Contract prior to termination;
 - b. Any claim for which the DEPARTMENT may have against the CONTRACTOR;
 - c. The agreed price for, or the proceeds of sale of, any materials, supplies, or other things acquired by the

CONTRACTOR or sold pursuant to the provisions of this section and not otherwise recovered by or credited to the DEPARTMENT; and,

- d. All progress payments made to the CONTRACTOR under the provisions of this section.
- 14.4.8 Where the Work has been terminated by the DEPARTMENT said termination shall not affect or terminate any of the rights of the DEPARTMENT against the CONTRACTOR or his Surety then existing or which may thereafter accrue because of such default. Any retention or payment of monies by the DEPARTMENT due to the CONTRACTOR under the terms of the Contract shall not release the CONTRACTOR or its Surety from liability.
- 14.4.9 The CONTRACTOR's termination claim may not include claims that pre dated the notice for termination for convenience. Those claims shall be prosecuted by the CONTRACTOR under Article 15.
- 14.4.10 The CONTRACTOR'S termination claim may not exceed the total dollar value of the contract as awarded plus agreed upon change orders less the amounts that have been paid for work completed.
- a. Unless otherwise provided for in the Contract Documents, or by applicable statute, the CONTRACTOR, from the effective date of termination and for a period of three years after final settlement under this Contract, shall preserve and make available to the DEPARTMENT at all reasonable times at the office of the CONTRACTOR, all its books, records, documents, and other evidence bearing on the cost and expenses of the CONTRACTOR under his Contract and relating to the Work terminated hereunder.
 - b. Definitions. In this Subsection 108-1.09, the term "cost" and the term "expense" mean a monetary amount in U.S. Dollars actually incurred by the CONTRACTOR, actually reflected in its contemporaneously maintained accounting or other financial records and supported by original source documentation.
 - c. Cost Principles. The DEPARTMENT may use the federal cost principles at 48 CFR §§ 31.201-1 to 31.205-52 (or succeeding cost principles for fixed price contracts) as guidelines in determining allowable costs under this Subsection to the extent they are applicable to construction contracts and consistent with the specifications of this Contract. The provisions of this contract control where they are more restrictive than, or inconsistent with, these federal cost principles."

ARTICLE 15 - CLAIMS FOR ADJUSTMENT AND DISPUTES

15.1 Notification

- 15.1.1 The CONTRACTOR shall notify the DEPARTMENT in writing as soon as the CONTRACTOR becomes aware of any act or occurrence which may form the basis of a claim for additional compensation or an extension of Contract Time or of any dispute regarding a question of fact or interpretation of the Contract. The DEPARTMENT has no obligation to investigate any fact or occurrence that might form the basis of a claim or to provide any additional compensation or extension of Contract Time unless the CONTRACTOR has notified the DEPARTMENT in writing in a timely manner of all facts the CONTRACTOR believes form the basis for the claim.
- 15.1.2 If the CONTRACTOR believes that he is entitled to an extension of Contract Time, then the CONTRACTOR must state the contract section on which he basis his extension request, provide the DEPARTMENT with sufficient information to demonstrate that the CONTRACTOR has suffered excusable delay, and show the specific amount of time to which the CONTRACTOR is entitled. The DEPARTMENT will not grant an extension of Contract Time if the CONTRACTOR does not timely submit revised schedules under **Section 01310**.
- 15.1.3 If the matter is not resolved by agreement within 7 days, the CONTRACTOR shall submit an Intent to Claim, in writing, to the DEPARTMENT within the next 14 days.
- 15.1.4 If the CONTRACTOR believes additional compensation or time is warranted, then he must immediately begin keeping complete, accurate, and specific daily records concerning every detail of the potential claim including actual costs incurred. The CONTRACTOR shall provide the DEPARTMENT access to any such records and furnish the DEPARTMENT copies, if requested. Equipment costs must be based on the CONTRACTOR's internal rates for ownership, depreciation, and operating expenses and not on published rental rates. In computing damages, or costs claimed for a change order, or for any other claim against the DEPARTMENT for additional time, compensation or both, the CONTRACTOR must prove actual damages based on internal costs for equipment, labor or efficiencies. Total cost, modified total cost or jury verdict forms of presentation of damage claims are not permissible to show damages. Labor inefficiencies must be shown to actually have occurred and can be proven solely based on job records. Theoretical studies are not a permissible means of showing labor inefficiencies. Home office overhead will not be allowed as a component of any claim against the DEPARTMENT.
- 15.1.5 If the claim or dispute is not resolved by the DEPARTMENT, then the CONTRACTOR shall submit a written Claim to the Contracting Officer within 90 days after the CONTRACTOR becomes aware of the basis of the claim or should have known the basis of the claim, whichever is earlier. The Contracting Officer will issue written acknowledge of the receipt of the Claim.
- 15.1.6 The CONTRACTOR waives any right to claim if the DEPARTMENT was not notified properly or afforded the opportunity to inspect conditions or monitor actual costs or if the Claim is not filed on the date required.

15.2 Presenting the Claim

- 15.2.1 The Claim must include all of the following:
- a. The act, event, or condition the claim is based on
 - b. The Contract provisions which apply to the claim and provide relief
 - c. The item or items of Contract work affected and how they are affected
 - d. The specific relief requested, including Contract Time if applicable, and the basis upon which it was calculated
 - e. A statement certifying that the claim is made in good faith, that the supporting cost and pricing data are accurate and complete to the best of your knowledge and belief, and that the amount requested accurately reflects the Contract adjustment which the CONTRACTOR believes is due.

15.3 Claim Validity, Additional Information, and DEPARTMENT's Action

15.3.1 The Claim, in order to be valid, must not only show that the CONTRACTOR suffered damages or delay but that it was caused by the act, event, or condition complained of and that the Contract provides entitlement to relief for such act, event, or condition.

15.3.2 The DEPARTMENT can make written request to the CONTRACTOR at any time for additional information relative to the Claim. The CONTRACTOR shall provide the DEPARTMENT the additional information within 30 days of receipt of such a request. Failure to furnish the additional information may be regarded as a waiver of the Claim.

15.4 Contracting Officer's Decision

The CONTRACTOR will be furnished the Contracting Officer's Decision within 90 days, unless the Contracting Officer requests additional information or gives the CONTRACTOR notice that the time for issuing a decision is being extended for a specified period under AS 36.30.620. The Contracting Officer's decision is final and conclusive unless, within 14 days of receipt of the decision, the CONTRACTOR delivers a Notice of Appeal to the Appeals Officer. Procedures for appeals are covered under AS 36.30.625 and AS 36.30.630.

15.5 Fraud and Misrepresentation in Making Claims

Criminal and Civil penalties authorized under AS 36.30.687 (including, but not limited to, forfeiture of all claimed amounts) may be imposed on the CONTRACTOR if the CONTRACTOR makes or uses a misrepresentation in support of a claim or defraud or attempt to defraud the DEPARTMENT at any stage of prosecuting a claim under this Contract.

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SECTION 00800
SUPPLEMENTARY CONDITIONS
MODIFICATIONS TO THE GENERAL CONDITIONS
(STATE FUNDED CONTRACTS)

The following supplements modify, change, delete from, or add to Section 00700 "General Conditions of the Construction Contract for Buildings", revised December, 2011. Where any article of the General Conditions is modified, or a Paragraph, Subparagraph, or Clause thereof is modified or deleted by these Supplementary Conditions, the unaltered provisions of that Article, Paragraph, Subparagraph, or Clause shall remain in effect.

SC-1-DEFINITIONS

A. Add the following definitions:

1. **OWNER** – The State of Alaska.
2. **QUALITY ASSURANCE ACCEPTANCE TESTING** – This is all sampling and testing performed by the DEPARTMENT to determine at what level the product or service will be accepted for payment. Qualified personnel and laboratories will perform sampling and testing. The DEPARTMENT pays for this testing.
3. **QUALITY CONTROL PROGRAM (QC PROGRAM)** – The CONTRACTOR'S, Subcontractor's or Supplier's operational techniques and activities that maintain control of the manufacturing process to fulfill the Contract requirements. This may include materials handling, construction procedures, calibration and maintenance of equipment, production process control, material sampling, testing and inspection, and data analysis.
4. **RESIDENT ENGINEER** - The Engineer's authorized representative assigned to make detailed observations relating to contract performance.

SC-2.4-VISITS TO SITE/PLACE OF BUSINESS

At General Conditions Article 2.4, delete the first four words of the first sentence ("The Contracting Officer will ...") and replace with the following words "The Contracting Officer has the right to, but is not obligated to..."

SC-4.2-VISIT TO SITE

At General Conditions Article 4.2, delete this article in its entirety and replace with the following article:

"A. A formal visit to the site will occur as noted on the Invitation to Bid".

SC-4.3-EXPLORATIONS AND REPORTS

At General Conditions Article 4.3, add the following paragraph:

"All reports and other records (if available) are provided for informational purposes only to all plan holders listed with the DEPARTMENT as General Contractors, and are available to other planholders upon request. They are made available so Bidders have access to the same information available to the DEPARTMENT. The reports and other records are not intended as a substitute for independent investigation, interpretation, or judgment of the Bidder. The DEPARTMENT is not responsible for any interpretation or conclusion drawn from its records by the Bidder. While referenced by or provided with the Contract Documents; the recommendations, engineering details, and other information contained in these reports of explorations shall not be construed to supersede or constitute conditions of the Contract Documents."

SC-5.4.1 – INSURANCE REQUIREMENTS

At General Condition Article 5.4.1, delete the second to the last sentence and replace with the following: "The delivery to the DEPARTMENT of a written notice in accordance with the policy provisions is required before cancellation of any coverage or reduction in any limits of liability."

SC-5.4.2a – WORKERS COMPENSATION INSURANCE

At General Condition Article 5.4.2a, delete paragraph "a" in its entirety and replace with the following:

"a. Workers' Compensation Insurance: The Contractor shall provide and maintain, for all employees of the Contractor engaged in work under this contract, Workers' Compensation Insurance as required by AS 23.30.045. The Contractor shall be responsible for Workers' Compensation Insurance for any subcontractor who provides services under this contract. Coverage shall include:

1. Waiver of subrogation against the State.
2. Employer's Liability Protection in the amount of \$500,000 each accident / \$500,000 each disease.

3. If the 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.
4. Whenever the work involves activity on or about navigable waters, the Workers' Compensation policy shall contain a United States Longshoreman's and Harbor Worker's Act endorsement, and when appropriate, a Maritime Employer's Liability (Jones Act) endorsement with a minimum limit of \$1,000,000."

SC-5.4.2d–BUILDERS RISK INSURANCE

At General Conditions Article 5.4.2d, delete the subsection in its entirety.

SC-6.6–ANTICIPATED SCHEDULE

In Paragraph 6.6.1, delete this paragraph and replace with the following paragraph:

"6.6.1 The CONTRACTOR shall submit to the Contracting Officer proposed and finalized progress schedule indicating the starting and completion dates for the various stages of the work (see Section 01 11 13)."

In Paragraph 6.6.2, delete the first sentence and replace with the following sentence:

"Within ten (10) days after the date of the Notice to Proceed, the CONTRACTOR shall submit to the Contracting Officer for review:"

SC-6.9–SUBSTITUTES OR “OR-EQUAL” ITEMS

In Paragraph 6.9.5, delete "Document 01630 – Product Options and Substitutions" and replace with "Document 01600 – Material and Equipment."

SC-6.13-SUBCONTRACT PROVISIONS

Add new general conditions Article 6.13.7 as follows:

6.13.7 The CONTRACTOR may, without penalty, replace a subcontractor who:

1. Fails to comply with the licensing and registration requirements of AS 08.18;
2. Fails to obtain or maintain a valid Alaska Business License;
3. Files for bankruptcy or becomes insolvent;
4. Fails to execute a subcontract or performance of the work for which the subcontractor was listed, and the CONTRACTOR has acted in good faith;
5. Fails to obtain bonding acceptable to the DEPARTMENT;
6. Fails to obtain insurance acceptable to the DEPARTMENT;
7. Fails to perform subcontract work for which the subcontractor was listed;
8. Must be replaced to meet the CONTRACTOR's required state or federal affirmative action requirements.

9. Refuses to agree to abide by the CONTRACTOR's labor agreement; or
10. Is determined by the DEPARTMENT to be not responsible.

In addition to the circumstances described above, a CONTRACTOR may in writing request permission from the DEPARTMENT to add a new subcontractor or replace a listed subcontractor. The DEPARTMENT will approve the request if it determines in writing that allowing the addition or replacement is in the best interest of the State.

The CONTRACTOR shall submit a written request to add a new Subcontractor or replace a listed Subcontractor to the Contracting Officer a minimum of five working days prior to the date the new Subcontractor is scheduled to begin work on the construction site. The request must state the basis for the request and include supporting documentation acceptable to the Contracting Officer.

If a CONTRACTOR violates this article, the Contracting Officer may:

1. Cancel the Contract after Award without any damages accruing to the DEPARTMENT; or
2. After notice and hearing, assess a penalty on the bidder in an amount not exceeding 10 percent of the value of the subcontract at issue.

SC-7.12 – APPLICABLE ALASKA PREFERENCES

At General Conditions Article 7.12, delete the subsection in its entirety.

SC-9.4–CHANGE ORDER

A. At General Conditions Article 9.4, add the following sentence:

"The DEPARTMENT will issue Change Orders for the CONTRACTOR to sign. A Change Order shall be considered executed when the DEPARTMENT signs it. The CONTRACTOR'S signature indicates that they accept the Change Order or acknowledge it. Acknowledgement of a Change Order does not surrender the CONTRACTOR'S right to claim."

SC-11.8–DELAY DAMAGES

At General Condition Article 11.8, add the following paragraphs:

11.8.1 Failure to Meet Substantial Completion Date. For each calendar day that the work is not Substantially Complete after the expiration of the Contract Time or the Substantial Completion Date has passed, the DEPARTMENT shall deduct **Five Hundred Dollars** (\$500.00) from progress payments.

11.8.2 Failure to Meet Final Completion Date. The Final completion date shall be defined as the date 60 calendar days following the substantial completion date. For each calendar day that the work is substantially complete, but the project is not at Final Completion, after the Final Completion Date has passed, the DEPARTMENT shall deduct **Two Hundred & Fifty Dollars** (\$250.00) from progress payments.

11.8.3 If no money is due the CONTRACTOR, the DEPARTMENT shall have the right to recover these sums from the CONTRACTOR, from the Surety, or from both. These are liquidated

damages and not penalties. These charges shall reimburse the DEPARTMENT for its additional expenses incurred due to CONTRACTOR'S failure to complete the work within the time specified.

- 11.8.4** Permitting the CONTRACTOR to continue and finish the work or any part of it after the Contract time has elapsed or the completion date has passed does not waive the DEPARTMENT'S rights to collect liquidated damages under this section.

SC-12.1–WARRANTY AND GUARANTEE

At General Condition Article 12.1, add the following sentence:

“The failure of the DEPARTMENT to strictly enforce the Contract in one or more instances does not waive its right to do so in other or future instances.”

SC-12.6–CORRECTION OR REMOVAL OF DEFECTIVE WORK

At General Condition Article 12.6, add the following paragraphs:

“The CONTRACTOR shall establish necessary lines and grades before performing the Work. Work done before necessary lines and grades are established, Work contrary to the DEPARTMENT'S instructions, Work done beyond the limits of the Contract, or any extra Work done without authority, will be considered as unauthorized and shall not be paid for by the DEPARTMENT, and may be ordered removed or replaced at no additional cost to the DEPARTMENT.”

SC 13.3–APPLICATION FOR PROGRESS PAYMENT

At General Conditions Article 13.3, revise the last sentence to read as follows:

“Progress payments will be made as the Work progresses on a monthly basis.”

SC 13.5–STORED MATERIALS AND EQUIPMENT

At General Conditions Article 13.5, add the following:

“No payment will be made for an individual/unique item of material or equipment with a total value less than \$10,000 per item or for any item of material or equipment scheduled for incorporation into the work in less than 60 days from its arrival on site.”

SC-15.1–NOTIFICATION

In Paragraph 15.1.2, delete “Section 01310” and replace with “Section 01300.”

END OF SECTION 00800

SECTION 00850
DRAWING INDEX

GENERAL DRAWINGS

T0.0 TITLE SHEET & INDEX
T0.1 VICINITY MAP, ABBREVIATIONS, SYMBOLS & CODE ANALYSIS

ARCHITECTURAL

AP1.1 PHOTOS
AP1.2 PHOTOS
A2.1 OVERALL FIRST FLOOR PLAN
A2.2 MECHANICAL MEZANINE FLOOR PLAN
A6.1 FIRST FLOOR REFLECTED CEILING PLAN
A6.2 MECHANICAL MEZZANINE REFLECTED CEILING PLAN

MECHANICAL

M1.0 FIRE SPRINKLER PLAN – FIRST FLOOR EAST
M1.1 FIRE SPRINKLER PLAN – FIRST FLOOR SOUTH
M1.2 FIRE SPRINKLER PLAN – FIRST FLOOR NORTH
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ELECTRICAL

E0.1 ELECTRICAL LEGEND & DETAILS
E1.0 F.A. DEMOLITION PLAN – FIRST FLOOR SOUTH
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E1.2 F.A. DEMOLITION PLAN – FIRST FLOOR EAST
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E1.4 LIGHTING DEMOLITION PLAN – MAIN CANOPY
E2.0 F.A. REMODEL PLAN – FIRST FLOOR SOUTH
E2.1 F.A. REMODEL PLAN – FIRST FLOOR NORTH
E2.2 F.A. REMODEL PLAN – FIRST FLOOR EAST
E2.3 F.A. REMODEL PLAN – SECOND FLOOR SOUTH
E2.4 LIGHTING REMODEL PLAN – MAIN CANOPY

END OF SECTION

**SECTION 01 11 13
SUMMARY OF WORK**

PART 1 - GENERAL

1.01 RELATED REQUIREMENTS

- A. All Contract Documents are related to this Section.

1.02 WORK COVERED BY CONTRACT DOCUMENTS

- A. Work under this Contract includes all Work required for the project at the Mt. Edgecumbe H.S. Building 1330 (Academic Building), in Sitka, Alaska, all in accordance with the terms and conditions of the Contract Documents.
- B. The work includes:
 - a. Fire alarm system upgrades for the entire building.
 - b. Select sprinkler upgrades and lighting fixture replacements, including canopy removal and replacement as shown in the Contract Documents.
- C. Construction Schedule Milestones:
 - a. Substantial Completion: August 15, 2019
 - b. Final Completion: 60 Days following Substantial Completion

1.03 CONTRACT

- A. General: Construct all Work through a single construction contract in accordance with the Contract Documents. The contract is a lump sum contract.
- B. Not Used

1.04 WORK BY OTHERS

- A. CONTRACTOR shall allow using agency operations, as needed, throughout the Work. Building occupied hours during the school year are typically 7:00am – 4:30pm.
- B. School Closure Periods are as follows:
 - a. Summer Break: May 10 – August 19, 2019

1.05 WORK SEQUENCE AND MILESTONES

- A. Upon receipt of Notice to Proceed (NTP) the CONTRACTOR will be expected to prepare submittals and begin the purchase of critical materials in accordance with submittal processes.
- B. The CONTRACTOR shall submit a preliminary Schedule of Values and an Anticipated Construction Schedule at the pre-construction conference. The CONTRACTOR shall submit a final Schedule of Values within 3 weeks of the Notice-to-Proceed.
- C. Work sequencing requirements shall include:
 - a. Design of approved new addressable fire alarm and smoke detection system with voice notification.
 - b. Installation of new fire alarm system while maintaining operations of existing fire alarm system.
 - c. Replacement of existing sprinkler piping and heads, and lighting fixtures as shown in Contract Documents. Replacement of existing sprinkler piping, heads and lighting fixtures shall be accomplished during school closure periods.

1.06 WORK PLANS AND ACCESS TO FACILITY, INDIVIDUAL WORK AREAS

- A. In close coordination with the work schedule, provide detailed written (narrative) work plan with a sketch of each area impacted by the CONTRACTOR's work. The work plan shall be broken out into phases to localize impact of construction activities. Show limits of work enclosures, barricades, temporary partitions, or other items affecting the operation of the area.
- B. Prior to beginning work in new phase of work identified in the work plan, the CONTRACTOR shall notify the DEPARTMENT Project Manager in writing at least 5 (five) working days, not including weekends or Holidays.
- C. Allow for Using Agency use and occupancy during the school year. The DEPARTMENT may reject a work plan for non-conformance with contract documents or this section. The CONTRACTOR may be required to construct work in stages to accommodate Using Agency use of the facility during construction. Coordinate progress schedule with Using Agency occupancy during construction.
- D. No construction operations affecting safety or comfort of the public shall begin until the work area is closed off from the public.
- E. Where work is adjacent to or above newly installed work, existing cabinetwork, equipment, furniture, supplies or other fixtures, include means and method of protection as a part of the work plan. This requirement is for coordination with Using Agency and is not intended to relieve the CONTRACTOR of the responsibility for safety and protection of the existing building and facilities in accordance with Article 6.17 of the General Conditions.
- F. It shall be the responsibility of the CONTRACTOR to coordinate all construction and haul activities through the DEPARTMENT and to comply with their instructions concerning the

movements of construction equipment, men and materials in the vicinity of the Using Agency operations in the vicinity of the project. All such requests shall be made at least 48 hours (excluding weekends) in advance of any planned closure or change.

- G. All work shall be performed in a manner that will minimize disruption of ongoing activities and operations in the existing facility during the course of the project. Demolition or any other work of a nature that could be hazardous or disruptive to activities shall be accomplished after-hours on nights and weekends, when the facility is unoccupied, or as otherwise approved by the Using Agency. Work areas must be cleaned, and made safe and suitable for occupancy prior to the next scheduled use of the facility.

1.07 PARKING

- H. Parking shall be limited to designated areas only. If insufficient area exists, the CONTRACTOR shall make other arrangements.
- I. Not Used

1.08 SHUTOFFS AND DISRUPTIONS TO UTILITY SERVICE

- A. At least two (2) weeks prior to the first planned outage, submit a schedule showing all proposed utility outages. Upon request, submit a written plan describing the justification for the outages and possible impacts to the Using Agency. The CONTRACTOR shall revise the schedule to show any planned changes and shall submit the revised schedule promptly to the DEPARTMENT.
- B. Plan work to minimize down time. Work with DEPARTMENT to schedule disruption for time periods that minimize impacts to the Using Agency. Shutoffs and disruption to service shall not be allowed during designated critical operating hours.
- C. Not Used

1.09 CONTRACTOR'S USE OF PREMISES

- A. Coordinate use of the premises under direction of DEPARTMENT.
- B. Alcohol, tobacco, smoking, firearms, and persons under the influence are strictly prohibited on the premises.
- C. Assume full responsibility for protection and safekeeping of furnished products.
- D. Assume full responsibility for the protection of roads and grounds in the project vicinity from construction related activities.
- E. Obtain and pay for use of additional storage, Work, or parking areas needed for construction operations.
- F. Do not stop or otherwise impede vehicle traffic without prior written approval from the DEPARTMENT. The CONTRACTOR shall make all necessary provisions, including but

not limited to detours, bypasses, and permits, to maintain traffic flow. Submit traffic control plan and schedule for approval no less than twenty (20) working days prior to anticipated traffic disruptions.

- G. Work and Staging Areas - With the exception of vehicle movement for access to and from Work and Staging Areas, restrict all Work to within the limits of construction designated on the plans.
- H. Off Loading of materials and equipment
 - a. The CONTRACTOR shall coordinate with the DEPARTMENT for off-loading entrance locations.
 - b. The CONTRACTOR is responsible for protection of the site including concrete and asphalt paving, curbs, landscaping and striping during off-loading activities.

1.10 USING AGENCY OCCUPANCY

- A. The using agency at the project location is the Department of Education & Early Development.
- B. Upon the issuance of a Certificate of Substantial Completion by the DEPARTMENT, the Using Agency shall take ownership of the facility and may occupy it.
- C. Refer to the General Conditions for access following substantial completion.
- D. Not Used

1.11 PERMITS

- A. Where a building permit is required by the Authority Having Jurisdiction, the plan review fee and the building permit fee have been paid by the DEPARTMENT. The CONTRACTOR shall obtain the building permit in its name and shall procure all other permits and licenses, pay all charges, fees and taxes and give all notices necessary and incidental to the due and lawful prosecution of the work.
- B. Not Used

1.12 HAUL ROUTES

- A. Contractor shall determine the requirements for and shall comply with applicable local, municipal, and DOT/PF haul requirements, routes and restrictions.
- B. Obtain required approvals for the use of haul routes, and submit to the DEPARTMENT upon request.
- C. Not Used

1.13 SUPERINTENDENCE AND EMPLOYEES

- A. Before starting work, the CONTRACTOR shall designate a competent authorized

representative to represent and act for the CONTRACTOR, and shall inform the DEPARTMENT in writing of the name and address of such representative, together with a clear definition of the scope of his authority to represent and act for the CONTRACTOR, and shall specify any and all limitations of such authority. Such representative shall be present or duly represented at the site of work at all times when work is actually in progress and, during periods when work is suspended, arrangements acceptable to the DEPARTMENT shall be made for emergency work that may be required. The CONTRACTOR's authorized representative shall be supported by competent assistants, as necessary; and the authorized representative and his assistants shall be satisfactory to the DEPARTMENT. All requirements, instructions and other communications given to the authorized representative by the DEPARTMENT shall be as binding if given to the CONTRACTOR.

- B. None of the CONTRACTOR's superintendents, supervisors, or engineers shall be withdrawn from the work without due notice being given to the DEPARTMENT; and no such withdrawal shall be made if it will jeopardize successful completion of the work.
- C. The CONTRACTOR shall employ only competent and skilled personnel to perform any work. The CONTRACTOR shall be responsible for maintaining the orderly and faithful conduct of its employees.
- D. The DEPARTMENT may, in writing, require the CONTRACTOR to remove from the work any employee whom the DEPARTMENT deems incompetent, careless, insubordinate, or otherwise objectionable or whose continued employment on the work is deemed by the DEPARTMENT to be contrary to the DEPARTMENT's interest.
- E. Not Used

1.14 STORMWATER PREVENTION POLLUTION PLAN (SWPPP)

- A. If a SWPPP is specified elsewhere and made part of the Contract Documents, the CONTRACTOR shall prepare the SWPPP and shall submit it to the DEPARTMENT for review.
- B. Not Used

PART 2 - PRODUCTS **Not Used**

PART 3 - EXECUTION **Not Used**

END OF SECTION

SECTION 01 12 19
CONTRACTOR'S CERTIFICATION OF SUBCONTRACTS

PART 1 - GENERAL

1.01 SECTION INCLUDES

- A. Procedures for preparing, submitting and accepting subcontracts.

1.02 RELATED REQUIREMENTS

- A. Section 00100 - Instructions to Proposer
- B. Section 00430 - Subcontractor List
- C. Section 00700 - General Conditions: Subcontractor Certification and Approval
- D. Section 00800 – Supplementary Conditions: Subcontract Provisions
- E. Section 01 33 00 - Submittals: Submittal Procedures

1.03 PREPARATION OF CERTIFICATION

- A. Certification Forms: Use forms provided by DEPARTMENT.
- B. CONTRACTOR shall prepare certification form and submit to the DEPARTMENT prior to the start of work. Where required, attach additional information to the certification form.
- C. Substitute certification forms will not be considered.

1.04 SUBMITTAL OF CERTIFICATION

- A. The CONTRACTOR shall submit certification forms for all subcontractors for review and approval by the DEPARTMENT.

1.05 CONSIDERATION OF CERTIFICATION

- A. Following receipt of submitted subcontractor certification forms, the DEPARTMENT will review for the following, at minimum:
 - 1. Completeness of forms and attachments
 - 2. Proper execution (signatures) of forms and attachments
- B. Incomplete or improperly executed subcontractor certification forms will be returned to the CONTRACTOR for revision and resubmittal.
- C. CONTRACTOR shall remove its subcontractor from the project site until its subcontractor certification form is submitted, reviewed, and approved.

- D. The DEPARTMENT will not process payments for work performed by a non-certified subcontractor.


1.06 ACKNOWLEDGMENT OF CERTIFICATION

- A. Submittals which have been examined by the DEPARTMENT and are determined to be complete and properly executed shall be acknowledged as such by the Project Engineer's signature.

PART 2 - PRODUCTS **Not Used**

PART 3 - EXECUTION **Not Used**

END OF SECTION

STATE OF ALASKA DOT & PF STATEWIDE PUBLIC FACILITIES	SUBCONTRACTOR CERTIFICATION	
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Note: The Contractor shall provide this form for ALL subcontractors working on this project. This form is applicable to all projects, including Small Procurement Contracts, and must be completed in full.

PROJECT: _____ PROJ. #: _____

PRIME CONTRACTOR: _____

Pursuant to the Contract Documents, we hereby stipulate the following concerning the award of Work to the last Subcontractor on the following list:

- | | | | | |
|----|---------------------------------|------|------------------------------|-----------------------------|
| 1. | First Tier Subcontractor: _____ | DBE? | Yes <input type="checkbox"/> | No <input type="checkbox"/> |
| | Second Tier: _____ | DBE? | Yes <input type="checkbox"/> | No <input type="checkbox"/> |
| | Third Tier: _____ | DBE? | Yes <input type="checkbox"/> | No <input type="checkbox"/> |
| | Fourth Tier: _____ | DBE? | Yes <input type="checkbox"/> | No <input type="checkbox"/> |

2. Date of Subcontract: _____

3. Amount of Subcontract: \$ _____

4. Scope of Work: _____

5. Are the following documents kept on file by both the Contractor and the Subcontractor (check the appropriate answer)?

- | | | |
|---|------------------------------|-----------------------------|
| EEO-1 Certification (Form 25A304), federally funded projects only | Yes <input type="checkbox"/> | No <input type="checkbox"/> |
| Contract Minimum Wage Schedule | Yes <input type="checkbox"/> | No <input type="checkbox"/> |
| Civil Rights Representative (Form 25A302) | Yes <input type="checkbox"/> | No <input type="checkbox"/> |

6. Does the Subcontract contain provisions for prompt payment, release of retainage, and interest on late payment and retainage conforming to AS 36.90.210? Yes No

7. Does the Subcontract specifically bind the Subcontractor to the applicable terms and conditions of the Contract Documents for the benefit of the Department and does it contain waiver provisions and termination provisions as required by the Contract Documents? Yes No

8. a. Does the Subcontractor have adequate insurance coverages as specified in the Contract Documents? Yes No

If not, does the Contractor stipulate that the insurance limits of the Subcontractor are acceptable to the Contractor and that he has notified his insurance carrier of the reduced insurance limits? Yes No

b. Does the evidence of insurance certify that the policies described thereon comply with all aspects of the insurance requirements for this project? Yes No

c. Does the evidence of insurance list the Department as an "Additional Insured" or "Certificate Holder"? Yes No

PROJECT: _____ PROJ. #: _____

Subcontractor Name: _____

d. Does the evidence of insurance commit to providing written notice in accordance with the policy provisions before cancellation or reduction of any coverage or reduction in any limits of liability?

Yes No

e. Insurance Expiration dates:

Comprehensive or Commercial General Liability: _____

Automobile: _____ Workers' Compensation: _____

(Other): _____

9. Does the Contractor certify firms or individuals debarred or suspended by the Department, FAA, or FHWA are not employed or subcontracted under this construction project?

Yes No

10. Copies of the following professional certifications, licenses, and registrations are attached (circle all that apply):

- Business License (mandatory)
- Contractor License (mandatory)
- Land Surveyor's License
- Electrical Administrator's License (mandatory for electrical subs)
- Mechanical Administrator's License (mandatory for mechanical subs)
- Engineer/Architect
- Other: _____

11. Exceptions to any of the above are explained as follows: _____

CERTIFICATION (to be completed and signed by PRIME CONTRACTOR): I certify all the above to be true and correct.

Signature: _____

Printed Name: _____

Company: _____

Date: _____

DEPARTMENT'S APPROVAL/DISAPPROVAL

The subject subcontract is **APPROVED**. Nothing in this approval should be construed as relieving the Prime Contractor of the responsibility for complete performance of the work or as a waiver of any right of the Department to reject defective work.

