



STATE OF ALASKA
Department of Corrections
Division of Administrative Services
802 3rd Street, Suite 224
Douglas, AK 99824

Request for Proposal

No. 220002538

Date of Issue: **March 15, 2022**

Project:
**Spring Creek Correctional Center (SCCC), Door Control &
Intercom System Upgrade**
Seward, Alaska

Bidders Are Not Required to Return This Form.

Michael Lim
Procurement Officer
Department of Corrections

Scott Nichols
Project Manager
Department of Corrections

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(State funded Buildings)

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(Bound Separately)

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(Bound Separately)

IMPORTANT NOTICE: All contractors will need to contact Michael Lim at 907-465-6014 or Michael.lim@alaska.gov to pick up the drawings from Department of Corrections, 802 3rd Street, Suite 220, Douglas, AK, 99824. Drawings will not be posted online, faxed, or provided to any plans room.

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STATE OF ALASKA
DEPARTMENT OF CORRECTIONS

REQUEST FOR PROPOSALS

For Construction Contract
Competitive Sealed Proposals AS 36.30.200(b)

Spring Creek Correctional Center Date **March 15, 2022**
SCCC Door Control & Intercom System Upgrades
Project No. 220002538

Location of Project: Seward, Alaska
Contracting Officer: Michael Lim
Issuing Office: Department of Corrections
State Funded ☒ Federal Aid ☐

Description of Work:

This state funded project consists of Door Control & Intercom System Upgrades at the Spring Creek Correctional Center (SCCC) in Seward, Alaska.

The Engineer's Estimate is between \$1,000,000 and \$1,500,000. Proposal over these estimates maybe deemed non-responsive.

All work shall be substantially completed within 245 days from the date of Notice to Proceed.

Proposers are invited to submit proposals consisting of a Price Proposal and a Technical Proposal (see Section 00022) in single copy, 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 not later than 2:00 p.m. local time, at the office of the Chief of Contracts as indicated below, on April 5, 2022. However, the 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: Spring Creek Correctional Center Door Control & Intercom System Upgrades Project No. 220002538	ATTN: State of Alaska Department of Corrections 802 3rd Street, Rm 220 Douglas, Alaska 99824
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Proposals, amendments, modifications or withdrawals transmitted by mail must be received by the department prior to the scheduled time of proposal opening. Hand-delivered Proposals, amendments, or withdrawals must be received by Michael Lim, Procurement Officer, Administrative Services, 802 3rd Street, Suite 220, Douglas, Alaska 99824, prior to the scheduled date and time specified. Proposals are not publicly opened therefore a public bid opening will not be held. The department will accept amendments, modification and withdrawals by email, and must be received prior to the proposal deadline. EMAILED PROPOSALS WILL NOT BE ACCEPTED.

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 are hereby notified that data to assist in preparing Proposals is available as follows:

Question pertaining to the project requirements and specifications should be in writing and received by the procurement officer no later than close of business March 24, 2022.

Michael Lim
Procurement Officer
Michael.lim@alaska.gov
Ph: (907) 465-6014
802 3rd Street, Suite 220
Douglas, Alaska 99824

Other Information:

DRAWINGS: The department is not publicly posting the project drawings. Bidders must email the procurement officer Michael.lim@alaska.gov and request the project drawings. Project drawings will be emailed to bidders in pdf format. Project drawings must be securely held by the bidder. 11 x 17 project drawings will be available upon request.

PRE-PROPOSAL INSPECTION OF SITE MEETING (Strongly Recommended): A Pre-Proposal Meeting is scheduled for 11:00 am, Tuesday, March 22, 2022. Meet in the visitor lobby at 10:30 am for processing. Interested bidders must contact: Project Manager: scott.nichols@alaska.gov, phone (907) 269-7391 to register for the pre-proposal and submit the "Clearance form" to security sergeant to run a background check to allow access to the facility. A form must be filled out for everyone attending the site visit. Forms must be submitted 72 hours in advance. Clearance form is in this bid packet.

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).

Reminder: Alaska Statute AS 36.30.110 requires all Proposers to have a valid Alaska Business License and an Alaska Contractor's Certificate of Registration prior to submitting Proposals.

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 Bidde, (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: SCCC Door Control & Intercom System Upgrades

Project No. : 220002538

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 254 and 255, 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 be counted as one page in the page count. **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: SCCC Door & Intercom Security Upgrade

Project No. : 220002538

1. Project Understanding and Methodology

1. Weight: 5

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 **outline the methods for accomplishing the proposed contract**. Describe what, when, where, how and in what sequence the work will be done (schedule specifics are included in Criteria 4). Describe specific safety and precaution measures to protect inmates and staff during construction operations. 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 are required from/with the Contractor, and DOC Staff.

2. Project Management Plan

2. Weight: 5

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 DOC Staff. Explain how your team will be completely accountable.

3. Experience and Qualifications

3. Weight: 20

Response must describe the **relevant qualifications and experience** of the prime contractor (offeror), key personnel and major subcontractors including experience on similar projects (such as security, access and/or door control) with construction values of \$500,000 or greater in the last five (5) years. Describe the relevant qualifications and experience of key personnel (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 three (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 project 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).

Response must describe the prime contractor (offeror's) and major subcontractors past performance including conformance to specifications and standards of poor workmanship, forecasting and containment of costs or prices, history of reasonable and cooperative behavior and overall concern for the interests of the using agency, and adherence to contract schedules.

4. Cutover Plan, Sequence of work and Schedule

4. Weight: 20

SCCC house 2&3 are occupied and utilized 24/7 and year round. Due to SCCC house 2&3 staffing and inmate considerations, security system outages must be minimized. This is due to the requirement and expense of scheduling additional DOC Staffing for inmate monitoring, movement and control during security system outages.

Response must clearly demonstrate the Contractor's plan and ability to logically and seamlessly complete the work as a

method to minimize operational downtime of the facility. **The maximum allowable shutdown periods for the door & intercom controls system are as follows: Fourteen (14) days for a shutdown of each building control room. Only one control room may be down at any given time. Shutdown periods may not under any circumstance exceed these stated timeframes.** While one Control Room is shutdown, no other areas within SCCC may be shutdown at the same time. Shutdown timeframes for work in multiple Housing Mods only may be concurrent. The Contractor shall complete the work sequentially to minimize downtime of the Door Control System.

Response must also clearly describe the Contractor's plan and ability to accomplish the cutover within the allowable shut down periods of the Door Control System in this section as required.

Additionally, **all contract work shall be Substantially Complete no later than December 31, 2022.** Phasing requirements are included in the Project Documents. Describe how you plan to meet or accelerate this schedule.

5. Alaska Bidder (Offeror) Preference

5. Weight: 10

To be granted this preference:

Response must certify that Offeror meets the following requirements per AS 36.30.170(b):

- (A) Firm holds a current Alaska Business License;
- (B) Proposal is submitted under the name as appearing on the Firm's current Alaska Business License;
- (C) Firm has maintained a place of business within Alaska, staffed by the Firm or an employee of the Firm, for a period of six months immediately preceding the date of the offer;
- (D) Firm is incorporated or qualified to do business under the laws of the State of Alaska, is a sole proprietorship, and the proprietor is a resident of Alaska, is a limited liability company organized under AS 10.50 and all members are residents of Alaska, or is a partnership under AS 32.05 or AS 32.11 and all partners are residents of Alaska; and
- (E) If the Firm is a Joint Venture, it is composed entirely of entities that qualify under (A) - (D).

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 qualifies as an Alaska bidder using the criteria above.

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 or who does not qualify as an Alaska bidder using the criteria above.

6. Price Proposal

6. Weight: 40

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 00310], the Bid Schedule [Section 00312] and Bid Bond [Section 00410].

The Price Proposal score will be calculated as follows:

$$\text{Criterion Score} = \frac{(\text{Lowest bid price from all offerors} \times \text{MPP})}{\text{Offeror's Bid Price}}$$

Wherein: For purpose of scoring, the **Bid Price** will be the Adjusted Basic 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).

(END OF SECTION 00023)

**STATE OF
ALASKA
DEPARTMENT OF CORRECTIONS**

**INFORMATION TO
PROPOSERS**

The Department is concerned over the manner in which proposals are submitted. Proposers are requested to study and follow the proposal assembly instructions as to the method and form for submitting proposals so there will be no reason to reject a proposal.

**EXAMINATION OF CONTRACT
REQUIREMENTS**

Proposers are expected to examine carefully the Project Manual, Drawings, and all other documents incorporated in the contract to determine the requirements thereof before preparing proposals.

Any explanation desired by proposers 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 proposals. 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 Project Manual or Drawings and will be furnished to all proposers and its receipt by the proposer shall be acknowledged.

**CONDITIONS AT SITE OF
WORK**

Proposers are expected to visit 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.

**PREPARATION OF PRICE
BIDS**

- (a) Bids shall be submitted on the forms furnished, and must be manually signed in ink. If erasures or other changes appear on the forms, each such erasure or change must be initialed by the person signing the proposal.
- (b) The bid schedule will provide for quotation of a price or prices for one or more pay 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 bid amount for the proposed construction.

Where required on the bid form, bidders 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, bidders should insert the words "no bid" in the space provided for any item not requiring a quotation and for which no quotation is made.

- (c) The bidder shall specify the price or prices bid in figures only. 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. When provided within the supplements to the bid schedule the Bidder shall specify those Alaska bidder and product preferences applicable to their bid. All entries made by the Bidder and designating applicable preferences must conform to the requirements of AS 36.30 and the instructions on the forms to warrant consideration.
- (d) Neither conditional nor alternative bids will be considered unless called for.
- (e) Unless specifically called for, telegraphic or telefacsimile bids will not be considered.

- (f) Bid Schedule form should be enclosed in a separate sealed envelope and enclosed with all other bidding forms required at the opening.

BID SECURITY

All proposals shall be accompanied by a bid security in the form of an acceptable Bid Bond (Form 25D-14), or a certified check, cashier's check or money order made payable to the State of Alaska. The amount of the bid security is specified on the Request for Proposals.

Bid Bonds must be accompanied by a legible Power of Attorney.

If the proposer fails to furnish an acceptable bid security with the bid, the bid shall be rejected as nonresponsive. Telegraphic notification of execution of Bid Bond does not meet the requirements of bid security accompanying the bid. An individual surety will not be accepted as a bid security.

The bid securities of the two highest-scoring proposals will be held by the Department until the Contract has been executed, after which such bid securities will be returned. All other bid securities will be returned as soon as practicable.

If all proposals are rejected, all bid securities will be returned as soon as practicable.

PROPOSER'S QUALIFICATIONS

Before a proposal 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.

SUBMISSION OF PROPOSALS

Proposals must be submitted as directed on the Request for Proposals. Do not include in the envelope any proposals for other work.

ADDENDA REQUIREMENTS

The bid documents provide for acknowledgement individually of all addenda to the drawings and/or specifications on the signature page of the Proposal. All addenda shall be acknowledged on the Proposal or by telegram prior to the scheduled time for receipt of Proposals. If no addenda are received by the proposer, the word "None" should be shown in the acknowledgment block.

Every effort will be made by the Department to insure that proposers receive all addenda when issued. Addenda will be issued to the individual or company to whom the Project Manual and Drawings were issued. Addenda may be issued by any reasonable method such as hand delivery, mail, telefacsimile, telegraph, courier and in special circumstances by phone or e-mail. Addenda will be issued to the address, telefacsimile number or phone number as stated on the planholder's list unless picked up in person or included with the Project Manual and Drawings. It is the proposer's responsibility to insure that he has received all addenda affecting the Request for Proposals. No claim or protest will be allowed based on the bidder's allegation that he did not receive all of the addenda for an Request for Proposals.

WITHDRAWAL OR REVISION OF BIDS AND TECHNICAL PROPOSALS

A proposer may withdraw or revise a bid or Technical Proposal after it has been deposited with the Department, provided that the request for such withdrawal or revision is received by the designated office, in writing, by telegram, or by telefacsimile, before the scheduled time.

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 bids.

RECEIPT AND OPENING OF BIDS AND TECHNICAL PROPOSALS

- (a) All bids and Technical Proposals, including any amendment or withdrawal, must be received by the Department prior to the scheduled time. Any bid, amendment, or withdrawal which has not been actually received by the Department prior to the scheduled time will not be considered.
- (b) No responsibility will be attached to any officer or employee of the Department for the premature opening of, or failure to open, a proposal improperly addressed or identified.
- (c) The Department reserves the right to waive any technicality in proposals received when such waiver is in the interest of the State.

PROPOSERS PRESENT

At the time fixed for bid opening, the scoring of the Technical Proposals will be announced and bids will be publicly opened and read for the information of bidders and others properly interested, who may be present either in person or by representative. The amount of the bid and the name of the proposer, and his Technical Proposal score shall be compiled and distributed as soon as possible after bid opening. Bids and Technical Proposals are not open for public inspection until after the Notice of Intent to Award is issued.

PROPOSERS INTERESTED IN MORE THAN ONE PROPOSAL

If more than one proposal is offered by any one party, by or in the name of his or their clerk or partner, all such proposals will be rejected. A party who has quoted prices to a proposer is not thereby disqualified from quoting prices to other proposers or from submitting a proposal directly for the work.

REJECTION OF PROPOSALS

The Department reserves the right to reject any and all proposals when such rejection is in the best interest of the State; to reject the proposal of a proposer who has previously failed to perform properly, or complete on time, contracts of a similar nature; to reject the proposal of a proposer who is not, in the opinion of the Contracting Officer, in a position to perform the contract; and to reject a bid as nonresponsive where the proposer fails to furnish the required documents, fails to complete required documents in the manner directed, or makes unauthorized alterations to the bid documents.

CONSIDERATION OF PROPOSALS

After the Proposals are opened and read, they will be compared on the basis identified on the bid schedule and the apparent low Bidder announced. The apparent low Bidder shall, within 5 working days following identification as the apparent low Bidder, submit a list of all firms with which the prime CONTRACTOR intends to execute subcontracts for the performance of the Contract. The list shall include the name, business address, Alaska business license number and contractor's registration number of each proposed Subcontractor.

Upon confirmation of the contents of the proposal the low Bidder will be identified by the DEPARTMENT by telephone and in writing. If the low Bidder differs from the apparent low Bidder then the requirements for Subcontractor listing, as noted above, shall become effective upon the low Bidder at the time of identification.

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, the Bidder agrees that it shall be considered to have agreed to perform that portion of Work without the use of a Subcontractor and to have represented that the Bidder is qualified to perform the Work.

A Bidder who attempts to circumvent the requirements of this section by listing as a Subcontractor another contractor who, in turn, sublets the majority of the Work required under the Contract, violates this section.

If a Contract is awarded to a Bidder who violates this section, the Bidder agrees that the Contracting Officer may:

- (1) cancel the Contract without any damages accruing to the State; or
- (2) after notice and a hearing, assess a penalty on the Bidder in an amount that does not exceed 10 percent of the value of the Subcontract at issue.

A Bidder may replace a listed Subcontractor who:

- (1) fails to comply with AS 08.18;
- (2) files for bankruptcy or becomes insolvent;
- (3) fails to execute a contract with the Bidder involving performance of the Work for which the Subcontractor was listed and the Bidder acted in good faith;
- (4) fails to obtain bonding;
- (5) fails to obtain insurance acceptable to the State;
- (6) fails to perform the Contract with the Bidder involving Work for which the Subcontractor was listed;
- (7) must be substituted in order for the prime CONTRACTOR to satisfy required State and Federal affirmative action requirements;
- (8) refuses to agree or abide with the bidder's labor agreement; or
- (9) is determined by the Contracting Officer to be nonresponsive.

AWARD OF CONTRACT

- (a) The letter of award, if the contract is to be awarded, will be issued to the highest-scoring responsible and responsive Proposer generally within 40 calendar days after opening of proposals.
- (b) All Proposers will be notified of the DEPARTMENT's Intent to Award the Contract and the successful Proposer will be requested to execute certain documents, including the Contract form and bonds.
- (c) The contract will be awarded to the successful Proposer following receipt by the Department of all required documents, properly executed, within the time specified in the intent to award. Failure to enter into a contract within the specified time shall be grounds for forfeiture of the bid security and consideration of the second highest-scoring bidder for award.

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 July 25, 2005 memo WHPL #197(A2) 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 Progress payments for Worker Meals and Lodging, or Per Diem will be computed as equivalent to the percentage, rounded to the nearest whole percent, of the original contract amount earned.

BASIS OF PAYMENT

115-3.1 Payment will be made at the contract lump sum price for Worker Meals and Lodging, or Per Diem. This price and payment shall be full compensation for all costs associated with this item.

Payment will be made
under:

Item G-115 Worker Meals and Lodging, or Per Diem - per lump sum



STATE OF ALASKA
DEPARTMENT OF CORRECTIONS

REQUIRED DOCUMENTS

State Funded Contracts

Spring Creek Correctional Center (SCCC), Door Control & Intercom System Upgrade

Project Numbers: 220002538

REQUIRED FOR BID. Bids will not be considered responsive if the following documents are not filled out and submitted at the time of bid opening:

1. **Bid Proposal (Form 25D-9)**
2. **Bid Schedule**
3. **Contractor Technical Proposal**
4. **Bid Security**
5. **Bid Modification (Form 25D-16)** (Any bid revisions must be submitted by the bidder prior to bid opening on this form.)
6. **Bid Bond (Form 25D-14)**
7. **Alaska Bidder Preference Certification (Form 25D-19)** (If applicable)
8. **Alaska Product Preference (Form SPC-007)** (If applicable)
9. **Bids received that do not meet these requirements shall be considered non-responsive.**

REQUIRED AFTER NOTICE OF APPARENT LOW BIDDER. The apparent low bidder must complete and submit the following document within **5 working days** after receipt of written notification:

1. **Subcontractor List (Form 25D-5)** (Sub-contractors utilized in this project must have valid/current Alaska Business license and contractor's certificate of registration at the time of bid opening)

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

1. **Construction Contract (Form 25D-10A)**
2. **Payment Bond (Form 25D-12)**
3. **Performance Bond (Form 25D-13)**
4. **Contractor's Questionnaire (Form 25D-8)**
5. **Certificate of Insurance** (from carrier and as cited on Appendix B1)
6. **Sub-Contractors List (Form 25D-5)**
7. **Sub-Contractor(s) Certifications**
8. **Sub-Contractor(s) Certificate of Insurance**
9. **Submittals** (if applicable)
10. **Alaska Business License**
11. **Contractor's License**



STATE OF ALASKA
DEPARTMENT OF CORRECTIONS

Bid Proposal

for

**Spring Creek Correctional Center (SCCC) Door Control & Intercom System
Upgrade**

**Spring Creek Correctional Center (SCCC), Seward, Alaska
PROJECT # 220002538**

by

Company Name

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

Company Alaska Business License No:

Company Contractor's Registration No:

**TO THE CONTRACTING OFFICER,
DEPARTMENT OF CORRECTIONS:**

In compliance with your Request for Proposal dated **April 5, 2022** the Undersigned proposes to furnish and deliver all the materials and do all the work and labor required in the construction of the above-referenced Project,

**SCCC Door Control & Intercom System Upgrade
Spring Creek Correctional Center
Project # 220002538**

located at or near **Seward, 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 one sheet, 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 bid 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 Corrections 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 and shall **substantially complete the work by December 30, 2022 and Final Completions shall be by January 30, 2023,** unless extended in writing by the Contracting Officer.

The Undersigned proposes to furnish Payment Bond in the amount of **100%** (of the contract) and Performance Bond in the amount of **100%** (of the contract), 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 DECLARATION

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 competitive bidding in connection with this bid.

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

Signature of Authorized Company Representative

Typed Name and Title

()

Phone Number

()

Fax Number

Email:

Re: SCCC Door Control & Intercom System Upgrade
Project # 220002538

(See Reverse Side for Instructions)

Bid Phase: _____ Bidder: _____

1. This worksheet accurately reports the type and quantity of product(s) that: (a) qualify for application of the Alaska Product Preference under AS 36.30.321 *et seq.* and (b) this bidder will use in performing the advertised project, if awarded the contract; and
2. All listed product(s) are specified for use on the project and will be permanently incorporated; and
3. I am the duly appointed representative of this bidder, which has authorized and empowered me to legally bind it concerning its proposal.

Date _____

TOTAL

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/dcra/AlaskaProductPreferenceProgram.aspx> or may be obtained by contacting Dept. of Commerce & Economic Development Alaska Division of Community and Regional Affairs, Alaska Products Preference Program, 550 W. 7th Ave., Suite 1650, Anchorage AK 99501-3510; Phone: (907) 269- 4501 Fax: (907) 269-4563, E-mail: madeinalaska@alaska.gov

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

SCCC Door Control & Intercom System Upgrade

Project No. 220002538

Proposers Please Note: Before preparing this bid schedule, read carefully, "Information to Proposers", "Supplementary 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. **Bids Due: April 5, 2022 @ 2:00 P.M. local time**

NOTICE: Bids will be compared on the Adjusted Basic 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
<u>Basic Bid</u>	All work described in the Basic Bid description in Section 01010, Paragraph 1.02.A, and Project Plans for the Lump Sum Price of:	(a)\$_____
<u>Additive Alternate#1</u>	All work described in Section 01010, Paragraph Paragraph 1.02.A, and Project Plans for the Lump Sum Price of:	(b)\$_____
<u>Additive Alternate#2</u>	All work described in Section 01010, Paragraph Paragraph 1.02.A, and Project Plans for the Lump Sum Price of:	(c)\$_____
	Total Bid Amount (a+b+c=d)	(d)\$_____
	Alaska Bidder's Preference: (5% of a+b+c)	(e)\$_____
	Alaska Veteran-Owned Business Preference: (5% of a+b+c, Not To Exceed \$5,000.00)	(f)\$_____
	Alaska Products Preference: (Attach worksheet(s))	(g)\$_____
	Adjusted Bid Amount: (d-e-f-g=h)	(h)\$_____

Contractor's Name (Printed)

SCCC Door Control & Intercom System Upgrade
Project No. 220002538

00312-1



STATE OF ALASKA
DEPARTMENT OF CORRECTIONS

CONTRACTOR'S TECHNICAL PROPOSAL of

NAME _____

ADDRESS _____

To the CONTRACTING OFFICER, DEPARTMENT OF CORRECTIONS:

With regard to your Request for Proposals dated **April 5, 2022** for the construction of the Project:
known as:

**SCCC Door Control & Intercom System Upgrade
Spring Creek Correctional Center
Project No. 220002538**

located at or near **Seward, 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 as 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.

The undersigned acknowledges receipt of the following addenda to the RFP (give number and date of each).

Addenda	Date Issued	Addenda	Date Issued	Addenda	Date Issued
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____

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

The Undersigned has read the foregoing proposal 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.

Name and Title of Person Signing

Signature

Telephone Number

Fax Number

Email Address



STATE OF ALASKA
DEPARTMENT OF CORRECTIONS

BID BOND

for

SCCC Door Control & Intercom System Upgrade

Project # 220002538

Spring Creek Correctional Center (SCCC), Seward, Alaska

Project Name and Number

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 therefore, 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.
See Instructions on Reverse			Corporate Seal

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	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.

Re: Project # 220002538, SCCC Door Control & Intercom System Upgrade



STATE OF ALASKA
DEPARTMENT OF CORRECTIONS

BID MODIFICATION

Spring Creek Correctional Center (SCCC) Door Control & Intercom System Upgrade

Spring Creek Correctional Center (SCCC), Seward, Alaska
Project # 220002538

Project Name and Number

Modification Number: _____

Note: Use this form to modify Manual (paper) bids only.

- Group Items and provide subtotals by bid schedule section.
- All revisions shall be made to the unadjusted bid amount(s).
- Changes to the adjusted bid amounts will be computed by the Department.

LINE NO.	ITEM NO.	PAY ITEM DESCRIPTION	REVISION TO UNIT BID PRICE +/-	REVISION TO BID AMOUNT +/-

TOTAL REVISION: \$ _____

Name of Bidding Firm

Responsible Party Signature

Date

This form may be duplicated if additional pages are needed.



STATE OF ALASKA
DEPARTMENT OF CORRECTIONS

CONSTRUCTION CONTRACT

SCCC Door Control & Intercom System Upgrade

Spring Creek Correctional Center (SCCC), Seward, Alaska

Project Numbers: 220002538

This CONTRACT, between the STATE OF ALASKA, DEPARTMENT OF CORRECTIONS, 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 Alaska, 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 **not to exceed** the sum of \$_____ 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: **December 30, 2022 for Substantial Completion Date and January 30, 2023 for the Final Completion Date**. 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 the following amounts:

LIQUIDATED DAMAGES:

- **Two Thousand and Five Hundred Dollars (\$2,500.00)** per day for each day construction exceeds the durations specified under NTP#2 & NPT#3.
- **Eight Hundred Fifty-Three Dollars & Twenty Cents (853.20)** per day for each calendar day elapsing between the time stipulated for the sub-completion date and in accordance with the terms hereof; such deduction to be made, or sum to be recovered, not as a penalty but as liquidated damages.
- **Ninety Dollars & Sixty-Four Cents (90.64)** per day for each calendar day elapsing between the time stipulated for the final completion date and in accordance with the term hereof; such deduction to be made, or sum to be recovered, not as a penalty but as liquidated damages.

00510

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 CORRECTIONS**

Signature of Contracting Officer

Michael Lim

Typed Name

Date

Re: Project # 220002538, SCCC Door Control & Intercom System Upgrade



STATE OF ALASKA
DEPARTMENT OF CORRECTIONS

PERFORMANCE BOND

Bond No. _____

For

SCCC Door Control & Intercom System Upgrade
Spring Creek Correctional Center (SCCC), Seward, Alaska
Project # 220002538

Project Name and Number

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-named 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 well and truly perform and
complete all obligations and work under said contract and if the Principal shall reimburse upon demand of the Department of
Corrections any sums paid him which exceed the final payment determined to be due upon completion of the project, 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 Corrections Authorized Representative

Date

See Instructions on Reverse 00610

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 CORRECTIONS

PAYMENT BOND

Bond No. _____

For

SCCC Door Control & Intercom System Upgrade

Project # 220002538

Spring Creek Correctional Center (SCCC) Seward, Alaska

Project Name and Number

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 Corrections Authorized Representative

Date

INSTRUCTIONS

1. This form, for the protection of persons supplying labor and materials, 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.

2. What percent of the total value of this contract do you intend to subcontract? _____ %

3. Do you propose to purchase any equipment for use on this project?
[] No [] Yes If YES, describe type, quantity, and approximate cost:

4. Do you propose to rent any equipment for this work?
[] No [] Yes If YES, describe type and quantity:

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

C. EXPERIENCE

1. Have you had previous construction contracts or subcontracts with the State of Alaska?
[] Yes [] No

Describe the most recent or current contract, its completion date, and scope of work:

2. List, as an attachment to this questionnaire, other construction projects you have completed, the dates of completion, scope of work, and total contract amount for each project completed in the past 12 months.

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

Name of Contractor Business

Name and Title of Person Signing (authorized)

Signature

Date

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

GENERAL CONDITIONS OF THE CONSTRUCTION CONTRACT FOR BUILDINGS

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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.

The granting of permission by NSPE to allow the State of Alaska to preprint portions of the NSPE document 1910-8, 1983 edition does not constitute approval of the State of Alaska General Conditions of the Construction Contract for Buildings.

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 Year's Day- January 1
2. Martin Luther King's Birthday- Third Monday in January
3. President's Day- Third Monday in February
4. Seward's Day- Last Monday in March
5. Memorial Day- Last Monday in May
6. Independence Day- July 4
7. Labor Day- First Monday in September
8. Alaska Day- October 18
9. Veteran's Day - November 11
10. Thanksgiving Day- Fourth Thursday 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 evidence 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
\$2,000,000 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 forms 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 ample 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 ail 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 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 based on 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. 1 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 them 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 repurchase. 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
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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.l. 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 cancellation 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 13.10.
- 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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**STATE OF ALASKA
DEPARTMENT OF CORRECTIONS**

DOCUMENT 00800 – SUPPLEMENTARY CONDITIONS TO:

**GENERAL CONDITIONS OF THE CONSTRUCTION
CONTRACT FOR BUILDINGS**

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. At General Conditions Article 1, definition of:

1. **Final Completion:** Add the following sentence:

"This is the date that all punch list items on the Final Inspection Punch List are completed. If there are no punch list items, then this date is the same as the Final Inspection Date."

2. **QUALITY ASSURANCE (QA):** Delete the text of this definition in it's entirely and replace with the following:

"The control measures taken by the Owner, the Consultant, and the DEPARTMENT to verify that Quality Control measures, materials, workmanship, etc., complies with Contract Documents and the related CONTRACTOR'S Quality Control Program. The Technical Specifications Divisions 2 through 16) lists these control measures (indicated in the Quality Assurance paragraphs in the Individual Specification Sections). The CONTRACTOR, Subcontractor, and/or Supplier provide and pay for these control measures."

B. Add the following definitions:

1. **CFR** - Initials that stand for the Code of Federal Regulations.
2. **OWNER**- The State of Alaska, Department of Corrections.
3. **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.
4. **QUALITY ASSURANCE PROGRAM (QA PROGRAM)**- An FHWA required program developed by the DEPARTMENT (see Section 01400). The QA program assures that materials and workmanship incorporated into each Federal-aid highway construction project conforms to the Contract Plans and Specifications, including changes. This QA Program consists of all those planned and systematic actions necessary to provide adequate confidence that the product or service will satisfy given requirements for quality. The QA Program includes the CONTRACTOR'S Quality Control Plan, acceptance testing, verification testing, independent assurance testing, and quality level analysis.

5. **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.
6. **RESIDENT ENGINEER OR INSPECTOR**- 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:

- 4.2.1. A formal visit to the **Spring Creek Correctional Center site** will be on **March 22, 2022 at 11:00 AM**. The Bidders may not visit the site at any other time during the bidding period.
- 4.2.2. The submission of a bid by the CONTRACTOR is considered a representation that the CONTRACTOR has reviewed 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."

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 planholder's 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 (SUBCONTRACTORS)

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

SC-6.13 - SUBCONTRACTORS

A. Add the following paragraph:

- 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-7.2 - PERMITS, LICENSES, AND TAXES

- A. In Paragraph 7.2.1, add the following subparagraphs:

The terms, conditions, and stipulations in permits obtained either by the DEPARTMENT or by the CONTRACTOR is made part of this Contract.

1. The CONTRACTOR shall procure all other permits and licenses required to complete the project, pay all charges, fees and taxes, and give all notices necessary and incidental to the due and lawful prosecution of the Work.
2. The CONTRACTOR shall obtain the State of Alaska Fire Marshal plan review.

SC-7.12-APPLICABLE ALASKA PREFERENCES

- A. Remove this section in its entirety. Alaska Preferences cannot be used in Federal Aid Projects.

The non-Federal entity must conduct procurements in a manner that prohibits the use of statutorily or administratively imposed state or local geographical preferences in the evaluation of bids or proposals, except in those cases where applicable Federal statutes expressly mandate or encourage geographic preference. Nothing in this section preempts state licensing laws. When contracting for architectural and engineering (A/E) services, geographic location may be a selection criterion provided its application leaves an appropriate number of qualified firms, given the nature and size of the project, to compete for the contract.

SC-7.13-WAGES AND HOURS OF LABOR (Federal Wages/Hours not required)

- A. In paragraph 7.13.3, delete this paragraph in its entirety and replace with the following paragraphs: 7.13.3 Notice of Work and Completion; Withholding of Payment

- A. Within three calendar days of award of a construction contract, the CONTRACTOR Shall file a "Notice of Work" with the Department of Labor and Workforce Development (DOLWD) fees per AS 36.08.045. The CONTRACTOR lists all their Subcontractors who will perform any portion of work on the contract and the contract price being paid to each subcontractor. The primary contractor shall pay all filing fees for each subcontractor performing work on the contract, including a filing fee based on the contract price being paid for work performed by the primary contractor's employees. The filing fee payable shall be the sum of all fees calculated for each subcontractor. The filing fee shall be one percent of each contractor's contract price. The total filing fee payable by the primary contractor under this subsection may not exceed \$5,000. **The "Notice of Work" is available at <http://www.labor.state.ak.us/lss/forms/notice-of-work.pdf>**

- B. The Contracting Officer will not issue Notice to Proceed to the CONTRACTOR until such notice and fees have been paid to DOLWD. 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.
- C. Upon completion of all work, the primary contractor shall file with DOLWD a "Notice of Completion" together with payment of any additional filing fees owed due to increased contract amounts. Within 30 days after DOLWD's receipt of the primary contractor's notice of completion, DOLWD shall inform the DEPARTMENT of the amount, if any, to be withheld from the final payment. **The " Notice of Completion Form" is available at;**
<http://www.labor.state.ak.us/lss/forms/not-comp-pub-wrks.pdf>

SC-9.1-DEPARTMENTS RIGHT TO CHANGE

At General Condition Article 9.1, ADD THE FOLLOWING SENTENCE;

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:

Any change orders must be pre-approved by the Department of Corrections, U.S. Department of Homeland Security and Emergency Services prior to any changes taking place.

SC-9.4 – CHANGE ORDER

Changes in scope of work or cost must be pre-approved by Facilities Manager.

SC-10.3 – CHANGE ORDER PRICE DETERMINATION

Cost plus percentages of cost contracts are prohibited by FEMA.

SC-10.6- CONTRACTORS FEE

Remove 10.6.2.

SC-10.9.3 – UNIT PRICE WORK

Remove paragraphs a. & b.

SC-11.8-DELAY DAMAGES

At General Condition Article 11.8, add the following paragraphs:

Liquidated Damages:

- **Two Thousand and Five Hundred Dollars (\$2,500.00)** per day for each day construction exceeds the durations specified under NTP#2 & NPT#3.
- **Eight Hundred Fifty-Three Dollars & Twenty Cents (\$853.20)** per day for each calendar day elapsing between the time stipulated for the sub-completion date and in accordance with the terms hereof; such deduction to be made, or sum to be recovered, not as a penalty but as liquidated damages.
- **Nighty Dollars & Sixty-Four Cents (\$90.64)** per day for each calendar day elapsing between the

time stipulated for the final completion date and in accordance with the terms hereof; such dedication to be made, or sum to be recovered, not as a penalty but as liquidated damages.

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."

**END OF
SECTION 00800**

1.01 Laborers' & Mechanics' Minimum Rates of Pay

Bidders are to refer to the Department of Labor & Workforce Development website for current Pamphlet No. 600. Please note there may be a new Pamphlet issued prior to the bid date for this project.

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

SECTION 01010

SUMMARY OF WORK

PART 1 GENERAL

1.01 RELATED REQUIREMENTS

- A. Section 00300 – Information Available to Bidders.
- B. Section 00700 - General Conditions: Provisions for use of site and Using Agency occupancy. Relations of Contractor - Subcontractors.
- C. Section 00800 - Supplementary Conditions: Modifications to General Conditions.
- D. Section 01400 – Quality Control

1.02 WORK COVERED BY CONTRACT DOCUMENTS

- A. Work covered by the contract documents is located at the Spring Creek Correctional Center (SCCC), Seward, Alaska. The work of this project includes, but is not limited to:

Scope of Work:

Work of the project will replace all intercom call boxes in each cell and controlled door, replace headend equipment for the systems, install touch screen computers, and program systems to interface with the existing security camera system. The work of this project is spread throughout two inmate housing units at Spring Creek Correctional Center (SCCC), occurring in two control rooms and second-floor equipment rooms. The project has two additive alternates. **The project schedule shall have three (3) phases, with each phase having a required Notice to Proceed (NTP). Each phase shall be completed sequentially.**

Base Bid:

Work includes replacing security control and intercom equipment such as PLC, modules, relays, amplifiers, etc. Extending wiring in wireway and cabinets if required for termination of new relays, modules, and other components. Control panels shall be replaced with touchscreen monitors. Provide new touchscreen monitors at existing locations in Control Rooms. Provide connection from new PLC/Touchscreen system for camera call-ups. Replace intercom stations in each inmate cell and at each exit door as outlined in the drawings. Work includes renovation to two controls rooms that include casework upgrades, bathroom remodel, floor and ceiling tile replacement, and window tint upgrades.

For all work in the Control Rooms and Second Floor equipment rooms, a work plan detailing the sequence of work shall be provided to the Owner for review. For each PLC and touchscreen replacement work activity, the Contractor shall also provide a detailed work plan describing the sequence of work activities and plan duration. The Owner shall review and approve each work plan prior to the commencement of work.

Additive Alternate #1:

Demolish and remove existing flooring in both Control Rooms and replace with new VCT flooring in both Control Rooms.

Additive Alternate #2:

Demolish and remove existing 2x4 tile ceilings in both Control Rooms and replace with new tile ceilings of like kind and quality in both Control Rooms.

Project Phasing / Notices to Proceed (NTP)

Phase 1 **NTP #1** is Construction Contract execution, include base bid work and additive alternate work, if accepted. Contractor shall proceed with the

01010-1 SCCC Door Control & Intercom System Upgrade
Project Number 220002538

work required to prepare the project for NTP#2.

Phase 2 **NTP #2**, Once temporary door and video controls are provided as required for "House 2", and fully functioning, the control room shutdown for this house may proceed and shall not exceed a fourteen (14) calendar day duration. Work of this phase includes base bid work and additive alternate work, if accepted.

Phase 3 **NTP #3**, Once temporary door and video controls as established as required for "House 3", and fully functioning, the control room shutdown for this house may proceed and shall not exceed a fourteen (14) calendar day duration. Work of this phase includes base bid work and additive alternate work, if accepted.

