INVITATION TO BID

Juneau Pioneer Home - Courtyard Renovations ANC 24-43C

Bidders are invited to submit sealed bids, in single copy. Contractor to submit a bid to provide all labor, supervision, permits, equipment, and materials to renovate the exterior courtyard as described in accordance with the plans and specifications associated with this document. This project consists of a base bid and three additive alternates.

A Pre-Bid walk through is scheduled for <u>June 26, 2024, at 10:00 am</u> at the Juneau Pioneer Home. Bidders are strongly encouraged to attend. Please meet in the main lobby located at 4675 Glacier Hwy Juneau, AK 99801

Project related questions or clarifications: Mark Moon, Facilities Manager I at (907) 269-7812 mark.moon@alaska.gov

Bid Deadline is 2:00pm July 11, 2024, local time.

Bids will be opened publicly at 2:00 pm local time July 11, 2024, at 3601 C Street Suite 290 Anchorage, AK 99503

All Bids, bid modifications, or withdrawals transmitted by mail, email or hand delivered, must be received prior to the scheduled time of bid opening. Bids should be addressed to: Mark Moon 3601 C Street - Suite 290 Anchorage Alaska 99503. All submissions should be sent to: fcs.facilities@alaska.gov

SPECIAL CONSIDERATIONS

The Department will accept an electronic (email) submission of bids for this solicitation. Bids, bid modifications and withdrawals should be submitted to fcs.facilities@alaska.gov prior to the date and time shown above. Offerors are responsible to assure timely delivery, and receipt of their bids. Offerors are cautioned that due to mailbox restrictions, we cannot receive bids over 20MB in size. The Contracting Agency will print out bids for public opening at the time designated above.

The Engineer's Estimate: Between \$850,000 and \$1,500,000

The Project completion date: August 1, 2025

Plans and Specifications may be printed by the Bidder from:

 the State of Alaska website (<u>www.state.ak.us</u>) Public Notices Online button, click on the More Public Notices button, Browse Active Public Notice button, then Department of Family & community Services.

OR

• the Bidder may forward the project website location/address information to the print shop of their choice for printing – all associated printing costs are payable by the Bidder.

<u>Bidders are responsible for checking this website for addenda. Not acknowledging addenda</u> at the time of bid will deem the Bidder non-responsive.

June 14, 2024

Juneau & Pioneer Home

Courtyard Renovations PROJECT NO. ANC 24-43C

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State wages can be obtained at http://www.labor.state.ak.us/lss/pamp600.htm Use the State wage rate that are in effect 10 days before Bid Opening.

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Juneau & Pioneer Home

Courtyard Renovations PROJECT NO. ANC 24-43C

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TECHNICAL SPECIFICATIONS

DOT Standard Specifications for Highway Constructions, 2020, Section 109 and Divisions 200 – 700 with modifications and special provisions shall be utilized for technical specifications for this contract.

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| <u>Section</u> | <u>Title</u> |
|----------------|--|
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Juneau & Pioneer Home

Courtyard Renovations PROJECT NO. ANC 24-43C

| <u>Section</u> | <u>Title</u> |
|----------------|--|
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| 664 | Low-Voltage Electrical Power Conductors and Cables |
| 665 | Grounding and Bonding for Electrical Systems |
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| 668 | Wiring Devices |
| 669 | Panelboards |
| 670 | Low-Voltage Distribution Transformers |
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| 703 | Aggregates |
| 706 | Concrete and Plastic Pipe |
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| 727 | Soil Stabilization Material |
| Appendix A | Construction Survey Requirements |

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INVITATION TO BID

for Construction Contract

Date 6/14/2024

Juneau Pioneer Home – Courtyard Renovations, ANC 24-43C

Project Name and Number

Location of Project: Juneau, Alaska

Contracting Officer: Michael Fleming, DFCS Contracting Officer

Issuing Office: Dept. of Family & Community Services, Office of the Commissioner, Finance & Management Services

State Funded [x] Federal Aid []

Description of Work: - Work consists of a Base Bid and 3 Additive Alternates.

The Base Bid consists of accessibility improvements to the entire upper area and existing concrete path of the resident courtyard. To include:

All concrete paths, hardscape, curbs, handrails, lighting, alcove walls and associated lighting, and landscape plantings.

Bid Alternate #1: Includes the installation of a Gazebo and associated power and heat.

Bid Alternate #2: Includes provision and installation of other site furnishings.

Bid Alternate #3: Includes the lower area loop and all associated hardscape, landscape, handrail, and furnishings.

See Drawings and Specifications for additional details.

The Engineer's Estimate is between:

\$850,000 and \$1,500,000

All work shall be completed by August 1, 2025

Interim Completion dates, if applicable, will be shown in the Special Provisions.

Bidders are invited to submit sealed bids, in single copy, for furnishing all labor, equipment, and materials and for performing all work for the project described above. Bids will be opened publicly at 2:00 pm local time, at 3601 C Street, Suite 290 Anchorage, Alaska 99503 on the 11th of July 2024.

SUBMISSION OF BIDS

ALL BIDS INCLUDING ANY AMENDMENTS OR WITHDRAWALS MUST BE RECEIVED PRIOR TO BID OPENING. BIDS SHALL BE SUBMITTED ON THE FORMS FURNISHED AND MUST BE IN A SEALED ENVELOPE MARKED AS FOLLOWS:

Bid for Project: ANC 24-43C

Juneau Pioneer Home Courtyard Renovations

See Special Considerations, Item 1.0

ATTN: Mark Moon State of Alaska

Department of Family & Community Services

Facilities Office

3601 C Street Suite 290 Anchorage, AK 99503

Bids, amendments, or withdrawals transmitted by mail must be received in the above specified post office box no later than 30 minutes prior to the scheduled time of bid opening. Hand-delivered bids, amendments or withdrawals must be received at 3601 C Street – Suite 290 Anchorage, Alaska 99503 prior to the scheduled time of bid opening. Emailed bid amendments must be addressed to fcs.facilities@alaska.gov

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 on 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.

Form 25D-7 (7/03) 00020 Page 1 of 2

SPECIAL CONSIDERATIONS

1.0 The Department will accept an electronic (email) submission of bids for this solicitation. Bids should be submitted to **fcs.facilities@alaska.gov** prior to the date and time shown on page 1. Offerors are responsible to assure timely delivery, and receipt of their bids. Offerors are cautioned that due to mailbox restrictions, we cannot receive bids over 20MB in size. The Contracting Agency will print out bids for public opening at the time designated on page 1.

NOTICE TO BIDDERS

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

Plans and Specifications may be printed by the Bidder from:

• the State of Alaska website under Public Notices On-line

OR

• the Bidder may forward the project website location/address information to the print shop of their choice for printing – all associated printing costs are payable by the Bidder

All questions relating to technical aspects of the project should be directed to the following. Bidders requesting assistance in viewing the project must make arrangements at least 48 hours in advance with:

Project Manager: Mark Moon, DFCS Facilities Manager I

Phone: (907) 907 269-7812 Email: mark.moon@alaska.gov

All questions concerning bidding procedures should be directed to:

Mark Moon
DFCS/Facilities
3601 C Street, Suite 290 Anchorage, AK 99503
907 269-7812 mark.moon@alaska.gov

Other Information:

Alaska Veterans Preference

To qualify for the Veterans Preference (per AS 36.30.175), the bidder must:

- 1. Qualify for the Alaska Bidder's Preference
- 2. Add value by performing the services or have prior experience in selling the supplies.
- 3. Qualify as an Alaska Veteran & Complete/sign Alaska Veterans Affidavit (06D-17, dated 4/12)
- 4. The value of the preference cannot exceed \$5,000.

Form 25D-7 (7/03) 00020 Page 2 of 2



REQUIRED DOCUMENTS

State Funded Contracts

Juneau Pioneer Home - Courtyard Renovations, ANC 24-43C

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

- 1. Bid Form (Form 25D-9S)
- 2. Bid Schedule
- 3. Bid Security (Form 25D-14)

REQUIRED FOR BID MODIFICATIONS. Any bid revisions must be submitted by the bidder prior to bid opening on the following form:

4. Bid Modification (Form 25D-16)

REQUIRED FOR CLAIMED PROCUREMENT PREFERENCE. The Department will not consider a claimed procurement preference unless a bidder submits the appropriate, signed certification(s) for the claimed preference at the time of bidding:

- 5. Alaska Bidder Preference Certification (Form 25D-19)
- 6. Alaska Veteran Preference Certification (Form 25D-17)
- 7. Alaska Products Preference Certification (Form 25D-20)

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

1. Subcontractor List (Form 25D-5)

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) or (Form 25D-10H), as applicable.
- 2. Payment Bond (Form 25D-12)
- 3. Performance Bond (Form 25D-13)
- 4. Contractor's Questionnaire (Form 25D-8)
- 5. Contractor's Certification of Subcontractors
- **6. Certificate of Insurance** (from carrier)
- 7. Dept. of Labor Notice of Work Form



Title:

STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

ALASKA BIDDER PREFERENCE CERTIFICATION

In response to the advertised procurement for: Project Name and Number: Juneau Pioneer Home - Courtyard Renovations, No.: ANC 24-43C Bidder/Proposer (company name): ___ **Operation of Alaska Bidder Preference** Procurement preferences under the Alaska Procurement Code are benefits that the State grants only to qualified bidders. Under AS 36.30.990(2), if a bidder is an eligible "Alaska Bidder", the Department will apply a five percent preference to the price of the bidder's proposal. **Instructions regarding Alaska Bidder Preference** A bidder that claims the Alaska Bidder Preference must review and then certify that each statement appearing under the heading "Alaska Bidder Certification" is true. The individual that signs the certification shall include his/her printed name and position within bidder's organization, e.g., sole proprietor, partner, etc. If a bidder fails to submit a signed certification, the Department will not apply the claimed preference. Alaska Bidder Certification The bidding entity for which I am the duly authorized representative: (A) Holds a current Alaska business license; (B) Is submitting a bid or proposal for goods, services, or construction under the name appearing on the bidder's current Alaska business license; (C) Has maintained a place of business in the State staffed by the bidder or an employee of the bidder for a period of six months immediately preceding the date of the proposal; (D) Is incorporated or qualified to do business under the laws of the State, is a sole proprietorship and the proprietor is a resident of the State, is a limited liability company organized under AS 10.50 and all members are residents of the State, or is a partnership under former AS 32.05, AS 32.06, or AS 32.11 and all partners are residents of the State; and (E) If a joint venture, is composed entirely of ventures that qualify under the four preceding paragraphs of this Alaska Bidder Certification. By applying my signature below, I certify under penalty of perjury that I am the duly appointed representative of this bidder, which has authorized and empowered me to legally bind it concerning its proposal, and that the foregoing statements are true and correct. By (signature) Date Printed name Alaska Business License Number



ALASKA VETERAN'S PREFERENCE AFFIDAVIT

| In response to the Invitation to Bid for: Juneau Pioneer Project Name and Number: Courtyard Renovations, Pr I certify under penalty of perjury that | | | | | | | |
|--|--|--|--|--|--|--|--|
| (Name) qualifies for the Alaska Veteran's Preference u | nder the following conditions: | | | | | | |
| (a) If a bidder qualifies under AS 36.30.170(b) as an a five percent bid preference shall be applied to t \$5,000). In this subsection, "qualifying entity" mea | he bid price (preference may not exceed | | | | | | |
| (1) Sole proprietorship owned by an Alaska Veter (2) Partnership under AS 32.06 or AS 32.11 if a r Veteran's; (3) Limited Liability Company organized under AS Alaska Veterans. | najority of the members are Alaska | | | | | | |
| (b) To qualify for a preference under this section, a bidder must add value by the bidder itself actually performing, controlling, managing and supervising a significant part of the services provided, or the bidder must have sold supplies of the general nature solicited to other state agencies, governments, or the general public. | | | | | | | |
| (c) In this section, "Alaska Veteran" means an individual who is a: | | | | | | | |
| (1) Resident of this state; and(2) Veteran; means an individual who: | | | | | | | |
| (A) Served in the: | | | | | | | |
| | including a reserve unit of the United | | | | | | |
| States armed forces; or (ii) Alaska Territorial Guard, the Alaska National Guard, or the Alaska Nava | a Army National Guard, the Alaska Air al Militia; and | | | | | | |
| (B) Was separated from the service under a c | ondition that was not dishonorable. | | | | | | |
| Authorized Signature | | | | | | | |
| Printed Name | Date | | | | | | |

Form 06D-17 (April 2012) Page 1 of 1

Proposal

for

Juneau Pioneer Home - Courtyard Renovations # ANC 24-43C **Project Name and Number** By **Company Name** Company Address (Street or PO Box, City, State, Zip) To the CONTRACTING OFFICER, **DEPARTMENT OF FAMILY & COMMUNITY SERVICES** In compliance with your Invitation for Bids dated_ , 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, located at or near Juneau, Alaska, according to the plans and specifications and for the amount and prices named herein as indicated on the Bid Schedule consisting of _____ sheet(s), which is made a part of this Bid. 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 Health & Social Services 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 to complete the work by 415 calendar days, after the effective date of the Notice to Proceed or by, August 1, 2025, unless extended in writing by the Contracting Officer. The Undersigned proposes to furnish Payment Bond in the amount of 100% and Performance Bond in the amount of 100% (of the contract), as surety conditioned for the full, complete, and faithful performance of this contract.

Form 25D-9A (7/03) Page 1 of 2

| | ndersigned ackn number and date | | f the following adden | da to the drawings | and/or specifications | |
|---------|------------------------------------|---------------------|-----------------------|------------------------|--|---|
| | Addenda Number | Date Issued | Addenda Number | Date Issued | Addenda Number | Date Issued |
| or corp | oration of whic | h he is a member, h | of perjury under the | indirectly, entered i | States, that neither he into any agreement, pa | e, nor the firm, association, articipated in any collusion, |
| | ndersigned ha | s read the forego | oing proposal and b | nereby agrees to | the conditions state | d therein by affixing his |
| | | | Signature | of Authorized Compan | ny Representative | |
| | | | Typed or I | Printed Name and Title | e | |
| | | | Phone Nur | | Fax Number | |
| | | | Email Add | Iress | | |

Form 25D-9A (7/03) Page 2 of 2

ALASKA PRODUCTS PREFERENCE WORKSHEET

(See Reverse Side for Instructions)

| Project Name and No: Juneau Pioneer Home – Courtyard Renovations, ANC 24-43C | | | | | | | | |
|--|--------------|-------------------------------------|----------------------------|---------------------|--|--|--|--|
| Bid Phase: | | | | | | | | |
| PRODUCT | MANUFACTURER | CLASS & PREFERENCE PERCENTAGE | TOTAL DECLARED VALUE | REDUCTION AMOUNT | | | | |
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| TOTAL | | | | | | | | |

INSTRUCTIONS FOR ALASKA PRODUCTS PREFERENCE WORKSHEET

Special Note:

All procurements, except those funded form Federal sources, shall contain Contract provisions for the preference of Alaska products. The products listed by the Bidder on this worksheet have been selected for the referenced project from the "Alaska Product Preference List" which was in force 30 days prior tho the advertisement date of this contract. Bidders may obtain a copy of the appropriate listing "Alaska Preference List" by contacting their local DCED office or by writing: Dept. of Commerce & Economic Development, Alaska Products Preference Listing, P.O. Box D, Juneau, AK 99811.

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 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--ie.: 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 entry line of the following page 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 this amount on the final page of the worksheet and at line or column "C" on the Bid Schedule or Bid Schedule Summary Sheet as appropriate. Submit worksheet(s) with Bid Schedule Summary Sheet.

C. Forms 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

| # | <i>‡</i> ", | and repeat | procedures ? | 2 through 3 | 5 under | part B | of these | Bidder's | instructions | except | that |
|---|-------------|-------------|--------------|-------------|-----------|---------|-----------|----------|--------------|--------|------|
| | afarances | to "Rocio R | id" shall be | ranlocad w | ith the s | vorde " | A Itarnat | a Rid # | " | - | |
| | | | | | | | | | | | |

- (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. (ie. "Prehung Doors by Alaska Door Co. in lieu of "Prehung Solid Core Wood Door, model "Super Door", Section 08210, 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 product has been deleted, the entry (which will differ from those on the basic bid listing) may be "prorated" or as otherwise substantiated.
- (6) Following the listing of all non-applicable Alaska products enter the words "NON-APPLICABLE PRODUCTS PREFERENCE FORM BASIC BID --SUBTOTAL" and enter a subtotal amount for all non-applicable products al listed. Subtotal amount to be determined by adding all <u>non-applicable</u> 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 as provided and at the corresponding line in column "C" on the Bid Schedule Summary Sheet. Submit worksheet(s) with the Bid Schedule Summary Sheet.
- (9) A separate listing for each alternate bid is required.

BID SCHEDULE

Project: Juneau Pioneer Home - Courtyard Renovations, ANC 24-43C

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

The Bidder 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.