SIGNATURE: _____ **DATE:** _____
Project Engineer

The subject subcontract is **NOT APPROVED** for the following reasons:

SIGNATURE: _____ **DATE:** _____
Project Engineer

SECTION 01 26 63
CHANGE PROCEDURES

PART 1 - GENERAL

1.01 RELATED REQUIREMENTS

- A. Section 00312 - Bid Schedule
- B. Section 00510 – Construction Contract
- C. Section 00700 - General Conditions
- D. Section 00800 - Supplementary Conditions: Modifications to General Conditions Section 00700
- E. Section 01 32 00 – Work Schedules and Reports
- F. Section 01 29 76 – Application for Payment
- G. Section 01 29 73 - Schedule of Values
- H. Section 01 73 00 – Execution Requirements: Project Record Documents

1.02 SUBMITTALS

- A. Submit the name of the individual authorized to accept changes, and to be responsible for informing others in CONTRACTOR's employ of changes in the Work.
- B. Submit with each price proposal a complete, detailed, itemized cost breakdown defining all impacts on Contract Price and Contract Time, in sufficient detail to fully explain the basis for the proposal.
- C. All change forms shall be provided by the DEPARTMENT.

1.03 CHANGE AUTHORIZATION

- A. In accordance with Section 00700 - General Conditions, Part 9 Changes, the DEPARTMENT may authorize changes to the Work. The DEPARTMENT may authorize changes in one of the following ways:
 - 1. Directive (Section 00700, Article 9.3)
 - 2. Change Order (CO) (Section 00700, Article 9.4)
 - 3. Acceptance of Shop Drawing variations, which have been identified by CONTRACTOR. (Section 00700, Article 9.5)
 - 4. Interim Work Authorization (IWA) (Section 00700, Article 9.10)
 - 5. Contingency Authorization (for CM/GC contracts only) (Section 00700, Paragraph 13.0.3 (b) (2))

1.04 CHANGE PROCEDURES

- A. The DEPARTMENT may initiate change to the contract by issuing to the CONTRACTOR a Request for Proposal (RFP) document. The RFP may include:
 - 1. Change narrative.
 - 2. Supplementary revised drawings, specifications, additional details, or sketches.
 - 3. Other information as deemed appropriate.

- B. The CONTRACTOR shall request a change to the contract by submitting to the DEPARTMENT a written Change Notice on a form provided by the DEPARTMENT. The DEPARTMENT may respond by rejecting it, or with a RFP to initiate contract change. The CONTRACTOR'S Change Notice shall include, at minimum:
 - 1. A description of the proposed change with a statement of the justification of the change.
 - 2. Statement of the effect of the change on Contract Price and Contract Time.
 - 3. The information required in Section 00700 - General Conditions, Part 15 Claims for Adjustments and Disputes.

- C. Upon receipt of a Request for Proposal (RFP) from the DEPARTMENT, the CONTRACTOR shall respond with a price proposal. The CONTRACTOR shall make every effort to return its price proposal in response to the RFP within the time frame requested by the DEPARTMENT, but in no event later than 14 calendar days from date the RFP is issued. For work to be performed after the execution of a Change Order or Contingency Authorization, the basis of pricing shall be estimated. For work performed prior to the execution of a Change Order or Contingency Authorization, the pricing shall be based upon documentation of actual incurred costs. The price proposal shall include:
 - 1. A complete, detailed, itemized price breakdown.
 - 2. For the prime contractor and subcontractors, detailed documentation of costs for direct costs, labor, equipment, consultants, sub-contractor markups, overhead and profit, and other items set forth in General Conditions Section 00700, Part 10.
 - 3. Other information as required by the DEPARTMENT.

- D. Upon receipt of pricing response to a RFP, the DEPARTMENT may execute a change to the contract. The issuance of an RFP or the receipt of pricing response to an RFP shall not obligate the DEPARTMENT to execute a change to the contract.

1.05 DIRECTIVES

- A. The DEPARTMENT may issue Directives as per Section 00700 – General Conditions, Article 9.3.

1.06 INTERIM WORK AUTHORIZATIONS (IWA)

- A. The DEPARTMENT may issue Interim Work Authorizations in accordance with Section 00700 – General Conditions, Article 9.10.

- B. IWAs may be issued to authorize the commencement of additional work in advance of the execution of a Change Order or Contingency Authorization.
- C. Work authorized by IWA shall be converted to a negotiated Change Order except that, for CM/GC contracts only, the work authorized by an IWA may be converted to a Contingency Authorization provided it does not result in an extension of Contract Time.
- D. The price on the IWA form shall be an estimated limit not to be exceeded by the CONTRACTOR without prior amendment of the IWA by the DEPARTMENT. The DEPARTMENT shall not be obligated to compensate the CONTRACTOR for costs in excess of the amount on the IWA.
- E. Upon the execution of an IWA, the CONTRACTOR is authorized to begin the specified work. The CONTRACTOR shall track its costs using Cost of Work procedures. The CONTRACTOR shall use the DEPARTMENTS's Cost of the Work form and shall submit the data to the DEPARTMENT at the close of each work day. A separate Cost of Work form is required for each IWA.

1.07 CHANGE ORDER

- A. Any change in Contract Time, Contract Price, or associated responsibility within the general scope of the Contract, shall be made by Change Order.
- B. The CONTRACTOR shall use forms furnished by the DEPARTMENT for Change Orders.

1.08 CONTINGENCY AUTHORIZATIONS (CM/GC Contracts Only)

- A. This provision for Contingency Authorizations shall apply only to Construction Manager/General Contractor (CM/GC) construction contracts.
- B. The use of Construction Contingency and CONTRACTOR'S Contingency components of the Guaranteed Maximum Price (GMP) of CM/GC construction contracts shall occur only with the execution of a Contingency Authorization (CA) form provided by the DEPARTMENT.
- C. Contingency Authorizations shall be used only to effect change of scope within the general scope of the Contract, and to provide associated monetary compensation from contingency components of the GMP, provided such change will not result in an extension of the Contract Time.
- D. Contingency Authorizations shall not be used to extend the Contract Time. The CONTRACTOR shall follow Change Order procedures for the consideration of any change of scope that may result in an associated extension of the Contract Time.
- E. With the execution of a Contingency Authorization, the CONTRACTOR agrees to waive any claim to any time impact associated with the Work set forth in the Contingency Authorization.
- F. A Contingency Authorization shall be used to establish the use of the following contingencies:

1. Construction Contingency components of the GMP per Section 00700 – General Conditions, Paragraph 13.0.3.b.2.i. On the Contingency Authorization form, the DEPARTMENT shall sign as the issuer, and the CONTRACTOR shall sign with its acknowledgement.
2. CONTRACTOR'S Contingency component of the GMP per Section 00700 – General Conditions, Paragraph 13.0.3.b.2.ii., The CONTRACTOR shall execute the Contingency Authorization form as the issuer, and the DEPARTMENT may sign with its acknowledgement.

1.09 CHANGE PRICING AND TIME ANALYSIS

- A. Unless specified elsewhere, Section 00700 - General Conditions, Part 10 shall be applied to the negotiation of all changes to the scope of the contract.
 1. Unit Price, when unit prices are contained in the Contract.
 2. Mutually acceptable Lump Sum Price, including overhead and profit.
 3. Cost of the Work
- B. UNIT PRICE CHANGE - For unit price CHANGE PROCEDURES, prices shall be determined by multiplying the contractual unit price(s) by the estimated quantities of Work associated with changed scope. Payment will be based on the actual installed quantities. Document actual installed quantities and submit information requested by the DEPARTMENT on a daily basis for its approval and certification. Refer to Section 00700 - General Conditions, Part 10 for additional requirements.
- C. LUMP SUM PRICE CHANGE - The CONTRACTOR and the DEPARTMENT shall negotiate an equitable price (and time adjustment if appropriate) in good faith. If negotiations do not result in a mutually acceptable lump sum price, the DEPARTMENT may, at its discretion, direct the CONTRACTOR to perform the work under Cost of the Work Change Order.
- D. COST OF THE WORK CHANGE – The CONTRACTOR shall document Cost of the Work on forms acceptable to the DEPARTMENT, and shall submit documented costs to the DEPARTMENT daily for verification and certification. Cost of the Work pricing proposals shall be supported by invoices for substantiation of purchase and rental costs and with additional data as may be requested by DEPARTMENT.
- E. Time Analysis for CHANGE ORDER PROCEDURES shall be performed as described in Section 01 32 00 – Work Schedules and Reports.
- F. The DEPARTMENT shall have the right to audit all records in possession of CONTRACTOR relating to activities covered by CONTRACTOR's pricing of Contract CHANGE ORDER PROCEDURES, including Cost of the Work pricing, as set forth in Section 00700 - General Conditions. If CONTRACTOR is a joint venture, the right of DEPARTMENT shall apply collaterally to the same extent to the records of joint venture sponsor, and of each individual joint venture member.

1.10 FORM EXECUTION

- A. Contract forms issued under this section shall be effective the date the DEPARTMENT's authorized person signs the form.
- B. For Change Orders, CONTRACTOR signature will indicate acceptance of the terms or acknowledgment of order, depending on box checked. Acknowledgment of Change Order does not substitute for notification requirements of Section 00700 - General Conditions, Article 15.1.

1.11 PAYMENT

- A. The CONTRACTOR shall promptly revise its Schedule of Values and Application for Payment forms to record each authorized Change Order and each authorized Contingency Authorization as a separate line item. For Change Orders, adjust the Contract Price as shown on the Change Order.
- B. The CONTRACTOR shall promptly revise and resubmit its progress schedules to reflect any change in Contract Time, including adjustments for other items of Work affected by the change.
- C. Payment for contract changes shall be made only following the execution of Change Orders or Contingency Authorizations and the inclusion of these change documents by reference on the Application for Payment form.
- D. Payment shall not be made for Work authorized via Interim Work Authorization.

PART 2 – PRODUCTS

Not Used

PART 3 – EXECUTION

Not Used

END OF SECTION

**SECTION 01 29 76
APPLICATION FOR PAYMENT**

PART 1 - GENERAL

1.01 SECTION INCLUDES

- A. Procedures for preparation and submittal of Application for Payment.

1.02 RELATED REQUIREMENTS

- A. Section 00312 – Bid Schedule
- B. Section 00700 - General Conditions
- C. Section 00800 – Supplementary Conditions
- D. Section 01 11 13 – Summary of Work
- E. Section 01 26 63 – Change Order Procedures
- F. Section 01 31 13 – Job Site Administration
- G. Section 01 32 00 – Work Schedules and Reports
- H. Section 01 33 00 –Submittal Procedures
- I. Section 01 29 73 - Schedule of Values
- J. Section 01 45 00 – Quality Control
- K. Section 01 51 00 – Construction Facilities
- L. Section 01 71 13 – Mobilization
- M. Section 01 77 00 - Contract Closeout Procedures
- N. Section 01 78 39 – Project Record Documents

1.03 FORMAT

- A. Submit Application for Payment on form approved by the DEPARTMENT.

1.04 PREPARATION OF APPLICATIONS

- A. Type required information on Application for Payment form acceptable to the DEPARTMENT.
- B. Execute certification by original signature of authorized officer upon each copy of the Application for Payment.
- C. Show breakdown of costs for each item of the Work on accepted Schedule of Values as specified in Section 01 29 73 – Schedule of Values.
- D. List each authorized Change Order as an extension on continuation sheet, listing Change Order number and dollar amount as for an original item of Work.
- E. Submit Stored Materials Worksheet with every Application for Payment requesting payment for stored materials. Show only direct costs of materials and freight. Submit documentation in accordance with Section 00700 – General Conditions, Article 13.5 Stored Materials and Equipment, for materials shown in column titled “New Material This Pay Request Period.”

1.05 SUBMITTAL PROCEDURES

- A. Submit two originals of each Application for Payment at one-month intervals. Each document shall bear original signature of authorized executive.
- B. Submit with DEPARTMENT-approved transmittal letter bearing DEPARTMENT’s project number.

1.06 SUBSTANTIATING DATA

- A. When DEPARTMENT requires substantiating information, submit all requested data justifying line item amounts in question.
- B. Provide one copy of data with cover letter for each copy of Application for Payment. Show Application for Payment number and date, and line item by number and description.

1.07 SUBMITTALS WITH APPLICATION FOR PAYMENT

- A. Submit the following for review sufficiently in advance of Application for Payment to allow detailed review by DEPARTMENT and resolution of differences.
 - 1. Schedule of Values with updated percentages of completion as required by Section 01 29 73 – Schedule of Values.
- B. Submit the following with each Application for Payment.
 - 1. Updated construction schedule as required by Section 01 32 00 – Work Schedules and Reports.
 - 2. Updated Project Record Documents as required by Section 01 78 39 – Project Record Documents.

3. Letter certifying that all Project Record Documents, including as-built drawings and submittals are current.

1.08 ADDITIONAL REQUIREMENTS FOR FIRST APPLICATION FOR PAYMENT

- A. The first Application for Payment will be processed after the Resident Engineer has received all of the following:
 1. Superintendent Data (Section 00700 – General Conditions, Article 6.2)
 2. Progress Schedule (Section 00700 – General Conditions, Paragraph 6.6.1, & Section 01 32 00 – Work Schedules and Reports)
 3. Schedule of Values (Section 00700 – General Conditions, Paragraph 6.6.2, & Section 01 29 73 – Schedule of Values)
 4. Submittal Schedule (Section 00700 – General Conditions, Paragraph 6.6.2)
 5. Safety Representative Designation (Section 00700 – General Conditions, Article 6.18)
 6. Building Permits (Section 00700 – General Conditions, Article 7.2)
 7. Name of Individual Authorized to Accept Changes (Section 01 26 63 – Change Order Procedures)
 8. CONTRACTOR's Management Team (Section 01 31 13 – Job Site Administration)
 9. CONTRACTOR Quality Control Program and Plan (Section 01 45 00 – Quality Control)
 10. Construction Site Layout Plan (Section 01 71 13 – Mobilization and Demobilization)
 11. Traffic Control Plan and Haul Routes (Section 01 11 13 – Summary of Work)

PART 2 - PRODUCTS

Not Used

PART 3 - EXECUTION

Not Used

END OF SECTION

SECTION 01 31 13
JOB SITE ADMINISTRATION

PART 1 - GENERAL

1.01 SECTION INCLUDES

- A. General requirements for the administration of the construction contract.

1.02 RELATED REQUIREMENTS

- A. Section 00700 – General Conditions
- B. Section 01 29 76 – Application for Payment
- C. Section 01 33 00 – Submittal Procedures
- D. Section 01 45 00 – Quality Control
- E. Section 01 77 00 – Contract Closeout Procedures

1.03 DEPARTMENT PROJECT MANAGEMENT TEAM

- A. The DEPARTMENT's Contracting Officer will issue a Delegation of Authority letter to the CONTRACTOR after Contract Award.
- B. The Delegation of Authority letter will designate the members of the DEPARTMENT's project management team, and delegate levels and limitations of contractual authority, all in accordance with Section 00700 - General Conditions, Article 2.1 Authorities and Limitations.
- C. The CONTRACTOR shall sign the Delegation of Authority letter to acknowledge its understanding of the instructions contained therein.

1.04 CONTRACTOR'S PROJECT MANAGEMENT TEAM

- A. CONTRACTOR's Project Management Team shall be capable of performing the following duties, including but not limited to:
 - 1. Maintain the schedule in the progress of Work and resolve construction related issues.
 - 2. Coordinate permitting and construction activities to ensure timely completion of the Work.
 - 3. Maintain a CPM schedule as specified in Section 01 33 00 – Submittal Procedures.
 - 4. Coordinate construction activities of suppliers and subcontractors with those of the CONTRACTOR and each other to ensure timely deliveries for installation.
 - 5. Coordinate and effectively manage the construction activities of subcontractors to maintain the Contract schedule and quality requirements.

6. Coordinate necessary inspections with the DEPARTMENT, approved Testing Laboratory, and other agencies as required for the progress of the Work.
 7. Participate in Project meetings with the DEPARTMENT and the Architect/Engineering Team to review the progress of the construction, and identify and resolve outstanding construction-related issues.
 8. Coordinate the installation, operation and maintenance of temporary utilities required during construction.
 9. Verify that Subcontractors maintain an accurate and up-to-date set of Contract Documents and record documents.
 10. Observe the work for compliance with requirements of the Contract Documents, maintaining a list of observed deficiencies and discrepancies.
 11. Assemble Project Record Documents from subcontractors and ensure that completed Project Record Documents are submitted to the DEPARTMENT in accordance with Section 01 77 00 - Contract Closeout Procedures, and other requirements of the Contract Documents.
- B. Execute Request for Information (RFI) Procedures.
1. Submit RFIs in writing to the DEPARTMENT in a format approved by the DEPARTMENT.
 2. The response to the RFI is formally issued to the CONTRACTOR when the DEPARTMENT signs and issues formal direction to the CONTRACTOR.
 3. The DEPARTMENT may request it's Architect/Engineers of record to provide recommendations before the DEPARTMENT issues the RFI response to the CONTRACTOR.
- C. Upon request, the CONTRACTOR shall submit all correspondence, including letters, memoranda, meeting minutes, transmittals, Request for Information, technical submittal transmittals, Requests for Change, specified Notices, and any other documentation using forms and format provided by or otherwise approved by the DEPARTMENT.

PART 2 – PRODUCTS

Not Used

PART 3 – EXECUTION

Not Used

END OF SECTION

**SECTION 01 31 14
WORK COORDINATION**

PART 1 - GENERAL

1.01 SECTION INCLUDES

- A. Project Work coordination, and coordination with work of other contracts.

1.02 RELATED REQUIREMENTS

- A. Section 00700 – General Conditions
- B. Section 01 11 13 – Summary of Work
- C. Section 01 31 13 – Job Site Administration
- D. Section 01 73 29 – Cutting and Patching

1.03 REQUIREMENTS

- A. Coordinate work of various sections of Specifications to assure efficient and orderly sequence of installation of construction elements, with provisions for accommodating items installed by DEPARTMENT or under separate contracts.
- B. Verify that characteristics of elements of interrelated operating equipment are compatible; coordinate work of various sections that have interdependent responsibilities for installing connection to, and placing such equipment in service.
- C. Coordinate space requirements and installation of electrical, mechanical, and other special work, which are indicated diagrammatically on the Contract Drawings. Follow routing shown for ducts, conduits, pipes etc., as closely as practicable; make runs parallel with lines of buildings and roads. Utilize spaces efficiently to maximize accessibility for other installations, for maintenance, and for repairs.
- D. Conceal ducts, wiring, and pipes in finished areas unless otherwise indicated. Coordinate locations of fixtures and outlets with finish elements.
- E. Whenever the Work of a Subcontractor is dependent upon the Work of other Subcontractors, contractors, or utility company contractors installing utilities under contract with the DEPARTMENT, then the CONTRACTOR shall require the Subcontractor to:
 - 1. Coordinate its Work with the dependent work.
 - 2. Provide dependent data and requirements.
 - 3. Supply and install items to be built into dependent work of others.
 - 4. Make provisions for dependent work of others.
 - 5. Examine dependent drawings, specifications and submittals.
 - 6. Examine previously placed dependent work.

7. Check and verify dependent dimensions of previously placed work.
8. Notify CONTRACTOR of previously placed dependent work or dependent dimensions, which are unsatisfactory or will prevent a satisfactory installation of its Work.
9. Not proceed with its Work until the unsatisfactory dependent conditions have been corrected.
10. CONTRACTOR shall require subcontractors to participate in coordination meetings as required by the DEPARTMENT.

F. Not Used

PART 2 – PRODUCTS

Not Used

PART 3 – EXECUTION

Not Used

END OF SECTION

SECTION 01 31 19
PROJECT MEETINGS

PART 1 - GENERAL

1.01 SECTION INCLUDES

- A. Requirements for various meetings during the construction project.

1.02 RELATED REQUIREMENTS

- A. Section 01 11 13 - Summary of Work: Coordination of Work.
- B. Section 01 32 00 – Work Schedules and Reports: Progress Schedules.
- C. Section 01 33 23 - Shop Drawings, Product Data, and Samples.
- D. Section 01 45 00 - Quality Control: CONTRACTOR responsibilities.
- E. Section 01 73 00 – Execution Requirements; Project Record Documents; Operation and Maintenance Data.
- F. Section 01 79 00 – Demonstration and Training

1.03 PRECONSTRUCTION CONFERENCES

- A. DEPARTMENT will administer preconstruction conference for execution of Contract and exchange of preliminary submittals. Attendance by all key CONTRACTOR and Subcontractor project personnel is required. The CONTRACTOR shall notify and invite in writing to the pre-construction conference all serving utilities at least 72 hours in advance of the conference.
- B. DEPARTMENT may administer site mobilization conference at Project site for clarification of CONTRACTOR responsibilities in use of site and for review of administrative procedures.
- C. DEPARTMENT will document the meeting and distribute minutes within 48-hours of adjournment. Minutes will be typed, reflecting date, list of attendees and in format to facilitate correction of previous meeting minutes. Distribution will be to all attendees and those affected by discussions or decisions made at meeting.

1.04 PREINSTALLATION CONFERENCES

- A. When required in an individual specification section, and as shown in the CONTRACTOR's quality control plan, or as directed by the DEPARTMENT, convene a pre-installation conference prior to commencing Work for a specific item.
- B. Require attendance of entities directly affecting, or affected by, Work of the section.

- C. Review conditions of installation, preparation and installation procedures, and coordination with related Work.
- D. Record significant discussions and agreements and disagreements of each conference, and approved schedule. Distribute record of conference to all attendees within 24-hours of adjournment.

1.05 WEEKLY PROGRESS MEETINGS

- A. The CONTRACTOR shall administer Weekly Progress Meetings on a regular day and time, which is mutually convenient to both the DEPARTMENT and the CONTRACTOR. These meetings shall be documented by the CONTRACTOR.
- B. Weekly Progress Meeting shall be attended by all key CONTRACTOR and, as appropriate, Subcontractor project personnel.
- C. The CONTRACTOR shall furnish copies of its current Two Week Look Ahead Schedule, per Section 01 32 00 – Work Schedules and Reports, to all attendees of the meeting. This schedule will be reviewed in detail during the meeting and will be used for the coordination of activities by others.
- D. Weekly Progress Meetings will also be used to review other key aspects of the Work, such as safety, quality, critical items, etc.
- E. Meeting Minutes: The CONTRACTOR shall document the meetings and distribute minutes within 48-hours of adjournment. Minutes shall be typed, reflecting date, attendees, and in format to facilitate correction of previous meeting minutes. Distribution shall be to all attendees and those affected by discussions or decisions made at meeting.

1.06 SAFETY MEETING

- A. The CONTRACTOR shall conduct Safety Meetings as required by its project Safety Program.
- B. The CONTRACTOR shall invite the DEPARTMENT to attend Safety Meetings.

1.07 OTHER MEETINGS

- A. At various times throughout the duration of the Contract, the CONTRACTOR will be required to attend meetings as requested by the DEPARTMENT. It is anticipated that such meetings will involve coordination with others, project schedule review, problem resolution, change order negotiations, and other topics of mutual importance.

PART 2 – PRODUCTS

Not Used

PART 3 – EXECUTION

Not Used

END OF SECTION

SECTION 01 33 00
SUBMITTAL PROCEDURES

PART 1 – GENERAL

PART 1 GENERAL

1.01 REQUIREMENTS INCLUDED

- A. Procedures
- B. Construction Progress Schedules
- C. Schedule of Values
- D. Shop Drawings and Product Data

1.02 RELATED REQUIREMENTS

- A. Section 00700 - General Conditions
- B. Section 00800 - Supplementary Conditions
- C. Section 01 11 13 - Summary of Work.
- D. Section 01 29 76 - Applications for Payment.
- E. Section 01 45 00 - Quality Control
- F. Section 01 60 00 - Material and Equipment: Products List.
- G. Section 01 77 00 - Contract Closeout: Closeout Procedures.

1.03 PROCEDURES

- A. Deliver submittals to Department as directed.
- B. Prior to the purchase or ordering of any materials or equipment, submit for approval complete data describing all items intended for use in the Work. Include the item's manufacturer, identifying number or nomenclature, and other information as necessary to describe the item. Also include the manufacturer's published data describing each item's size, capacity, performance, and power requirements. Provide certification stating that the Contractor has reviewed the material and that all items conform with the Contract requirements. Submittals made without such certification will be returned unreviewed. This certification shall be in the form of a stamp on each material item submitted and signed or initialed. The name of the certifier shall be typed or legibly printed in or near the stamp.
- C. Transmit each item under Department accepted form. Identify Project, Contractor, subcontractor, major Supplier, identify pertinent Drawing sheet and detail number, and Specification section number, as appropriate. Identify deviations from Contract Documents by submitting a Department supplied Substitution Request Form. Provide a minimum of 8-1/2" x 5-1/2" blank space on the front page for Contractor and Consultant review stamps. Provide submittals bound in loose leaf, hard cover, three ring binders complete with tabs and indexes by Specification Section. At the Department's option, partial submittals, which encompass less than a single section will be returned unreviewed or held unreviewed until the submittal is complete.

- D. Material and equipment installed, purchased, furnished, or provided for the Project which has not been submitted and reviewed by the Department may be ordered removed and acceptable material and equipment installed in its place at no additional cost to the Owner.
- E. Submit initial Progress Schedules and Schedule of Values in accordance with Article SC-6.6 of Section 00800 - Supplementary Conditions prior to submitting first Application for Payment. Form and content shall be reviewed by the Department. After review by Department, revise and resubmit as required. Submit subsequent updated schedules (10) days prior to each Application for Payment.
- F. Comply with progress schedule for submittals related to Work progress. Coordinate submittal of related items.
- G. After Department review of submittal, revise and resubmit as required, identifying changes made since previous submittal. Provide total number of submittals as required for the first submission. If six are required and four were returned for revisions, submit six again. The Department and Consultants will not return the first or revised copies of rejected submittals for re-use. **DO NOT** submit partial copies of submittals for incorporation into rejected submittal packages, which have been kept by the Department and/or Consultants. Provide **COMPLETE** copies for each review.
- H. If drawings, product submittals, samples, mock-ups, or other required submittals are incomplete or not properly submitted, the Department will not review the submittal and will immediately return submittal to Contractor. Department will review a submittal no more than two times (incomplete or improper submittals count as one). Contractor shall pay all review costs associated with more than two reviews, unless a resubmittal is required due to new comments addressing previously submitted information.

1.04 CONSTRUCTION PROGRESS SCHEDULES

- A. Submit horizontal bar Gantt chart (see below for electronic version requirements). Schedule shall show:
 - 1. Separate bar for each major trade or operation, identifying the duration of each activity and precedent activities. **Duration of Activities shall be no longer than 14 calendar days unless otherwise approved by the project manager.**
 - 2. Complete sequence of construction by activity, identifying Work of separate stages and other logically grouped activities. Show each work plan and separate work area as a separate activity or group of activities.
 - 3. Submittal dates for required Shop Drawings and product data, and product delivery dates, including those furnished by Department and those under allowances.
 - 4. All required submittals and indicating the date for each required submittal.
 - 5. Show projected percentages of completion for each item of Work and submittal as of time of each Application for Progress Payment. See below for electronic version requirements.
 - 6. Submit Progress Schedule plotted on paper 11" X 17" from the electronic program in format approved by the Department. Provide in electronic form compatible with **Microsoft Project 2010 only.**

7. Submit Progress Schedule percentages in Tracking Gantt form plotted from and in electronic form as stated above.

1.05 SCHEDULE OF VALUES

A. FORMAT

1. Form and content must be acceptable to Department.
2. Contractor's standard form or media-driven printout will be considered on request.
3. Follow Table of Contents of Project Manual and Divisions Indicated on the drawings for listing component parts. Identify each line item by number and title of listed Specification Sections.

B. CONTENT

1. List **only** the installed value of each major item of Work and each subcontracted item of Work as a separate line item to serve as a basis for computing values for progress payments. **Cost for items such as product submittals, shipping etc. shall be subsidiary to the installed item for which they apply.** Round off values to nearest dollar.
2. For each major subcontract, list products and operations of that subcontract as separate line items.
3. Coordinate listings with progress schedule. **All items on the schedule of values shall have an identical listing and ID number on the progress schedule. ID numbers need not be sequential.**
4. Component listings shall each include a directly proportional amount of Contractor's overhead and profit.
5. For items on which payments will be requested for stored products, list sub-values for cost of stored products with taxes paid.
6. Specific line item Values as indicated below shall be minimum acceptable amounts and must be included on all approved Schedules of Values and Applications for Payment.
 - a. Section 01 77 00 - Contract Closeout. Value of all required Substantial Completion Submittals and Closeout Submittals shall be not less than: See Supplementary Conditions, Article SC-6.6.2.
 - b. No progress payments will be made for Substantial Completion Submittals and Closeout Submittals until **all** submittals have been submitted to and accepted by the Department.
7. The sum of values listed shall equal total Contract Price.

C. SUBMITTAL

1. Submit Schedule of Values within 21 days after the Notice to Proceed. Subsequent updated Schedule of Values shall be presented for review ten days prior to each Application for Payment.

2. Transmit under Department accepted form transmittal letter. Identify Project by Department title and Project number; identify Contract by Department Contract number.

D. SUBSTANTIATING DATA

1. When Department requires substantiating information: submit data justifying line item amounts in question.
2. Provide one copy of data with cover letter for each copy of the Application for Payment. Show application number and date, and line item by number and description.

1.06 SHOP DRAWINGS AND PRODUCT DATA

A. SHOP DRAWINGS:

1. Present in a clear and thorough manner. Label each Shop Drawing with Department's Project name and Project number; identify each element of the Shop Drawings by reference to sheet number and detail, schedule, or room number of Contract Documents.
2. Identify field dimensions; show relation to adjacent or critical features or Work or products.
3. Minimum Sheet Size: 8-1/2"x11". Larger sheets may be submitted in multiples of 8-1/2"x11".

B. PRODUCT DATA

1. Submit only pages which are pertinent; mark each copy of standard printed data to identify pertinent products, models, options, and other data, referenced to Specification section and Article number. Show reference standards, performance characteristics, and capacities; wiring and piping diagrams and controls; component parts; finishes; dimensions; and required clearances.

C. SCHEDULE OF SUBMITTALS

1. Submittal Register Form to be completed by Contractor and approved by Department prior to submittal of any items.
2. Submit shop drawings, product data and samples as required for each specification section.
3. Format.
 - a. Submittal schedule form as provided by Department.

D. CONTRACTOR REVIEW

1. Review submittals prior to transmittal; determine and verify field measurements, field construction criteria, manufacturer's catalog numbers, and conformance of submittal with requirements of Contract Documents.
2. Coordinate submittals with requirements of Work and of Contract Documents.

3. Sign or initial each sheet of Shop Drawings and product data, and each sample label to certify compliance with requirements of Contract Documents. Notify Department in writing at time of submittal, of any deviations from requirements of Contract Documents.
4. Do not fabricate products or begin Work that requires submittals until return of submittal with Department acceptance.

E. SUBMITTAL REQUIREMENTS

1. Each submittal to be numbered by Specification Section and Paragraph. Revisions shall be identified by a hyphen after the paragraph, with a letter designator. Example: 1st submittal "01 11 13 1.08A", 2nd submittal 01 11 13 1.08A - A".
2. Transmit submittals in accordance with the required submittal schedule and in such sequence to avoid delay in the Work.
3. Provide 8-1/2" x 5-1/2" blank space on each submittal for Contractor and Consultant stamps.
4. Apply Contractor's stamp, signed or initialed, certifying to review, verification of products, field dimensions and field construction criteria, and coordination of information with requirements of Work and Contract Documents.
5. Coordinate submittals into logical groupings to facilitate interrelation of the several items:
 - a. Associated items that require correlation for efficient function or for installation.
6. Submit number of opaque reproductions of shop drawings Contractor requires, plus two copies which will be retained by Department.
7. Submit number of copies of product data and manufacturer's instructions Contractor requires, plus two copies, which will be retained by Department.
8. Submit number of samples specified in individual Specifications sections.
9. Submit under Department accepted transmittal form letter. Identify Project by title and Department Project number; identify Contract by Department contract number. Identify Work and product by Specification section and Article number.
10. Each submittal shall have as its face document a completed Department furnished Submittal Summary form.
11. Each submittal shall include the manufacturer's name and address, and supplier's name, address and telephone number.

F. RESUBMITTALS

1. After Department review of submittal, revise and resubmit as required, identifying changes made since previous submittal. Provide total number of submittals as required for the first submission. If six are required and four were returned for

revisions, submit six again. The Department and Consultants will not return the first or revised copies of rejected submittals for re-use. DO NOT submit partial copies of submittals for incorporation into rejected submittal packages which have been kept by the Department and/or Consultants. Provide COMPLETE copies for each review.