For all work in the Control Rooms, and Second Floor equipment rooms, a work plan detailing the sequence of work shall be provided to the Owner for review. For each PLC and/or touchscreen replacement work activity, Contractor shall also provide a detailed work plan describing the sequence of work activities and plan duration. Owner shall review and approve each work plan prior to the commencement of work.

Upon completion of each work phase the Contractor shall notify the DOC Project Manager and request review and/or inspection. A timely effort to review/and or inspect the work status will be made in an effort to maintain a seamless, unobstructed project schedule. Upon satisfactory completion of Phase one (1), NTP#2 will be issued; Upon the completion of Phase two (2), NTP#3 will be issued.

- B. The Department is acting for the State of Alaska and the Department of Corrections.
- C. Contractor shall coordinate outages per Article 1.08 of this Section.
- D. Contractor shall maintain existing fire alarm and security systems in service during the period of construction.

1.03 CONTRACT METHOD

- A. Construct the Work under a single lump sum Contract.

1.04 WORK BY OTHERS

- A. Other State projects may be under construction in the vicinity of the Project. See Document 00800 - Supplementary Conditions, Article SC-8.1.
- B. Cooperate with other Contractors and the Department to minimize conflict with construction operations.

1.05 WORK INSIDE FACILITY

- A. Work within the facility shall be conducted only between the hours of 7:00 AM and 5:00 PM seven days per week, unless specifically approved by the Department. Requests for work outside of these hours must be submitted in writing 24 hours in advance.
- B. Contractor shall not under any circumstances leave tools or equipment unattended within the limits of the project site unless secured in a locked toolbox or equipment storage container. Contractor will be liable for any damages to persons and/or property resulting from unattended tools or equipment.
- C. Any tools or equipment left unattended within the limits of the project site by the Contractor shall be subject to confiscation by the Department. Confiscated equipment may be obtained from the Department after 24 hours. A fee of \$25 per item confiscated may be deducted from the Contractor's subsequent pay request. No claims for delay will be considered for impacts to the work due to items left unattended by the Contractor and confiscated by the Department.

- C. Contractor and all subcontractors shall at all times wear an identifying badge in a visible location. Badge to be provided by the Using Agency – see Section 01540, Security.
- D. Contractor shall at all times maintain a clean and clear floor space and provide a physical barricade and detour route for foot traffic within the areas of construction. Provide clear and easy access to and egress from spaces at all times during construction, unless specifically arranged through the Using Agency. Provide and maintain full safe access at existing exits at all times.
- E. Contractor shall notify the Department 24 hours in advance of performing Work that produces loud noise for an extended duration of time (greater than 15 minutes).
- F. All items marked for demolition shall remain the property of the Using Agency.

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 in writing at least 5 (five) working days, not including weekends or Holidays.
- C. Allow for Using Agency use and occupancy of the facility throughout the duration of the work. 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 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 as 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.
- H. Contractor staging area shall minimize interference with the Using Agency's use of the facility. Access shall be maintained for the Using Agency, supply access, trash disposal, and vehicle access around the facility.
- I. Contractor staging area to remain within the location designated on the plans.

1.07 WORK SEQUENCE

- A. Project Phasing Schedule: The project shall be completed in a single phase. For all work in the Control Rooms, and Second Floor equipment rooms, a work plan detailing the sequence of work shall be provided to the Owner for review. For each PLC and/or touchscreen replacement work activity, Contractor shall also provide a detailed work plan

describing the sequence of work activities and plan duration. Owner shall review and approve each work plan prior to the commencement of work.

1.08 SHUTOFFS/DISRUPTIONS TO SERVICE

- A. Provide written notification of work in area at least three working days (not including weekends) in advance. **The maximum allowable shutdown periods in each control room and door controls system as follows: fourteen (14) days for a shutdown of each Door Control system and control room. Shutdown periods may not under any circumstance exceed these stated timeframes.** While the Control Room is shutdown, no other areas within SCCC may be shutdown at the same time. Shutdown timeframes for work in multiple Housing Units only may be concurrent. The Contractor shall complete the work sequentially to minimize downtime of the Door Control System.. **Contractor shall maintain fire suppression system throughout the project duration.** Fire alarm and sprinkler systems in the area of work shall be isolated, and smoke detectors shall be protected, to accommodate the work. **Electrical power shutoffs shall be no longer than four (4) hours in duration.** Electrical power shutoffs must be approved by the Project Manager in advance of any planned shutoff.
- B. Plan work to minimize down time. Work with Department to schedule disruption for a time that minimizes impact on the Using Agency's operations.
- C. Provide written work plan and schedule for disruptions to service that exceed one hour.
- D. Schedule of Utilities Interruptions. As soon as practical, and at least one week prior to the first outage, the Contractor shall prepare a proposed schedule of utilities outages. The schedule shall include proposed water, heating, and electrical outages. The Contractor will not be bound by the entire schedule as originally submitted, but he will be expected to modify the schedule as required, and to the best of his ability, adhere to an accurate schedule as adjusted on a week-to-week basis. **In addition to the above requirements, the Contractor must give the Department a minimum of 36 hours notice prior to any utilities interruptions.**

1.09 CONTRACTOR'S USE OF PREMISES

- A. Limit use of premises to that necessary for performance of the Work and for construction operations, to allow for continuous occupancy of the facility and grounds. Coordinate use of the premises under direction of Department.
- B. Contractor is responsible for all safety considerations and precautions required during the construction period and to ensure all laws pertaining to workplace safety are followed.
- C. Assume full responsibility for protection and safekeeping of products under this Contract.
- D. Assume full responsibility for the protection of existing buildings and contents, and equipment from damage due to construction operations. Take all necessary precautions to protect building occupants from any hazards during the progress of the Work.
- E. Obtain and pay for use of additional storage or Work areas needed for operations under this Contract.
- F. Do not stop or otherwise impede traffic without prior written approval from the Department. Provide traffic control layout plan and traffic control schedule upon request, unless Traffic Control is specifically required by another Section within this Contract, then provide as required in that Section.

1.10 USING AGENCY OCCUPANCY

- A. The Using Agency will occupy facilities for the conduct of its normal operations during the entire construction period. Limit use of premises for Work and for construction operations to allow for Using Agency occupancy. Coordinate use of premises under direction of the Using Agency.
- B. Cooperate with the Department in scheduling operations to minimize conflict and to facilitate Using Agency operations.

- C. Contractor shall provide Material Safety Data Sheets for all products that may produce unpleasant odors.

1.11 COORDINATION

- A. Coordinate Work of the various sections of Specifications to ensure efficient and orderly sequence of installation of construction elements, with provisions for accommodating items installed later.
- B. Verify if characteristics of elements of interrelated operating equipment are compatible; coordinate Work of various sections having interdependent responsibilities for installing, connecting to, and placing in service, such equipment.
- C. Coordinate space requirements and sequence of installation of mechanical and electrical work, which is indicated diagrammatically on Drawings. Follow routing shown for pipes, ducts, and conduits, as closely as practicable; make runs parallel with lines of building. Utilize spaces efficiently to maximize accessibility for other installations, for maintenance, and for repairs. Coordinate work with existing elements in the building. Do not locate piping, conduit or other products where they will block access to equipment or junction boxes.
- D. In finished areas except as otherwise shown, conceal pipes, ducts, and wiring in the construction. When removing existing ceiling materials the contractor shall ensure that the removed ceiling materials are reinstalled in a similar condition as when removed. All damaged ceiling materials shall be replaced by the Contractor at no cost to the Department.
- E. Execute cutting and patching to integrate elements of Work, provide openings for penetrations of existing surfaces, and provide samples for testing. Seal penetrations through floors, walls, partitions, and ceilings.

1.12 OVERTIME WORK

- A. The Contractor shall notify the Department at least 48 hours in advance of any overtime work, including nights, weekends, and holidays. No overtime work will be authorized without prior Department approval.

1.13 SURVEYING EXISTING CONDITIONS

- A. Prior to commencing work, the Contractor and the Department shall jointly survey existing conditions, noting and recording any existing damage. Before work begins, the Contractor and the Department shall both sign a Survey Record.
- B. The Survey Record shall serve as a basis for determining any subsequent damage to existing facilities caused by the Contractor's work.

1.14 CONCEALED CONDITIONS UNACCEPTABLE TO CONTRACTOR

- A. Should the Contractor discover conditions that are inconsistent with the Contract or existing construction of a substandard nature that will affect the satisfactory completion of the Work, the Department shall be notified immediately.
- B. Upon notification from the Contractor, the Department may issue a Change Order authorizing the Contractor to perform the work necessary for compliance with the Contract.

1.15 PROJECT COORDINATION PROCEDURE

- A. The Department shall issue all orders to the Contractor. The Architect/Engineer shall be responsible to the Department for architectural observation of the project. The Architect/Engineer may issue field memorandum to the Contractor for deficiencies in the work and for providing additional instruction and interpretation of the technical specifications and drawings. The Architect/Engineer is not authorized to make any changes in the contract amount nor time for completion of the project. Any reference to Architect, Engineer, Project Manager, or any other related title shall be construed to be the Department.

1.16 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.

PART 2 PRODUCTS

Not Used

PART 3 EXECUTION

Not used

END OF SECTION

SECTION 01020

INTENT OF DOCUMENTS

PART 1 GENERAL

1.01 REQUIREMENTS INCLUDED

- A. Explanation of intent and terminology of the Construction Documents.

1.02 RELATED REQUIREMENTS

- A. Section 00700 - General Conditions: Article 1 Definitions relating to 'Drawings' and 'Specifications'.
- B. Section 00700 - General Conditions: Article 3 Contract Documents relating to Intent, Amending, and Reuse.

1.03 SPECIFICATION FORMAT AND COMPOSITION

- A. Specifications are divided into Divisions and Sections for the convenience of writing and using. Titles are not intended to imply a particular trade jurisdiction. DEPARTMENT is not bound to define the limits of any subcontract, and will not enter into disputes between the Contractor and his employees, including Subcontractors.
- B. Pages are numbered independently for each Section, and recorded in the Table of Contents. Section number is shown with the page number at the bottom of each page. The end of each Section of the specifications is ended by "End of Section". It is Contractor's responsibility to verify that Contract Documents received for bidding and/or construction are complete in accordance with Table of Contents.
- C. The language employed in the Contract Documents is addressed directly to the Contractor. Imperative or indicative language is generally employed throughout and requirements expressed are the mandatory responsibility of the Contractor, even though the work specified may be accomplished by specialty subcontractors engaged by the Contractor. References to third parties in this regard shall not be interpreted in any way as to relieve the Contractor of his or her responsibility under this Contract.
- D. These Specifications are of the abbreviated, or "streamlined" type, and may include incomplete sentences.
- E. Omissions of words or phrases such as "the Contractor shall", "in conformity therewith", "shall be", "as noted on the Drawings", "according to the Drawings", "a", "an", "the" and "all" are intentional.
- F. Omitted words or phrases shall be supplied by inference in the same manner as they are when a "note" occurs on the Drawings.

1.04 DRAWINGS: CONTENT EXPLANATION

- A. Drawings, Dimensions and Measurements.
 - 1. Contract Documents do not purport to describe in detail, absolute and complete construction information. In some instances drawings are diagrammatic. Contractor shall provide verification of actual site conditions

and shall provide complete and operational systems as specified when drawings do not provide full detail.

2. Where on any of the Drawings a portion of the work is drawn out and the remainder is indicated in outline, the parts drawn out shall apply also to all other portions of the Work.
3. Wherever a detail is referenced and developed for a specific condition, same or similar detail shall apply to identical or similar conditions elsewhere on Project even though not specifically referenced.
4. Where the word "similar" occurs on the Drawings, it shall be interpreted in its general sense and not as meaning identical, all details shall be worked out in relation to their location and their connection with other parts of the work.
5. The figured dimensions on the Drawings or notes indicating dimensions shall be used instead of measurements of the Drawings by scale.
6. No scale measurements shall be used as a dimension to work with unless specific permission to do so is granted in advance in writing by the Department.

1.05 COMMON TERMINOLOGY

A. Certain items used generally throughout the Specifications and Drawings are used as follows:

1. Indicated: The term "indicated" is a cross reference to details, notes or schedules on the Drawings, other paragraphs or schedules in the Specifications, and similar means of recording requirements in the Contract Documents. Where terms such as "shown", "noted", "schedules", and "specified" are used in lieu of "indicate", it is for the purpose of helping the reader accomplish the cross reference, and no limitation of location is intended except as specifically noted.
2. Installer: The person or entity engaged by Contractor, his Subcontractor or sub-subcontractor for the performance of a particular unit of Work at the Project site, including installation, erection, application and similar required operations. It is a general requirement that installers be recognized experts in the work they are engaged to perform.
3. Furnish: Except as otherwise defined in greater detail, the term "furnish" is used to mean "...supply and deliver to the Project site, ready for unpacking, assembly and installation..."
4. Provide: Except to the extent further defined, the term "provide" means to furnish and install, complete and ready for the intended use.
5. Guarantee and Warranty: "Warranty" is generally used in conjunction with products manufactured or fabricated away from the Project site, and "guarantee" is generally used in conjunction with units of work which require both products and substantial amounts of labor at the Project site. The resulting difference is that warranties are frequently issued by manufacturers, and guarantees are generally issued by Contractor and frequently supported (partially) by product warranties from manufacturers.

1.06 CONFLICTS

A. Report any conflicts to the Department for clarification.

PART 2 PRODUCTS

Not Used

PART 3 EXECUTION

Not Used

END OF SECTION

SECTION - 01027

APPLICATIONS FOR PAYMENT

PART 1 GENERAL

1.01 REQUIREMENTS INCLUDED

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

1.02 RELATED REQUIREMENTS

- A. Section 00510 - Construction Contract - Contract Form 25D-10a and Bid Schedule: Method of Payment and Contract Price and Amounts of Liquidated Damages.
- B. Section 00700 - General Conditions: Progress Payments, and Final Payment.
- C. Section 01300 - Submittals: Procedures.
- D. Section 01700 - Contract Closeout: Closeout Procedures.

1.03 FORMAT

- A. Application for Payment form in format approved by the Department.

1.04 PREPARATION OF APPLICATIONS

- A. Type required information on Application for Payment form approved by the Department.
- B. Execute certification by original signature of authorized officer upon the Application for Payment.
- C. Submit names of individuals authorized to be responsible for information submitted on application for payment.
- D. Indicate breakdown of costs for each item of the Work on accepted Schedule of Values. Provide dollar value in each column for each line item for portion of Work performed and for stored products.
- E. 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.
- F. Prepare Application for Final Payment as specified in Section 01700.

1.05 SUBMITTAL PROCEDURES

- A. Submit one copy of each Application for Payment at times stipulated in Contract.
- B. Submit under transmittal letter specified in Section 01300.

1.06 SUBSTANTIATING DATA

- A. When Department requires substantiating information, submit data justifying line item amounts in question.

- B. Substantiating data required under General Conditions Articles 7.12.3 and 7.12.4 shall be submitted (or updated) when the Application for Payment includes a current request for payment on an item of Work required to include Alaska "agricultural/wood" products.
- C. Provide one copy of data with cover letter for each copy of Application. Show Application number and date, and line item by number and description.

1.07 SUBMITTALS WITH APPLICATION FOR PAYMENT

- A. Submit the following with each Application for Payment.
 - 1. Updated construction schedule as required by Section 01300 - Submittals.
 - 2. Updated Schedule of Values as required by Section 01300 – Submittals: Schedule of Values.
 - 3. The Contractor's as-builts will be reviewed prior to approving each application for payment.

PART 2 PRODUCTS
Not Used

PART 3 EXECUTION
Not Used

END OF SECTION

SECTION 01028

CHANGE ORDER PROCEDURES

PART 1 GENERAL

1.01 REQUIREMENTS INCLUDED

- A. Procedures for processing Change Orders.

1.02 RELATED REQUIREMENTS

- A. Section 00312 - Bid Schedule: Total amount bid for lump sum items.
- B. Section 00510 - Contract Form: Total amount of Contract Price, as awarded.
- C. Section 00700 - General Conditions: Governing requirements for changes in the Work, in Contract Price, and Contract Time.
- D. Section 00800 - Supplementary Conditions: Modifications to Document 00700 - General Conditions.
- E. Section 01027 - Applications for Payment.
- F. Section 01300 – Submittals: Construction Progress Schedules, Schedule of Values.
- G. Section 01600 – Material and Equipment: Product Options, Substitutions.
- H. Section 01700 – Contract Closeout: Project Record Documents.

1.03 SUBMITTALS

- A. Submit 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. Change Order Forms will be prepared by the Department.

1.04 DOCUMENTATION OF CHANGE IN CONTRACT PRICE AND CONTRACT TIME

- A. Maintain detailed records of work done on a Cost of the Work plus a Fee basis. Provide full information required for evaluation of proposed changes, and to substantiate costs of changes in the Work. Incomplete or unsubstantiated costs will be disallowed.
- B. Contractor shall submit a complete, detailed, itemized cost breakdown addressing impact on Contract Time and Contract Price with each proposal.
- C. On request, provide additional data to support computations:
 - 1. Quantities of products, labor, and equipment.
 - 2. Taxes, insurance and bonds.
 - 3. Overhead and profit.
 - 4. Justification for any change in Contract Time.

5. Credit for deletions from Contract, similarly documented.
- D. Support each claim for additional costs, and for work done on a cost of the Work plus a Fee basis, with additional information:
 1. Origin and date of claim.
 2. Dates and times work was performed, and by whom.
 3. Time records and wage rates paid.
 4. Invoices and receipts for products, equipment, and subcontracts, similarly documented.

1.05 PRELIMINARY PROCEDURES

- A. Department may submit a Proposal Request which includes: Detailed description of change with supplementary or revised Drawings and Specifications, the projected time for executing the change, with a stipulation of any overtime work required, and the period of time during which the requested price will be considered valid.
- B. Contractor may initiate a change by submittal of a request to Department describing the proposed change with a statement of the reason for the change, and the effect on Contract Price and Contract Time, with full documentation. Document any requested substitutions in accordance with Section 01600.

1.06 CONSTRUCTION CHANGE AUTHORIZATION

- A. Shall be in accordance with Article 9 – Changes, in Section 00700 - General Conditions, as modified by the Supplementary Conditions.

1.07 FIXED PRICE CHANGE ORDER

- A. Contractor shall submit an itemized price proposal in sufficient detail to fully explain the basis for the proposal. Attach invoices and receipts for products, equipment, and subcontracts, as requested by the Department. Contractor and the Department shall then negotiate an equitable price (and time adjustment if appropriate) in good faith. The Change Order will reflect the results of those negotiations. If negotiations break down Contractor may be directed to perform the work under COST OF THE WORK CHANGE ORDER.
- B. The following maximum rates of cost markup (to cover both overhead and profit of the Contractor) shall be used in the negotiation of a "Fixed-Price" Change Order:

See Supplementary Conditions, Article [SC-10.3.2](#).
- C. These terms shall also apply to the proposals of subcontractors and allowances.
- D. Will be based on proposal request and Contractor's lump sum quotation or Contractor's request for Change Order as approved by the Department.

1.08 UNIT PRICE CHANGE ORDER

- A. For pre-determined Unit Prices and quantities, Change Order will be executed on a lump sum basis.

- B. For pre-determined Unit Prices and undetermined quantities, Change Order will be executed on an estimated quantity basis; payment will be based on actual quantities measured as specified.
- C. For unit costs or quantities of units of Work which are not predetermined, execute Work under a Directive. Changes in Contract Price or Contract Time will be computed as specified for Cost of the Work Change Order.

1.09 COST OF THE WORK CHANGE ORDER

- A. Contractor shall submit documentation required in Article 1.04 on a daily basis for certification by the Department. Project Manager will indicate by signature that the submitted documentation is acceptable.
- B. After completion of the change and within 14 calendar days, unless extended by the Project Manager, the Contractor shall submit in final form an itemized account, with supporting data, of all costs. Supporting data shall have been certified by the Project Manager, as required above in paragraph A.

1.10 EXECUTION OF CHANGE ORDERS

- A. Department will issue Change Orders for signatures of parties as provided in Conditions of the Contract.

1.11 CORRELATION OF CONTRACTOR SUBMITTALS

- A. Promptly revise Application for Payment forms to record each authorized Change Order as a separate line item and adjust the Contract Price as shown on Change Order.
- B. Promptly revise Progress Schedules to reflect any change in Contract Time, revise sub-schedules to adjust times for other items of Work affected by the change, and resubmit.
- C. Promptly enter changes in Project Record Documents.

PART 2 PRODUCTS

Not Used

PART 3 EXECUTION

Not Used

END OF SECTION

SECTION 01045

CUTTING AND PATCHING

PART 1 GENERAL

1.01 REQUIREMENTS INCLUDED

- A. Requirements and limitations for cutting and patching of Work.

1.02 RELATED REQUIREMENTS

- A. Section 01010 - Summary of Work.
- B. Section 01120 – Alteration Project Procedures.
- C. Section 01600 - Materials and Equipment: Substitutions.
- D. Individual Specifications Sections:
 - 1. Cutting and patching incidental to Work of the section.
 - 2. Advance notification to other Sections of openings required in Work of those Sections.
 - 3. Limitations on cutting structural members.

1.03 SUBMITTALS

- A. Submit written request in advance of cutting or alteration which affects:
 - 1. Structural integrity of any element of Project.
 - 2. Integrity of weather-exposed or moisture-resistant elements such as siding or roof systems.
 - 3. Efficiency, maintenance, or safety of any operational element.
 - 4. Visual qualities of sight-exposed elements.
 - 5. Work of Department or separate Contractor.
- B. Include in request:
 - 1. Identification of Project and Department's project number.
 - 2. Location and description, with photos of affected Work.
 - 3. Necessity for cutting or alteration.
 - 4. Description of proposed Work, and products proposed to be used.
 - 5. Alternatives to cutting and patching.
 - 6. Effect on Work of Department or separate Contractor.
 - 7. Written permission of affected separate Contractor.
 - 8. Date and time Work will be executed.
- C. Submit product data for replacement materials to be used in the work, including product description, specifications, recommended installation methods, and samples. Submittals shall cover all sight-exposed elements applicable, such as roofing, exterior siding, floor tile, ceiling tile, and wall covering.

PART 2 PRODUCTS

2.01 MATERIALS

- A. Materials used for replacement shall match existing materials removed. Interior or exterior finish materials shall visually match surrounding surface finishes. Replacement interior finish materials, such floor tile, wall tile, ceiling tile, or wall covering shall be of the same manufacturer and pattern as materials removed to assure compatibility. New doors and frames to be finished to match existing. Submittals to be approved prior to installation.
- B. Replacement gypsum wallboard surfaces are to be finished smooth or in a texture to match the existing wall or ceiling finish or Finish Schedule in drawings as required. Paint new exposed surfaces with two coats semi-gloss acrylic latex enamel in a color to match existing. New paint shall cover the entire plane of the area impacted and shall extend to the nearest joint or corner.
- C. Cut and patch work at roof assemblies shall provide a complete weather tight installation and shall be compatible with existing roofing materials. Contractor to verify manufacturer, materials, and warranty of the existing roofing system and ensure work does not have a negative impact on the performance of the existing roof membrane or existing drainage pattern. Cut and patch work shall not have a negative impact on any active warranty of the existing roofing system.
- D. For replacement of work removed, comply with specifications for type of work to be done, manufacturers' recommendations, and good construction practice.
- E. Provide materials for cutting and patching which will result in equal to or better than the work being cut and patched in terms of performance characteristics and visual effect where applicable.

PART 3 EXECUTION

3.01 GENERAL

- A. Contractor shall be responsible for all cutting, fitting, and patching required to complete the work or to:
 - 1. Accommodate the installation or coordination of work.
 - 2. Remove and replace defective work.
 - 3. Remove and replace work not conforming to requirements of the Contract Documents.
 - 4. Uncover other work for access or inspection.
 - 5. Obtain samples for testing or similar purposes.
 - 6. Provide routine penetrations of nonstructural surfaces for installation of piping, ductwork, chimneys, vents, louvers, electrical conduit or other equipment included in the work.
- B. Contractor shall not cut or alter any existing structural members without the approval of the Department. If structural members must be cut or altered, the Contractor shall provide engineered details with structural engineer's stamp for review in the submittal process.
- C. Execute cutting, fitting, and patching to complete Work, and to:
 - 1. Fit the several parts together, to integrate with other work.
 - 2. Uncover work to install ill-timed work.
 - 3. Remove and replace non-conforming and Defective Work.
 - 4. Remove samples of installed Work for testing.
 - 5. Provide openings in elements of Work for penetrations of mechanical and electrical work.

- D. Installation of replacement materials shall be in accordance with specifications for type of work to be done, manufacturers' recommendations, and good construction practice.

3.02 INSPECTION

- A. Inspect existing conditions, including elements subject to damage or movement during cutting and patching.
 - 1. Notify the Department immediately of any suspected hazardous materials.
- B. Do not cut and patch work which is exposed to view in a manner resulting in a reduction of visual qualities or resulting in substantial evidence of the cut and patch work. Remove and replace work judged by the Department to be visually unsatisfactory.
- C. After uncovering, inspect conditions affecting performance of Work.
- D. Beginning of cutting or patching means acceptance of existing conditions.

3.03 PREPARATION

- A. Clean adjacent structures and improvements of dust, dirt, and debris caused by cutting and patching operations, as directed. Return adjacent areas to condition existing prior to start of work.
- B. Provide supports to ensure structural integrity of surroundings; devices and methods to protect other portions of Project from damage.
- C. Provide protection from elements for areas which may be exposed by uncovering work; maintain excavations free of water.

3.04 PERFORMANCE

- A. Execute work by methods to avoid damage to other Work, and which will provide proper surfaces to receive patching and finishing.
- B. For all new work, employ qualified installer to perform cutting and patching for weather-exposed and moisture resistant elements, and sight-exposed surfaces.
- C. Cut rigid materials using masonry saw or core drill. Use wet-type core drill for all holes over 1/2" in diameter. Pneumatic/hammer tools or dry-type core drills not allowed without prior approval. Cutting structural reinforcement with heat is strictly forbidden without prior written approval.
- D. Restore Work with new products in accordance with requirements of Contract Documents.
- E. Fit Work tightly to pipes, sleeves, ducts, conduit, and other penetrations through surfaces.
- F. Maintain all fire-rated wall or area separation construction per applicable codes. At penetrations of fire-rated wall, ceiling, or floor construction, completely seal voids with fire-rated material, full thickness of the construction element or in accordance with U.L. listed assembly requirements.
- G. Refinish surfaces to match adjacent finishes. For continuous surfaces, refinish to nearest intersection; for an assembly, refinish entire unit.

END OF SECTION

SECTION 01090

REFERENCE STANDARDS

PART 1 GENERAL

1.01 REQUIREMENTS INCLUDED

- A. Quality Assurance
- B. Applicability of Reference Standards
- C. Provision of Reference Standards at site
- D. Acronyms used in Contract Documents for Reference Standards. Source of Reference Standards

1.02 RELATED REQUIREMENTS

- A. Section 00700 - General Conditions: Paragraph 3.4.2.

1.03 QUALITY ASSURANCE

- A. For products or workmanship specified by association, trade, or Federal Standards, comply with requirements of the standard, except when more rigid requirements are specified or are required by applicable codes.
- B. The date of the standard is that in effect as of the Project Advertisement date, or Effective Date of the Contract when there was no Advertisement, except when a specific date is specified.
- C. When required by an individual Specification section, obtain copy of standard. Maintain copy at site during submittals, planning, and progress of the specific Work, until Final Completion.
- D. Should specified reference standards conflict with Contract Documents, request clarification from the Architect/Engineer before proceeding. Local code requirements, where more stringent than referenced standards, shall govern.
- E. Neither the contractual relationship, duties, nor responsibilities of the parties in Contract nor those of the Architect/Engineer shall be altered by the Contract Documents by mention or inference otherwise in any reference document.

1.04 SCHEDULE OF REFERENCES

AA	Aluminum Association 818 Connecticut Avenue, N.W. Washington, DC 20006
AABC	Associated Air Balance Council 1000 Vermont Avenue, N.W. Washington, DC 20005
AASHTO	American Association of State Highway and Transportation Officials 444 North Capitol Street, N.W. Washington, DC 20001
ACI	American Concrete Institute Box 19150 Reford Station Detroit, MI 48219

ADC	Air Diffusion Council 230 North Michigan Avenue Chicago, IL 60601
AGC	Associated General Contractors of America 1957 E Street, N.W. Washington, DC 20006
AI	Asphalt Institute Asphalt Institute Building College Park, MD 20740
AISC	American Institute of Steel Construction 400 North Michigan Avenue Eighth Floor Chicago, IL 60611
AISI	American iron and Steel Institute 1000 16th Street, N.W. Washington, DC 20036
AITC	American Institute of Timber Construction 333 W. Hampden Avenue Englewood, CO 80110
AMCA	Air Movement and Control Association 30 West University Drive Arlington Heights, IL 60004
ANSI	American National Standards Institute 1430 Broadway New York, NY 10018
APA	American Plywood Association Box 11700 Tacoma, WA 98411
ARI	Air-Conditioning and Refrigeration Institute 1815 North Fort Myer Drive Arlington, VA 22209
ASHRAE	American Society of Heating, Refrigeration and Air Conditioning Engineers 1791 Tullie Circle, N.E. Atlanta, GA 30329
ASME	American Society of Mechanical Engineers 345 East 47th Street New York, NY 10017
ASPA	American Sod Producers Association Association Building Ninth and Minnesota Hastings, NE 68901
ASTM	American Society for Testing and Materials 1916 Race Street Philadelphia, PA 19103

AWI	Architectural Woodwork Institute 2310 South Walter Reed Drive Arlington, VA 22206
AWPA	American Wood-Preservers' Association 7735 Old Georgetown Road Bethesda, MD 20014
AWS	American Welding Society 550 LeJeune Road Miami, FL 33135
AWWA	American Water Works Association 6666 West Quincy Avenue Denver, CO 80235
CDA	Copper Development Association 57th Floor, Chrysler Building 405 Lexington Avenue New York, NY 10174
CLFMI	Chain Link Fence Manufacturers Institute 1101 Connecticut Avenue, N.W. Washington, DC 20036
CRSI	Concrete Reinforcing Steel Institute 933 Plum Grove Road Schaumburg, IL 60195
EJMA	Expansion Joint Manufacturers Association 707 Westchester Avenue White Plains, NY 10604
FGMA	Flat Glass Marketing Association 3310 Harrison White Lakes Professional Building Topeka, KS 66611
FM	Factory Mutual System 1151 Boston-Providence Turnpike Norwood, MA 02062
FS	Federal Specification General Services Administration Specifications and Consumer Information Distribution Section (WFSIS) Washington Navy Yard, Building 197 Washington, DC 20407
GA	Gypsum Association 1603 Orrington Avenue Evanston, IL 60201
IEEE	Institute of Electrical and Electronics Engineers 345 East 47th Street New York, NY 10017

IMAC	International Masonry Industry All-Weather Council International Masonry Institute 815 15th Street, N.W. Washington, DC 20005
MFMA	Maple Flooring Manufacturers Association 2400 East Devon Suite 205 Des Plaines, IL 60018
MIL	Military Specification Naval Publications and Forms Center 5801 Tabor Avenue Philadelphia, PA 19120
ML/SFA	Metal Lath/Steel Framing Association Metal Manufacturers 221 North LaSalle Street Chicago, IL 60601
NAAMM	National Association of Architectural Metal Manufacturers 221 North LaSalle Street Chicago, IL 60601
NEBB	National Environmental Balancing Bureau 8224 Old Courthouse Road Vienna, VA 22180
NEMA	National Electrical Manufacturers' Association 2101 L Street, N.W. Washington, DC 20037
NFPA	National Fire Protection Association Battery March Park Quincy, MA 02269
NFPA	National Forest Products Association 1619 Massachusetts Avenue, N.W. Washington, DC 20036
NSWMA	National Solid Wastes Management Association 1120 Connecticut Avenue, N.W. Washington, DC 20036
NTMA	National Terrazzo and Mosaic Association 3166 Des Plaines Avenue Des Plaines, IL 60018
PCA	Portland Cement Association 5420 Old Orchard Road Skokie, IL 60077
PCI	Prestressed Concrete Institute 201 North Wacker Drive Chicago, IL 60606

PS	Product Standard U.S. Department of Commerce Washington, DC 20203
RCSHSB	Red Cedar Shingle and Handsplit Shake Bureau 515 116th Avenue Bellevue, WA 98004
RIS	Redwood Inspection Service One Lombard Street San Francisco, CA 94111
SDI	Steel Deck Institute Box 3812 St. Louis, MO 63122
SDI	Steel Door Institute 712 Lakewood Center North Cleveland, OH 44107
SIGMA	Sealed Insulating Glass Manufacturers Association 111 East Wacker Drive Chicago, IL 60601
SJI	Steel Joist Institute 1703 Parham Road Suite 204 Richmond, VA 23229
SMACNA	Sheet Metal and Air Conditioning Contractors' National Association 8224 Old Court House Road Vienna, VA 22180
SSPC	Steel Structures Painting Council 4400 Fifth Avenue Pittsburgh, PA 15213
TAS	Technical Aids Series Construction Specifications Institute 601 North Madison Street Alexandria, VA 22314
TCA	Tile Council of America, Inc. Box 326 Princeton, NJ 08540
UL	Underwriters' Laboratories, Inc. 333 Pfingston Road Northbrook, IL 60062
WCLIB	West Cost Lumber Inspection Bureau Box 23145 Portland, OR 97223

PART 2 PRODUCTS

Not Used

PART 3 EXECUTION

Not Used

END OF SECTION

SECTION 01120

ALTERATION PROJECT PROCEDURES

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Products and installation for patching and extending Work.
- B. Transition and adjustments.
- C. Repair of damaged surfaces, finishes, and cleaning.

1.02 RELATED SECTIONS

- A. Section 01010 – Summary of Work: Coordination, work sequence and Using Agency occupancy.
- B. Section 01045 - Cutting and Patching.
- C. Section 01500 – Construction Facilities and Temporary Controls: Construction enclosures, protection of installed work, cleaning during construction.

PART 2 PRODUCTS

2.01 PRODUCTS FOR PATCHING AND EXTENDING WORK

- A. New materials: As specified in individual Specification sections; match existing products and work for patching and extending work.
- B. Determine type and quality of existing products by inspection and any necessary testing, using existing Work as a standard for workmanship. Presence of a product, finish, or type of work requires that patching, extending, or matching shall be performed as necessary to make work complete and consistent with existing quality.
- C. In no case shall any products containing asbestos be used in work of this Contract.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Verify that demolition is complete, and areas are ready for installation of new Work.

3.02 PREPARATION

- A. Cut, move, or remove items as necessary for access to alterations and renovation work. Replace and restore at completion.
- B. Remove unsuitable material not marked for salvage, such as rotted wood, corroded metals, and deteriorated masonry and concrete. Replace materials as specified for finished work.
- C. Remove debris and abandoned items from area and from concealed spaces.
- D. Prepare surfaces and remove surface finishes to provide for proper installation of new work and finishes.
- E. Close openings in exterior surfaces to protect existing work and salvaged items from weather and extremes of temperature and humidity. Insulate ductwork and piping to prevent condensation in exposed areas.

3.03 INSTALLATION

- A. Coordinate work of alterations and renovations to expedite completion sequentially and to accommodate Using Agency occupancy.

- B. Remove, cut, and patch work in a manner to minimize damage and to provide means of restoring products and finishes to original condition.
- C. Refinish visible existing surfaces to remain in renovated rooms and spaces, to specified condition for each material, with a neat transition to adjacent finishes.
- D. Install products as specified in individual Specification sections.

3.04 TRANSITIONS

- A. Where new Work abuts or aligns with existing, perform a smooth and even transition. Patched work shall match existing adjacent work in texture and appearance.
- B. When finished surfaces are cut so that a smooth transition with new work is not possible, terminate existing surface along a straight line at a natural line of division and make recommendation to DEPARTMENT.

3.05 ADJUSTMENTS

- A. Where removal of partitions or walls results in adjacent spaces becoming one, rework floors, walls, and ceilings to a smooth plane without breaks, steps, or bulkheads.
- B. Where a change of plane of 1/4 inch or more occurs, submit recommendation for providing a smooth transition and request instructions from DEPARTMENT.
- C. Trim existing doors as necessary to clear new floor finishes. Refinish trim as required.
- D. Fit work at penetrations of surfaces as specified in Section 01045.

3.06 REPAIR OF DAMAGED SURFACES

- A. Patch or replace portions of existing surfaces which are damaged, lifted, discolored, or showing other imperfections.
- B. Repair substrate prior to patching finish.

3.07 FINISHES

- A. Finish surfaces as specified in individual Sections.
- B. Finish patches to product uniform finish and texture over entire area. When finish cannot be matched, refinish entire surface to nearest intersections.

END OF SECTION

SECTION 01126

CONTRACTOR'S CERTIFICATION OF SUBCONTRACTS

PART 1 GENERAL

1.01 REQUIREMENTS INCLUDED

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

1.02 RELATED REQUIREMENTS

- A. Section 00100 - Instructions to Bidders, Requirements of Apparent Low Bidder.
- B. Section 00430 - Subcontractor List.
- C. Section 00700 - General Conditions: Article 6.13.1, Subcontractor Certification and Approval.
- D. Section 01300 - Submittals: Procedures.