All work described in the Specifications and Construction Documents for the **Project** #ANC 24-43C Juneau Pioneer Home – Courtyard Renovations

| a. Total Basic Bid (From Unit Price Bid Sche | edule) | | \$ | |
|---|---------------------|--------------------------------|--------|---------------------------------------|
| b. Additive Alternate #1 (From Unit Price Bi | d Schedule) | | \$ | |
| c. Additive Alternate #2 (From Unit Price Bi | d Schedule) | | \$ | |
| d. Additive Alternate #3 (From Unit Price Bi | d Schedule) | | \$ | |
| e. Alaska Bidders Preference (5% of Basic B | id) | | \$ | |
| f. Alaska Bidders Preference + Add Alt #1 (| 5% of Additive Al | ternate #1) | \$ | |
| g. Alaska Bidders Preference + Add Alt #2 (| 5% of Additive Al | ternate #2) | \$ | |
| h. Alaska Bidders Preference + Add Alt #3 (| 5% of Additive Al | ternate #3) | \$ | |
| i. Alaska Veterans Preference (5% of Basic F | Bid - May not exce | ed \$5,000) | \$ | |
| j. Alaska Veterans Preference (5% of Basic B | id + Add. Alt #1 - | May not exceed \$5,000 | \$ | · · · · · · · · · · · · · · · · · · · |
| k. Alaska Veterans Preference (5% of Basic E exceed \$5,000 | Bid + Add. Alt #1 → | - Add Alt #2 - May not | \$ | |
| 1. Alaska Veterans Preference (5% of Basic B May not exceed \$5,000 | id + Add. Alt #1 + | Add Alt #2 + Add Alt #3 | \$ | |
| m. Alaska Products Preference – Attach Work | ksheet | | \$ | · · · · · · · · · · · · · · · · · · · |
| n. Adjusted Basic Bid (a – e –i – m) | | | \$ | · · · · · · · · · · · · · · · · · · · |
| o. Adjusted Basic Bid + Adjusted Add Alt #1 | (a+b-f-j-r | n) | \$ | |
| p. Adjusted Basic Bid + Adj. Add Alt #1 + Ad $(a+b+c-f-g-k-m)$ | dj. Add Alt #2 | | \$ | |
| q. Adjusted Basic Bid + Adj. Add Alt #1 + Ad $ (a+b+c+d-f-g-h-l-m$ | | dj. Add Alt #3 | \$ | |
| Contractor's Name (Printed) | | | | |
| Alaska Business License # | _ Expires | _ Alaska Contractor's Registra | tion # | _Expires |
| Offeror is Claiming: Alaska Bidder Programment Officer: | | ska Products Pref. (worksheet) | | an Preference |

JUNEAU PIONEERS HOME COURTYARD RENOVATIONS BASE BID – UPPER TERRACE. HARDSCAPE AND SIDEWALK

| BASE BID - UPPER TERRACE, HARDSCAPE AND SIDEWALK Pay Pay Pay Approximate Unit Price Amount | | | | | | | |
|--|---|------|-----------|----------|-------|--------------|---|
| Item No. | Pay Item Description | Unit | Quantity | Dollars | Cents | Dollars Cent | |
| 201.0006.01 | Selective Tree Removal | EA | 8 | 20114110 | Conto | \$ | |
| 201.0009.01 | Clearing & Grubbing | LS | All Req'd | LUMP | SUM | \$ | |
| 202.0001.01 | Removal of Structures and Obstructions | LS | All Req'd | LUMP | SUM | \$ | |
| 202.0003.01 | Removal of Sidewalk | SY | 600 | | | \$ | |
| 202.0018.01 | Removal of Culvert Pipe | LS | All Req'd | LUMP | SUM | \$ | |
| 202.0008.01 | Removal of Inlet | EA | 4 | | | \$ | |
| 203.0003.01 | Unclassified Excavation | CY | 100 | | | \$ | |
| 301.0002.01 | Aggregate Base Course, Grading C-1 | CY | 175 | | | \$ | |
| 304.0002.01 | Subbase, Grading A | CY | 1,300 | | | \$ | |
| 501.0004.01 | Class A Concrete, Concrete Alcove Walls | CY | 32 | | | \$ | |
| 501.0004.02 | Class A Concrete, Gazebo Foundation | CY | 25 | | | \$ | |
| 501.0004.03 | Class A Concrete, Courtyard Walls and Plinths | CY | 10 | | | \$ | |
| 603.0021.01 | Corrugated Polyethylene Pipe, 12 Inch | LF | 125 | | | \$ | |
| 604.0005.01 | Inlet, Type CBJ Type III Catch Basin | EA | 3 | | | \$ | |
| 604.0017.01 | Storm Drain Outfall | LS | All Req'd | LUMP | SUM | \$ | |
| 605.0006.01 | Perforated Corrugated Polyethylene Pipe for Underdrain 4 Inch | LF | 135 | | | \$ | |
| 608.0009.01 | 6-Inch Thick Continuously Reinforced, Colored Concrete Plaza | SY | 725 | | | \$ | |
| 608.0010.01 | 6-Inch Thick, 8'- Foot Wide Continuously Reinforced, Colored Concrete Sidewalk | SY | 285 | | | \$ | |
| 609.0001.01 | Curb, Type Wheel Stop | LF | 570 | | | \$ | |
| 609.0001.02 | Curb, Type Vertical | LF | 85 | | | \$ | |
| 609.0001.03 | Curb, Type Landscape | LF | 55 | | | \$ | |
| 611.0001.01 | Riprap, Class I | CY | 20 | | | \$ | |
| 618.0006.01 | Seeding, Lawn Mix | SF | 850 | | | \$ | |
| 618.0006.02 | Seeding, Native Mix | SF | 6,390 | | | \$ | |
| 620.0002.01 | Topsoil | CY | 260 | | | \$ | ļ |
| 621.1 | Conifer Trees | EA | 11 | | | \$ | |
| 621.2 | Deciduous Trees | EA | 5 | | | \$ | |
| 621.3 | Shrub, Large | EA | 11 | | | \$ | |
| 621.4 | Shrub, Medium | EA | 50 | | | \$ | ļ |
| 621.5 | Border Perennials/ Vines | EA | 30 | | | \$ | ļ |
| 621.6 | Perennials/ Ground Cover | EA | 205 | | | \$ | |

JUNEAU PIONEERS HOME COURTYARD RENOVATIONS BASE BID – UPPER TERRACE. HARDSCAPE AND SIDEWALK

| Pay | Pay Item Description | Pay | Approximate | Unit P | rice | Amount | |
|-------------|---|------|-------------|---------|-------|---------|-------|
| Item No. | Pay item Description | Unit | Quantity | Dollars | Cents | Dollars | Cents |
| 621.7 | Rehabilitate Existing Landscape Bed | HR | 12 | | | \$ | |
| 625.1 | Decorative Hand Rail | LF | 495 | | | \$ | |
| 625.2 | Modify Existing Handrail | LS | All Req'd | LUMP | SUM | \$ | |
| 637.1 | Rockery Wall | SF | 500 | | | \$ | |
| 640.1 | Mobilization and Demobilization | LS | All Req'd | LUMP | SUM | \$ | |
| 642.0001.01 | Construction Surveying | LS | All Req'd | LUMP | SUM | \$ | |
| 646.0001.01 | CPM Scheduling | LS | All Req'd | LUMP | SUM | \$ | |
| 658.1 | Erosion, Sediment and Pollution Control | LS | All Req'd | LUMP | SUM | \$ | |
| 662.1 | Electrical, All | LS | All Req'd | LUMP | SUM | \$ | |
| 690.1 | Maintenance Gate with Foundation | LS | All Req'd | LUMP | SUM | \$ | |

| TOTAL BASE BII | D AMOUNT IN FIGURES: <u>\$</u> | |
|-----------------------|--------------------------------|--|
| | | |
| BIDDER NAME: | | |

JUNEAU PIONEERS HOME COURTYARD RENOVATIONS ADDITIVE ALTERNATE 1 – GAZEBO

| Pay | Pay Item Description | Pay | Approximate | Unit P | rice | Amou | nt |
|-------------|---|------|-------------|---------|-------|---------|-------|
| Item No. | Pay item Description | Unit | Quantity | Dollars | Cents | Dollars | Cents |
| 501.0004.02 | Class A Concrete, Gazebo Foundation (Deduct at Base Bid Cost) | CY | -25 | = BASE | BID | \$ | |
| 640.2 | Mobilization and Demobilization | LS | All Req'd | LUMP | SUM | \$ | |
| 662.1 | Electrical, All | LS | All Req'd | LUMP | SUM | \$ | |
| 692.1 | Furnish and Install Gazebo | LS | All Req'd | LUMP | SUM | \$ | |

| TOTAL BID ADDITIVE ALTERNATE 1 AMOUNT IN FIGURES: § | |
|---|--|
| | |

JUNEAU PIONEERS HOME COURTYARD RENOVATIONS ADDITIVE ALTERNATE 2 – FURNISHINGS

| Pay | Pay Item Description | Pay | Approximate | Unit F | rice | Amount | |
|----------|---|------|-------------|---------|-------|---------|-------|
| Item No. | Pay item Description | Unit | Quantity | Dollars | Cents | Dollars | Cents |
| 640.2 | Mobilization and Demobilization | LS | All Req'd | LUMP | SUM | \$ | |
| 691.1 | Furnish and Install Arbor | LS | All Req'd | LUMP | SUM | \$ | |
| 691.2 | Furnish and Install Classic Bench | EA | 12 | | | \$ | |
| 691.4 | Furnish and Install Lounge Chair | EA | 2 | | | \$ | |
| 691.5 | Furnish and Install Game Top Table | EA | 1 | | | \$ | |
| 691.6 | Furnish and Install Coffee Table | EA | 3 | | | \$ | |
| 691.7 | Furnish and Install Dining Table | EA | 1 | | | \$ | |
| 691.8 | Furnish and Install Classic Chair | EA | 7 | | | \$ | |
| 691.9 | Furnish and Install Rolling Planter Boxes | EA | 6 | | | \$ | |
| 691.11 | Furnish and Install Small Pergola, 12' length - Upper Plaza | EA | 1 | | | \$ | |
| 691.12 | Furnish and Install Small Pergola, 20' length - Upper Plaza | EA | 1 | | | \$ | |

| TOTAL BID ADDITIVE ALTERNATE 2 AMOUNT IN FIGURES | : \$ |
|--|------|
| | |

00312-4

JUNEAU PIONEERS HOME COURTYARD RENOVATIONS ADDITIVE ALTERNATE 3 – LOWER AREA LOOP

| Pay | Pay Item Description | Pay | Approximate | Unit F | rice | Amount | |
|----------|---|------|-------------|---------|-------|---------|-------|
| Item No. | Pay item Description | Unit | Quantity | Dollars | Cents | Dollars | Cents |
| 640.2 | Mobilization and Demobilization | LS | All Req'd | LUMP | SUM | \$ | |
| 691.1 | Furnish and Install Arbor | LS | All Req'd | LUMP | SUM | \$ | |
| 691.2 | Furnish and Install Classic Bench | EA | 12 | | | \$ | |
| 691.4 | Furnish and Install Lounge Chair | EA | 2 | | | \$ | |
| 691.5 | Furnish and Install Game Top Table | EA | 1 | | | \$ | |
| 691.6 | Furnish and Install Coffee Table | EA | 3 | | | \$ | |
| 691.7 | Furnish and Install Dining Table | EA | 1 | | | \$ | |
| 691.8 | Furnish and Install Classic Chair | EA | 7 | | | \$ | |
| 691.9 | Furnish and Install Rolling Planter Boxes | EA | 6 | | | \$ | |
| 691.11 | Furnish and Install Small Pergola, 12' length - Upper Plaza | EA | 1 | | | \$ | |
| 691.12 | Furnish and Install Small Pergola, 20' length - Upper Plaza | EA | 1 | | | \$ | |

| TOTAL BID ADDITIVE ALTERNATE 3 AMOUNT IN FIGURES: | \$ |
|---|----|
| | |



BID BOND

For

| | | Project Name | | | | |
|--|--|---|---|--|-------|--|
| | | DATE BO | ND EXECUTED: | | | |
| PRINCIPAL (1 | Legal name and business ac | ddress): | TYPE OF OI | TYPE OF ORGANIZATION: | | |
| | | [] Individual [] Partnership [] Corporation | | | | |
| | | | STATE OF I | NCORPORATION: | | |
| SURETY(IES) | (Name and business addre | | l | | | |
| A. | | В. | | C. | | |
| | | | | | | |
| | | | | | | |
| PENAL SUM | OF BOND: | | | DATE OF BID: | | |
| | | | | | | |
| we, me rkind | | e manned, are neid and | minimy bound to the | State (State of Alaska), in the penal su | | |
| successors, join THE CONDIT date as shown | ntly and severally, by this i ION OF THE FOREGOIN above, on above-reference | nstrument. IG OBLIGATION is th d Project in accordance | at the Principal has a with contract docu | submitted the accompanying bid in wr ments filed in the office of the Contra in the amount stated above. | s and | |
| successors, join THE CONDIT date as shown Officer, and un If the Principa | ntly and severally, by this i ION OF THE FOREGOIN above, on above-reference ider the Invitation for Bids | nstrument. IG OBLIGATION is the d Project in accordance therefore, and is require is offered the proposed | at the Principal has a with contract docued to furnish a bond contract for award | submitted the accompanying bid in wr ments filed in the office of the Contra in the amount stated above. and if the Principal fails to enter int | s and | |
| successors, join THE CONDIT date as shown Officer, and un If the Principa contract, then t | ntly and severally, by this in ION OF THE FOREGOIN above, on above-reference ader the Invitation for Bids I's bid is accepted and he | nstrument. IG OBLIGATION is the description of the Project in accordance therefore, and is required is offered the proposed reated by this bond shall. | at the Principal has a with contract docu ed to furnish a bond contract for award ll be in full force and | submitted the accompanying bid in wr ments filed in the office of the Contra in the amount stated above. and if the Principal fails to enter int I effect. | s and | |
| successors, join THE CONDIT date as shown Officer, and un If the Principal contract, then t | ntly and severally, by this in ION OF THE FOREGOIN above, on above-reference ader the Invitation for Bids I's bid is accepted and he he obligation to the State of | nstrument. IG OBLIGATION is the description of the Project in accordance therefore, and is required is offered the proposed reated by this bond shall. | at the Principal has a with contract docu ed to furnish a bond contract for award ll be in full force and | submitted the accompanying bid in wr ments filed in the office of the Contra in the amount stated above. and if the Principal fails to enter int I effect. | s and | |
| successors, join THE CONDIT date as shown Officer, and un If the Principal contract, then t If the Principal | ntly and severally, by this in ION OF THE FOREGOIN above, on above-reference ader the Invitation for Bids I's bid is accepted and he he obligation to the State of | nstrument. IG OBLIGATION is the description of the Project in accordance therefore, and is required is offered the proposed reated by this bond shall. | at the Principal has a with contract docu ed to furnish a bond contract for award ll be in full force and | submitted the accompanying bid in wr ments filed in the office of the Contra in the amount stated above. and if the Principal fails to enter int I effect. | s and | |

Corporate Seal

See Instructions on Reverse

CORPORATE SURETY(IES)

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

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.

Form 25D-14 (8/01) 00410 Page 3 of 2



BID MODIFICATION

| | Juneau Pioneer Home – Courtyard Project Name and N | Number | |
|---|--|-----------------------------------|---------------------------------------|
| odification Number: | | | |
| Group items an All revisions sh | modify Manual (paper) bids only. d provide subtotals by bid schedule section. all be made to the adjusted bid amount(s) adjusted bid amounts will be computed by the I | Department. | |
| PAY ITEM NO. | PAY ITEM DESCRIPTION | REVISION TO UNIT BID PRICE +/- | REVISION TO BID AMOUNT +/- |
| | | N/A | · · · · · · · · · · · · · · · · · · · |
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| | | | |
| TOTAL | . REVISION: \$ | | |
| | | | |
| | Name of Bidding Firm | | |
| | | | |

SUBCONTRACTOR LIST

<u>Juneau Pioneer Home - Courtyard Renovations, ANC 24-43C</u> Project Name and Number

The apparent low bidder shall complete this form and submit it so as to be received by the Contracting Officer prior to the

| close of business on the fifth working day after | | the Department. |
|---|---|--|
| Failure to submit this form with all required responsive and may result in the forfeiture of the Scope of work must be clearly defined. If an ite percent of work to be done by each. | e Bid Security. | _ |
| | | will be accomplished without subcontracts |
| greater than OR | 1 ½ of 1% of the contract amou | int. |
| Subcontrac | tor List is as follows: | |
| FIRM NAME, ADDRESS, & PHONE No. | AK BUSINESS LICENSE No. & CONTRACTOR'S REGISTRATION No. | SCOPE OF WORK TO BE PERFORMED |
| | | |
| | | |
| | | |
| | | |
| CONTINUE SUB- | CONTRACTOR INFORMATIO | N ON REVERSE |
| I hereby certify the listed Alaska Busines opened for this project. | s licenses and Contractor's regi | strations were valid at the time bids were |
| Signature of Authorized Company Representative | re Title | |
| Company Name | Company Address (S | treet or PO Box, City, State, Zip) |
| Date | Phone Number | |

Form 25D-5 (10/09) Page 1 of 2

| FIRM NAME, ADDRESS, & PHONE No. | AK BUSINESS LICENSE No. & CONTRACTOR'S REGISTRATION No. | SCOPE OF WORK TO BE PERFORMED |
|------------------------------------|---|----------------------------------|
| | | |
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Form 25D-5 (10/09) Page 2 of 2