G. DEPARTMENT REVIEW

1. Department or authorized agent will review Shop Drawings, product data, and return submittals within (14) working days.
2. Department or authorized agent will examine shop drawings for general arrangement, overall dimensions and suitability, and will return to the Contractor marked as follows:
 - "No Exceptions Taken" - denotes that the submittal generally meets the requirements of the Contract Documents. "No Exceptions Taken" does not indicate a review of the Contractor's design except for general compliance with the requirements of the Contract Documents.
 - "Make Corrections Noted" - denotes review is conditional on compliance with notes made on the submittal.
 - "Revise and Resubmit" - denotes that revisions are required in the submittal in order for the submittal to be generally consistent with the requirements of the Contract Documents. Required revisions will be identified to the Contractor.
 - "Rejected" - denotes that the submittal does not meet the requirements of the Contract Documents and shall not be used in the Work. Reasons for rejection will be identified to the Contractor.
3. Review by the Department of shop and erection drawings shall not be construed as a complete check, but will indicate only that the general method of construction and detailing is consistent with the requirements of the Contract Documents. Review of such drawings shall not relieve the Contractor of the responsibility for errors, dimensions, and detail design.
4. Department will require submittal of all required color and finish samples in order to approve any color or finish.

H. DISTRIBUTION

1. Duplicate and distribute reproductions of Shop Drawings, copies of product data, and samples, which bear Consultant's stamp, to job site file, record documents file, Subcontractors, Suppliers, and other entities requiring information.

PART 2 – PRODUCTS

Not Used

PART 3 – EXECUTION

Not Used

END OF SECTION

SECTION 01 33 23

SHOP DRAWINGS, PRODUCT DATA, AND SAMPLES

PART 1 - GENERAL

1.01 RELATED REQUIREMENTS

- A. Section 00700 - General Conditions
- B. Section 01 11 13 - Summary of Work
- C. Section 01 31 19 – Project Meetings
- D. Section 01 33 00 - Submittals: Schedules for submittals and submittal requirements
- E. Section 01 45 00 - Quality Control: Mockups and samples for testing
- F. Section 01 60 00 - Material and Equipment
- G. Section 01 73 00 - Execution Requirements
- H. Section 01 78 39 – Project Record Documents
- I. Technical Specifications: Identification of submittal requirements

1.02 SHOP DRAWINGS

- A. Present in a clear and thorough manner. Label each Shop Drawing with DEPARTMENT's Project name, Project number and date of submittal. Identify each element of the Shop Drawings by reference to specification section, sheet number and detail, schedule, or room number of Contract Documents.
- B. The data shown on the Shop Drawings shall be complete with respect to specified performance and design criteria, materials and similar data to show the DEPARTMENT materials and equipment the CONTRACTOR proposes to provide.
- C. Identify dimensions; show relation to adjacent or critical features or Work or products.
- D. Designation of work "by others," if shown in submittals, shall mean that work will be responsibility of CONTRACTOR rather than subcontractor or supplier who has prepared submittals.
- E. Minimum Sheet Size: 11"x17".

1.03 PRODUCT DATA

- A. Submit only pages which are pertinent; mark each copy of standard printed data to identify pertinent products, referenced to Specification section and Article number. Show reference standards, performance characteristics and capacities; wiring and piping diagrams and controls; component parts; finishes; dimensions; and required clearances.

- B. Modify manufacturer's standard schematic drawings and diagrams to supplement standard information and to provide information specifically applicable to the Work. Delete information not applicable.
- C. Submit manufacturer's instructions for storage, preparation, assembly, installation, start up, adjusting, balancing, and finishing.

1.04 SAMPLES

- A. Submit full range of manufacturer's standard finishes except when more restrictive requirements are specified, indicating colors, textures and patterns, for DEPARTMENT selection as specified in technical product sections.
- B. Submit samples to illustrate functional characteristics of products, including parts and attachments.
- C. Approved samples, which may be used in the Work, are indicated in the Specification section.
- D. Samples shall be identified clearly as to material, supplier, pertinent data such as catalog numbers and the use for which they are intended and otherwise as the DEPARTMENT may require, to enable the DEPARTMENT to review the submittal.
- E. Label each sample with identification required for transmittal letter.
- F. Provide field sample mockup of finishes at Project, at location acceptable to DEPARTMENT, as required by individual Specification section. Install each sample complete and finished. Acceptable finishes in place may be retained in completed Work.

PART 2 – PRODUCTS

Not Used

PART 3 - EXECUTION

Not Used

END OF SECTION

**SECTION 013516
ALTERATION PROJECT PROCEDURES**

PART 1 - GENERAL

1.1 SUMMARY

- A. Section includes special procedures for alteration work.

1.2 DEFINITIONS

- A. Alteration Work: This term includes remodeling, renovation, repair, and maintenance work performed within existing spaces or on existing surfaces as part of the Project.
- B. Consolidate: To strengthen loose or deteriorated materials in place.
- C. Design Reference Sample: A sample that represents the Architect's prebid selection of work to be matched; it may be existing work or work specially produced for the Project.
- D. Dismantle: To remove by disassembling or detaching an item from a surface, using gentle methods and equipment to prevent damage to the item and surfaces; disposing of items unless indicated to be salvaged or reinstalled.
- E. Match: To blend with adjacent construction and manifest no apparent difference in material type, species, cut, form, detail, color, grain, texture, or finish; as approved by Architect.
- F. Refinish: To remove existing finishes to base material and apply new finish to match original or as otherwise indicated.
- G. Repair: To correct damage and defects, retaining existing materials, features, and finishes. This includes patching, piecing-in, splicing, consolidating, or otherwise reinforcing or upgrading materials.
- H. Replace: To remove, duplicate, and reinstall entire item with new material. The original item is the pattern for creating duplicates unless otherwise indicated.
- I. Replicate: To reproduce in exact detail, materials, and finish unless otherwise indicated.
- J. Reproduce: To fabricate a new item, accurate in detail to the original, and from either the same or a similar material as the original, unless otherwise indicated.
- K. Retain: To keep existing items that are not to be removed or dismantled.
- L. Strip: To remove existing finish down to base material unless otherwise indicated.

1.3 PROJECT MEETINGS FOR ALTERATION WORK

- A. Preliminary Conference for Alteration Work: Before starting alteration work, Architect will conduct conference at Project site.

1. Attendees to include Representatives of Owner, Architect, Engineers and Contractor.
2. Agenda: Discuss items of significance that could affect progress of alteration work, including review of the following:
 - a. Fire-prevention plan.
 - b. Governing regulations.
 - c. Areas where existing construction is to remain and the required protection.
 - d. Hauling routes.
 - e. Sequence of alteration work operations.
 - f. Storage, protection, and accounting for salvaged and specially fabricated items.
 - g. Existing conditions, staging, and structural loading limitations of areas where materials are stored.
3. Reporting: Record conference minutes and distribute copies to everyone in attendance and to others affected by decisions or actions resulting from conference.

B. Coordination Meetings: Conduct coordination meetings specifically for alteration work at bi-weekly intervals. Coordination meetings are in addition to specific meetings held for other purposes, such as progress meetings and pre-installation conferences.

1. Agenda: Review and correct or approve minutes of previous coordination meeting. Review other items of significance that could affect progress of alteration work. Include topics for discussion as appropriate to status of Project.
2. Reporting: Record meeting results and distribute copies to everyone in attendance and to others affected by decisions or actions resulting from each meeting.

1.4 MATERIALS OWNERSHIP

A. Historic items, relics, and similar objects including, but not limited to, cornerstones and their contents, commemorative plaques and tablets, antiques, and other items of interest or value to Owner that may be encountered or uncovered during the Work, regardless of whether they were previously documented, remain Owner's property.

1.5 INFORMATIONAL SUBMITTALS

- A. Alteration Work Program: Submit 30 days before work begins.
- B. Fire-Prevention Plan: Submit 30 days before work begins.

1.6 QUALITY ASSURANCE

A. Alteration Work Program: Prepare a written plan for alteration work for whole Project, including each phase or process and protection of surrounding materials during operations. Show compliance with indicated methods and procedures specified in this and other Sections. Coordinate this whole-Project alteration work program with specific requirements of programs required in other alteration work Sections.

1. Dust and Noise Control: Include locations of proposed temporary dust- and noise-control partitions and means of egress from occupied areas coordinated with continuing on-site operations and other known work in progress.
2. Debris Hauling: Include plans clearly marked to show debris hauling routes, turning radii, and locations and details of temporary protective barriers.

- B. Fire-Prevention Plan: Prepare a written plan for preventing fires during the Work, including placement of fire extinguishers, fire blankets, rag buckets, and other fire-control devices during each phase or process. Coordinate plan with Owner's fire-protection equipment and requirements. Include fire-watch personnel's training, duties, and authority to enforce fire safety.
- C. Safety and Health Standard: Comply with ANSI/ASSE A10.6.

1.7 STORAGE AND HANDLING OF SALVAGED MATERIALS

- A. Salvaged Materials:
 - 1. Clean loose dirt and debris from salvaged items unless more extensive cleaning is indicated.
 - 2. Pack or crate items after cleaning; cushion against damage during handling. Label contents of containers.
 - 3. Store items in a secure area until delivery to Owner.
 - 4. Transport items to Owner's storage area designated by Owner.
 - 5. Protect items from damage during transport and storage.
- B. Salvaged Materials for Reinstallation:
 - 1. Repair and clean items for reuse as indicated.
 - 2. Pack or crate items after cleaning and repairing; cushion against damage during handling. Label contents of containers.
 - 3. Protect items from damage during transport and storage.
 - 4. Reinstall items in locations indicated. Comply with installation requirements for new materials and equipment unless otherwise indicated. Provide connections, supports, and miscellaneous materials to make items functional for use indicated.
- C. Existing Materials to Remain: Protect construction indicated to remain against damage and soiling from construction work. Where permitted by Architect, items may be dismantled and taken to a suitable, protected storage location during construction work and reinstalled in their original locations after alteration and other construction work in the vicinity is complete.
- D. Storage: Catalog and store items within a weathertight enclosure where they are protected from moisture, weather, condensation, and freezing temperatures.
 - 1. Identify each item for reinstallation with a nonpermanent mark to document its original location. Indicate original locations on plans, elevations, sections, or photographs by annotating the identifying marks.
 - 2. Secure stored materials to protect from theft.
 - 3. Control humidity so that it does not exceed 85 percent. Maintain temperatures 5 deg F or more above the dew point.

PART 2 - PRODUCTS - (Not Used)

PART 3 - EXECUTION

3.1 PROTECTION

- A. Protect persons, motor vehicles, surrounding surfaces of building, building site, plants, and surrounding buildings from harm resulting from alteration work.
 - 1. Use only proven protection methods, appropriate to each area and surface being protected.
 - 2. Provide temporary barricades, barriers, and directional signage to exclude the public from areas where alteration work is being performed.
 - 3. Erect temporary barriers to form and maintain fire-egress routes.
 - 4. Erect temporary protective covers over walkways and at points of pedestrian and vehicular entrance and exit that must remain in service during alteration work.
 - 5. Contain dust and debris generated by alteration work, and prevent it from reaching the public or adjacent surfaces.
 - 6. Provide shoring, bracing, and supports as necessary. Do not overload structural elements.
 - 7. Protect floors and other surfaces along hauling routes from damage, wear, and staining.
- B. Temporary Protection of Materials to Remain:
 - 1. Protect existing materials with temporary protections and construction. Do not remove existing materials unless otherwise indicated.
 - 2. Do not attach temporary protection to existing surfaces except as indicated as part of the alteration work program.
- C. Comply with each product manufacturer's written instructions for protections and precautions. Protect against adverse effects of products and procedures on people and adjacent materials, components, and vegetation.
- D. Utility and Communications Services:
 - 1. Notify Owner, Architect, authorities having jurisdiction, and entities owning or controlling wires, conduits, pipes, and other services affected by alteration work before commencing operations.
 - 2. Disconnect and cap pipes and services as required by authorities having jurisdiction, as required for alteration work.
 - 3. Maintain existing services unless otherwise indicated; keep in service, and protect against damage during operations. Provide temporary services during interruptions to existing utilities.
- E. Existing Drains: Prior to the start of work in an area, test drainage system to ensure that it is functioning properly. Notify Architect immediately of inadequate drainage or blockage. Do not begin work in an area until the drainage system is functioning properly.
 - 1. Prevent solids such as adhesive or mortar residue or other debris from entering the drainage system. Clean out drains and drain lines that become sluggish or blocked by sand or other materials resulting from alteration work.
 - 2. Protect drains from pollutants. Block drains or filter out sediments, allowing only clean water to pass.

3.2 PROTECTION FROM FIRE

- A. General: Follow fire-prevention plan and the following:
1. Comply with NFPA 241 requirements unless otherwise indicated.
 2. Remove and keep area free of combustibles, including rubbish, paper, waste, and chemicals, unless necessary for the immediate work.
 - a. If combustible material cannot be removed, provide fire blankets to cover such materials.
- B. Heat-Generating Equipment and Combustible Materials: Comply with the following procedures while performing work with heat-generating equipment or combustible materials, including welding, torch-cutting, soldering, brazing, removing paint with heat, or other operations where open flames or implements using high heat or combustible solvents and chemicals are anticipated:
1. Obtain Owner's approval for operations involving use of open-flame or welding or other high-heat equipment. Notify Owner at least 72 hours before each occurrence, indicating location of such work.
 2. As far as practicable, restrict heat-generating equipment to shop areas or outside the building.
 3. Do not perform work with heat-generating equipment in or near rooms or in areas where flammable liquids or explosive vapors are present or thought to be present. Use a combustible gas indicator test to ensure that the area is safe.
 4. Use fireproof baffles to prevent flames, sparks, hot gases, or other high-temperature material from reaching surrounding combustible material.
 5. Prevent the spread of sparks and particles of hot metal through open windows, doors, holes, and cracks in floors, walls, ceilings, roofs, and other openings.
 6. Fire Watch: Before working with heat-generating equipment or combustible materials, station personnel to serve as a fire watch at each location where such work is performed. Fire-watch personnel shall have the authority to enforce fire safety. Station fire watch according to NFPA 51B, NFPA 241, and as follows:
 - a. Train each fire watch in the proper operation of fire-control equipment and alarms.
 - b. Prohibit fire-watch personnel from other work that would be a distraction from fire-watch duties.
 - c. Cease work with heat-generating equipment whenever fire-watch personnel are not present.
 - d. Have fire-watch personnel perform final fire-safety inspection each day beginning no sooner than 30 minutes after conclusion of work in each area to detect hidden or smoldering fires and to ensure that proper fire prevention is maintained.
 - e. Maintain fire-watch personnel at each area of Project site until 60 minutes after conclusion of daily work.
- C. Fire-Control Devices: Provide and maintain fire extinguishers, fire blankets, and rag buckets for disposal of rags with combustible liquids. Maintain each as suitable for the type of fire risk in each work area. Ensure that nearby personnel and the fire-watch personnel are trained in fire-extinguisher and blanket use.
- D. Sprinklers: Where sprinkler protection exists and is functional, maintain it without interruption while operations are being performed. If operations are performed close to sprinklers, shield them temporarily with guards.

1. Remove temporary guards at the end of work shifts, whenever operations are paused, and when nearby work is complete.

3.3 PROTECTION DURING APPLICATION OF CHEMICALS

- A. Protect motor vehicles, surrounding surfaces of building, building site, plants, and surrounding buildings from harm or spillage resulting from applications of chemicals and adhesives.
- B. Cover adjacent surfaces with protective materials that are proven to resist chemicals selected for Project unless chemicals being used will not damage adjacent surfaces as indicated in alteration work program. Use covering materials and masking agents that are waterproof and UV resistant and that will not stain or leave residue on surfaces to which they are applied. Apply protective materials according to manufacturer's written instructions. Do not apply liquid masking agents or adhesives to painted or porous surfaces. When no longer needed, promptly remove protective materials.
- C. Do not apply chemicals during winds of sufficient force to spread them to unprotected surfaces.
- D. Neutralize alkaline and acid wastes and legally dispose of off Owner's property.
- E. Collect and dispose of runoff from chemical operations by legal means and in a manner that prevents soil contamination, soil erosion, undermining of paving and foundations, damage to landscaping, or water penetration into building interior.

3.4 GENERAL ALTERATION WORK

- A. Record existing work before each procedure (preconstruction), and record progress during the work. Use digital preconstruction documentation photographs.
- B. Perform surveys of Project site as the Work progresses to detect hazards resulting from alterations.
- C. Notify ARCHITECT of visible changes in the integrity of material or components whether from environmental causes including biological attack, UV degradation, freezing, or thawing or from structural defects including cracks, movement, or distortion.
 1. Do not proceed with the work in question until directed by Architect.

END OF SECTION 013516

**SECTION 01 41 00
SPECIAL REGULATORY REQUIREMENTS**

PART 1 - GENERAL

1.01 SECTION INCLUDES

- A. Compliance with Governmental Regulatory Permit requirements and conditions.

1.02 RELATED REQUIREMENTS

- A. Section 00700 - General Conditions

1.03 SPECIAL REGULATORY REQUIREMENTS

- A. The CONTRACTOR shall comply with all the requirements enumerated in the Contract Documents. In addition, the CONTRACTOR shall comply with the following codes and permits, as amended by the Authority Having Jurisdiction.
 - 1. Current Edition of the International Building Code
 - 2. Current Edition of the International Fire Code
 - 3. Current edition of Uniform Plumbing Code
 - 4. Current edition of International Mechanical Code
 - 5. Current edition of NFPA 70 National Electric Code
 - 6. Current Edition of Americans with Disability Act Guidelines
 - 7. Current edition of Occupational safety and Health Administration standards
 - 8. NFPA 101 – Life Safety Code
 - 9. ASCE 7-05
 - 10. Required Permits of the Authority Having Jurisdiction
 - 11. Environmental Protection Agency (EPA), Section 402/40 CFR 125, National Pollutant Discharge Elimination System (NPDES) Nationwide Permit Compliance, with compliance with all permit requirements; Storm Water Pollution Prevention (SWPP) Plan, Notice of Intent (NOI), and Notice of Termination (NOT)

PART 2 – PRODUCTS

NOT USED

PART 3 – EXECUTION

NOT USED

END OF SECTION

SECTION 01 42 19
REFERENCE STANDARDS

PART 1 - GENERAL

1.01 RELATED SECTIONS

- A. Section 00700 - General Conditions

1.02 QUALITY ASSURANCE

- A. For Products or workmanship specified by association, trade, or other technical standards: comply with requirements of the standard, except when more rigid requirements are specified or are required by applicable codes.
- B. Conform to reference standard by date of issue current on date of bid advertisement, unless otherwise stated in the Contract Documents.
- C. Provide copies of standards through the submittal process when required by the Contract Documents. Maintain a copy of each reference standard on site during construction.
- D. Should specified reference standards conflict with Contract Documents, request clarification from the DEPARTMENT before proceeding. Local code requirements, where more stringent than referenced standards, shall govern.
- E. Neither the contractual relationship, duties, and responsibilities of the parties to the Contract, nor those of the Architect/Engineer, shall be altered by the Contract Documents by mention or inference otherwise in any reference document.

PART 2 - PRODUCTS

Not Used

PART 3 - EXECUTION

Not Used

END OF SECTION

SECTION 01 54 00
SECURITY

PART 1 – GENERAL

1.01 SUMMARY

- A. The Contractor shall conform to the security requirements of the Mt. Edgecumbe High School. The Contractor is required to receive security clearances and receive Security Training, pertinent to the area of the Mt. Edgecumbe Campus at which the Contractor will be working.

1.02 RELATED REQUIREMENTS

- A. Section 00 11 13 — Summary of Work
- B. Section 01 31 14 — Work Coordination

1.03 SECURITY AND CLEARANCES

- A. Access to the building will be permitted with a limited issuance of area keys or key cards, which will be distributed by the Owner and signed for by the CONTRACTOR. The CONTRACTOR is responsible for tracking and safeguarding those keys and must return them to the Owner as a condition of final payment. No duplications are to be made by the CONTRACTOR. Should loss of area keys occur, the CONTRACTOR shall advise the Owner immediately, and will be responsible for replacement keys and rekeying costs. The fee for lost keys is \$200.
 - 1 The contractor shall maintain security at the facility, ensuring that any unlocked doors are secured after use, during breaks or whenever the CONTRACTOR leaves the building.
- B. Prior to commencing work on site, the Owner will require that a security check be conducted on all CONTRACTOR personnel and all SUBCONTRACTOR personnel who will work on site of the project. The CONTRACTOR shall obtain Criminal History Reports for all personnel requiring access to the project site from the Alaska Department of Public Safety, 877 Sawmill Creek Hwy. There is a fee from the Department of Public Safety for Criminal History Reports, and the CONTRACTOR shall include such costs in his proposal. Reports shall be submitted to the Owner for review and security clearance 48 hours prior to requesting access on site. Any person, including the CONTRACTOR or any principal, officer or employee of the CONTRACTOR, or principal, officer, or employee of a

SUBCONTRACTOR, who has been convicted of any felony or any crime involving moral turpitude within the previous ten years, or who has pending court actions, is prohibited from working on project premises until such a time as the charges are dismissed. The Owner may limit or reject certain individuals if their presence is determined by the Contracting Officer to be detrimental to the normal conduct of business.

1.04 RESTRICTED AREA ACCESS CONTROLS

- A. Certain areas of the facility may require escorted access. Coordinate with the DEPARTMENT for access to spaces to which keys have not been issued.

PART 2 – PRODUCTS

NOT USED

PART 3 – EXECUTION

NOT USED

END OF SECTION

SECTION 01 60 00
MATERIAL AND EQUIPMENT

PART 1 - GENERAL

1.01 SECTION INCLUDES

- A. Requirements for transportation and handling, storage and protection, substitutions, and product options.

1.02 RELATED REQUIREMENTS

- A. Section 00700 – General Conditions
- B. Section 01 33 23 – Shop Drawings
- C. Section 01 42 19 Reference Standards
- D. Section 01 33 00 - Submittal Procedures
- E. Section 01 45 00 – Quality Control
- F. Section 01 51 00 – Construction Facilities
- G. Section 01 60 00A – Substitution Request Form
- H. Section 01 73 00 – Execution Requirements

1.03 TRANSPORTATION AND HANDLING

- A. Transport products by methods to avoid product damage; deliver in undamaged condition in manufacturer's unopened containers or packaging, dry.
- B. Provide equipment and personnel to handle products by methods to prevent soiling or damage.
- C. Immediately on delivery, inspect shipment to assure:
 - 1. Product complies with requirements of Contract Documents and reviewed submittals.
 - 2. Quantities are correct.
 - 3. Accessories and installation hardware are correct.
 - 4. Containers and packages are intact and labels legible.
 - 5. Products are protected and undamaged.

1.04 STORAGE AND PROTECTION

- A. Handle and store materials for construction, products of demolition, and other items to avoid damage to existing buildings, and infrastructure. All materials stored or staged on the roof shall be properly covered and anchored to prevent materials from being blown off the roof. Do not overload the structure.
- B. Store products in accordance with manufacturer's instructions, with seals and labels intact and legible. Store sensitive products in weather tight enclosures; maintain within temperature and humidity ranges required by manufacturer's instructions.
- C. For exterior storage of fabricated products, place on sloped supports above ground. Cover products subject to deterioration with impervious sheet covering; provide ventilation to avoid condensation.
- D. Store loose granular materials on solid surfaces in a well-drained area; prevent mixing with foreign matter. Cover such material to prevent material from being blown or transported away from the stockpile.
- E. Arrange storage to provide access for inspection. Periodically inspect to assure products are undamaged, and are maintained under required conditions.

1.05 SUBSTITUTIONS

- A. Substitutions shall be allowed during the Bidding period only if Document 00100, Information to Bidders, designates a time for submitting requests for substitutions under requirements specified in this Section.
- B. Only one request for substitution will be considered for each product from each Prime Bidder/CONTRACTOR. When substitution is not accepted, Prime Bidder/CONTRACTOR shall provide specified product.
- C. DEPARTMENT will consider requests for Substitutions only within 90 days after date established in Notice to Proceed.
- D. Substitutions may be considered when a Product becomes unavailable through no fault of the CONTRACTOR.
- E. Document each request with complete data substantiating compatibility of proposed Substitution with Contract Documents.
- F. Substitutions will not be considered when they are indicated or implied on shop drawing or product data submittals, without separate written request, or when acceptance will require revision to the Contract Documents.

1.06 SUBSTITUTION SUBMITTAL PROCEDURE:

- A. Submit four copies of Request for Substitution for consideration on Substitution Request form provided by DEPARTMENT (Section 01 60 00-A). Limit each request to one proposed Substitution.
- B. Submit certification signed by the CONTRACTOR: that the CONTRACTOR:
 - 1. Has investigated proposed Product and determined that it meets or exceeds the quality level of the specified Product. List similar projects using proposed product, dates of installation and user telephone number.
 - 2. Will provide an equivalent warranty for the Substitution as for the specified Product.
 - 3. Will coordinate installation and make changes to other Work, which may be required for the Work to be complete with no additional cost to DEPARTMENT.
 - 4. Waives claims for additional costs or time extension, which may subsequently become apparent from indirect costs.
 - 5. Will reimburse Department for review or redesign services associated with re-approval by Authorities.
- C. Submit shop drawings, manufacturers' product data, and certified test results attesting to the proposed Product equivalence and variations between substitute and specified product. The burden of proof is on proposer.
- D. The DEPARTMENT will notify CONTRACTOR in writing of decision to accept or reject request.

PART 2 - PRODUCTS

2.01 PRODUCTS

- A. Products include material, equipment, and systems.
- B. Comply with Specifications and referenced standards as minimum requirements.
- C. Components required to be supplied in quantity within a Specification section shall be the same, and shall be interchangeable.
- D. Do not use materials and equipment removed from existing structure, except as specifically required, or allowed, by Contract Documents.

2.02 PRODUCT OPTIONS


- A. Products Specified by Reference Standards or by Description Only: Any Product meeting those standards or description.
- B. Products Specified by Naming One or More Manufacturers followed by the term "No Substitutions": use only specified manufacturers, no substitutions allowed.

- C. Products Specified by Naming One or More Manufacturers with a Provision for Substitutions:
Submit a request for substitution for any manufacturer not specifically named that meets the description specifications of the named manufacturers.

PART 3 - EXECUTION

Not Used

END OF SECTION

STATE OF ALASKA DOT & PF STATEWIDE PUBLIC FACILITIES	SUBSTITUTION REQUEST FORM (after Award)	
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Project: MEHS Bldg 1330 Fire Alarm & Sprinkler Upgrades

Project No.: 2501000056

Contractor: _____

Specified item for which substitution is requested: _____
(reference specification section and paragraph)

The following product is submitted for substitution: _____
(describe proposed substitution and differences from specified item; attach complete technical, performance, and test data; state whether substitution affects dimensions and functional clearances shown on drawings or affects other trades, and include complete information for changes to drawings and/or specifications which proposed substitution will require for its proper installation.)

I certify the following:

- | Yes | No | |
|--------------------------|--------------------------|--|
| <input type="checkbox"/> | <input type="checkbox"/> | The substitute will perform adequately and achieve the results called for by the general design. |
| <input type="checkbox"/> | <input type="checkbox"/> | The substitute is similar, of equal substance, suited to the same use, and will provide the same warranty as the product specified. |
| <input type="checkbox"/> | <input type="checkbox"/> | An equivalent source of replacement parts is available. |
| <input type="checkbox"/> | <input type="checkbox"/> | The evaluation and approval of the proposed substitute will not delay the Substantial or Final Completion of the project. |
| <input type="checkbox"/> | <input type="checkbox"/> | Any change in the design necessitated by the proposed substitution will not delay the Substantial or Final Completion of the project. |
| <input type="checkbox"/> | <input type="checkbox"/> | The cost of any change in the design necessitated by the proposed substitution, including engineering and detailing costs, and construction costs caused by the substitution will be paid by the contractor at no cost to the State. |
| <input type="checkbox"/> | <input type="checkbox"/> | The cost of any license fee or royalty necessitated by the proposed substitution will be paid by the contractor at no cost to the State. |

The undersigned states that the function, appearance and quality are equivalent or superior to the specified item.

Signed: _____ Date: _____
Authorized Contractor Signature

Architect/Engineer Recommendation:

- Accepted
 Accepted as Noted
 Not Accepted
 Received Too Late

Remarks:

Signed: _____ Date: _____
Architect/Engineer

Recommend Acceptance / Rejection _____ Date: _____
(circle one) Resident Engineer

Accepted
 Rejected _____ Date: _____
 Project Manager

**SECTION 01 71 13
MOBILIZATION AND DEMOBILIZATION**

PART 1 - GENERAL

1.01 SECTION INCLUDES

- A. Requirements for mobilization and demobilization.

1.02 RELATED REQUIREMENTS

- A. Section 01 11 13 – Summary of Work
- B. Section 01 29 73 – Schedule of Values
- C. Section 01 29 76 – Application for Payment
- D. Section 01 51 00 – Construction Facilities
- E. Section 01 77 00 – Contract Closeout

1.03 DEFINITIONS

- A. Mobilization and Demobilization includes:
 - 1. CONTRACTOR's work to prepare Site for Work under Contract and to marshal workers, materials and equipment, and those of subcontractors, to accomplish the Work.
 - 2. Mobilization of all construction equipment, materials, suppliers, appurtenances, and the like, staffed and ready for commencing and prosecuting the Work, and the subsequent demobilization and removal from the site of said equipment, appurtenances, and the like upon completion of the Work.
 - 3. Assembly and delivery to the site of plant, equipment, materials, and supplies necessary for the prosecution of Work which are not intended to be incorporated in the work; the clearing of and preparation of the CONTRACTOR's work area; the complete assembly, in working order, of equipment necessary to perform the required work; personnel services preparatory to commencing actual work; all other preparatory work required to permit commencement of the actual work on construction items for which payment is provided under the Contract.

1.04 REQUIREMENTS

- A. Haul routes, staging areas, and security guard and flagger positions will be designated and/or subject to approval by DEPARTMENT, who will coordinate with CONTRACTOR to determine requirements and locations.

- B. Cooperate with DEPARTMENT in allocation and use of MOBILIZATION AND DEMOBILIZATION areas of Site, field offices and sheds, materials storage, traffic, and parking facilities.
- C. During construction, coordinate use of Site and facilities through DEPARTMENT.
- D. Comply with DEPARTMENT'S procedures of contract communications; submittals, reports and records, schedules, coordination drawings, and recommendations; and resolution of ambiguities and conflicts.
- E. Comply with instructions of DEPARTMENT for use of utilities and construction facilities.
- F. Coordinate field engineering and layout Work under instructions of DEPARTMENT.
- G. Walk through Site with DEPARTMENT prior to start of Work.

1.05 SUBMITTALS

- A. Refer to Section 01 33 00 - Submittal Procedure, for submittal requirements.
- B. If requested by DEPARTMENT, submit a plan of the proposed layout of the construction site, including fences, roads, parking, buildings, staging, and storage areas, within seven (7) days after Notice to Proceed.

PART 2 – PRODUCTS

Not used

PART 3 - EXECUTION

3.01 Delivery: Delivery to the jobsite of construction tools, equipment, materials, and supplies shall be accomplished in conformance with local governing ordinances and regulations and the requirements of the Contract Documents.

3.02 Upon completion of the Work, remove construction tools, apparatus, equipment, unused materials and supplies, plant, and personnel from the jobsite.

END OF SECTION

**SECTION 01 73 00
EXECUTION REQUIREMENTS**

PART 1 - GENERAL

1.01 SECTION INCLUDES

- A. Requirements for addressing defects, cleaning, operating and maintenance manuals, spare parts, training, warranties and bonds, and maintenance service.

1.02 RELATED REQUIREMENTS

- A. Section 00700 - General Conditions: Fiscal provisions, legal submittals, and other administrative requirements
- B. Section 01 26 63 – Change Procedures
- C. Section 01 31 19 – Project Meetings
- D. Section 01 33 00 –Submittal Procedures
- E. Section 01 33 23 – Submittal Procedures
- F. Section 01 60 00 – Material and Equipment
- G. Section 01 79 00 – Demonstration and Training.

1.03 CLOSEOUT PROCEDURES

- A. Comply with Section 01 77 00 - Contract Closeout Procedures.

1.04 DEFECTS

- A. Product defects shall be all items that affect the visual appearance or function of the Products. Defects shall be as identified below unless more stringent requirements are specified within specific sections.
- B. Products shall be shall typically be viewed from a distance of 30.0 inches (760 mm).
- C. Defects shall be solely determined by the DEPARTMENT.
- D. Defects, Product:
 - 1. Cuts, Scrapes, Gouges Abrasions 0.250 inch (6 mm) long or longer than and 0.03125 inches (0.79375 mm) wide or wider that are visible at a distance of 30.0 inches (762 mm) shall be considered defects.
 - 2. Abrasions less than the above shall be accepted.