1.03 PREPARATION OF CERTIFICATION

- A. Certification Forms: Use only forms provided by Department.
- B. Contractor to prepare certification form in accordance with the instructions on the reverse side of form. Multiple subcontracts may be included under a single submittal. Where required, attach additional information -- cross referenced to the appropriate Subcontract -- to the certification form.
- C. Substitute certification forms will not be considered.

1.04 SUBMITTAL OF CERTIFICATION

- A. Contractor shall submit the initial and all subsequent certification form(s) in accordance with the submittal requirements identified under paragraph 1.02.D, previous.

1.05 CONSIDERATION OF CERTIFICATION

- A. Following receipt of submittal and within a reasonable period of time Department shall review for each of the following:
 - 1. Completeness of forms and attachments
 - 2. Proper execution (signatures) of forms and attachments
- B. Submittals which are not complete or not properly executed will be returned to the Contractor under a transmittal letter denoting the deficiencies found. Contractor shall correct and resubmit per paragraph 1.04, previous.
- C. SUBCONTRACTORS WHICH HAVE NOT BEEN APPROVED BY THE DEPARTMENT SHALL NOT BE ALLOWED ON SITE.
- D. Payment will not be made for work performed by a non-certified subcontractor.

1.06 ACKNOWLEDGEMENT 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 Department's project Manager on the approval line of the certification form.

1.07 CHANGES TO APPROVED SUBCONTRACTORS LIST

- A. Deletion or Replacement of Subcontractors listed on approved form 25D-5, or the addition of Subcontractors not listed on approved form 25D-5 shall be in accordance with article 6.13.7 of the Supplementary Conditions.

PART 2 PRODUCTS

Not Used

PART 3 EXECUTION

Not Used

END OF SECTION

SECTION 01200 - PROJECT MEETINGS

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Preconstruction Conferences.
- B. Site Mobilization Meeting.
- C. Progress Meetings.
- D. Preinstallation Conferences.

1.2 RELATED REQUIREMENTS

- A. Bidding and Contract Requirement Document 00120 - Supplementary Instructions to Bidders: Pre-Bid Conference.
- B. Bidding and Contract Requirement Section 00700 - General Conditions:
 - 1. Article 6.6 – Anticipated Schedules. Submitting the Anticipated Progress Schedule before the Preconstruction Conference.
- C. Section 01010 – Summary of Work: Coordination.
- D. Section 0141 – Work Coordination.
- E. Section 01300 - Submittals: Submittal Procedures and Progress Schedules.
- F. Section 01305 – Submittal Register Form.
- G. Section 01400 - Quality Control.
- H. Section 01700 - Contract Closeout: Closeout Procedures.

1.3 SUBMITTALS

- A. Submit under transmittal letter specified in Section 01300 Submittals.
- B. Contractor's Delegation of Authority.
- C. Submit Progress Meeting Minutes.
- D. Submit Preinstallation Meeting Minutes (if requested).

1.4 PRECONSTRUCTION CONFERENCES

- A. DEPARTMENT will administer a preconstruction conference at the project site before any physical construction begins at the site.
- B. Attendance: The CONTRACTOR, the CONTRACTOR'S Job superintendent, major Subcontractors and Suppliers; DEPARTMENT and Consultants as appropriate.
- C. Agenda (including, but not limited to the following, as applicable):
 - 1. Notice to Proceed.
 - 2. Execution of Contract.
 - 3. The DEPARTMENT'S and Contractor's Delegation of Authority.
 - 4. A discussion of lines and limitation of authority for the contractor, the construction management team, the client agency and the DOT&PF.
 - 5. Review of administrative procedures.
 - 6. Submittal and RFI procedures.
 - 7. Exchange of CONTRACTOR'S preliminary submittals.
 - 8. Change Notices, Change Proposal Requests and Change Order procedures.

9. Progress schedule, meetings and updating procedures.
10. Using Agency operations and emergencies.
11. Security issues.
12. Badge requirements.
13. Parking limitations.
14. Wage reporting requirements and labor compliance interviews.
15. Subcontractor approvals.
16. DBE requirements.
17. Liquidated damages.
18. Pay request procedures.
19. Safety requirements.
20. Special Inspection schedules.
21. Environmental concerns.
22. Unusual conditions, potential construction difficulties or specialty items.
23. Other items pertinent to the project.
24. Questions and Answers.

- D. The DEPARTMENT will take notes and distribute meeting minutes to each attendee. This meeting is usually tape-recorded.

1.5 SITE MOBILIZATION MEETING

- A. DEPARTMENT may administer site mobilization conference at Project site before any physical construction begins at the site. This meeting will be conducted at the same time as the preconstruction meeting.
- B. Attendance: Job superintendent, Subcontractors (if available), the DEPARTMENT and Consultants as appropriate to agenda topics for each meeting. If Subcontractors are not available at the beginning of the project, then the DEPARTMENT will administer other site mobilization meetings as the Subcontractors arrive at the site.
- C. Prepare a detailed written work plan in preparation for this meeting.
- D. Agenda (including, but not limited to the following, as applicable):
 1. CONTRACTOR'S responsibilities and use of premises.
 2. Coordinate with the Using Agency for occupancy throughout the duration of the work.
 3. Review site Using Agency's requirements.
 4. Coordinate and review related work at the site.
 5. Review security, safety, and housekeeping procedures.
 6. Schedules and submittals.
 7. Manufacturer's instructions and Material Safety Data Sheets (MSDS).
 8. Material storage.
 9. Procedures for testing and inspection.
 10. Procedures for maintaining record documents.
- E. The DEPARTMENT will take notes and distribute meeting minutes to the CONTRACTOR.

1.6 PROGRESS MEETINGS

- A. Schedule and administer weekly Project meetings throughout progress of the Work (unless this requirement is waived by the Project Manager).
- B. Make physical arrangements for meetings, prepare agenda with copies for participants, preside at meetings, record minutes, and distribute copies within two days to DEPARTMENT, participants, and those affected by decisions made at meetings.
- C. Attendance: Job superintendent, major Subcontractors and Suppliers, DEPARTMENT and Consultants as appropriate to agenda topics for each meeting.
- D. Minimum Required Agenda:
 - 1. Review of Work progress.
 - 2. Status of progress schedule and adjustments thereto.
 - 3. Work anticipated in the next two weeks (two week look ahead schedule).
 - 4. Delivery schedules.
 - 5. Submittals.
 - 6. Maintenance of quality standards.
 - 7. Pending changes and substitutions.
 - 8. Other items affecting progress of Work.
- E. The CONTRACTOR will take notes and submit meeting minutes to the Project Manager.

1.7 PREINSTALLATION CONFERENCES

- A. When required in Individual Specification Section, or directed by the DEPARTMENT convene a preinstallation conference prior to commencing Work of the section.
- 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. The CONTRACTOR will take notes and submit meeting minutes to the Resident Engineer (if requested).

1.8 OTHER MEETINGS

- A. When required in Individual Specification Section, or directed by the DEPARTMENT convene a meeting prior to commencing Work of the section.

PART 2 PRODUCTS

Not Used

PART 3 EXECUTION

Not Used

END OF SECTION 01200

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**STATE OF ALASKA
DOT & PF
PUBLIC FACILITIES BRANCH**

**CONTRACTOR
DELEGATION
OF
AUTHORITY**



CONTRACTOR: _____

Project No.: 220002538

PROJECT NAME: SCCC DOOR CONTROL & INTERCOM SYSTEM UPGRADE

The contract documents contain several requirements that the Contractor identify employees with various authorities and/or responsibilities. This form is provided for your convenience in meeting the requirements common to most contracts. Other requirements may exist. The referenced paragraphs in General Provision (Section 00700) do not apply to Small Procurement Contracts.

Please complete the applicable portions of this form and return it to the Project Manager. A letter will be furnished to you that define the authorities and responsibilities of Department, Using Agency and Consultant personnel.

Authority to sign Applications for Payment (see Section 00700, Para 13.3)

Printed Name

Sample Signature

Printed Name

Sample Signature

Authority to Sign Change Orders & Change Notices (see Section 00700, Para 9.4)

Printed Name

Sample Signature

Printed Name

Sample Signature

Safety Representative (see Section 00700, Para 6.18)

Printed Name

Project Superintendent (see Section 00700, Para 6.2)

Printed Name

Telephone Number

Local Address

Shop Drawing Submittals (see Section 00700, Para 6.20.1)

Printed Name

Sample Initials

Sample Stamp:

I certify that the above personnel have been delegated the authorities and responsibilities referenced in the contract documents:

Signature of Owner, Partner or Corporate Officer

Name, printed or typed

SECTION 01300

SUBMITTALS

PART 1 GENERAL

1.01 REQUIREMENTS INCLUDED

- A. Procedures
- B. Construction Progress Schedules
- C. Schedule of Values
- D. Shop Drawings, Product Data, and Samples
- E. Manufacturer's Instructions and Certificates
- F. Field Samples

1.02 RELATED REQUIREMENTS

- A. Section 00700 - General Conditions
- B. Section 00800 - Supplementary Conditions
- C. Section 01010 - Summary of Work.
- D. Section 01027 - Applications for Payment.
- E. Section 01400 - Quality Control: Manufacturers' Field Services, Testing Laboratory Services.
- F. Section 01600 - Material and Equipment: Products List.
- G. Section 01700 - 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. When substitute equipment is proposed, clearly and unambiguously mark submitted material describing the substitute to identify the differences between the qualities and characteristics of the offered substitute and the specified material. Failure to provide this identification of

differences when substitutes are submitted for consideration will result in rejection of the proposed material.

- E. When equipment substitutions are approved and that equipment alters the design or space requirements indicated on the plans, the Contractor shall pay for all items of cost for the revised design and construction including costs of other trades involved and any engineering required to incorporate the approved substituted equipment into the Project. Owner shall not pay for the required additional costs.
- F. 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.
- G. 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.
- H. Comply with progress schedule for submittals related to Work progress. Coordinate submittal of related items.
- I. 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.
- J. 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.
 - 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, product data, and samples, 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 no larger than 24" x 36" and no smaller than 8-1/2" x 11" from the electronic program. Provide in electronic form using Microsoft Project 2000 version 9.0 or newer.
 - 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 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. 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.
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 01700 - 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, PRODUCT DATA AND SAMPLES

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.
2. Modify manufacturer's standard schematic drawings and diagrams to supplement standard information to provide information specifically applicable to the Work. Delete information not applicable.

C. SAMPLES

1. Submit full range of manufacturer's standard finishes except when more restrictive requirements are specified, indicating colors, textures, and patterns, for Department selection.
2. Submit samples to illustrate functional characteristics of products, including parts and attachments.
3. Approved samples, which may be used in the Work, are indicated in the Specification section.
4. Label each sample with identification required for transmittal letter.
5. Provide field samples 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.

D. MANUFACTURER'S INSTRUCTIONS

1. When required in individual Specification Section, submit manufacturer's printed instructions for delivery, storage, assembly, installation, start-up, adjusting, balancing, and finishing, in quantities specified for product data.
2. Manufacturer's instructions for storage, preparation, assembly, installation, start-up, adjusting, balancing, and finishing under provisions of Section 01400.

E. 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.

F. 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 "01010 1.08A", 2nd submittal 01010 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. Finishes which involve Department selection of colors, textures, or patterns.
 - b. 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 One (1) copy of product data and manufacturer's instructions Contractor requires, and one electronic copy 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.

G. 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.

H. DEPARTMENT REVIEW

1. Department or authorized agent will review Shop Drawings, product data, and samples 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.
- I. 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.
- J. 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.

1.07 MANUFACTURER'S INSTRUCTIONS

- A. When required in individual Specification Section, submit manufacturer's printed instructions for delivery, storage, assembly, installation, start-up, adjusting, and finishing, in quantities specified for product data.

1.07 FIELD SAMPLES

- A. Provide field samples of finishes as required by individual Specifications section. Install sample complete and finished. Acceptable samples in place may be retained in completed Work.

PART 2 PRODUCTS

Not Used

PART 3 EXECUTION

Not Used

END OF SECTION

SECTION 01400

QUALITY CONTROL

PART 1 GENERAL

1.01 REQUIREMENTS INCLUDED

- A. General Quality Control
- B. Workmanship
- C. Manufacturer's Instructions
- D. Manufacturer's Certificates
- E. Mockups
- F. Manufacturers' Field Services
- G. Testing Laboratory Services
- H. Departmental Inspection Services

1.02 RELATED REQUIREMENTS

- A. Section 00700 - General Conditions: Inspection and testing required by governing authorities.
- B. Section 01010 – Summary of Work: Work Plans and Access to Facility, Individual Work Areas.
- C. Section 01300 - Submittals: Shop Drawings, Product Data, and Samples

1.03 QUALITY CONTROL, GENERAL

- A. Maintain quality control over suppliers, manufacturers, products, services, site conditions, and workmanship, to produce Work of specified quality.

1.04 WORKMANSHIP

- A. Comply with industry standards except when more restrictive tolerances or specified requirements indicate more rigid standards or more precise workmanship.
- B. Perform Work by persons qualified to produce workmanship of specified quality.
- C. Secure products in place with positive anchorage devices designed and sized to withstand stresses, vibration, and racking.

1.05 MANUFACTURERS' INSTRUCTIONS

- A. Comply with instructions in full detail, including each step in sequence. Should instructions conflict with Contract Documents, request clarification from Department before proceeding.

1.06 MANUFACTURERS' CERTIFICATES

- A. When required by individual Specifications section, submit manufacturer's certificate, in duplicate, that products meet or exceed specified requirements.

1.07 MOCKUPS

- A. When required by individual Specifications section, erect complete, full-scale mockup of assembly at site, perform required tests, and remove mockup at completion, when approved by Department.

1.08 MANUFACTURERS' FIELD SERVICES

- A. When required by manufacturer or when specified in respective Specification sections,
01400-1 SCCC Door Control & Intercom System Upgrade
Project Number 220002538

require manufacturer to provide qualified personnel to observe field conditions, conditions of surfaces and installation, quality of workmanship, start-up of equipment, test, adjust and balance of equipment as applicable, and to make appropriate recommendations.

- B. Require manufacturer's representative to submit written report to Department listing observations and recommendations.

1.09 TESTING LABORATORY SERVICES

- A. Contractor shall employ and pay for services of an independent testing laboratory to perform inspections, tests, and other services required by individual Specification sections.
- B. Services will be performed in accordance with requirements of governing authorities and with specified standards.
- C. Reports will be submitted to Department in triplicate giving observations and results of tests, indicating compliance or non-compliance with specified standards and with Contract Documents.
- D. Contractor shall cooperate with testing laboratory personnel; furnish tools, samples of materials, design mix, equipment, storage and assistance as requested.
 - 1. Notify Department and testing laboratory 72 hours prior to expected time for operations requiring testing services.
 - 2. Make arrangements with testing laboratory and pay for additional samples and tests for Contractor's convenience.

1.10 DEPARTMENTAL INSPECTION SERVICES

- A. REQUEST AND PAYMENT
 - 1. Contractor shall request and when applicable pay for services provided by the Department to perform specified inspection and testing.
 - 2. Inspection by the Department or its agents shall in no way relieve Contractor of obligation to perform Work in accordance with requirements of Contract Documents.
- B. QUALITY ASSURANCE
 - 1. Comply with requirements of all referenced standards.
 - 2. Department shall retain a registered Engineer or Architect on staff to provide review services in those areas of their immediate expertise.
 - 3. Engineers or Architects will be registered in State in which Project is located.
 - 4. Testing equipment shall be calibrated at reasonable intervals with devices of an accuracy traceable to either NBS Standards or accepted values of natural physical constants.
- C. DEPARTMENT RESPONSIBILITIES
 - 1. Review schedules and request for inspections as submitted by Contractor for timeliness and conformance.
 - 2. Provide qualified personnel at site after due notice; cooperate with Contractor in performance of services.
 - 3. Perform specified inspection, inventorying, and testing of products in accordance with specified standards.
 - 4. Ascertain compliance of materials and equipment with requirements of Contract Documents.
 - 5. Promptly notify Contractor of observed irregularities or non-conformance of Work or products.
 - 6. Perform additional inspections and re-tests required by the Contract Documents.

7. When applicable provide to the Contractor a written description of Department's costs attributed to the inspection.

D. DEPARTMENT REPORTS

1. After each inspection and/or test, promptly submit one copy of inspection report to Contractor. Include: Date issued, Project title and Department Project number, name of inspector(s), date and time of inspection, identification of product and Specifications section, location in the Project, type of inspection or test, results of inspection or tests, and conformance with Contract Documents. When requested in writing by Contractor, provide interpretation of results.

E. LIMITS ON AUTHORITY RESULTING FROM INSPECTIONS

1. Department may not release, revoke, alter, or enlarge on requirements of Contract Documents through the issuance of an inspection report.
2. Department may not approve or accept any portion of the Work through the issuance of an inspection report.
3. Department may not assume any duties of Contractor through the issuance of an inspection report.
4. Department has no authority to stop Work through the issuance of an inspection report.

F. CONTRACTOR RESPONSIBILITIES

1. Cooperate with Department personnel, and provide access to Work and when appropriate, to manufacturer's facilities.
2. Provide incidental labor and facilities to provide access to Work to be inspected, to obtain and furnish incidental supplies at the site or at source of products to be inspected, to facilitate tests and inspections, and for storage and curing of test samples when appropriate.
3. Notify Department as stated above in Contractor Submittals for operations requiring inspection, special inspection and testing services.
4. Pay costs of Department furnished services for all re-inspections as required by Contract Documents.

PART 2 PRODUCTS

Not Used

PART 3 EXECUTION

Not Used

END OF SECTION

SECTION 01500
CONSTRUCTION FACILITIES AND TEMPORARY CONTROLS

PART 1 GENERAL

1.01 REQUIREMENTS INCLUDED

- A. Electricity, Lighting
- B. Heat, Ventilation
- C. Telephone Service
- D. Water
- E. Sanitary Facilities
- F. Dust Control (Exterior)
- G. Dust Control
- H. Noise Control
- I. Construction Enclosures
- J. Barriers
- K. Barricades, Warnings, and Markings
- L. Protection of Installed Work
- M. Security
- N. Water Control
- O. Fencing and Security
- P. Materials Storage and Protection
- Q. Site and Off-Site Storage
- R. Owner Access
- S. Utility Locates
- T. Marking of Contractor Vehicles
- U. Parking
- V. Protection of Existing Facilities
- W. Protection of Existing Vegetation, Structures, Utilities, and Improvements
- X. Salvage
- Y. Temporary Enclosure and Space Heating
- Z. Environmental Requirements
- AA. Construction Cleaning
- AB. Removal
- AC. Waste Storage Equipment
- AD. Cleaning of the Project Area
- AE. Disposal

1.02 RELATED REQUIREMENTS

- A. Section 01010 - Summary of Work: Use of Premises.
- B. Section 01010 - Summary of Work: Shutoffs and Disruptions to Service.
- C. Section 01700 - Contract Closeout: Final cleaning.

1.03 ELECTRICITY, LIGHTING

- A. The Contractor may utilize power from the Using Agency's existing facility. All tie-ins are the Contractor's responsibility and must be coordinated with the Using Agency.
- B. Connect to existing service, provide branch wiring and distribution boxes located to allow service and lighting by means of construction-type power cords. Department will pay costs of energy used.
- C. Provide lighting for construction operations. The Contractor shall include in its bid the cost of providing, and shall provide, general construction area lighting wherever work is in progress and wherever lighting is required for the safety of any person employed on the site.
- D. Take precautions to conserve energy. Wasteful use of power will be back-charged to the Contractor.

1.04 HEAT, VENTILATION

- A. Coordinate use of existing facilities with the Owner. Extend and supplement with temporary units as required to maintain specified conditions for construction operations, and to protect materials and finishes from damage due to temperature or humidity. Using Agency will absorb costs of energy used.
- B. Provide as required to maintain specified conditions for construction operations, to protect materials and finishes from damage due to temperature or humidity.
- C. Do not use permanent facilities for temporary purposes, except as installation is approved by the Department for operation.
- D. Fully exhaust to the outside welding fumes generated from operations related to performance of the Work.
- E. Provide ventilation of enclosed areas to cure materials, to disperse humidity, and to prevent accumulations of dust, fumes, vapors, or gases.

1.05 TELEPHONE SERVICE

- A. Provide telephone service if required for construction operations. Use of telephones in existing facilities can be arranged with the Using Agency for making local calls only.

1.06 WATER

- A. The Contractor may utilize water from the Using Agency's existing facility. All tie-ins are the Contractor's responsibility and must be coordinated with the Using Agency.
- B. Provide service required for construction operations. Extend branch piping with outlets located so that water is available by use of hoses.
- C. The Using Agency will pay for water used.
- D. Hoses or temporary piping will not be permitted in public areas where a hazard to the public may be created.

1.07 SANITARY FACILITIES

- A. Use of existing toilet facilities can be arranged with the Using Agency provided arrangements are made in advance to start of construction and subject to the following conditions: (a) Contractor must maintain strict supervision of the use of the facility; (b) Contractor must clean facilities daily; (c) The Owner will be utilizing these same facilities and must have access to them at all times.

1.08 DUST CONTROL (EXTERIOR)

- A. The Contractor shall be responsible for dust control on the project site. The Contractor is responsible to prevent dust being generated from his operation to enter into any part of existing facilities. The only allowable exception is the area on the construction site of any temporary dust-proof partitioning. The Contractor shall include in its bid the cost of

providing, and shall provide, all plant, labor and equipment necessary to fulfill his responsibilities under this Article.

- B. Execute Work by methods that minimize raising of dust or airborne debris from construction or demolition operations.
- C. Provide positive means to prevent airborne dust from dispersing or entering any portion of the building.

1.09 DUST CONTROL

- A. Execute Work by methods to minimize raising dust from construction operations.
- B. Provide active means to prevent airborne dust from dispersing into occupied areas.
- C. Water mist work surfaces to control dust while cutting.

1.10 NOISE CONTROL

- A. Provide methods, means, and facilities to minimize noise produced by construction operations.

1.11 CONSTRUCTION ENCLOSURES

- A. Provide temporary wall and roof enclosures if required to maintain specified working conditions and/or protect existing facilities.
 - 1. Temporary wall and roof enclosures shall be sealed and insulated R-19 minimum thermal resistance to maintain specified working conditions and to maintain minimum 65° F. interior temperature and to attenuate noise. Plastic insulation is not permitted.
- B. Provide temporary enclosures/partitions around areas inside the structures that are affected by the construction. Enclosures/partitions shall:
 - 1. Isolate construction from Using Agency, occupants, and the public occupying adjacent spaces.
 - 2. Prevent the penetration of dust and/or moisture into occupied areas.
 - 3. Prevent damage to existing materials, finishes, and equipment or other existing building components and contents.
 - 4. Be designed and stamped by an engineer licensed by the State of Alaska if over 12 feet high.
 - 5. Localized polyethylene enclosures: airtight plastic enclosures that extend from floor to ceiling. Seams shall be sealed with duct tape to prevent dust and debris from escaping. Provide overlapping flap minimum of 2 feet wide for personnel access.
 - 6. Rigid enclosures shall be constructed of metal studs, GWB, 10 mil polyethylene, and sound attenuation insulation. Enclosures/partitions shall extend from floor to ceiling with complete closure at intersections with existing surfaces to prevent dust and debris from escaping.
- C. The Contractor shall include his plan for construction enclosures and dust control in the work plan prepared under Section 01010.

1.12 BARRIERS

- A. Provide as required to prevent public entry to construction areas and to protect existing facilities and adjacent properties from damage from construction operations.
- B. Provide barriers to provide both separation and safety to adjacent building occupants. Maintain clear route to allow access of emergency vehicles to the facility and emergency entrances.
- C. Provide temporary Type K precast concrete railing adjacent to vehicle-traveled lanes where needed to separate either the public or Using Agency operations from the

construction site or haul route. Identify such areas in the work plan described in Section 01010.

1.13 BARRICADES, WARNINGS, AND MARKINGS

- A. The Contractor shall furnish, erect, and maintain all barricades, warning signs and markings for hazards, as necessary to protect the public, pedestrians, Using Agency and employees from construction operations, and to protect the Work. All safeguards shall be constructed in conformance with local codes.
- B. For vehicular and pedestrian traffic, the Contractor shall furnish, erect, and maintain barricades, warning signs, lights and other traffic control devices in reasonable conformity with the Manual of Uniform Traffic Control Devices for Streets and Highways (published by the United States Government Printing Office), or as approved by the Engineer.

1.14 PROTECTION OF INSTALLED WORK

- A. Provide temporary protection for installed products. Control traffic in immediate area to minimize damage.
- B. Provide protective coverings at walls, projections, jambs, sills, and soffits of openings. Protect finished floors and stairs from traffic, movement of heavy objects, and storage.
- C. Prohibit traffic and storage on waterproofed and roofed surfaces, and on lawn and landscaped areas.

1.15 SECURITY

- A. Provide security program and facilities to protect Work, existing facilities, and Using Agency's operations from unauthorized entry, vandalism, and theft. Coordinate with Using Agency's security program.
- B. The Contractor shall be responsible for security of any area of the building turned over to the Contractor for his exclusive use. Security responsibility for areas that are particularly or fully occupied by the Using Agency will remain with the Using Agency.
- C. Contractor shall perform work in a manner that will not alter the integrity of the Using Agency's security system. When this is not possible, the Contractor will coordinate with the Department prior to disrupting the security system. Maintain the security of the perimeter fencing associated with the detention facility during construction operations.

1.16 WATER CONTROL

- A. Protect the interior of facilities from water and/or moisture infiltration.

1.17 FENCING AND SECURITY

- A. The Using Agency will not provide security of any kind and shall not be liable to anyone for, or for the lack of, security. Each subcontractor shall include in its bid the cost to provide, and shall provide, such fencing and security as may be necessary in addition to the requirements of this section.

1.18 MATERIALS STORAGE AND PROTECTION

- A. An area will be assigned to the Contractor for materials storage in the closest possible proximity to each project site. Providing protection and security for the area is the responsibility of the Contractor. Any materials stored outside of the buildings being worked on under this contract will be kept in an agreed upon storage area. Materials stored in Using Agency-occupied facilities as directed by the Using Agency.

1.19 SITE AND OFF-SITE STORAGE

- A. The Contractor shall include in its bid the cost to provide, and shall provide, such special security work for which he is contractually responsible, the allocation of job-site storage space for temporary job-site facilities, and the furnishing of off-site storage space, if sufficient job-site storage is not available.

1.20 OWNER ACCESS

- A. Existing roads and parking areas shall be kept open at all times for the flow of traffic from existing facilities.

1.21 UTILITY LOCATES

- A. Contractor shall be responsible for obtaining all utility locates. Contractor shall arrange with utility locate services for locating utilities such as telephone and communications, video cable, water, sewer, electric, fuel lines, etc. Hand dig within two feet of all utilities to avoid damaging existing facilities.

1.22 MARKING OF CONTRACTOR VEHICLES

- A. All Contractor vehicles used on the job site shall be marked with Contractor's Name (as it appears on his business license) and telephone number. This may be a magnetic sign on the door, sign in window or other, providing it is visible and legible.

1.23 PARKING

- A. The Contractor and his employees may park their vehicles in parking areas designated by the Using Agency. There will be no authorized parking in fire lanes and delivery lanes unless authorized by the Using Agency and then only for loading and unloading materials for and debris from the project. Provide and maintain access to fire hydrants and control valves free of obstructions.

1.24 PROTECTION OF EXISTING FACILITIES

- A. The Contractor shall include in its bid the cost to provide, and shall provide, the locating and protecting of the existing facilities of the Using Agency, or any other public facilities whether or not such facilities be on the site of the work or in the public right-of-way.

1.25 PROTECTION OF EXISTING VEGETATION, STRUCTURES, UTILITIES, AND IMPROVEMENTS

- A. The Contractor will preserve and protect all existing vegetation such as trees, shrubs, and grass on or adjacent to the site of work which is not to be removed and which does not unreasonably interfere with the construction work. Care will be taken in removing trees authorized for removal to avoid damage to vegetation to remain in place. Any lines or branches of trees broken during such operations or by the careless operation of equipment, or by workmen, shall be trimmed with a clean cut and painted with an approved tree pruning compound as directed by the Department.
- B. The Contractor will protect from damage all existing improvements or utilities at or near the site of the work, the location of which is made known to him, and will repair or restore any damage to such facilities resulting from failure to comply with the requirements of this contract or the failure to exercise reasonable care in the performance of the work. If the Contractor fails or refuses to repair any such damages promptly, the Department may have the necessary work performed and charge the cost thereof to the Contractor.

1.26 SALVAGE

- A. All materials excavated and any other materials on the site at the time of award are the property of the Using Agency. The Contractor shall provide in its bid the cost to dispose of, and shall dispose of, salvage materials and/or materials which may be surplus to the requirements of the work, provided that the Using Agency, at its sole option, may direct that salvage and/or surplus materials shall be delivered to, unloaded, and stored at place of storage on the Using Agency's property. Such place of storage will be within one mile and a half of the project site.
- B. All items or materials removed from the project shall be made available for the Using Agency's inspection. The Using Agency retains the option to claim any item or material. The Contractor shall deliver any claimed item or material in good condition to the place designated by the Using Agency. All items not claimed become the property of the Contractor and shall be removed from the site by the Contractor.

- C. Salvage materials shall not include trash, lumber or concrete debris, or debris of any nature. Trash and debris shall be disposed of off-site in accordance with federal, state, and local statutes.

1.27 TEMPORARY ENCLOSURE AND SPACE HEATING

- A. The Contractor shall include in its bid the cost to provide, and shall provide, such temporary insulated weather-tight enclosures of the work and such space heating as may be required to protect the work from damage due to freezing temperatures, snow and rain, and to allow orderly coordinated progress of all work.

1.28 ENVIRONMENTAL REQUIREMENTS

- A. General. The Contractor shall include in its bid the cost of complying, and shall comply, and shall require each of its subcontractors to comply, with this section and also each local, state, and federal Environmental Law and Regulation.
- B. Provide methods, means, and facilities to prevent contamination of soil, water, and air from discharge of noxious, toxic substances and pollutants produced by construction operations.
- C. Dust Prevention. Should the site produce visible dust, the Contractor shall, when directed by the Department, forthwith, apply a palliative which prevents the dust from drifting or being wind-driven off the site.

1.29 CONSTRUCTION CLEANING

- A. In accordance with Part 3 of this specification.

1.30 REMOVAL

- A. Remove temporary utilities, materials, equipment, facilities, services, and construction prior to Substantial Completion inspection.
- B. Clean and repair damage caused by installation or use of temporary facilities.
- C. Restore existing facilities used during construction to specified, or to original condition. Restore permanent facilities used during construction to specified condition.

PART 2 PRODUCTS

Not Used

PART 3 EXECUTION

3.01 WASTE STORAGE EQUIPMENT

- A. Provide covered containers for collection of waste materials, debris, and rubbish; and for the transportation of same from point of generation to point of disposal. Containers shall be adequately secured to prevent release of waste materials.

3.02 CLEANING OF THE PROJECT AREA

- A. Control accumulation of waste materials and rubbish. Maintain areas under Contractor's control free of waste materials, debris, and rubbish. Maintain site in a clean and orderly condition.
- B. Clean periodically to keep the Work, the site, and adjacent properties free from accumulations of waste materials, rubbish, and wind-blown debris resulting from construction operations.
- C. Remove debris, rubbish, and combustible material from pipe chases, plenums, attics, crawl spaces, and other closed or remote spaces, prior to closing the space.

- D. Immediately clean interior areas after completion of work to provide suitable conditions for building occupants. All occupied areas and areas used by the general public require cleanup at the end of each shift.
- E. Broom and vacuum clean interior areas prior to start of surface finishing, and continue cleaning on an as needed basis.
- F. Control cleaning operations so that dust and other contaminants will not adhere to wet or newly-coated surfaces.
- G. Maintain manpower and equipment, including dust mops, wet mops, brooms, buckets, and clean wiping rags for cleaning fine dust from floors in adjacent occupied areas.

3.03 DISPOSAL

- A. Promptly remove waste materials, debris, and rubbish from the site periodically and dispose of off the site in accordance with all federal, state and local regulations.
- B. Tightly covered containers shall be used to remove debris from the facility through all occupied areas to minimize dust and contamination from demolition materials. Facility waste containers and dumpsters shall not be used by the Contractor.
- C. Open free-fall chutes are not permitted. Terminate closed chutes into appropriate containers with lids. If conditions dictate, chute and containers shall be sprayed with water to maintain dust control. Chute opening shall be closed when not in use.

END OF SECTION

SECTION 01540

SECURITY

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Security Check and Orientation
- B. DOC Project Coordinator
- C. Personnel Access
- D. Vehicle Access
- E. Tool Control
- F. Contraband
- G. Cell Phones / Cameras

1.02 SUMMARY

- A. This document outlines security provisions that the Contractor and its Subcontractors shall follow. The facility is a correctional institution and the performance of the Work could impact the operations of the facility. The Contractor must understand and shall comply with Department of Corrections (DOC) security requirements.
- B. The intent of this section is to prevent any escape, sabotage or assault attempt; any disturbance; or the importation of contraband.

1.03 RELATED REQUIREMENTS

- A. Section 01010 – Summary of Work
- B. Section 01300 – Submittals
- C. Section 01500 – Construction Facilities and Temporary Controls

1.04 SUBMITTALS

- A. Submit list of Contractor's and Subcontractor's personnel and a completed Request for Clearance form for each individual to the facility security officer.
- B. Submit Using Agency's Daily Log Sheet at the end of each shift or day.

PART 2 PRODUCTS

Not Used

PART 3 EXECUTION

3.01 SECURITY CHECK AND ORIENTATION

- A. All personnel (Contractor and Subcontractor) working at the site will be required to undergo a security check before performing any work on the project. The Using
01540-1 SCCC Door Control & Intercom System Upgrade
Project Number 220002538

Agency will provide a mandatory security briefing for all persons before commencement of on-site work.

- B. Submit the following data on a Request for Clearance form to the DOC Project Coordinator for each individual at least 72 hours before that individual is scheduled to commence work on the site:

Full name

Residence address

Telephone Number

Date of birth

Social Security Number

Valid driver's license and State of issue, or other photo identification

- C. The security check will screen (nationally) for recent or frequent past convictions or for outstanding warrants. The DOC reserves the right to disqualify anyone from access to the work site. A past conviction will not automatically disqualify.

3.02 DEPARTMENT OF CORRECTIONS PROJECT COORDINATOR

- A. DOC will designate an on-site project coordinator to be the liaison between the Contractor and the facility staff.
- B. In the event of an emergency affecting the secure operation of the facility, the Project Coordinator is authorized to direct the Contractor to take appropriate action. The directions of the Project Coordinator shall be followed immediately.
- C. The Project Coordinator shall be briefed each week by the Contractor regarding the Contractor's work requirements and weekly work plan for the subsequent week. This briefing may be performed concurrently with the progress meetings that may be required under the Contract.

3.03 PERSONNEL ACCESS

- A. Access to the worksite within a correctional facility will be monitored and controlled by the Department of Corrections in order to prevent importation of contraband and escape of inmates.
- B. Contractor personnel shall report as a group to the entrance control at the beginning of each shift to obtain their identification or visitor badges, and sign in on the Contractor's log. At the end of each shift, workers shall return their badges and sign out on the Contractor's log. If workers leave the facility at lunch, they shall turn in their badges and leave as a group. Contractor should encourage workers to bring lunch and eat in the facility.
- C. Contractor employees may be denied access or be removed from the facility for the following reasons:

Possession of firearms or deadly weapons

Workers that are incompetent, careless or otherwise detrimental to the work or the security of the facility

Security requirements

Disruptive, abrasive, and/or argumentative conduct

Being under the influence of alcohol, drugs and/or any substance that is considered contraband by the Facility, including use of tobacco products

Refusal to submit to search of personal property, belongings, or themselves

Health problems

Failure to show proper identification

Failure to follow the direction of Correctional Officers and/or staff members

Having any contact or interaction with inmates

Failure to pass security check

Failure to secure tools and work areas. Contractor shall provide personnel to secure his work area and tools. A member of the Contractor's staff shall be in the active work area. If no Contractor personnel are physically present in the work area, the work area and/or tools shall be secured.

3.04 VEHICLE ACCESS

- A. No privately owned vehicles may enter inside the security fence without approval of the facility on-site Security Officer. Employee vehicles can be parked in the employee/visitor parking lot outside the security fence, and must be locked at all times. No firearms or deadly weapons are allowed inside vehicles on the facility grounds.
- B. Authorized work vehicles, i.e., job site trailers and trucks, may be left inside the fence if they can be secured, in a location approved by the facility Security Officer.

3.05 TOOL CONTROL

- A. Do not leave prisoner-accessible work areas unattended without first removing or securing all tools and objects that would be considered contraband.
- B. At the end of each work day, remove all tools and equipment from inmate-accessible work areas and store within locked cabinets, locked containers, or locked storage trailers.
- C. Maintain written daily inventory of tools and equipment. Tools and equipment that cannot be accounted for shall be reported immediately to the Project Coordinator or the Security Officer.

3.06 CONTRABAND

- A. The mailing, bartering, introducing, exchanging or buying of items between inmates and contractors or their employees is strictly prohibited without the written consent of the Superintendent of the Institution.

3.07 CELL PHONES / CAMERAS

- A. No cell phones, cameras or taking of pictures are allowed inside the secure perimeter. The Contractor's on-site superintendent may have a cell phone if no other phones are available in the facility. If necessary, pictures specifically of the work area may be permitted under the direct observation and supervision of the facility Security Sergeant. No photographs shall be taken on facility grounds, either inside or outside the secure perimeter.