CONSTRUCTION CONTRACT

Juneau Pioneer Home – Courtyard Renovations, ANC 24-43C

Project Name and Number

| This CONTRACT, between the STATE OF ALASKA, DEPARTMENT OF HEALTH & SOCIAL SERVICES, herein called the Department, acting by and through its Contracting Officer, and | | | | |
|--|--|--|--|--|
| Company Name | | | | |
| Company Address (Street or PO Box, City, State, Zip) | | | | |
| a/an [] Individual [] Partnership [] Joint Venture [] Sole Proprietorship [] Corporation incorporated under the laws of the State of, its successors and assigns, herein called the Contractor, is effective the date of the signature of the Contracting Officer on this document. | | | | |
| WITNESSETH: That the Contractor, for and in consideration of the payment or payments herein specified and agreed to by the Department, hereby covenants and agrees to furnish and deliver all the materials and to do and perform all the work and labor required in the construction of the above-referenced project at the prices bid by the Contractor for the respective estimated quantities aggregating approximately the sum of | | | | |
| Dollars (\$), and such other items as are mentioned in the original Bid, which Bid and prices named, together with the Contract Documents are made a part of this Contract and accepted as such. | | | | |
| It is distinctly understood and agreed that no claim for additional work or materials, done or furnished by the Contractor and not specifically herein provided for, will be allowed by the Department, nor shall the Contractor do any work or furnish any material not covered by this Contract, unless such work is ordered in writing by the Department. In no event shall the Department be liable for any materials furnished or used, or for any work or labor done, unless the materials, work, or labor are required by the Contract or on written order furnished by the Department. Any such work or materials which may be done or furnished by the Contractor without written order first being given shall be at the Contractor's own risk, cost, and expense and the Contractor hereby covenants and agrees to make no claim for compensation for work or materials done or furnished without such written order. | | | | |
| The Contractor further covenants and agrees that all materials shall be furnished and delivered, and all labor shall be done and performed, in every respect, to the satisfaction of the Department, on or before: August 1, 2025 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 | | | | |
| Two Hundred Fifty dollars (\$250.00) per day for each calendar day elapsing between the time stipulated for the completion and the actual date of completion in accordance with the terms hereof; such deduction to be made, or sum to be recovered, not as a penalty but as liquidated demages. | | | | |

| The bonds given by the Contractor in the Performance Bond, to secure the proper cor | sum of \$ Payment Bond, ampliance with the terms and provisions of this Contr | and \$act, are submitted herewith and |
|---|---|---------------------------------------|
| made a part hereof. | | |
| N WITNESS WHEREOF, the parties hereto | have executed this Contract and hereby agree to its te | rms and conditions. |
| | | |
| | CONTRACTOR | |
| Company Name | | _ |
| Signature of Authorized Company Representat | tive | _ |
| | iive | _ |
| Typed or Printed Name and Title | | |
| Date | | _ |
| | | (Corporate Seal) |
| | | |
| | | |
| | | |
| DEPARTMEN | STATE OF ALASKA NT OF FAMILY & COMMUNITY SERVIC | ES |
| Signature of Contracting Officer | | _ |
| Signature of Communing Community | | |
| Typed or Printed Name | | _ |
| Date | | |
| | | |
| | | |



PERFORMANCE BOND

| | |) |
|---|---|---|
| | For | |
| Ju | neau Pioneer Home – Courtyard Renovations, ANC 24-43C | _ |
| VO. 10 V. 1 V. 10 V. 10 V. 11 | Project Name and Number | |
| KNOW ALL WHO SHALL SEE | E THESE PRESENTS: | |
| That of | | as Principal, |
| and | | as i inicipal, |
| of | | as Surety, |
| firmly bound and held unto the S | State of Alaska in the penal sum of | D-11 |
| |) good and lawful money of the United States of America for the payr | Dollars |
| , | State of Alaska, we bind ourselves, our heirs, successors, executors, a | |
| jointly and severally, firmly by the | | rammistrators, and assigns, |
| | as entered into a written contract with said State of Alaska, on the | |
| | of the above-named project, said work to be done according to the term | |
| complete all obligations and wo Transportation and Public Facilit project, then these presents shall | ions of the foregoing obligation are such that if the said Principal shall ork under said contract and if the Principal shall reimburse upon deties any sums paid him which exceed the final payment determined to b become null and void; otherwise they shall remain in full force and effective hereunto set our hands and seals at day of | emand of the Department of be due upon completion of the ect. |
| this | day of A.D., 20 | |
| | Principal: | |
| | Address: | |
| | <u>By:</u> | |
| | Contact Name: | |
| | Phone: () | |
| | | |
| Surety: | | |
| Address: | | |
| By: | | |
| Contact Name: | | |
| Phone: () | | |
| The offere | red bond has been checked for adequacy under the applicable statutes and regula | ations: |
| | | |

Date

See Instructions on Reverse

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.



PAYMENT BOND

| | Bond No. | |
|---|---|--|
| | For | |
| Jun | eau Pioneer Home – Courtyard Renovations, ANC 24-43C | |
| | Project Name and Number | |
| KNOW ALL WHO SHALL SEE | THESE PRESENTS: | |
| That | | |
| | | as Principal, |
| and of | | as Surety, |
| firmly bound and held unto the Sta | te of Alaska in the penal sum of | as surety, |
| | | Dollars |
| (\$) | good and lawful money of the United States of America for the payme | ent whereof, |
| well and truly to be paid to the St jointly and severally, firmly by the | tate of Alaska, we bind ourselves, our heirs, successors, executors, acres presents. | dministrators, and assigns, |
| | entered into a written contract with said State of Alaska, on the The above-referenced project, said work to be done according to the te | |
| of law and pay, as they become dunder said contract, whether said | as of the foregoing obligation are such that if the said Principal shall come, all just claims for labor performed and materials and supplies furnished under the performed and said materials and supplies be furnished under the under the presents shall become nut. | nished upon or for the work er the original contract, any |
| IN WITNESS WHEREOF, we hav | ve hereunto set our hands and seals at 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 regulat | tions: |
| Alaska Department of Family & C | ommunity Authorized Representative Date | |

See Instructions on Reverse

INSTRUCTIONS

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



CONTRACTOR'S QUESTIONNAIRE

Juneau Pioneer Home – Courtyard Renovations, ANC 24-43C

| | | | | Project Name and I | Number | | |
|----|----|---|---------------------------------|-----------------------|-----------------------|-------------------|-------------------------|
| Α. | | FINANCIAL | | | | | |
| | 1. | Have you ever failed to com [] No [] Yes If | plete a contrac YES, explain | | resources? | | |
| | | | | | | | |
| | _ | | | | | | |
| | 2. | Describe any arrangeme | ents you have | made to finance this | work: | | |
| | | | | | | | |
| В. | 1. | EQUIPMENT Describe below the equipme | nt vou have a | vailable and intend t | a use for this projec | ·t | |
| | | ITEM | QUAN. | MAKE | MODEL | SIZE/ CAPACITY | PRESENT MARKET VALUE |
| | | | | | | | |
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| 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 w [] No [] Yes If YES, describe type an | vork? nd quantity: | | | | |
| 5. | Is your bid based on firm offers for all materials [] Yes [] No If NO, please explain: | necessary for this project? | | | | |
| C . | EXPERIENCE Have you had previous construction contracts or su | wheentracts with the State of Alaska? | | | | |
| - | [] Yes [] No Describe the most recent or current contract, its contract. | | | | | |
| 2. | List, as an attachment to this questionnaire, other c scope of work, and total contract amount for each p | construction projects you have completed, the dates of completion, project completed in the past 12 months. | | | | |
| | I hereby certify that the above statemen | its are true and complete. | | | | |
| Name | of Contractor | Name and Title of Person Signing | | | | |
| Signat | ure | Date | | | | |
| | | | | | | |

STATE OF ALASKA DEPARTMENT OF FAMILY & COMMUNITY SERVICES DOCUMENT 00700 -

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 and shall not be considered as having bearing on their interpretation.

Whenever used in the Specifications or other Contract Documents the following terms have the meaning indicated which are applicable to both the singular and plural thereof. Working titles which have a masculine gender, are intended to refer to persons of either sex.

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 capitalized throughout these General Conditions.

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 - Means written approval by the Contracting Officer or his authorized representative as defined in Article 2.1.

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.

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Conditions of the Contract - Those portions of the Contract Documents which define the rights and responsibilities of the contracting parties and of others involved in the Work. The Conditions of the Contract include General Conditions, Supplementary Conditions and other conditions.

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 or the date specified in the construction Contract and authorized time extensions which identify how much time the CONTRACTOR is allowed to achieve Final Completion.

Controlling Item - Any feature of the Work considered at the time by the Contracting Officer as essential to the orderly completion of the Work and which, if delayed, will delay the time of Final Completion of the Contract (such as an item of Work on the critical path of a network schedule).

Defective - An adjective which refers to Work that is unsatisfactory, faulty or deficient, or does not conform to the Contract Documents, or does not meet the requirements of any inspection, reference standard, test or Approval referred to in the Contract Documents, or has been damaged prior to the DEPARTMENT's Approval.

DEPARTMENT - The Alaska Department of Health and Social Services. 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.

Effective Date of the Contract - The date on which the Contract is fully executed by both CONTRACTOR and the DEPARTMENT.

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.

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General Requirements - Sections of Division l of the Specifications which contain administrative and procedural requirements as well as requirements for temporary facilities which apply to Specification Divisions 2 through l6.

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

- 1. New Years Day January 1
- 2. Martin Luther King's Birthday Third Monday in January
- 3. President's Day Third Monday in February
- 4. Seward's Day Last Monday in March
- 5. Memorial Day Last Monday in May
- 6. Independence Day July 4
- 7. Labor Day First Monday in September
- 8. Alaska Day October 18
- 9. Veteran's Day November 11
- 10. Thanksgiving Day Fourth Thursday in November
- ll. 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 (l2) above, Sunday and the following Monday are both legal Holidays. See Title 44, Alaska Statutes.

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

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

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.

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.

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,

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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.

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.

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.

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, except that 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. The Contracting Officer may, at any time during the performance of this Contract, vest in any such authorized representatives additional power and authority to act for the Contracting Officer or designate additional representatives, specifying the extent of their authority to act for the Contracting Officer; a copy of each document vesting additional authority in or removing that authority from an authorized representative or designating an additional authorized representative shall be furnished to the CONTRACTOR. The head of the Contracting Agency reserves the right to appoint a new Contracting Officer without affecting any of the CONTRACTOR's obligations to the DEPARTMENT under this Contract.
- 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.

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- 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.
- 2.1.4 The term "Contracting Officer" when used in the text of these General Conditions or other Contract Documents following this section shall also mean any duly authorized representative of the Contracting Officer when authorized in accordance with Paragraph 2.1.1.

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.

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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.

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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.

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:

1. 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.

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2. Hazardous Materials:

The CONTRACTOR is to be aware under 29 CFR 1926.1101(k)(2)(ii) Construction Industry Standards, any building or facility constructed prior to 1980 may contain suspected Hazardous Materials. All known or perceived known Hazardous Materials information will be provided by the DEPARTMENT's facility staff to the CONTRACTOR upon request. Any new suspected Hazardous Materials encountered by the CONTRACTOR shall be made known to the DEPARTMENT within 3 business days of discovery. Once notified the DEPARTMENT will have an Environmental Assessment completed to verify if hazardous materials exist.

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

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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 will be provided the DEPARTMENT on a weekly basis with variations between the Contract Documents and actual field conditions identified. Survey notes are to be in a format acceptable to the DEPARTMENT.

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:

- 5.2.1 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.
- 5.2.2 At the option of the CONTRACTOR, bonds may be provided by individual Surety the adequacy of which shall be determined by the Contracting Officer. Any costs incurred by the CONTRACTOR or individual Surety shall be borne by the CONTRACTOR. Where individual Sureties are used, two individual Sureties must each provide the State of Alaska with security equal to the amount of each bond by one, or a combination of, the following methods:
 - a. Escrow account in the name of the DEPARTMENT for the duration of the Contract. Acceptable securities would include, but not necessarily be limited to: Cash; treasury notes; bearer instruments having a specific value, or; money market certificates.
 - b. First *Deed of Trust* with the DEPARTMENT designated as beneficiary, against the unencumbered value of the real property located within the State of Alaska or an agreement by any second party, including deeds of trust, mortgage, lien or judgment interests to subrogate their interests to that of the State of Alaska in the real property which has been offered by the individual Surety.

A title insurance policy with the State of Alaska as a named beneficiary and a current (within 3 months) professional appraisal or assessed valuation will be required to ascertain the true value of the property offered as collateral. If buildings or other valued improvements are involved then fire and

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casualty insurance with the State of Alaska as a named insured and in limits and coverages acceptable to the Contracting Officer shall be required. The appraiser shall acknowledge in writing that the appraisal is prepared for the benefit of the DEPARTMENT and the DEPARTMENT has the right to rely on its contents. This *Deed* must be recorded in the recording office where the property is located.

With respect to clauses "a" and "b" above the *Deed of Trust* or other accepted security shall not be released until 12 months after Final Acceptance of the Project and settlement of all outstanding claims.

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.
- 5.4.2 The CONTRACTOR shall maintain in force at all times during the performance of Work under this agreement the following policies of insurance. 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. Worker's Compensation Insurance:

The Contractor shall provide and maintain, for all employees engaged in work under this contract, statutory limits coverage as required by AS 23.30.045.

The policy must waive subrogation against the State and include Employer's Liability Protection with policy limits not less than:

\$500,000 each accident, \$500,000 each disease.

b. <u>Commercial General Liability Insurance</u>: on an occurrence policy form covering all operations by or on behalf of the CONTRACTOR with combined single limits not less than:

\$1,000,000 each occurrence

\$1,000,000 for Personal Injury Liability

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

\$2,000,000 general aggregate

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The State of Alaska shall be named as additional insured. This insurance shall be considered to be primary and non-contributory to any other insurance carried by the State through self insurance or otherwise.

c. <u>Automobile Liability Insurance</u>: covering all vehicles used by the Contractor in the performance of services under this agreement with combined single limits not less than:

\$1,000,000 each occurrence

d.

- e. <u>Other Coverages</u>: As specified in the Supplementary Conditions.
- 5.4.3 All insurance policies shall comply with, and be issued by insurers licensed to transact the business of insurance under AS 21. Failure to maintain insurance may, at the option of the Contracting Officer, be deemed Defective Work and remedied in accordance with the Contract.

Evidence of Insurance, consisting of a certificate of insurance <u>or</u> the policy declaration page with required endorsements attached thereto - all of which have been executed by the insurer's representative and issued to the DEPARTMENT - shall denote the type, amount, class of operations covered, effective (and retroactive) dates, and dates of expiration. Evidence of Insurance must provide for a 30-day prior notice of cancellation, nonrenewal or material change of conditions.

Evidence pertaining to Worker's Compensation, Commercial General Liability, or Automobile Liability is required for Award. All other coverages shall be evidenced prior to commencement of WORK. Acceptance by the DEPARTMENT of deficient evidence does not constitute a waiver of Contract requirements as provided for the Conditions of the Contract.

If a certificate of insurance is submitted as evidence it shall contain the following statement:

"This is to certify that the policies described herein comply with all aspects of the insurance requirements of (Contract Name and Number, and Project 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 CONTRACTOR or SUBCONTRACTOR's performance of WORK under 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.

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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 reasonable time prior to the preconstruction conference 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.
- 6.6.2 Within fifteen days after the date of the Notice to Proceed, the CONTRACTOR shall submit to the Contracting Officer for review:

Anticipated schedule of Shop Drawing submissions; and

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

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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.

6.10 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

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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 submitted for Approval must contain provisions for payment for Work done by the Subcontractor within 7 days of receipt of payment by the CONTRACTOR. 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

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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

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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.

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

6.22 Maintenance During Construction:

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

6.23 Continuing the Work:

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

6.24 Consent to Assignment:

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

6.25 Use of Explosives:

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

6.26 CONTRACTOR's Records:

6.26.1 Records of the CONTRACTOR and Subcontractors relating to personnel, payrolls, invoices of materials, and any and all other data relevant to the performance of this Contract, must be kept on a generally recognized accounting system. Such records must be available during normal work hours to the

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- 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.

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

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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.

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- 7.12.2 In determining the low bidder for State funded projects, a 5% bid preference has been given to "Alaska Veteran bidders", as required under AS 36.30.175 for Alaska veteran-owned businesses.
 - To qualify for the Veterans Preference (per AS 36.30.175), the bidder must:
 - (1) Qualify for the Alaska Bidder's Preference
 - (2) Add value by actually performing the services or have prior experience in selling the supplies
 - (3) Qualify as an Alaska Veteran
 - (4) The value of the preference cannot exceed \$5,000.
- 7.12.3 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 bid documents designate the use of Alaska products. If the successful Bidder/CONTRACTOR proposes to use an Alaska product and does not do so, a penalty will be assessed against the successful Bidder/CONTRACTOR 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.
- 7.12.4 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.
- 7.12.5 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 Preferential Employment:

The CONTRACTOR shall comply with all applicable and valid laws and regulations regarding the hiring of Alaska residents now in effect or that might subsequently take effect during the term of this Contract. In order to ensure that CONTRACTOR's Subcontractors will comply with all applicable laws and regulations regarding the hiring of Alaska residents now in effect or that might subsequently take effect, the CONTRACTOR shall include in its contracts with Subcontractors under this Contract language that is substantially the same as the first sentence of this provision.

7.14 Wages and Hours of Labor:

- 7.14.1 One certified copy of all payrolls shall be submitted weekly to the State Department of Labor and, upon request, to the Contracting Officer to assure to assure compliance with AS 36.05.040, *Filing Schedule of Employees Wages Paid and Other Information*. The CONTRACTOR shall be responsible for the submission of certified copies of payrolls of all Subcontractors. The certification shall affirm that the payrolls are current and complete, that the wage rates contained therein are not less than the applicable rates referenced in these Contract Documents, and that the classification set forth for each laborer or mechanic conforms with the Work he performed. The CONTRACTOR and his Subcontractors shall attend all hearings and conferences and produce such books, papers, and documents all as requested by the Department of Labor. Should federal funds be involved, the appropriate federal agency shall also receive a copy of the CONTRACTOR's certified payrolls.
- 7.14.2 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;

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- 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
 - 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.

7.15 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.

7.16 Covenant Against Contingent Fees:

The CONTRACTOR warrants that no person or selling agent has been employed or retained to solicit or secure this Contract upon an agreement or understanding for a commission, percentage, brokerage, or contingent fee, excepting bona fide employees or bona fide established commercial or selling agencies maintained by the CONTRACTOR for the purpose of securing business. For breach or violation of this warrant, the DEPARTMENT shall have the right to annul this Contract without liability or, in its discretion, to deduct price of consideration from the Contract or otherwise recover the full amount of such commission, percentage, brokerage, or contingent fee.

7.17 Officials Not to Benefit:

No member of or delegate to the U.S. Congress, the Alaska State Legislature or other state official shall be admitted to any share or part of this Contract, nor to any benefit that may arise there from. However, this provision shall not be construed to extend to this Contract if made with a corporation for its general benefit.

7.18 Personal Liability of Public Officials:

In carrying out any of the provisions thereof, or in exercising any power or authority granted to the Contracting Officer by the Contract, there will be no liability upon the Contracting Officer nor upon state employees authorized as his representatives, either personally or as officials of the State of Alaska, it being always understood that in such matters they act as agents and representatives of the DEPARTMENT.

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

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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.