3. Burns of any size that permanently discolor the surface material shall be considered defects.
 4. Product color variation.
- E. Defects, Joint:
1. Non-alignment of Products. Visual defects and non-alignment of joints shall be considered defective.
- F. Defects, Structural:
1. Bent members or other structural damage shall be considered defective.
 2. Incorrectly manufactured members shall be considered defective.
- G. Defects, Corrosion:
1. Surface corrosion not exceeding one percent (1%) of the surface area shall be considered a visual defect.
 2. Surface corrosion exceeding one percent (1%) and not exceeding five percent (5%) of the surface area shall be evaluated by the Project Manager.
 3. Surface corrosion exceeding five percent (5%) of the surface area shall be shall be considered a structural defect.
- H. Defects shall be repaired or replaced as solely determined by the Project Manager at no additional cost to the DEPARTMENT.
1. Structural defects shall be replaced, no exceptions.
 2. Visual defects shall be repaired or replaced as solely determined by the Project Manager.

1.05 PROGRESS CLEANING AND WASTE REMOVAL

- A. Maintain work and storage areas free of waste materials, debris, and rubbish. Maintain site in a neat and orderly condition to maintain safe passage and exits and to avoid fire hazard. Provide covered containers for deposit of waste materials.
- B. Collect and remove waste materials, debris, and rubbish from site periodically and at least weekly, and dispose off-site. Have equipment and personnel available on-site daily to sweep and scrub roads and parking areas, which are work sites or haul routes.
- C. Pavement striping and markings that cannot be effectively cleaned shall be replaced at expense of CONTRACTOR.

1.06 FINAL CLEANING

- A. Execute final cleaning prior to Substantial Completion inspection.
- B. Clean interior and exterior surfaces exposed to view; remove temporary labels, stains and foreign substances.
- C. Use materials which will not create hazards to health or property, and which will not damage surfaces. Follow manufacturer's recommendations.

- D. Maintain cleaning until DEPARTMENT issues certificate of Substantial Completion.
- E. Remove waste, debris, and surplus materials from site. Clean grounds; remove stains, spills, and foreign substances from paved areas and sweep clean. Rake clean other exterior surfaces.

1.08 ADJUSTING

- A. Adjust operating Products and equipment to ensure smooth and unhindered operation.

1.09 OPERATION AND MAINTENANCE DATA

- A. Submit data bound in 3-ring slant "D" presentation ring binders, maximum 11-5/5" high and 11-1/4" deep. Spine, front, and back shall be heavy virgin vinyl sealed over heavy board. Binders shall have clear, full size pockets on spine and front cover. Thickness of content shall not exceed 75% of binder manufacturer's stated capacity. All pages shall be 8 1/2" x 11", or 11" x 17" folded to 8 1/2" x 11" in a manner to permit unfolding without removal from binder.

- B. O&M Manual binders shall be black, clearly and permanently labeled as follows:

- a. Spine

Project Name

Project Number

Operations & Maintenance Manual, Volume ____ of ____

Building Name:

- b. Front Cover:

Project Name:

Project No.:

Building Name:

CONTRACTOR:

Address

City, State, ZIP

Phone:

Fax:

Consultant:

Address

City, State, ZIP

Phone:

Fax:

Operations & Maintenance Manual, Volume ____ of ____

Discipline:

Date:

- C. Internally subdivide the binder contents with permanent page dividers, logically organized as described below; with tab titling clearly printed under reinforced laminated plastic tabs.
- D. Contents: Prepare a Table of Contents for each volume, with each Product or system description identified, typed on 24 pound white paper, in three parts as follows:
 - 1. Part 1: Directory, listing names, addresses, and telephone numbers of Architect/Engineer, CONTRACTOR, Subcontractors, and major equipment suppliers.
 - 2. Part 2: Operation and maintenance instructions, arranged by system process flow and subdivided by specification section. For each category, identify names, addresses, and telephone numbers of Subcontractors and suppliers. Identify the following:
 - a. Significant design criteria.
 - b. List of equipment.
 - c. Parts list for each component.
 - d. Operating instructions.
 - e. Maintenance instructions for equipment and systems.
 - f. Maintenance instructions for [special] finishes, including recommended cleaning methods and materials, and special precautions identifying detrimental agents.
 - 3. Part 3: Project documents and certificates, including the following:
 - a. Shop drawings and product data.
 - b. Air and water balance reports.
 - c. Certificates.
 - d. Originals of warranties and bonds.
- E. Submit 1 draft copy of completed volumes 90 working days prior to Training or Substantial Completion inspection, whichever is earliest. This copy will be reviewed and returned, with DEPARTMENT comments. Revise content of all document sets as required prior to final submission.

- F. Submit three sets of revised final volumes 45 days prior to Training or Substantial Completion inspection, whichever is earliest.
- G. In addition to required hard copies, provide electronic copy on .pdf format with table of contents hyperlinked to all referenced sections.

1.10 TRAINING

- A. Before Substantial Completion, instruct DEPARTMENT designated personnel in operation, adjustment, and maintenance of products, equipment, and systems, at agreed upon times. For equipment requiring seasonal operation, or placed into operation subsequent to Final Completion, perform instructions within six months.
- B. Refer to Section 01 79 00 for additional training requirements.
- C. Use operation and maintenance manuals as basis of instruction. Review contents of manual with personnel in detail to explain all aspects of operation and maintenance.
- D. Unless specified elsewhere, the duration of on-site instruction shall be as specified.
- E. Provide digital video recordings of all provided instruction in format approved by DEPARTMENT. Training videos shall be submitted prior to Substantial Completion.
- F. Prepare and insert additional data in Operation and Maintenance Manual when need for such data becomes apparent during instruction.

1.11 SPARE PARTS AND MAINTENANCE PRODUCTS

- A. Provide spare parts, maintenance, and extra Products in quantities specified in individual specification sections. These shall be labeled and stored per manufacturer's recommendations.
- B. Deliver to Project site and place in location as directed; obtain receipt prior to Substantial Completion payment.

1.12 WARRANTIES AND BONDS

- A. Provide duplicate notarized copies.
- B. Execute and assemble transferable warranty documents from Subcontractors, suppliers, and manufacturers.
- C. Provide Table of Contents and assemble in three D side ring binder with durable plastic cover.
- D. For items of Work delayed beyond date of Substantial Completion, provide updated submittal within 10 days after acceptance, listing date of acceptance as start of warranty period.

1.13 MAINTENANCE SERVICE

- A. Furnish service and maintenance of components indicated in specification sections for one year from date of Substantial Completion.
- B. Examine system components at a frequency consistent with reliable operation. Clean, adjust, and lubricate as required.
- C. Include systematic examination, adjustment, and lubrication of components. Repair or replace parts whenever required. Use parts produced by the manufacturer of the original component.
- D. Maintenance service shall not be assigned or transferred to any agent or Subcontractor without prior written consent of the DEPARTMENT.

PART 2 - PRODUCTS

Not Used

PART 3 - EXECUTION REQUIREMENTS

Not Used

END OF SECTION

SECTION 01 73 29
CUTTING AND PATCHING

PART 1 - GENERAL

1.01 SECTION INCLUDES

- A. Related Documents and Requirements
- B. General Requirements
- C. Submittals
- D. Structural Work
- E. Operational Systems
- F. Visual Requirements
- G. Existing Warranties
- H. Materials
- I. Inspection
- J. Preparation
- K. Performance
- L. Cleaning

1.02 RELATED REQUIREMENTS

- A. Section 01 11 13 - Summary of Work
- B. Section 01 31 14 - Work Coordination
- C. Section 01 33 00 – Submittal Procedures
- D. Section 01 60 00 - Material and Equipment

1.03 REQUIREMENTS

- A. Cut in-place construction to provide for installation of other components or performance of other construction, and subsequently patch as required to restore surfaces to their original condition.

- B. Repairs and Patching: CONTRACTOR shall repair or patch all cut or disturbed areas as incidental to the Work. All patching and repairs shall match adjacent areas in texture, color, materials, and quality of workmanship.
- C. Employ skilled and qualified workers to perform cutting and patching.

1.04 SUBMITTALS

- A. Cutting and Patching Proposal: Prior to proceeding with cutting and patching, submit and obtain DEPARTMENT'S review of proposed cutting and patching procedures.
- B. Include the following information, as applicable, in proposal:
 - 1. Describe extent of cutting and patching required. Show how it will be performed and indicate why it is unavoidable.
 - 2. Describe anticipated results in terms of changes to existing construction. Include changes to structural elements and operating components as well as changes in building's appearance and other significant visual elements.
 - 3. List products to be used and firms or entities that will perform Work.
 - 4. Indicate dates and times when cutting and patching will be performed.
 - 5. Describe how the Work may affect operations of the facility user and what measures will be taken to mitigate them.
 - 6. Utilities: List utilities cutting and patching procedures will disturb or affect. Describe how service from affected utilities will be bypassed if necessary to maintain uninterrupted service.
 - 7. Structural: Where cutting and patching involves adding reinforcement to structural elements, submit details and engineering calculations showing integration of reinforcement with original structure.
 - 8. Roofing and Exterior Architectural Systems: Submit information on proposed cutting and patching procedures adequate for the DEPARTMENT to obtain in writing from the manufacturer of the existing system that the proposed procedures will not void the manufacturer's warranty. Work shall be performed by an installer authorized by the existing system manufacturer.
- C. The DEPARTMENT'S review of cutting and patching proposals does not waive its right to later require complete removal and replacement of unsatisfactory work.

1.05 STRUCTURAL

- A. Requirements for Structural Work: Do not cut and patch structural elements in manner that would change their load-carrying capacity or load-deflection ratio.
- B. Obtain approval of cutting and patching proposal before cutting and patching following structural elements:
 - 1. Foundations
 - 2. bearing and retaining walls
 - 3. structural concrete and masonry units
 - 4. structural steel

5. Lintels
6. timber and primary wood framing
7. structural decking
8. stair systems
9. miscellaneous structural metals
10. exterior curtain-wall constructions
11. equipment supports
12. piping, ductwork, vessel, and equipment
13. structural systems of special construction
14. others as deemed necessary by the DEPARTMENT

1.06 OPERATIONAL SYSTEMS

- A. Obtain approval of cutting and patching proposal before performing cutting and patching work affecting the following operating elements or safety related systems:
 1. primary operational system and equipment
 2. air or smoke barriers
 3. water, moisture or vapor barriers
 4. membranes and flashings
 5. fire protection system
 6. noise and vibration control elements and systems
 7. control systems
 8. communication systems
 9. conveying systems
 10. electrical wiring systems
 11. operating system of special construction
 12. others as deemed necessary by the DEPARTMENT
- B. Provide bypass or backup systems to minimize downtime and operational impact to existing facility.

1.07 EXISTING WARRANTIES

- A. Remove, replace, patch, and repair materials and surfaces cut or damaged during installation or cutting and patching operations, by methods and with materials so as not to void existing warranties.
- B. Work on existing roofing and other items covered by warranty shall be done by firm or craftsman authorized by warranty issuer.

PART 2 - PRODUCTS

PART 3 - EXECUTION

3.01 INSPECTION

- A. Before proceeding meet at Project Site with DEPARTMENT'S representative and parties involved in cutting and patching, including related trades.

- B. Examine surfaces to be cut and patched and conditions under which cutting and patching is to be performed.
- C. Review areas of potential interference and conflict; coordinate procedures and resolve before proceeding.

3.02 PREPARATION

- A. Temporary Support: Provide temporary support of work to be cut.
- B. Protection: Protect in-place construction during cutting and patching to prevent damage. Provide protection from adverse weather conditions for portions of Project that might be exposed during cutting and patching operations.
- C. Adjacent Occupied Areas: Avoid interference with use of adjoining areas or interruption of free passage to adjoining areas.

3.03 PERFORMANCE

- A. Cutting: Cut in-place construction by sawing, drilling, breaking, chipping, grinding, and similar operations, including excavation, using methods least likely to damage elements retained or adjoining construction. If possible, review proposed procedures with original Installer; comply with original Installer's written recommendations.
 - 1. In general, use hand or small power tools designed for sawing and grinding, not hammering and chopping. Cut holes and slots neatly to minimum size required, and with minimum disturbance of adjacent surfaces. Temporarily cover openings when not in use.
 - 2. Finished Surfaces: Cut or drill from the exposed or finished side into concealed surfaces.
 - 3. Concrete: Cut using a cutting machine, such as an abrasive saw or a diamond-core drill.
 - 4. Mechanical and Electrical Services: Cut off pipe or conduit in walls or partitions to be removed. Cap, valve, or plug and seal remaining portion of pipe or conduit to prevent entrance of moisture or other foreign matter after cutting.
 - 5. Proceed with patching after construction operations requiring cutting are complete.
- B. Patching: Patch construction by filling, repairing, refinishing, closing up, and similar operations following performance of other work. Patch with durable seams that are as invisible as practicable. Provide materials and comply with installation requirements specified in other Sections, where applicable.
 - 1. Inspection: Where feasible, test and inspect patched areas after completion to demonstrate physical integrity of installation.
 - 2. Exposed Finishes: Restore exposed finishes of patched areas and extend finish restoration into retained adjoining construction in a manner that will minimize evidence of patching and refinishing.
 - 3. Floors and Walls: Where walls or partitions that are removed extend one finished area into another, patch and repair floor and wall surfaces in the new space. Provide an

even surface of uniform finish, color, texture, and appearance. Remove in-place floor and wall coverings and replace with new materials, if necessary, to achieve uniform color and appearance.

4. Ceilings: Patch, repair, or rehang in-place ceilings as necessary to provide an even-plane surface of uniform appearance.
5. Exterior Building Enclosure: Patch components in a manner that restores enclosure to a weather-tight condition and ensures thermal and moisture integrity of building enclosure.

3.04 CLEANING

- A. Clean areas and spaces where cutting and patching are performed. Remove paint, mortar, oils, putty, and similar materials from adjacent finished surfaces.

END OF SECTION

**SECTION 01 77 00
CONTRACT CLOSEOUT PROCEDURES**

PART 1 - GENERAL

1.01 SECTION INCLUDES

- A. Requirements for Substantial Completion
- B. Requirements for Final Completion
- C. Requirements for Final Payment and Final Acceptance

1.02 RELATED SECTIONS

- A. Section 00700 - General Conditions: Substantial Completion, Final Completion, Final Payment, Final Acceptance
- B. Section 01 11 13 - Summary of Work: Using Agency occupancy
- C. Section 01 33 00 – Submittal Procedures
- D. Section 01 29 73 – Schedule of Values
- E. Section 01 29 76 – Application for Payment
- F. Section 01 31 13 – Job Site Administration
- G. Section 01 45 23 – Departmental Inspection Service: CONTRACTOR'S Responsibilities
- H. Section 01 71 13 – Mobilization and Demobilization
- I. Section 01 73 00 – Execution Requirements: Final cleaning, Project Record Documents, Operation and Maintenance Data, Warranties and Bonds, Spare Parts and Maintenance Materials
- J. Section 01 78 39 – Project Record Documents
- K. Section 01 79 00 – Demonstration and Training
- L. Section 01 91 00 - Commissioning

1.03 SUBSTANTIAL COMPLETION SUBMITTALS

Submit the following prior to requesting the Substantial Completion Inspection:

- A. Evidence of Compliance with Requirements of Authority Having Jurisdiction:

1. Certificate of Occupancy
 2. Required Certificates of Inspection
 3. Other approvals as may be required
- B. Project Record Documents
- C. Operation and Maintenance Data
- D. Spare Parts and Maintenance Materials
- E. Warranties and Bonds
- F. Keys and Keying Schedule
- G. No progress payments will be made for Substantial Completion until all required submittals have been submitted and accepted by the DEPARTMENT.

1.04 SUBSTANTIAL COMPLETION

- A. In accordance with Section 00700 - General Conditions, Article 13.10 Substantial Completion, the CONTRACTOR shall notify the DEPARTMENT in writing that the Work or a portion of the Work which has been specifically identified in the Contract Documents (except for items specifically listed by the CONTRACTOR as incomplete) is substantially complete and request that the DEPARTMENT issue a Certificate of Substantial Completion. The DEPARTMENT will consider the CONTRACTOR'S request for Substantial Completion only when:
1. Written request for Substantial Completion is provided at least 14 calendar days in advance of the DEPARTMENT'S scheduled Substantial Completion inspection date.
 2. List of items to be completed or corrected is submitted.
 3. All Operation and Maintenance Manuals are submitted and approved by the DEPARTMENT.
 4. All commissioning requirements have been met.
 5. All equipment and systems have been tested, adjusted, balanced and are fully operational.
 6. All demonstration and training requirements have been met.
 7. All automated and manual controls are fully operational.
 8. Operation of all equipment and systems has been demonstrated to DEPARTMENT.
 9. Certificate of Occupancy is submitted.
 10. Certificates of Inspection for required inspections have been submitted.
 11. Project Record Documents for the Work or the portion of the Work being accepted are submitted and approved.
 12. Spare parts and maintenance materials are turned over to DEPARTMENT.
 13. All keys are turned over to the DEPARTMENT.
 14. All warranties and bonds are submitted and approved.
 15. Final cleaning has been completed to the satisfaction of the DEPARTMENT.

- B. When all of the preceding requirements for the consideration of Substantial Completion have been met, the DEPARTMENT will conduct a scheduled Substantial Completion inspection with its Architect/Engineers and Using Agency representatives. If upon the completion of the inspection, the DEPARTMENT should find that the Work is not substantially complete, DEPARTMENT will promptly notify CONTRACTOR in writing, listing observed deficiencies.
- C. The CONTRACTOR shall remedy deficiencies and send a second written notice of Substantial Completion.
- D. When the DEPARTMENT finds the Work is substantially complete, it will have 14 days to issue a certificate of Substantial Completion with an attached punch list of deficiencies, all in accordance with the provisions of the General Conditions.
- E. The CONTRACTOR shall be responsible for scheduling the activities required for Substantial Completion to enable completion within the Contract Time.

1.05 FINAL COMPLETION

- A. In accordance with Section 00700 – General Conditions, Article 13.13 Final Completion, when the CONTRACTOR considers that it has completed all the deficiencies listed on the Substantial Completion punch list, and that the Work is otherwise complete, it shall submit written certification that:
 - 1. Contract Documents have been reviewed
 - 2. Work has been completed in accordance with Contract Documents, and deficiencies listed with certificate of Substantial Completion have been corrected
 - 3. Work is complete and ready for final inspection
- B. Upon the receipt of the preceding written notice, the DEPARTMENT will conduct a Final Completion inspection. If the DEPARTMENT should then find the Work to be incomplete, it will promptly notify the CONTRACTOR in writing with a list of observed deficiencies.
- C. The CONTRACTOR shall remedy deficiencies and transmit to the DEPARTMENT a second certification of Final Completion.
- D. When the DEPARTMENT determines the Work is complete, all in accordance with the General Conditions article, “Final Completion and Application for Payment”, the CONTRACTOR may make application for Final Payment.

1.06 REINSPECTION FEES

- A. In accordance with Section 00700 – General Conditions, Articles 13.10 Substantial Completion and 13.12 Final Inspection, the CONTRACTOR shall pay for all costs incurred by the DEPARTMENT for re-inspection.
- B. The DEPARTMENT may deduct the re-inspection costs from the application for final payment.

1.07 FINAL ACCEPTANCE

- A. Following the issuance of Final Completion, and subject to the completion of requirements specified in Section 00700 - General Conditions, Articles 13.14 Final Payment and 13.15 Final Acceptance, the DEPARTMENT will review the project files for completeness. The DEPARTMENT may require the CONTRACTOR to submit or re-submit any of the following documents, upon request:
1. Contractor's transmittal letter: O&M Manuals
 2. Contractor's transmittal letter: Warranty/Bonds
 3. Contractor's transmittal letter: Record Documents
 4. Spare parts, maintenance materials receipts
 5. Contractor's transmittal letter: keys & keying schedule
 6. Contractor's certification of insurance
 7. EEO compliance certification (Federally funded projects only)
 8. Submittals and miscellaneous registers
 9. Original final pay estimate
 10. Contractor's release
 11. Department of Labor Notice of Completion (NOC)
 12. Other documentation as required by the DEPARTMENT
- B. Statement of Adjustment of Accounts – The DEPARTMENT may require the CONTRACTOR to submit a final statement reflecting adjustments to the Contract Price showing:
1. Original Contract Price
 2. Previous Change Orders
 3. Changes under allowances
 4. Changes under Unit Prices
 5. Deductions for uncorrected Work
 6. Penalties and bonuses
 7. Deductions for liquidated damages
 8. Deductions for re-inspection fees
 9. Other adjustments to Contract Price
 10. Total Contract Price as adjusted
 11. Previous payments
 12. Sum remaining due
- C. DEPARTMENT will issue a final Change Order reflecting all remaining adjustments to Contract Price not previously made by Change Orders.
- D. See Section 01 29 73 - Schedule of Values for minimum value that shall be assigned for Final Acceptance.
- E. The CONTRACTOR shall cooperate with the DEPARTMENT and shall provide the requested documentation.

F. When the DEPARTMENT determines its files are complete, it may make final payment and issue a letter of Final Acceptance.

PART 2 - PRODUCTS

Not Used

PART 3 - EXECUTION

Not Used

END OF SECTION

**SECTION 01 78 39
PROJECT RECORD DOCUMENTS**

PART 1 - GENERAL

1.01 SECTION INCLUDES

- A. Maintenance of Record Documents and Samples
- B. Submittal of Record Documents and Samples

1.02 RELATED REQUIREMENTS

- A. Section 00700 - General Conditions: Record Documents
- B. Section 01 11 13 – Summary of Work: Record survey
- C. Section 01 29 76 – Application for Payment
- D. Section 01 33 23 – Shop Drawings, Product Data, and Samples
- E. Section 01 77 00 – Contract Closeout Procedures
- F. Individual Specifications Sections: Manufacturer's certificates and certificates of inspection

1.03 MAINTENANCE OF DOCUMENTS AND SAMPLES

- A. In addition to requirements in General Conditions, maintain at the site for DEPARTMENT one accurate record copy of:
 - 1. Contract Drawings
 - 2. Specifications
 - 3. Addenda
 - 4. Change Orders and other modifications to the Contract
 - 5. Reviewed Shop Drawings, product data, and samples
 - 6. Survey and field records
 - 7. Field test records
 - 8. Inspection certificates
 - 9. Manufacturer's certificates
- B. Prior to Substantial Completion, provide original or legible copies of each item maintained by CONTRACTOR as listed in 01 78 39.1.02.B,C, and D above.
- C. Delegate responsibility for management of maintenance of Record Documents to one person on CONTRACTOR's staff as approved in advance by Contracting Officer.
- D. Promptly following award of Contract, secure from DEPARTMENT, at no cost to the CONTRACTOR, one complete set of all Documents comprising the Contract.

- E. Immediately upon receipt of job set described above, identify each Document with title "RECORD DOCUMENTS - JOB SET".
- F. Store record documents and samples in field office apart from documents used for construction. Provide files, racks, and secure storage for record documents and samples.
- G. Label and file record documents and samples in accordance with section number listings in table of contents of this Project manual. Label each document "PROJECT RECORD" in neat, large, printed letters.
- H. Maintain record documents in a clean, dry and legible condition. Do not use record documents for construction purposes.
- I. Use all means necessary to maintain job set of Record Documents completely protected from deterioration and from loss and damage until completion of Work and transfer of recorded data to Contracting Officer.
- J. Keep record documents and samples available for inspection by DEPARTMENT.
- K. Upon request by the DEPARTMENT and at time of each Application for Payment enable inspection of record documents by the DEPARTMENT for review as to completeness.
- L. Contracting Officer's approval of current status of Record Documents will be prerequisite to Contracting Officer's approval of requests for progress payments and request for final payment.
 - 1. Prior to submitting each request for progress payment, secure Contracting Officer's approval of Record Documents as currently maintained.
 - 2. Prior to submitting request for Final Payment, obtain Contracting Officer's approval of final Record Documents.
- M. Do not use job set for any purpose except entry of new data and for review and copying by Contracting Officer.

1.04 RECORDING

- A. Record information on a set of blue line opaque Drawings, and in a copy of a Project manual, provided by DEPARTMENT.
- B. Using felt tip marking pens or colored pencil, maintaining separate colors for each major system, clearly describe changes by note and by graphic line, as required. Date all entries. Call attention to entry by a "cloud" around area or areas affected.
- C. Thoroughly coordinate all changes within Record Documents, making adequate and proper entries on each Specification Section and each sheet of Drawings and other Documents where such entry is required to properly show change or selection.

- D. When a change within Record Documents is referenced to another document, such as a RFI, Shop Drawing or Change Order, attach a copy of the referenced document to the respective Record Drawing or Record Specification where the entry is made.
- E. Contract Drawings and Shop Drawings: Legibly mark each item to record actual construction, including:
 - 1. Measured depths of elements of foundation in relation to finish first floor datum. Accurate to the nearest inch.
 - 2. Measured horizontal and vertical locations of underground utilities and appurtenances, referenced to permanent surface improvements. Accurate to the nearest inch.
 - 3. Measured locations of internal utilities and appurtenances concealed in construction, referenced to visible and accessible features of construction.
 - 4. Field changes of dimension and detail.
 - 5. Changes made by modifications.
 - 6. Details not on original Contract Drawings.
 - 7. References to related Shop Drawings and modifications
 - 8. Clearly label all changes and show dimensions to establish size and location. All identifications shall be sufficiently descriptive to relate reliably to Specifications.
- F. Other Documents: Maintain manufacturer's certifications, inspection certifications, and field test records required by individual Specifications sections.

1.05 SUBMITTALS

- A. Upon submittal of the completed Record Documents, make changes in Record Documents as required by the Contracting Officer.
- B. Transmit with cover letter in duplicate, listing:
 - 1. Date
 - 2. DEPARTMENT's Project title and number
 - 3. CONTRACTOR's name, address, and telephone number
 - 4. Number and title of each record document
 - 5. Signature of CONTRACTOR or authorized representative.
- C. Final Record Documents shall include both hard copies and digitally scanned copies in .pdf format (high quality greyscale scans, minimum 200 pixels/inch). Scans shall include front and back of drawings/documents where information occurs on both sides.

PART 2 – PRODUCTS

Not Used

PART 3 - EXECUTION

Not Used

END OF SECTION

SECTION 01 79 00
DEMONSTRATION AND TRAINING

PART 1 – GENERAL

1.01 SECTION INCLUDES

- A. Administrative and procedural requirements for instructing DEPARTMENT's personnel. Major topics include the following:
 - 1. Demonstration of operation of systems, subsystems, and equipment.
 - 2. Training in operation and maintenance of systems, subsystems, and equipment.

1.02 RELATED REQUIREMENTS

- A. Section 00700 – General Conditions
- B. Section 01 11 13 – Summary of Work
- C. Section 01 31 13 – Job Site Administration
- D. Section 01 31 19 – Project Meetings
- E. Section 01 33 00 – Submittal Procedures
- F. Section 01 73 00 – Execution Requirements
- G. Section 01 77 00 – Contract Closeout Procedures

1.03 SUBMITTALS

- A. Instruction Program: Submit three copies of outline of instructional program for demonstration and training, including a schedule of proposed dates, times, length of instruction time, and instructors' names for each training module. Include learning objective and outline for each training module.
 - 1. At completion of training, submit two complete training manual(s) for DEPARTMENT's use.
- B. Qualification Data: For facilitator and instructor.
- C. Attendance Record: For each training module, submit list of participants and length of instruction time.

1.04 QUALITY ASSURANCE

- A. **Facilitator Qualifications:** A firm or individual experienced in training or educating maintenance personnel in a training program similar in content and extent to that indicated for this Project, and whose work has resulted in training or education with a record of successful learning performance.
- B. **Instructor Qualifications:** A factory-authorized service representative, complying with requirements in Division 1 Section "Quality Requirements," experienced in operation and maintenance procedures and training.
- C. **Pre-instruction Conference:** Conduct conference at Project site to comply with requirements in Division 1 Section "Project Meetings." Review methods and procedures related to demonstration and training including, but not limited to, the following:
 - 1. Inspect and discuss locations and other facilities required for instruction.
 - 2. Review and finalize instruction schedule and verify availability of educational materials, instructors' personnel and facilities needed to avoid delays.
 - 3. Review required content of instruction.
 - 4. For instruction that must occur outside, review weather and forecasted weather conditions and procedures to follow if conditions are unfavorable.

1.05 COORDINATION

- A. Coordinate instruction schedule with DEPARTMENT's operations. Adjust schedule as required to minimize disrupting DEPARTMENT's operations.
- B. Coordinate instructors, including providing notification of dates, times, length of instruction time, and course content.
- C. Coordinate content of training modules with content of approved emergency, operation, and maintenance manuals. Do not submit instruction program until operation and maintenance data has been reviewed and approved by Department.

PART 2 - PRODUCTS

2.01 INSTRUCTION PROGRAM

- A. **Program Structure:** Develop an instruction program that includes individual training modules for each system and equipment not part of a system, as required by individual Specification Sections, and as follows:
 - 1. Fire-protection systems, including fire alarm systems, components and accessories, sprinkler systems, fire pumps and fire-extinguishing systems
- B. **Training Modules:** Develop a learning objective and teaching outline for each module. Include a description of specific skills and knowledge that participant is expected to master. For each module, include instruction for the following:

1. Basis of System Design, Operational Requirements, and Criteria: Include the following:
 - a. System, subsystem, and equipment descriptions
 - b. Performance and design criteria if CONTRACTOR is delegated design responsibility
 - c. Operating standards
 - d. Regulatory requirements
 - e. Equipment function
 - f. Operating characteristics
 - g. Limiting conditions

2. Documentation: Review the following items in detail:
 - a. Emergency manuals
 - b. Operations manuals
 - c. Maintenance manuals
 - d. Project Record Documents
 - e. Identification systems
 - f. Warranties and bonds
 - g. Maintenance service agreements and similar continuing commitments

3. Emergencies: Include the following, as applicable:
 - a. Instructions on meaning of warnings, trouble indications, and error messages
 - b. Instructions on stopping
 - c. Shutdown instructions for each type of emergency
 - d. Operating instructions for conditions outside of normal operating limits
 - e. Sequences for electric or electronic systems
 - f. Special operating instructions and procedures

4. Operations: Include the following, as applicable:
 - a. Startup procedures
 - b. Equipment or system break-in procedures
 - c. Routine and normal operating instructions
 - d. Regulation and control procedures
 - e. Control sequences
 - f. Safety procedures
 - g. Instructions on stopping
 - h. Normal shutdown instructions
 - i. Operating procedures for emergencies
 - j. Operating procedures for system, subsystem, or equipment failure
 - k. Seasonal and weekend operating instructions
 - l. Required sequences for electric or electronic systems
 - m. Special operating instructions and procedures

5. Adjustments: Include the following:
 - a. Alignments
 - b. Checking adjustments
 - c. Noise and vibration adjustments
 - d. Economy and efficiency adjustments

6. Troubleshooting: Include the following:
 - a. Diagnostic instructions
 - b. Test and inspection procedures

7. Maintenance: Include the following:
 - a. Inspection procedures
 - b. Types of cleaning agents to be used and methods of cleaning
 - c. List of cleaning agents and methods of cleaning detrimental to product
 - d. Procedures for routine cleaning
 - e. Procedures for preventive maintenance
 - f. Procedures for routine maintenance
 - g. Instruction on use of special tools

8. Repairs: Include the following:
 - a. Diagnosis instructions
 - b. Repair instructions
 - c. Disassembly; component removal, repair, and replacement; and reassembly instructions
 - d. Instructions for identifying parts and components
 - e. Review of spare parts needed for operation and maintenance.

PART 3 - EXECUTION

3.01 PREPARATION

- A. Assemble educational materials necessary for instruction, including documentation and training module. Assemble training modules into a combined training manual.
- B. Set up instructional equipment at instruction location.