The following reference is from the Alaska Statutes and is provided for the Contractor's information:

Title 11 – Alaska Statutes

Section 11.56.375, Promoting contraband in the first degree:

1. A person commits the crime of promoting contraband in the first degree if the person violates AS 11.56.380 and the contraband is:
 - a) a deadly weapon;
 - b) an article that is intended by the defendant to be used as a means of facilitating an escape; or
 - c) a controlled substance.
2. Promoting contraband in the first degree is a class C felony.

Section 11.56.380, Promoting contraband in the second degree:

1. A person commits the crime of promoting contraband in the second degree if the person:
 - a) introduces, takes, conveys, or attempts to introduce, take, or convey contraband into a correctional facility; or
 - b) makes, obtains, possesses, or attempts to make, obtain, or possess anything that person knows to be contraband while under official detention within a correctional facility.
2. Promoting contraband in the second degree is a class A misdemeanor.
 - a) contraband includes tobacco products.

Section 11.56.390, definition:

“Contraband” means any article or thing which persons confined in a correctional facility are prohibited by law from obtaining, making, or possessing in that correction facility.

END OF SECTION

SECTION 01600

MATERIAL AND EQUIPMENT

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Products.
- B. Transportation, Handling, Storage and Protection.
- C. Product List and Options.
- D. Substitutions.

1.2 RELATED REQUIREMENTS

- A. Bidding and Contract Requirement 00020 - Invitation for Bids: Times for submittal of requests for substitutions during the Bidding period.
- B. Bidding and Contract Requirement Section 00700 - General Conditions:
 - 1. Article 6 – Contractor's Responsibilities (Substitutions, Evaluating Substitutions, Shop Drawings and Samples).
 - 2. Article 7.12 – Applicable Alaska Preferences.
 - 3. Article 9 – Changes.
 - 4. Article 9.10 – Interim Work Authorization.
- C. Section 01010 - Summary of Work. Coordination.
- D. Section 01300 - Submittals: Submittal Procedures.
- E. Section 01400 - Quality Control: Product Quality Monitoring and Manufacturers' Certificates.
- F. Section 01700 – Contract Closeout: Closeout Procedures, Operation and Maintenance Data, Warranties and Bonds, Spare Parts and Maintenance Materials.

1.3 SUBMITTALS

- A. Submit under transmittal letter specified in Section 01300 Submittals.
- B. Submit a List of Products.
- C. Submit on Substitution Request Forms (BLDG-Form 10). Use this for substitutions for any manufacturer not specifically named that meets the product description specifications.
- D. Submit proposed Substitute Means and Methods.

1.4 PRODUCTS

- A. Products include material, equipment, and systems.
- B. Comply with Specifications and referenced standards as minimum requirements.
- C. Supply the same or interchangeable components in quantity within an Individual Specification Section.
- D. Do not use materials and equipment removed from existing structure, except as specifically required, or allowed, by Contract Documents.

1.5 TRANSPORTATION AND HANDLING

- A. Transport and handle Products according to manufacturer's instructions and Material Safety Data Sheets per Section 01300 Submittals and Section 01400 Quality Control. Use methods to avoid product damage. Deliver in undamaged condition in manufacturer's unopened containers or

packaging, and dry.

- B. Provide equipment and personnel to handle products by methods to prevent soiling or damage.
- C. Immediately on delivery, inspect shipment to ensure:
 - 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.

1.6 STORAGE AND PROTECTION

- A. Provide Material Safety Data Sheets (MSDS) for all products available at the site per Section 01300 Submittals and Section 01400 Quality Control.
- B. Store and protect Products in accordance with manufacturer's instructions and MSDS, 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. Provide adequate venting if needed.
- C. Arrange storage to provide access for inspection. Periodically inspect to ensure products are undamaged, and are maintained under required conditions.

1.7 PRODUCT OPTIONS

- A. Products Specified by Reference Standards or by Description Only: Use any product meeting those standards.
- B. Products Specified by Naming One or More Manufacturers with a Provision for Substitutions by meeting product description: Submit a request for substitution for any manufacturer not specifically named that meets the product description specifications per Paragraph REQUEST FOR SUBSTITUTIONS.
- C. Products Specified by Naming One or More Manufacturers followed by the term "No Substitutions": Use only specified manufacturers, no substitutions allowed.

1.8 PRODUCTS LIST

- A. Within 7 days after date of Notice to Proceed, submit four copies of a list of products, which are proposed for installation, including name of manufacturer.
- B. Tabulate products by Individual Specification Section number, title, and Article number.
- C. For products specified only by reference standards, give manufacturer, trade name, model or catalog designation, and reference standards.
- D. DEPARTMENT will reply in writing within five days stating whether there is reasonable objection to listed items. Failure to object to a listed item shall not constitute a waiver of requirements of Contract Documents.

1.9 SUBSTITUTIONS

- A. SUBSTITUTION SUBMITTAL PERIOD:
 - 1. There may be Products listed as "no Substitutions Allowed." The DEPARTMENT will not allow the Contractor to submit a substitution.
 - 2. All other product substitution requests will be considered only within 30 days after date established in Notice to Proceed. Subsequent requests will be considered only in case of product unavailability or other conditions beyond control of CONTRACTOR.
- B. LIMITATIONS ON SUBSTITUTIONS:

1. **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.
2. Substitutions will not be considered when indicated on Shop Drawings or product data submittals.
3. Substitute products shall not be ordered or installed without written acceptance.
4. DEPARTMENT will determine acceptability of substitutions according to the information supplied by the CONTRACTOR under Bidding and Contract Requirement Section 00700 General Conditions, Article 6.9.

C. REQUESTS FOR SUBSTITUTIONS:

1. Bidding and Contract Requirement Section 00700 - General Conditions, Article 6.9.
2. Submit on Substitution Request Form (BLDG-Form 10).
3. Submit separate request for each substitution. Document each request with complete data substantiating compliance of proposed substitution with requirements of Contract Documents.
4. Identify product by Individual Specification Section and Article numbers. Provide manufacturer's name and address, trade name of product, and model or catalog number. List fabricators and Suppliers as appropriate.
5. Attach product data as specified in Section 01300 Submittals.
6. List similar projects using product, dates of installation, and names of design Consultant(s) and owner.
7. Give itemized comparison of proposed substitution with specified product, listing variations, and reference to Individual Specification Sections and Article numbers.
8. Give quality and performance comparison between proposed substitution and the specified product.
9. Give cost data comparing proposed substitution with specified product, and amount of net change to Contract Price.
10. List availability of maintenance services and replacement materials.
11. State effect of substitution on construction schedule, and changes required in other Work or products.

D. CONTRACTOR REPRESENTATION:

1. Request for substitution constitutes a representation that CONTRACTOR has investigated proposed product and has determined that it is equal to or superior in all respects to specified product.
2. CONTRACTOR will provide same warranty for substitution as for specified product.
3. CONTRACTOR will coordinate installation of accepted substitute, making such changes as may be required for Work to be complete in all respects.
4. CONTRACTOR certifies that cost data presented is complete and includes all related costs under this Contract.
5. CONTRACTOR waives claims for additional costs related to substitution that may later become apparent.

E. SUBMITTAL PROCEDURES:

1. Submit one original and four copies of complete request for Substitution Request Form (BLDG-Form 10).

2. Request to include complete product information and data, color swatch board, and certification that proposed product meets or exceeds all requirements for the specified product.
3. DEPARTMENT will review CONTRACTOR'S requests for substitutions within 14 days of receipt.
4. After receipt of submittal, DEPARTMENT will notify CONTRACTOR, in writing, of decision to accept or reject requested substitution within 14 days.
5. For accepted products, submit Shop Drawings, product data, and samples under provisions of Section 01300 Submittals.

1.10 SUBSTITUTE MEANS AND METHODS

- A. The CONTRACTOR may propose alternative means and methods to perform the Work. Submit substitute means and methods according to Section 00700 General Conditions Article 6.10 Substitute Means and Methods.
- B. Submit one original and four copies of complete request for Substitution Request Form (BLDG-Form 10).
- C. Request to include sufficient information to allow the DEPARTMENT to determine that the substitute means and methods proposed is equivalent to that indicated or required by the Contract Documents.
- D. DEPARTMENT will review CONTRACTOR'S requests for substitutions within 14 days of receipt.
- E. After receipt of submittal, DEPARTMENT will notify CONTRACTOR, in writing, of decision to accept or reject requested substitution within 14 days.

PART 2 PRODUCTS

Not Used

PART 3 EXECUTION

Not Used

END OF SECTION 01600

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SECTION 01700
CONTRACT CLOSEOUT

PART 1 GENERAL

1.01 REQUIREMENTS INCLUDED

- A. Closeout Procedures
- B. Final Cleaning
- C. Project Record Documents
- D. Operation and Maintenance Data
- E. Warranties
- F. Spare Parts and Maintenance Materials

1.02 RELATED REQUIREMENTS

- A. Section 00700 - General Conditions: Fiscal provisions, legal submittals, and other administrative requirements.
- B. Section 01010 - Summary of Work: Using Agency occupancy.
- C. Section 01400 – Quality Control: Departmental Inspection Services.
- D. Section 01500 - Construction Facilities and Temporary Controls: Cleaning during construction.
- E. Section 01730 – Operation and Maintenance Data
- F. Section 01740 – Warranties and Bonds

1.03 CONTRACT CLOSEOUT PROCEDURES

- A. SUBSTANTIAL COMPLETION
 - 1. Submit the following prior to requesting a Substantial Completion inspection:
 - a. Evidence of Compliance with Requirements of Governing Authorities:
 - 1) Certificate of Occupancy.
 - 2) Required Certificates of Inspection.
 - b. Project Record Documents in accordance with Section 01720
 - c. Operation and Maintenance Data in accordance with Section 01730
 - d. Warranties and Bonds in accordance with Section 01740
 - e. Spare Parts and Maintenance Materials in accordance with Section 01700-1.08
 - 2. Substantial Completion shall be considered by the Department when:
 - a. Written notice is provided 10 days in advance of inspection date.
 - b. List of items to be completed or corrected is submitted.
 - c. Operation and Maintenance Manuals are submitted and approved by the Department.
 - d. Equipment and systems have been tested, adjusted, balanced and are fully operational.
 - e. Automated and manual controls are fully operational.
 - f. Operation of system has been demonstrated to Department personnel.

- g. Certificate of Occupancy is submitted.
 - h. Certificates of Inspection for required inspections have been submitted.
 - i. Project Record Documents for the Work or the portion of the Work being accepted are submitted and approved.
 - j. Spare parts and maintenance materials are turned over to the Department.
 - k. All keys are turned over to the Department.
 - 3. Should Department inspection find Work is not substantially complete, the Department will promptly notify Contractor in writing, listing observed deficiencies.
 - 4. The Contractor shall remedy deficiencies and send a second written notice of Substantial Completion.
 - 5. When the Department finds Work is substantially complete, the Department will prepare a Certificate of Substantial Completion in accordance with provisions of General Conditions.
 - 6. Using Agency will occupy existing facilities for the conduct of business, under provisions stated in Certificate of Substantial Completion
- B. FINAL COMPLETION
- 1. When Contractor considers Work is complete, submit written certification that:
 - a. Contract Documents have been reviewed.
 - b. Work has been inspected for compliance with Contract Documents.
 - c. Work has been completed in accordance with Contract Documents, and deficiencies listed with Certificate of Substantial Completion have been corrected.
 - d. Work is complete and ready for final inspection.
 - 2. Should the Department inspection find Work incomplete, Department will promptly notify Contractor in writing listing observed deficiencies.
 - 3. Contractor shall remedy deficiencies and send a second certification of Final Completion.
 - 4. When Department finds Work is complete, Department will consider closeout submittals.
- C. REINSPECTION FEES
- 1. Should status of completion of Work require more than one reinspection by the Department due to failure of Work to comply with Contractor's responsibility, the Department will deduct the cost of reinspection from final payment to Contractor as provided in the Contract Documents.
 - 2. Reinspection fees shall not exceed \$5,000 for any one reinspection.
- D. CLOSEOUT SUBMITTALS
- 1. Warranties and Bonds in accordance with Section 01740 Warranties and Bonds.
 - 2. Evidence of Payment in accordance with Conditions of the Contract.
 - 3. Consent of Surety to Final Payment.
 - 4. Certificates of Insurance for Products and Completed Operations in accordance with Supplementary Conditions.
 - 5. Certificate of Release.
- E. APPLICATION FOR FINAL PAYMENT
- 1. Submit application for final payment in accordance with provisions of the General Conditions of the Contract.

2. Department will issue a final Change Order reflecting all remaining adjustments to Contract Price not previously made by Change Orders.
3. The full amount of the Schedule of Values line item labeled "Contract Closeout" will be withheld as a portion of the final payment.
4. Final payment will not be executed until the Department has fully reviewed the Project records and found them to be in compliance with the Contract Documents.

1.04 FINAL CLEANING

- A. Execute final cleaning prior to Substantial Completion inspection.
- B. Remove grease, adhesives, dust, dirt, fingerprints, temporary labels, stains, and other foreign substances from interior and exterior surfaces exposed to view; polish transparent and glossy surfaces; vacuum carpeted and soft surfaces. Clean equipment and fixtures to a sanitary condition, clean or replace filters of mechanical equipment. Clean roofs, gutters, downspouts, and drainage systems.
- C. Clean site; sweep paved areas, rake clean other surfaces.
- D. Use cleaning materials which will not create hazards to health or property, and which will not damage surfaces. Follow manufacturer's recommendations.
- E. Maintain cleaning until the Department issues certificate of Substantial Completion.
- F. Remove waste, debris, and surplus materials from the site. Clean grounds; remove stains, spills, and foreign substances from paved areas and sweep clean. Rake clean other exterior surfaces.

1.05 PROJECT RECORD DOCUMENTS

- A. In accordance with Section 01720 Project Record Documents

1.06 OPERATION AND MAINTENANCE INSTRUCTIONS

- A. In accordance with Section 01730 Operation and Maintenance Data.

1.07 WARRANTIES

- A. In accordance with Section 01740 Warranties and Bonds.

1.08 SPARE PARTS AND MAINTENANCE MATERIALS

- A. Provide products, spare parts, maintenance and extra materials in quantities specified in individual Specification Sections.
- B. Deliver to project site and place in location as directed, obtain receipt prior to final payment.

PART 2 PRODUCTS

Not Used

PART 3 EXECUTION

Not Used

END OF SECTION

SECTION 01720

PROJECT RECORD DOCUMENTS

PART 1 -GENERAL

1.1 REQUIREMENTS INCLUDED

- A. Maintenance of Record Documents.
- B. Submittal of Record Documents.

1.2 RELATED REQUIREMENTS

- A. Document 00700 - General Conditions.
- B. Section 01300 - Submittals: Shop drawings, product data.
- C. Section 01700 - Contract Closeout Procedures.

1.3 MAINTENANCE OF DOCUMENTS AND SAMPLES

- A. In addition to requirements in General Conditions, maintain at the site for the Project Manager one 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. Field test records.
 - 7. Inspection certificates.
 - 8. Manufacturer's certificates.
- B. Prior to Substantial Completion, provide original or legible copies of each item maintained by the Contractor as listed in Section 01720, 1.3A above.
- C. Delegate responsibility for maintenance of Record Documents to one person on the Contractor's staff as approved in advance by the Project Manager.
- D. Promptly following award of contract, secure from Project Manager, at no charge to Contractor, one complete set of all documents comprising the Contract.
- E. Immediately upon receipt of job set, described above, stamp each document with title "RECORD DOCUMENTS -JOB SET."
- F. Store Record Documents apart from documents used for construction. Provide secure storage for Record Documents.

G. Label and file Record Documents 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 Project Manager.

J. Keep Record Documents and samples available for inspection by Project Manager.

K. Project Manager's approval of current status of Record Documents will be prerequisite to Project Manager's approval of and request for final payment.

1. Prior to submitting request for final payment, submit final Record Documents to Project Manager and secure his approval.

L. Do not use job set for any purpose except entry of new data and for review and copying by Project Manager.

1.4 RECORDING

A. Record information on a set of black line or opaque Drawings, and in a copy of a Project Manual, provided by Project Manager.

B. Using colored 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. Accuracy of records shall be such that future search for items shown in Contract Documents may reasonably rely on information obtained from approved Record Documents.

D. Record all entries within 24 hours of receipt of information and concurrently with construction progress. Do not conceal any Work until required information is recorded.

E. Contract Drawings and Shop Drawings: Legibly mark each item to record actual construction, including:

1. Use all means necessary, including proper tools for measurement, to determine actual location of installed items.
2. Field changes of dimension and detail.
3. Changes made by Modifications.
4. Details not on original Contract Drawings.
5. References to related shop drawings and Modifications.
6. Where changes are caused by Contractor-originated proposals approved by Project Manager, including inadvertent errors by Contractor which have been accepted by Project Manager, clearly indicate change by note.

7. Show on job set Record Drawings, by dimension accurate within one inch (1"), centerline of each run of items described in sub-paragraphs 3 and 4 above. Identify item by accurate note such as "Intercom Control Unit", etc. Show by symbol or note, vertical location of item (in ceiling plenum, "exposed", etc.). Make all identification sufficiently descriptive that it may be related reliably to Specifications.

F. Specifications: Legibly mark each item to record actual construction, including:

1. Manufacturer, trade name, and catalog number of each product actually installed, particularly optional items and substitute items.
2. Changes made by Addenda and Modifications.

1.5 SUBMITTALS

A. Upon submittal of completed total set of Record Documents to Project Manager, participate in review meeting(s) as required by Project Manager, make required changes in Record Documents, and promptly deliver final Record documents to Project Manager and samples under provisions of Section 01701.

B. Transmit with cover letter in duplicate, listing:

1. Date.
2. 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.

PART 2 - PRODUCTS - Not Used.

PART 3 - EXECUTION - Not Used.

END OF SECTION

SECTION 01730
OPERATION AND MAINTENANCE DATA

PART 1 - GENERAL

1.1 REQUIREMENTS INCLUDED

- A. Format and content of manuals.
- B. Instruction of Department personnel.
- C. Schedule of submittals.

1.2 RELATED REQUIREMENTS

- A. Section 01300 - Submittals: Submittals procedures.
- B. Section 01300 - Submittals: Shop drawings, product data, and samples.
- C. Section 01700 - Contract Closeout Procedures.
- D. Section 01720 - Project Record Documents.
- E. Section 01740 - Warranties and Bonds.
- F. Individual Specifications Sections: Specific requirements for operation and maintenance data.

1.3 QUALITY ASSURANCE

- A. Prepare instructions and data by personnel experienced in maintenance and operation of described products.

1.4 FORMAT

- A. Prepare data in the form of an instructional manual.
- B. Binders: Commercial quality, 8-1/2 x three-ring binders with hardback, cleanable, plastic covers; one inch maximum ring size. If multiple binders are used correlate data into related consistent groupings.
- C. Cover: Identify each binder with typed or printed title OPERATION AND MAINTENANCE INSTRUCTIONS; list title of Project; identify subject matter of contents.
- D. Arrange content by systems, under section numbers and sequence of Table of Contents of this Project Manual.
- E. Provide tabbed fly leaf for each separate product and system, with typed description of product and major component parts of equipment.
- F. Text: Manufacturer's printed data, or typewritten data on 20 pound paper.
- G. Drawings: Provide with reinforced punched binder tab. Bind in with text; fold larger drawings to size of text pages.

1.5 CONTENTS, EACH VOLUME

- A. Table of Contents: Provide DEPARTMENT's Project title; DEPARTMENT's Project number; names, addresses, and telephone numbers of Consultant(s) and Contractor with name of responsible parties; schedule of products and systems, indexed to content of the volume.
- B. For Each Product or System: List names, addresses and telephone numbers of subcontractors and suppliers, including local source of supplies and replacement parts.
- C. Product Data: Mark each sheet to clearly identify specific products and component parts, and data applicable to installation; delete inapplicable information.
- D. Drawings: Supplement product data to illustrate relations of component parts of equipment and systems, to show control diagrams. Do not use Project Record Documents as maintenance drawings.
- E. Typed Text: As required to supplement product data. Provide logical sequence of instructions for each procedure, incorporating manufacturer's instructions.
- F. Warranties and Bonds: Bind in copy of each.

1.6 MANUAL FOR EQUIPMENT AND SYSTEMS

- A. Each Item of Equipment and Each System: Include description of unit or system, and component parts. Give function, normal operating characteristics, and limiting conditions. Include performance curves, with engineering data and tests, and complete nomenclature and commercial number of replaceable parts.
- B. Include as-installed color coded wiring diagrams.
- C. Operating Procedures: Include start-up and routine normal operating instructions and sequences. Include control, shut-down, and emergency instructions. Include any special operating instructions.
- D. Maintenance Requirements: Include routine procedures and guide for trouble-shooting; disassembly, repair, and reassembly instructions; and alignment, adjusting, balancing, and checking instructions.
- E. Provide servicing schedule.
- F. Include manufacturer's printed operation and maintenance instructions.
- G. Provide original manufacturer's parts list, illustrations, assembly drawings, and diagrams required for maintenance.
- H. Provide list of original manufacturer's spare parts, current prices, and recommended quantities to be maintained in storage.
- I. Additional Requirements: As specified in individual Specifications sections.

1.7 INSTRUCTION OF OWNER PERSONNEL

- A. Before final inspection, instruct DEPARTMENT designated personnel in operation, adjustment, and maintenance of products, equipment, and systems, at agreed upon times.
- B. 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.
- C. Prepare and insert additional data in Operation and Maintenance Manual when needed for such data becomes apparent during instruction.

1.8 SUBMITTALS

- A. Submit two copies of preliminary draft or proposed formats and outlines of contents before start of Work. DEPARTMENT will review draft and return one copy with comments.
- B. For equipment, or component parts of equipment put into service during construction and operated by DEPARTMENT, submit documents within ten days after acceptance.
- C. Submit one copy of completed volumes in final form 15 days prior to final inspection. Copy will be returned after final inspection, with DEPARTMENT comments. Revise content of documents as required prior to final submittal.
- D. Submit two copies of revised volumes of data in final form within ten days after final inspection.

PART 2 - PRODUCTS - Not Used.

PART 3 - EXECUTION - Not Used.

END OF SECTION

**SECTION 01732
SELECTIVE DEMOLITION**

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Demolition and removal of selected portions of building or structure.
 - 2. Salvage of existing items to be reused or recycled.

1.2 MATERIALS OWNERSHIP

- A. Unless otherwise indicated, demolition waste becomes property of Contractor.
- B. Historic items, relics, antiques, and similar objects including, but not limited to, cornerstones and their contents, commemorative plaques and tablets, and other items of interest or value to DEPARTMENT that may be uncovered during demolition remain the property of DEPARTMENT.
 - 1. Carefully salvage in a manner to prevent damage and promptly return to DEPARTMENT.

1.3 PREINSTALLATION MEETINGS

- A. Predemolition Conference: Conduct conference at Project site.

1.4 INFORMATIONAL SUBMITTALS

- A. Proposed Protection Measures: Submit report, including Drawings, that indicates the measures proposed for protecting individuals and property, for dust control, and for noise control. Indicate proposed locations of waste load out and barriers.
- B. Schedule of selective demolition activities with starting and ending dates for each activity.

1.5 CLOSEOUT SUBMITTALS

- A. Inventory of items that have been removed and salvaged.

1.6 FIELD CONDITIONS

- A. DEPARTMENT will occupy portions of building immediately adjacent to selective demolition area. Conduct selective demolition so DEPARTMENT's operations will not be disrupted.
- B. Conditions existing at time of inspection for bidding purpose will be maintained by DEPARTMENT as far as practical.
 - 1. Before selective demolition, DEPARTMENT will remove the following items:

- a. Existing roof mounted air conditioning condenser and shroud.
- C. Notify DEPARTMENT of discrepancies between existing conditions and Drawings before proceeding with selective demolition.
- D. Hazardous Materials: It is not expected that hazardous materials will be encountered in the Work.
 - 1. If suspected hazardous materials are encountered, do not disturb; immediately notify DEPARTMENT. Hazardous materials will be removed by DEPARTMENT under a separate contract.
- E. Storage or sale of removed items or materials on-site is not permitted.
- F. 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.
- G. Arrange selective demolition schedule so as not to interfere with DEPARTMENT's operations.

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.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Verify that utilities have been disconnected and capped before starting selective demolition operations.
- B. Perform an engineering survey of condition of building to determine whether removing any element might result in structural deficiency or unplanned collapse of any portion of structure or adjacent structures during selective building demolition operations.

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. DEPARTMENT will arrange to shut off indicated services/systems when requested by Contractor.

2. 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.
3. Disconnect, demolish, and remove 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. Ducts to Be Removed: Remove portion of ducts indicated to be removed and plug remaining ducts with same or compatible ductwork material.
 - e. 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. Locate selective demolition equipment and remove debris and materials so as not to impose excessive loads on supporting walls, floors, or framing.
 5. 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. Existing Items to Remain: Protect construction indicated to remain against damage and soiling during selective demolition. When permitted by DEPARTMENT, 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.
- 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 01740
WARRANTIES AND BONDS

PART 1 - GENERAL

1.1 REQUIREMENTS INCLUDED

- A. Format and content of manuals.
- B. Schedule of submittals.

1.2 RELATED REQUIREMENTS

- A. Section 00700 – General Conditions.
- B. Section 01700 - Contract Closeout.
- C. Section 01730 – Operation and Maintenance Data.
- D. Individual Specifications Sections: Specific requirements for operation and maintenance data.

1.3 FORM OF SUBMITTALS

- A. Bind in commercial quality, 8-1/2 x 11 inch three-ring binders with hardback, cleanable, plastic covers.
- B. Label cover of each binder with typed or printed title "WARRANTIES AND BONDS"; with title of Project and DEPARTMENT Project number; name, address and telephone number of CONTRACTOR; and name of responsible principal.
- C. Table of Contents: Neatly typed, in the sequence of the table of contents of the Project manual, with each item identified with the number and title of the Specification section in which specified, and the name of product or Work item.
- D. Separate each warranty or bond with index tab sheets keyed to the table of contents listing. Provide full information, using separate typed sheets as necessary. List Subcontractor, Supplier, and manufacturer, with name, address, and telephone number of responsible principle.

1.4 PREPARATION OF SUBMITTALS

- A. Obtain warranties and bonds, executed in duplicate by responsible Subcontractors, Suppliers, and manufacturers, within ten days after completion of the applicable item of Work. Except for items put into use with DEPARTMENT permission, leave date of beginning of time of warranty until the date of Final Completion is determined.
- B. Verify that documents are in proper form, contain full information, and are notarized.
- C. Retain warranties and bonds until time specified for submittal.

1.5 TIME OF SUBMITTALS

- A. Warranty period for equipment begins at Substantial Completion, unless otherwise approved by DEPARTMENT.
- B. For equipment or component parts of equipment put into service during construction with DEPARTMENT permission, submit documents within ten days after acceptance.
- C. Make other submittals within ten days after date of Final Completion, prior to final Application for Payment.
- D. For items of Work when acceptance is delayed beyond date of Final Completion, submit within ten days after acceptance, listing the date of acceptance as the beginning of the warranty period.

PART 2 - PRODUCTS - Not Used.

PART 3 - EXECUTION - Not Used.

END OF SECTION

State of Alaska
Department of Corrections
REQUEST FOR CLEARANCE
for
Contractor/Contract Staff Background Checks

Date: _____

Applicant Name: _____

Mailing Address: _____

Purpose of this check: _____

Date of Birth: _____ Social Security # : _____

Alaska driver's license #: _____

Other states applicant has resided in and the dates: _____

Prior criminal history (including the state the offense occurred in) _____

Is applicant currently on probation or parole? _____ If yes, where? _____

Does applicant have any relatives or acquaintances presently incarcerated in Alaska or under the Dept. of Corrections supervision? _____ If yes, state the person's name/location: _____

Clearance requested by (Contractor): _____

Address: _____ Phone: _____

The information that I have provided is true and accurate to the best of my knowledge. I authorize the Department of Corrections to perform a background investigation for any and all prior convictions or current warrants.

Signature of applicant: _____ Date: _____

Contractor's signature: _____ Date: _____

* * * * *

APSIN/WANTS:	Clear: _____	Wants: _____	See Attached: _____
NCIC/WANTS:	Clear: _____	Wants: _____	See Attached: _____
Criminal History Check (Alaska)	No record found: _____	See Attached: _____	
Criminal History Check (other states)	No record found: _____	See Attached: _____	

Approved by: _____ Date: _____
Contract Oversight Officer/Superintendent,
Division of Institutions

Request Granted: _____ Request Denied: _____

Reason for denial: _____

DOC Staff Signature/Title: _____ Date: _____

NOTICE TO BIDDERS

In an attempt to save money and paper the department will no longer send hard copies out with solicitations on construction projects of the PAM 600. Instead we have provided web links and contact information below. If you are unable to view this links and would like a hard copy of these documents please contact the Procurement Officer for this project and request a copy.

Pamphlet 600: Laborers' & Mechanics' Minimum Rates of Pay

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

Pamphlet 400: Title 36 Public Contracts & 8 AAC Chapter 30

<http://labor.state.ak.gov/lss/forms/Pam400.pdf>

Notice of Work / Notice of Completion (Required On All Projects Over \$25K)

You must submit these through “My Alaska” web link at <https://my.alaska.gov/> you must register if not already.

Once you have logged in, return to the home page under “Services for Businesses”, click on “LSS-Online Filing Services”.

<https://certpay.dol.alaska.gov/portal.aspx>

Employment Preference Determination Information

<http://labor.alaska.gov/lss/whhome.htm>

- In October 2019, the Alaska Attorney General issued a formal opinion stating that the Alaska Statutes 36.10.150 of the State’s 90% Employment Preference law, also known as the Alaska Resident Hire law violates both the U.S. and Alaska Constitutions and that the State of Alaska should stop enforcing its provisions. Consequently, the Wage and Hour Section is no longer investigating alleged violations or taking enforcement action related Alaska Resident Hire. Any and all Employment Preference investigations that are opened within the department will be closed.
- A copy of the formal opinion is found here: http://law.alaska.gov/pdf/opinions/opinions_2019/19-005_AK-hire.pdf

Alaska Wage and Hour Administration

Offices / Hours and Web links:

Anchorage: Anchorage.lss-wh@alaska.gov

Phone: 907-269-4909

Fax: 907-269-4915

Juneau: Juneau.lss-wh@alaska.gov

Phone: 907-465-4842

Fax: 907-465-3584

Fairbanks: Fairbanks.lss-wh@alaska.gov

Phone: 907-451-2886

Fax: 907-451-2885

If you have questions or need further assistance please contact the Procurement Officer.

CERTIFICATION OF ENTITLEMENT TO THE ALASKA BIDDER PREFERENCE

1. I am the Offeror or a duly authorized agent of the Offeror and I certify that the Offeror is entitled to the Alaska Bidder Preference. I know and understand that the Alaska Bidder Preference provides for substantial benefits which could be favorable to the Offeror and which could affect the award of the Request for Proposals to the Offeror's benefit. I am aware that falsely claiming the Alaska Bidder Preference is a violation of the State of Alaska Procurement Code (AS 36.30) and may be cause for felony prosecution and conviction.

I offer the following evidence or statements in support of my Certification of Entitlement to the Alaska Bidder Preference. As of the closing date of the Request for Proposals, the Offeror holds a valid Alaska business license in one of the following forms:

- (a) a cancelled check for the business license fee;
 - (b) a copy of a business license application with a receipt date stamp from the State's business license office;
 - (c) a receipt from the State's business license office for the license fee;
 - (d) the Offeror's valid business license certificate;
 - (e) a sworn notarized affidavit that the Offeror has applied and paid for a business license.
2. The Offeror is submitting its offer under the name as it appears on the Offeror's current Alaska business license.
3. The Offeror has maintained a place of business within the State of Alaska staffed by the Offeror or an employee of the Offeror for a period of six (6) months immediately preceding the closing date of the Request for Proposals.
4. The Offeror 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,

In order to be considered an Alaska Bidder and entitled to the Alaska Bidder Preference, a limited liability company (LLC) organized under AS 10.50.010-10.50.995 must meet the requirements of AS 36.30.170(b) and the manager of the LLC must be a resident of the State of Alaska.

Signature of Offeror or Offeror's Authorized Agent

Date

Printed Name

STATE OF ALASKA
Department of Corrections
Facilities Management

SUB-CONTRACTOR
CERTIFICATION



PROJECT: SCCC Door Control & Intercom System Upgrade

PROJ. #. **220002538**

PRIME CONTRACTOR: _____

Pursuant to 00700 6.13.1, we hereby stipulate the following concerning the award of Work to the Subcontractor listed:

1. Subcontractor: _____

Subcontract is a (1st) (2nd) (3rd) tier subcontract; (circle one)

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 (circle appropriate answer)?

Contract Minimum Wage Schedule (Little Davis-Bacon Wages) **Y** **N**

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?

Y **N**

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 as required by 00700 13.17 and termination provisions as required by 00700 Article 14 (6.13.3)?

Y **N**

8. a. Does the Subcontractor have adequate insurance coverage's as specified in 00700 5.4.2?

Y **N**

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?

Y **N**

b. Does the evidence of insurance certify that the policies described thereon comply with all aspects of the insurance requirements for this project?

Y **N**

c. Does the evidence of insurance list the Department of Corrections as an "Additional Insured"?

Y **N**

d. Does the evidence of insurance commit to providing 30 day written notice of cancellation or reduction of any coverage?

Y N

e. Insurance Expiration dates:

Comprehensive or Commercial General Liability: _____

Automobile: _____ Workers' Compensation: _____

(Other) _____

9. 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: _____

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

CERTIFICATION: 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 Manager

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

Signature: _____ Date: _____
Project Manager



STATE OF ALASKA
DEPARTMENT OF CORRECTIONS

**ALASKA VETERAN PREFERENCE
CERTIFICATION**

In response to the advertised procurement for:

Project Name and Number _____,

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.)

SECTION 064116 - PLASTIC-LAMINATE-CLAD ARCHITECTURAL CABINETS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- A. Section Includes:
 - 1. Plastic-laminate-clad architectural cabinets.
 - 2. Cabinet hardware and accessories.
 - 3. Wood furring, blocking, shims, and hanging strips for installing plastic-laminate-clad architectural cabinets that are not concealed within other construction.
- B. Related Requirements:
 - 1. Section 123661 "Simulated Stone Countertops"

1.3 ACTION SUBMITTALS

- A. Product Data: For each type of product.
- B. Shop Drawings:
 - 1. Include plans, elevations, sections, and attachment details.
 - 2. Show full-size details.
 - 3. Show locations and sizes of furring, blocking, and hanging strips, including concealed blocking and reinforcement specified in other Sections.
- C. Samples for Verification: For the following:
 - 1. Plastic Laminates: 2 by 3 inches, for each type, color, pattern, and surface finish required.

1.4 QUALITY ASSURANCE

- A. Manufacturer's Qualifications: Employs skilled workers who custom fabricate products similar to those required for this Project and whose products have a record of successful in-service performance.
- B. Installer Qualifications: Manufacturer of products.

1.5 FIELD CONDITIONS

- A. Field Measurements: Where cabinets are indicated to fit to other construction, verify dimensions of other construction by field measurements before fabrication, and indicate measurements on Shop Drawings. Coordinate fabrication schedule with construction progress to avoid delaying the Work.
 - 1. Locate concealed framing, blocking, and reinforcements that support cabinets by field measurements before being enclosed/concealed by construction, and indicate measurements on Shop Drawings.
- B. Established Dimensions: Where cabinets are indicated to fit to other construction, establish dimensions for areas where cabinets are to fit. Provide allowance for trimming at site, and coordinate construction to ensure that actual dimensions correspond to established dimensions.

PART 2 - PRODUCTS

2.1 PLASTIC-LAMINATE-CLAD ARCHITECTURAL CABINETS

- A. Quality Standard: Unless otherwise indicated, comply with the Architectural Woodwork Standards for grades of cabinets indicated for construction, finishes, installation, and other requirements.
 - 1. The Contract Documents contain requirements that are more stringent than the referenced quality standard. Comply with requirements of Contract Documents in addition to those of the referenced quality standard.
- B. Architectural Woodwork Standards Grade: Custom.
- C. Type of Construction: Frameless.
- D. Door and Drawer-Front Style: Flush overlay.
- E. High-Pressure Decorative Laminate: NEMA LD 3, grades as indicated or if not indicated, as required by quality standard.
 - 1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to the following:
 - a. Abet Laminati, Inc.; 1804.
 - b. Formica Corporation; 969-58 Navy Blue.
 - c. Wilsonart International; Div. of Premark International, Inc.; D25-60 Atlantis.
- F. Laminate Cladding for Exposed Surfaces:
 - 1. Horizontal Surfaces: Grade HGS.
 - 2. Vertical Surfaces: Grade HGS.
 - 3. Edges: PVC edge banding, 1/8-inch thick, matching laminate in color, pattern, and finish.

G. Materials for Semiexposed Surfaces:

1. Surfaces Other Than Drawer Bodies: Thermoset decorative panels.
 - a. Edges of Plastic-Laminate Shelves: PVC edge banding, 1/8-inch thick, matching laminate in color, pattern, and finish.
 - b. Edges of Thermoset Decorative Panel Shelves: PVC or polyester edge banding.
 - c. For semiexposed backs of panels with exposed plastic-laminate surfaces, provide surface of high-pressure decorative laminate, NEMA LD 3, Grade VGS.
2. Drawer Sides and Backs: Thermoset decorative panels with PVC or polyester edge banding.
3. Drawer Bottoms: Thermoset decorative panels.