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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 only 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.

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:

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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 equitable adjustment shall be made and the Contract modified in writing accordingly.
- 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.

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 price which includes overhead and profit.

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- 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:

- 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 include, but not 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 superintendents and foremen at the site. 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 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

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

10.5 Excluded Costs:

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

- 10.5.1 Payroll costs and other compensation of CONTRACTOR's officers, executives, principals (of partnership and sole proprietorships), general managers, engineers, architects, estimators, attorneys, auditors, accountants, purchasing and contracting agency, expeditors, timekeepers, clerks and other personnel employed by CONTRACTOR whether at the site or in CONTRACTOR's principal or a branch office for general administration of the Work and not specifically included in the agreed upon schedule of job classifications referred to in paragraph 10.4.1 or specifically covered by paragraph 10.4.4 all of which are to be considered administrative costs covered by the CONTRACTOR's fee.
- 10.5.2 Expenses of CONTRACTOR's principal and branch offices other than CONTRACTOR's office at the site.
- 10.5.3 Any part of CONTRACTOR's capital expenses including interest on CONTRACTOR's capital employed for the Work and charges against CONTRACTOR for delinquent payments.
- 10.5.4 Cost of premiums for all bonds and for all insurance whether or not CONTRACTOR is required by the Contract Documents to purchase and maintain the same (except for the cost of premiums covered by subparagraph 10.4.5.i above).
- 10.5.5 Costs due to the negligence of CONTRACTOR, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, including but not limited to, the correction of Defective Work, disposal of materials or equipment wrongly supplied and making good any damage to property.
- 10.5.6 Other overhead or general expense costs of any kind and the costs of any item not specifically and expressly included in paragraph 10.4.

10.6 CONTRACTOR's Fee:

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

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- 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 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 of all Subcontractors and multiple tiers thereof shall be fifteen percent;
 - 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 ten 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.

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- 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.

10.11 Disadvantaged and Women Business Enterprises (DBE & WBE) Program:

The Contract Price shall be adjusted by such means as provided in the section entitled "Phase III - Determination of Liquidated Damages and Bonuses", DISADVANTAGED AND WOMEN BUSINESS ENTERPRISE (DBE & WBE) PROGRAM, Form 25A300.

ARTICLE 11 - CONTRACT TIME; COMPUTATION AND CHANGE

11.1 Commencement of Contract Time; Notice to Proceed:

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

11.2 Starting the Work:

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

11.3 Computation of Contract Time:

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

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

11.4 Time Change:

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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 Final 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 reprocurement. 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:

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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:

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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 Final Completion 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

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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 or twice a month when requested by the CONTRACTOR, but only when the approved invoice exceeds \$10,000.00.

13.4 Review of Applications for Progress Payment:

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

13.5 Stored Materials and Equipment:

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

13.6 CONTRACTOR's Warranty of Title:

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

13.7 Withholding of Payments:

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

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

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

13.8 Retainage:

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

13.9 Request for Release of Funds:

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

13.10 Substantial Completion:

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

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

13.11 Access Following Substantial Completion:

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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 maintenance and operating instructions, schedules, guarantees, bonds, certificates of payment to all laborers, Subcontractors and Suppliers, certificates of inspection, marked-up record documents 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.l, 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

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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.

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 If the CONTRACTOR:

- a. Fails to begin the Work under the Contract within the time specified in the Proposal, or
- b. Fails to perform the Work in accordance with the Contract Documents (including, but not limited to, failure to supply sufficiently skilled workmen, suitable materials or equipment or failure to adhere to the progress schedule established under paragraph 6.6 as revised from time to time), or
- c. Performs the Work unsuitably or neglects or refuses to remove materials or to correct Defective Work, or
- d. Discontinues the prosecution of the Work, or
- e. Fails to resume Work which has been discontinued within a reasonable time after notice to do so, or
- f. Becomes insolvent, except that if the CONTRACTOR declares bankruptcy termination in accordance with all *U.S.C.* 362 and/or 11 *U.S.C.* 365. In the event the CONTRACTOR declares bankruptcy the CONTRACTOR agrees that the Contract will be assumed or rejected in a timely manner so that the Contract will be completed by the date specified in the Contract Documents, or

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- 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. For any cause whatsoever, fails to carry on the Work in an acceptable manner, the Contracting Officer may give notice in writing to the CONTRACTOR and his Surety of such delay, neglect, or default.
- 14.2.2 If the CONTRACTOR or 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.
- 14.2.3 The Contracting Officer may, by written notice to the CONTRACTOR and his Surety or his 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 his 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.
- 14.2.4 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 therefor, 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.
- 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 reprocurement 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 his Surety shall pay the difference.
- 14.2.6 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

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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.

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

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- 14.4.3 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.
- 14.4.4 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.

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. The reasonable costs of settlement with respect to the terminated portion of the Contract heretofore, to the extent that these costs have not been covered under the payment provisions of the Contract.
- 14.4.5 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.
- 14.4.6 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 his Surety from liability.

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.

ARTICLE 15 - CLAIMS AND DISPUTES

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15.1 Notification:

In addition to the notice requirements set out elsewhere in this Contract, if the CONTRACTOR becomes aware of any act or occurrence which may form the basis of a claim by the CONTRACTOR for additional compensation or an extension of time for performance, or if any dispute arises regarding a question of fact or interpretation of the Contract, the CONTRACTOR shall immediately inform the Project Manager. If the matter cannot be resolved by agreement within 7 days, the CONTRACTOR shall, within the next 14 days, submit an "Intent to Claim" in writing to the Project Manager.

The claim, if not resolved, shall be presented to the Project Manager, in writing, within 60 days following receipt of the "Intent to Claim". Receipt of the claim will be acknowledged in writing by the Project Manager.

The CONTRACTOR agrees that unless these written notices are provided, the CONTRACTOR will have no entitlement to additional time or compensation for such act, event or condition. The CONTRACTOR shall in any case continue diligent performance of the Contract.

15.2 Presenting Claim:

The claim shall specifically include the following:

- 15.2.1 The act, event or condition giving rise to the claim.
- 15.2.2 The Contract provisions which apply to the claim and under which relief is provided.
- 15.2.3 The item or items of Contract Work affected and how they are affected.
- 15.2.4 The specific relief requested, including Contract Time if applicable, and the basis upon which it was calculated.

15.3 Claim Validity, Additional Information, and Project Manager's Actions:

The claim, in order to be valid, must not only show that the CONTRACTOR suffered damages or delay but that those conditions were actually a result of the act, event or condition complained of and that the Contract provides entitlement to relief to the CONTRACTOR for such act, event, or condition. The Project Manager reserves the right to make written request to the CONTRACTOR at any time for additional information which the CONTRACTOR may possess relative to the claim. The CONTRACTOR agrees to provide the Project Manager such additional information within 30 days of receipt of such a request. Failure to furnish such additional information may be regarded as a waiver of the claim. The Claim, if not resolved by agreement within 60 days of its receipt, will automatically be forwarded to the Contracting Officer for formal written decision.

15.4 Contracting Officer's Decision:

The CONTRACTOR will be furnished the Contracting Officers decision within the next 90 days, unless additional information is requested by the Contracting Officer. The Contracting Officer's decision is final and conclusive unless fraudulent as to the claim or unless, within 14 days of receipt of the decision, the CONTRACTOR delivers a written Notice of Appeal to the Appeals Officer. Procedures for appeals and hearings are covered under AS 36.30.625 and AS 36.30.630.

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

The following supplements modify, change, delete from, add to the "General Conditions of the Construction Contract for Buildings", revised December, 1987 (c) 4/96. Where any article of the General Conditions is modified, or and Paragraph, Subparagraph, or Clause thereof is modified or deleted by these Supplementary Conditions, the unaltered provisions of that Article, Paragraph, Subparagraph, of Clause shall remain in effect.

SC-1-DEFINITIONS

At General Conditions Article 1, add the following definitions:

"APPROVED. '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.

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.

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

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

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.

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.

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.

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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.

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.

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."

At General Conditions Article 1, definition of **Contract Time**, last sentence, Replace "...Final Completion..." with:

"...Substantial Completion...".

At General Conditions Article 1, definition of **Conditions of the Contract**: Delete the text of this definition in its entirety.

At General Conditions Article 1, definition of **Contract Time**: Delete the text of this definition and replace with the following:

"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."

At General Conditions Article 1, definition of **Controlling Item**: Delete the text of this definition and replace with the following:

"Any feature of the Work on the critical path of a network schedule."

At General Conditions Article 1, definition of **Defective**: Delete the text of this definition and replace with the following:

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

At General Conditions Article 1, definition of **Effective Date of the Contract**: Delete the text of this definition in its entirety.

At General Conditions Article 1, definition Shop Drawings: Add the following text:

"Where used in the Contract Documents, "Shop Drawings" shall also mean "Submittals"."

At General Conditions Article 1, second paragraph: Delete this paragraph in its entirety and replace with the following:

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

At General Conditions Article 1, third paragraph starting with "Whenever used in the Specifications....", Delete this paragraph in its entirety.

At General Conditions Article 1, fourth paragraph, last sentence: Revise it to read as follows:

"Words defined in Article 1 are to be interpreted as defined."

SC-2.1-AUTHORITIES AND LIMITATIONS

At General Conditions Article 2.1.1, delete this paragraph in its entirety and replace with the following:

"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. "

At General Conditions Article 2.1.4 starting with "The term of "Contracting Officer" when used...", delete this article in its entirety.

SC-2.4-VISITS TO SITE/PLACE OF BUSINESS

At General Conditions Article 2.4, delete this article in its entirety.

SC-4.1-AVAILABILITY OF LANDS

At General Conditions Article 4.1, add the following:

"The CONTRACTOR shall provide all waste and disposal areas, including disposal areas for hazardous or contaminated materials, at no additional cost to the DEPARTMENT."

SC-4.3-EXPLORATIONS AND REPORTS

At General Conditions Article 4.3, add the following text:

"A copy of the geotechnical reports and addendum that were used in the preparation of these contract documents (See Section 00300, Information Available to Bidders) is provided to all planholders listed with the DEPARTMENT as General Contractors, and is available to other planholders upon request. 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 supercede or constitute conditions of the Contract Documents."

SC-4.7-SURVEY CONTROL

At General Conditions Article 4.7, delete the third sentence and substitute the following text:

"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."

SC-5.2-BONDS

At General Condition Article 5.2, delete the second, third, fourth, fifth, and sixth paragraphs in their entirety.

SC-5.4.2-INSURANCE REQUIREMENTS, GENERAL

At General Condition Article 5.4.2, revise the first sentence to read as follows:

"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."

SC-5.4.2a-WORKMANS COMPENSATION INSURANCE

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

- "a. <u>Workers' Compensation Insurance</u>: 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."

SC-5.4b-COMPREHENSIVE GENERAL LIABILITY INSURANCE

At General Conditions Article 5.4b, delete minimum limits of liability items 1 and 2 in their entirety and substitute the following text:

- "1. If the CONTRACTOR carries a *Comprehensive General Liability* policy, the limits of liability shall not be less than a Combined Single Limit for bodily injury, property damage and Personal Injury Liability of:
 - \$1,000,000 each occurrence \$2,000,00 aggregate
- 2. If the CONTRATOR 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 Health & Social Services shall be named as an "Additional Insured" under all liability coverages listed above."

SC-5.4.2d-BUILDERS RISK INSURANCE (SUBCONTRACTORS)

At General Condition Article 5.4.2d, revise the last sentence to read as follows:

"Builders Risk Insurance will only be required of <u>subcontractors</u> if so stated in the Supplementary Conditions."

SC-5.4.3-INSURANCE REQUIREMENTS, EVIDENCE OF INSURANCE

At General Conditions Article 5.4.3, delete this subsection and replace with the following:

"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)."

SC-6.6.1-PROGRESS SCHEDULE

At General Condition Article 6.6.1, change the phrase "Within reasonable time prior to the Pre-Construction Conference..." to read:

"Within seven days after the Pre-Construction Conference."

SC-6.6.2-SCHEDULE OF SHOP DRAWINGS AND SCHEDULE OF VALUES

At General Condition Article 6.6.2, change the phrase "Within fifteen days after the date of the Notice To Proceed,..." to read:

"Prior to submitting the CONTRACTOR's first Application for Payment..."

SC-6.9-SUBSTITUTES "OR EQUAL" ITEMS

Add the following article:

"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."

SC-6.13.1-SUBCONTRACT PROVISIONS

At General Condition Article 6.13.1, delete the third sentence and add the following text:

"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."

SC-6.27-LOAD RESTRICTIONS

Add new General Conditions Article 6.27 as follows:

"6.27 Load Restrictions

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

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

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

SC-7.12-APPLICABLE ALASKA PREFERENCES

At General Condition Article 7.12.2, delete the last portion of the first sentence commencing at the words, "...when the bid documents designate..." and replace with the words:

"...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." Continue with existing second sentence.

SC-7.13-PREFERENTIAL EMPLOYMENT

At General Condition Article 7.13, delete the text of this article in its entirety.

SC-7.14.1-CERTIFIED PAYROLLS

At General Condition Article 7.14.1, add the following text:

"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."

Add General Condition Article 7.14.3. as follows:

"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 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."

SC-7.16-COVENANT AGAINST CONTINGENT FEES

At General Conditions Article 7.16, delete the text of this article in its entirety.

SC-7.17-OFFICIALS NOT TO BENEFIT

At General Conditions Article 7.17, delete the text of this article in its entirety.

SC-7.18-PERSONAL LIABILITY OF PUBLIC OFFICIALS

At General Conditions Article 7.18, delete the text of this article in its entirety.

SC-9.4-CHANGE ORDER

At General Conditions Article 9.4, change the first sentence to read:

"A change in Contract Time, Contract Price, or responsibility may be made for changes within the scope of the Work by Change Order."

At General Conditions Article 9.4, add the following sentence:

"A Change Order shall be considered executed when it is signed by the DEPARTMENT."

SC-9.10-INTERIM WORK AUTHORIZATION

At General Conditions Article 9.10, add the following new paragraph:

"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."

SC-10.3.2-CHANGE ORDER PRICE DETERMINATION FOR LUMP SUM CHANGE ORDERS

At General Conditions Article 10.3.2, Delete this paragraph in its entirety and replace it with the following.

"10.3.2 By mutual acceptance of a lump sum price which includes overhead and profit. 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. 17% where a cost is borne directly by prime contractor (first tier contractor).
- b. 10% where a cost is borne by a subcontractor (lower tier contractor).

Where the cost is borne by a subcontractor acting as a first tier contractor, the allowable overhead and profit markup for lump sum change orders shall not exceed 17%. Any lower tier subcontractors, including the CONTRACTOR in this case, for whom the first tier subcontractor performs the work, shall be allowed an overhead and profit markup that does not exceed 10%.

SC-10.4-COST OF THE WORK

At General Conditions Article 10.4.1, replace the second sentence from the end of the paragraph with the following:

"Such employees shall include manual workers up through the level of foreman but shall not include general foremen, superintendents, and non-manual employees."

At General Conditions Article 10.4.2, replace the first sentence with the following:

"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."

SC-10.4.5.c-COST OF THE WORK (SUPPLEMENTAL COSTS)

At General Condition Article 10.4.5.c, add the following:

"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."

SC-10.10-DETERMINATION FOR UNIT PRICES

At General Conditions Article 10.10 Add the following at the beginning of this Article:

"Measure for payment for price work shall be made in accordance with DOT's Standard Specifications for Highway Construction, 2020, Section 109.

SC-10.11-DISADVANTAGED BUSINESSS ENTERPRISE PROGRAM

At General Conditions Article 10.11, Delete this paragraph in its entirety for this State Funded Contract.

SC-11.3-COMPUTATION OF CONTRACT TIME

At General Condition Article 11.3.1, third sentence, change "...the date of Final Completion..." to:

"...the date of Substantial Completion..."

At General Condition Article 11.3.2, first sentence, change "...the date of Final Completion..." to:

"...the date of Substantial Completion."

Add General Condition Article 11.3.3, to state as follows:

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

SC-11.8-DELAY DAMAGES

At General Condition Article 11.8, add the following:

"For each calendar day that the work remains incomplete after the expiration of the Contract Time, liquidated damages in the amount of \$500 per calendar day shall be assessed to the CONTRACTOR. If no money is due the CONTRACTOR, the DEPARTMENT shall have the right to recover said sum from the CONTRACTOR, the surety or both. The amount of these deductions is to reimburse the DEPARTMENT for estimated liquidated damages incurred as a result of the CONTRACTOR's failure to complete the work within the time specified. As liquidated damages, such deductions are not to be considered as penalties.

Permitting the CONTRACTOR to continue and finish the work or any part of it after the time fixed for its completion, or after the date to which the time for completion may have been extended, will in no way operate as a waiver on the part of the DEPARTMENT of any of its rights under the Contract."

SC 12-ONE YEAR CORRECTION PERIOD

At General Condition Article 12.7, in the first sentence, change the phrase "Final Completion" to:

"Substantial Completion of the relevant portion of the Work..."

SC 13.3-APPLICATION FOR PROGRESS PAYMENT

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

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

SC 13.13-FINAL COMPLETION AND APPLICATION FOR PAYMENT

At General Conditions Article 13.13, first sentence, delete the following items:

"maintenance and operating instructions certificates of inspection marked up record documents"

The preceding items are some of the requirements for Substantial Completion, as addressed in Section 01701.

SC 13.16-CONTRACTOR'S CONTINUING OBLIGATION

At General Condition Article 13.16, add the following paragraph:

"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."

SC 14.2-DEFAULT OF CONTRACT

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

- "14.2.1 The Contracting Officer may give the contractor and his 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,
- performs the work unsuitably or neglect or refuse 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 you declare bankruptcy, termination will be under Title 11 US Code 362 and/or 365. Your 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
- 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
- I. are 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 you and your 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 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 his Surety or his 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 his 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 your 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. You forfeit any right to claim for the same work or any part thereof. You are not 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 therefor, 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 reprocurement 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 upaid 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 his Surety shall pay the difference.
- 14.2.10 If, after notice of termination of the CONTRACTOR's right to proceed under the provisions of this clause, it is determined for any reason that the CONTRACTOR was not in default under the provisions of this clause, or that the delay was excusable under the provisions of this clause, or that termination was wrongful, the rights and obligations of the parties shall be determined in accordance with the clause providing for convenience termination.