3.02 INSTRUCTION

- A. Facilitator: Engage a qualified facilitator to prepare instruction program and training modules, to coordinate instructors, and to coordinate between CONTRACTOR and DEPARTMENT for number of participants, instruction times, and location.
- B. Engage qualified instructors to instruct DEPARTMENT's personnel to adjust, operate, and maintain systems, subsystems, and equipment not part of a system.
 - 1. DEPARTMENT will furnish a representative to describe DEPARTMENT's operational philosophy.
 - 2. DEPARTMENT will furnish CONTRACTOR with names and positions of participants.
- C. Scheduling: Provide instruction at mutually agreed on times. For equipment that requires seasonal operation, provide similar instruction at start of each season.
 - 1. Schedule training with DEPARTMENT with at least 14 days' advance notice.
- D. Cleanup: Collect used and leftover educational materials and give to DEPARTMENT. Remove instructional equipment. Restore systems and equipment to condition existing before initial training use.

END OF SECTION

**SECTION 024119
SELECTIVE DEMOLITION**

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Demolition and removal of selected portions of building or structure.

1.2 MATERIALS OWNERSHIP

A. Unless otherwise indicated, demolition waste becomes property of CONTRACTOR.

1. Carefully salvage in a manner to prevent damage and promptly return to Owner.

B. Proposed Protection Measures: Submit report that indicates the measures proposed for protecting individuals and property, for dust control and, for noise control. Indicate proposed locations and construction of barriers.

C. Schedule of selective demolition activities with starting and ending dates for each activity.

1.3 CLOSEOUT SUBMITTALS

A. Inventory of items that have been removed and salvaged.

1.4 FIELD CONDITIONS

A. Owner will occupy portions of building immediately adjacent to selective demolition area. Conduct selective demolition so Owner's operations will not be disrupted.

B. Conditions existing at time of inspection for bidding purpose will be maintained by Owner as far as practical.

C. Notify Architect of discrepancies between existing conditions and Drawings before proceeding with selective demolition.

D. Storage or sale of removed items or materials on-site is not permitted.

E. Utility Service: Maintain existing utilities indicated to remain in service and protect them against damage during selective demolition operations.

1. Maintain fire-protection facilities in service during selective demolition operations.

F. Arrange selective demolition schedule so as not to interfere with Owner's operations.

1.5 WARRANTY

- A. Existing Warranties: Remove, replace, patch, and repair materials and surfaces cut or damaged during selective demolition, by methods and with materials and using approved contractors so as not to void existing warranties.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

- A. Regulatory Requirements: Comply with governing EPA notification regulations before beginning selective demolition. Comply with hauling and disposal regulations of authorities having jurisdiction.
- B. Standards: Comply with ASSE A10.6 and NFPA 241.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Verify that utilities have been disconnected and capped before starting selective demolition operations.
- B. Inventory and record the condition of items to be removed and salvaged.

3.2 UTILITY SERVICES AND MECHANICAL/ELECTRICAL SYSTEMS

- A. Existing Services/Systems to Remain: Maintain services/systems indicated to remain and protect them against damage.
- B. Existing Services/Systems to Be Removed, Relocated, or Abandoned: Locate, identify, disconnect, and seal or cap off utility services and mechanical/electrical systems serving areas to be selectively demolished.
 - 1. Owner will arrange to shut off indicated services/systems when requested by Contractor.
 - 2. Arrange to shut off utilities with utility companies.
 - 3. If services/systems are required to be removed, relocated, or abandoned, provide temporary services/systems that bypass area of selective demolition and that maintain continuity of services/systems to other parts of building.
 - 4. Disconnect, demolish, and remove fire-suppression systems, plumbing, and HVAC systems, equipment, and components indicated on Drawings to be removed.
 - a. Piping to Be Removed: Remove portion of piping indicated to be removed and cap or plug remaining piping with same or compatible piping material.
 - b. Piping to Be Abandoned in Place: Drain piping and cap or plug piping with same or compatible piping material and leave in place.
 - c. Equipment to Be Removed: Disconnect and cap services and remove equipment.
 - d. Equipment to Be Removed and Reinstalled: Disconnect and cap services and remove, clean, and store equipment; when appropriate, reinstall, reconnect, and make equipment operational.

- e. Equipment to Be Removed and Salvaged: Disconnect and cap services and remove equipment and deliver to Owner.
- f. Ducts to Be Removed: Remove portion of ducts indicated to be removed and plug remaining ducts with same or compatible ductwork material.
- g. Ducts to Be Abandoned in Place: Cap or plug ducts with same or compatible ductwork material and leave in place.

3.3 PROTECTION

- A. Temporary Protection: Provide temporary barricades and other protection required to prevent injury to people and damage to adjacent buildings and facilities to remain.
- B. Temporary Shoring: Design, provide, and maintain shoring, bracing, and structural supports as required to preserve stability and prevent movement, settlement, or collapse of construction and finishes to remain, and to prevent unexpected or uncontrolled movement or collapse of construction being demolished.
- C. Remove temporary barricades and protections where hazards no longer exist.

3.4 SELECTIVE DEMOLITION

- A. General: Demolish and remove existing construction only to the extent required by new construction and as indicated. Use methods required to complete the Work within limitations of governing regulations and as follows:
 - 1. Neatly cut openings and holes plumb, square, and true to dimensions required. Use cutting methods least likely to damage construction to remain or adjoining construction. Use hand tools or small power tools designed for sawing or grinding, not hammering and chopping. Temporarily cover openings to remain.
 - 2. Cut or drill from the exposed or finished side into concealed surfaces to avoid marring existing finished surfaces.
 - 3. Do not use cutting torches until work area is cleared of flammable materials. At concealed spaces, such as duct and pipe interiors, verify condition and contents of hidden space before starting flame-cutting operations. Maintain portable fire-suppression devices during flame-cutting operations.
 - 4. Maintain fire watch
 - a. During and for at least 2 hours after flame-cutting operations
 - b. When the fire sprinkler system is temporarily disconnected for the duration of disconnecting and connecting the system.
 - 5. Locate selective demolition equipment and remove debris and materials so as not to impose excessive loads on supporting walls, floors, or framing.
 - 6. Dispose of demolished items and materials promptly.
- B. Site Access and Temporary Controls: Conduct selective demolition and debris-removal operations to ensure minimum interference with roads, streets, walks, walkways, and other adjacent occupied and used facilities.
- C. Removed and Salvaged Items:
 - 1. Clean salvaged items.
 - 2. Pack or crate items after cleaning. Identify contents of containers.
 - 3. Store items in a secure area until delivery to Owner.
 - 4. Transport items to Owner's storage area on-site.

5. Protect items from damage during transport and storage.

D. Removed and Reinstalled Items:

1. Clean and repair items to functional condition adequate for intended reuse.
2. Pack or crate items after cleaning and repairing. Identify contents of containers.
3. Protect items from damage during transport and storage.
4. Reinstall items in locations indicated. Comply with installation requirements for new materials and equipment. Provide connections, supports, and miscellaneous materials necessary to make item functional for use indicated.

E. Existing Items to Remain: Protect construction indicated to remain against damage and soiling during selective demolition. When permitted by Owner, items may be removed to a suitable, protected storage location during selective demolition and cleaned and reinstalled in their original locations after selective demolition operations are complete.

3.5 CLEANING

A. Remove demolition waste materials from Project site and dispose of them in an EPA-approved construction and demolition waste landfill acceptable to authorities having jurisdiction.

1. Do not allow demolished materials to accumulate on-site.
2. Remove and transport debris in a manner that will prevent spillage on adjacent surfaces and areas.
3. Remove debris from elevated portions of building by chute, hoist, or other device that will convey debris to grade level in a controlled descent.
4. Comply with requirements specified in Section 017419 "Construction Waste Management and Disposal."

B. Burning: Do not burn demolished materials.

C. Clean adjacent structures and improvements of dust, dirt, and debris caused by selective demolition operations. Return adjacent areas to condition existing before selective demolition operations began.

END OF SECTION 024119

**SECTION 062013
EXTERIOR FINISH CARPENTRY**

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes plywood soffits.

1.2 ACTION SUBMITTALS

- A. Samples: For each exposed product and for each color and texture specified.

1.3 WARRANTY

- A. Manufacturer's Warranty for Engineered Wood Soffits and Trim: Manufacturer agrees to repair or replace components that fail in materials or workmanship within specified warranty period.
 - 1. Warranty Period for Soffits and Trim (Excluding Finish): 10 years from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 MATERIALS, GENERAL

- A. Lumber: DOC PS 20 and applicable rules of grading agencies indicated. If no grading agency is indicated, comply with applicable rules of any rules-writing agency certified by the American Lumber Standard Committee's (ALSC) Board of Review. Grade lumber by an agency certified by the ALSC's Board of Review to inspect and grade lumber under the rules indicated.
 - 1. Factory mark each piece of lumber with grade stamp of inspection agency, indicating grade, species, moisture content at time of surfacing, and mill.
 - 2. For exposed lumber, mark grade stamp on end or back of each piece, or omit grade stamp and provide certificates of grade compliance issued by inspection agency.

2.2 PLYWOOD SOFFITS

- A. Plywood Type: Exterior, Grade B-C.
 - 1. Face Grade: 303NR.
- B. Thickness: 7/16 inch.
- C. Face Species: Western red cedar.
- D. Pattern: Plain.

- E. Surface: Rough sawn.

2.3 MISCELLANEOUS MATERIALS

- A. Fasteners for Exterior Finish Carpentry: Provide nails or screws, in sufficient length to penetrate not less than 1-1/2 inches into wood substrate.
 - 1. For face-fastening siding, provide ringed-shank siding nails or hot-dip galvanized-steel siding nails.
- B. Insect Screening for Soffit Vents: Match existing Aluminum, 18-by-16-inch black mesh
- C. Continuous Soffit Vents: Aluminum hat channel shape perforations 2 inches wide and in lengths not less than 96 inches.
 - 1. Finish: Mill finish; match existing.
- D. Sealants: Latex, complying with ASTM C834 Type OP, Grade NF and applicable requirements in Section 079200 "Joint Sealants," and recommended by sealant and substrate manufacturers for intended application.

PART 3 - EXECUTION

3.1 PREPARATION

- A. Clean substrates of projections and substances detrimental to application.
- B. Prime lumber and moldings to be painted, including both faces and edges, unless factory primed.
 - 1. Cut to required lengths and prime ends.
 - 2. Comply with requirements in Section 099113 "Exterior Painting."

3.2 INSTALLATION, GENERAL

- A. Install exterior finish carpentry level, plumb, true, and aligned with adjacent materials.
 - 1. Use concealed shims where necessary for alignment.
 - 2. Scribe and cut exterior finish carpentry to fit adjoining work.
 - 3. Refinish and seal cuts as recommended by manufacturer.
 - 4. Install to tolerance of 1/8 inch in 96 inches for level and plumb. Install adjoining exterior finish carpentry with 1/32-inch maximum offset for flush installation and 1/16- maximum offset for reveal installation.
 - 5. Coordinate exterior finish carpentry with materials and systems in or adjacent to it.
 - 6. Provide cutouts for mechanical and electrical items that penetrate exterior finish carpentry.

3.3 INSTALLATION OF SOFFIT

- A. Install siding to comply with manufacturer's written instructions and warranty requirements.

- B. Plywood Siding:
1. Install panels with edges over framing or blocking.
 2. Nail at 6 inches o.c. at panel perimeter and 12 inches o.c. at intermediate supports unless manufacturer recommends closer spacing.
 3. Leave 1/16-inch gap between adjacent panels and 1/8-inch gap at perimeter, openings, and horizontal joints unless otherwise recommended by panel manufacturer.
 4. Seal butt joints at inside and outside corners and at trim locations.
 5. Install continuous metal flashing at horizontal panel joints.
 6. Apply battens and corner trim as indicated. Countersink nail heads, fill flush, and sand filler.
- C. Finish: Apply finish within two weeks of installation.

END OF SECTION 062013

**SECTION 079200
JOINT SEALANTS**

PART 1 - GENERAL

1.01 SECTION INCLUDES

- A. Providing all materials, labor, equipment, service, scaffolding, and the like, necessary and incidental to the completion of all Sealants as shown on the Drawings and as specified herein.
- B. Work includes sealing of joints as required to seal the perimeters of openings in walls, penetrations in walls, expansion and control joints, and as required to weatherproof the building or structure.
- C. Work includes interior building sealing of joints, penetrations (other than fire stopping), and openings, including acoustical and sanitary sealing, as indicated and required.
- D. Joint fillers and sealants for concrete slabs and paving are specified in other Sections.
- E. Expansion control assemblies and covers for major expansion and seismic joints are as shown on drawings.

1.02 RELATED SECTIONS

- A. Section 062013: Exterior Finish Carpentry.

1.03 REFERENCES

The most recently published standards of the following organizations are referenced herein by their acronym:

- A. American Society for Testing and Materials (ASTM)
- B. Federal Specifications (FS)

1.04 DEFINITIONS

Sealant terms specified herein comply with the definitions of ASTM C717.

1.05 SUBMITTALS

- A. Make submittals in conformance with Section 013300.
- B. Manufacturer's descriptive data for materials including backstop material, primer and sealer. Descriptive data for elastomeric sealants shall include shelf life and curing time.
- C. Submit certificates of compliance stating that the sealants conform to the specified requirements.
- D. Samples: Submit three samples 1/2 inch by 3 inches in size illustrating sealant colors for selection.
- E. Manufacturer's Installation Instructions: Indicate special procedures surface preparation, perimeter conditions requiring special attention.

1.06 QUALITY ASSURANCE

Establish and maintain control of the work covered under this Section to insure compliance with the Contract requirements including but not limited to the items listed below.

- A. Only specified sealants are installed.
- B. Surfaces are prepared as specified to receive respective sealant.
- C. Proper type sealant is used in each location.

1.07 DELIVERY, STORAGE, AND HANDLING

- A. Deliver materials to the job in manufacturer's original unopened containers. Include the following information on the label of the containers: manufacturer, name of material, formula or specification number, color, mixing instructions, shelf life and curing time when applicable at the standard conditions for laboratory tests.
- B. Do not use any sealants or components outdated as indicated by shelf life.
- C. Carefully handle and store materials to prevent inclusion of foreign materials or exposure to temperatures exceeding 90 degrees F.
- D. Handle and store sealant tape in a manner that will not deform the tape.

1.08 ENVIRONMENTAL REQUIREMENTS

- A. Exterior:
 - 1. Do not proceed with installation of sealants during inclement weather unless the installation complies with the manufacturer's instructions.
 - 2. Do not proceed with the installation of sealants under extreme temperature conditions which may cause joint openings to be near either maximum or minimum width. Nor when such extreme temperatures or high wind loads are forecast during period required for initial or nominal cure of elastomeric sealants.
 - 3. Schedule installation and cure of elastomeric sealants during period of relatively low temperatures (but well within manufacturer's recommended range) so that subsequent tensile stresses upon cured sealants will be minimized.

PART 2 - PRODUCTS

2.01 SEALANTS

General: Sealants shall be designed for adhesion to the surface to which they will be applied. They shall be non-staining, non-shrinking, and non-sagging, meeting the requirements specified herein.

Type A:

- 1. Application: Joints less than 3/4 inch in width or where movement is expected to be less than 10 percent. Not for use in joints of metal to wood.
- 2. System: Polysulphide base, single component sealant.
- 3. Requirements: Chemical curing; conforming to requirements of FS TT-S-230, Type II, Class A; Shore A hardness of minimum 15 and maximum 50; non-staining and non-bleeding; color as selected.
- 4. Manufacturer/Type: Sonneborn Building Products/'Sonolastic Sealant One-Part' (or equal).

Type B:

1. Application: Joints of any material, width or degree of movement.
2. System: Polysulphide base, two component sealant.
3. Requirements: Chemical curing; conforming to requirements of FS SS-S-200, Class A; Shore A hardness of minimum 15 and maximum 50; non-staining; color as selected. Self-leveling type for application in horizontal joints; non-sagging type for application in vertical joints.
4. Manufacturer/Type: Sonneborn Building Products/ 'Sonolastic Sealant Two-Part' (or equal).

Type C:

1. Application: Joints between similar materials of width less than 3/4 inch or joints between dissimilar materials.
2. System: Silicone base, single component, solvent curing sealant.
3. Requirements: Conforming to requirements of FS TT-S-1543, Class A; Shore A hardness of maximum 50; non-staining; color as selected.
4. Manufacturer/Type: Dow Corning Corporation "No. 795 Silicone Building Sealant." (or equal)

Type D:

1. Application: Joints less than 3/4 inch in width with movements less than 10 percent.
2. System: Acrylic base, single component, solvent curing sealant.
3. Requirements: Conforming to requirements of FS TT-S-230, Type II, Class A; Shore A hardness of maximum 55; non-staining; non-bleeding; non-sagging; color as selected.
4. Manufacturer/Type: Tremco/'Mono' (or equal).

Type E:

1. Application: Joints of any material less than 2 inches wide.
2. System: Polyurethane base, multi-component, chemical curing sealant.
3. Requirements: Conforming to requirements of FS TT-S-227, Class A; Shore A hardness of minimum 15 and maximum 50; non-staining; non-bleeding; color as selected. Self-leveling type for application in horizontal joints; non-sagging type for application in vertical joints.
4. Manufacturer/Type: Tremco/'Dymeric' (or equal).

Type F:

1. Application: Joints less than 3/4 inch wide.
2. System: Polyurethane base, single component, chemical curing sealant.
3. Requirements: Conforming to FS TT-S-230; Shore A hardness of minimum 15 and maximum 50; non-staining; non-bleeding; color as selected. Self-leveling type for application in horizontal joints; non-sagging type for application in vertical joints.
4. Manufacturer/Type: Sika Corporation/ "Sikaflex-1A." (or equal).

Type G:

1. Application: Narrow joints less than 3/8 inch where movement is expected.
2. System: One part butyl vulcanized sealant.
3. Requirements: Conforming to FS TT-S-001657, Type I.
4. Manufacturer/Type: The Burke Company, "Butyl Rubber Caulk" (or equal).

2.02 SEALANT COLORS

- A. Colors of each type of sealant to be selected by the Architect from the manufacturer's standard range.

2.03 ACCESSORIES

- A. Primer: As recommended by the sealant manufacturer. Primer shall have been tested for durability with the sealant to be used and on samples of the surfaces to be sealed.
- B. Sealant Backing: An ASTM D1056/D1565 resilient urethane or polyvinyl chloride foam, closed-cell polyethylene foam, closed-cell sponge of vinyl or rubber, polychloroprene tubes or beads, polyisobutylene extrusions, or oil less dry jute or rope yarn. Use nonabsorbent, nonstaining backstop material that is compatible with the sealant used. Use polyisobutylene or polychloroprene rubber preformed support strips for expansion-joint.
- C. Bond-Preventive Materials: Pressure-sensitive adhesive polyethylene tape, aluminum foil or wax paper. At the option of the Contractor, backstop material with bond breaking characteristics may be installed in place of bond-preventive materials specified.

PART 3 - EXECUTION

3.01 EXAMINATION

- A. Examine all surfaces prior to application as noted below and notify the Architect of any conditions detrimental to proper application.
- B. The surfaces of joints to be sealed shall be dry. Remove oil, grease, dirt, chalk, particles of mortar, dust, loose rust, loose mill scale and other foreign substances from all joint surfaces to be sealed. Remove oil and grease with solvent and wipe surfaces with clean cloths.

3.02 PREPARATION

- A. Remove all loose trim items, bead, molds, and the like.
- B. Clean joints and spaces to be sealed or calked free of dirt, dust, mortar, oil, and other deleterious substances which may impair bond or adversely affect the sealing work. Where necessary, degrease with a solvent or commercial degreasing agent. Apply sealants only to dry surfaces. Clean out joints, full width and depth. Rake joints to proper depth, permitting use of sealant backing and sealant of indicated depth. Fill depth of joint in back of sealant with sealant backing as specified.
- C. If recommended by the manufacturer, remove paint and other coatings from surfaces to be sealed prior to sealant application. Remove coatings on metallic surfaces with a solvent that leaves no residue.
- D. Enclose joints on three sides. Where grooves for adequate sealing have not been provided, clean out suitable grooves to depth required or as indicated on Contract Drawings and cut or ground to minimum width of 1/4 inch without damage to adjoining work. Restore any adjacent or connecting damaged work resulting from cutting or grinding.
- E. Where there is danger of staining finish materials abutting joint, cover faces of material to edge of groove with masking tape. Remove masking tape within 10 minutes after joint has been filled and tooled.
- F. Remove protective coatings on steel surfaces by sandblasting or by a solvent that leaves no residue.

- G. Do not apply paint or other coatings to surfaces adjoining joints until sealants have been installed and are nominally cured.

3.03 INSTALLATION - GENERAL

- A. Provide sealants in joints as indicated or specified. The joint design, shape, and spacing shall be as indicated. Mix in compliance with instructions provided by the manufacturer of the sealants.
- B. Sealant shall bond the two opposing surfaces of the joint. Where Contract Drawings differ with these requirements, Contract Drawings shall govern.
- C. Install bond-preventive materials for sealant on the bottom of the joint cavity and other surfaces indicated to prevent the sealant from adhering to the surfaces covered by the bond-preventive materials. Carefully apply the materials to avoid contamination of adjoining surfaces or breaking bond with surfaces other than those covered by the bond-preventive materials.
- D. Solidly place sealant backing material with diameter greater than joint width into joints receiving sealant. Properly align backing material to permit sealant to be of uniform thickness, positively stopped, and assuring that sealant presses firmly against joint edges for adequate bonding. Do not over compress or twist. If a closed cell backer rod is torn or punctured, replace same to avoid bubbling of rod under sealant.
- E. Tool sealants in joints flat or slightly concave using a blunt tool or roller. Calk and inspect joints in back of applied trim is permanently installed. Neatly point sealed and calked joints on flush surfaces with beading tool, and internal corners with eaving tool. Cleanly remove any excess material.
- F. Pack tightly the back or bottom of joints that are constructed deeper than indicated with backstop material to provide a joint of the depth indicated.
- G. Use a primer on concrete masonry units, wood, or other porous surfaces in compliance with instructions furnished with the sealant. Apply primer to the joint surfaces to be sealed. Do not apply primer to surfaces adjacent to joints.

3.05 EXTERIOR JOINTS

- A. Seal all exterior joints where sealant is called for, except horizontal traffic joints, with material in compliance with Paragraph C, 2, of Article 2.02, herein and as follows:
 - 1. Gun-apply sealant with a nozzle of proper size to fit the width of joint indicated and force into grooves with sufficient pressure to expel air and fill the groove solidly. Leave sealant uniformly smooth and free of wrinkles. Tool joints slightly concave after sealant is installed. When tooling white or light-color sealant, use a dry or water-wet tool.
 - 2. Color of sealant shall be as selected from manufacturer's standard line of colors.
- B. Construct exterior expansion/control joints subject to traffic, where called for, as follows:
 - 1. Form joints 3/4 inch wide with non-asphaltic two-piece joint filler material, with top 1 inch removable after concrete has set and has been finished.
 - 2. Sealing: Remove top part of filler material and set backer rod, leaving 1/2 inch depth for sealant. Prime and pour sealant, in compliance with Paragraph B of

Article 2.02, herein, level with finished concrete surface in compliance with manufacturer's instructions.

3.07 CLEANING

- A. Immediately following sealing operation, make all work neat without stains. Remove smears and excess material adjacent to the joints and remove masking tape. Remove from the job all empty cans, tubes and spoiled material.

3.08 PROTECTION OF FINISHED WORK

- A. Cure sealers in compliance with the manufacturer's instructions to obtain maximum bond to surfaces, and cohesive strength and durability at earliest possible date.
- B. Provide for protection of sealers during remainder of construction period, so that they will be without deterioration or damage at time of Substantial Completion.

END OF SECTION 079200

**SECTION 083116
ACCESS PANELS**

PART 1 - GENERAL

1.01 SECTION INCLUDES

- A. Flush mounted U.L. rated access panels.

1.02 RELATED SECTIONS

- A. Section 062013 Exterior Finish Carpentry

1.03 SUBMITTALS

- A. Submit Shop Drawings per Submittals Section for Owner's approval prior to fabrication. Shop drawings shall include manufacturer's brochures, details of construction, hardware, and anchors.

PART 2 - PRODUCTS

2.01 MANUFACTURER

- A. The Drawings were prepared and this Specification written on the basis of using the products of J. L. Industries, Bloomington, Minnesota. It is not the intent to limit competitive bidding. Products with equal characteristics by other manufacturers are acceptable under the conditions of these Specifications.

2.02 ACCESS PANELS

- A. Model "FD", flush mounted access panel, , completely assembled as follows:
 1. Material:
 - a. Door: 20 gauge steel
 - b. Frame: 16 gauge steel
 2. Hardware:
 - a. Hinges: Continuous hinges open to 175 with spring closure.
 - b. Locks: Recessed turn ring with interior latch release devise.
 3. Anchors: Manufacturer's standard for use intended.
 4. Finish: Phosphate dipped steel with factory prime coat.
 5. Size: 12"x12" - Field verify to match existing Model "TM", flush mounted access panel, completely assembled as follows:
 6. Material:
 - a. Door: 20-gauge steel
 - b. Frame: 16-gauge steel
 7. Hardware:
 - a. Hinges: Continuous hinges open to 175 degrees with spring closure.
 - b. Locks: Recessed turn ring with interior latch release devise.
 8. Anchors: Manufacturer's standard for use intended.

9. Finish: Phosphate dipped steel with factory prime coat.
10. Size: As indicated on the drawings.

PART 3 - EXECUTION

3.01 INSTALLATION

- A. Protect access panels from damage. Protect work of other trades during installation. Install access panels in locations indicated, complete in all details, securely anchored in place, plumb, level and parallel with building lines. Installed access panels shall open and close freely.

3.02 CLEAN-UP

- A. Upon completion of work of this Section, remove all debris relating to the conduct of this portion of the work from the premises.

END OF SECTION 083116

**SECTION 099113
EXTERIOR PAINTING**

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 surface preparation and the application of paint systems on exterior substrates.
 - 1. Wood.

1.3 ACTION SUBMITTALS

- A. Product Data: For each type of product. Include preparation requirements and application instructions.
 - 1. Indicate VOC content.
- B. Samples for Verification: For each type of paint system and each color and gloss of topcoat.
 - 1. Submit Samples on rigid backing, 8 inches square.
 - 2. Label each coat of each Sample.
 - 3. Label each Sample for location and application area.

1.4 CLOSEOUT SUBMITTALS

- A. Coating Maintenance Manual: Provide coating maintenance manual including area summary with finish schedule, area detail designating location where each product/color/finish was used, product data pages, material safety data sheets, care and cleaning instructions, touch-up procedures, and color samples of each color and finish used.

1.5 MAINTENANCE MATERIAL SUBMITTALS

- A. Furnish extra materials that match products installed and that are packaged with protective covering for storage and identified with labels describing contents.
 - 1. Paint: 1 gal. of each material and color applied.

1.6 DELIVERY, STORAGE, AND HANDLING

- A. Delivery and Handling: Deliver products to Project site in an undamaged condition in manufacturer's original sealed containers, complete with labels and instructions for handling, storing, unpacking, protecting, and installing. Packaging shall bear the manufacture's label with the following information:

1. Product name and type (description).
2. Batch date.
3. Color number.
4. VOC content.
5. Environmental handling requirements.
6. Surface preparation requirements.
7. Application instructions.

B. Store materials not in use in tightly covered containers in well-ventilated areas with ambient temperatures continuously maintained at not less than 45 deg F.

1. Maintain containers in clean condition, free of foreign materials and residue.
2. Remove rags and waste from storage areas daily.

1.7 FIELD CONDITIONS

A. Apply paints only when temperature of surfaces to be painted and ambient air temperatures are between 50 and 95 deg F.

B. Do not apply paints in snow, rain, fog, or mist; when relative humidity exceeds 85 percent; at temperatures less than 5 deg F above the dew point; or to damp or wet surfaces.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. Basis-of-Design Product: Subject to compliance with requirements, provide Sherwin-Williams Company (The); products indicated or comparable product from one of the following:

B. Comparable Products: Comparable products of approved manufacturers will be considered in accordance with Section 016000 "Product Requirements," and the following:

1. Products are approved by manufacturer in writing for application specified.
2. Products meet performance and physical characteristics of basis of design product including published ratio of solids by volume, plus or minus two percent.

C. Source Limitations: Obtain paint materials from single source from single listed manufacturer.

1. Manufacturer's designations listed on a separate color schedule are for color reference only and do not indicate prior approval.

2.2 PAINT, GENERAL

A. Material Compatibility:

1. Provide materials for use within each paint system that are compatible with one another and substrates indicated, under conditions of service and application as demonstrated by manufacturer, based on testing and field experience.
2. For each coat in a paint system, provide products recommended in writing by manufacturers of topcoat for use in paint system and on substrate indicated.

B. VOC Content: For field applications, provide paints and coatings that complies with VOC content limits of authorities having jurisdiction.

- C. Colors: SW 7724 – CANOE. Contractor to match existing color and sheen.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine substrates and conditions, with Applicator present, for compliance with requirements for maximum moisture content and other conditions affecting performance of the Work. Verify suitability of substrates, including surface conditions and compatibility with existing finishes and primers. Where acceptability of substrate conditions is in question, apply samples and perform in-situ testing to verify compatibility, adhesion, and film integrity of new paint application.
1. Report, in writing, conditions that may affect application, appearance, or performance of paint.
- B. Substrate Conditions:
1. Maximum Moisture Content of Substrates: When measured with an electronic moisture meter as follows:
 - a. Wood: 15 percent.
- C. Proceed with coating application only after unsatisfactory conditions have been corrected; application of coating indicates acceptance of surfaces and conditions.

3.2 PREPARATION

- A. Comply with manufacturer's written instructions and recommendations in "MPI Manual" applicable to substrates and paint systems indicated.
- B. Remove hardware, covers, plates, and similar items already in place that are removable and are not to be painted. If removal is impractical or impossible because of size or weight of item, provide surface-applied protection before surface preparation and painting.
1. After completing painting operations, use workers skilled in the trades involved to reinstall items that were removed. Remove surface-applied protection.
- C. Clean substrates of substances that could impair bond of paints, including dust, dirt, oil, grease, and incompatible paints and encapsulants.
- D. Wood Substrates:
1. Scrape and clean knots. Before applying primer, apply coat of knot sealer recommended in writing by topcoat manufacturer for exterior use in paint system indicated.
 2. Sand surfaces that will be exposed to view, and dust off.
 3. Prime edges, ends, faces, undersides, and backsides of wood.
 4. After priming, fill holes and imperfections in the finish surfaces with putty or plastic wood filler. Sand smooth when dried.

3.3 APPLICATION

- A. Apply paints according to manufacturer's written instructions and recommendations in "MPI Manual."

1. Use applicators and techniques suited for paint and substrate indicated.
 2. Paint surfaces behind movable items same as similar exposed surfaces. Before final installation, paint surfaces behind permanently fixed items with prime coat only.
- B. If undercoats or other conditions show through topcoat, apply additional coats until cured film has a uniform paint finish, color, and appearance.
- C. Apply paints to produce surface films without cloudiness, spotting, holidays, laps, brush marks, roller tracking, runs, sags, ropiness, or other surface imperfections. Cut in sharp lines and color breaks.

3.4 CLEANING AND PROTECTION

- A. At end of each workday, remove rubbish, empty cans, rags, and other discarded materials from Project site.
- B. After completing paint application, clean spattered surfaces. Remove spattered paints by washing, scraping, or other methods. Do not scratch or damage adjacent finished surfaces.
- C. Protect work of other trades against damage from paint application. Correct damage to work of other trades by cleaning, repairing, replacing, and refinishing, as approved by Architect, and leave in an undamaged condition.
- D. At completion of construction activities of other trades, touch up and restore damaged or defaced painted surfaces.

3.5 EXTERIOR PAINTING SCHEDULE

- A. Wood Substrates: Including exposed wood items not indicated to receive shop-applied finish.
1. Latex System:
 - a. Prime Coat: Primer, latex for exterior wood.
 - 1) S-W Exterior Latex Primer, B42, at 4.0 mils wet, 1.4 mils dry, per coat.
 - b. Intermediate Coat: Latex, exterior, matching topcoat.
 - c. Topcoat: Latex, exterior, low-sheen:
 - 1) S-W A-100 Exterior Latex Low Sheen, A12 Series, at 4.0 mils wet, 1.5 mils dry, per coat.

END OF SECTION 099113

**SECTION 210500
COMMON WORK RESULTS FOR FIRE SUPPRESSION**

PART 1 - GENERAL

1.01 SECTION INCLUDES

- A. Dry Pipe Sprinkler System.
- B. System Design, Materials, Installation, and Certification.
- C. System Supervision Alarms.