H. Concealed Backs of Panels with Exposed Plastic-Laminate Surfaces: High-pressure decorative laminate, NEMA LD 3, Grade BKL.

I. Drawer Construction: Fabricate with exposed fronts fastened to subfront with mounting screws from interior of body.

1. Join subfronts, backs, and sides with glued rabbeted joints supplemented by mechanical fasteners.

2.2 WOOD MATERIALS

A. Wood Products: Provide materials that comply with requirements of referenced quality standard for each type of architectural cabinet and quality grade specified unless otherwise indicated.

1. Wood Moisture Content: 5 to 10 percent.

B. Composite Wood Products: Provide materials that comply with requirements of referenced quality standard for each type of architectural cabinet and quality grade specified unless otherwise indicated.

1. Particleboard (Medium Density): ANSI A208.1, Grade M-2.
2. Thermoset Decorative Panels: Particleboard finished with thermally fused, melamine-impregnated decorative paper and complying with requirements of NEMA LD 3, Grade VGL, for Test Methods 3.3, 3.4, 3.6, 3.8, and 3.10.

2.3 CABINET HARDWARE AND ACCESSORIES

A. Wire Pulls: Back mounted, solid metal, 4 inches long, 5/16 inch in diameter.

B. Shelf Rests: ANSI/BHMA A156.9, B04013; metal.

C. Drawer Slides: ANSI/BHMA A156.9.

1. Grade 1 and Grade 2: Side mounted.
 - a. Type: Full extension.

- b. Material: Zinc-plated steel with polymer rollers.
- 2. Grade 1HD-100 and Grade 1HD-200: Side mounted; full-extension type; zinc-plated-steel ball-bearing slides.
- 3. For drawers not more than 3 inches high and not more than 24 inches wide, provide Grade 1.
- 4. For drawers more than 3 inches high, but not more than 6 inches high and not more than 24 inches wide, provide Grade 1.
- 5. For drawers more than 6 inches high or more than 24 inches wide, provide Grade 1HD-100.
- D. Drawer Locks: ANSI/BHMA A156.11, E07041.
- E. Drawer Silencers: ANSI/BHMA A156.16, L03011.
- F. Exposed Hardware Finishes: For exposed hardware, provide finish that complies with ANSI/BHMA A156.18 for ANSI/BHMA finish number indicated.
 - 1. Dark, Oxidized, Satin Bronze, Oil Rubbed: ANSI/BHMA 613 for bronze base;
 - 2. Satin Chromium Plated: ANSI/BHMA 626 for brass or bronze base; ANSI/BHMA 652 for steel base.
 - 3. Satin Stainless Steel: ANSI/BHMA 630.
- G. For concealed hardware, provide manufacturer's standard finish that complies with product class requirements in ANSI/BHMA A156.9.

2.4 MISCELLANEOUS MATERIALS

- A. Furring, Blocking, Shims, and Hanging Strips: Softwood or hardwood lumber, kiln-dried to less than 15 percent moisture content.
- B. Anchors: Select material, type, size, and finish required for each substrate for secure anchorage. Provide metal expansion sleeves or expansion bolts for post-installed anchors. Use nonferrous-metal or hot-dip galvanized anchors and inserts at inside face of exterior walls and at floors.
- C. Adhesive for Bonding Plastic Laminate: Contact cement.
 - 1. Adhesive for Bonding Edges: Hot-melt adhesive.
- D. Silicone, S, NS, 50, NT: Single-component, nonsag, plus 50 percent and minus 50 percent movement capability, nontraffic-use, neutral-curing silicone joint sealant; ASTM C 920, Type S, Grade NS, Class 50, Use NT.
 - 1. Products: Subject to compliance with requirements, available products that may be incorporated into the Work include, but are not limited to, the following:
 - a. Dow Corning Corporation; 791.
 - b. Pecora Corporation; PCS.

- c. Tremco Incorporated; Spectrum 2.
- 2. Applications: Wall applications as follows:
 - a. Horizontal and vertical joints casework and countertops to walls and glazing muntins.

2.5 FABRICATION

- A. Fabricate architectural cabinets to dimensions, profiles, and details indicated.
- B. Complete fabrication, including assembly and hardware application, to maximum extent possible before shipment to Project site. Disassemble components only as necessary for shipment and installation. Where necessary for fitting at site, provide ample allowance for scribing, trimming, and fitting.

PART 3 - EXECUTION

3.1 PREPARATION

- A. Before installation, condition cabinets to humidity conditions in installation areas for not less than 72 hours.
- B. Verify mechanical, electrical and building items affecting work are placed and ready to receive work.

3.2 INSTALLATION

- A. Architectural Woodwork Standards Grade: Install cabinets to comply with quality standard grade of item to be installed.
- B. Anchor cabinets to anchors or blocking built in or directly attached to substrates. Secure with wafer-head cabinet installation screws.
- C. Install cabinets level, plumb, and true in line to a tolerance of 1/8 inch in 96 inches using concealed shims.
 - 1. Scribe and cut cabinets to fit adjoining work, refinish cut surfaces, and repair damaged finish at cuts.
 - 2. Install cabinets without distortion so drawers fit openings and are accurately aligned. Adjust hardware to center drawers in openings and to provide unencumbered operation. Complete installation of hardware and accessory items as indicated.

3.3 ADJUSTING AND CLEANING

- A. Adjust for maximum offset of true alignment with different adjacent materials to 1/32 inch.
- B. Adjust for true alignment of same materials to flush.
- C. Repair damaged and defective cabinets, where possible, to eliminate functional and visual defects. Where not possible to repair, replace architectural cabinets. Adjust joinery for uniform appearance.
- D. Clean, lubricate, and adjust hardware.

Section 064116

PLASTIC-LAMINATE-CLAD ARCHITECTURAL CABINETS

- E. Clean cabinets on exposed and semiexposed surfaces.

END OF SECTION

SECTION 083463 - DETENTION DOORS AND FRAMES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- A. Section Includes:
 - 1. Alterations to swinging detention doors.

1.3 DEFINITIONS

- A. Minimum-Thickness Steel: Indicated as the specified minimum thicknesses for base metal without coatings, according to NAAMM-HMMA 803.
- B. Nominal-Thickness Stainless Steel: Indicated as the specified thicknesses for which over- and under-thickness tolerances apply, according to ASTM A 480/A 480M.

1.4 ACTION SUBMITTALS

- A. Product Data: For each type of product.
 - 1. Include construction details, material descriptions, core descriptions, label compliance, and finishes for each detention door and frame type specified.
- B. Shop Drawings: In addition to requirements below, provide a schedule using same reference numbers for details and openings as those on Drawings:
 - 1. Elevations of each door type.
 - 2. Details of pass openings.
 - 3. Door hardware.

1.5 QUALITY ASSURANCE

- A. Installer Qualifications: An entity that employs installers and supervisors who are trained and approved by manufacturer.
- B. Welding Qualifications: Qualify procedures and personnel according to the following:
 - 1. AWS D1.1/D1.1M, "Structural Welding Code - Steel."
 - 2. AWS D1.3/D1.3M, "Structural Welding Code - Sheet Steel."

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Products: Subject to compliance with requirements, available products that may be incorporated into the Work include, but are not limited to, the following:
1. Cornerstone Services and Supply; Food Pass/Cuff Port Assembly.
 2. Derby Industries; Food Pass/Cuff Port NW 690.
 3. Innovative Detention Systems, 791W.

2.2 HARDWARE

- A. Food-Pass Detention Hinges: Heavy weight, plain bearing; fabricated from cast iron or steel; 3/8-inch-diameter, case-hardened, fully welded, steel hinge pin; with applied stop preventing door from opening more than 90 degrees and supporting door in horizontal position as a shelf; full surface.
1. Products: Subject to compliance with requirements, available products that may be incorporated into the Work include, but are not limited to, the following:
 - a. Airteq; 603FP.
 - b. R.R. Brink Locking Systems, Inc.; 3FP.
 - c. Southern Steel; 203FP
 2. Leaves: Solid.
 3. Size: Minimum 3 by 4 by 0.200 inch.
 4. Security Grade: 1 according to ASTM F 1758.
 5. Finish: BHMA 600.
- B. Utility-Door Mechanical Snaplatches, Mogul Cylinder:
1. Function: Manufacturers standard automatic snaplatch when door is closed; latchbolt retracted by mogul cylinder; keyed one side.
 2. Latchbolt: 1 inch wide by 7/16 inch thick; 7/16-inch minimum throw.
 3. Keying: Match institution keying.

2.3 MATERIALS

- A. Hot-Rolled Steel Sheet: ASTM A 1011/A 1011M, CS (Commercial Steel), Type B; free of scale, pitting, or surface defects; pickled and oiled.
- B. Cold-Rolled Steel Sheet: ASTM A 1008/A 1008M, CS (Commercial Steel), Type B.
- C. Steel Plates, Shapes, and Bars: ASTM A 36/A 36M.

- D. Welding Rods and Bare Electrodes: Select according to AWS specifications for metal alloy welded.

2.4 FABRICATION

- A. Weld components to comply with referenced AWS standard. Weld before finishing components to greatest extent possible. Remove weld spatter and welding oxides from exposed surfaces by descaling or grinding.

2.5 STEEL SHEET FINISHES

- A. Surface Preparation: Remove mill scale and rust, if present, from uncoated steel, complying with SSPC-SP 5/NACE No. 1, "White Metal Blast Cleaning .
- B. Factory Priming for Field-Painted Finish: Apply shop primer specified in "Shop Primer" Subparagraph below immediately after surface preparation and pretreatment. Apply a smooth coat of even consistency to provide a uniform dry film thickness of not less than 0.7 mil.
 - 1. Shop Primer: Manufacturer's or fabricator's standard, fast-curing, corrosion-inhibiting, lead- and chromate-free, universal primer complying with SDI A250.10 acceptance criteria; compatible with substrate and field-applied finish paint system indicated; and providing a sound foundation for field-applied topcoats despite prolonged exposure.

2.6 ACCESSORIES

- A. Welding Rods and Bare Electrodes: Select according to AWS specifications for metal alloy welded.
- B. Pass-Through Openings: Fabricate flush openings using 0.134-inch-thick, steel plate. Mount shutters on non-inmate side of detention doors. Reinforce for locks and hinges.
 - 1. Overlapping Shutters: For surface application on non-inmate side of door. Fabricate from 0.134 inch thick steel door, 6 by 15 inch opening, with 0.179 inch steel reinforcing plate, 15 by 21 inch. 2es maximum , sized to overlap food-pass openings by 1/2 inch. Include exterior frame to dress opening in door

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine substrates, areas, and conditions, with Installer present, for compliance with requirements for installation tolerances and other conditions affecting performance of the Work.
- B. Prepare written report, endorsed by Installer, listing conditions detrimental to performance of the Work.
- C. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

- A. Remove paint to bare metal.
- B. Accurately cut opening square and to size to fit port assembly.

3.3 INSTALLATION

- A. General: Install detention doors and frames plumb, rigid, properly aligned, and securely fastened in place, complying with Drawings, schedules, and manufacturer's written instructions.
- B. Install port by perimeter welding to door skin.
 - 1. Field Welding: Comply with the following requirements:
 - a. Use materials and methods that minimize distortion and develop strength and corrosion resistance of base metals.
 - b. Obtain fusion without undercut or overlap.
 - c. Remove welding flux immediately.
 - d. At exposed connections, finish exposed welds and surfaces smooth and blended so no roughness shows after finishing and contour of welded surface matches that of adjacent surface.

3.4 ADJUSTING AND CLEANING

- A. Prime-Coat Touchup: Immediately after erection, sand smooth rusted or damaged areas of prime coat and apply touchup of compatible air-drying primer.
 - 1. After finishing smooth field welds, apply air-drying primer.

END OF SECTION

SECTION 092216 - NON-STRUCTURAL METAL FRAMING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- A. Section Includes:
 - 1. Non-load-bearing steel framing systems for interior partitions.

1.3 DESIGN REQUIREMENTS

- A. Design in accordance with American Iron and Steel Institute Publication "Specification for the Design of Cold-Formed Steel Structural Members", except as otherwise shown or specified.

1.4 ACTION SUBMITTALS

- A. Product Data: For each type of product.

1.5 DELIVERY, STORAGE, AND HANDLING

- A. Notify manufacturer of damaged materials received prior to installing.
- B. Deliver materials in manufacturer's original, unopened, undamaged containers with identification labels intact.
- C. Protect cold-formed metal framing from corrosion, deformation, and other damage during delivery, storage, and handling as required in AISI's "Code of Standard Practice".

PART 2 - PRODUCTS

2.1 FRAMING SYSTEMS

- A. Framing Members, General: Comply with ASTM C754 for conditions indicated.
 - 1. Steel Sheet Components: Comply with ASTM C645 requirements for steel unless otherwise indicated.
 - 2. Protective Coating: ASTM A653/A653M, G40, hot-dip galvanized unless otherwise indicated.
- B. Studs and Tracks: ASTM C645.
 - 1. Steel Studs and Tracks:
 - a. Minimum Base-Steel Thickness: As indicated on Drawings.
 - b. Depth: 3-5/8 inches.
- C. Flat Strap and Backing Plate: Steel sheet for blocking and bracing in length and width indicated.
 - 1. Minimum Base-Steel Thickness: 0.063 inch.

2.2 AUXILIARY MATERIALS

- A. General: Provide auxiliary materials that comply with referenced installation standards.
 - 1. Fasteners for Steel Framing: Of type, material, size, corrosion resistance, holding power, and other properties required to fasten steel members to substrates.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine areas and substrates, with Installer present, and including welded hollow-metal frames, cast-in anchors, and structural framing, for compliance with requirements and other conditions affecting performance of the Work.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 INSTALLATION, GENERAL

- A. Installation Standard: ASTM C754.
 - 1. Gypsum Board Assemblies: Also comply with requirements in ASTM C840 that apply to framing installation.
- B. Install framing and accessories plumb, square, and true to line, with connections securely fastened.

3.3 INSTALLING FRAMED ASSEMBLIES

- A. Install framing system components according to spacings indicated, but not greater than spacings required by referenced installation standards for assembly types.
- B. Install studs so flanges within framing system point in same direction.
- C. Installation Tolerance: Install each framing member so fastening surfaces vary not more than 1/8 inch from the plane formed by faces of adjacent framing.

END OF SECTION

SECTION 092900 - GYPSUM BOARD

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- A. Section Includes:
 - 1. Interior gypsum board.
- B. Related Requirements:
 - 1. Section 092216 "Non-Structural Metal Framing" for non-structural steel framing and suspension systems that support gypsum board panels.

1.3 ACTION SUBMITTALS

- A. Product Data: For the following:
 - 1. Gypsum board, Type X.

1.4 DELIVERY, STORAGE AND HANDLING

- A. Store materials inside under cover and keep them dry and protected against weather, condensation, direct sunlight, construction traffic, and other potential causes of damage. Stack panels flat and supported on risers on a flat platform to prevent sagging.

1.5 FIELD CONDITIONS

- A. Environmental Limitations: Comply with ASTM C840 requirements or gypsum board manufacturer's written instructions, whichever are more stringent.
- B. Do not install paper-faced gypsum panels until installation areas are enclosed and conditioned.
- C. Do not install panels that are wet, moisture damaged, and mold damaged.
 - 1. Indications that panels are wet or moisture damaged include, but are not limited to, discoloration, sagging, or irregular shape.
 - 2. Indications that panels are mold damaged include, but are not limited to, fuzzy or splotchy surface contamination and discoloration.

PART 2 - PRODUCTS

2.1 GYPSUM BOARD, GENERAL

- A. Size: Provide maximum lengths and widths available that will minimize joints in each area and that correspond with support system indicated.

2.2 INTERIOR GYPSUM BOARD

- A. Gypsum Board, Type X: ASTM C1396/C1396M.

1. Thickness: 5/8 inch.
2. Long Edges: Tapered.

2.3 TRIM ACCESSORIES

- A. Interior Trim: ASTM C1047.

1. Material: Galvanized or aluminum-coated steel sheet or rolled zinc.
2. Shapes:
 - a. Cornerbead.
 - b. L-Bead: L-shaped; exposed long flange receives joint compound.

2.4 JOINT TREATMENT MATERIALS

- A. General: Comply with ASTM C475/C475M.

- B. Joint Tape:

1. Interior Gypsum Board: Paper.

- C. Joint Compound for Interior Gypsum Board: For each coat, use formulation that is compatible with other compounds applied on previous or for successive coats.

1. Embedding and First Coat: For embedding tape and first coat on joints, fasteners, and trim flanges, use drying-type, all-purpose compound.
2. Fill Coat: For second coat, use drying-type, all-purpose compound.
3. Finish Coat: For third coat, use drying-type, all-purpose compound.

2.5 AUXILIARY MATERIALS

- A. Provide auxiliary materials that comply with referenced installation standards and manufacturer's written instructions.

- B. Steel Drill Screws: ASTM C1002 unless otherwise indicated.

1. Use screws complying with ASTM C954 for fastening panels to steel members from 0.033 to 0.112 inch thick.

- C. Acrylic Latex: Acrylic latex or siliconized acrylic latex, ASTM C 834, Type OP, Grade NF, Color White.

1. Products: Subject to compliance with requirements, available products that may be incorporated into the Work include, but are not limited to, the following:
 - a. BASF Construction Chemicals, LLC, Building Systems; Sonolac.
 - b. Pecora Corporation; AC-20.

- c. Tremco Incorporated; Tremflex 834.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine areas and substrates including welded hollow-metal frames and support framing, with Installer present, for compliance with requirements and other conditions affecting performance of the Work.
- B. Examine panels before installation. Reject panels that are wet, moisture damaged, and mold damaged.
- C. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 INSTALLATION AND FINISHING OF PANELS, GENERAL

- A. Comply with ASTM C840.
- B. Install ceiling panels across framing to minimize the number of abutting end joints and to avoid abutting end joints in central area of each ceiling. Stagger abutting end joints of adjacent panels not less than one framing member.
- C. Install panels with face side out. Butt panels together for a light contact at edges and ends with not more than 1/16 inch of open space between panels. Do not force into place.
- D. Locate edge and end joints over supports, except in ceiling applications where intermediate supports or gypsum board back-blocking is provided behind end joints. Do not place tapered edges against cut edges or ends. Stagger vertical joints on opposite sides of partitions. Do not make joints other than control joints at corners of framed openings.
- E. Isolate perimeter of gypsum board applied to non-load-bearing partitions at structural abutments. Provide 1/4- to 1/2-inch-wide spaces at these locations and trim edges with edge trim where edges of panels are exposed. Seal joints between edges and abutting structural surfaces with acoustical sealant.
- F. Attachment to Steel Framing: Attach panels so leading edge or end of each panel is attached to open (unsupported) edges of stud flanges first.

3.3 INSTALLATION OF INTERIOR GYPSUM BOARD

- A. Single-Layer Application:
 - 1. On ceilings, apply gypsum panels before wall/partition board application to greatest extent possible and at right angles to framing unless otherwise indicated.
 - 2. Fastening Methods: Apply gypsum panels to supports with steel drill screws.

3.4 INSTALLATION OF TRIM ACCESSORIES

- A. General: For trim with back flanges intended for fasteners, attach to framing with same fasteners used for panels. Otherwise, attach trim according to manufacturer's written instructions.

- B. Interior Trim: Install in the following locations:
 - 1. Cornerbead: Use at outside corners unless otherwise indicated.
 - 2. L-Bead: Use where corner beads cannot be used.

3.5 FINISHING GYPSUM BOARD

- A. General: Treat gypsum board joints, interior angles, edge trim, control joints, penetrations, fastener heads, surface defects, and elsewhere as required to prepare gypsum board surfaces for decoration. Promptly remove residual joint compound from adjacent surfaces.
- B. Apply joint tape over gypsum board joints, except for trim products specifically indicated as not intended to receive tape.
- C. Gypsum Board Finish Levels: Finish panels to levels indicated below and according to ASTM C840:
 - 1. Level 4: At panel surfaces that will be exposed to view.

3.6 PROTECTION

- A. Protect adjacent surfaces from drywall compound and promptly remove from floors and other non-drywall surfaces. Repair surfaces stained, marred, or otherwise damaged during drywall application.
- B. Protect installed products from damage from weather, condensation, direct sunlight, construction, and other causes during remainder of the construction period.
- C. Remove and replace panels that are wet, moisture damaged, and mold damaged.
 - 1. Indications that panels are wet or moisture damaged include, but are not limited to, discoloration, sagging, or irregular shape.
 - 2. Indications that panels are mold damaged include, but are not limited to, fuzzy or splotchy surface contamination and discoloration.

END OF SECTION

SECTION 095113 - ACOUSTICAL PANEL CEILINGS

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 acoustical panels for interior ceilings.

1.3 ACTION SUBMITTALS

- A. Product Data: For each type of product.
- B. Samples: For each exposed product and for each color and texture specified, 6 inches in size.

1.4 DELIVERY, STORAGE, AND HANDLING

- A. Deliver acoustical panels to Project site and store them in a fully enclosed, conditioned space where they will be protected against damage from moisture, humidity, temperature extremes, direct sunlight, surface contamination, and other causes.
- B. Before installing acoustical panels, permit them to reach room temperature and a stabilized moisture content.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Source Limitations: Obtain each type of acoustical ceiling panel and its supporting suspension system from single source from single manufacturer.

2.2 PERFORMANCE REQUIREMENTS

- A. Surface-Burning Characteristics: Comply with ASTM E 84; testing by a qualified testing agency. Identify products with appropriate markings of applicable testing agency.
 - 1. Flame-Spread Index: Class A according to ASTM E 1264.
 - 2. Smoke-Developed Index: 50 or less.

2.3 ACOUSTICAL PANELS

- A. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to the following:
 - 1. Armstrong World Industries, Inc.; Cortega 2767.
 - 2. Certainteed; SAINT-GOBAIN Baroque Customline BQCLN-224.
 - 3. USG; Radar 2842.

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- B. Acoustical Panel Standard: Provide manufacturer's standard panels according to ASTM E 1264 and designated by type, form, pattern, acoustical rating, and light reflectance unless otherwise indicated.
- C. Classification: Provide panels as follows:
 - 1. Type and Form: Type III, mineral base with painted finish; Form 2, water felted.
 - 2. Pattern: CD (perforated, small holes and fissured) or CE (perforated, small holes and lightly textured), K (surface scored).
- D. Color: White.
- E. Light Reflectance (LR): Not less than 0.80.
- F. Ceiling Attenuation Class (CAC): Not less than 35.
- G. Noise Reduction Coefficient (NRC): Not less than 0.55.
- H. Edge/Joint Detail: Reveal sized to fit flange of exposed suspension-system members.
- I. Thickness: 3/4 inch.
- J. Modular Size: 24 by 48 inches with center score to simulate grid.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine acoustical panels before installation. Reject acoustical panels that are wet, moisture damaged, or mold damaged.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 INSTALLATION

- A. Install acoustical panels with undamaged edges and fit accurately into suspension-system runners and edge moldings. Scribe and cut panels at borders and penetrations to provide precise fit.
 - 1. For reveal-edged panels on suspension-system runners, install panels with bottom of reveal in firm contact with top surface of runner flanges.
 - 2. Paint cut edges of panel remaining exposed after installation; match color of exposed panel surfaces using coating recommended in writing for this purpose by acoustical panel manufacturer.

3.3 CLEANING

- A. Clean exposed surfaces of acoustical panel ceilings. Comply with manufacturer's written instructions for cleaning and touchup of minor finish damage.
- B. Remove and replace ceiling components that cannot be successfully cleaned and repaired to permanently eliminate evidence of damage.

END OF SECTION

SECTION 096513 - RESILIENT BASE AND ACCESSORIES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- A. Section Includes:
 - 1. Thermoplastic-rubber base.
 - 2. Vinyl molding accessories.

1.3 ACTION SUBMITTALS

- A. Product Data: For each type of product.

1.4 QUALITY ASSURANCE

- A. Source Limitations: Obtain each type and color of product specified from one source with resources to provide products of consistent quality in appearance and physical properties without delaying the Work.

1.5 DELIVERY, STORAGE, AND HANDLING

- A. Store resilient products and installation materials in dry spaces protected from the weather, with ambient temperatures maintained within range recommended by manufacturer, but not less than 50 deg F or more than 90 deg F.

1.6 FIELD CONDITIONS

- A. Maintain ambient temperatures within range recommended by manufacturer, but not less than 70 deg F or more than 95 deg F, in spaces to receive resilient products during the following periods:
 - 1. 48 hours before installation.
 - 2. During installation.
 - 3. 48 hours after installation.
- B. After installation and until Substantial Completion, maintain ambient temperatures within range recommended by manufacturer, but not less than 55 deg F or more than 95 deg F.
- C. Install resilient products after other finishing operations, including painting, have been completed.

1.7 WARRANTY

- A. Special Warranty: Manufacturer agrees to repair or replace resilient base and accessories that do not comply with requirements or that fail in materials within specified warranty period.
 - 1. Warranty Period: Two years from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 THERMOPLASTIC-RUBBER BASE

- A. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to the following:
 - 1. Armstrong Flooring, Inc.
 - 2. Armstrong World Industries, Inc.
 - 3. Johnsonite; a Tarkett company.
 - 4. Roppe Corporation.
- B. Product Standard: ASTM F 1861, Type TP (rubber, thermoplastic).
 - 1. Group: II (layered).
 - 2. Style: Style B, Cove.
- C. Thickness: 0.125 inch.
- D. Height: 4 inches.
- E. Lengths: Cut lengths 48 inches long.
- F. Outside Corners: Job formed.
- G. Inside Corners: Job formed.
- H. Colors: As selected from manufacturers full color line.

2.2 VINYL MOLDING ACCESSORY

- A. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to the following:
 - 1. Armstrong World Industries, Inc.
 - 2. Johnsonite; a Tarkett company.
 - 3. Roppe Corporation.
- B. Description: Vinyl stair-tread nosing and reducer strip for resilient floor covering.
- C. Profile and Dimensions: As indicated below.
 - 1. Resilient Flooring Reducer; Roppe 172.
 - 2. Stair Nosing; Roppe 204.
- D. Colors: Black.

2.3 INSTALLATION MATERIALS

- A. Adhesives: Water-resistant type recommended by resilient-product manufacturer for resilient products and substrate conditions indicated.
 - 1. Verify adhesives have a VOC content of 50 g/L or less.
- B. Stair-Tread Nose Filler: Two-part epoxy compound recommended by resilient stair-tread manufacturer to fill nosing substrates that do not conform to tread contours.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine substrates, with Installer present, for compliance with requirements for maximum moisture content and other conditions affecting performance of the Work.
 - 1. Verify that finishes of substrates comply with tolerances and other requirements specified in other Sections and that substrates are free of cracks, ridges, depressions, scale, and foreign deposits that might interfere with adhesion of resilient products.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.
 - 1. Installation of resilient products indicates acceptance of surfaces and conditions.

3.2 PREPARATION

- A. Prepare substrates according to manufacturer's written instructions to ensure adhesion of resilient products.
- B. Fill cracks, holes, and depressions in substrates with trowelable leveling and patching compound; remove bumps and ridges to produce a uniform and smooth substrate.
- C. Do not install resilient products until materials are the same temperature as space where they are to be installed.
 - 1. At least 48 hours in advance of installation, move resilient products and installation materials into spaces where they will be installed.
- D. Immediately before installation, sweep and vacuum clean substrates to be covered by resilient products.

3.3 RESILIENT BASE INSTALLATION

- A. Comply with manufacturer's written instructions for installing resilient base.
- B. Apply resilient base to walls, columns, pilasters, casework and cabinets in toe spaces, and other permanent fixtures in rooms and areas where base is required.
- C. Install resilient base in lengths as long as practical without gaps at seams and with tops of adjacent pieces aligned.
- D. Tightly adhere resilient base to substrate throughout length of each piece, with base in continuous contact with horizontal and vertical substrates.
- E. Do not stretch resilient base during installation.

F. Job-Formed Corners:

1. Outside Corners: Use straight pieces of maximum lengths possible and form with returns not less than 3 inches in length.
 - a. Form without producing discoloration (whitening) at bends. Shave back of base vertically at fold point and at two diagonal additional stress relief gouges on the vertical surface, approximately 1/2-inch long, 1-inch from the center gouge.
2. Inside Corners: Use straight pieces of maximum lengths possible and form with returns not less than 3 inches in length.
 - a. Miter or cope corners to minimize open joints.

3.4 RESILIENT ACCESSORY INSTALLATION

- A. Comply with manufacturer's written instructions for installing resilient accessories.
- B. Resilient Stair Accessories:
 1. Use stair-tread-nose filler to fill nosing substrates that do not conform to tread contours.
 2. Tightly adhere to substrates throughout length of each piece.
- C. Resilient Molding Accessories: Butt to adjacent materials and tightly adhere to substrates throughout length of each piece. Install reducer strips at edges of floor covering that would otherwise be exposed.

3.5 CLEANING AND PROTECTION

- A. Comply with manufacturer's written instructions for cleaning and protecting resilient products.
- B. Perform the following operations immediately after completing resilient-product installation:
 1. Remove adhesive and other blemishes from surfaces.
 2. Sweep and vacuum horizontal surfaces thoroughly.
 3. Damp-mop horizontal surfaces to remove marks and soil.
- C. Protect resilient products from mars, marks, indentations, and other damage from construction operations and placement of equipment and fixtures during remainder of construction period.
- D. Cover resilient products subject to wear and foot traffic until Substantial Completion.

END OF SECTION

SECTION 096519 - RESILIENT TILE FLOORING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- A. Section Includes:
 - 1. Vinyl composition floor tile.

1.3 ACTION SUBMITTALS

- A. Product Data: For each type of product.

1.4 QUALITY ASSURANCE

- A. Installer Qualifications: An entity that employs installers and supervisors who are competent in techniques required by manufacturer for floor tile installation and seaming method indicated.
 - 1. Engage an installer who employs workers for this Project who are trained or certified by floor tile manufacturer for installation techniques required.
- B. Source Limitations: Obtain each type, color, and pattern of product specified from one source with resources to provide products of consistent quality in appearance and physical properties without delaying the Work.

1.5 DELIVERY, STORAGE, AND HANDLING

- A. Deliver products to Project site in manufacturer's original, unopened cartons and containers, each bearing names of product and manufacturer, Project identification, and shipping and handling instructions.
- B. Store floor tile and installation materials in dry spaces protected from the weather, with ambient temperatures maintained within range recommended by manufacturer, but not less than 50 deg F or more than 90 deg F. Store floor tiles on flat surfaces.

1.6 FIELD CONDITIONS

- A. Maintain ambient temperatures within range recommended by manufacturer, but not less than 70 deg F or more than 95 deg F, in spaces to receive floor tile during the following periods:
 - 1. 48 hours before installation.
 - 2. During installation.
 - 3. 48 hours after installation.
- B. After installation and until Substantial Completion, maintain ambient temperatures within range recommended by manufacturer, but not less than 55 deg F or more than 95 deg F.
- C. Close spaces to traffic during floor tile installation.

- D. Close spaces to traffic for 48 hours after floor tile installation.
- E. Install floor tile after other finishing operations, including painting, have been completed.

1.7 WARRANTY

- A. Special Warranty: Manufacturer agrees to repair or replace resilient flooring that do not comply with requirements or that fail in materials within specified warranty period.
 - 1. Warranty Period: Five years from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

- A. Fire-Test-Response Characteristics: For resilient floor tile, as determined by testing identical products according to ASTM E 648 or NFPA 253 by a qualified testing agency.
 - 1. Critical Radiant Flux Classification: Class I, not less than 0.45 W/sq. cm.

2.2 VINYL COMPOSITION FLOOR TILE

- A. Products: Subject to compliance with requirements, available products that may be incorporated into the Work include, but are not limited to, the following:
 - 1. Armstrong World Industries, Inc; Standard Excelon.
 - 2. Congoleum; Alternatives: Vinyl Composition Tile.
 - 3. Tarkett North America, VCT II.
- B. Tile Standard: ASTM F 1066, Class 2, through pattern.
- C. Wearing Surface: Smooth.
- D. Thickness: 0.125 inch.
- E. Size: 12 by 12 inches.
- F. Colors and Patterns: Armstrong 51860 Soft Colol Gray or Tarkett 1324 Cool Gray.

2.3 INSTALLATION MATERIALS

- A. Trowelable Leveling and Patching Compounds: Latex-modified, portland-cement-based or blended hydraulic-cement-based formulation provided or approved by floor tile manufacturer for applications indicated.
- B. Adhesives: Water-resistant type recommended by floor tile and adhesive manufacturers to suit floor tile and substrate conditions indicated.
 - 1. Verify adhesives have a VOC content of 50 g/L or less.
- C. Floor Polish: Provide protective, liquid floor-polish products recommended by floor tile manufacturer.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine substrates, with Installer present, for compliance with requirements for maximum moisture content and other conditions affecting performance of the Work.
 - 1. Verify that finishes of substrates comply with tolerances and other requirements specified in other Sections and that substrates are free of cracks, ridges, depressions, scale, and foreign deposits that might interfere with adhesion of floor tile.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

- A. Prepare substrates according to floor tile manufacturer's written instructions to ensure adhesion of resilient products.
- B. Concrete Substrates: Prepare according to ASTM F 710.
 - 1. Verify that substrates are dry and free of curing compounds, sealers, and hardeners.
 - 2. Remove substrate coatings and other substances that are incompatible with adhesives and that contain soap, wax, oil, or silicone, using mechanical methods recommended by floor tile manufacturer. Do not use solvents.
- C. Existing Tile Substrates:
 - 1. Strip flooring of wax.
 - 2. Revive loose and curled tiles.
 - 3. Sand tile to provide a tooth for adhesive per manufacturer's recommendations.
- D. Fill cracks, holes, and depressions in substrates with trowelable leveling and patching compound; remove bumps and ridges to produce a uniform and smooth substrate.
- E. Do not install floor tiles until materials are the same temperature as space where they are to be installed.
 - 1. At least 48 hours in advance of installation, move resilient floor tile and installation materials into spaces where they will be installed.
- F. Immediately before installation, sweep and vacuum clean substrates to be covered by resilient floor tile.

3.3 FLOOR TILE INSTALLATION

- A. Comply with manufacturer's written instructions for installing floor tile.
- B. Lay out floor tiles from center marks established with principal walls, discounting minor offsets, so tiles at opposite edges of room are of equal width. Adjust as necessary to avoid using cut widths that equal less than one-half tile at perimeter.
 - 1. Lay tiles square with room axis.

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- C. Match floor tiles for color and pattern by selecting tiles from cartons in the same sequence as manufactured and packaged, if so numbered. Discard broken, cracked, chipped, or deformed tiles.
 - 1. Lay tiles with grain direction alternating in adjacent tiles (basket-weave pattern).
- D. Scribe, cut, and fit floor tiles to butt neatly and tightly to vertical surfaces and permanent fixtures including built-in furniture, cabinets, pipes, outlets, and door frames.
- E. Extend floor tiles into toe spaces, door reveals, closets, and similar openings. Extend floor tiles to center of door openings.
- F. Center transitions under doors.
- G. Adhere floor tiles to substrates using a full spread of adhesive applied to substrate to produce a completed installation without open cracks, voids, raising and puckering at joints, telegraphing of adhesive spreader marks, and other surface imperfections.

3.4 CLEANING AND PROTECTION

- A. Comply with manufacturer's written instructions for cleaning and protecting floor tile.
- B. Perform the following operations immediately after completing floor tile installation:
 - 1. Remove adhesive and other blemishes from surfaces.
 - 2. Sweep and vacuum surfaces thoroughly.
 - 3. Damp-mop surfaces to remove marks and soil.
- C. Protect floor tile from mars, marks, indentations, and other damage from construction operations and placement of equipment and fixtures during remainder of construction period.
- D. Floor Polish: Remove soil, adhesive, and blemishes from floor tile surfaces before applying liquid floor polish.
 - 1. Apply two coat(s).

END OF SECTION

SECTION 099000 - 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. This Section includes surface preparation and field painting of exposed interior items and surfaces specifically scheduled for painting in the Drawings.
- B. Paint new or altered exposed surfaces, except where these Specifications indicate that the surface or material is not to be painted or is to remain natural. If an item or a surface is not specifically mentioned, paint the item or surface the same as similar adjacent materials or surfaces. If a color of finish is not indicated, Architect will select from standard colors and finishes available.
 - 1. Painting includes field painting of exposed electrical conduits, junction boxes, and insulated piping exposed to occupied rooms installed as part of this Work.
- C. Do not paint prefinished items, concealed surfaces, finished metal surfaces, operating parts, labels.
 - 1. Prefinished items including, but not limited to, the following factory-finished components:
 - a. Architectural woodwork.
 - b. Finished mechanical and electrical equipment.
 - c. Light fixtures.
 - 2. Concealed surfaces including, but not limited to, walls or ceilings in the following generally inaccessible spaces:
 - a. Furred areas.
 - b. Ceiling plenums.
 - c. Pipe spaces.
 - 3. Finished metal surfaces including, but not limited to, the following:
 - a. Anodized aluminum.
 - b. Stainless steel.
 - c. Chromium plate.
 - 4. Labels: Do not paint over UL, FMG, or other code-required labels or equipment name, identification, performance rating, or nomenclature plates.