14.3 Rights or Remedies:

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

14.4 Convenience Termination:

14.4.1 The performance of the Work may be terminated by the DEPARTMENT in accordance with

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

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

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

- 14.4.3 When the DEPARTMENT orders termination of the Work effective on a certain date, all Work in place as of that date will be paid for in accordance with Article 13 of the Contract. Materials required for completion and on hand but not incorporated in the Work will be paid for at invoice cost plus 15 % with materials becoming the property of the DEPARTMENT or the CONTRACTOR may retain title to the materials and be paid an agreed upon lump sum. Materials on order shall be cancelled, and the DEPARTMENT shall pay reasonable factory cancellation charges with the option of taking delivery of the materials in lieu of payment of cancellation charges. The CONTRACTOR shall be paid 10% of the cost, freight not included, of materials cancelled, and direct expenses only for CONTRACTOR chartered freight transport which cannot be cancelled without charges, to the extent that the CONTRACTOR can establish them. The extra costs due to cancellation of bonds and insurance and that part of job start-up and phase-out costs not amortized by the amount of Work accomplished shall be paid by the DEPARTMENT. Charges for loss of profit or consequential damages shall not be recoverable except as provided above.
 - a. The following costs are not payable under a termination settlement agreement or Contracting Officer's determination of the termination claim:
 - 1. Loss of anticipated profits or consequential or compensatory damages
 - 2. Unabsorbed home office overhead (also termed "General & Administrative Expense") related to ongoing business operations
 - 3. Bidding and project investigative costs

- 4. Direct costs of repairing equipment to render it operable for use on the terminated work
- 14.4.4 The termination claim shall be submitted promptly, but in no event later than 90 days from the effective date of termination, unless extensions in writing are granted by the Contracting Officer upon written request of the CONTRACTOR made within the 90 day period. Upon failure of the CONTRACTOR to submit his termination claim within the time allowed, the Contracting Officer may determine, on the basis of information available to him, the amount, if any, due to the CONTRACTOR by reason of the termination and shall thereupon pay to the CONTRACTOR the amount so determined.
- 14.4.5 The CONTRACTOR and the Contracting Officer may agree upon whole or any part of the amount or amounts to be paid to the CONTRACTOR by reason of the total or partial termination of Work pursuant to this section. The Contract shall be amended accordingly, and the CONTRACTOR shall be paid the agreed amount.
- 14.4.6 In the event of the failure of the CONTRACTOR and the Contracting Officer to agree in whole or in part, as provided heretofore, as to the amounts with respect to costs to be paid to the CONTRACTOR in connection with the termination of the Work the Contracting Officer shall determine, on the basis of information available to him, the amount, if any, due to the CONTRACTOR by reason of the termination and shall pay to the CONTRACTOR the amount determined as follows:
 - 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:
 - 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 your 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 you 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 you have 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 his 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. <u>Definitions</u>. In this Subsection 108-1.09, the term "cost" and the term "expense" mean a monetary amount in U.S. Dollars actually incurred by you, actually reflected in your contemporaneously maintained accounting or other financial records and supported by original source documentation.
 - c. <u>Cost Principles</u>. 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."

SC-15-CLAIMS AND DISPUTES

At General Conditions Article 15 – Claims and Disputes, delete this section in its entirety and substitute the following text:

"ARTICLE 15 - CLAIMS FOR ADJUSTMENT AND DISPUTES

15.1 Notification

15.1.1 The CONTRACTOR shall notify the DEPARTMENT in writing as soon as the CONTRACTOR becomes aware of any act or occurrence which may form the basis of a claim for additional compensation or an extension of Contract Time or of any dispute regarding a question of fact or interpretation of the Contract. The DEPARTMENT has no obligation to investigate any fact or occurrence that might form the basis of a claim or to provide any additional compensation or extension of Contract Time unless the CONTRACTOR has notified the DEPARTMENT in writing in a timely manner of all facts the CONTRACTOR believes form the basis for the claim.

- 15.1.2 If the CONTRACTOR believes that he is entitled to an extension of Contract Time, then the CONTRACTOR must state the contract section on which he basis his extension request, provide the DEPARTMENT with sufficient information to demonstrate that the CONTRACTOR has suffered excusable delay, and show the specific amount of time to which the CONTRACTOR is entitled. The DEPARTMENT will not grant an extension of Contract Time if the CONTRACTOR does not timely submit revised schedules under Section 01310.
- 15.1.3 If the matter is not resolved by agreement within 7 days, the CONTRACTOR shall submit an Intent to Claim, in writing, to the DEPARTMENT within the next 14 days.
- 15.1.4 If the CONTRACTOR believes additional compensation or time is warranted, then he must immediately begin keeping complete, accurate, and specific daily records concerning every detail of the potential claim including actual costs incurred. The CONTRACTOR shall provide the DEPARTMENT access to any such records and furnish the DEPARTMENT copies, if requested. Equipment costs must be based on the CONTRACTOR's internal rates for ownership, depreciation, and operating expenses and not on published rental rates. In computing damages, or costs claimed for a change order, or for any other claim against the Department for additional time, compensation or both, the contractor must prove actual damages based on internal costs for equipment, labor or efficiencies. Total cost, modified total cost or jury verdict forms of presentation of damage claims are not permissible to show damages. Labor inefficiencies must be shown to actually have occurred and can be proven solely based on job records. Theoretical studies are not a permissible means of showing labor inefficiencies. Home office overhead will not be allowed as a component of any claim against the Department.
- 15.1.5 If the claim or dispute is not resolved by the DEPARTMENT, then the CONTRACTOR shall submit a written Claim to the Contracting Officer within 90 days after the CONTRACTOR becomes aware of the basis of the claim or should have known the basis of the claim, whichever is earlier. The Contracting Officer will issue written acknowledge of the receipt of the Claim.
- 15.1.6 The CONTRACTOR waives any right to claim if the DEPARTMENT was not notified properly or afforded the opportunity to inspect conditions or monitor actual costs or if the Claim is not filed on the date required.

15.2 Presenting the Claim

- 15.2.1 The Claim must include all of the following:
 - a. The act, event, or condition the claim is based on
 - b. The Contract provisions which apply to the claim and provide relief
 - c. The item or items of Contract work affected and how they are affected
 - 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."

END OF SECTION

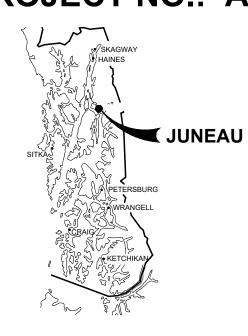


Page 18 of 18

ALASKA DEPARTMENT OF FAMILY & COMMUNITY SERVICES

JUNEAU PIONEERS HOME COURTYARD RENOVATIONS PROJECT NO.: ANC 24-43C





SOUTHEAST ALASKA

| DRAWING INDEX | | |
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| | GENERAL | |
| G1.1 | TITLE SHEET, VICINITY MAP AND DRAWING INDEX | |
| G1.2 | GENERAL NOTES, LEGEND AND ABBREVIATIONS | |
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| C1.7 | BASE BID SIDEWALK PLAN AND PROFILE | |
| C1.8 | LAYOUT TABLES | |
| C1.9 | ADD ALT 3 SITE PLAN AND TYPICAL SECTION | |
| C2.1 | SITE DETAILS | |
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| C2.3 | SITE DETAILS | |
| C2.4 | SITE DETAILS | |

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| L3.1 | LANDSCAPE DETAILS |
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| L3.3 | LANDSCAPE DETAILS |
| L3.4 | ALT 1 GAZEBO |
| L3.5 | ALT 2 LANDSCAPE DETAILS |
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| L4.2 | ALT 3 PLANTING PLAN |
| L4.3 | PLANTING DETAILS |
| L4.4 | PLANTING DETAILS |



AERIAL PHOTO FROM BING MAPS

VICINITY MAP

NTS

| DWG. NO. TITLE ELECTRICAL E1.0 ELECTRICAL LEGEND AND ABBREVIATIONS E2.0 DEMOLITION PLAN BASE BID E3.0 SITE PLAN BASE BID E4.0 DEMOLITION AND SITE PLANS ALT 3 E5.0 ENLARGED PLANS BASE BID E6.0 DETAILS | |
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| E1.0 ELECTRICAL LEGEND AND ABBREVIATIONS E2.0 DEMOLITION PLAN BASE BID E3.0 SITE PLAN BASE BID E4.0 DEMOLITION AND SITE PLANS ALT 3 E5.0 ENLARGED PLANS BASE BID | |
| E2.0 DEMOLITION PLAN BASE BID E3.0 SITE PLAN BASE BID E4.0 DEMOLITION AND SITE PLANS ALT 3 E5.0 ENLARGED PLANS BASE BID | |
| E3.0 SITE PLAN BASE BID E4.0 DEMOLITION AND SITE PLANS ALT 3 E5.0 ENLARGED PLANS BASE BID | |
| E4.0 DEMOLITION AND SITE PLANS ALT 3 E5.0 ENLARGED PLANS BASE BID | |
| E5.0 ENLARGED PLANS BASE BID | |
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| E6.0 DETAILS | |
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| E7.0 DETAILS | |
| E8.0 DETAILS | |
| E9.0 SCHEDULES | |
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9360 Glacier Highway Ste 100 Juneau, Alaska 99801 Phone: 907-586-2093 Fax: 907-586-2099 www.pndengineers.com

Tyler C. Bradshaw CE-14651 ALASKA DEPT. OF FAMILY & COMMUNITY SERVICES
JUNEAU PIONEERS HOME
COURTYARD RENOVATIONS
PROJECT NO.: ANC 24-43C

SHEET TITLE:
TITLE SHEET, VICINITY MAP AND
DRAWING INDEX
PND PROJECT NO.: 212077 C.A.N. NO.: AECC250

G1.1

GENERAL NOTES

- AKDOT STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, 2020 AND STANDARD DETAILS ARE MADE A PART OF THIS CONTRACT, DETAILS NOT SHOWN SHALL CONFORM THERETO WITH MODIFICATIONS SPECIFIED.
- 2. PROPERTY DISTURBED DURING CONSTRUCTION SHALL BE RESTORED TO ITS PRE-CONSTRUCTION CONDITION OR BETTER AT NO ADDITIONAL COST.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ADHERING TO ALL APPLICABLE, LOCAL, STATE AND FEDERAL CODES, PERMITS AND SAFETY
- 4. THE LOCATIONS AND ELEVATIONS OF EXISTING FEATURES AND UTILITIES SHOWN ON THE DRAWINGS ARE APPROXIMATE. UTILITIES SHOWN ARE TAKEN FROM EXISTING RECORDS AND OTHER SOURCES. ADDITIONAL UTILITIES MAY BE PRESENT HOWEVER ARE NOT SHOWN. THE CONTRACTOR SHALL VERIFY ALL UTILITY LOCATIONS IN THE FIELD AS NECESSARY PRIOR TO BEGINNING WORK. THE HORIZONTAL AND VERTICAL LOCATIONS OF ALL UTILITIES ENCOUNTERED IN THE FIELD SHALL BE RECORDED ON THE CONTRACTOR'S RECORD DRAWINGS. CONTACT LOCAL UTILITIES AT THE FOLLOWING NUMBERS FOR LOCATE SERVICE A MINIMUM OF TWO BUSINESS DAYS PRIOR TO ANY EXCAVATION:

DIAL BEFORE YOU DIG! 586-1333

UNDERGROUND POWER, TELEPHONE, T.V., COMMUNICATIONS. WATER AND WASTEWATER LINES ARE IN THE AREA. UTILITIES SHOWN HERE DO NOT SUBSTITUTE FOR FIELD LOCATES.

DIAL BEFORE YOU DIG! 811

UNDERGROUND POWER, TELEPHONE, T.V., COMMUNICATIONS WATER AND WASTEWATER LINES. ARE IN THE AREA. UTILITIES SHOWN HERE DO NOT SUBSTITUTE FOR FIELD LOCATES.

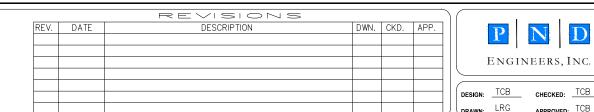
- 5. CONTRACTOR SHALL COORDINATE WITH ALL AFFECTED BOROUGH DEPARTMENTS AND LOCAL UTILITY COMPANIES DURING CONSTRUCTION.
- THE CONTRACTOR SHALL NOT DISRUPT UTILITY SERVICES EXCEPT AS REQUIRED TO COMPLETE THE RECONFIGURATION OF THOSE SERVICES AS SHOWN IN THE PLANS. COORDINATE ANY DISRUPTIONS WITH OWNER AND NOTIFY AFFECTED RESIDENTS A MINIMUM OF 48 HOURS IN ADVANCE.
- PROTECT ALL EXISTING UTILITIES DURING CONSTRUCTION. NO ASSURANCE IS GIVEN THAT THE INDICATED POSITION OF ANY EXISTING UTILITY IS CORRECT OR THAT THE INFORMATION IS COMPLETE. ALL LOCATIONS OF EXISTING UTILITIES ARE APPROXIMATE AND IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THE CORRECT AND TRUE LOCATION AS TO AVOID DAMAGE OR DISTURBANCE. DAMAGE TO EXISTING SITE FACILITIES SHALL BE REPAIRED BY THE CONTRACTOR AT NO COST TO THE OWNER.
- GRADING AND ALIGNMENT OF PIPE, STRUCTURES & FINAL SURFACING ARE SUBJECT TO MINOR REVISIONS BY THE ENGINEER TO FIT SITE CONDITIONS. GRADE ALL IMPROVEMENTS WITH POSITIVE DRAINAGE AWAY FROM BUILDINGS TO DITCHES, SWALES OR STORM DRAIN INLETS.
- 9. ALL ITEMS DESIGNATED TO BE REMOVED SHALL BE DISPOSED OF AT CONTRACTOR-PROVIDED DISPOSAL SITE, APPROVED BY THE ENGINEER, EXCEPT AS
- 10. CONTRACTOR SHALL REFERENCE ALL EXISTING PROPERTY CORNER MONUMENTS, RIGHT OF WAY MONUMENTS, AND CENTERLINE MONUMENTS PRIOR TO CONSTRUCTION. UNLESS NOTED OTHERWISE, DISTURBED MONUMENTS SHALL BE RESET OR REPLACED EXCEPT WHERE MONUMENT WOULD BE A HAZARD AS DETERMINED BY THE ENGINEER. EXISTING SURVEY MONUMENTS MAY NOT BE SHOWN ON THE DRAWINGS. ALL WORK SHALL BE DONE BY, OR UNDER THE DIRECTION OF, AN ALASKA REGISTERED LAND SURVEYOR.
- 11. THE CONTRACTOR IS RESPONSIBLE FOR ANY AND ALL DAMAGES TO PRIVATE AND PUBLIC PROPERTY ASSOCIATED WITH THE CONSTRUCTION ACTIVITIES, INCLUDING BUT NOT LIMITED TO DAMAGES CAUSED BY COMPACTION EFFORTS.
- 12. EXCEPT WHERE STAGING AND WORK AREAS ARE DESIGNATED ON THE PLANS, THE CONTRACTOR SHALL NOT STORE MATERIALS OR EQUIPMENT, OR OPERATE EQUIPMENT WITH ITS TRACKS OR WHEELS PLACED ON PRIVATE PROPERTY, WITHOUT THE WRITTEN APPROVAL OF THE PROPERTY OWNER.
- 13. MINOR FITTINGS AND VARIOUS SYSTEM APPURTENANCES NOT SHOWN IN UTILITY SHEETS MAY BE REQUIRED TO CONSTRUCT UTILITY SYSTEMS. CONTRACTOR SHALL USE INDUSTRY STANDARD PRACTICES TO ACHIEVE ALL CONNECTIONS NOT DETAILED IN ACCORDANCE WITH THE SPECIFICATIONS AND CONSISTENT WITH APPLICABLE LOCAL, STATE AND FEDERAL REGULATIONS PER ENGINEER DIRECTION (INCIDENTAL).
- 14. MATCH EXISTING GRADES AT PROJECT LIMITS AND WHERE REQUIRED TO MATCH ELEVATIONS AT EXISTING ROADS OR PATHS.

| LEGEND | | |
|--------------------------|--------------|-----------------------------------|
| EXISTING | THIS PROJECT | |
| ——— OHE _X ——— | | OVERHEAD ELECTRICAL |
| UGE _X | | BURIED ELECTRICAL |
| w _x | | WATER |
| ss _x | | SANITARY SEWER |
| OR A CP# CP# | | CONTROL POINT |
| _xxx | | FENCE |
| -00 | | TIMBER WALL |
| | | PROPERTY LINE |
| | | CENTERLINE |
| | _ | EASEMENT |
| | apapap | ROCKERY RETAINING WALL |
| * | | TREE |
| | | SIGN |
| → WV | | GATE OR BUTTERFLY VALVE |
| ₽ FH | | HYDRANT |
| € МН | | SS MANHOLE |
| 6 | | SD MANHOLE, SOLID COVER |
| -0- | | POWER POLE |
| •** | | LIGHT POLE |
| ' | * | BOLLARD LIGHT |
| \boxtimes | , , | ELECTRIC TRANSFORMER |
| | | CONCRETE |
| 1/// | | BUILDING |
| SD _x | SD | STORM DRAIN (SIZE, TYPE AS NOTED) |
| | | CATCH BASIN w/ SOLID COVER |
| | | AREA DRAIN |
| D 2 | | RIPRAP SPLASH PAD |
| B-3 | | BORE HOLE |
| | | APPROXIMATE VEGETATION BOUNDARY |
| -·-·- | | APPROXIMATE ATS BOUNDARY |
| | | APPROXIMATE OHW |
| | -> | METAL HANDRAIL |