1.02 SCOPE DESCRIPTION

- A. Provide a replacement of the dry automatic fire sprinkler system to the extent shown on the plans, hydraulically calculated to protect the entire facility, complete and in operating order. This fire protection system shall be in compliance with the contract documents, applicable codes and standards, as well as the Authority having jurisdiction. New sprinklers shall be installed in the areas noted, mostly to include the outside roof canopies utilizing systems compatible with the specific application.

1.03 SPECIAL REQUIREMENTS

- A. The entire building smoke and fire alarm system is being replaced as part of this project. The existing tamper and pressure switches are expected to remain and be reused.

1.04 CODES AND STANDARDS

- A. IBC Latest Adopted Edition.
- B. NEC Latest Adopted Edition.
- C. UPC Latest Adopted Edition.
- D. IMC Latest Adopted Edition.
- E. IFC Latest Adopted Edition.
- F. NFPA 13 Standard for the Installation of Sprinkler Systems, latest adopted edition.
- G. NFPA 25 Water-Based Fire Protection Systems, latest adopted edition.
- H. NFPA 291, Recommended Practice for Fire Flow Testing and Marking of Hydrants, latest adopted edition.
- I. ASCE Standard 7, Minimum Design Loads for Buildings and Other Structures, latest adopted edition.

1.05 RELATED WORK

- A. Section 099000, Painting and Coating.
- B. Section 220500, Common Work Results for Plumbing.
- C. Section 283100, Fire Detection and Alarm.

1.06 REFERENCES

- A. AWWA C510 Backflow Prevention Devices reduced pressure type and double check valve type.
- B. USC University of Southern California: Foundation for Cross-connection Control and Hydraulic Research.

1.07 QUALITY ASSURANCE

- A. Unless otherwise noted, this is substantially a "performance" specification.
- B. Minimum qualifications of the contractor/subcontractor shall include the following:
 - 1. Specialist Firm: Company specializing in automatic fire protection/sprinkler systems, possessing a minimum of three years' experience with systems similar in nature to the type specified herein.
 - 2. Design Certification: Shop drawings shall be prepared by a person with a minimum certification of level II designer, supervised by a Licensed Professional Engineer or a level III or IV Fire Sprinkler Designer, certified by the National Institute for Certification in Engineering Technologies (NICET), in Fire Protection Engineering Technology Automatic Fire Sprinkler System Layout.
 - 3. Equipment and components: Bear the "UL" label or the "FM" approval marking.
 - 4. Maintain a complete stock of replacement parts.
 - 5. Remain on 24 hour call for emergency service.
 - 6. Maintain an office and telephone, with authorized representatives of the Fire Protection Contractor's firm, including the Designated Project Mechanical Sprinkler Supervisor, with a physical presence and address in Alaska.
 - 7. Bids of wholesalers, contractor or any firm whose principal business is not that of manufacturing and/or installing fire protection systems is not acceptable.
- C. Backflow Prevention: Installation and testing by a certified backflow assembly tester, in accordance with the Uniform Plumbing Code (UPC).

1.08 SUBMITTALS

- A. Submit under provisions of Division 01.

- B. Submit contractor's qualifications, proof of 3 years' experience under this contractor's firm name, and references for at least 5 projects in Alaska of similar type, size, and complexity.
- C. Submit a copy of designer's NICET certification and resume', or Alaska P.E. license number.
- D. Submit shop drawings and hydraulic calculations concurrently to the engineer and the City Fire Marshal for review. Submit one set of stamped approved shop drawings and hydraulic calculations to the Architect/Engineer when available from AHJ. Engineer will retain 1 set of "stamped approved" shop drawings. These sets must include the NICET certification or stamp of a licensed professional engineer as described above.
- E. Submit all written reviews and contractor responses to reviews to the Architect/Engineer.
- F. Submit product data, and sprinkler head layout. Sprinkler head layout shall be reviewed by the Architect/Engineer. All other approvals shall be secured prior to materials fabrication. Additional sprinklers as required shall be added at no additional cost to the contract.
- G. Shop Drawings shall include the following information in compliance with NFPA 13:
 - 1. Name of Owner, occupant and Building Permit Number.
 - 2. Location, including street address and legal description.
 - 3. Point of compass.
 - 4. Fire Department Connections.
 - 5. All necessary controlling equipment.
 - 6. Location of water source, type, routing, and size of supply piping. Identify location and size of city main and whether it is dead-end or circulating loop, and distance to the flow data test hydrant.
 - 7. All distribution system piping and outlets sufficient to perform hydraulic calculations of the areas to be replaced.
 - 8. Reflected ceiling plan showing ceiling heights, construction type, proposed location and type of sprinkler heads, and other ceiling devices such as HVAC diffusers, loud speakers, type and location of light fixtures, etc.
 - 9. Interference control between sprinkler system and other trades.
 - 10. Full height cross section.
 - 11. Location and size of unsprinklered concealed spaces.
 - 12. Identification of unheated areas.
 - 13. Water Flow Test Results; include testing agency; time, date and location of test; actual pitot reading at flow hydrant; and equipment used to perform the test.
 - 14. Make, model, Type, orifice, finish and Temperature rating of sprinklers and their respective locations.

15. On systems that are hydraulically calculated, indicate the square footage area protected by each system.
16. Hydraulic node points.
17. Make, model, and size of all fire protection control valves, alarm valves, and check valves.
18. Identify low point drain and inspector test stations.
19. Indicate the type and location of all piping hangers and equipment supports.
20. Indicate the type and location of all seismic bracing and restraint.
21. Make, model, size, and locations of all pipe couplings, fittings and flanges.
22. Provisions for flushing.
23. When the equipment to be installed is an addition or renovation to an existing sprinkler system, enough of the existing system shall be shown on the shop drawings to indicate the total number of sprinklers and the total square foot area protected by the entire system.
24. Name, address and telephone number of the contractor. If design is by a separate firm, include the name address and telephone number of the design facility.
25. Complete legend of all abbreviations and symbols indicated.
26. Complete schedule of all room occupancies.
27. Location of all unit heaters.
28. Location of all structural penetrations.
29. Note the location of all "exposed" piping.

1.09 MAINTENANCE INFORMATION AND RECORD DRAWINGS

- A. Submit under provisions of Division 01.
- B. Include step by step instructions to place the fire protection system in service as well as to take it out of service. Provide complete maintenance information of all primary fire protection equipment, including valves, fittings, sprinklers. Identify equipment indicating whether devices are replacement items or repairable. Provide parts list and suppliers for repairable items. Include complete detailed "Record Drawings" and record calculations of the fire protection sprinkler system.
- C. Install one copy of the record hydraulic calculations and shop drawings in a metal sleeve box on the wall near the fire sprinkler riser.
- D. Provide 1 *original* copy of NFPA 25 in each O&M manual.

- E. The contractor shall maintain current and up-to-date "Record Drawings" of the fire protection system at the job site, in accordance with Division 01. Significant changes in piping due to onsite coordination with other trades will require recalculation to confirm adequate pipe sizing.

1.10 REVIEWS, APPROVALS, AND PERMITS

- A. Obtain written review and/or approval of the entire fire protection system design and arrangement from the following authorities:
 - 1. Architect/Engineer.
 - 2. City of Sitka Fire Marshal.
- B. Comply with all review comments, revising the system design as required, and resubmitting in a timely manner, so as not to hinder the construction schedule.
- C. Obtain and pay for all required permits, inspections, tests, and approvals as required by authorities having jurisdiction.

1.11 WATER FLOW INFORMATION, HYDRAULIC CALCULATIONS, SEISMIC CALCULATIONS

- A. The hydrant on the east corner of the Mount Edgecumbe High School Main Academic building was tested in October of 2018 by the Sitka Fire Department. The results indicated a static pressure of 90 PSI with a residual pressure of 82 PSI at 1,087 GPM of flow.
- B. Hydraulic Calculations shall be accomplished in compliance with the procedures established in NFPA 13. In addition to minimum NFPA 13 standards, a minimum 15% pressure buffer is required to be designed into the system. Where local authorities require additional buffer, the contractor shall comply with the more demanding requirement.
- C. Hydraulic Calculations accomplished by computer program for submittal shall be accompanied by a complete legend of the abbreviations, nodes, and symbols utilized on the computer readout.
- D. Hydraulic Calculations shall clearly identify the following:
 - 1. System type, sprinkler "K" factor, and "C" factor.
 - 2. Pipe and fittings type.
 - 3. Fitting Equivalent Length chart which complies with the "C" factor and pipe type.
 - 4. NFPA hazard designation, Design Density and size of the Design Remote Area.
 - 5. The Elevation of the "highest" sprinkler.
 - 6. The available water supply and system demand at the point of connection to the water supply, indicated on a logarithmic graph. Include hose demands.
- E. Seismic Calculations shall clearly identify the following:
 - 1. Type, length and size of brace.

2. Angle allowed of brace.
3. Maximum horizontal load of brace.
4. Brace attachment to structure and load rating.
5. Brace attachment to pipe and load rating.
6. Calculated load to be braced.

1.12 COORDINATION REQUIRED

- A. The contractor shall examine the structural, architectural, mechanical, electrical and all other drawings relating to the building and plan his work accordingly. He shall check and verify all dimensions at the site before fabricating any portion of the system. Any discrepancies in piping and head locations resulting from failure to do so shall be corrected expeditiously to provide proper coordination of all trades.
- B. Coordinate work with that of other trades to ensure that adequate space is provided for all work, including requirements for serviceability and accessibility. Locate sprinkler heads to avoid conflict with light fixtures and other installed equipment.
- C. Structural penetrations for piping shall be identified and details of those penetrations shall be submitted to the structural engineer for approval, in a timely manner. Structural members which are damaged cut or penetrated without approval shall be replaced at no additional expense to the Owner.
- D. Dry Pipe Sprinkler System shall be designed to produce sprinkler flow at the most remote sprinkler, within 60 seconds of system actuation.

1.13 MATERIALS HANDLING AND STORAGE

- A. Deliver, store, protect, and handle products to the site under provisions of Division 01. Deliver and store valves in manufacturer packaging with labeling in place. Prior to installation, piping onsite shall be wrapped with protective wrapping. Valves, piping, materials, and equipment shall be clean and new when system is accepted by the Owner.

PART 2 - PRODUCTS

2.01 GENERAL

- A. Provide only new materials and equipment, which are standard products of a manufacturer regularly engaged in the manufacture of fire protection equipment.
- B. All products shall bear the "UL" label or "FM" listing and be specifically approved for fire protection application where they are used.

2.02 PIPING

- A. Dry Pipe Sprinkler Systems:

1. Galvanized steel piping, ASTM A795 schedule 40, UL Listed or FM Approved for fire sprinkler service.
2. Piping may be roll-grooved, threaded, flanged, or welded for connection. All threaded pipe shall be schedule 40. No plain-end piping fitting connections are allowed.

2.03 GROOVED FITTINGS, COUPLINGS, AND MECHANICAL TEES

- A. Grooved Fittings shall be Victaulic, Gruvlok, or equal. Galvanized fittings shall accompany galvanized piping. Couplings and mechanical tees shall be standard painted Victaulic, Gruvlok, or equal.
- B. Slip-Fit fittings and couplings utilized for joining branch piping to new main piping shall not be allowed.
- C. Contractor shall follow the manufacturer's suggested methods to prepare, carefully, the ends for these fittings to prevent leakage or system breakdown.

2.04 THREADED PIPE FITTINGS

- A. Threaded pipe fitting for this system shall be cast iron 125# ANSI B16.4 or malleable iron 150# ANSI B16.3.

2.05 PIPE FLANGES

- A. Pipe flanges for this system shall be Cast Iron Class 125# ANSI B16.5.

2.06 PIPING HANGERS AND SUPPORTS

- A. Pipe hangers shall conform to NFPA 13 standards.

2.07 FLEXIBLE SPRINKLER HOSE FITTINGS

- A. Not allowed on this project.

2.08 ACCEPTABLE MANUFACTURERS FIRE PROTECTION VALVES AND EQUIPMENT

- A. Reliable.
- B. Tyco.
- C. Potter Electric.
- D. Notifier.
- E. Victaulic.
- F. Potter Roemer.

G. Croker.

H. Viking.

2.09 VALVES AND ALARMS ASSEMBLIES

A. Fire Protection Valves:

1. Control Valves: All Fire protection system control valves shall be supervised with switches compatible with the fire alarm system. All valves placed upstream of the fire sprinkler backflow preventer shall be NSF 61 listed in addition to being listed for fire protection use.
 - a. OS&Y Gate Valves: Minimum working pressure 175 PSI non-shock cold water, with integrated supervisory switch. UL listed for fire protection. Victaulic Series 771 or equal.
 - b. Butterfly Valves: UL listed for fire protection 175 PSI non-shock cold water, with integrated supervisory switch. Grooved, threaded, or wafer type acceptable. Victaulic Firelock Series 705 or 707 or equal.
 - c. Swing Check Valves: UL listed for fire protection 175 PSI non-shock cold water, ductile iron body, stainless steel clapper assembly. Grooved, flanged, or wafer type acceptable. Victaulic Firelock Series 717 or equal.

B. All electrical alarm and control wiring shall be provided in accordance with Division 26.

2.10 SPRINKLERS

- A. Provide sprinklers as required by NFPA 13 standards and in compliance with the IBC chapter 9 for the entire project. Sprinkler finish and style as follows:
1. In all areas under exterior canopies, provide semi-recessed standard spray pendant sprinklers. Victaulic V27 series or equal.
 2. Sidewall sprinklers shall be horizontal non-recessed with escutcheon ring where penetrating a wall. Victaulic V27 series or equal.
 3. Sprinklers and escutcheons to have nickel-based multi-layer coating finish for corrosion resistance. Victaulic VC-250 or equal.
 4. Sprinkler Guards shall be of the same manufacturer and finish as the sprinkler which they are to be installed on. Chrome finish guards are required for corrosion-resistant finish sprinkler heads.
 5. Sprinklers of correct temperature rating shall be installed according to NFPA 13.
 6. Provide sprinkler wrenches for each type of sprinkler.
 7. Provide spare sprinklers for the cabinet representative of the assortment provided for the system.

PART 3 - EXECUTION

3.01 CONTRACTOR COORDINATION

- A. The fire protection contractor shall coordinate his work with the work of all other trades to assure timely installation and efficient use of mechanical areas including but not limited to boiler rooms, fan rooms, and ceiling spaces.
- B. Any work installed without proper coordination shall be promptly removed and reinstalled in a manner to allow for a good practical arrangement of all items which need to be installed by all crafts involved.
- C. In case of coordination dispute, the Architect/Engineer shall be consulted and his decision shall be binding.
- D. All costs associated with coordination and arranging or rearranging of the fire protection system shall be borne by the affected contractor, without causing any additional expense to the Owner.

3.02 PIPING INSTALLATION

- A. Install piping to conserve building space and route piping around access panels and openings. Piping shall not restrict any access opening.
- B. Install low point drain stations in accordance with NFPA 13 standards. Identify the location of drain and test stations with signs on access panels, ceiling panels, or walls adjacent to the station, visible from the floor. Discharge all test pipes, drum drips, and low point drains to outside. Provide locking access panels over valves. Coordinate discharge point with Owner's field representative.
- C. Provide seismic protection for the piping system in accordance with NFPA 13 standards. Attach bracing to structure with through bolts, washers, and nuts. Provide clearance at all structural penetrations. Provide oversized escutcheon plates or flexible connections where sprinklers penetrate non-frangible ceiling membranes.
- D. Dry system piping shall be installed to allow full service and complete drainage of the entire system. All dry piping shall be sloped to accomplish this requirement.
- E. Piping shall be concealed in all areas with finished ceilings.
- F. Piping concealed in walls shall be secured to studs 48" - 60" above the floor.
- G. Pipe penetrations through rated fire walls shall be sealed by a "UL" listed system utilizing fire rated caulking. Submit data under paragraph 1.8 (Submittals) of this specification.
- H. When piping is supported from manufactured structural members, the Installation of pipe hangers shall comply with truss manufacturer's recommendations for hanger attachments and loading.
- I. When pipe hangers are attached to bar joist with wood top and bottom chords, chords shall be predrilled for fasteners, and fasteners shall maintain a minimum distance of 0'-6" from truss "panel points".

- J. Pipe hangers shall be "Rod and Ring" type hangers throughout. Piping hangers shall have a minimum of ½" of adjustment on each side of the hanger ring nut, to allow for piping grade adjustment in the future.
- K. All "beam clamp" type fasteners shall be installed with retainer straps and locking nuts.
- L. All Trapeze members shall be fastened to truss chords or structural members.
- M. Installation of all valves and equipment shall comply with manufacturer's suggested installation practices and directions.
- N. Provide service access around all equipment.

3.03 SYSTEM TEST

- A. Hydrostatically test new piping in accordance with NFPA 13 standards.
- B. Test all system alarm actuations and alarm and supervisory valve alarm system.
- C. Trip test dry pipe system to confirm system discharge time.
- D. One-week advance notice required for all tests to allow Owner's field representative to witness these tests.

3.04 PAINTING

- A. Refer to Division 09.

3.05 PROJECT CLOSEOUT

- A. The fire protection contractor shall submit a written affidavit at the completion of the system, stating that the fire protection system as installed complies with all referenced codes and standards, Local Fire Marshal's Office, and the Owner's Insurance Underwriters.
- B. Furnish Written Guarantee to the Owner, that materials installations are free from mechanical defects and guaranteeing to replace and repair any and all unsatisfactory and defective work and items, to the satisfaction of the Owner, in a timely manner, for a period of one year after final acceptance of the building by the Owner, and to be responsible for any damage caused to the premises for any such unsatisfactory work.
- C. The contractor shall respond within a reasonable time, not to exceed 15 days, to repair or replace latent or hidden defects at such time as they are discovered.
- D. Provide hydraulic placard on system riser. Placard shall indicate sprinkler demand and hose demand as separate numbers.

END OF SECTION 210500

**SECTION 260500
COMMON WORK RESULTS FOR ELECTRICAL**

PART 1 - GENERAL

1.01 SECTION INCLUDES

- A. General Requirements specifically applicable to Division 26 and 28, in addition to Division 01 provisions.
- B. The electrical system equipment and installation shall comply with all provisions and requirements of this specification, as well as any and all applicable national, state and local codes and standards.

1.02 WORK SEQUENCE

- A. Construct Work in sequence under provisions of Division 01.

1.03 COORDINATION

- A. Coordinate the Work specified in this Division under provisions of Division 01.
- B. Prepare drawings showing proposed rearrangement of Work to meet job conditions, including changes to Work specified under other Sections. Obtain permission of Owner prior to proceeding.

1.04 REFERENCES

- A. ANSI/NFPA 70 - National Electrical Code, latest adopted edition including all state and local amendments.
- B. NECA - Standard of Installation.
- C. Electrical Reference Symbols: The Electrical "Legend" on drawings is standardized version for this project. All symbols shown may not be used on drawings. Use legend as reference for symbols used on plans.
- D. Electrical Drawings: Drawings are diagrammatic; complimentary to the Architectural drawings; not intended to show all features of work. Install material not dimensioned on drawings in a manner to provide a symmetrical appearance. Do not scale drawings for exact equipment locations. Review Architectural, Civil, Structural, and Mechanical Drawings and adjust work to conform to conditions shown thereon. Field verification of dimensions, locations and levels is directed.

1.05 REGULATORY REQUIREMENTS

- A. Conform to ANSI/NFPA 70.

- B. Conform to the latest adopted edition of the International Building Code and the International Fire Code including all state and local amendments thereto.
- C. Obtain electrical permits, plan review, and inspections from authority having jurisdiction.

1.06 SUBMITTALS

- A. Submit inspection and permit certificates under provisions of Division 01.
- B. Include certificate of final inspection and acceptance from authority having jurisdiction.
- C. Submittal review is for general design and arrangement only and does not relieve the Contractor from any requirements of Contract Documents. Submittal not checked for quantity, dimension, fit or proper operation. Where deviations of substitute product or system performance have not been specifically noted in the submittal by the Contractor, provisions of a complete and satisfactory working installation is the sole responsibility of the Contractor.
- D. In addition to requirements referenced in Division 01, the following is required for work provided under this division of the specification.
 - 1. Provide material and equipment submittals containing complete listings of material and equipment shown on Electrical Drawings and specified herein. Separate from work furnished under other divisions.
 - 2. Submittals shall be provided in PDF format with each section indexed in the PDF document. Submittals for Division 26 shall be complete and submitted at one time. Unless given prior approval, partial submittals will be returned unreviewed.
 - 3. Clearly identify all material and equipment by item, name or designation used on drawings and in specifications.
 - 4. Submit only pages which are pertinent; mark catalog sheets to identify pertinent products, referenced to Specification Section and Article number. Show reference standards, performance characteristics, and capacities; wiring diagrams and controls; component parts; finishes; dimensions; and required clearances.
 - 5. Modify manufacturer's standard schematic drawings and diagrams to supplement standard information and to provide information specifically applicable to the work. Delete information not applicable.
 - 6. Review submittals prior to transmittal; determine and verify field measurements, field construction criteria, manufacturer's catalog numbers, and conformance of submittal with requirements of Contract Documents.
 - 7. Coordinate submittals with requirements of work and of Contract Documents.
 - 8. Certify in writing that the submitted shop drawings and product data are in compliance with requirements of Contract Documents. Notify Architect/Engineer in writing at time of submittal, of any deviations from requirements of Contract Documents.
 - 9. Do not fabricate products or begin work which requires submittals until return of submittal with Architect/Engineer acceptance.

10. Equipment scheduled by manufacturer's name and catalog designations, manufacturer's published data and/or specification for that item, in effect on bid date, are considered part of this specification. Approval of other manufacturer's item proposed is contingent upon compliance therewith.

1.07 SUBSTITUTIONS

- A. In accordance with the General Conditions and the General Requirements, Substitution and Product Options, all substitute items must fit in the available space, and be of equal or better quality including efficiency performance, size, and weight, and must be compatible with existing equipment.

1.08 PROJECT RECORD DRAWINGS

- A. Maintain project record drawings in accordance with Division 01.
- B. In addition to the other requirements, mark up a clean set of drawings as the work progresses to show the dimensioned location and routing of all electrical work which will become permanently concealed. Show routing of work in permanently concealed blind spaces within the building. Show complete routing and sizing of any significant revisions to the systems shown.
- C. Record drawing field mark-ups shall be maintained on-site and shall be available for examination of the Owner's Representative at all times.

1.09 OPERATION AND MAINTENANCE MANUALS

- A. Provide operation and maintenance manuals for training of Owner's Representative in operation and maintenance of systems and related equipment. In addition to requirements referenced in Division 01, the following is required for work provided under this section of the specifications.
- B. Manuals shall be separate from work furnished under other divisions. Prepare a separate chapter for instruction of each class of equipment or system. Index and clearly identify each chapter and provide a table of contents.
- C. Unless otherwise noted in Division 01, provide one copy of all material for approval.
- D. The following is the suggested outline for operation and maintenance manuals and is presented to indicate the extent of items required in manuals.
 1. List chapters of information comprising the text. The following is a typical Table of Contents:
 - a. Fire alarm.
 - b. Other chapters as necessary.
 2. Provide the following items in sequence for each chapter shown in Table of Contents:
 - a. Describe the procedures necessary for personnel to operate the system including start-up, operation, emergency operation and shutdown.

- 1) Give complete instructions for energizing equipment and making initial settings and adjustments whenever applicable.
- 2) Give step-by-step instructions for shutdown procedure if a particular sequence is required.
- 3) Include test results of all tests required by this and other sections of the specifications.

b. Maintenance Instructions:

- 1) Provide instructions and a schedule of preventive maintenance, in tabular form, for all routine cleaning and inspection with recommended lubricants if required for the following:
 - a) Fire alarm and detection equipment.
- 2) Provide instructions for minor repair or adjustments required for preventive maintenance routines, limited to repairs and adjustments which may be performed without special tools or test equipment and which requires no special training or skills.
- 3) Provide manufacturers' descriptive literature including approved shop drawings covering devices used in system, together with illustrations, exploded views, etc. Also include special devices provided by the Contractor.
- 4) Provide any information of a maintenance nature covering warranty items, etc., which have not been discussed elsewhere.
- 5) Include list of all equipment furnished for project, where purchased, technical representative if applicable and a local parts source with a tabulation of descriptive data of all electrical-electronic spare parts and all mechanical spare parts proposed for each type of equipment or system. Properly identify each part by part number and manufacturer.

1.10 DEMONSTRATION OF ELECTRICAL SYSTEMS

A. During substantial completion inspection:

1. Conduct operating test for approval under provisions of Division 01.
2. Demonstrate installation to operate satisfactorily in accordance with requirements of Contract Documents.
3. Should any portion of installation fail to meet requirements of Contract Documents, repair or replace items failing to meet requirements until items can be demonstrated to comply.
4. Have instruments available for measuring voltage and current values, and for demonstration of continuity, grounds, or open circuit conditions.
5. Provide personnel to assist in taking measurements and making tests.

1.11 WARRANTY

- A. In addition to the requirements of Division 01, or as specified in other sections. Warrant all materials, installation and workmanship for one (1) year from date of acceptance.
- B. Copies of manufacturer product warranties for all equipment shall be included in the operation and installation manuals.

1.12 INSTRUCTION OF OPERATING PERSONNEL

- A. In accordance with the requirements of Division 01 and this section provide services of qualified representative of supplier of each item or system listed below to instruct designated personnel of Owner in operation and maintenance of item or system.
- B. Make instruction when system is complete, of number of hours indicated, and performed at time mutually agreeable.

System or Equipment	Hours of Instruction
Fire alarm system	4

- C. Certify that an Anchorage, Juneau, or Seattle based authorized service organization regularly carries complete stock of repair parts for listed equipment or systems, that organization is available and will furnish service within 48 hours after request. Include name, address and telephone number of service organization.
- D. Have approved operation and maintenance manuals and parts lists for all equipment on hand at time of instruction.
- E. Contractor shall video record training session and provide copy of digital file on flash drive.

PART 2 - PRODUCTS

2.01 MATERIALS AND EQUIPMENT

- A. All Materials and Equipment shall be new.
- B. All Materials and Equipment shall be listed by Underwriter's Laboratories or equivalent third party listing agency for the use intended.
- C. Materials and Equipment shall be acceptable to the authority having jurisdiction as suitable for the use intended when installed per listing and labeling instructions.
- D. No materials or equipment containing asbestos in any form shall be used. Where materials or equipment provided by this Contractor are found to contain asbestos such items shall be removed and replaced with non-asbestos containing materials and equipment at no cost to the Owner.
- E. In describing the various items of equipment, in general, each item will be described singularly, even though there may be numerous similar items.

PART 3 - EXECUTION

3.01 WORKMANSHIP

- A. Install Work using procedures defined in NECA Standard of Installation and/or the manufacturer's installation instructions.

3.02 TESTS

- A. Notify the Owner's representative at least 72 hours prior to conducting any tests.
- B. Perform all tests in the presence of the Owner's representative.

3.03 PENETRATIONS OF FIRE BARRIERS

- A. Related information to this section appears in Division 07, Fire Stopping.
- B. All holes or voids created to extend electrical systems through fire rated floors, walls or ceiling shall be sealed with an asbestos-free intumescent fire stopping material capable of expanding 8 to 10 times when exposed to temperatures 250°F or higher.
- C. Materials shall be suitable for the fire stopping of penetrations made by steel, glass, plastic and shall be capable of maintaining an effective barrier against flame, smoke and gases in compliance with the requirements of ASTM E814 and UL 1479.
- D. The rating of the fire stops shall be the same as the time-rated floor, wall or ceiling assembly.
- E. Install fire stopping materials in accordance with the manufacturer's instructions.

END OF SECTION 260500

**SECTION 260505
SELECTIVE DEMOLITION FOR ELECTRICAL**

PART 1 - GENERAL

1.01 SECTION INCLUDES

- A. Electrical Demolition.

1.02 RELATED SECTIONS

- A. Division 01 - Alteration Project Procedures.
- B. Division 02 - Minor Demolition for Remodeling.

PART 2 - PRODUCTS

2.01 MATERIALS AND EQUIPMENT

- A. Materials and equipment for patching and extending work: As specified in individual Sections.

PART 3 - EXECUTION

3.01 EXAMINATION

- A. Verify field measurements and circuiting arrangements are as shown on Drawings.
- B. Verify that abandoned wiring and equipment serve only abandoned facilities.
- C. Demolition Drawings are based on a non-destructive walkthrough and existing record documents. Report discrepancies to Owner before disturbing existing installation.
- D. Beginning of demolition means installer accepts existing conditions.

3.02 PREPARATION

- A. Provide temporary wiring and connections to maintain existing systems in service during construction. When work must be performed on energized equipment or circuits, use personnel experienced in such operations.
- B. Existing Fire Alarm System: Maintain existing system in service until new system is accepted. Disable system only to make switchovers and connections. Notify Owner and local fire service at least 24 hours before partially or completely disabling system. Minimize outage duration. Make temporary connections to maintain service in areas adjacent to work area.

3.03 DEMOLITION AND EXTENSION OF EXISTING ELECTRICAL WORK

- A. Demolish and extend existing electrical work under provisions of Division 01, Division 02, and this Division.
- B. Remove, relocate, and extend existing installations to accommodate new construction.
- C. Remove abandoned wiring to source of supply.
- D. Remove exposed abandoned conduit, including abandoned conduit above accessible ceiling finishes. Cut conduit flush with walls and floors, and patch surfaces.
- E. Where abandoned conduit is installed below existing slab not scheduled for demolition, remove the conductors, cut conduit flush with floor, and patch surface.
- F. Disconnect abandoned outlets and remove devices. Remove abandoned outlets if conduit servicing them is abandoned and removed. Provide blank cover for abandoned outlets which are not removed.
- G. Disconnect and remove electrical devices and equipment serving utilization equipment that has been removed.
- H. Repair adjacent construction and finishes damaged during demolition and extension work. T-bar ceiling tiles damaged under normal construction conditions or having voids where junction boxes were removed shall be replaced by the Contractor.
- I. Maintain access to existing electrical installations which remain active.
- J. Extend existing installations using materials and methods as specified.
- K. Where materials or equipment are to be turned over to Owner or reused and installed by the Contractor, it shall be the Contractor's responsibility to maintain condition of materials and equipment equal to the existing condition of the equipment before the work began. Repair or replace damaged materials or equipment at no additional cost to the Owner.
- L. Relocate existing lighting fixtures as indicated on Drawings. Test fixture to see if it is in good working condition before installation at new location.

3.04 EXISTING PANELBOARDS

- A. Ring out circuits in existing panel affected by the Work. Where additional circuits are needed, reuse circuits available for reuse. Install new breakers.
- B. Tag unused circuits as spare.
- C. Where existing circuits are indicated to be reused, use sensing measuring devices to verify circuits feeding Project area or are not in use.
- D. Remove existing wire no longer in use from panel to equipment.
- E. Provide new updated directories where circuits have been modified or rewired.

3.05 CLEANING AND REPAIR

- A. Clean and repair existing materials and equipment which remain or are to be reused.
- B. Luminaires: Remove existing luminaires for cleaning. Use mild detergent to clean all exterior and interior surfaces; rinse with clean water and wipe dry. Replace broken electrical parts.

3.06 INSTALLATION

- A. Install relocated materials and equipment under the provisions of Division 01.

3.07 DISPOSAL

- A. Dispose of all hazardous waste in accordance with all local, State and Federal requirements.

END OF SECTION 260505

SECTION 260519
LOW-VOLTAGE ELECTRICAL POWER CONDUCTORS AND CABLES

PART 1 - GENERAL

1.01 SECTION INCLUDES

- A. Building Wire.
- B. Cable.
- C. Wiring Connections and Terminations.

1.02 RELATED SECTIONS

- A. Section 260553 – Identification for Electrical Systems.

1.03 REFERENCES

- A. Federal Specification FS-A-A59544 – Cable and Wire, Electrical (Power, Fixed Installation).
- B. Federal Specification FS-J-C-30B – Cable Assembly, Power, Electrical.
- C. ANSI/NEMA WC 70-2009 – Power Cables Rated 2000 Volts or Less for the Distribution of Electrical Energy.
- D. NETA ATS – Acceptance testing specifications for Electrical Power Distribution and Systems.
- E. NFPA 70 – National Electrical Code.
- F. NFPA 262 – Standard Method of test for flame travel and smoke of wires and cables for use in air-handling spaces.
- G. UL 62 – Flexible Cords and Cables.
- H. UL 83 – Thermoplastic Insulated Wire and Cable.
- I. UL 1063 – Standard for Machine and Tool Wire and Cable.
- J. UL 1424 – Standard for Cables for Power-Limited Fire Alarm.
- K. UL 1479 – Standard for Fire Tests of Through Wall Penetration Fire Stops.
- L. UL 1569 – Standard for Metal Clad Cable.
- M. UL 1581 – Reference Standard for Electrical Wires, Cables and Flexible Cords.