1.3 DEFINITIONS

- A. General: Standard coating terms defined in ASTM D 16 apply to this Section.
 - 1. Flat refers to a lusterless or matte finish with a gloss range below 15 when measured at an 85-degree meter.
 - 2. Eggshell refers to low-sheen finish with a gloss range between 20 and 35 when measured at a 60-degree meter.
 - 3. Semigloss refers to medium-sheen finish with a gloss range between 35 and 70 when measured at a 60-degree meter.
 - 4. Full gloss refers to high-sheen finish with a gloss range more than 70 when measured at a 60-degree meter.

1.4 ACTION SUBMITTALS

- A. Product Data: For each type of product. Include preparation requirements and application instructions.
- B. Product List: For each product indicated, include the following:
 - 1. Cross-reference to paint system and locations of application areas. Use same designations indicated on Drawings and in schedules.
 - 2. VOC content.

1.5 QUALITY ASSURANCE

- A. Applicator Qualifications: A firm or individual experienced in applying paints and coatings similar in material, design, and extent to those indicated for this Project, whose work has resulted in applications with a record of successful in-service performance.
- B. Source Limitations: Obtain primers for each coating system from the same manufacturer as the finish coats.

1.6 DELIVERY, STORAGE, AND HANDLING

- A. Deliver materials to Project site in manufacturer's original, unopened packages and containers bearing manufacturer's name and label.
- 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.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
 - 1. PPG Industries, Inc. (Pittsburgh Paints).

2. Rhodda Paint Co.
 3. Sherwin-Williams Co. (Sherwin-Williams).
- B. Products: Subject to compliance with requirements, available products that may be incorporated into the Work include, but are not limited to products listed in other Part 2 articles for the paint category indicated.

2.2 PAINT MATERIALS, 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. Material Quality: Provide manufacturer's best-quality paint material of the various coating types specified that are factory formulated and recommended by manufacturer for application indicated. Paint-material containers not displaying manufacturer's product identification will not be acceptable.
1. Proprietary Names: Use of manufacturer's proprietary product names to designate colors or materials is not intended to imply that products named are required to be used to the exclusion of equivalent products of other manufacturers. Furnish manufacturer's material data and certificates of performance for proposed substitutions.
- A. VOC Content: Products shall comply with VOC limits not exceeding the following:
1. Nonflat Paints and Coatings: 150 g/L.
 2. Primers, Sealers, and Undercoaters: 200 g/L.
- B. Colors: Match existing.

2.3 INTERIOR PRIMERS

- A. Interior Gypsum Board Primer: Factory-formulated latex-based primer for interior application.
1. Pittsburgh Paints; 6-2 SpeedHide Interior Quick-Drying Latex Sealer: Applied at a dry film thickness of not less than 1.0 mil.
 2. Rodda; 50701 Roseal Gypsum Primer: Applied at a dry film thickness of not less than 1.5 mils
 3. Sherwin-Williams; ProMar 200 Zero VOC Interior Latex Primer B28W02600 Series: Applied at a dry film thickness of not less than 1.0 mils.
- B. Interior Ferrous-Metal Primer: Factory-formulated quick-drying rust-inhibitive alkyd-based metal primer.
1. Pittsburgh Paints; 6-208 SpeedHide: Applied at a dry film thickness of not less than 1.5 mils.
 2. Rodda; 70323 EcoLogic Primer: Applied at a dry film thickness of not less than 1.5 mils

3. Sherwin-Williams; Pro Industrial Pro-Cryl Universal Primer B66W00310: Applied at a dry film thickness of not less than 1.8 mils.

2.4 INTERIOR FINISH COATS

- A. Interior Low-Luster Acrylic Enamel: Factory-formulated eggshell acrylic-latex interior enamel.
 1. Pittsburgh Paints; 6-411 Series SpeedHide Eggshell Acrylic Latex Enamel: Applied at a dry film thickness of not less than 1.25 mils.
 2. Rodda; 533001 Lasyn Eggshell Finish Wall Paint: Applied at a dry film thickness of not less than 1.5 mils
 3. Sherwin-Williams; ProMar 200 Interior Latex Egg-Shell Enamel B20W200 Series: Applied at a dry film thickness of not less than 1.6 mils.
- B. Interior Semigloss Acrylic Enamel: Factory-formulated semigloss acrylic-latex enamel for interior application.
 1. Pittsburgh Paints; 6-500 Series SpeedHide Interior Semi-Gloss Latex: Applied at a dry film thickness of not less than 1.0 mil.
 2. Rodda; 543101 Master Painter Int. Latex Semi-Gloss Enamel: Applied at a dry film thickness of not less than 1.5 mils
 3. Sherwin-Williams; ProMar 200 Latex Semi-Gloss, B31 Series: B31W200 Series: Applied at a dry film thickness of not less than 1.3 mils.
- C. Interior Semigloss Water-Borne Epoxy: Factory-formulated Low-VOC, semigloss acrylic epoxy for interior application.
 1. Pittsburgh Paints; 16-510 Series PITT-GLAZE WB-1 Interior Semi-Gloss Pre-Catalyzed Water-Borne Acrylic Epoxy: Applied at a dry film thickness of not less than 1.5 mil.
 2. Rhodda; 4490 Series Protech - Pre-Catalyzed Epoxy: Applied at a dry film thickness of not less than 1.4 mil
 3. Sherwin-Williams; Pro Industrial Water Based Catalyzed Semi-Gloss Epoxy: B73-300 Series: Applied at a dry film thickness of not less than 2.0 mils.

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.
- B. Maximum Moisture Content of Substrates: When measured with an electronic moisture meter as follows:
 1. Gypsum Board: 12 percent.
- C. Gypsum Board Substrates: Verify that finishing compound is sanded smooth.
- D. Verify suitability of substrates, including surface conditions and compatibility with existing finishes and primers.

- E. Proceed with coating application only after unsatisfactory conditions have been corrected.
 - 1. Application of coating indicates acceptance of surfaces and conditions.

3.2 PREPARATION

- A. General: 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.
- B. Clean substrates of substances that could impair bond of paints, including dust, dirt, oil, grease, and incompatible paints and encapsulants.
 - 1. Remove incompatible primers and reprime substrate with compatible primers or apply tie coat as required to produce paint systems indicated.
- C. Surface Preparation: Clean and prepare surfaces to be painted according to manufacturer's written instructions for each particular substrate condition and as specified.
 - 1. Provide barrier coats over incompatible primers or remove and reprime.
 - 2. Sand prepainted metal surfaces to remove sheen and provide a tooth for new coating.
- D. Masonry Substrates: Remove efflorescence and chalk. Do not paint surfaces if moisture content or alkalinity of surfaces or mortar joints exceeds that permitted in manufacturer's written instructions.
- E. Steel Substrates: Remove rust, loose mill scale, and shop primer if any. Clean using methods recommended in writing by paint manufacturer.

3.3 APPLICATION

- A. General: Apply paint according to manufacturer's written instructions.
 - 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.
 - 3. Do not paint over labels of independent testing agencies or equipment name, identification, performance rating, or nomenclature plates.
 - 4. Primers specified in painting schedules may be omitted on items that are factory primed or factory finished if acceptable to topcoat manufacturers.
- 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.

- D. Mechanical and Electrical Work: Painting of new mechanical and electrical work is limited to items exposed in occupied spaces, except in mechanical equipment rooms, and electrical rooms.
- E. Prime Coats: Before applying finish coats, apply a prime coat, as recommended by manufacturer, to material that is required to be painted or finished and that has not been prime coated by others. Recoat primed and sealed surfaces where evidence of suction spots or unsealed areas in first coat appears, to ensure a finish coat with no burn-through or other defects due to insufficient sealing.
- F. Pigmented (Opaque) Finishes: Completely cover surfaces as necessary to provide a smooth, opaque surface of uniform finish, color, appearance, and coverage. Cloudiness, spotting, holidays, laps, brush marks, runs, sags, ropiness, or other surface imperfections will not be acceptable.
- G. Completed Work: Match existing for color and texture. Remove, refinish, or repaint work not complying with requirements.

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 INTERIOR PAINT SCHEDULE

- A. Concrete Unit Masonry: Provide the following finish systems over interior concrete masonry:
 - 1. Semigloss Acrylic-Enamel Finish: Two finish coats.
 - a. Finish Coats: Interior semigloss acrylic enamel.
 - b. Locations: All rooms except Toilet Rooms.
 - 2. Semigloss Water-Borne Epoxy Finish: Two finish coats.
 - a. Finish Coats: Interior semigloss water-borne epoxy.
 - b. Locations: Toilet Rooms.
- B. Gypsum Board: Provide the following finish systems over interior gypsum board surfaces:
 - 1. Low-Luster Acrylic-Enamel Finish: Two finish coats over a primer.
 - a. Primer: Interior gypsum board primer.
 - b. Finish Coats: Interior low-luster acrylic enamel.

- C. Ferrous Metal: Provide the following finish systems over ferrous metal:
1. Semigloss Water-borne Epoxy Finish: Two finish coats over a primer.
 - a. Primer: Interior ferrous-metal primer.
 - b. Finish Coats: Interior semi-gloss water-borne epoxy.

END OF SECTION

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SECTION 123661.16 - SOLID SURFACING COUNTERTOPS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- A. Section Includes:
 - 1. Solid surface material countertops.
 - 2. Countertop support brackets.

1.3 ACTION SUBMITTALS

- A. Product Data: For countertop materials.
- B. Shop Drawings: For countertops. Show materials, finishes, edge and backsplash profiles, methods of joining.
- C. Samples for Verification: For the following products:
 - 1. Countertop material, 6 inches square.

1.4 QUALITY ASSURANCE

- A. Fabricator Qualifications: Shop that employs skilled workers who custom-fabricate countertops similar to that required for this Project, and whose products have a record of successful in-service performance.
- B. Installer Qualifications: Fabricator of countertops.

1.5 FIELD CONDITIONS

- A. Field Measurements: Verify dimensions of countertops by field measurements before countertop fabrication is complete.

PART 2 - PRODUCTS

2.1 SOLID SURFACE COUNTERTOP MATERIALS

- A. Solid Surface Material: Homogeneous-filled plastic resin complying with ICPA SS-1.
 - 1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to the following:
 - a. Avonite Surfaces; a Brand of Aristech Surfaces LLC.; F1-9010 Stormy Gray
 - b. Formica Corporation; 212 Silverado.
 - c. Wilsonart LLC.; 9194TM Steel Grey Tempest

2. Type: Provide Standard type unless Special Purpose type is indicated.
 3. Colors and Patterns: As indicated by manufacturer's designations.
- B. Plywood: Exterior softwood plywood complying with DOC PS 1, Grade C-C Plugged, touch sanded.

2.2 COUNTERTOP ACCESSORIES

- A. Countertop Support Brackets: Bracket with 0.25 inch thick, 2 inch wide legs and curved gusset made from 0.179 inch thick Type 304 stainless steel, equal length legs sized to fit within 4-inches of the countertop edge.
1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
 - a. Ekena Millwork; BKTMO2X20X20LESS.
 - b. Federal Brace; Arrowwood.
 - c. Outwater Plastics, Industries Inc; CSBCA Series.
- B. Ledgers and Blocking: Dimension lumber conforming to DOC PS 20.
- C. Grommets for Cable Passage through Countertops: 2-inch OD, gray, molded-plastic grommets and matching plastic caps with slot for wire passage.

2.3 COUNTERTOP FABRICATION

- A. Fabricate countertops according to solid surface material manufacturer's written instructions and to the AWI/AWMAC/WI's "Architectural Woodwork Standards."
1. Grade: Custom.
- B. Configuration:
1. Front: Radius edge with apron, 2 inches high with 3/8-inch radius.
 2. Backsplash: Straight, slightly eased at corner.
 3. End Splash: None.
- C. Countertops: 1/2-inch- thick, solid surface material with front edge built up with same material.
- D. Backsplashes: 1/2-inch- thick, solid surface material.
- E. Fabricate tops with shop-applied edges unless otherwise indicated. Comply with solid surface material manufacturer's written instructions for adhesives, sealers, fabrication, and finishing.
1. Fabricate with loose backsplashes for field assembly.
 2. Install integral sink bowls in countertops in the shop.
- F. Joints: Fabricate countertops in sections for joining in field.
1. Joint Locations: Not within 18 inches of a sink or cooktop and not where a countertop section less than 36 inches long would result, unless unavoidable.

2. Splined Joints: Accurately cut kerfs in edges at joints for insertion of metal splines to maintain alignment of surfaces at joints. Make width of cuts slightly more than thickness of splines to provide snug fit. Provide at least three splines in each joint.

2.4 INSTALLATION MATERIALS

- A. Ledgers and Blocking: Dimension lumber conforming to DOC PS 20.
- B. Adhesive: Product recommended by solid surface material manufacturer.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine substrates to receive solid surface material countertops and conditions under which countertops will be installed, with Installer present, for compliance with requirements for installation tolerances and other conditions affecting performance of countertops.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 INSTALLATION

- A. Install countertops level to a tolerance of 1/8 inch in 8 feet, 1/4 inch maximum. Do not exceed 1/64-inch difference between planes of adjacent units.
- B. Fasten countertops by screwing through corner blocks of base units into underside of countertop. Predrill holes for screws as recommended by manufacturer. Align adjacent surfaces and, using adhesive in color to match countertop, form seams to comply with manufacturer's written instructions. Carefully dress joints smooth, remove surface scratches, and clean entire surface.
- C. Bond joints with adhesive and draw tight as countertops are set. Mask areas of countertops adjacent to joints to prevent adhesive smears.
 1. Install metal splines in kerfs in countertop edges at joints. Fill kerfs with adhesive before inserting splines and remove excess immediately after adjoining units are drawn into position.
 2. Clamp units to temporary bracing, supports, or each other to ensure that countertops are properly aligned and joints are of specified width.
- D. Install backsplashes by adhering to wall and countertops with adhesive. Mask areas of countertops and splashes adjacent to joints to prevent adhesive smears.

END OF SECTION

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SECTION 260500 – COMMON WORK RESULTS FOR ELECTRICAL

PART 1 - GENERAL

1.1 SECTION INCLUDES

- A. General Requirements specifically applicable to Division 26, in addition to Division 01 provisions.

1.2 WORK SEQUENCE

- A. Construct Work in sequence under provisions of Division 01.

1.3 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/Engineer prior to proceeding.

1.4 REFERENCES

- A. ANSI/NFPA 70 - National Electrical Code, latest adopted edition including all state and local amendments.
- B. NECA - Standard of Installation.

1.5 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.

1.6 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, bound in hard cover,

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loose-leaf binders separate from work furnished under other divisions. Index and clearly identify all material and equipment by item, name or designation used on drawings and in specifications.

2. 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 diagrams and controls; component parts; finishes; dimensions; and required clearances.
3. 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.
4. 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.
5. Coordinate submittals with requirements of work and of Contract Documents.
6. Sign or initial each sheet of shop drawings and product data, and each sample label to certify compliance with requirements of Contract Documents. Notify Owner/Engineer in writing at time of submittal, of any deviations from requirements of Contract Documents.
7. Electronic submittals in PDF format are acceptable. All indexing and identification requirements hold for organization of submittals.
8. Do not fabricate products or begin work which requires submittals until return of submittal with Engineer acceptance.
9. 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.
10. Submittals for Division 26 shall be complete and submitted at one time. Unless given prior approval, partial submittals will be returned unreviewed.

1.7 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.

1.8 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.

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- B. Manuals shall be hard cover, loose-leaf binders with pages reinforced to prevent pullout and 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. After approval, provide five corrected approved copies, unless directed otherwise by the Owner. Initial submittal for approval may be electronic.
- 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. Touchscreen Security System
 - b. Programmable Controller
 - c. Low-Voltage Switching System
 - d. Detention Intercom System
 - e. 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) Touchscreen computer
 - b) Programmable controllers
 - c) Relay switching system
 - d) Detention intercom system
 - 2) Provide instructions for minor repair or adjustments required for preventive maintenance routines, limited to repairs and adjustments which may be

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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.

1.9 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 light intensities, 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.

1.10 INSTRUCTION OF OPERATING PERSONNEL

- A. In accordance with the requirements of Division 01, this section, and other Division 26 sections, 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
Intercom/Security/PLC system	As specified in 284000

1.11 EXTRA MATERIALS

- A. As specified in other Division 26 sections.

1.12 WARRANTY AND MAINTENANCE CONTRACT

- A. Warrant all materials and equipment to be new and free from defects in material and workmanship for a period of one year under provisions of Division 01.
- B. Copies of manufacturer product warranties for all equipment shall be included in the operation and installation manuals.
- C. Provide a maintenance contract to maintain the security system for one year from the date of substantial completion for the project. At the end of one year, the Owner shall have the option of extending or canceling the contract.

1.13 ELECTRICAL REFERENCE SYMBOLS

- A. 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.

1.14 ELECTRICAL DRAWINGS

- A. Drawings are diagrammatic and 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. Field verification of dimensions, locations and levels is directed.

1.15 DEFINITIONS

- A. "BASIS OF DESIGN" - Particular specialized products around which a system was designed. In such cases, the products specified may be critical with regard to physical sizes and performance characteristics. Where variations or substitutions to products are made, the Contractor is solely responsible for resolving all impacts of such a deviation. Approval of a substitution and/or variation request does not relieve the Contractor of responsibility for complying with the design intent.
- B. "EQUAL" - A product, system or installation which:
 - 1. Meets or exceeds all ratings, performance characteristics, standard features and denoted options of specified item.
 - 2. Includes primary characteristics identified in the drawings and specifications.
 - 3. Complies with requirements similar to the "Basis of Design."
 - 4. Is produced by a manufacturer specifically listed as an acceptable manufacturer on the drawings, or in the specifications.
 - 5. Is acceptable and approved to the Engineer specifically addressed in writing.
- C. "EXPOSED" - Exposed to view after construction is completed.
- D. "FURNISH" - Purchase materials as shown and specified. Deliver to project site at location shown to be installed by supporting crafts.
- E. "INSTALL" - Set in place and connect equipment furnished by others for a complete and ready to use installation.

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- F. "PRODUCT" - Term which includes materials, equipment, fixtures, devices for any tangible item used on the project.
- G. "PROVIDE" - Furnish all products, equipment, subcontracts, labor, testing, etc., required and install for a complete ready to use installation.
- H. "SHOP DRAWING" - Detailed, dimensioned working construction drawing drawn to a particular scale adequately showing installation intent, details and coordination of interrelated trades.
- I. "SUBSTITUTION" - A product, system or installation which is not listed as an acceptable manufacturer, but the Contractor warrants meets or exceeds specified equipment denoted in the contract documents. Approval through submittal process is required to establish product or system is "equal".
- J. "WIRING" - Electrical conductors, raceway, devices, connections and associated accessories, or any combination of labor and material thereof in order to provide a complete and operable system.

PART 2 - PRODUCTS

2.1 MATERIALS AND EQUIPMENT

- A. All Materials and Equipment shall be new and shall be listed by Underwriter's Laboratories or equivalent third party listing agency for the use intended.
- B. Materials and Equipment shall be acceptable to the authority having jurisdiction as suitable for the use intended when installed per listing and labeling instructions.
- C. 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.
- D. 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

3.1 WORKMANSHIP

- A. Install Work using procedures defined in NECA Standard of Installation and/or the manufacturer's installation instructions.

3.2 TESTS

- A. Notify Contracting Officer at least 72 hours prior to conducting any tests.
- B. Perform additional tests required under other sections of these specifications.
- C. Perform all tests in the presence of the Owner's authorized representative.

3.3 PENETRATIONS OF FIRE BARRIERS

- A. 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.
- B. 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.
- C. The rating of the fire stops shall be the same as the time-rated floor, wall or ceiling assembly.
- D. Install fire stopping materials in accordance with the manufacturer's instructions.

END OF SECTION

SECTION 260505 – SELECTIVE DEMOLITION FOR ELECTRICAL

PART 1 - GENERAL

1.1 SECTION INCLUDES

- A. Electrical demolition.

1.2 RELATED SECTIONS

- A. Division 01 - Alteration Project Procedures.

PART 2 - PRODUCTS

2.1 MATERIALS AND EQUIPMENT

- A. Materials and equipment for patching and extending work: As specified in individual Sections.

PART 3 - EXECUTION

3.1 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 casual field observation and existing record documents. Report discrepancies to Owner/Engineer before disturbing existing installation.
- D. Beginning of demolition means installer accepts existing conditions.

3.2 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.

3.3 DEMOLITION AND EXTENSION OF EXISTING ELECTRICAL WORK

- A. Demolish and extend existing electrical work under provisions of Division 01 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. Remove exposed abandoned wire and cable, including abandoned wire and cable above accessible ceiling finishes. Patch and paint surfaces where removed cables pass through building finishes that are existing to remain.

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- 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.

3.4 CLEANING AND REPAIR

- A. Clean and repair existing materials and equipment which remain or are to be reused.

3.5 INSTALLATION

- A. Install relocated materials and equipment under the provisions of Division 01.

END OF SECTION

SECTION 260519 – LOW-VOLTAGE ELECTRICAL POWER CONDUCTORS AND CABLES

PART 1 - GENERAL

1.1 SECTION INCLUDES

- A. Building wire.
- B. Cable.
- C. Wiring connections and terminations.

1.2 REFERENCES

- A. ANSI/NEMA WC 70-2009 – Power Cables Rated 2000 Volts or Less for the Distribution of Electrical Energy.

PART 2 - PRODUCTS

2.1 BUILDING WIRE

- A. Thermoplastic-insulated Building Wire: NEMA WC 70.
- B. Branch Circuits 10 AWG and Smaller: Solid or stranded copper conductor, 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. When two or more neutrals are installed in one conduit, identify each with the proper circuit number in accordance with Section 260553.
 - 4. Grounding conductors 10 AWG and smaller shall have green colored insulation.
- D. Control Circuits: Copper, stranded conductor 600 volt insulation, XHHW-2.

2.2 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, unshielded 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, unshielded and covered with a nonmetallic jacket; UL listed for use in air handling ducts, hollow spaces used as ducts, and plenums.

2.3 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.

PART 3 - EXECUTION

3.1 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. Do not share neutral conductors. Provide a dedicated neutral conductor for each branch circuit that requires a neutral.

3.2 WIRING INSTALLATION IN RACEWAYS

- A. Pull all conductors into a raceway at the same time.
- B. 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.
- C. 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.
- D. Completely and thoroughly swab raceway system before installing conductors.

3.3 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.

3.4 WIRING CONNECTIONS AND TERMINATIONS

- A. Splice only in accessible junction boxes.
- B. Thoroughly clean wires before installing lugs and connectors.

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- C. Make splices, taps and terminations to carry full ampacity of conductors without perceptible temperature rise.
- D. Terminate spare conductors with wire nuts.
- E. Do not exceed manufacturer's recommended pull tensions.

3.5 FIELD QUALITY CONTROL

- A. Field inspection and testing will be performed under provisions of Division 01.
- B. Inspect wire and cable for physical damage and proper connection.
- C. Perform continuity test on all power and equipment branch circuit conductors. Verify proper phasing connections.

3.6 WIRE AND CABLE INSTALLATION SCHEDULE

- A. All Locations: Building wire and/or remote control and signal cable in conduit.

END OF SECTION

SECTION 260529 – HANGERS AND SUPPORTS FOR ELECTRICAL SYSTEMS

PART 1 - GENERAL

1.1 SECTION INCLUDES

- A. Conduit and equipment supports.
- B. Fastening hardware.

1.2 REFERENCES

- A. International Building Code (IBC), Chapter 16 – Structural Design.

1.3 SUBMITTALS

- A. Submit shop drawings under the provisions of Division 01.
- B. Provide structurally engineered shop drawings for seismic restraint of all electrical equipment required by the International Building Code (IBC), Chapters 16, 17, and the Authority Having Jurisdiction. Structural design shall be based on the Seismic Use Category and Seismic Design Category as designated in these chapters.
- C. Shop drawings shall be stamped by a professional engineer registered in the State of Alaska.

1.4 QUALITY ASSURANCE

- A. Support systems shall be adequate for weight of equipment and conduit, including wiring, which they carry.

PART 2 - PRODUCTS

2.1 CONDUIT SUPPORTS

- A. Hanger Rods: Threaded high tensile strength galvanized carbon steel with free running threads.
- B. Beam Clamps: Malleable Iron, with tapered hole in base and back to accept either bolt or hanger rod. Set screw: hardened steel.
- C. Conduit clamps for trapeze hangers: Galvanized steel, notched to fit trapeze with single bolt to tighten.
- D. Conduit clamps - general purpose: As specified in Section 260533.

2.2 FORMED STEEL CHANNEL

- A. U-Channel Strut: 12-gauge steel.
- B. Dry Interior Areas: Zinc or Cadmium-plated.

2.3 SPRING STEEL CLIPS

- A. "Caddy" spring steel electrical support systems, suitable and listed for use for intended application.
- B. Provide only where concealed in walls or above ceilings.

2.4 SEISMIC SUPPORT WIRE AND CABLE

- A. #12 gauge ceiling support wire where concealed. Aircraft stainless steel cable where exposed.

PART 3 - EXECUTION

3.1 INSTALLATION

- 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. Conduit support plates shall not be used to support conduits entering junction or outlet boxes.
- 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, telecommunication pathways 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.
- D. Do not fasten supports to piping, ductwork, mechanical equipment, conduit, or ceiling suspension system.
- E. Power-driven fasteners are prohibited for tension load applications (such as supporting luminaires or conduit racks from ceiling above). Use drilled-in expansion anchors, or drilled and screw-in anchors such as Kwik-Con II or Tapcon.
- F. 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.
- G. 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.
- H. Install surface-mounted cabinets and panelboards with minimum of four anchors.
- 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:

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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. Replace or repair any fireproofing damaged by the installation of supporting equipment or devices.

END OF SECTION

SECTION 260533 – RACEWAY AND BOXES FOR ELECTRICAL SYSTEMS

PART 1 - GENERAL

1.1 SECTION INCLUDES

- A. Metal conduit.
- B. Flexible metal conduit.
- C. Electrical metallic tubing.
- D. Fittings and conduit bodies.
- E. Wall and ceiling outlet boxes.
- F. Pull and junction boxes.

1.2 RELATED SECTIONS

- A. The Work under this section is subject to requirements of the Contract Documents including the General Conditions, Supplementary Conditions,
- B. Division 01 - General Requirements, Summary, Administrative Requirements
- C. Section 260500 – Common Work Results for Electrical.
- D. Section 260519 – Low-Voltage Electrical Power Conductors and Cables.
- E. Section 260553 – Identification for Electrical Systems.
- F. Section 260923 – Lighting Control Devices.
- G. Section 262726 – Wiring Devices.
- H. Section 284000 – Detention Monitoring and Control System.

1.3 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.

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2. NEMA OS 1 - Sheet-Steel Outlet Boxes, Device Boxes, Covers, and Box Supports.
 3. NEMA RN 1 - Polyvinyl Chloride (PVC) Externally Coated Galvanized Rigid Steel Conduit and Intermediate Metal Conduit.
 4. 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. Telecommunications Industry Association (TIA) and Electronics Industries Association (EIA)
1. ANSI/TIA 568-B Commercial Building Telecommunications Cabling Standard
- G. Building Industry Consulting Service International (BICSI):
1. BICSI Telecommunication Design Methods Manual
- H. International Building Code (IBC):
1. IBC chapters 16 and 17 seismic requirements.

1.4 RACEWAY AND BOX INSTALLATION SCHEDULE

- A. Raceway Minimum Size:
1. Provide 3/4 inch minimum. Size all raceways not shown on the drawings 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. Where specific cable is not listed, use cable diameter provided by the manufacturer.
- B. Through CMU walls:
1. Raceway: Provide rigid steel conduit or intermediate metal conduit. EMT conduit may penetrate through CMU walls where the EMT is installed in a sleeve and does not come in direct contact with the CMU.
 2. Boxes and Enclosures: Provide sheet-metal boxes.
- C. 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

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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.

D. 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.

E. Exposed Dry Locations Not Accessible to Inmates:

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 or adjacent platforms.
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.

F. Exposed Dry Locations in Inmate-Accessible Areas:

1. Raceway: Provide rigid steel conduit or intermediate metal conduit.
2. Boxes and Enclosures: Provide cast boxes with no pre-punched knockouts.
3. Fittings: Provide galvanized malleable iron and steel. Conduit straps shall be 2-hole type and installed at half the distance shown in NEC table 344.30(B)(2) to allow conduit to be secured to wall without any gaps between conduit and wall.
4. Fasteners: Provide center-pin torx plus screws for all exposed fasteners.

1.5 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. Intercom and other Low-Voltage Circuits: 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.

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- 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.
- D. Telecommunication Pathways Layout and Configuration: BICSI Telecommunication Design Methods Manual and TIA/EIA 568-B Commercial Building Telecommunications Cabling Standard.

1.6 SUBMITTALS

- A. Submit product data under provisions of Division 01.
- B. Product Data: Submit data for products to be provided.

1.7 DELIVERY, STORAGE, AND HANDLING

- A. Protect conduit from corrosion and entrance of debris by storing above grade. Provide appropriate covering.

PART 2 - PRODUCTS

2.1 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.

2.2 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.

2.3 FLEXIBLE METAL CONDUIT (FMC)

- A. Product Description: UL 1, FS WW-C-566; galvanized or zinc-coated flexible steel, full-wall 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.

2.4 ELECTRICAL METALLIC TUBING (EMT)

- A. Product Description: ANSI C80.3, UL 797; galvanized steel tubing.
- B. 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.
- C. Maximum size shall be 2". Provide factory elbows on sizes 1-1/2" and larger.

2.5 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. 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. Telecommunications Outlets: Minimum size 4-11/16 inches square, 2-1/8 inches deep.
 - 4. Cut-In Boxes: Minimum size 2" x 3" x 2-1/2" deep. Provide cut-in outlet boxes where required for installation in existing hollow 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.
- C. Wall Plates: As specified in Section 26 27 26.

2.6 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.

2.7 EXPANSION FITTINGS

- A. Galvanized malleable iron, galvanized with grounding bond jumper.

2.8 BUSHINGS

- A. Non-grounding: Threaded impact resistant plastic.
- B. Grounding: Insulated galvanized malleable iron/steel with hardened screw bond to raceway and conductor lug.

2.9 LOCKNUTS

- A. Threaded Electro Zinc Plated Steel designed to cut through protective coatings for ground continuity.

2.10 WIREWAY

- A. Product Description: General purpose type wireway. Size per NEC minimum fill capacity required.
- B. Knockouts: Field-installed, no factory knockouts acceptable.
- C. Cover: Screw cover.

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- D. Fittings and Accessories: Include factory couplings, offsets, elbows, adapters and support straps required for a complete system. Provide internal ground bonding jumper bonded to each section.

PART 3 - EXECUTION

3.1 INSTALLATION

- A. Ground and bond raceway and boxes in accordance with NEC Requirements.
- B. Provide seismic support and fasten raceway and box supports to structure and finishes in accordance with Section 260923.
- C. Identify raceway and boxes with origin and destination in accordance with Section 26 05 53.
- D. Unless otherwise noted, do not inter-mix conductors from separate panelboards or any other system in the same raceway system or junction boxes.

3.2 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, ceilings, floors in accordance with the requirements of Section 26 05 00.
- H. Where raceway penetrates fire-rated walls and floors, provide firestopping with UL listed fire rating equal to wall or floor rating. Seal opening around conduit with UL listed firestop sealant or intumescent firestop, preserving the fire time rating of the construction. Install in accordance with manufacturer requirements.
- I. No cutting of reinforcing bars shall be permitted unless specifically approved. Should structural members prevent the installation of conduit or equipment, notify the Contracting Officer before proceeding.

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- J. 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.
- K. 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.
- L. Group raceway in parallel runs where practical and use conduit rack constructed of steel channel with conduit straps or clamps, as specified in Section 26 09 23. Provide space on each rack for 25 percent additional raceway.
- M. 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
- N. 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.
- O. Install no more than the equivalent of three 90-degree bends between boxes.
- P. Install conduit bodies to make sharp changes in direction, such as around beams. "Goosenecks" in conduits are not acceptable.
- 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 cable sealing fittings forming a watertight non-slip connection to pass cords and cables into conduit. Size cable sealing fitting for the conductor outside diameter. Use Appleton CG series or equal cable sealing fittings.
- V. Use suitable caps to protect installed raceway against entrance of dirt and moisture.
- W. Provide nylon "jet-line" or approved equal pull string in empty raceway, except sleeves and nipples. Where an existing pull string is used to pull cables into an existing raceway, it shall be replaced with a new pull string that is pulled in with new cables.
- X. 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, floors or walls, provide patching, paint and trim to retain architectural aesthetics similar to surroundings

3.3 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. Align wall-mounted outlet boxes for switches, thermostats, and similar devices.
- E. Use multiple-gang boxes where more than one device are mounted together; do not use sectional boxes. Provide barriers to separate wiring of different voltage systems and where normal and emergency power circuits occur in the same box.
- F. Adjust box location up to 6 feet prior to rough-in to accommodate intended purpose.
- G. Orient boxes to accommodate wiring devices oriented as specified in Section 26 27 26.
- H. Locate and install boxes to maintain headroom and to present a neat appearance.
- I. Provide knockout closures for unused openings.
- J. Install boxes in walls without damaging wall insulation or reducing its effectiveness.
- K. 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.
- L. Do not fasten boxes to ceiling support wires or other piping systems.
- M. Support boxes independently of conduit.
- N. Clean interior of boxes to remove dust, debris, and other material and clean exposed surfaces and restore finish
- O. Provide blank covers or plates for all boxes that do not contain devices.

3.4 INSTALLATION – TELECOMMUNICATION RACEWAYS AND SLEEVES

- A. Provide continuous pathway system for all telecommunication cables.
- B. Install the telecommunication pathways in accordance with requirements for Installation of General Conduit and General Boxes above unless superceded by more stringent requirements of this section or ANSI/TIA568-B and the latest published edition of the BICSI Telecommunication Distribution Methods Manual guidelines and recommendations.

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- C. Provide pathways for all telecommunication cables with Conduit and chases for the entire length of each cable.
- D. Conduit Pathways:
1. Install pull boxes in continuous straight runs of conduit longer than 100 feet.
 2. Maximum allowable continuous conduit section length of 100 feet between pull boxes.
 3. Contain no more than two 90-degree bends or de-rate conduit capacity 15% for up to one additional 90-degree bend. Conduits less than 33 feet long, oversized one trade size or with one of the 90-degree bends within 12 inches of a pull box may have up to three 90 degree bends without de-rating.
 4. Rate each offset as a 90-degree bend.
 5. Bond each conduit to telecommunication ground system.
 6. Condulets (LB fittings) shall not be installed in any telecommunications raceway.
 7. Do not use flexible metal conduit unless specifically noted on the plans or approved by the engineer where it is the only practical alternative. Increase raceway one trade size above required size where flexible metal conduit is used.
 8. Terminate conduits and chases that protrude through floor in telecommunication rooms to 3 inches above finished floor. Terminate conduits and chases that protrude through finished ceiling or above within 12 inches of ladder rack, distribution frame or cable organizer.
 9. Provide bend radius of 6 times of the internal conduit diameter of conduits up to 2 inches; 10 times of the internal conduit diameter of conduits above 2 inches and for all fiber optic raceways.
 10. Provide conduit pathways through walls with insulated bushings on each end for all wall penetrations of cables.
 11. Provide minimum conduit size of $\frac{3}{4}$ inch. Size all other conduits, sleeves and chases according to the following table:

Conduit Trade size	Conduit Maximum Cable Capacity Based on two 90 degree bends and < 100 ft (Inches OD of Cable)									
	(0.13")	(0.18")	(0.22")	(0.24")	(0.29")	(0.31")	(0.37")	(0.53")	(0.62")	(0.70")
0.75"	6	5	4	3	2	2	1	0	0	0
1"	8	8	7	6	3	3	2	1	0	0
1.25"	16	14	12	10	6	4	3	1	1	1
1.5"	20	18	16	15	7	6	4	2	1	1
2"	30	26	22	20	14	12	7	4	3	2
2.5"	45	40	36	30	17	14	12	6	3	3
3"	70	60	50	40	20	20	17	7	6	6
3.5"							22	12	7	6
4"							30	14	12	7

3.5 INSTALLATION – TELECOMMUNICATION BOXES

A. Boxes:

1. All boxes shall be readily accessible.
2. Do not use boxes for angle pulls or change pathway direction. Locate pull boxes in straight through sections of horizontal conduit pathways.
3. Provide pull boxes for 3/4-inch and 1-inch through pull for horizontal UTP cabling. Provide all other boxes sized per the following table:

Maximum Trade Size Conduit	Minimum Size of Pull Box in Inches			For each additional conduit increase width in inches
	Width	Length (direction of conduit)	Depth	
0.75"	4	12	3	2
1"	4	16	3	2
1.25"	6	20	3	3
1.5"	8	27	4	4
2"	8	36	4	5
2.5"	10	42	5	6
3"	12	48	5	6
3.5"	12	54	6	6
4"	15	60	8	8

END OF SECTION

SECTION 260553 – IDENTIFICATION FOR ELECTRICAL SYSTEMS

PART 1 - GENERAL

1.1 SECTION INCLUDES

- A. Nameplates and tape labels.
- B. Wire and cable markers.