ABBREVIATIONS

| © ACP ADA ALUM APPROX. or APPX. B BLDG BTM | AT ASPHALT CONCRETE PAVEMENT/ ASBESTOS CEMENT PIPE AMERICANS WITH DISABILITIES ACT ALUMINUM ADDROSHMATE | | MAXIMUM MATCH EXISTING MANUFACTURE (R) MANHOLE |
|---|---|---------------|---|
| ADA ALUM APPROX. Dr APPX. BLDG BTM | ASBESTOS CEMENT PIPE AMERICANS WITH DISABILITIES ACT ALUMINUM | MFR MH | MANUFACTURE (R) |
| ALUM APPROX. or APPX. B BLDG BTM | AMERICANS WITH DISABILITIES ACT ALUMINUM | МН | |
| ALUM APPROX. or APPX. B BLDG BTM | ALUMINUM | | MANHULE |
| APPROX. pr APPX. BLDG BTM | | MIPT | MALE IRON PIPE THREAD |
| or APPX. BLDG BTM | | MJ | MECHANICAL JOINT |
| BLDG BTM | APPROXIMATE | MIN | MINIMUM |
| BLDG BTM | | MLLW | MEAN LOWER LOW WATER |
| ВТМ | BUILDING | MTE | MATCH TO EXISTING |
| | BOTTOM | N | MATCH TO EXISTING |
|) | 20110111 | N | NORTH |
| B | CATCH BASIN | NIC | NOT IN CONTRACT |
| CBJ | CITY & BOROUGH OF JUNEAU | NTS | NOT TO SCALE |
| È | CENTER LINE | 0 | |
| CLR | CLEAR | OC | ON CENTER |
| CONC. | CONCRETE | OHE | OVERHEAD ELECTRICAL |
| CPP | CORRUGATED PLASTIC PIPE | OHW | ORDINARY HIGH WATER |
| CPEP | CORRUGATED POLYETHYLENE PIPE | OWS | OIL-WATER SEPARATOR |
| CTE | CONNECT TO EXISTING | P | |
| CTS | COPPER TUBE SIZE | PC | POINT OF CURVATURE POINT OF COMPOUND |
| CY | CUBIC YARD | PCC | CLIR VATURE |
|) * /DIA | DIAMETER | PE | POLYETHYLENE/PLAIN END |
| Ø/DIA | DIAMETER | PER | PERIMETER |
| DI DIP | DUCTILE IRON DUCTILE IRON PIPE | PJ | PACKED JOINT |
| OR OR | DRIVE | POC | POINT ON CURVE |
|)TL | DETAIL | P&R | CBJ PARKS AND RECREATIO |
| | DETAIL | Pack | DEPT. |
| <u>-</u> | FAST | PRC | POINT OF REVERSE CURVATUR |
| - | EACH | PSF | POUNDS PER SQUARE FOOT |
| EC. | EDGE CONCRETE | PT | POINT OF TANGENCY |
| SW | EDGE SIDEWALK | RVC | POLY-VINYL CHLORIDE |
| JIW | EAST JORDAN IRON WORKS | R | RADIUS |
| L/ELEV | ELEVATION | RAP | RECYCLED ASPHALT PAVEME |
| LÉC. | ELECTRICAL | RD | ROAD |
| P | EDGE OF PAVEMENT | RE | RIM ELEVATION |
| W | EACH WAY | REQD S | REQUIRED |
| - | | S | SOUTH, SMOOTH |
| -C | FACE OF CURB | SD | STORM DRAIN |
| -G | FINISHED GRADE | SF | SQUARE FEET |
| H | FIRE HYDRANT | | STAINLESS STEEL/SANITARY |
| M. | FORCE MAIN SEWER | SS | SEWER |
| ND - | FOUND | SDCB | STORM DRAIN CATCH BASIN |
| īL • | FLOWLINE OR FLANGE | SDMH | STORM DRAIN MANHOLE |
| 3 | CALVANIZED | SSMH | SANITARY SEWER MANHOLE |
| GALV GB | GALVANIZED GRADE BREAK | ST | STREET |
| эв ЭРМ | GALLONS PER MINUTE | STA | STATION |
| ∍r™ - | GALLONS FLIX WIINOTL | STD | STANDARD |
| n HDG | HOT-DIPPED GALVANIZED | SW | SIDEWALK |
| - | | SY | SQUARE YARD |
| HDPE | HIGH DENSITY POLYETHYLENE | T | |
| | | t. | THICK |
| ΑW | IN ACCORDANCE WITH | TYP | TYPICAL |
| Ξ | INVERT ELEVATION | U | LINITED NOTED OF LEDWISE |
| VV | INVERT | UNO | UNLESS NOTED OTHERWISE |
| l | | V | VALVE DOV |
| INT | JOINT | VEDT | VALVE BOX |
| - | | VERT | VERTICAL |
| | LENGTH | W W | WEST |
| .F | LINEAR FEET | w/ | WITH |
| .S | LUMP SUM | w/ WL | WATERLINE |
| | | WV | WATER VALVE |
| | | WW | WASTEWATER |
| | | | WASTEWATER TREATMENT |
| | | WWTP | PLANT |







LANDSCAPING

APPROVED: _TCB

VEGETATIVE SLOPE

9360 Glacier Highway Ste 100 Juneau, Alaska 99801 Fax: 907-586-2099

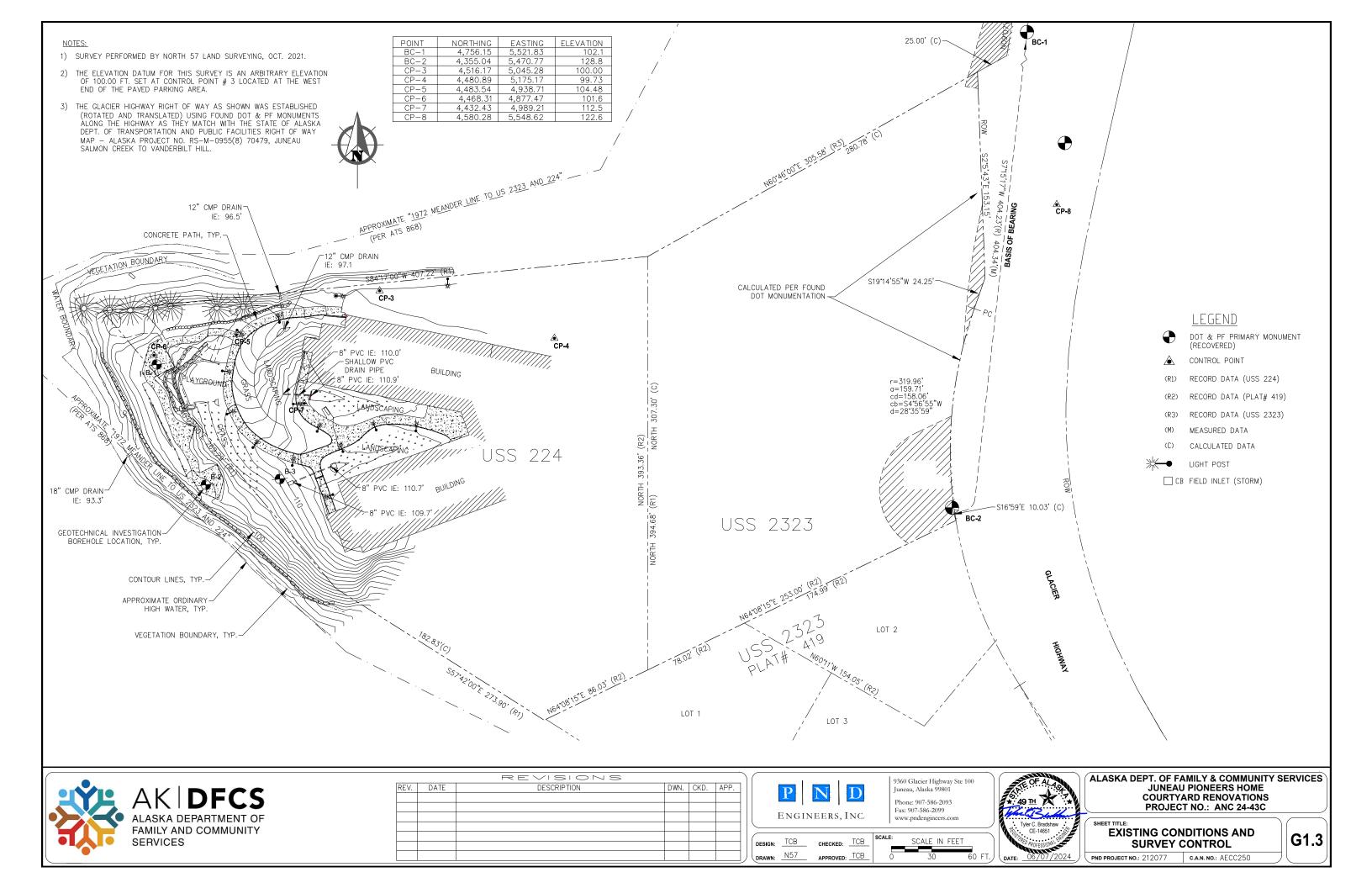
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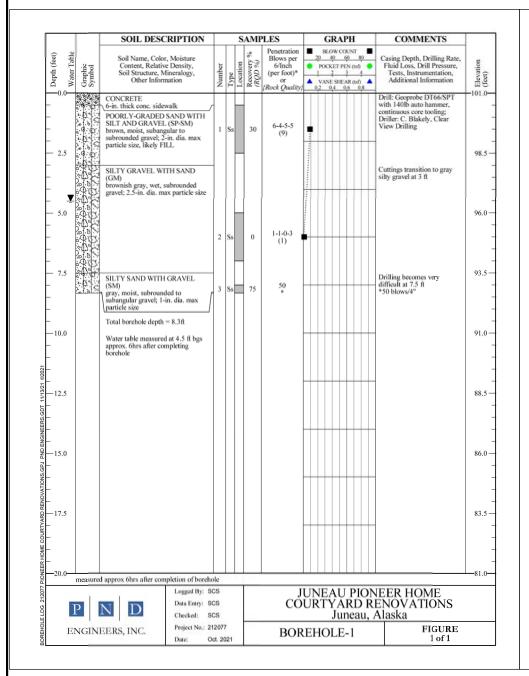


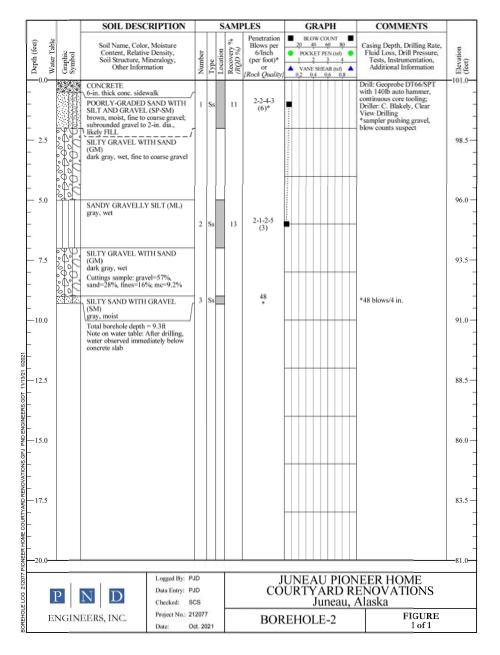
ALASKA DEPT. OF FAMILY & COMMUNITY SERVICES JUNEAU PIONEERS HOME **COURTYARD RENOVATIONS** PROJECT NO.: ANC 24-43C

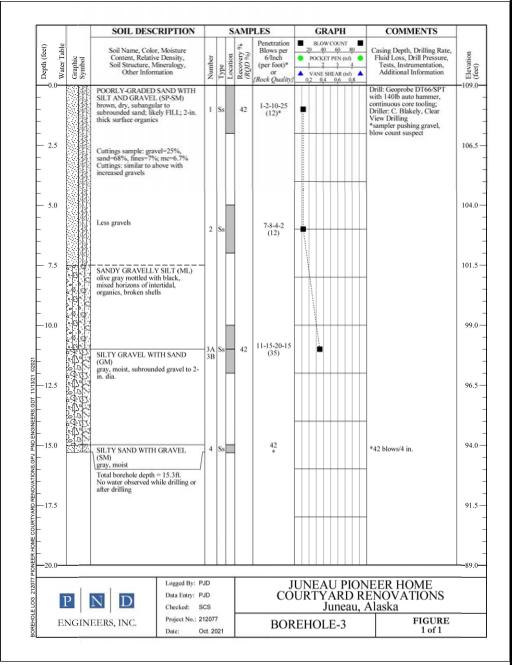
GENERAL NOTES. LEGEND AND ABBREVIATIONS

G1.2











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Juneau, Alaska 99801 5. 49 ⊞ 🖈 Fax: 907-586-2099 www.pndengineers.com SCALE IN FEET 0 15



ALASKA DEPT. OF FAMILY & COMMUNITY SERVICES JUNEAU PIONEERS HOME **COURTYARD RENOVATIONS** PROJECT NO.: ANC 24-43C

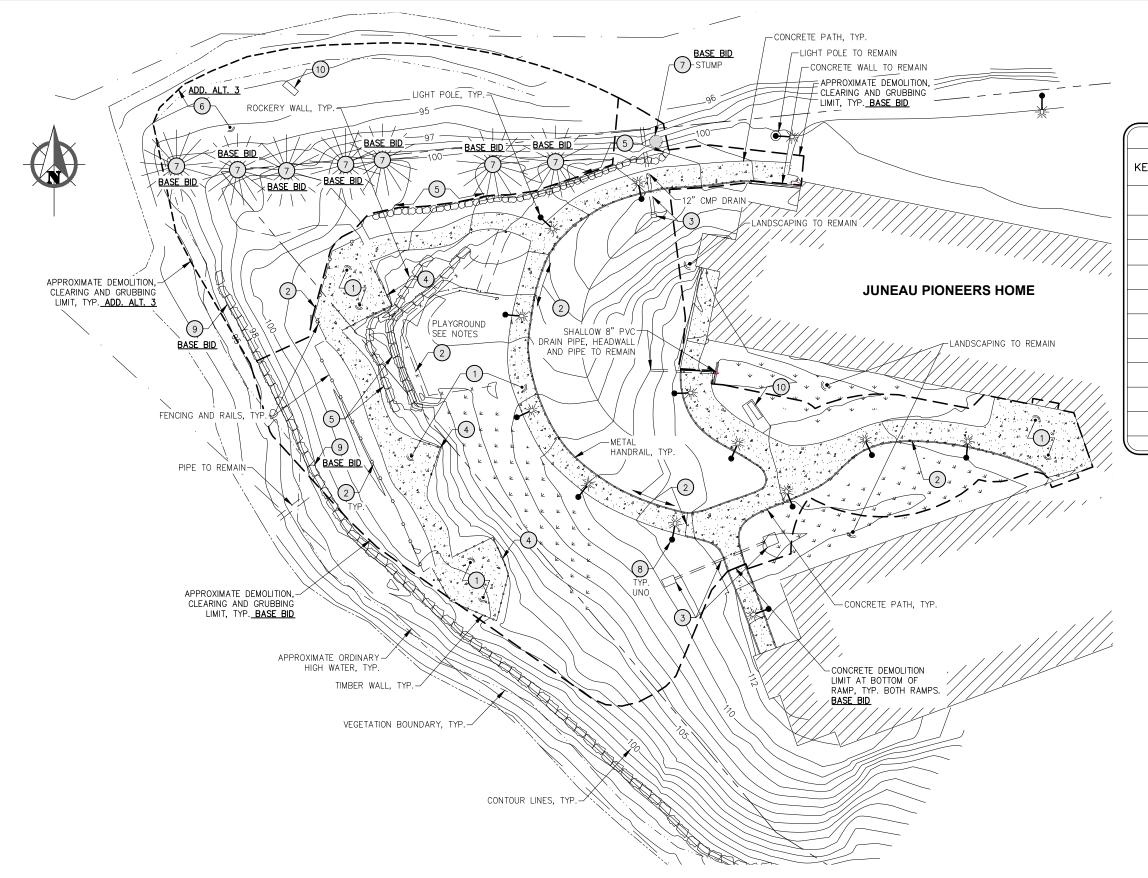
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SHEET TITLE:

PND PROJECT NO.: 212077

BORING LOGS

G1.4



| | DEMOLITION SUMMARY TABLE |
|----------|--|
| KEY NOTE | DESCRIPTION |
| 1 | REMOVE AND DISPOSE CONCRETE SURFACE BASE BID |
| 2 | REMOVE AND DISPOSE FENCING, WALLS, RAILS AND GATES BASE BID |
| 3 | REMOVE AND DISPOSE STORM DRAIN PIPE & STRUCTURE BASE BID |
| 4 | REMOVE AND DISPOSE TIMBER RETAINING WALL BASE BID |
| 5 | SALVAGE BOULDERS FOR REUSE IN ROCKERY WALL BASE BID |
| 6 | REMOVE AND DISPOSE ALL TREES APPROX. 6"-10"Ø, INCLUDING ROOT WAD WITHIN CLEARING LIMIT. <u>ADD. ALT. 3</u> |
| 7 | REMOVE AND DISPOSE LARGE SPRUCE TREES INCLUDING ROOT WAD. BASE BID |
| 8 | REMOVE AND DISPOSE LIGHT POLES WITH CONCRETE BASE AND APPURTENANCES, SEE ELECTRICAL BASE BID |
| 9 | SALVAGE ADDITIONAL BOULDERS AS NEEDED FOR ROCKERY WALL, SEE SITE PLAN. <u>BASE BID</u> |
| 10 | REMOVE AND DISPOSE BENCHES AND OTHER MISCELLANEOUS FURNISHINGS WITHIN APPROPRIATE DEMOLITION LIMIT. |
| | |

NOTES:

- 1. REMOVE AND DISPOSE ALL ITEMS AND MATERIAL WITHIN DEMOLITION LIMIT EXCEPT AS NOTED.
- 2. CLEAR AND GRUB ALL VEGETATION AND ORGANIC MATERIAL WITHIN LIMITS SHOWN EXCEPT AS NOTED.
- 3. SEE LANDSCAPING FOR ADDITIONAL REQUIREMENTS AND VEGETATION TO REMAIN.
- 4. SEE ELECTRICAL FOR ADDITIONAL DEMOLITION REQUIREMENTS.
- 5. PLAYGROUND EQUIPMENT TO BE REMOVED BY OWNER PRIOR TO CONSTRUCTION.
- 6. LARGE SPRUCE TREES AND STUMPS TO BE REMOVED UNDER **BASE**<u>BID.</u> FILL VOIDS WITH COMMON EXCAVATION OR SUBBASE GRADE A
 AND TOP w/ TOPSOIL AND SEED, SEE LANDSCAPE PLANS.
- 7. CLEARING AND GRUBBING LIMITS SHALL BE CLEARLY MARKED BY THE CONTRACTOR AND APPROVED BY THE SITE ENGINEER PRIOR TO BEGINNING CLEARING OPERATIONS. TAKE CARE TO NOT DAMAGE VEGETATION DESIGNATED TO REMAIN, ALSO SEE LANDSCAPING PLANS.