1.04 SUBMITTALS

- A. Submit data under provisions of Division 01 and Section 260500.
- B. Product Data: Submit product data for all components provided which fall under this section showing configurations, finishes, and dimensions. Each catalog sheet should be clearly marked to indicate exact part number provided, including all options and accessories.

1.05 QUALITY ASSURANCE

- A. Provide wiring materials located in plenums with peak optical density not greater than 0.5, average optical density not greater than 0.15, and flame spread not greater than 5 feet (1.5m) when tested in accordance with NFPA 262.

PART 2 - PRODUCTS

2.01 BUILDING WIRE

- A. Thermoplastic-insulated Building Wire: NEMA WC 70.
- B. Branch Circuits 10 AWG and Smaller: Copper conductor, solid or stranded, 600 volt insulation, THHN/THWN or XHHW-2.
- C. Branch Circuit Wire Color Code:
 - 1. Color code wires by line or phase as follows:
 - a. Black, red, blue and white for 120/208V systems.
 - 2. For conductors 10 AWG and smaller, insulation shall be colored.
 - 3. Grounding conductors 10 AWG and smaller shall have green colored insulation.
- D. Control Circuits: Copper, stranded conductor 600 volt insulation, THHN/THNN or XHHW-2.
- E. Fire Alarm Notification Appliance Circuits: Copper, solid or stranded conductor 600 volt insulation, THHN/THNN or XHHW-2.

2.02 METAL CLAD CABLE

- A. UL 83, 1063, 1479, 1569, and 1581 listed, meets Federal Specification A-A-59544 (formerly J-C-30B). UL rated for installation in cable trays and environmental air handling spaces. Fire wall rated for 1, 2, and 3-hour through penetrations.
- B. Type MC Cable, Size 12 Through 10 AWG: Solid copper conductor, 600 volt thermoplastic insulation, rated 90° C dry, 75° wet, insulated green grounding conductor, and galvanized steel or aluminum armor over mylar.
- C. Fire Alarm/Control Type MC Cable, Size 18 through 12 AWG: Complying with UL 66, 83, 1424, 1479, 1569, 1581, and NFPA 262 (formerly UL 910), solid copper conductor, 300 volt thermoplastic insulation, rated [90°C] 105° C, insulated green grounding conductor, and red-

striped galvanized steel armor over mylar. Conductor insulation shall be color-coded in accordance with Section 28 31 00.

- D. All metal clad cable shall be provided with color-coded insulation on all ungrounded conductors in accordance with NEC 210.5(C) and Part 3 of this section.

2.03 REMOTE CONTROL AND SIGNAL CABLE

- A. Control Cable for Class 1 Remote Control and Signal Circuits: Copper conductor, 600 volt insulation, rated 90° C, individual conductors twisted together, shielded, and covered with an overall PVC jacket; UL listed.
- B. Control Cable for Class 2 or Class 3 Remote Control and Signal Circuits: Copper conductor, 300 volt insulation, rated 90° C, individual conductors twisted together, shielded or unshielded (as required), and covered with a PVC jacket; UL listed.
- C. Plenum Cable for Class 2 or Class 3 Remote Control and Signal Circuits: Copper conductor, 300 volt insulation, rated 90° C, individual conductors twisted together, shielded or unshielded (as required), and covered with a nonmetallic jacket; UL listed for use in air handling ducts, hollow spaces used as ducts, and plenums.

2.04 WIRING CONNECTIONS AND TERMINATIONS

- A. For conductors 10 AWG and smaller:
 - 1. Dry interior areas: Spring wire connectors, pre-insulated "twist-on" rated 105 degrees C per UL 468C. Where stranded conductors are terminated on screw type terminals, install crimp insulated fork or ring terminals. Thomas & Betts Sta-Kon or equal.
 - 2. Wet or exterior: Spring wire connectors, pre-insulated "twist-on", resin filled rated for direct burial per UL 486D.

PART 3 - EXECUTION

3.01 GENERAL WIRING METHODS

- A. Use no wire smaller than 12 AWG for power circuits, and no smaller than 18 AWG for control wiring.
- B. Use 10 AWG conductor for 20 ampere, 120 volt branch circuit home runs longer than 75 feet.
- C. Splice only in junction or outlet boxes.
- D. Neatly train and lace wiring inside boxes, equipment, and panelboards.
- E. Wiring in lighting fixture channels shall be rated for 90° C minimum.
- F. Do not share neutral conductors. Provide a dedicated neutral conductor for each branch circuit that requires a neutral.

3.02 WIRING INSTALLATION IN RACEWAYS

- A. Pull all conductors into a raceway at the same time. Verify that raceway is complete and properly supported prior to pulling conductors.
- B. Install wire in raceway after all mechanical work likely to injure conductors has been completed.
- C. Do not install XHHW-2 conductors when ambient temperatures are below -5 degrees C and THHN/THWN conductors when ambient temperatures are below 0 degrees C.
- D. Conductors shall be carefully inspected for insulation defects and protected from damage as they are installed in the raceway. Where the insulation is defective or damaged, the cable section shall be repaired or replaced at the discretion of the Owner and at no additional cost to the Owner.
- E. Place an equal number of conductors for each phase of a circuit in same raceway or cable.
- F. Route conductors from each system in independent raceway system and not intermix in the same raceway, enclosure, junction box, wireway, or gutter as another system unless otherwise shown on the plans.
- G. No more than six current carrying conductors shall be installed in any homerun unless otherwise indicated on the drawings or without prior approval from the Engineer.
- H. Completely and thoroughly swab raceway system before installing conductors.
- I. When two or more neutrals are installed in one conduit, identify each with the proper circuit number in accordance with Section 260553.

3.03 CABLE INSTALLATION

- A. Provide protection for exposed cables where subject to damage.
- B. Support cables above accessible ceilings; do not rest on ceiling tiles. Use spring metal clips or cable ties to support cables from structure. Do not support cables from ceiling suspension system. Include bridle rings or drive rings.
- C. Use suitable cable fittings and connectors.

3.04 WIRING CONNECTIONS AND TERMINATIONS

- A. Stranded wire shall not be wrapped around screw terminals.
- B. Splice only in accessible junction boxes.
- C. Thoroughly clean wires before installing lugs and connectors.
- D. Make splices, taps and terminations to carry full ampacity of conductors without perceptible temperature rise.
- E. Terminate spare conductors with twist on connectors or heat shrink insulation to proper voltage rating.

- F. Control systems wiring in conjunction with mechanical, electrical or miscellaneous equipment to be identified in accordance with wiring diagrams furnished with equipment.
- G. Code sound and signal systems wiring and any special equipment in accordance with manufacturer's diagrams or recommendations.
- H. Do not exceed manufacturer's recommended pull tensions.

3.05 FIELD QUALITY CONTROL

- A. Field inspection and testing will be performed under provisions of Division 01 and Section 260126.
- B. Inspect wire and cable for physical damage and proper connection.
- C. Torque conductor connections and terminations to manufacturer's recommended values.

3.06 WIRE AND CABLE INSTALLATION SCHEDULE

- A. All Locations: Building wire and/or remote control and signal cable in raceways.
- B. At the Contractor's option, Metal Clad cable may be used for branch circuit wiring other than homeruns. Homeruns shall be building wire in raceway.
- C. At the Contractor's option, portions of the fire alarm wiring in dry, concealed locations may be installed in Fire Alarm Metal Clad cable.

END OF SECTION 260519

**SECTION 260529
HANGERS AND SUPPORTS FOR ELECTRICAL SYSTEMS**

PART 1 - GENERAL

1.01 SECTION INCLUDES

- A. Section included hangers and supports for Power Systems and Electronic Safety and Security Systems.
- B. Conduit Supports.
- C. Formed Steel Channel.
- D. Spring Steel Clips.

1.02 RELATED SECTIONS

- A. The Work under this section is subject to requirements of the Contract Documents including the General Conditions, Supplementary Conditions, and sections under Division 01 General Requirements, and Section 260500 – Common Work Results for Electrical, and Division 28.

1.03 REFERENCES

- A. International Building Code (IBC), Chapter 16 – Structural Design.

1.04 SUBMITTALS

- A. Division 01: Requirements for submittals.
- B. Product Data: Submit product data for specialty supports.

1.05 QUALITY ASSURANCE

- A. Support systems shall be adequate for weight of equipment and conduit, including wiring, which they carry.

PART 2 - PRODUCTS

2.01 CONDUIT SUPPORTS

- A. Manufacturers:
 - 1. Allied Tube & Conduit Corp.
 - 2. Minerallac Fastening Systems.

3. O-Z Gedney Co.
 4. Substitutions: per Division 01
- B. Hanger Rods: Threaded high tensile strength galvanized carbon steel with free running threads.
- C. Beam Clamps: Malleable Iron, with tapered hole in base and back to accept either bolt or hanger rod. Set screw: hardened steel.
- D. Conduit clamps for trapeze hangers: Galvanized steel, notched to fit trapeze with single bolt to tighten.
- E. Conduit clamps - general purpose: One-hole malleable iron for surface mounted conduits.
- F. Cable Ties: High strength nylon temperature rated to 185 degrees F. self-locking.

2.02 FORMED STEEL CHANNEL

- A. Manufacturers:
1. B-Line Systems.
 2. Allied Tube & Conduit Corp.
 3. Unistrut Corp.
 4. Substitutions: per Division 01.
- B. Product Description: Galvanized 12 gage thick steel. With holes 1-1/2 inches on center.

PART 3 - EXECUTION

3.01 EXAMINATION

- A. Division 01: Verification of existing conditions before starting work.

3.02 PREPARATION

- A. Obtain permission from Owner's Representative before drilling or cutting structural members.

3.03 INSTALLATION - GENERAL

- A. Fasten hanger rods, conduit clamps, and outlet and junction boxes to building structure using precast insert system, expansion anchors, preset inserts, beam clamps, or spring steel clips.
- B. Use toggle bolts or hollow wall fasteners in hollow masonry partitions and walls; expansion anchors or preset inserts in solid masonry walls; self-drilling anchors or expansion anchor on concrete surfaces; sheet metal screws in sheet metal studs; and wood screws in wood construction.

- C. Do not support raceways, low voltage pathways, cables, or boxes from ceiling suspension wires or suspended ceiling systems. Provide support from building structure independently to allow ceiling removal and replacement without removal of electrical system. If dedicated support wires are used, wires and wire clips must be painted or color-coded. Exception: Outlet boxes for ceiling-mounted speakers and smoke detectors may be mounted in the ceiling system.
- D. Do not fasten supports to piping, ductwork, mechanical equipment, conduit, or ceiling suspension system.
- E. Do not penetrate by drilling or screwing into metal roof decking. All penetrations into metal roof decking must be approved by the Project Manager in writing.
- F. Fabricate supports from structural steel or steel channel, rigidly welded or bolted to present a neat appearance. Use hexagon head bolts with spring lock washers under all nuts.
- G. Install surface-mounted cabinets with minimum of four anchors.
- H. Bridge studs top and bottom with channels to support flush-mounted cabinets in stud walls.
- I. Securely fasten fixtures and equipment to building structure in accordance with manufacturer's recommendations and to provide necessary earthquake anchorage.
- J. Provide wall attached fixtures and equipment weighing less than 50 pounds with backing plates of at least 1/8" x 10" sheet steel or 2" x 10" fire retardant treated wood securely built into the structural walls. Submit attachment details of heavier equipment for approval.
- K. Earthquake Anchorages:
 - 1. Equipment weighing more than 50 pounds shall be adequately anchored to the building structure to resist lateral earthquake forces.
 - 2. Total lateral (earthquake) forces shall be 1.5 times the equipment weight acting laterally in any direction through the equipment center of gravity. Provide adequate backing at structural attachment points to accept the forces involved.
- L. Power-driven fasteners are prohibited for tension load applications (such as supporting luminaries or conduit racks from ceiling above). Use drilled-in expansion anchors, or drilled and screw-in anchors such as Kwik-Con II or Tapcon.

END OF SECTION 260529

**SECTION 260533
RACEWAY AND BOXES FOR ELECTRICAL SYSTEMS**

PART 1 - GENERAL

1.01 SECTION INCLUDES

- A. Metal Conduit.
- B. Flexible Metal Conduit.
- C. Liquidtight Metal Conduit.
- D. Electrical Metallic Tubing.
- E. Surface Mounted Raceway.
- F. Fittings and Conduit Bodies.
- G. Wall and Ceiling Outlet Boxes.
- H. Pull and Junction Boxes.

1.02 RELATED SECTIONS

- A. The Work under this section is subject to requirements of the Contract Documents including the General Conditions, Supplementary Conditions, and sections under Division 01 - General Requirements and Section 260500 – Common Work Results for Electrical.
- B. Section 260519 – Low-Voltage Electrical Power Conductors and Cables.
- C. Section 260529 – Hangers and Supports for Electrical Systems.
- D. Section 260553 – Identification for Electrical Systems.
- E. Section 283100 – Fire Detection and Alarm.

1.03 REFERENCES

- A. American National Standards Institute (ANSI):
 - 1. ANSI C80.1 - Rigid Steel Conduit, Zinc Coated.
 - 2. ANSI C80.3 - Electrical Metallic Tubing, Zinc Coated.
- B. American Society for Testing and Materials (ASTM):
 - 1. ASTM A 123 – Specification for Zinc Coatings on Products Fabricated from Rolled, Pressed, and Forged Steel Shapes, Plates, Bars and Strip.

- C. National Electrical Manufacturers Association (NEMA):
 - 1. NEMA FB 1 - Fittings, Cast Metal Boxes, and Conduit Bodies for Conduit and Cable Assemblies.
 - 2. NEMA OS 1 - Sheet-Steel Outlet Boxes, Device Boxes, Covers, and Box Supports.
 - 3. NEMA 250 - Enclosures for Electrical Equipment (1000 Volts Maximum).
- D. Underwriters Laboratory (UL):
 - 1. UL 6 - Rigid Steel Conduit, Zinc Coated.
 - 2. UL 514B – Fittings, Cast Metal Boxes, and Conduit Bodies for Conduit and Cable Assemblies.
- E. National Fire Protection Association (NFPA):
 - 1. NFPA 70 - National Electrical Code.
- F. International Building Code (IBC):
 - 1. IBC chapters 16 and 17 seismic requirements.

1.04 RACEWAY AND BOX INSTALLATION SCHEDULE

- A. Raceway Minimum Size:
 - 1. Above Grade: Provide 1/2 inch minimum, unless otherwise noted.
- B. Outdoor Above Grade, Damp or Wet Interior Locations:
 - 1. Raceway: Provide rigid steel conduit or intermediate metal conduit.
 - 2. Boxes and Enclosures: Provide weatherproof malleable iron for branch circuit junction and outlet boxes. Provide weatherproof NEMA 3R sheet metal enclosures for safety and disconnect switches and NEMA 4 sheet metal enclosures with gaskets for motor controllers and control panels.
 - 3. Fittings: Provide galvanized malleable iron with gaskets. Provide Myers threaded hubs for all conduit entries into top and side of sheet metal enclosures.
- C. Concealed Dry Locations:
 - 1. Raceway: Provide rigid steel conduit, intermediate metal conduit, or electrical metallic tubing.
 - 2. Boxes and Enclosures: Provide sheet-metal boxes.
 - 3. Fittings: Provide galvanized malleable iron and steel.
- D. Exposed Dry Locations:

1. Raceway: Provide rigid steel conduit or intermediate metal conduit. EMT conduit may be used where exposed conduit is allowed where it is not subject to physical damage or where installed on the ceiling or a minimum of ten feet above the floor.
 2. Boxes and Enclosures: Provide sheet-metal boxes with raised steel covers.
 3. Fittings: Provide galvanized malleable iron and steel.
 4. Surface Raceway and Boxes. Where specifically noted on the Drawings, provide surface raceway and boxes.
- E. Equipment Connections: Provide short extensions (three feet maximum) of flexible metal conduit for connections to light fixtures or equipment that requires removal for maintenance or replacement.

1.05 DESIGN REQUIREMENTS

A. Raceway Minimum Size:

1. Line Voltage Circuits: Raceway is sized on the drawings for copper conductors with 600-Volt type XHHW insulation, unless otherwise noted. Where a raceway size is not shown on the drawings, it shall be calculated to not exceed the percentage fill specified in the NEC Table 1, Chapter 9 using the conduit dimensions of the NEC Table 4, Chapter 9 and conductor properties of the NEC Table 5, Chapter 9.
2. Fire Alarm and other Low-Voltage Circuits: Where installed in raceways, the raceway size shall be calculated to not exceed the percentage fill specified in the NEC Table 1, Chapter 9, using the conduit dimensions of the NEC Table 4, Chapter 9, and cable diameter provided by the manufacturer.

B. Box Minimum Size: Provide all boxes sized and configured per NEC Article 370 and as specified in this section.

C. Seismic Support: Provide support in accordance with section 260529 – Hangers and Supports for Electrical Systems.

1.06 SUBMITTALS

A. Product Data: Submit data for products to be provided.

1.07 DELIVERY, STORAGE, AND HANDLING

A. Protect conduit from corrosion and entrance of debris by storing above grade. Provide appropriate covering.

PART 2 - PRODUCTS

2.01 RIGID METAL CONDUIT (RMC)

A. Rigid Steel Conduit: ANSI C80.1, UL 6.

- B. Fittings and Conduit Bodies: NEMA FB 1, UL 514B; Galvanized malleable iron with threaded hubs for all conduit entries. Provide threaded connections and couplings only. Set Screw and running thread fittings are not permitted.
- C. Provide insulated throat bushings at all conduit terminations.

2.02 INTERMEDIATE METAL CONDUIT (IMC)

- A. Product Description: ANSI C80.6, UL 1242; Galvanized Steel Conduit.
- B. Fittings and Conduit Bodies: NEMA FB 1, UL 514B; use fittings and conduit bodies specified above for rigid steel conduit.
- C. Provide insulated throat bushings at all conduit terminations.

2.03 FLEXIBLE METAL CONDUIT (FMC)

- A. Product Description: UL 1, FS WW-C-566; galvanized or zinc-coated flexible steel, full or reduced-wall thickness.
- B. Fittings and Conduit Bodies: ANSI/NEMA FB 1; steel or malleable iron with insulated throat bushings. Die cast zinc or threaded inside throat fittings are not acceptable.

2.04 LIQUIDTIGHT FLEXIBLE METAL CONDUIT (LFMC)

- A. Product Description: UL 360, flexible metal conduit with interlocked steel construction and PVC jacket.
- B. Fittings and Conduit Bodies: ANSI/NEMA FB 1; liquid tight steel or malleable iron with insulated throat bushings. Die cast fittings are not acceptable.

2.05 ELECTRICAL METALLIC TUBING (EMT)

- A. Product Description: ANSI C80.3, UL 797; galvanized steel tubing.
- B. Fire Alarm EMT: Provide EMT with factory-applied red topcoating.
- C. Fittings and Conduit Bodies: ANSI/NEMA FB 1; steel or malleable iron, compression or set screw type with insulated throat bushings. Zinc die cast or indenter fittings are not acceptable.
- D. Maximum size shall be 2". Provide factory elbows on sizes 1-½" and larger.

2.06 SURFACE METAL RACEWAY

- A. Single Channel – Fire Alarm System:
 - 1. Manufacturers:
 - a. Wiremold, V700 series.

- b. Mono Systems, SnapMark SMS700 series.
 - c. Hubbell, HBL750 series.
 - d. Substitutions: Under the provisions of Division 01.
2. Description: Single-channel surface metallic raceway with fitted cover.
 3. Size: 3/4 inch wide x 1/2 inch deep single compartment.
 4. Device Locations: As indicated on the drawings.
 5. Channel Finish: Ivory.
 6. Fittings: Furnish manufacturer's standard couplings, entrance fittings, elbows, device brackets, end caps, seam covers, wire clips, device faceplates and connectors.
 - a. Conduit Connector: Wiremold #V5782, SnapMark #SMS5782, Hubbell #HBL5784IV.
 - b. Box Connector: Wiremold #V5781, SnapMark #SMS5781, Hubbell #HBL5781A.
 - c. Internal Elbow: Wiremold #V717, SnapMark #SMS717, Hubbell #HBL717IV.
 - d. External Elbow: Wiremold #V718, SnapMark #SMS718, Hubbell #HBL718IV.
 - e. 90 Flat Elbow: Wiremold #V711, SnapMark #SMS711, Hubbell #HBL711IV.
 - f. TEE: Wiremold #V5715, SnapMark #SMS5715, Hubbell #HBL5715.
 - g. Bushing: Wiremold #V702, SnapMark #SMS702, Hubbell #HBL702B.
 - h. Coupling: Wiremold #V5701, SnapMark #SMS5701, Hubbell #HBL5701C.
 - i. Supporting Clip: Wiremold #V5703, SnapMark #SMS5703, Hubbell #HBL5703IV.
 - j. Connection Cover (Where covers not squarely cut): Wiremold #V706, SnapMark #SMS706, Hubbell #HBL706IV.
 - k. Mounting Strap: Wiremold #V704, SnapMark #SMS704, #HBL704IV.
 - l. Shallow Box: Wiremold #V5747, SnapMark #SMS5747, #HBL5747IV.
 - m. Extra Shallow Box: Wiremold #V5748S, SnapMark SMS5748S, #HBL5748SIV.
 7. Cuts: Perform all cuts with raceway base and cover shear specifically designed for installed raceway system. Wiremold #607, SnapMark #607, Hubbell #HBL607CUT.

2.07 OUTLET BOXES

- A. Sheet Metal Outlet Boxes: ANSI/NEMA OS 1, UL514A galvanized steel, with plaster ring where applicable.
 1. Minimum Size: 4 inches square or octagonal, 1-1/2 inches deep, unless otherwise noted.

2. Luminaire and Equipment Supporting Boxes: Rated for weight of equipment supported; furnish 1/2 inch male fixture studs where required. Minimum Size: 4 inches square or octagonal, 2-1/8 inches deep.
 3. Cut-In Boxes: Minimum size 2" x 3" x 2-1/2" deep. Provide cut-in outlet boxes where required for installation in existing walls.
- B. Cast Boxes: NEMA FB 1, Type FD, galvanized malleable iron. Furnish gasketed cover by box manufacturer. Furnish threaded hubs. "Bell" boxes are not acceptable.

2.08 PULL AND JUNCTION BOXES

- A. Sheet Metal Pull and Junction Boxes: ANSI/NEMA OS 1, UL514A galvanized steel.
1. Minimum Size: 4 inches square or octagonal, 1-1/2 inches deep, unless otherwise noted.
- B. Sheet Metal Boxes Larger Than 12 Inches in Any Dimension: Hinged enclosure, Hoffman or approved equal.
- C. Cast Metal Boxes for Outdoor and Wet Location Installations: NEMA 250, Type 4; flat-flanged, surface mounted junction box, UL listed as raintight:
1. Material: Galvanized cast iron or copper-free cast aluminum.
 2. Cover: Furnish with ground flange, neoprene gasket, and stainless steel cover and screws.

2.09 EXPANSION FITTINGS

- A. Galvanized malleable iron, galvanized with grounding bond jumper.

2.10 BUSHINGS

- A. Non-grounding: Threaded impact resistant plastic.
- B. Grounding: Insulated galvanized malleable iron/steel with hardened screw bond to raceway and conductor lug.

2.11 LOCKNUTS

- A. Threaded Electro Zinc Plated Steel designed to cut through protective coatings for ground continuity.

PART 3 - EXECUTION

3.01 INSTALLATION

- A. Provide seismic support and fasten raceway and box supports to structure and finishes in accordance with Section 260529.

- B. Identify raceway and boxes with origin and destination in accordance with Section 260553.
- C. Unless otherwise noted, do not inter-mix conductors from separate panelboards or any other system in the same raceway system or junction boxes.

3.02 INSTALLATION - GENERAL RACEWAY

- A. Install raceway for all systems, unless otherwise noted.
- B. Install an equipment grounding conductor inside of all raceways containing line voltage conductors.
- C. Provide raceways concealed in construction unless specifically noted otherwise, or where installed at surface cabinets, motor and equipment connections and in Mechanical and Electrical Equipment rooms. Do not route conduits on roofs, outside of exterior walls, or along the surface of interior finished walls unless specifically noted on the plans.
- D. Raceway routing and boxes are shown in approximate locations unless dimensioned. Where raceway routing is not denoted, field-coordinate to provide complete wiring system.
- E. Do not route raceways on floor. Arrange raceway and boxes to maintain a minimum of 6 feet 6 inches of headroom and present a neat appearance. Install raceways level and square to a tolerance of 1/8" per 10 feet. Route exposed raceways and raceways above accessible ceilings parallel and perpendicular to walls, ceiling, and adjacent piping.
- F. Maintain minimum 6-inch clearance between raceway and mechanical and piping and ductwork. Maintain 12-inch clearance between raceway and heat sources such as flues, steam pipes, heating pipes, heating appliances, and other surfaces with temperatures exceeding 104 degrees F.
- G. Seal raceway penetrations of fire-rated walls and ceilings in accordance with the requirements of Section 260500.
- H. Raceways and boxes penetrating areas from cold to warm shall be taped and sealed with a non-hardening duct sealing compound to prevent the accumulation of moisture, and shall include a vapor barrier on the outside.
- I. Arrange raceway supports to prevent misalignment during wiring installation. Support raceway using coated steel or malleable iron straps, lay-in adjustable hangers, clevis hangers, and split hangers.
- J. Do not attach raceway to ceiling support wires or other piping systems and do not fasten raceway with wire or perforated pipe straps. Remove all wire used for temporary raceway support during construction, before conductors are pulled. Raceway shall be installed to permit ready removal of equipment, piping, ductwork, or ceiling tiles.
- K. Group raceway in parallel runs where practical and use conduit rack constructed of steel channel with conduit straps or clamps, as specified in Section 260529. Provide space on each rack for 25 percent additional raceway.
- L. Cut conduit square; de-burr cut ends. Bring conduit to the shoulder of fittings and couplings and fasten securely. Where locknuts are used, install with one inside box and one outside with dished part against box.

- M. Use threaded raintight conduit hubs for fastening conduit to cast boxes, and for fastening conduit to sheet metal boxes in damp or wet locations. Sealing locknuts are not acceptable.
- N. Install no more than the equivalent of three 90-degree bends between boxes.
- O. Install conduit bodies to make sharp changes in direction, such as around beams. "Goosenecks" in conduits are not acceptable.
- P. Use hydraulic one-shot conduit bender or factory elbows for bends in conduit larger than 2 inch size.
- Q. Provide protective plastic bushings or insulated throat bushings at each raceway termination not installed to an enclosure. Bushings shall be threaded to the raceway end or connector.
- R. Avoid moisture traps; install junction box with drain fitting at low points in raceway system.
- S. Install fittings and flexible metal conduit to accommodate 3-axis movements where raceway crosses seismic joints.
- T. Install fittings designed and listed to accommodate expansion and contraction where raceway crosses control and expansion joints.
- U. Use suitable caps to protect installed raceway against entrance of dirt and moisture.
- V. Provide nylon "jet-line" or approved equal pull string in empty raceway, except sleeves and nipples.
- W. Paint all exposed conduit to match surface to which it is attached or crosses. Clean greasy or dirty conduit prior to painting in accordance with paint manufacturer's instructions. Where raceway penetrates non-rated ceilings or walls, provide patching, paint and trim to retain architectural aesthetics similar to surroundings.

3.03 INSTALLATION – GENERAL BOXES

- A. Provide electrical boxes as shown on Drawings, and as required for splices, taps, wire pulling, equipment connections, and code compliance. All electrical box locations shown on Drawings are approximate unless dimensioned.
- B. Install pull boxes and junction boxes above accessible ceilings and in unfinished areas only. Where installation is inaccessible, install outlet and junction boxes no more than 6 inches from ceiling access panel or from removable recessed luminaries. Coordinate locations and sizes of required access doors.
- C. Coordinate layout and installation of boxes to provide adequate headroom and working clearance. Coordinate mounting heights and locations of outlets mounted above counters, benches, and backsplashes.
- D. Adjust box location up to 6 feet prior to rough-in to accommodate intended purpose.
- E. Locate and install boxes to maintain headroom and to present a neat appearance.
- F. Provide knockout closures for unused openings.
- G. Install boxes in walls without damaging wall insulation or reducing its effectiveness.

- H. Provide recessed outlet boxes in finished areas; secure boxes to interior wall and partition studs, accurately positioning to allow for surface finish thickness.
- I. Do not install flush mounted boxes back-to-back in walls; install with minimum 6 inches separation.
- J. Install with minimum 24 inches separation in fire rated walls. Limit penetrations in fire rated walls to 16 square inches each and a maximum total combined penetration area of 100 square inches in any given 100 square feet of wall. Where penetrations are in excess of these requirements provided UL listed fire stop wrap acceptable to Authority having Jurisdiction.
- K. Do not fasten boxes to ceiling support wires or other piping systems.
- L. Support boxes independently of conduit.
- M. Clean interior of boxes to remove dust, debris, and other material and clean exposed surfaces and restore finish.
- N. Provide blank covers or plates for all boxes that do not contain devices.

3.04 INSTALLATION – SURFACE RACEWAY

- A. Install flat-head screws, clips, and straps to fasten raceway channel to surfaces; mount plumb and level. Install insulating bushings and inserts at connections to outlets and corner fittings. Provide divider to keep power and data pathways separate at all times. Bond each section together to provide electrically continuous system.
- B. Close ends and unused openings in wireway and surface raceway.
- C. Where wall surface is uneven, installer shall fur out wall section to match Surface Raceway dimensions and Surface Boxes dimensions as required. Furring shall be painted to match surface raceway.
- D. Install Surface Raceway cover with no gaps, scratches, or deformities. Covers not acceptable to Owner shall be replaced by the Contractor.

END OF SECTION 260533

**SECTION 260553
IDENTIFICATION FOR ELECTRICAL SYSTEMS**

PART 1 - GENERAL

1.01 SECTION INCLUDES

- A. Nameplates and Tape Labels.
- B. Wire and Cable Markers.
- C. Conduit Color-Coding.
- D. Wire Markers.
- E. Conduit Markers.
- F. Low-voltage One-line Diagrams and System Maps.

1.02 RELATED SECTIONS

- A. The Work under this section is subject to requirements of the Contract Documents including the General Conditions, Supplementary Conditions, and sections under Division 01 General Requirements, and Section 260500 – Common Work Results for Electrical.
- B. Section 260519 – Low-Voltage Electrical Power Conductors and Cables.
- C. Section 260533 – Raceway and Boxes for Electrical Systems.
- D. Section 283100 – Fire Detection and Alarm.

1.03 SUBMITTALS

- A. Division 01 and Section 260500 – Common Work Results for Electrical.
- B. Product Data:
 - 1. Submit manufacturer's catalog literature for each product required.
 - 2. Submit electrical identification schedule including list of wording, symbols, letter size, color-coding, tag number, location, and function.
- C. Manufacturer's Installation Instructions: Indicate installation instructions, special procedures, and installation.

1.04 ENVIRONMENTAL REQUIREMENTS

- A. Install labels and nameplates only when ambient temperature and humidity conditions for adhesive are within range recommended by manufacturer.

PART 2 - PRODUCTS

2.01 NAMEPLATES

- A. Product Description: Laminated three-layer plastic with engraved white letters on black background. Nameplate for service disconnect shall be engraved white letters on red background.
- B. Letter Size:
 - 1. 1/4-inch high letters for identifying individual equipment.
 - 2. 1/8-inch high letters for remaining lines with 1/8 inch spacing between lines.
- C. Minimum nameplate size: 1/8 inch thick with a consistent length and height for each type of nameplate wherever installed on the project.

2.02 TAPE LABELS

- A. Product Description: Adhesive tape labels, with 3/16 inch Bold Black letters on clear background made using Dymo Rhino series label printer or approved equal.
- B. Embossed adhesive tape will not be permitted for any application.

2.03 WIRE MARKERS

- A. Power and Lighting Description: Machine printed heat-shrink tubing, cloth or wrap-on type, for all neutrals and Phase conductors.
- B. Low Voltage System Description: Self-adhesive machine printed label with unique wire number that is shown on shop drawing for system.

2.04 FIRE ALARM CONDUIT AND BOX IDENTIFICATION

- A. Product Description: Red spray paint for fire alarm boxes.
- B. Fire alarm conduit shall have red finish, as specified in Section 260533.