1.2 RELATED WORK

- A. Section 260519 – Low-Voltage Electrical Power Conductors and Cables.
- B. Section 260533 – Raceway and Boxes for Electrical Systems.
- C. Section 262726 – Wiring Devices.
- D. Section 284616 – Detention Relay Logic System.

1.3 SUBMITTALS

- A. None required.

1.4 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

2.1 NAMEPLATES

- A. Product Description: Laminated three-layer plastic with engraved white letters on black background.
- B. Letter Size:
 - 1. 1/4-inch high letters for identifying individual panel or 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.

2.2 TAPE LABELS

- A. Product Description: Adhesive tape labels, with 3/16 inch Bold Black letters on clear background.
- B. Embossed adhesive tape will not be permitted for any application.

2.3 WIRE MARKERS

- A. Power and Lighting Description: Cloth tape type wire markers 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.
- C. Telecommunications Cable Markers: Self-laminating vinyl with translucent band and minimum 1"W x .5"H printable area with matte white finish.

PART 3 - EXECUTION

3.1 GENERAL INSTALLATION

- A. Degrease and clean surfaces to receive nameplates and tape labels.
- B. Install nameplates and tape labels parallel to equipment lines.

3.2 NAMEPLATE INSTALLATION

- A. Secure nameplates to equipment fronts using machine screws tapped and threaded into panelboard, using adhesives, or using rivets. Machine screws to not protrude more than 1/16 inch on back side.
- B. Control 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 Intercom, Door Control, etc.
 - c. Line 3: Panelboard and circuit number from which the panel is fed if applicable.

3.3 LABEL INSTALLATION

- A. 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.

3.4 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.

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4. Color-code all low-voltage system wires and cables in accordance with the individual sections in which they are specified.
 5. For power circuits, identify with branch circuit or feeder number.
 6. Control Circuits: Control wire number as indicated on schematic and shop drawings.
 7. Provide cable markers on each cable, indicating device designation (e.g. "Camera YK-3") for all security, intercom, door control and IP Video systems. Cables shall be labeled at each end, as well as at any intermediate junction boxes or pullboxes.
- B. Provide wire markers on each conductor on all new and existing terminal backboards and security cabinets. Identify with door number for locks and intercoms, room name for lights, camera numbers, or other unique identifier for other equipment as required. All identification tags on all wire markers shall match what is shown on the security system shop drawings.
- C. Security Device Identification: All doors, locks, intercoms, cameras, lights, etc. shall be identified on the shop drawings using the existing naming/numbering scheme already in use at the facility. Do not re-number or re-name any devices without prior approval from the Owner.
- D. Where a wire color code is used (i.e. white/brown) for multi-conductor control cables, individual wire markers shall not be required but the wire color-code and cable ID shall be shown on the security system shop drawings.
- E. Provide pull string markers at each end of all pull strings. Marker shall identify the location of the opposite end of the pull string.
- F. At the end of the project, all conductors entering or leaving the main terminal cabinets in the Crawlspace or Control Room shall be identified as specified above. Where existing wires are not identified, the Contractor shall trace the circuits as necessary to determine where the wire is terminated at the opposite end. If a wire cannot be identified using these means, the Contractor shall notify the Project Manager for possible assistance from the facility maintenance personnel.

3.5 JUNCTION BOX IDENTIFICATION

- A. Label each power junction box with the panelboard name and circuit number.
- B. Label all junction boxes for intercom, security, and IP Video systems with the type of system cables contained in the box.
- 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.

3.6 DEVICE PLATE IDENTIFICATION

- A. Label each receptacle device plate or point of connection denoting the panelboard name and circuit number.
- B. Install adhesive label on the top of each plate.

3.7 LOW-VOLTAGE SYSTEM IDENTIFICATION

- A. Install all labeling in accordance with the requirements of this section and of each section where the individual systems are specified.

END OF SECTION

SECTION 262726 - WIRING DEVICES

PART 1 - GENERAL

1.1 SECTION INCLUDES

- A. Receptacles.
- B. Device plates and box covers.

1.2 REFERENCES

- A. FS W-C-596 - Electrical Power Connector, Plug, Receptacle, and Cable Outlet.
- B. NEMA WD 1 - General-Purpose Wiring Devices.

1.3 SUBMITTALS

- A. Submit product data under provisions of Division 01.
- B. Provide product data showing configurations, finishes, dimensions, and manufacturer's instructions.

PART 2 - PRODUCTS

2.1 ACCEPTABLE MANUFACTURERS - RECEPTACLES

- A. Hubbell.
- B. Leviton.
- C. Pass & Seymour.
- D. Substitutions: Under provisions of Division 01.

2.2 RECEPTACLES

- A. Convenience and Straight-blade Receptacles: NEMA WD 1, Federal Specification FS W-C-596, and UL 498.
- B. Convenience Receptacle Configuration: NEMA WD 1 and WD 6; Type 5-20R, white nylon face.

2.3 ACCEPTABLE MANUFACTURERS – DEVICE PLATES

- A. Hubbell.
- B. Leviton.
- C. Pass & Seymour.
- D. Mullberry.
- E. Substitutions: Under provisions of Division 01.

2.4 WALL PLATES

- A. Decorative Cover Plate: Smooth 430 or 302 stainless steel with metal, counter sunk screws to match device plate.
- B. Exposed Work Cover Plate: ½ inch raised, square, pressed, galvanized or cadmium plated steel cover plate supporting devices independent of the outlet box.

PART 3 - EXECUTION

3.1 INSTALLATION

- A. Install convenience receptacles 18 inches above floor, 4 inches above counters or backsplash, grounding pole on bottom.
- B. Install decorative plates on receptacles in finished areas.
- C. Install galvanized steel plates on outlet boxes and junction boxes in unfinished areas, above accessible ceilings, and on surface-mounted outlets.
- D. Install devices and wall plates flush and level.
- E. Ground receptacles to boxes with a grounding wire. Grounding through the yoke or screw contact is not an acceptable alternate to the ground wire.

END OF SECTION

SECTION 282300 – VIDEO SURVEILLANCE SYSTEM

PART 1 - GENERAL

1.1 SECTION INCLUDES

- A. Video Management Software.
- B. Monitors.

1.2 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 – Basic Electrical Requirements.
- B. Section 284000 - Detention Monitoring and Control System.

1.3 REFERENCE CODES AND STANDARDS

- A. The publications listed below form a part of the specification to the extent referenced. The publications are referred to in the text by basic designation only, latest edition. The reference codes and standards are minimum requirements:
 - 1. ANSI/NFPA 70 National Electrical Code, latest adopted edition.

1.4 SYSTEM DESCRIPTION

- A. Provide an interface between the new Detention Monitoring System and the existing video system in the facility. All existing cameras shall be programmed into the Detention Monitoring System for call up either manually or as part of groups associated with each control point. A new monitor will be provided as part of the video system at each touchscreen for the call ups to populate.
- B. All new equipment and assemblies shall be Underwriters Laboratories approved if applicable.

1.5 SUBMITTALS

- A. Product Data: Submit data for each component specified, showing electrical characteristics and connection requirements.
- B. Camera Names: All camera names that are displayed on the monitors and programmed into the security system shall be approved by the Owner prior to programming.

1.6 DELIVERY, STORAGE, AND HANDLING

- A. Deliver products to site, store and protect under provisions of Division 01.
- B. Store products in clean, dry area; maintain temperature to NEMA ICS 1.

1.7 ENVIRONMENTAL REQUIREMENTS

- A. Maintain area free of dirt and dust during and after installation of products. Protect other surfaces against damage and discoloration caused by work of this section.

1.8 COORDINATION

- A. The necessity to coordinate this work with the Owner is emphasized. The Contractor shall be responsible for any omissions, delays and additional cost due to lack of coordination or approval from the same.
- B. Continuity of Service:
 - 1. Take no action that will interfere with, or interrupt, any existing building services unless previous arrangements have been made with the Owner. If system shutdown is required arrange the work to minimize shutdown time.
 - 2. Owner's personnel will perform shutdown of operating systems. The contractor shall give three (3) days advance notice for systems shutdown.
- C. Should services be inadvertently interrupted, immediately furnish labor, including overtime, material, and equipment necessary for prompt restoration of interrupted service.
- D. Use of site:
 - 1. Use of the site shall be at the Owner's direction in matters in which the Owner deems it necessary to place restriction.
 - 2. Access to building wherein the work is performed shall be as directed by the Owner.
 - 3. The Owner will occupy all of the facilities during the entire period of construction for conducting normal business operations. Cooperate with the Owner to minimize conflict and to facilitate the Owner's operations.

1.9 SYSTEM DEMONSTRATION AND ACCEPTANCE

- A. Provide systems demonstration under provisions of Division 01 and this Section.
- B. At the time of the Substantial Completion Inspection, the Contractor and Security System Integrator shall be on-site to demonstrate the operation of the system to the Owner's Representatives and Engineer. All system components shall be installed and fully operational at the time of the system demonstration.
- C. The Engineer shall review the demonstration with the Owner's Representatives and provide the Contractor with a list of modifications and/or adjustments deemed appropriate for the proper operation of the system. The Contractor shall make all modifications prior to final completion and at no additional cost to the Owner.
- D. System demonstration shall be conducted as directed by the Owner and Engineer but generally described as follows:
 - 1. Call up cameras on the monitors in the Control Room using the touchscreen monitor.
 - 2. Demonstrate call-up groups for each controlled point, and confirm views are of the applicable device or area.

1.10 WARRANTY

- A. Warrant all materials and equipment to be new and free from defects in material and workmanship for a period of one year under provisions of Division 01.

PART 2 - PRODUCTS

2.1 PRODUCT SPECIFICATIONS

- A. Throughout this specification, specific manufacturers and manufacturer's catalog numbers are cited. Unless otherwise noted, these citations are for the purpose of establishing quality and performance criteria and are not intended to be proprietary.
- B. Where no manufacturer is specified, provide products of manufacturers in compliance with requirements. Any item of equipment or material not specifically addressed on the drawings or in this document and required to provide a complete installation shall be provided in a level of quality consistent with other specified items.
- C. The Contractor shall provide the latest product model and software version available from each manufacturer at the time of installation. No "beta version" or "test software" products will be accepted. All proposed and provided equipment and products shall be from the specified and approved manufacturers only, unless previously approved by the Engineer or Owner.
- D. All products and materials are to be new and free of defects, damage and corrosion. All materials shall be in compliance to all applicable codes and designed specifically for the function intended.
- E. Quantity and location of all devices and equipment shall be as specified in Contract Documents or as required for a complete and operable system.

2.2 MANUFACTURERS – VIDEO MANAGEMENT SYSTEM (VMS) SOFTWARE

- A. Existing: Milestone "XProtect Expert".
- B. Contractor shall provide integration and all necessary camera and workstation licenses.

2.3 MONITORS

- A. Monitors – Widescreen: Dell "UltraSharp" #U2417H or approved equal 24-inch, VESA compatible, widescreen flat panel LCD color monitor with 1920 x 1200 resolution and adjustable height desktop stand.

PART 3 - EXECUTION

3.1 GENERAL INSTALLATION

- A. Prior to beginning equipment installation, examine areas to receive equipment. Verify that all conditions are acceptable.
- B. Install all equipment in accordance with the manufacturer's instructions.
- C. Keep up to date "As-built" record drawings at each job site detailing the layout and field modifications to the Shop Drawings.
- D. No wiring other than that directly associated with video system shall be permitted in video system conduits and pathways.

END OF SECTION

SECTION 284000 – DETENTION MONITORING AND CONTROL SYSTEM

PART 1 - GENERAL

1.1 SECTION INCLUDES

- A. Touchscreen Security Control System.

1.2 RELATED SECTIONS

- A. 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 260553 – Identification for Electrical Systems.
- E. Section 282300 – Video Surveillance System.
- F. Section 284616 – Detention Relay Logic System.
- G. Section 284619 – Detention PLC Control System.
- H. Section 284632 – Detention Intercom System.

1.3 SYSTEM DESCRIPTION

- A. Provide a complete and operating touchscreen control system consisting of touchscreen computers, a programmable logic controller, and relay interface.
- B. The system shall integrate the lighting control, door control, intercom, and video systems. System configuration shall be such that failure of a single component shall not render the system inoperative. Provide all labor, equipment, materials and supervision to install, calibrate, adjust, document and test the total system as required herein and as indicated on the drawings.
- C. System shall be connected to existing system on-site in APS Building for duress failover and takeover.
- D. Provide associated circuitry to operate and/or monitor all existing intercoms, lights, door locks, and door position switches that are currently controlled/monitored by the existing control panels in the Control Room. The Contractor shall field verify the power and control requirements of all devices and provide all materials and labor required to accomplish intended function.

1.4 REGULATORY REQUIREMENTS

- A. All systems shall comply with applicable federal, state, and local building codes. Conduit and wire installation shall comply with all of the provisions of Division 26. All equipment and assemblies shall be Underwriters Laboratories approved if applicable.

1.5 QUALIFICATIONS

- A. The Security Systems Integrator shall submit qualifications in accordance with Division 01. Qualifications shall include the following:

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1. The entire security system shall be assembled, programmed, and installed by a Security Systems Integrator. The Security Systems Integrator shall have a minimum of five years documented experience assembling, programming, and installing these types of touchscreen security systems in correctional facilities. Documentation of previous experience shall include at least five (5) similar projects where a touchscreen security system of this type and complexity has been retrofitted into an existing correctional facility.
2. Where the system installer is a branch office or other division of a larger organization, the qualifications of the branch office or other division shall meet the requirements of the Contract Documents.
3. Maintenance Service and Software Support: The Security Systems Integrator shall be able to provide initial contact on warranty service and/or service contract requests from their principal location within four (4) hours of notification. During the warranty period, the Contractor may choose to attempt troubleshooting and/or repair of the system by telephone, either with the facility maintenance staff or by using the touchscreen remote access software. If the problem cannot be resolved within 24 hours, the Security Systems Integrator shall travel to the facility on the next available flight to repair the system.

1.6 SUBMITTALS

- A. Submit under provisions of Division 01 and Division 26.
- B. Product Data: Provide data for each component specified showing electrical characteristics and connection requirements.
- C. Electronic AutoCad® drawings of the building floor plans are available upon request for preparation of the shop drawings. All device locations shall be field verified by the Contractor prior to completion of the shop drawings.
- D. Provide contract-size shop drawings that include the following information:
 1. One-line diagram for each system (i.e. door control, intercom, video, etc.) that shows the signal relationships of all devices within the system.
 2. Indicate electrical characteristics and connection requirements, including line voltage and low voltage wiring, and logic diagrams or block diagrams where required.
 3. Show scaled, pictorial layout drawings of relay and PLC cabinets, including wire/cable designations as shown on the one-line diagrams or elsewhere in the shop drawings. The cabinet layout drawings shall include completed assemblies, interconnecting cabling, dimensions, weight, and external power requirements. Layout drawings shall be done in a scale allows the smallest text on the drawing to be legible when the drawing is reduced to 11" x 17".
 4. Show an overall riser diagram of the facility security system, including all terminal cabinets, major pull and junction boxes or gutters, and the touchscreen workstation. The riser diagram shall include conduit sizing and routing with the number and size of conductors in each conduit. Locations of all terminal cabinets, relay cabinets, major pullboxes, and workstations shall be identified on the Drawings. Include conductor labels to be used by the installer during construction.

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5. For each custom assembly, such as a relay panel, provide an assembly drawing illustrating the appearance of the assembled device including dimensions, assembly components and functional attributes (i.e. relay type, wire color-code, etc.).
6. Security Device Identification: All doors, locks, cameras, lights, etc. shall be identified on the shop drawings using the existing naming/numbering scheme already in use at the facility. Do not re-number or re-name any devices without prior approval from the Owner.

E. Touchscreen Control System Submittal

1. System Graphic Maps: Graphic maps of the facility shall be programmed into the system. The graphic maps shall have the following characteristics:
 - a. Map Layout: All background floor plans shall be imported from the scaled AutoCAD plans used to develop the shop drawings. All room names shall match the actual names being used in the facility. For the initial submittal, use the room names shown on the Contract Drawings. The screen colors for walls, background, and other elements shall be initially based on recommendations from the Contractor, but all colors are subject to change pending Owner approval.
 - b. Map Size: Maps shall be partitioned into separate screens either by section or security zones to maintain a minimum scale of 1/16"=1'-0". Additional screens may be necessary where there are multiple field devices concentrated in one area of the building. Icons shall not be crowded or overlapped on the screen and shall appear on the map at approximately the same location where they are physically installed. All graphic maps shall be viewable on the screen without requiring the use of scroll bars.
 - c. Final layout of all graphic screens shall be approved by the Owner during the submittal review process. The Contractor shall make any necessary changes to the screens at no additional cost to the Owner.
2. Initial Touchscreen Submittal: Provide the following items.
 - a. Provide 8.5" x 11" color printouts of each touchscreen graphic map, including all facility maps, control screens, popup windows, alarm popups, login screens, etc.
 - b. Graphic maps shall clearly show samples of all colors and positions of items such as intercoms or doors that change color and/or position on the screen when activated.
 - c. Submit a list of suggested system enhancements and suggested modifications to the specified system. After reviewing the list with the Owner's Representative, the Engineer will provide the Contractor with a written response to all suggestions. Any suggestions that are accepted by the Owner shall be incorporated into the touchscreen system (as a change order) prior to the Final Submittal.
3. Final Touchscreen Submittal: After making all required changes specified in the Initial Touchscreen Submittal, the Contractor shall resubmit color printouts of any screen maps that were modified. After the Engineer and Owner have completed the review, the Engineer will provide the Contractor with a list of modifications and/or adjustments deemed appropriate for the proper operation of the system. The Contractor shall make all modifications at no additional cost to the Owner.

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4. Substantial Completion: At the time of the substantial completion inspection, the Contractor shall have the system fully operational, with all previous modifications incorporated into the system and all points and events identified as specified. At that time, the Engineer and on-site Owner's Representatives will review the system operation and provide the Contractor with a list of modifications and/or adjustments deemed appropriate for the proper operation of the system. The Contractor shall make all modifications at no additional cost to the Owner.
5. After all programming changes noted during substantial completion have been made, the Contractor shall commence with Owner training. During the training period, the facility staff may request changes to the layout of the graphic screens or to any identification labels used on the maps. The Contractor shall review these changes with the designated Owner's Representative for concurrence and the resulting list shall be incorporated into the touchscreen system at no additional cost to the Owner. Any suggested changes that the Contractor feels will reduce the level of facility security or negatively affect system operation shall be brought to the attention of the Engineer and the Facility Superintendent prior to being programmed.
6. Final Completion: At the time of final completion, the Contractor shall have incorporated all previous modifications noted during the Engineer's previous reviews and during Owner training. The Engineer shall review the demonstration with the Owner's Representative and provide the Contractor with a list of modifications and/or adjustments deemed appropriate for the proper operation of the system. The Contractor shall make all modifications at no additional cost to the Owner.

1.7 DELIVERY, STORAGE, AND HANDLING

- A. Deliver products to site, store and protect under provisions of Division 01.
- B. Store products in clean, dry area; maintain temperature to NEMA ICS 1.
- C. Maintain area free of dirt and dust during and after installation of products. Protect other surfaces against damage and discoloration caused by work of this section.

1.8 ENVIRONMENTAL REQUIREMENTS

- A. Maintain area free of dirt and dust during and after installation of products. Protect other surfaces against damage and discoloration caused by work of this section.

1.9 SYSTEM DEMONSTRATION AND ACCEPTANCE

- A. Provide systems demonstration under provisions of Division 01 and Division 26.
- B. At the time of the Substantial Completion Inspection, the Contractor and Security System Integrator shall be on-site to demonstrate the operation of the security system to the Owner's Representatives and Engineer. All security system components shall be installed and fully operational at the time of the system demonstration.
- C. The Engineer shall review the demonstration with the Owner's Representatives and provide the Contractor with a list of modifications and/or adjustments deemed appropriate for the proper operation of the system. The Contractor shall make all modifications at no additional cost to the Owner.

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- D. After all changes have been made to the system, the contractor shall provide the Owner's authorized personnel with operation and maintenance training for the Detention Monitoring and Control system, as specified in this Section.
- E. System demonstration shall be conducted as directed by the Engineer but generally described as follows:
 - 1. Test each door lock to verify correct operation, status and notification.
 - 2. Test the door interlock and interlock override functions (where applicable) of designated doors that are grouped together.
 - 3. Test each intercom station by initiating a call from either end and verifying proper operation on the master stations, as well as automatic camera call-up with selected doors.
 - 4. Test all lighting control functions.
 - 5. Test camera selection and automatic camera call-up on spot monitors.
 - 6. Test all other functions as specified herein and as required for a complete and operable system.

1.10 CLOSEOUT SUBMITTALS

- A. Project Record Drawings
 - 1. Submit documents under provisions of Division 01 and Division 26.
 - 2. Accurately indicate actual location of all security devices, including door position switches, relays, electric door locks, cameras, intercoms, etc.
 - 3. Show the location and routing of all conduit and cable, including locations of major pull and junction boxes.
 - 4. Include a reduced set (11" x 17") set of the project record drawings in the operation and maintenance manual.
- B. Operation & Maintenance Manuals
 - 1. Submit documents under provisions of Division 01 and Division 26.
 - 2. Operation and Maintenance Data: Include bound copies of operating and maintenance data.
 - 3. Provide operation and maintenance instructions including detailed electronic schematic drawings, detailed parts list and exploded view of all equipment, detailed troubleshooting instructions and a reduced set of the project record drawings.
 - 4. Provide detailed instructions on system start-up, including instructions on re-starting the touchscreen computer after a system failure/lock-up.
 - 5. Provide detailed instructions on replacement of a defective touchscreen computer with a new touchscreen computer.

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C. Security System Software Documentation

1. Provide an electronic copy of the PLC Program and Touchscreen Security Program to aid in future maintenance, troubleshooting and modification of the security system.
2. The hard copy shall include a complete printout including the ladder diagram, program flow control instructions, function block instructions, etc., as required.
3. Meaningful names shall be assigned to each input, output and internal address used with comments explaining the purpose and function of each rung.
4. Provide point references and function descriptions in the comment fields of the program where applicable. The intent of this requirement is that the function of each rung or line of code can be clearly understood by the facility maintenance staff for troubleshooting and system maintenance.
5. Provide a global overview of the system design and operation. Include brief descriptions of all system functions including, but not limited to, intercom and door control, door interlocks and override, system enable/disable, lighting control, and standby power monitoring.

D. Security System Hardware Documentation

1. Provide a complete terminal block schedule for the entire system, including terminal block layout drawings and schedules for the main relay cabinet and all system cabinets. The terminal block schedule for each cabinet shall include the following data for each point:
 - a. Point description (i.e. "A-Mod Dayroom lights") and/or location.
 - b. Type of point (i.e. input, output, etc.).
 - c. Terminal block and point number.
 - d. Cross-reference to specific code section in PLC program.
2. Provide detailed schematic drawings with riser diagrams showing all relays, power supplies, PLC components, and any other equipment in the PLC/relay cabinet. The drawings shall show all wiring connections (with wire color codes) for all equipment and shall accurately reflect the actual installation.

1.11 SECURITY SYSTEM TRAINING

- A. In accordance with the requirements of Division 01 this section, and other Division 26 sections, include all costs for the following training on the security system:
1. Train operation and maintenance personnel in use and operation of the security system provided in Division 26, including hands-on training for touchscreen, relay control, intercom, and PLC system operation.
- B. Training sessions for the security system shall be conducted on-site by certified representatives of the Security System Integrator, including installers and programmers who are directly responsible for and familiar with this specific project.
1. Conduct sessions for not less than four-hour periods during normal working hours, i.e., Monday through Friday, 8:00 AM to 4:30 PM.

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2. Training session schedules shall conform to the requirements of the Owner.
 3. Submit schedules to Owner for approval not less than two weeks prior to training session.
 4. Do not schedule different types of training (i.e. maintenance and operation) concurrently without Owner approval.
 5. Training sessions shall be conducted by qualified personnel, i.e., maintenance training shall be conducted by the system installer rather than the programmer (unless a single installer/programmer is qualified to do both types of training).
 6. The training period shall consist of twenty hours of on-site instruction to be apportioned by the Owner to assure that facility personnel are fully trained. If the Contractor is able to complete all training to the satisfaction of the Owner in less than the 20 hours, the balance of the training time may be used (at the Owner's discretion) for post-occupancy programming changes to be done either on-site at the end of the training session or from the Security Integrator's principal location at 90 days after Final Completion.
- C. Make a video recording of all training sessions, including but not limited to classroom instruction, operational and hands-on training, and maintenance/troubleshooting training. Provide two copies of the recorded material to the Owner upon completion of all training.
- D. Have approved operation and maintenance manuals and parts lists for all equipment on hand at time of instruction.

1.12 EXTRA MATERIALS

- A. All touchscreen software: Three full backup copies of the final touchscreen program on CD or flash drive. Prior to the final copies being made, provide one interim backup copy of the touchscreen program to the Owner whenever changes are made to the system during the inspection and training stage of the project

1.13 WARRANTY AND MAINTENANCE CONTRACT

- A. As specified in Section 260500.

PART 2 - PRODUCTS

2.1 PRODUCT SPECIFICATIONS

- A. Throughout this specification, specific manufacturers and manufacturer's catalog numbers are cited. Unless otherwise noted, these citations are for the purpose of establishing quality and performance criteria and are not intended to be proprietary.
- B. Where no manufacturer is specified, provide products of manufacturers in compliance with requirements. Any item of equipment or material not specifically addressed on the drawings or in this document and required to provide a complete installation shall be provided in a level of quality consistent with other specified items.
- C. The Contractor shall provide the latest product model and software version available from each manufacturer at the time of installation. No "beta version" or "test software" products will be accepted. All proposed and provided equipment and products shall be from the specified and approved manufacturers only, unless previously approved by the Engineer or Owner.

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- D. All products and materials are to be new and free of defects, damage and corrosion. All materials shall be in compliance to all applicable codes and designed specifically for the function intended.
- E. Quantity and location of all devices and equipment shall be as specified in Contract Documents or as required for a complete and operable system.

2.2 ACCEPTABLE MANUFACTURERS - TOUCHSCREEN MONITOR

- A. EloTouch or approved equal.
- B. Dell.
- C. Viewsonic.
- D. Substitutions: Under provisions of Division 01.

2.3 TOUCHSCREEN MONITOR

- A. Control Room Monitors:
 - 1. 24" Touchscreen, EloTouch 240TL or equal.

2.4 ACCEPTABLE MANUFACTURERS - TOUCHSCREEN CONTROLLER

- A. Dell "Optiplex" or approved equal.
- B. Hewlett Packard (HP).
- C. Substitutions: Under provisions of Division 01.

2.5 TOUCHSCREEN CONTROLLER

- A. Control Room Computers:
 - 1. Optiplex 7090 Series or equal.
- B. Intercom/Security Cabinet: Provide additional touchscreen controller as specified above in the main Intercom/Security cabinet to provide firewall protection and interface for remote connection to security system for maintenance and software uploading. Refer to Section 284616 for KVM specifications.
- C. Programmable Controller and Networking Equipment - Refer to Section 284619.

2.6 ACCEPTABLE MANUFACTURERS – UNINTERRUPTABLE POWER SUPPLIES

- A. American Power Conversion (APC).
- B. Eaton.
- C. Tripp-Lite.
- D. Substitutions: Under provisions of Division 01.

2.7 UNINTERRUPTABLE POWER SUPPLIES

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- A. Control Rooms: Touchscreen Controllers and Monitors:
 - 1. APC #Back-UPS series or approved equal desktop UPS with sufficient output power capacity to provide a half-load backup time of 30 minutes. UPS shall be mounted on the casework with the computer. Exact VA rating of the UPS shall be determined by the Contractor.
- B. Relay/PLC Cabinets:
 - 1. APC #Back-UPS series approved equal desktop UPS with sufficient output power capacity to provide a half-load backup time of 30 minutes. The UPS shall be mounted in the PLC cabinet and connected to the PLC and touchscreen controller. Exact VA rating of the UPS shall be determined by the Contractor.
- C. Intercom cabinet: APC #Smart-UPS or approved equal rack-mounted UPS with sufficient output power capacity to provide a half-load backup time of 30 minutes. The UPS shall be mounted in the intercom cabinet and connected to the intercom equipment. Exact VA rating of the UPS shall be determined by the Contractor.
- D. At the Contractor's option, the UPS in the intercom cabinet may be sized to provide UPS outlets in the Control Room for the equipment listed above, instead of individual UPS units.

2.8 ACCEPTABLE MANUFACTURERS - TOUCHSCREEN SOFTWARE

- A. Schneider Electric "Vijeo Citect", latest published version, or approved equal.
- B. Allen-Bradley.
- C. Siemens.
- D. GE Fanuc.
- E. Substitutions: Under provisions of Division 01.

2.9 TOUCHSCREEN SOFTWARE

- A. All touchscreen software shall be a non-proprietary, off-the-shelf package that is readily available for purchase directly from multiple sources. This software shall be programmed and tailored to the specified functions and features described herein and shown on the Drawings.
- B. All touchscreen software licenses shall be transferred to the Owner at completion of the project. This shall include but not be limited to all original installation disks, software manuals, software development packages, runtime licenses, etc. All project-specific application software shall be transferred at the end of the warranty period.
- C. Touchscreen operations shall be configured as follows:
 - 1. One-Touch: Touching the icon executes the function. Typical uses are movement and "Go To" icons, cell doors, lights, alarm acknowledge, etc.
 - 2. Two-Touch: First touch generates a separate popup window with function icon. Second touch executes function. Typical uses are camera selection, interlock override, group release, group exclude, etc.

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3. Three-Touch: First touch generates a separate popup window with function icon. Second touch generates separate "Are You Sure?" popup window with function icon. Third touch executes function. Typical uses are perimeter security doors, group release in A-Max or B-Max, etc.
- D. All functions of the touchscreen system shall also be able to be performed using a mouse.
- E. Input/Output response and screen refresh shall be less than 250ms. No increase in reaction time for the system shall be acceptable due to number of screens, functions, or functional areas in the system.
- F. All control icons used shall be of size that will facilitate a positive touch point. The minimum size shall be .5 inch square. All status indicators shall be a minimum of .1875 inch in diameter, or equivalent square or rectangle.
- G. Background of display shall be black.
- H. All events shall be queued according to priority.
- I. Graphic Map Orientation: Coordinate map orientation to match the orientation of the control room operator sitting at the desk.
- J. Touchscreen graphic displays shall be created to display accurate floor plans for all areas of the facility. These shall include, but not be limited to, the following:
 1. Building screens shall include building floor plan with directional arrows to move between the main functional areas (if needed based on scale). Screens shall include icons to bring up enlarged views of all sallyports.
- K. Graphic map hierarchy and access shall be both operator and event driven. The system shall allow the operator to move between functional area maps by touching the area of the map that is desired. The system shall also allow events to drive the map movement when the event is acknowledged by the operator.
- L. Video surveillance system: Automatic video call-up, video select, selection of full or quad scenes where quad displays are used, setup of sequences and quad displays.
- M. Detention Intercom System: Intercom call-up, all call, and paging functions.
- N. Lighting Control: Toggle lighting in cells, dayrooms, etc. as currently configured in the existing system.
- O. Additional functions: Monitor PLC status.
- P. System Maintenance: The most current version (at the time of substantial completion) of Symantec pcAnywhere® or approved equal remote access software shall be provided on all touchscreen computers to enable the Contractor to provide software support from a remote location.
- Q. System Database: All database management and reporting functions shall utilize Microsoft Excel or approved equal database software to organize, output, and archive all system alarms, events, and actions. The database shall be automatically backed up on CD, with the schedule of backups selectable by the Owner.

2.10 TOUCHSCREEN SYSTEM EQUIPMENT CAPACITIES

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- A. The system shall include means for setting up to six levels of priority for each alarm and device input. The priority levels shall be as follows:
 - 1. Level One: Staff alarms (e.g., duress, panic).
 - 2. Level Two: Security alarms (e.g., exit or security barrier doors, unauthorized access, intrusion).
 - 3. Level Three: Door status (e.g., door prop and door unsecured alarms).
 - 4. Level Four: Intercoms.
 - 5. Level Five: System alarms (e.g., PLC low battery).
 - 6. Level Six: Undefined at this time but included in the software.
- B. Priority levels may vary by time of day. Allow a minimum of three time periods per day, corresponding to shifts.
- C. Provide audio links.
- D. Provide video links.
- E. Provide control of various building functions, including lighting.
- F. Unlock doors.
- G. Monitor doors and door position switches.
- H. Site graphic map.
- I. Local graphic map.
- J. Interlocking doors.

2.11 TOUCHSCREEN SYSTEM OPERATION

- A. All functions specified below shall be provided for both touchscreen workstations.
- B. General Functions
 - 1. A "Clean Screen" icon shall be provided on the main graphic screen. Touching this icon shall clear the screen (except for this icon) to allow cleaning. Touching the icon a second time shall return the system to normal operation. The cleaning function shall not affect any other functions of the system.
 - 2. A "Calibrate Screen" function shall be programmed into the system but shall be initially password-protected at the "Administrator" level. This function shall allow the user to adjust the pointing cursor to account for parallax.
 - 3. The system shall have a calendar, a clock with 24-hour time, and shall automatically account for daylight savings time and leap years. The clock and calendar shall be visible on all graphic screens.
- C. System Modification

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1. Modifications to the layout of the touchscreen system shall be performed either on-site or from a remote location using the remote access software.
2. The remote access function shall have two levels of password protection. When this function is activated, a "Remote Communication Access Enabled" alarm shall appear on the touchscreen.
3. The remote access function shall remain active until the user logs off or until the countdown timer reaches zero. When either of these actions occurs, the connection shall be disabled and access shall be made impossible.

D. Door Control

1. The system shall monitor the call-in activity of all the controlled doors and provide a point or door call-in status to the touchscreen monitor. The system shall provide for the control of all doors from the touchscreen with no mechanical switch being utilized for this control.
2. All doors controlled by the touchscreen shall be illustrated in different colors to indicate the status of the doors. Secured points shall be green and the unsecured points shall be red. All door icons shall change orientation to simulate the operation of the door. Swing doors or gates shall be represented by a green line when closed and a red line that is pivoted away from the wall when open. Sliding doors shall be represented by offset parallel green bars when closed and aligned parallel red bars when open.
3. Activation of the fire alarm system in the building shall not affect the operation of the touchscreen security system or automatically release any doors controlled by the system.
4. Each door shall be capable of being assigned an adjustable period of time delay, after which an alarm will sound. Allow a minimum of three time periods per day corresponding to shifts. This "door prop" alarm shall be initially set on all shifts to zero for exterior doors or other security barriers and 30 seconds for all movement doors. Cell doors shall be configured for this feature but shall not be initially set for any maximum time delay.
5. All controlled exterior doors and other security barrier doors (as defined by the Owner) shall have an "Unauthorized Access" function, which will generate an alarm if the door position sensor senses the door has been opened (i.e., from the outside) prior to or without an "Unlock" command being issued by the touchscreen. This alarm shall generate an alarm popup window with "Acknowledge" and "Reset" icons. Acknowledging the event shall silence the audible alarm and the event shall remain in the Events Queue until it is reset. If the event has not been reset within five minutes, the popup window with the "Reset" icon shall re-appear on the screen (without audible tone) for the operator to reset the door.
6. A "Group Release" function shall be provided as a 2-touch operation. When the "Group Release Enable" icon is touched, the "Group Release" icon shall appear adjacent to the corresponding group. When this icon is touched, all doors in the group shall unlock and their indicator icons shall all change from green to red on the graphic map. All door icons and the "Group Release" icon shall remain red until all doors in the group are secured, after which the icons shall change from red to green. The release of individual doors within a group shall be staggered by 0.25 seconds, or as necessary, to prevent overload of the door control circuit.
7. A "Group Exclude" or "Double-Lock" function shall be provided as a 2-touch operation. Selected cell doors within each group may be excluded from a "Group Release" function so that they do not unlock when the "Group Release" function is activated. When the

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Group Exclude" icon for a particular wing is touched, a window showing all cell doors in the wing shall appear and allow the operator to select which cells will remain locked. If a cell is selected for the "Group Exclude" function, it shall not be included in "Group Release" function until de-selected using the same process. If a cell door is included in the "Group Exclude" function, it shall appear on the wing screen with a dark outline or some other means to clearly indicate that the function is active for the cell.

8. For doors with positive locking latches, the latchbolt position sensor senses when the lock is activated and the door position sensor senses when the door is opened. Either of these events shall provide an unsecured door status signal to the touchscreen, and the door indicator icon shall change from green to red. After the requesting party passes through the door and the door is closed and locked, as indicated by sensors, the door indicator icon shall change from red to green. This will indicate that the door is secure.
9. An "Interlock Alert" function shall be provided on multiple sets of doors in the facility (as specified by the Owner), such as sallyport doors. When an attempt is made to open an interlocked door while another door of the interlock group is not secured, a popup window shall appear with a "Interlocked Doors" banner. A 2-touch interlock override function shall be provided to defeat the interlock. For bidding purposes, assume (10) sets of interlocked doors, with the exact quantity to be determined by the Owner.