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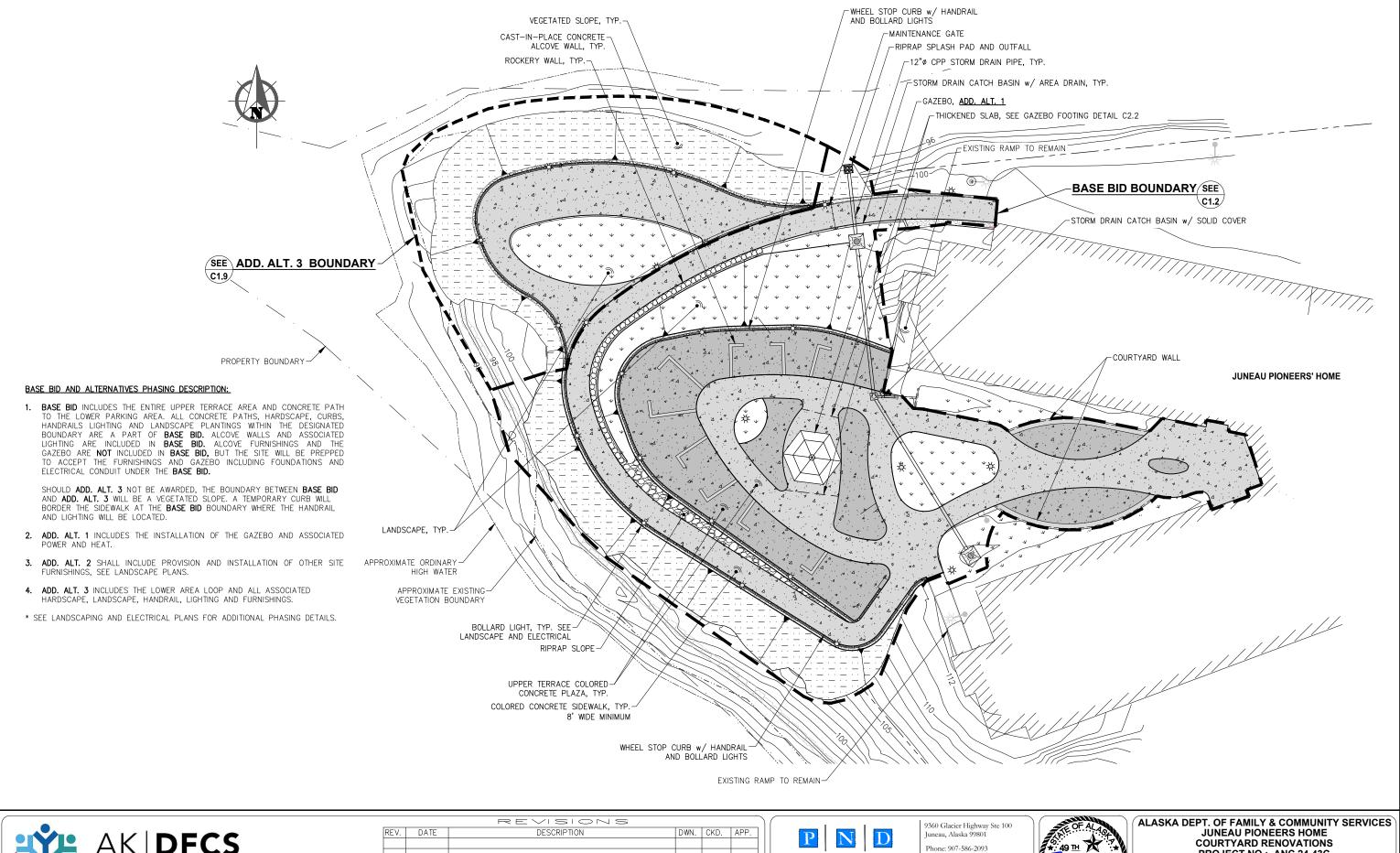
ALASKA DEPT. OF FAMILY & COMMUNITY SERVICES
JUNEAU PIONEERS HOME
COURTYARD RENOVATIONS
PROJECT NO.: ANC 24-43C

SHEET TITLE:

DEMOLITION PLAN

G1.5

 PND PROJECT NO.: 212077
 C.A.N. NO.: AECC250





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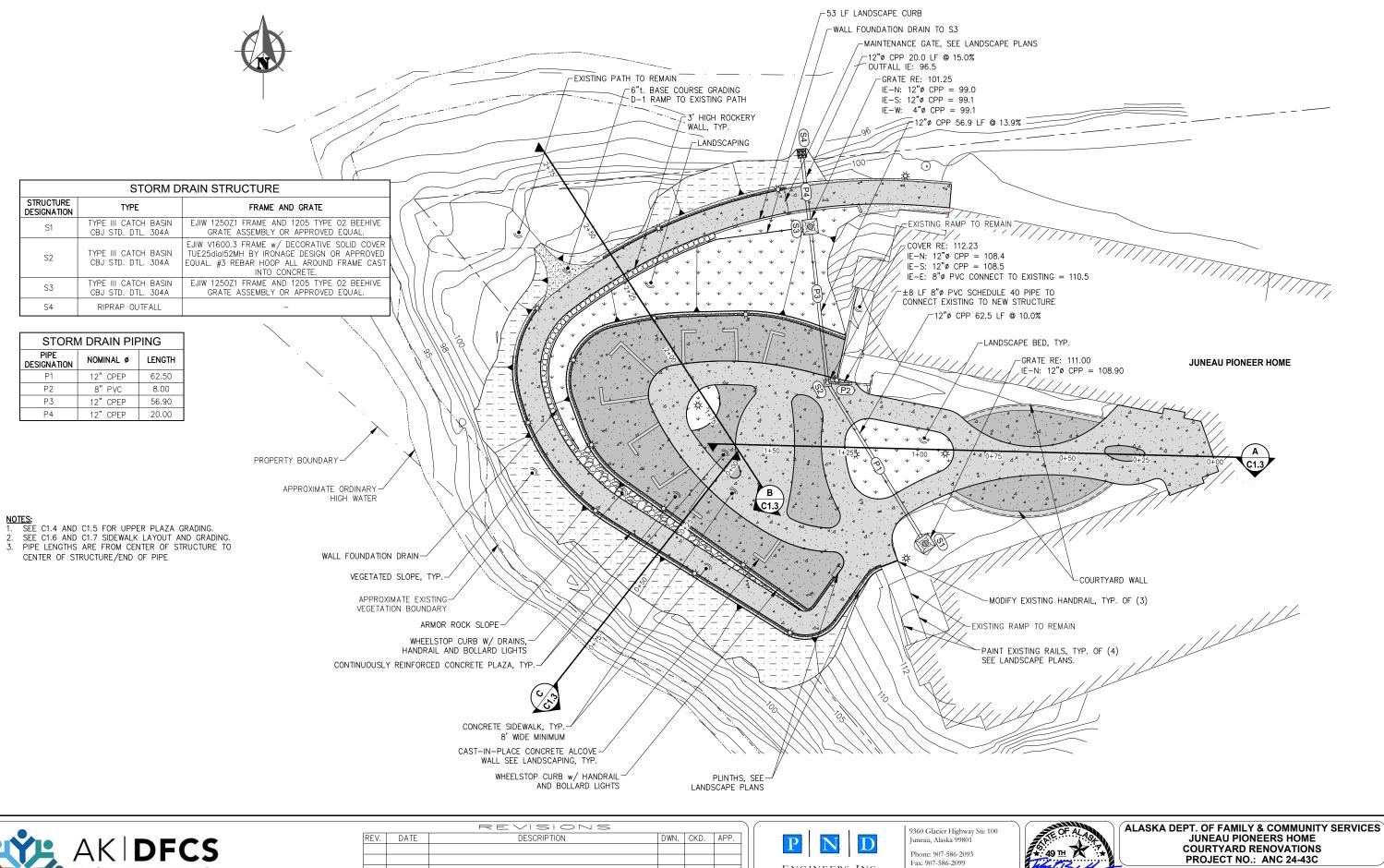
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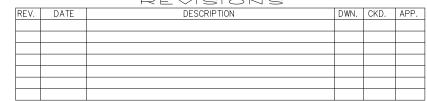
PROJECT NO.: ANC 24-43C

OVERALL SITE AND ALTERNATIVES PLAN

C1.1









DESIGN: TCB CHECKED: TCB

APPROVED: TCB

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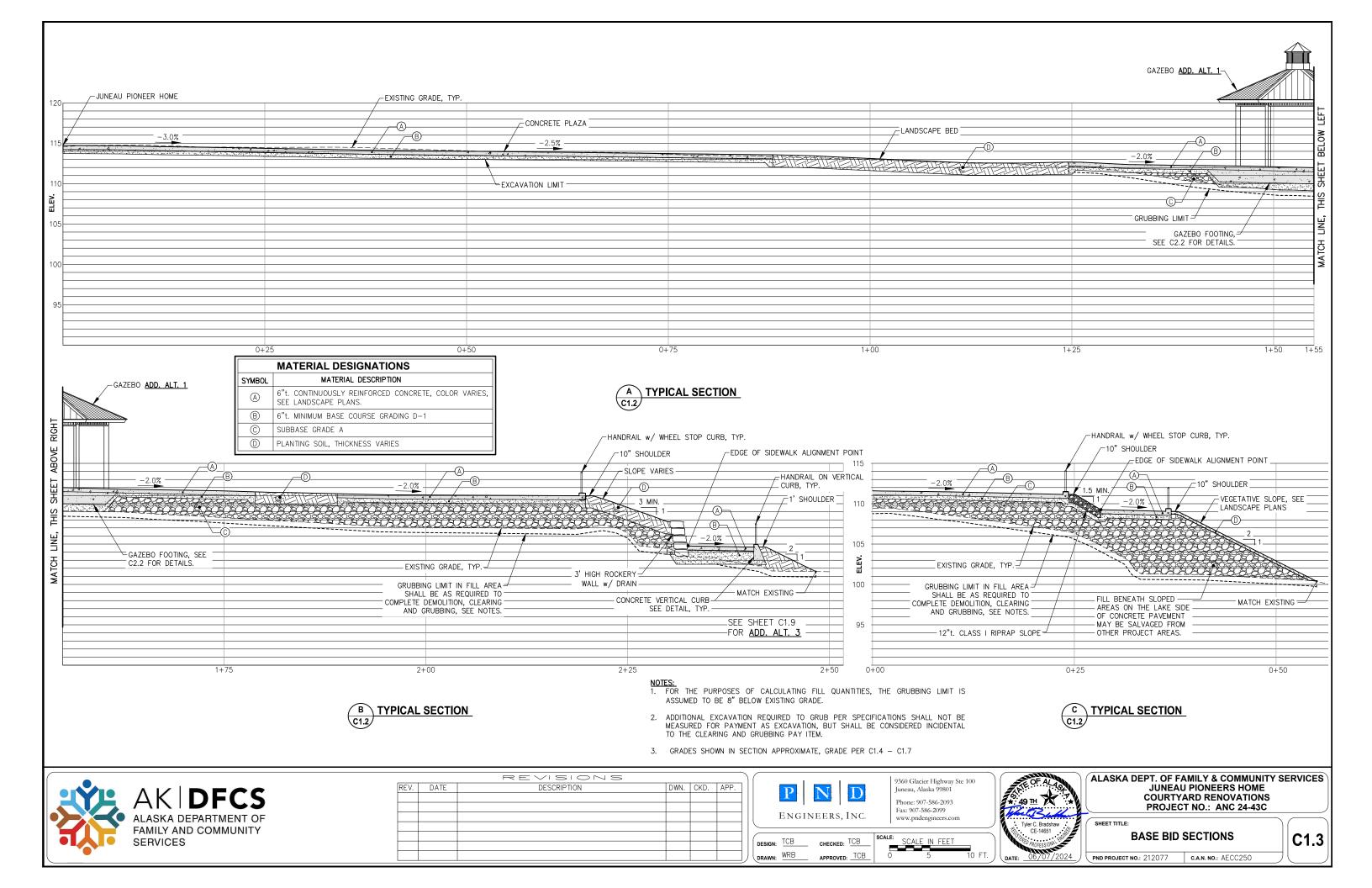
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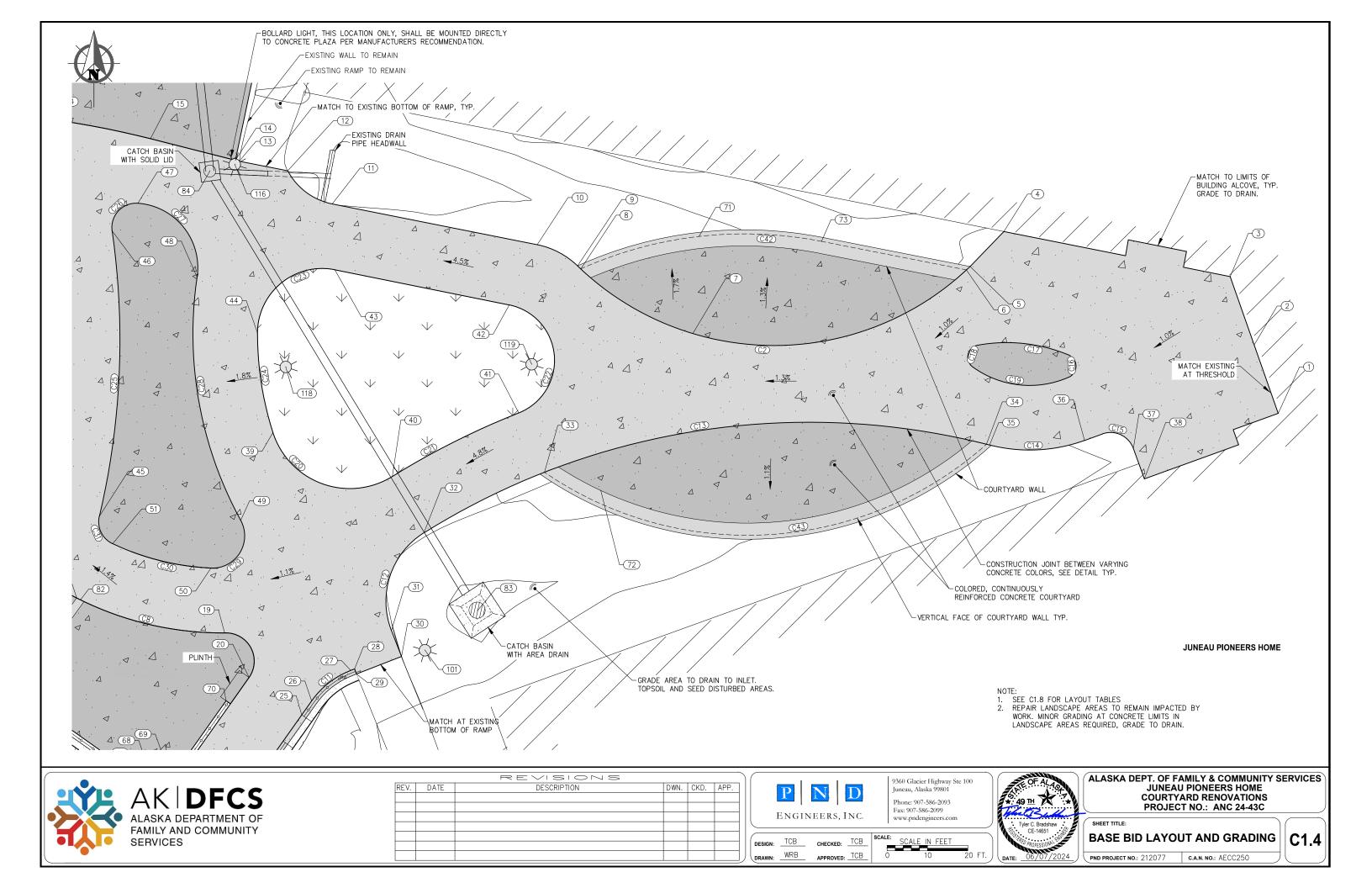