2.05 LOW-VOLTAGE SYSTEMS DIAGRAMS AND MAPS

- A. Provide system map for fire alarm system as specified in Section 283100.

PART 3 - EXECUTION

3.01 GENERAL INSTALLATION

- A. Degrease and clean surfaces to receive nameplates and tape labels.

- B. Install nameplates and tape labels parallel to equipment lines.

3.02 NAMEPLATE INSTALLATION

- A. Secure nameplates to equipment fronts using machine screws tapped and threaded into panelboard, or using rivets. The use of adhesives is not acceptable. Machine screws to not protrude more than 1/16 inch on back side.
- B. Fire Alarm or Low Voltage System Panels:
 - 1. Provide nameplate for each control panel with the following information:
 - a. Line 1: Unique panel name as shown on the shop drawings.
 - b. Line 2: System description such as Fire Alarm, etc.
 - c. Line 3: Panelboard and circuit number from which the panel is fed if applicable.

3.03 LABEL INSTALLATION

- A. Fire Alarm Device Labels: As specified in Section 283100.
- B. Low-Voltage System Device Labels: Provide label on each device, denoting device ID or address where applicable. Affix label to device faceplate for ceiling-mounted devices or wall-mounted devices above 8'-0" AFF. Affix label inside backbox for exterior devices.

3.04 WIRE IDENTIFICATION

- A. Provide wire markers on each conductor in panelboard gutters, pull boxes, outlet and junction boxes, and at load connection. Identification shall be as follows:
 - 1. Markers shall be located within one inch of each cable end, except at panelboards, where markers for branch circuit conductors shall be visible without removing panel deadfront.
 - 2. Each wire and cable shall carry the same labeled designation over its entire run, regardless of intermediate terminations.
 - 3. Color code phases, neutral, and ground per NEC requirements and Section 260519.
 - 4. Color-code all low-voltage system wires and cables in accordance with the individual sections in which they are specified.
 - 5. For power and lighting circuits, identify with branch circuit or feeder number.
 - 6. Control Circuits: Control wire number as indicated on schematic and shop drawings.
 - 7. Fire Alarm Circuits: Provide cable markers showing NAC or SLC loop identification number at all fire alarm junction boxes and pullboxes.
- B. Provide pull string markers at each end of all pull strings. Marker shall identify the location of the opposite end of the pull string.

3.05 JUNCTION BOX IDENTIFICATION

- A. Fire Alarm: In accessible ceiling spaces, exposed ceiling spaces, mechanical/electrical rooms, and other non-public spaces, paint fire alarm junction boxes and pullboxes with red spray paint. In all finished spaces where fire alarm boxes are visible, they shall be painted to match the surrounding finish. If there are any questions as to whether fire alarm boxes shall be painted red in a specific area, the Contractor shall get clarification from the Owner prior to painting.
- B. Label each lighting and power junction box with the panelboard name and circuit number.
- C. For junction boxes above ceilings, mark the box cover with the circuit or system designation using permanent black marker. For junction boxes in finished areas, mark the inside of the cover with the circuit or system designation using permanent black marker.

END OF SECTION 260553

**SECTION 265600
EXTERIOR LIGHTING**

PART 1 - GENERAL

1.01 WORK INCLUDED

- A. Exterior Luminaires and Accessories.
- B. Lamp Modules.
- C. Drivers.

1.02 RELATED WORK

- A. The Work under this section is subject to requirements of the Contract Documents including the General Conditions, Supplementary Conditions, and sections under Division 01 General Requirements, and Section 260500 – Common Work Results for Electrical.
- B. Division 09 – Finishes: Painting.
- C. Section 260519 – Low Voltage Electrical Power Conductors and Cables.
- D. Section 260529 - Hangers and Supports for Electrical Systems: General supports for luminaires.

1.03 DEFINITIONS

- A. CCT: Correlated color temperature.
- B. CRI: Color Rendering Index.
- C. Driver: LED power supply.
- D. Fixture: See "Luminaire."
- E. IES: Illuminating Engineering Society of North America.
- F. IP: International Protection or Ingress Protection Rating.
- G. Lamp Module: Replaceable LED board array/light engine including a plug-in connector.
- H. LED: Light-emitting diode.
- I. Lumen: Measured output of lamp and luminaire, or both.
- J. Luminaire: Complete lighting unit, including lamp or lamp module, driver, reflector, and housing.

1.04 REFERENCES

- A. ASTM D635 - Rate of Burning and/or Extent and Time of Burning of Self-Supporting Plastics in a Horizontal Position.
- B. IES TM-21-11 Projecting Long Term Lumen Maintenance of LED Light Sources.
- C. IES LM-80 IES Approved Method: Measuring Luminous Flux and Color Maintenance of LED Packages, Arrays and Modules.

1.05 SUBMITTALS

- A. Product Data: Submit the following:
 - 1. Luminaires: Include manufacturer's product data sheets and/or shop drawings including outline drawings showing support points, weights, and accessory information for each luminaire type. Clearly indicate all options being provided. Arrange data for luminaires in the order of fixture designation.
- B. LED Luminaire Substitutions: Due to the constantly evolving technology, it is difficult to evaluate a true "equal" LED luminaire since the wattage, lamp life, lumen output, lamp life, etc. vary significantly from fixture to fixture, even for luminaires that have a similar shape and style. The luminaires shown on the Plans in the Fixture Schedule are not intended to be sole sourced but are considered a Basis of Design. If a substitution is proposed by the contractor, it will be evaluated based on the following criteria:
 - 1. Does it have the same basic shape/style and characteristics? Note that there may be space constraints above the ceiling.
 - 2. Does the light have the same (or superior) light output and distribution? If not, would it still produce enough light to illuminate the space per minimum IES recommendations or other project specific lighting levels? Note that the Engineer may request .ies files or lighting calculations be provided by the Contractor to evaluate substitution requests.
 - 3. Does it use the same (or less) wattage than the specified fixture? If it uses slightly more power, does it provide enough value to the Owner by adding additional light to offset the additional power used? Is that appropriate for the project compliance requirements (LEED, ASHRAE 90.1, etc.)
 - 4. Does it have the same nominal color temperature and CRI values?
 - 5. Does it have an equal or better lamp life as calculated in accordance with IES TM-21 and LM-80?
 - 6. Does the manufacturer offer an equal or better warranty than the specified fixture?
 - 7. Are the LED lamps modules and LED boards field changeable? What guarantees does the manufacturer have that replacement parts will be available in the future?

1.06 CLOSEOUT SUBMITTALS

- A. Project Record Drawings: Indicate actual locations of all lighting fixtures and accessories on the project record drawings. Update part numbers and description on the Lighting Fixture Schedule to match the actual luminaires installed. Submit under Section 260500.
- B. Operation and Maintenance Manuals:
 - 1. Provide recommended luminaire cleaning and re-lamping schedule. If any luminaire lenses require special lubricants for cleaning, include this in the schedule.
 - 2. Provide detailed bill of materials for all items purchased in this section including distributor's contact name, phone number and pertinent information.
 - 3. Provide luminaire manufacturer's installation instructions.
 - 4. Provide step-by-step installation instructions showing how to replace the LED lamp modules and drivers for each luminaire
 - 5. Include any specific warranty information provided by the manufacturer for luminaires, LED boards and drivers.

1.07 DELIVERY, STORAGE, AND HANDLING

- A. Deliver products to site, store and protect under provisions of Division 01.

1.08 EXTRA MATERIALS

- A. Provide spare parts under provisions of Division 01.
- B. Lenses: Two of each size and type.
- C. Drivers: Two of each size and type installed.
- D. LED Lamp Modules: Provide a minimum two (2) of each unique type of lamp module used on the project. Ship LED lamp modules (i.e. LED board) in protective packaging and label each lamp module to indicate the fixture type that it may be installed in. (e.g. Type A1).
- E. Where luminaires do not have replaceable lamp modules, provide one spare fixture for each type.

PART 2 - PRODUCTS

2.01 EXTERIOR LUMINAIRES AND ACCESSORIES

- A. Luminaires: Provide UL listed luminaires as scheduled on the drawings or as approved equal.
- B. Listing: Luminaires shall be listed for use in the environment in which they are installed. For example, luminaires installed in return air plenums, direct contact with insulation, or in hazardous, wet, damp, or corrosive locations shall be UL listed for such application.

- C. Accessories: Provide all mounting kits, supports, interconnecting wiring, power supplies, trim kits, gaskets, etc. for a complete installation.

2.02 LAMP MODULES

- A. Light Emitting Diode (LED): 4000° K (nominal), with minimum 70CRI and a minimum rated life (L70) of 75,000 hours at 40 degrees F average outdoor ambient temperature.
- B. Luminaires and lamps installed outdoors shall be rated for starting and operating at a minimum of -20F.
- C. Replaceable: Unless otherwise scheduled, all LED modules shall be field replaceable with quick disconnect connections

2.03 DRIVERS

- A. LED Driver: Provide UL listed power supply as recommended by the LED fixture manufacturer for operation of the specified LED lamps. Power supply shall be integral to the luminaire unless otherwise noted on the Plans. Power supply shall be dual voltage (120/277V) where available or operate at the supply voltage indicated on the Plans.
- B. All luminaire drivers and power supplies installed outdoors shall be rated for starting and operating at a minimum of -20F.

PART 3 - EXECUTION

3.01 INSTALLATION

- A. Unless otherwise noted on Plans, provide driver integral to luminaires, pre-wired and installed at the factory, suitable for use with the LED module.
- B. Install recessed luminaires to permit removal from below. Use plaster frames in hard ceilings.
- C. LED Power Supplies: Install power supplies to be readily accessible.

3.02 RELAMPING

- A. Relamp luminaires which have failed lamps at completion of work.

3.03 ADJUSTING AND CLEANING

- A. Align luminaires and clean lenses and diffusers at completion of work. Clean paint splatters, dirt, and debris from installed luminaires.

END OF SECTION 265600

**SECTION 283100
FIRE DETECTION AND ALARM**

PART 1 - GENERAL

1.01 SECTION INCLUDES

- A. Contractor designed and installed addressable fire alarm and smoke detection system with emergency voice notification. This is a performance type specification describing the minimum acceptable fire alarm system. The Contractor shall design and install the fire alarm system in accordance with the requirements of NFPA 72 and ICC/ANSI A117.1. The fire alarm devices on the drawings are shown in suggested locations. The final locations of all devices shall be solely determined by the Contractor and shall be in accordance with NFPA 72 and ICC/ANSI A117.1.

1.02 RELATED SECTIONS

- A. Division 21 - Sprinkler System.
- B. Division 25 – Mechanical: Fire/Smoke Dampers.
- C. Section 260519 – Low-Voltage Electrical Power Conductors and Cables.
- D. Section 260533 – Raceway and Boxes for Electrical Systems.
- E. Section 260553 – Identification for Electrical Systems.

1.03 REFERENCES

- A. NFPA 72 - National Fire Alarm Code.
- B. NFPA 101 - Life Safety Code.
- C. International Mechanical Code (IMC).
- D. Americans with Disabilities Act (ADA) and ADA Guidelines for Buildings and Facilities (ICC/ANSI A117.1).
- E. ANSI S3.41 - Audible Emergency Evacuation Signals.

1.04 REGULATORY REQUIREMENTS

- A. System: UL and FM listed.
- B. Conform to the requirements of UL 864.
- C. Conform to requirements of NFPA 101.
- D. Conform to requirements of ICC/ANSI A117.1.

- E. Install system in accordance with NFPA 72.

1.05 SYSTEM DESCRIPTION

- A. Fire Alarm System: Contractor designed and installed, microprocessor controlled manual and automatic fire alarm system with individually addressable initiating devices. The Contractor shall design and install the system in accordance with the requirements of these specifications, NFPA 72, NFPA 101, and ICC/ANSI A117.1. The fire alarm devices on the drawings are shown in suggested locations. The Contractor shall modify these device locations as necessary to accommodate actual architectural, structural, or mechanical conditions, at no cost to the Owner.
- B. System Supervision: Provide electrically-supervised class B, addressable fire alarm system with fault tolerant supervised signaling line circuits and notification appliance circuits. Occurrence of single ground or open condition in signaling line circuit or notification appliance circuit places circuit in TROUBLE mode. Component or power supply failure places system in TROUBLE mode.
- C. Alarm Sequence of Operation: Actuation of manual fire alarm station or automatic initiating device causes system to enter ALARM, which includes the following operations:
 - 1. Sound and display local fire alarm notification appliances with ANSI S3.41 compliant temporal signal, pre-recorded audio message, and synchronized flash.
 - 2. Transmit alarm signal to activate the digital alarm communicator.
 - 3. Indicate location and address of device in alarm on fire alarm control panel and on remote annunciator panel.
 - 4. Record the time, date and location of the alarm in the fire alarm panels' accessible history database.
 - 5. Transmit signal for closure of all fire/smoke dampers and shutdown of all building supply and return air fans.
 - 6. Transmit signal to release exit door electric locks.
- D. Alarm Reset: Key-accessible RESET function resets alarm system out of ALARM if alarm has cleared.
- E. Trouble Sequence of Operation: System trouble, including grounding or open circuit of signaling line or notification appliance circuits, or power or system failure causes system to enter TROUBLE mode, including the following operations:
 - 1. Activate visual and audible trouble alarm by device at the fire alarm panel.
 - 2. Activate visual and audible trouble alarm by device at annunciator panel.
 - 3. Manual ACKNOWLEDGE function at control panel silences audible trouble alarm; visual alarm is displayed until initiating trouble is cleared.
 - 4. Record the time, date and location of the trouble condition in the panel's accessible history database.
 - 5. Transmit alarm signal to activate the digital alarm communicator.

- F. Drill Sequence of Operation: Manual DRILL function causes ALARM mode operation to sound and display local fire alarm notification appliances.
- G. Sprinkler System Water Flow Sequence of Operation: Water flow in sprinkler system shall cause the fire alarm control panel to enter the alarm state.
- H. Sprinkler System Valve Tamper Sequence of Operation: Activation of sprinkler valve tamper switch shall cause the fire alarm control panel to display a supervisory trouble indicator.
- I. Lamp Test: Manual LAMP TEST function causes each indicator lamp/LED at the fire alarm control panel to illuminate.
- J. The system shall be 100% field programmable for additions and deletions, and shall be capable of being expanded and field programmed at any time from the fire alarm control panel with a plug-in programmer without returning the devices or operating system to the factory for program change.
- K. The fire alarm control panel shall report and identify the failure of any device connected to the system, a device removed from a signaling line or notification appliance circuit, or a transmitting device component failure while all other line devices on the channel shall continue to function. The control panel shall report failures by specific channel and address number and permanently record the event including time and date on the system database.
- L. Addressable control relays connected to the system shall be continuously monitored for proper state and position of contacts. Incorrect positions shall be automatically corrected by command from the control panel. If control relay fails to respond to the corrective command; the trouble signal shall sound, and the panel shall identify and permanently record the location of the fault. The control panel shall also monitor addressable control relays for proper state (position) after the system has commanded the relay to operate. Failure of the control relay to operate (change state) shall cause the panel to generate a trouble signal, identify and permanently record the location of the fault.

1.06 QUALIFICATIONS

- A. The installation of the system shall conform to the State of Alaska requirements and be supervised by a representative with a current State Fire Alarm License.
- B. Manufacturer: Company specializing in addressable smoke detection and fire alarm systems with five years documented experience.
- C. System Supplier: Factory trained to provide the submitted fire alarm system.
- D. Installer: Installation of the system shall be 100% field checked by a factory trained and authorized NICET Level III technician certified in the Fire Alarm System Program. The actual supervising technician must be approved prior to start of work.

1.07 SUBMITTALS

- A. Submit product data under the provisions of Division 01.
- B. Submit manufacturer's installation instructions.

- C. Submit shop drawings prepared and signed by a NICET Level III technician certified in fire alarm systems under the provisions of Division 01. Shop drawings shall have the following requirements:
1. The Shop Drawings shall be reproduced electronically from a Master Copy supplied in digital format. Electronic copy of the Contract Drawings will be available at no charge to use as base plan for generation of electronic submittal. Shop Drawings shall be printed at Contract Drawing size and scale of floor plans on Shop Drawings shall match Contract Drawings.
 2. All text on the drawings shall be legible without magnification when the shop drawings are reduced to 11" x 17".
 3. Provide minimum 1/8" scale floor plans with all new fire alarm control and auxiliary panels, field devices, raceway and conductor routing, quantities and connection requirements for every component.
 4. Provide point-to-point system wiring diagrams showing interconnection of all devices.
 5. Provide a riser diagram showing all devices on each NAC, SLC, and auxiliary circuit connected to the fire alarm control panel. Individual device addresses on riser diagram are not required for initial shop drawing submittal but shall be provided on the as-built drawings.
 6. Provide calculations to support battery size selection. Provide voltage drop calculations for each SLC and NAC circuit. Show the voltage drop at the furthest notification appliance from the control panel. Show all formulas and acceptable limits for all calculations. All calculations shall be shown on the shop drawings.
- D. Submit shop drawings and product data to the local Fire Marshal for review and approval. All shop drawings and product data shall be reviewed and approved by the authority having jurisdiction prior to procurement and installation of materials or devices for the system.
- E. Device Names: All device names that are displayed on the LCD text annunciators in the fire alarm panel and remote text annunciator panel shall be approved by the Owner. The Contractor shall request a list of approved room names for the facility prior to programming the fire alarm panel or any field devices.

1.08 PROJECT RECORD DRAWINGS

- A. Submit documents under the provisions of Division 01.
- B. Accurately indicate actual locations of notification appliances, initiating devices, fire alarm control panel, annunciators, etc.
- C. Provide Point to Point as-built wiring diagrams of the entire Life Safety System as installed. This shall include all connected devices with actual addresses and locations of all T-taps. All drawings shall be provided in AutoCAD .DWG format. Paper plots of each sheet shall also be provided.

1.09 OPERATION AND MAINTENANCE DATA

- A. Submit operating instructions and maintenance and repair procedures under the provisions of Division 01.
- B. Include manufacturer representative's letter stating the system is operational.
- C. Include an 11" x 17" set of the fire alarm system project record drawings.
- D. Include a completed copy of the NFPA 72 Inspection and Testing Form.

1.10 DEMONSTRATION AND TRAINING

- A. The Manufacturer's Representative shall be responsible for an on-site demonstration of the operation of the system and initial staff training.
- B. Under the provisions of Division 01 and Section 260500, provide formal instruction in the operation, maintenance, and troubleshooting of all equipment, provided at the project site with manufacturer's representative with the Owner's personnel.

1.11 DELIVERY, STORAGE, AND HANDLING

- A. Deliver products to site, store and protect, under provisions of Division 01.

1.12 EXTRA MATERIALS

- A. Provide spare parts under provisions of Division 01.
- B. Provide two keys of each type.
- C. Provide four addressable smoke detectors.
- D. Provide two ceiling-mount fire alarm speaker/strobes.

1.13 WARRANTY

- A. The Contractor shall be able to provide initial contact on warranty service and/or service contract requests from their principal location within eight (8) hours of notification. During the warranty period, the Contractor may choose to attempt troubleshooting of the system by telephone, with the facility maintenance staff. If the problem cannot be resolved within 24 hours, the Contractor shall travel to the facility on the next available flight to repair the system.

PART 2 - PRODUCTS

2.01 MANUFACTURERS

- A. Basis of Design is Siemens Desigo system.
- B. Substitutions: Under provisions of Division 01.

2.02 FIRE ALARM AND SMOKE DETECTION CONTROL PANEL

- A. Control Panel: Microprocessor controlled, addressable panel with modular construction and flush wall-mounted enclosure.
- B. Power Supply: Adequate to serve control panel modules, initiating devices, notification appliances, remote annunciators, door holders, fire/smoke dampers, relays, duct smoke detectors, etc. plus 25 percent spare capacity to allow for future system load growth. Include battery-operated emergency power supply with capacity for operating system in standby mode for 24 hours followed by alarm mode for 15 minutes. Size battery capacity to allow for a 25 percent growth of the system load while complying with the above requirements.
- C. Signaling Line Circuits: Class B, Style 4, signaling line circuit with capacity sufficient for all initiating devices connected to the circuit plus 25 percent spare capacity to allow for future load growth.
- D. Notification Appliance Circuits: Class B, Style Y, notification appliance circuit complying with ANSI S3.41 with capacity sufficient for all notification appliances connected to the circuit plus 25 percent spare capacity to allow for future load growth.
- E. Control Relays: Provide sufficient addressable control relays to provide accessory functions specified and required by the drawings.
- F. Provide TROUBLE ACKNOWLEDGE, DRILL, and ALARM SILENCE switch.

2.03 INITIATING DEVICES

- A. Manual Station: Semi-flush surface mounted, single-action addressable manual station. Provide with high impact clear polycarbonate protective cover where shown on the Drawings.
- B. Ceiling Mounted Smoke Detector: Addressable, NFPA 72, photoelectric type with adjustable sensitivity, plug-in base, and visual indication of detector actuation, suitable for mounting on 4-inch outlet box.
- C. Duct Mounted Smoke Detector: Addressable, NFPA 72, photoelectric type with auxiliary SPDT relay contact, duct sampling tubes extending the width of duct, and visual indication of detector activation, in duct-mounted housing. Provide with remote visual indicator, test, and reset station.
- D. Heat Detector: Addressable combination rate-of-rise and fixed temperature, rated 135° F, and temperature rate of rise of 15° F. Provide fixed temperature devices rated 200° F where indicated.
- E. Provide any specialized tools or interface equipment as required to program the addressable devices (i.e. Siemens "Device Programming Unit"). Turn over one of each type of tool to Owner at completion of project.

2.04 INTELLIGENT MODULES

- A. A control relay/transponder shall be installed where building services (i.e. fan shutdown, door holder or release, etc.) are to be automatically controlled by the fire alarm system during a fire emergency. The control relay shall be of a type that only consumes power momentarily while transferring from the deenergized to the energized state or back again. The command to

change state shall come from the control panel in accordance with the system program. The control relay shall be condition (deenergized or energized) supervised, and its condition shall be confirmed and corrected, if necessary, during each polling cycle. The control relay/transponder shall be capable of operating on the same communication channel with initiating devices/transponders so that it can be located within 3 feet of the building service device it is controlling as required by NFPA 101-Life Safety Code while its integrity is being monitored from the control panel. The address code of the control relay transponder shall be field selectable and changeable in the same manner as for other transponders. The control relay/ transponder type code shall be factory preset and not be field changeable.

2.05 NOTIFICATION APPLIANCES

- A. All appliances shall be U.L. Listed for Fire Protective Service.
- B. All appliances shall be of the same manufacturer as the Fire Alarm Control Panel specified to assure absolute compatibility between the appliances and the control panels, and to assure that the application of the appliances is done in accordance with the single manufacturer's instructions.
- C. Any appliances that do not meet the above requirements, and are submitted for use must show written proof of their compatibility for the purposes intended. Such proof shall be in the form of documentation from all manufacturers that clearly states that their equipment (as submitted) is 100% compatible with each other for the purposes intended.
- D. Fire Alarm Bell: Connect existing bell to new fire alarm system.
- E. Low Profile Speaker: Provide low profile wall or ceiling mount speaker at the locations shown on the drawings or as required to achieve intelligibility levels in accordance with NFPA 72. The speaker shall not extend more than 1" (2.5cm) past the finished wall/ceiling surface, and provide a switch selectable audible output of 2W (90dBA), 1W (87dBA), 1/2W (84dBA), or 1/4W (81dBA) at 10 ft. when measured in reverberation room per UL-464.
- F. Low Profile Strobe: NFPA 72 compliant, flush wall or ceiling mounted, self-synchronizing, xenon, fire alarm strobe lamp and flasher with flashrate of one flash per second, complying with the requirements of ICC/ANSI A117.1. Provide red lettered FIRE on clear lens. The strobe shall be field-selectable to provide 15, 30 75, or 110 candela synchronized flash outputs. The settings of all strobes shall be determined by the Contractor during the shop drawing process. Provide integral speaker as specified above where indicated on the Drawings.
- G. Loudspeaker: NFPA 72 compliant loudspeaker, 15W rating, switch selectable output. Environment resistant for outdoor and indoor use.
- H. Remote Annunciator: Provide UL Listed, supervised, remote alpha-numeric annunciator with back-lit liquid crystal display capable of providing fire alarm system information on any event recorded by the fire alarm system with a minimum 40 alpha-numeric character display of a custom message corresponding to the event. The annunciator shall have four LED's indicating normal, alarm, supervisory and trouble conditions.
- I. Digital Alarm Communicator: Connect to the existing DACT in the 2nd floor mechanical room.

2.06 VOICE EVACUATION REQUIREMENTS

- A. The system shall be capable of delivering multi-channel audio messages simultaneously over copper and/or fiber media. All audio messages and live pages shall originate at the one-way audio control unit. The one-way audio control unit shall store pre-recorded audio messages digitally. These messages shall be automatically directed to various areas in a facility under program control. The system shall support remote cabinets with zoned amplifiers to receive, amplify and send messages through speakers over supervised circuits.
1. The one-way emergency audio control shall provide control switches to direct paging messages as follows:
 2. "All Call" to direct the page messages to all areas in the facility, overriding all other messages and tones.
 3. "Page to Evacuation Area" to direct the message to the evacuation area(s), overriding all other messages and tones.
 4. "Page to Alert Area" to direct page messages to the area(s) receiving the alert message and tones, overriding all other messages and tones.
 5. "Page to Balance Building" to direct page messages to the areas in the facility NOT receiving either the evacuation area or alert area messages.
 6. "Page by Phone" switch to select the firefighters telephone system as the source for paging.
- B. Audio Amplifiers (Multi-Channel): Provide a minimum of one twenty (20) watt audio amplifier per paging zone. The system software shall be capable of selecting the required audio source signal for amplification. To enhance system survivability, each audio amplifier shall automatically provide a local 3-3-3 1000 Hz temporal pattern output upon loss of the audio communications with the one-way audio control unit, during an alarm condition. Audio amplifiers shall be power limited and protected from short circuits conditions on the audio circuit wiring. Each amplifier output shall include a dedicated, selectable 25/70 Vrms output. Provide a standby audio amplifier that will automatically sense the failure of a primary amplifier, and replace the function of the failed amplifier.
- C. Battery backup: The battery backup shall have the capacity to operate the system under maximum supervisory load for 24 hours and capable of operating the system for fifteen (15) minutes in alarm on all devices, operating at maximum load.

2.07 AUXILIARY DEVICES

- A. Vandal-Resistant Pull Station Cover: UL listed polycarbonate pull station cover with integral 100dB horn and internal 9-Volt battery power supply. Covers for both flush-mounted and surface-mounted pull stations shall be provided as required to match the installation (i.e. flush covers for flush pull stations). STI "Stopper II" series or approved equal.
- B. NAC Booster Power Supplies:
1. Power supply quantity, rating and battery size shall be determined by the Contractor. All locations of new power supplies shall be approved by the Owner prior to shop drawing submittal. Provide one or more dedicated circuits for all new power supplies. Each circuit shall have a handle lock on the breaker.

2. Smoke Detection: Provide a smoke detector to protect each NAC booster power supply in accordance with NFPA 72 requirements. Note that because the quantity and locations of NAC boosters are determined by the Contractor, these smoke detectors are not shown on the Contract Drawings but they shall be provided at no additional cost to the Owner.

2.08 FIRE ALARM WIRE AND CABLE

- A. Fire Alarm System Power Branch Circuits: Building wire as specified in Section 260519.
- B. Notification Appliance Circuits: Minimum #12 AWG copper building wire, as specified in Section 260519.
- C. Initiating and Signaling Line Circuits: Twisted, shielded or unshielded fire alarm cable as recommended by the fire alarm system manufacturer. Minimum size #16 AWG.

2.09 FIRE ALARM SYSTEM MAP

- A. On wall beside the fire alarm panel, provide a system map under clear 1/8" plexiglass with black metal frame permanently screwed to the wall with 4 screws around the perimeter of the map.
- B. Map to denote locations of all panels, annunciator, and device address and room numbers that correlate with text display on panel to locate system event.
- C. Orientate each map consistent with location the map is installed. Provide call denoting "YOU ARE HERE" at the installation point for each map.
- D. The map shall be color-coded for clarity.
- E. The final layout to be approved prior to final printing.

PART 3 - EXECUTION

3.01 INSTALLATION

- A. Install the fire alarm system in accordance with the manufacturer's instructions.
- B. Install manual station with operating handle not less than 42 inches and not more than 48 inches above finished floor. Install audible notification appliances with top of device not less than 90 inches above finished floor, and not less than 6 inches below finished ceiling. Install visual notification appliances such that the entire lens is not less than 80 inches and not greater than 96 inches above finished floor.
- C. Install all smoke detectors a minimum of three feet from any air supply, return, or exhaust diffuser and a minimum of one foot from any light fixture.
- D. Install all fire alarm system wiring in a dedicated fire alarm MC cable or conduit system separate from any other system wiring. Provide minimum 8 inch wire tails at each device box and 50 inch wire tails at the fire alarm control panel.
- E. Make conduit and wiring connections to sprinkler water flow switches, sprinkler valve tamper switches, fire/smoke dampers, and other items as shown on the drawings or required by NFPA

72. Not all valve tamper switches and flow switches on the existing sprinkler system may be shown on the drawings. The Contractor is responsible to field verify all tamper and flow switch locations and connect all switches to the fire alarm system.

- F. The Contractor is responsible to field coordinate the final location of all initiating devices and notification appliances to comply with the requirements of NFPA 72. Any initiating devices or notification appliances that are not installed in accordance with NFPA 72 shall be relocated to comply with the requirements of NFPA 72 at no cost to the Owner.
- G. Detectors shall not be installed until after the construction cleanup of all trades is complete and final. Protective dust covers shall be installed on all detectors prior to final clean-up. Detectors that have been installed without dust covers prior to final clean-up shall be replaced at no cost to the Owner.
- H. Field locate remote visual indicators and test/reset stations for duct detectors in an accessible location.
- I. Connect to the existing digital alarm communicator.
- J. If not already installed, provide handle lock on existing circuit breaker feeding fire alarm panel. Paint breaker handle red.
- K. Program the system to identify each device with the submitted and approved designation in the LCD annunciators on the control panel and remote text annunciator.

3.02 FIELD QUALITY CONTROL

- A. Field inspection and testing will be performed under provisions of Division 01.
- B. Test in accordance with NFPA 72 and local fire department requirements. Provide a completed NFPA 72 Inspection and Testing Form for inclusion in the Operation and Maintenance manual at the completion of testing and commissioning the fire alarm system.
- C. Provide all equipment, devices and manpower as necessary to test each and every device in the fire alarm system both for function and supervision. Demonstrate that all devices connected to the system function properly.
- D. The facility will not be accepted as substantially complete until the fire alarm system has been tested and demonstrated to the Owner's authorized representative as 100 percent complete and fully functional, a completed NFPA 72 Inspection and Testing form is submitted.

3.03 MANUFACTURER'S FIELD SERVICES

- A. Provide manufacturer's field services under provisions of Division 01.
- B. Include services of a certified technician to supervise installation, adjustments, final connections, programming and system testing.

3.04 FIRE ALARM SYSTEM IDENTIFICATION

- A. Wire and Cable: Provide fire alarm unit conductors with color coded insulation, or use color coded tape at each conductor termination and in each junction box as follows:

1. Power Branch Circuit Conductors: Black, red, white.
 2. Initiating Device Circuit: Black, red.
 3. Detector Power Supply: Violet, brown.
 4. Notification Appliance Circuit: Blue (positive), white (negative).
- B. Identify all circuit conductors at all terminal and junction boxes per NEC 760.30. Use the circuit designations (i.e. "NAC 1", "SLC 1", etc.), as indicated on the shop drawings.
- C. Fire Alarm Device Labels:
1. Install machine-printed device address labels on all addressable devices, including smoke/heat detectors, control relays, monitor modules, etc. Unless otherwise noted, in public spaces where devices are mounted below +80" on walls, install label on inside cover of device. At all other locations, install label on exterior cover of device. Device labels shall show the unique device address corresponding to the text annunciator description. For smoke detectors, the label shall be affixed to the base and not to the detector itself.
 2. Provide label on each remote test station indicating description and location of device being tested.
- D. The circuit disconnecting means for the fire alarm control panel circuit, remote power booster supply, 120V door holders, or other control equipment circuits shall have a painted red handle and handle lock. The circuit(s) shall be labeled "Fire Alarm Circuit". The circuit assignment and panel location shall be permanently identified on all fire alarm control equipment.

END OF SECTION 283100