E. Intercom Control

1. An interface with the intercom system shall be provided to include all existing intercom stations, paging speakers, and call-in buttons. A call originating from any intercom field station within the building shall generate a tone on the associated master station in the Control Room, after which the operator will acknowledge the desired station and initiate communication. Incoming calls may be answered by specifically selecting the desired station.
2. When a call is initiated by a field intercom station, any camera associated with that door shall appear on the spot monitor and the screen shall display the associated graphic map of the functional area where the call is originating. The status of all points within the functional area shall also be shown. The screen shall display icons for controlling the active point or exiting the displayed screen. The operator may change the active point by touching any other point shown on the active display.
3. The touchscreen system shall include an "Events List" screen that shows a list of all incoming calls in the queue, in the order which they are received. Any call on the list may be answered from this screen. Priority intercom stations (as designated by the Owner) shall appear in red on the list and shall precede those of a lower priority level. Selecting a specific call from the list shall display the graphic for the associated functional area. This screen shall also include a "Main" icon to return to the main map.
4. Reset of the call shall be accomplished by touching the intercom icon a second time or response to another event. If an intercom call-in associated with a door is activated, the call shall be reset automatically after the door is opened and then re-secured, regardless of whether the intercom channel was actually opened.
5. All intercom functions except "speaker volume" and "push-to-talk" shall be performed on the touchscreen. A 1-touch operation shall be used to open or close any specific channel and a 2-touch operation shall be used for "All Call" functions.
6. Outgoing calls to all dayrooms and other stations (as determined by the Owner) shall not have a pre-announce tone. The intent is to allow the staff to monitor conversations in the

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rooms without the inmates being aware. The intercom system shall be capable of monitoring multiple simultaneous conversations.

F. Video System Control

1. The Video system shall be interfaced with the touchscreen system and shall include all cameras connected to the existing video system. Any view from any camera in the system shall be able to be called up on the spot monitor adjacent to the touchscreen. The system shall automatically call up cameras associated with activated doors, door position switches, intercoms, or other points in the system and display them on the spot monitor.
2. The system shall be programmed with one camera group for every intercom station and controlled or monitored door.
3. The display on the spot monitor shall be as follows:
 - a. Default View: Quad display of whatever camera group (as specified above) has been selected. When an event-driven camera is activated, it shall bring up the view of a camera associated with a door, intercom, or other controlled point in the upper left quadrant of the monitor. If there are two cameras associated with a specific door or intercom, they shall appear in the upper left/right quadrants. The event-driven camera(s) shall be set to dwell until the associated door lock, intercom channel, etc. is closed, after which time the system reverts back to the previously selected quad view.
 - b. Full-size view: Fully selectable for any camera using a 1-touch operation from any graphic map. Touching the camera icon on any map brings up the full-size view on the monitor. This view shall remain visible until either the camera icon is touched again or until event-driven camera(s) are automatically activated.
 - c. All event-driven camera call-ups and associated points shall be determined by the Owner.
4. The video system shall be controlled by the touchscreen as follows:
 - a. The "Camera Selection" screen shall be used to bring up full-screen views of any connected camera on one of the monitors in the control rooms.
 - b. The "Camera Selection" screen shall be used to select any camera to be viewed in any quadrant of the monitors.
 - c. The "Camera Selection" screen shall be used to select groups of four cameras to be viewed on the monitors. The specific cameras in each 4-camera group shall be determined by the Owner during the submittal and programming phase of the project.
5. Future camera locations shown on the drawings shall be programmed into the system, but shall not be visible on the camera screens. The intent is to minimize the need to reprogram as cameras are added in the future.

G. Lighting Control

1. An interface with the lighting system shall be provided to include the existing lighting circuits controlled by the existing lighting switches located in the Control Room. The

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graphic maps of various functional areas in the building shall show the status of all lights in the areas controlled by the touchscreen system. Touching the "Light" icon for a specific room shall toggle the light on/off. This shall be noted on the screen by a change in the color of the icon. The "Light" icons shall be incorporated into the floor plans, instead of having a dedicated Lighting Control screen.

H. Inmate Telephone Control

1. An interface with the telephone system shall be provided to include the existing telephones controlled by the switches in the Control Room.

I. Duress Failover

1. A Duress button shall be programmed onto the touchscreen, with a two-touch operation. When activated, the touchscreen shall be locked out from access in the building, and duress alarms activated on touchscreens in the APS Building. Control of the building shall be transferred to Post 2 in the APS Building.

J. Remote Control - APS

1. Post 2 shall have the option to remotely take control of the House 2/House 3 touchscreen at any time, and control shall be transferred back manually from Post 2.
2. As part of this contract, update the graphical maps in the APS Building to add Houses 2 and 3 to the site map, and provide House 2 and 3 maps in the Post 2 touchscreen.

K. Alarm Announcement System

1. An alarm announcement system shall be incorporated into the paging intercom system to annunciate separate distinct tones for functions such as inmate count, medical call, and meal call. Separate icons for each announcement shall be provided on a "Utilities" popup screen. The tones shall be annunciated through all field intercoms and paging speakers in the building.

L. System Alarms:

1. The status of system alarms shall annunciate on the touchscreen as a 1-touch operation with an "Acknowledge" icon. The alarms to be monitored are as follows:
 - a. UPS Alarms: Low battery, trouble, etc.
 - b. PLC Alarms: PLC failure, processor failure, communications failure, low battery, etc.
 - c. Remote Access Alarm: Appears when the remote access function is activated. The alarm may be acknowledged on the touchscreen but acknowledgement shall not be required to enable the remote access function.

- M. Facility Alarms: Alarms for existing facility systems shall be programmed into the system. These are not identified at this time. Assume (5) alarms.

PART 3 - EXECUTION

3.1 INSTALLATION

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- A. Install in accordance with manufacturer's instructions.
- B. Install all new wiring associated with the Detention Monitoring and Control System in a dedicated conduit system separate from other systems. Low-voltage wiring shall not be intermixed with 120 Volt wiring.
- C. Label all wires and cables under provisions of Section 260553.
- D. Circuits shall be configured as "fail secure". A wire break or component failure shall prevent a security breach rather than cause one.
- E. Connect input and output devices as indicated. In some cases a single output device (camera, lock, etc.) may be controlled by two or more subsystems. Full functioning of all subsystems shall be maintained at all times. Isolation of the multiple systems involved shall be provided as necessary to achieve the results specified herein.

3.2 FIELD QUALITY CONTROL

- A. Field inspection and testing will be performed under provisions of Division 01 and Division 26.
- B. Perform operational testing on control systems to verify proper operation of hardware and software.

END OF SECTION

SECTION 284616 – DETENTION RELAY LOGIC SYSTEM

PART 1 - GENERAL

1.1 SECTION INCLUDES

- A. Relays.
- B. Power supplies.
- C. Control equipment and enclosures.

1.2 RELATED SECTIONS

- A. Section 260519 – Low-Voltage Electrical Power Conductors and Cables.
- B. Section 260553 – Identification for Electrical Systems.
- C. Section 284000 – Detention Monitoring and Control System.
- D. Section 284619 – Detention PLC Control System.

1.3 REFERENCES

- A. ANSI/NFPA 70 - National Electrical Code.
- B. NEMA 250 - Enclosures for Electrical Equipment (1000 Volts Maximum).
- C. ANSI/NEMA ICS 1 - Industrial Control and Systems.
- D. ANSI/NEMA ICS 4 - Terminal Blocks for Industrial Control Equipment and Systems.
- E. ANSI/NEMA ICS 6 - Enclosures for Industrial Control Equipment and Systems

1.4 REGULATORY REQUIREMENTS

- A. All systems shall comply with applicable federal, state, and local building codes. All equipment shall be Underwriters Laboratories approved if applicable. All assemblies of approved electrical components that are subject to the adopted National Electrical Code shall be third-party certified by an approved installer, in accordance with the State of Alaska Mechanical Inspection Policy Letter (MIPL 94). This includes each assembly of relays, line and low-voltage conductors, power supplies, and other equipment in each security cabinet. The UL label shall be visible either on the outside or inside of the cabinet without removing any devices or equipment from the cabinet.

1.5 SYSTEM DESCRIPTION

- B. Provide all relay logic and interconnecting wiring for a complete and operable interface with the security control system specified in the Contract Documents. Provide all labor, equipment, materials and supervision to install, calibrate, adjust, document and test the total system as required herein and as specified in section 284000.
- C. Performance Requirements

1. On/Off Control Functions: On/Off control of individual relays, or groups of relays, from single or multiple locations.
2. System shall provide dry momentary, maintained contact or interface with the PLC and touchscreen computers.
3. Controls:
 - a. Operating Temperature – 0 to 40° C.
 - b. Transient Immunity – 6KV spikes.

1.6 QUALIFICATIONS

- A. The entire low voltage switching system shall be supplied, assembled, installed, and commissioned by the Security Systems Integrator as specified in Section 284000.

1.7 SUBMITTALS

- A. Submit product data under provisions of Division 01 and Division 26.
- B. Submit product data showing dimensions and ratings for power supplies, relays, and switches.
- C. Show all equipment and interconnecting wiring on the security system shop drawings as specified in Section 284000.

1.8 PROJECT RECORD DOCUMENTS

- A. Submit project record documents under provisions of Division 01 and Division 26.
- B. Accurately record location of relays, power supplies, cabinets, etc. as part of the security system project record documents as specified in Section 284000. Include description of switching and circuiting arrangements for all relays.

1.9 OPERATION AND MAINTENANCE DATA

- A. Submit operation and maintenance data under provisions of Division 01 and Division 26.

1.10 EXTRA MATERIALS

- A. No additional spare parts. Install extra relays for future expansion as specified.

1.11 WARRANTY

- A. Warrant all materials and equipment to be new and free from defects in material and workmanship for a period of one year under provisions of Division 01.

PART 2 - PRODUCTS

2.1 PRODUCT SPECIFICATIONS

- A. Throughout this specification, specific manufacturers and manufacturer's catalog numbers are cited. Unless otherwise noted, these citations are for the purpose of establishing quality and performance criteria and are not intended to be proprietary.

- B. Where no manufacturer is specified, provide products of manufacturers in compliance with requirements. Any item of equipment or material not specifically addressed on the drawings or in this document and required to provide a complete installation shall be provided in a level of quality consistent with other specified items.
- C. The Contractor shall provide the latest product model and software version available from each manufacturer at the time of installation. No "beta version" or "test software" products will be accepted. All proposed and provided equipment and products shall be from the specified and approved manufacturers only, unless previously approved by the Engineer or Owner.
- D. All products and materials are to be new and free of defects, damage and corrosion. All materials shall be in compliance to all applicable codes and designed specifically for the function intended.
- E. Quantity and location of all devices and equipment shall be as specified in Contract Documents or as required for a complete and operable system.

2.2 ACCEPTABLE MANUFACTURERS – RELAY SWITCHING SYSTEM

- A. Phoenix Contact.
- B. General Electric.
- C. IDEC.
- D. Panduit.
- E. Sola.
- F. Substitutions: Under provisions of Division 01.

2.3 RELAY SWITCHING SYSTEM COMPONENTS

- A. Relay Power Supply: Sola "SDP Series" or approved equal UL 508 listed, 24-volt DC power supply with DIN rail mount. Size power supplies to control all existing connected security system devices, including door locks, intercoms, etc. plus 10 percent capacity to allow future system load growth. Size power supplies to account for inrush current on solenoid locks where applicable. Provide separate power supplies for the following groups of devices:
 - 1. PLC components.
 - 2. Low-current switching relays.
 - 3. High-current switching relays.
- B. Low-Current Switching Relays: Plug-in, SPDT miniature relay with integral terminal block, damping diode, screw-type terminal connections, and operation indicator light. Relay contacts shall be rated at 6 amperes continuous current and 30 amperes inrush current at 24 volts DC. Phoenix Contact #PLC-RSC-24DC/21 or approved equal. Provide DIN mounting rails as necessary. Use for 24V door locks/strikes, cell lights, etc.
- C. High-Current Switching Relays: Plug-in, SPDT miniature relay with integral terminal block, damping diode, screw-type terminal connections, and operation indicator light. Relay contacts shall be rated at 10 amperes continuous current and 16 amperes inrush current at 120 volts AC.

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Phoenix Contact #PLC-RSC-24DC/21HC or approved equal. Provide DIN mounting rails as necessary. Use for 120V door locks, dayroom lights, etc.

- D. Low Voltage Intercom Switching Relays: Plug-in, DPDT miniature relay with integral terminal block, damping diode, screw-type terminal connections, and operation indicator light. Relay contacts shall be rated at 6 amperes continuous current and 8 amperes inrush current at 24 volts DC. Phoenix Contact #PLC-RSC-24DC/21-21 or approved equal. Provide DIN mounting rails, sockets, hold-down clips, terminal blocks, and fuse holders as necessary.
- E. Power Circuit Breaker: Miniature circuit breaker for protecting 120VAC inputs for incoming circuits to the relay backplane, power supplies, transformers, solenoid door locks, and also for 24VDC output of power supplies rated over 100VA. Phoenix Contact #TCP-xxA or approved equal, where "xx" is the current rating of the breaker. Current ratings of all breakers shall be determined by the Contractor.
- F. Terminal Blocks: ANSI/NEMA ICS 4; UL listed terminal blocks with tubular pressure screw connectors, rated 300 volts. Provide DIN mounting rails and hold-down clips as necessary.
 - 1. Door Lock Circuits: Phoenix Contact #UKK 5-TG or approved equal 2-level terminal block.
 - 2. Intercom Circuits: Phoenix Contact #UK-5-N or approved equal.
 - 3. Power Circuit Breakers: Mount power circuit breakers on Phoenix Contact #UK-6-FSI/C or approved equal flat-type fuse terminal block.
- G. Fuse Holder For Door Locks: Fuse plug with LED light indicator for cartridge fuse inserts, designed to plug into top of Door Lock Terminal Blocks as specified above. Individually fuse all door locks. Phoenix Contact #ST-SILA250-UK-4 or approved equal.
- H. Wiring Duct: Rigid PVC slotted wall wiring duct with non-slip cover, rounded edges on all slots, and breakaway fingers. Panduit "Panduct Type G" or approved equal.

2.4 ACCEPTABLE MANUFACTURERS – SECURITY SYSTEM CABINETS AND ACCESSORIES

- A. Hoffman.
- B. B-Line.
- C. Black Box
- D. Chatsworth.
- E. American Power Systems (APC)
- F. Substitutions: Under provisions of Division 01.

2.5 SECURITY SYSTEM CABINETS AND ACCESSORIES

- A. PLC/Relay Cabinet:
 - 1. NEMA 4 single-door gasketed steel enclosure with locking hasp, sized as required for the installed equipment, and able to fit in the intended space within the room. Hoffman or approved equal.

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2. Provide positive pressure ventilation using fans and filters as required to maintain all equipment within normal operating temperature ranges. If fans are installed, they shall be listed for use in the cabinet.
3. Include appropriate barrier strips for mounting relays and separating energy-limited wiring from line voltage wiring.
4. Future Expansion: Provide 10 percent additional lighting, intercom, and door control relays on the relay backplane for future expansion of security system. Relays shall be mounted on the DIN rail with their respective group and labeled as "Future". Provide space for one additional power supply in the cabinet.

B. Floor-Mounted Intercom Cabinet:

1. The following cabinet is specified for bidding purposes only. The Contractor shall field verify the exact mounting method and available space and propose an alternate cabinet if appropriate.
2. Chatsworth "GF-Series" or approved equal 23"W x 36"D x 79"H 4-post steel cabinet with 42 RMU of vertical mounting space, suitable for EIA 19" rack-mount equipment. The cabinet shall have black finish, integral vertical cable managers, lockable perforated doors on front and back, and lockable/removable side panels.
3. Fan Kit: Chatsworth #25088-701 or approved equal GF-series 4-fan ventilation kit with a total of 400 CFM capacity and black finish. Fan kit shall be listed for use in the cabinet.
4. Provide additional mounting brackets, rack rails, shelves, or other accessories as required to mount the new intercom and security equipment.
5. Power Distribution Unit: APC #AP9551 or approved equal vertically-mounted power distribution unit with 14 NEMA 5-15R outlets, and 20-amp, 12-foot power cord. Contractor shall determine exact mounting location of strip in cabinet in order to avoid conflicts with equipment.
6. UPS Unit: As specified in Section 284000.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Field verify final location of relay cabinet to allow door to be opened to 90°.
- B. Ensure that conduit sizes wire quantity, size and type are suitable for installed system. Review proper installation of each type of device per UL requirements.

3.2 INSTALLATION

- A. Install in accordance with manufacturer's instructions.
- B. Install relay cabinet level and plumb.
- C. Install low-voltage wiring as specified in Section 260519.
- D. Label all wires and cables under provisions of Section 260553.

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- E. Install relays to be accessible. Allow space for adequate ventilation and circulation of air.
- F. Neatly train all wires, cables, and cable bundles within cabinet, including all wires and cables in center section between relay backplanes. Provide a service loop of slack wire and cable to remove and/or swing out relay backplane for maintenance and troubleshooting.
- G. Dress, lace or harness all wire and cable to prevent mechanical stress on electrical connections. No wire or cable shall be supported by a connection point.
- H. Security Device Identification: All doors, locks, intercoms, cameras, lights, etc. shall be identified on the shop drawings using the existing naming/numbering scheme already in use at the facility. Do not re-number or re-name any devices without prior approval from the Owner
- I. Terminate all non-coaxial connections (except microphone or line level) to screw-type terminal blocks, with a maximum of two wires per screw. Wire nuts, electrical tape, or "free" (i.e. stak-on) splices shall not be used for any connections.
- J. Extend all lighting, door control, and other circuits from the existing terminal cabinets to the new relay cabinets.
- K. Existing Door Lock Circuits: Re-use existing 120V door lock circuits for new system. Do not consolidate circuits, which can cause problems with circuit overload during group unlock functions.
- L. Provide protective pocket inside front cover of relay cabinet for 11"x17" full copy of approved security system project record drawings and flowsheets.

3.3 DEMONSTRATION

- A. Provide systems demonstration under the provisions of Division 01 and Division 26.
- B. Demonstrate proper operation of entire security system.

END OF SECTION

SECTION 284619 - DETENTION PLC CONTROL SYSTEM

PART 1 - GENERAL

1.1 SECTION INCLUDES

- A. Programmable controller central processing unit.
- B. Remote input/output modules.
- C. Programming Accessories.

1.2 RELATED SECTIONS

- A. Section 260553 – Identification for Electrical Systems.
- B. Section 284000 – Detention Monitoring and Control System.
- C. Section 284616 – Detention Relay Logic System.
- D. Section 284632 – Detention Intercom System.

1.3 REFERENCES

- A. NEMA ICS 1 - General Standards for Industrial Control and Systems.
- B. NEMA ICS 3 - Industrial Systems.
- C. NEMA ICS 6 - Enclosures for Industrial Controls and Systems.
- D. NFPA 70 - National Electrical Code.

1.4 SYSTEM DESCRIPTION – PROGRAMMABLE CONTROLLER (PLC)

- A. Provide a Programmable Controller consisting of the following:
 - 1. Central Processing Unit (CPU) capable of processing inputs and outputs from all modules in one or more chassis as required.
 - 2. Modular chassis, sized to accommodate all input and output modules.
 - 3. Power supply capable of providing power to all modules in the chassis, including the CPU. Separate power supplies shall be provided for each chassis.
 - 4. Input and Output (I/O) modules as required to perform all functions to provide a complete and operable system. The PLC shall support an open communication architecture, which enables it to be connected to other networked PLC's and to the touchscreen computer via Ethernet TCP/IP protocol with a minimum speed of 10Mbps.
 - 5. Ladder logic software with Windows interface capable of programming all required functions for a complete and operable system.
- B. The PLC shall have built-in comprehensive self-test and self-diagnostic capabilities. All controllers shall be equipped with built-in status indication of the following information:

1. Power applied to the system.
 2. DC power valid.
 3. Watchdog contacts.
 4. Serial port(s) active.
 5. CPU battery failure.
 6. EEPROM program failure.
- C. All PLC equipment shall be from a single manufacturer. The PLC shall be general purpose in nature and not custom designed for specific application. The PLC shall become location and operation specific upon installation of I/O modules and programming.
- D. Interface with Existing Equipment:
1. The new security system shall incorporate all functions in the existing control panels, as well as all other specified functions. There shall be a single touchscreen interface program to provide seamless integration between all equipment.

1.5 REGULATORY REQUIREMENTS

- A. The PLC system shall comply with applicable federal, state, and local building codes. All equipment and assemblies shall be Underwriters Laboratories approved if applicable.

1.6 QUALIFICATIONS

- A. The entire programmable controller system shall be supplied, assembled, installed, and commissioned by the Security Systems Integrator as specified in Section 284000.

1.7 SUBMITTALS

- A. Submit product data under provisions of Division 01 and Division 26.
- B. Product Data: Provide data for each component specified showing electrical characteristics and connection requirements.
- C. Shop Drawings: Indicate electrical characteristics and connection requirements, including layout of completed assemblies, interconnecting cabling, dimensions, weights, and external power requirements. Show all equipment and interconnecting wiring on the security system shop drawings as specified in Section 284000.

1.8 DELIVERY, STORAGE, AND HANDLING

- A. Deliver, store, protect and handle products to site under provisions of Division 01.
- B. All PLC equipment, wiring, etc. shall be stored in an enclosed area, maintained at a minimum of 55° F and shall be protected from weather.
- C. Maintain area free of dirt and dust during and after installation of products. Protect other surfaces against damage and discoloration caused by work of this section.

1.9 SYSTEM DEMONSTRATION AND ACCEPTANCE

- A. Provide systems demonstration under provisions of Division 01, Section 260500, Section 284000, and this section.
- B. System demonstration shall be conducted as directed by the Engineer but generally described as follows:
 - 1. Test a random sample of input and output points to show that a specific function or action in the system generates the correct response on the touchscreen and illuminates the corresponding LED on the I/O module.
 - 2. Verify remote PLC access for troubleshooting.
 - 3. Verify all PLC-related internal alarms, including CPU battery failure, processor failure, communication failure, etc.
 - 4. Verify all PLC control functions related to the Detention Monitoring and Control System, as specified in Section 284000.

1.10 CLOSEOUT SUBMITTALS

- A. Project Record Drawings:
 - 1. Submit documents under provisions of Division 01 and Section 260500.
 - 2. Accurately record PLC equipment elevations, as-built wiring diagrams, etc. as part of the security system project record documents as specified in Section 284000.
- B. Operation and Maintenance Manuals:
 - 1. Submit documents under provisions of Division 01 and Section 260500.

1.11 PLC SYSTEM TRAINING

- A. As specified in Section 284000.

1.12 EXTRA MATERIALS

- A. All PLC software: Three full backup copies of the final PLC program on CD or flash drive. Prior to the final copies being made, provide one interim backup copy of the PLC program to the Owner whenever changes are made to the system during the inspection and training stage of the project

1.13 WARRANTY AND MAINTENANCE CONTRACT

- A. As specified in Section 260500.

PART 2 - PRODUCTS

2.1 PRODUCT SPECIFICATIONS

- A. Throughout this specification, specific manufacturers and manufacturer's catalog numbers are cited. Unless otherwise noted, these citations are for the purpose of establishing quality and performance criteria and are not intended to be proprietary.

- B. Where no manufacturer is specified, provide products of manufacturers in compliance with requirements. Any item of equipment or material not specifically addressed on the drawings or in this document and required to provide a complete installation shall be provided in a level of quality consistent with other specified items.
- C. The Contractor shall provide the latest product model and software version available from each manufacturer at the time of installation. No "beta version" or "test software" products will be accepted. All proposed and provided equipment and products shall be from the specified and approved manufacturers only, unless previously approved by the Engineer or Owner.
- D. All products and materials are to be new and free of defects, damage and corrosion. All materials shall be in compliance to all applicable codes and designed specifically for the function intended.
- E. Quantity and location of all devices and equipment shall be as specified in Contract Documents or as required for a complete and operable system.

2.2 ACCEPTABLE MANUFACTURERS - PROGRAMMABLE CONTROLLER

- A. Schneider Electric/Modicon Series or approved equal.
- B. Allen-Bradley.
- C. Siemens.
- D. GE Fanuc.
- E. Substitutions: Under provisions of Division 01.

2.3 PROGRAMMABLE CONTROLLER

- A. Provide new PLC/relay system to control all points as shown on the Drawings.
- B. PLC Backplane: Modicon M340 #BMXXBPxx00 or approved equal backplane, where the "xx" in the part number is the quantity of slots on the backplane. Provide either 8-slot or 12-slot backplane, as required for the number of modules.
- C. Power Supply: Modicon M340 #BMXCPS2000 or approved equal 20W power supply.
- D. Processor Module: Modicon M340 #BMXP342000 or approved equal CPU with 4096kB RAM, 8MB SD flash memory card for application backup, and on-board USB, Ethernet TCP/IP, and RS-485 ports.
- E. Ethernet TCP/IP Communications Module: Modicon M340 #BMXNOE0100 or approved equal communications adapter with 10BASE-T Ethernet port.
- F. I/O Modules: Modicon M340 #BMXDDIxx02K and #BMXDDOxx02K series or approved equal discrete input and output modules, where the "xx" in the part number is the quantity of input or output points. Provide modules with point counts and quantities as required to obtain the specified sequence of operation
- G. Universal Communications Base: NR&D #MUCM or approved equal programmable serial communications module for the Momentum PLC. Module includes two selectable and individually configurable serial ports for RS-232/422/485 protocol.

- H. Ethernet Switch: N-Tron #308TX or approved equal unmanaged industrial Ethernet switch with eight 10/100 RJ-45 ports.

2.4 PROGRAMMING ACCESSORIES

- A. Software: Modicon “Unity” or approved equal programming software, latest published version. The software shall have the following features:
 - 1. 32-bit ladder logic programming with a Windows interface.
 - 2. Online editing of the PLC processor.
 - 3. Consolidated Project View: All information is displayed as a “project tree”.
 - 4. Diagnostic and Troubleshooting Tools: The software shall be able to diagnose the interaction of output instructions within a section of the program by viewing them at the same time.
 - 5. The software shall be able to move instructions from one rung to another within a project using drag and drop editing.
- B. Communications cable:
 - 1. Provide a Superior Essex “DataGain” or approved equal Category 6 cable and jack to connect each touchscreen computer to the PLC. Cable should be the same manufacturer provided for horizontal UTP cabling of other systems.
 - 2. PLC I/O Cable: West Penn #275 or approved equal 20-conductor, 22 AWG cable with PVC outer jacket.

2.5 EQUIPMENT CABINET

- A. Mount PLC in PLC/Relay cabinet as specified in Section 284616.

2.6 INTERFACE WITH EXISTING EQUIPMENT

- A. Provide all necessary software, hardware, programming, and labor to interface with all existing field devices in the building, as indicated on the Contract Drawings, and as field-verified by the Contractor.

PART 3 - EXECUTION

3.1 INSTALLATION

- A. Install in accordance with manufacturer's instructions.
- B. Install PLC in relay cabinet where indicated on the Drawings.
- C. Connect all input and output devices as required to control systems as specified herein and elsewhere in the Contract Documents.
- D. Extend I/O cables from PLC I/O modules to new and existing field terminals and relays.

3.2 FIELD QUALITY CONTROL

- A. Field inspection and testing will be performed under provisions of Division 01 and Division 26.
- B. Perform operational testing on control systems to verify proper operation and field wiring connections.

END OF SECTION

SECTION 284632 – DETENTION INTERCOM SYSTEM

PART 1 - GENERAL

1.1 WORK INCLUDED

- A. Master intercom system

1.2 RELATED WORK

- A. Section 260500 – Common Work Results for Electrical.
- B. Section 260533 – Raceway and Boxes for Electrical Systems.
- C. Section 284616 – Detention Relay Logic System
- D. Section 260553 – Identification for Electrical Systems.
- E. Section 284000 – Detention Monitoring and Control System
- F. Section 284619 – Detention PLC Control System

1.3 SYSTEM DESCRIPTION

- A. Provide complete intra-communications systems for two-way voice communication between the master station in the Control Room and all associated call-in buttons, paging speakers, and field stations.
- B. Provide an interface with the Detention Monitoring and Control System for operational features as indicated.
- C. Provide a desktop display master station in Booking.
- D. Systems shall be interconnected and shall be custom designed to accomplish and comply with the operation description, as noted on the drawings and described herein.
- E. All systems shall be complete with all required components, equipment and wiring to provide the communications system and perform the functions outlined.
- F. Some systems included in the work of this section are referred to as hands-free intercoms. This application is intended to mean that the person at the remote location need not use his hands to communicate with the person at the staff location. The person at the staff location must use the push-to-talk switch in order to have a two-way conversation.
- G. Provide all conduit, raceways, shelves, equipment, backboards, etc. as required for a complete and operable system.

1.4 QUALIFICATIONS

- A. The entire intercom system shall be supplied, assembled, installed, and commissioned by the Security Systems Integrator as specified in Section 284000.
- B. Manufacturer: Company specializing in detention intercom systems with a minimum three years documented experience in Correctional Facilities.

1.5 SUBMITTALS

- A. Submit product data under provisions of Division 01 and Division 26.
- B. Product Data: Provide data for each component specified showing electrical characteristics and connection requirements.
- C. Provide intercom system shop drawings as part of the security system shop drawings as specified.

1.6 DELIVERY, STORAGE, AND HANDLING

- A. Deliver products to site, store and protect under provisions of Division 01.
- B. All intercom equipment, wiring, etc. shall be stored in an enclosed area, maintained at a minimum of 55° F and shall be protected from weather.
- C. Maintain area free of dirt and dust during and after installation of products. Protect other surfaces against damage and discoloration caused by work of this section.

1.7 SYSTEM DEMONSTRATION AND ACCEPTANCE

- A. Provide systems demonstration under provisions of Division 01, Section 260500, Section 284000, and this section.
- B. System demonstration shall be conducted as directed by the Engineer but generally described as follows:
 - 1. Test each field intercom station by initiating a call from either end and verifying proper voice intelligibility at both the field station and new master station. Adjust volume levels to Owner satisfaction.
 - 2. Verify all intercom control functions related to the Detention Monitoring and Control System, as specified in Section 284000.

1.8 CLOSEOUT SUBMITTALS

- A. Project Record Drawings:
 - 1. Submit documents under provisions of Division 01, Section 260500, and this Section.
 - 2. Accurately record location of field intercoms, master station, etc. as part of the security system project record documents as specified in Section 284000.
 - 3. Include a reduced set (11" x 17") set of the security system project record drawings in the operation and maintenance manual.
- B. Operation and Maintenance Manuals:
 - 1. Submit documents under provisions of Division 01, Section 260500, and this Section.
 - 2. Operation and Maintenance Data: Include bound copies of operating and maintenance data with programming instructions.
 - 3. Include routine preventive maintenance schedule.

4. List special tools, maintenance materials, and replacement parts.
5. Provide operation and maintenance instructions including detailed electronic schematic drawings, detailed parts list with exploded view of all equipment, and detailed troubleshooting instructions.
6. Include copies of manufacturer product warranties for all equipment.

1.9 INTERCOM SYSTEM TRAINING

- A. As specified in Section 284000.

1.10 EXTRA MATERIALS

- A. None required. Provide spare relays as specified in 284000.

1.11 WARRANTY

- A. As specified in Section 260500.

PART 2 - PRODUCTS

2.1 PRODUCT SPECIFICATIONS

- A. Throughout this specification, specific manufacturers and manufacturer's catalog numbers are cited. Unless otherwise noted, these citations are for the purpose of establishing quality and performance criteria and are not intended to be proprietary.
- B. Where no manufacturer is specified, provide products of manufacturers in compliance with requirements. Any item of equipment or material not specifically addressed on the drawings or in this document and required to provide a complete installation shall be provided in a level of quality consistent with other specified items.
- C. The Contractor shall provide the latest product model and software version available from each manufacturer at the time of installation. No "beta version" or "test software" products will be accepted. All proposed and provided equipment and products shall be from the specified and approved manufacturers only, unless previously approved by the Engineer or Owner.
- D. All products and materials are to be new and free of defects, damage and corrosion. All materials shall be in compliance to all applicable codes and designed specifically for the function intended.
- E. Quantity and location of all devices and equipment shall be as specified in Contract Documents or as required for a complete and operable system.

2.2 MANUFACTURERS – DETENTION INTERCOM SYSTEM

- A. Basis of Design: Harding Instruments Co. "MicroComm DXL" series.
- B. Tech Works "ICA202".
- C. Zenetel "Stentofon".
- D. Substitutions: Under provisions of Division 01.

2.3 CENTRAL SWITCHING EXCHANGE

- A. Intercom communication functionality shall be as specified in Section 284000.
- B. New intercom system shall be compatible with existing intercom field stations in the facility. The Contractor shall verify the exact make/model of field stations.
- C. The security intercom system exchange mainframe shall be modular, expandable for optimum station configuration and capable of future expansion by adding expander modules as required. Each exchange shall have the following capacities and features:
 - 1. Master Stations: One master station for the touchscreen workstation, expandable to 16 total.
 - 2. Field Stations: System shall be expandable to 160 stations per exchange, 5120 stations per system. Initial capacity as required for all stations indicated on the Drawings.
 - 3. Chassis capacity for holding all necessary control and line cards.
- D. The Digital Communication Controller (DCC) shall have the following components:
 - 1. Process Control Card (PCC): Contains system configuration and data, controls exchange operations and switching, and provides exchange network port. Each PCC has USB ports, Ethernet ports, fiber/copper digital audio trunk ports, serial ports, and internal modem.
 - 2. Master Control Card (MCC): Converts incoming audio signals to digital format and outgoing signals to analog format. Includes two line level audio inputs and outputs with status and control. If Voice over IP (VoIP) master station is used, MCC may be excluded if not needed for system operation.
 - 3. Station Control Card (SCC): Provides an interface for intercom Field Stations by converting incoming audio signals to digital format and outgoing signals to analog format. Each card provides sixteen (16) half-duplex intercom station ports which can be employed in adjacent pairs for full duplex devices. Each channel includes a separate audio power amplifier for non-blocking call operation and sixteen (16) independent software-controlled volume settings.
 - 4. Front panel keypad display.
 - 5. On-board power supply.
- E. The Digital Communication Expander (DCE) shall provide intercom features similar to the DCC and shall facilitate exchange expansion. Each DCE shall have the following components:
 - 1. Slave Process Control Card (PCC): Same as standard PCC but without exchange control or network functions.
 - 2. Master Control Card (MCC): Same as in DCC.
 - 3. Station Control Card (SCC): Same as in DCC.
 - 4. On-board power supply.

- F. Paging Amplifier: Solid-state amplifier with audio output wattage rating as required to drive all existing intercom speakers for an "All Call" function, as specified in Section 284000. Speaker load shall represent no more than 80% of the total amplifier load, at less than 3% distortion. Frequency response shall be flat from 40 to 15,000 Hz and noise level shall be at least 84 dB below rated output.
- G. Talkback Expander: Provide talkback expander for bi-directional communication using existing paging speakers.
- H. Mounting Brackets: Provide mounting brackets for DCC controller and expander enclosures as required to mount in security cabinet. Refer to Section 284616.
- I. Switching Relays: Provide additional switching relays **as required** to provide the operation specified herein, in Section 28 40 00, and as shown on the Drawings. All relays that are not part of the manufactured intercom system shall be as specified in Section 284616.

2.4 SYSTEM SOFTWARE

- A. Administrator Software shall function on a standard PC to support system configuration, diagnostics, maintenance, and logging but shall not be required for system operation. Software shall employ Windows features, including views of system tree structure, tables of devices, screens for system settings and adjustments, and tables of operational data.

2.5 TOUCHSCREEN INTERCOM MASTER STATION

- A. Desktop intercom master station with push-to-talk (PTT) switch, built-in speaker with volume adjustment, and 12" gooseneck electret microphone. Master station shall have a line level output jack for driving an external speaker. Harding #TMM-440 or approved equal.
- B. VoIP version of master station is acceptable at Contractor's option.
- C. Switching relays shall be provided as required to provide the operation specified herein and as shown on the drawings.
- D. The master control station shall provide the following features and functions:
 - 1. Direct two-way voice communication between the master control station and any field intercom station connected to the system.
 - 2. After selection at the touchscreen, communication through the speaker is amplified via the intercom amplifier in the relay cabinet.

2.7 SPEAKERS AND ACCESSORIES

- A. Connect existing intercom field stations and paging speakers to new intercom system head-end equipment.

2.8 INTERCOM CABLE

- A. Connect new intercom system head-end equipment to existing field stations using existing cable. Extend cabling as required.

2.9 INTERCOM CABINET

- A. Mount the intercom system head-end equipment in the new cabinet specified in 284616.

PART 3 - EXECUTION

3.1 INSTALLATION

- A. Intercom system wiring shall not be intermixed with 120V power wiring or door control wiring and shall be run in a dedicated conduit system.
- B. Control systems wiring in conjunction with intercom master station to be identified in accordance with wiring diagrams furnished with equipment.
- C. Pre-Announce Tone: Disable the pre-announce tone for intercom stations in dayrooms and other areas as directed by the Owner.

3.2 FIELD QUALITY CONTROL

- A. The final connections, start-up, check-out and owner instruction on the system shall be done by a manufacturer's certified and authorized technician.
- B. Under provisions of Division 01 and this Section, the manufacturer's certified technician shall make a thorough inspection of the complete installation including all components to ensure the following:
 - 1. The system is complete and functional and complies with all requirements of the specifications.
 - 2. All equipment meets Underwriter's Laboratories requirements.
 - 3. The system is installed in accordance with the manufacturer's instructions.
 - 4. Project record drawings are complete and up to date.
 - 5. Make changes necessary to conform to Items 1, 2, 3 and 4 with technical assistance from the manufacturer as required.

END OF SECTION