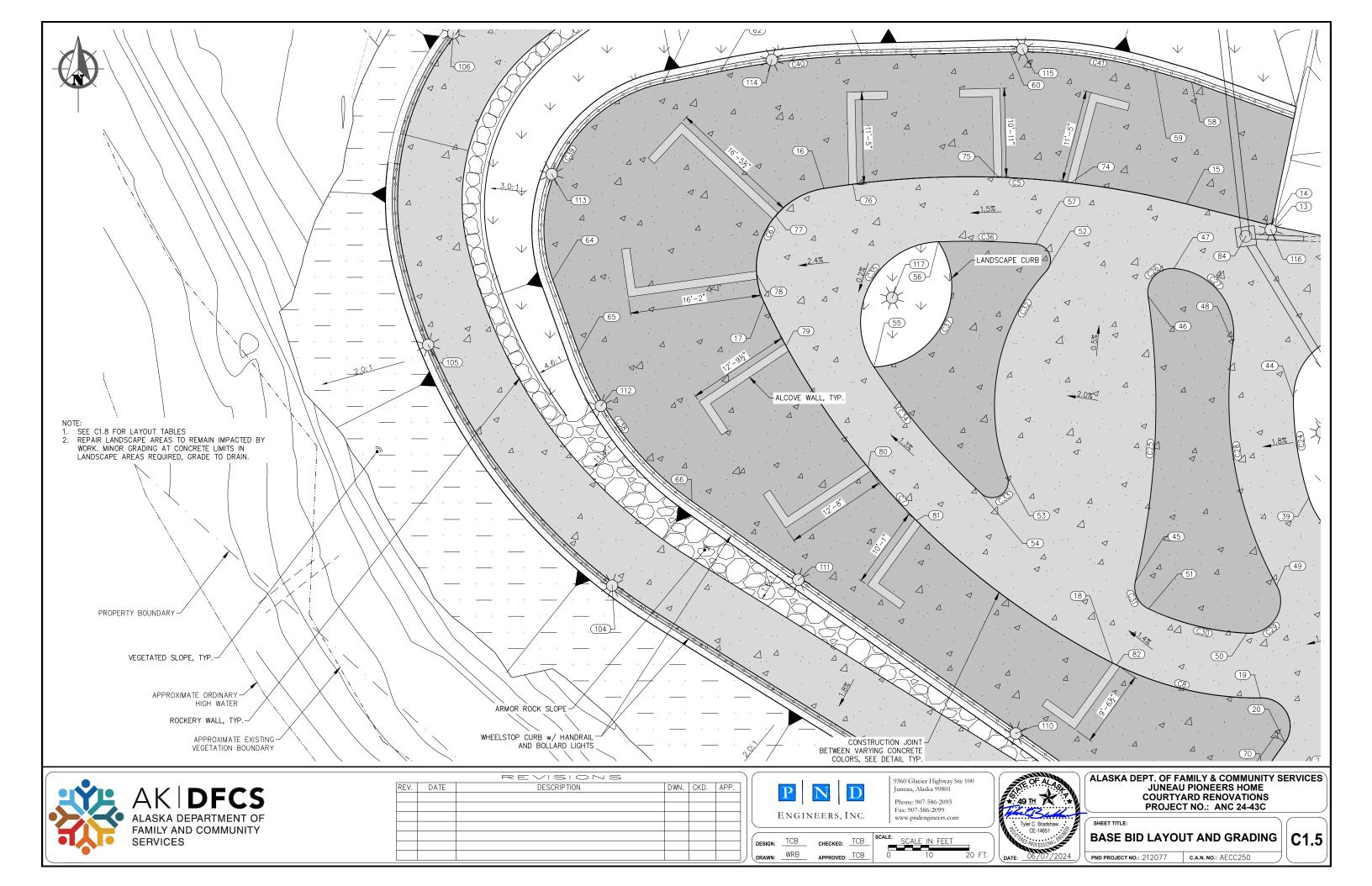
BASE BID OVERALL SITE PLAN

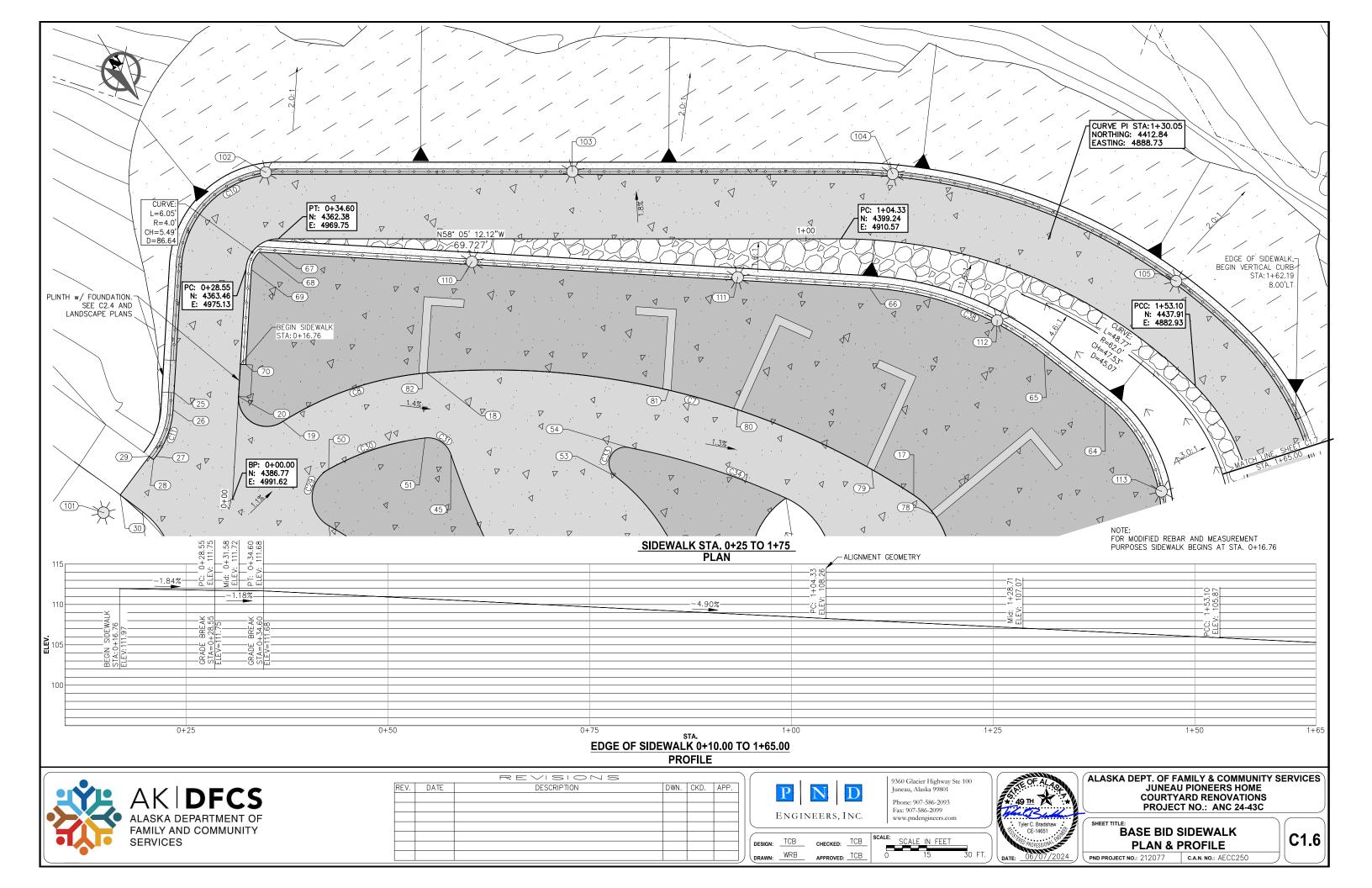
PND PROJECT NO.: 212077 C.A.N. NO.: AECC250

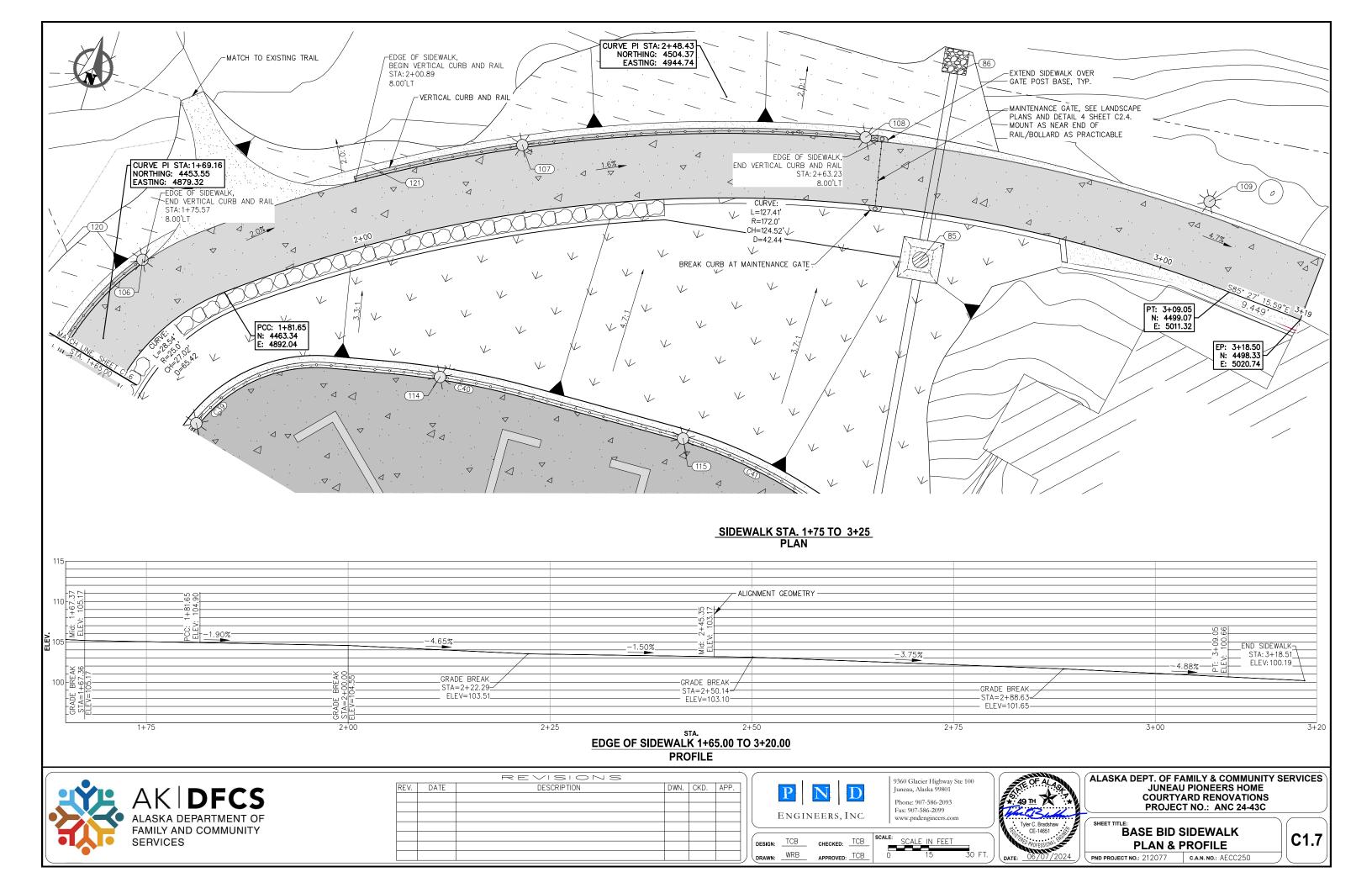
C1.2











| | L A | YOUT 1 | TABLE | |
|-----------|------------|---------|-----------|------------------|
| POINT NO. | NORTHING | EASTING | ELEVATION | DESCRIPTION |
| 1 | 4409.08 | 5111.76 | 114.75 | EC, COR |
| 2 | 4417.55 | 5108.78 | 114.72 | EC |
| 3 | 4426.02 | 5105.81 | 114.65 | EC, COR |
| 4 | 4431.60 | 5077.77 | 114.25 | EC |
| 5 | 4427.27 | 5073.58 | 114.19 | EC, PC |
| 6 | 4426.85 | 5073.12 | 114.18 | EC, POC, WALL |
| 7 | 4418.96 | 5039.23 | 113.82 | EC, JNT, POC |
| 8 | 4426.97 | 5025.35 | 113.66 | EC, WALL, PT |
| 9 | 4427.34 | 5024.95 | 113.65 | EC, PC |
| 10 | 4429.96 | 5019.95 | 113.59 | EC, PT |
| 11 | 4435.02 | 4994.55 | 112.35 | EC, PT |
| 12 | 4439.12 | 4989.05 | 112.37 | EC, ME |
| 13 | 4440.31 | 4983.03 | 112.27 | EC, ME |
| 14 | 4440.43 | 4982.56 | 112.27 | EC, ME, WALL |
| 15 | 4443.10 | 4972.03 | 112.05 | JNT, PC |
| 16 | 4445.02 | 4927.14 | 111.15 | JNT, PCC |
| 17 | 4430.94 | 4919.69 | 111.04 | JNT, PCC |
| 18 | 4386.20 | 4962.91 | 111.82 | JNT, PCC |

| | LA | YOUT 1 | ΓABLE | | | | |
|-----------|----------------|---------|-----------|------------------|--|--|--|
| POINT NO. | NORTHING | EASTING | ELEVATION | DESCRIPTION | | | |
| 19 | 4381.88 | 4981.22 | 112.20 | JNT, PRC | | | |
| 20 | 4376.36 | 4984.25 | 112.04 | JNT, PT | | | |
| 25 | 4371.72 | 4990.78 | 111.94 | ESW, PLINTH | | | |
| 26 | 26 4373.45 | | 112.01 | ESW, PC | | | |
| 27 | 27 4377.23 499 | | 112.33 | EC, PT | | | |
| 28 | 28 4377.42 | | 112.35 | END | | | |
| 29 | 4376.79 | 4997.56 | 112.35 | EC, ME | | | |
| 30 | 4378.96 | 5003.14 | 112.40 | EC, ME | | | |
| 31 | 4382.18 | 5001.89 | 112.40 | EC, PC | | | |
| 32 | 4394.27 | 5005.91 | 112.50 | EC, PCC | | | |
| 33 | 4401.78 | 5020.85 | 113.31 | EC, WALL, POC | | | |
| 34 | 4405.25 | 5075.62 | 117.17 | EC, WALL, POC | | | |
| 35 | 4405.16 | 5076.00 | 114.18 | EC, PRC | | | |
| 36 | 4405.72 | 5087.77 | 114.42 | EC, PT | | | |
| 37 | 4404.72 | 5093.82 | 114.54 | EC, PC | | | |
| 38 | 4400.96 | 5095.18 | 114.70 | EC | | | |
| 39 | 4406.70 | 4987.21 | 112.55 | EC, PCC | | | |
| 40 | 4401.26 | 5002.00 | 112.55 | EC, PRC | | | |

| | LAYOUT TABLE | | | | | | |
|-------------------------------|---------------------------------|---------|-----------|-------------|--|--|--|
| POINT NO. | NORTHING | EASTING | ELEVATION | DESCRIPTION | | | |
| 41 | 4409.13 | 5017.67 | 113.39 | EC, PRC | | | |
| 42 | 4422.50 | 5016.48 | 113.48 | EC, PT | | | |
| 43 | 4426.86 | 4994.88 | 112.54 | EC, PC | | | |
| 44 | 4419.04 | 4985.30 | 112.69 | EC, PCC | | | |
| 45 4396.33 4965.71 111.95 EC, | | EC, PRC | | | | | |
| 46 | 46 4431.67 4967.29 112.13 EC, F | | EC, PRC | | | | |
| 47 | 4435.09 | 4970.47 | 112.15 | EC, PCC | | | |
| 48 | 4425.94 | 4977.81 | 112.23 | EC, PRC | | | |
| 49 | 4395.83 | 4983.22 | 112.19 | EC, PRC | | | |
| 50 | 4389.91 | 4979.53 | 112.17 | EC, PCC | | | |
| 51 | 4392.93 | 4967.35 | 111.95 | EC, PCC | | | |
| 52 | 4434.79 | 4954.68 | 111.93 | JNT, PRC | | | |
| 53 | 4409.41 | 4949.83 | 111.71 | JNT, PRC | | | |
| 54 | 4407.24 | 4946.60 | 111.60 | JNT, PCC | | | |
| 55 | 4422.89 | 4933.33 | 111.39 | EC, PCC | | | |
| 56 | 4438.41 | 4941.30 | 111.70 | EC, PCC | | | |
| 57 | 4438.13 | 4953.37 | 111.89 | JNT, PC | | | |
| 58 | 4458.19 | 4972.68 | 111.83 | EC | | | |

| | L/ | YOUT 1 | ΓABLE | |
|-----------|----------|---------|-----------|--------------|
| POINT NO. | NORTHING | EASTING | ELEVATION | DESCRIPTION |
| 59 | 4459.56 | 4968.11 | 111.77 | EC |
| 60 | 4461.93 | 4950.19 | 111.53 | EC, PT |
| 61 | 4461.50 | 4931.87 | 111.30 | EC, PC |
| 62 | 4459.52 | 4914.34 | 111.07 | EC, PCC |
| 63 | 4458.06 | 4907.22 | 110.98 | EC, PC |
| 64 | 4433.68 | 4893.53 | 110.55 | EC, PT |
| 65 | 4424.69 | 4896.76 | 110.69 | EC, PC |
| 66 | 4406.27 | 4910.76 | 110.90 | EC, PT |
| 67 | 4363.82 | 4970.78 | 111.66 | EC |
| 68 | 4362.52 | 4972.61 | 111.70 | EC, COR |
| 69 | 4363.85 | 4974.59 | 111.75 | EC, PT |
| 70 | 4373.47 | 4981.40 | 111.97 | EC, END |
| 71 | 4430.99 | 5040.00 | 113.64 | EC, DRAIN |
| 72 | 4399.52 | 5027.83 | 113.38 | EC, DRAIN |
| 73 | 4430.38 | 5055.18 | 113.89 | EC, WALL, PC |
| 74 | 4445.75 | 4957.75 | 111.76 | ALCOVE WALL |
| 75 | 4446.47 | 4948.70 | 111.58 | ALCOVE WALL |
| 76 | 4445.48 | 4930.73 | 111.22 | ALCOVE WALL |

| LAYOUT TABLE | | | | | | |
|--------------|----------|---------|-----------|-------------|--|--|
| POINT NO. | NORTHING | EASTING | ELEVATION | DESCRIPTION | | |
| 77 | 4441.58 | 4921.15 | 111.06 | ALCOVE WALL | | |
| 78 | 4434.28 | 4918.83 | 111.01 | ALCOVE WALL | | |
| 79 | 4425.49 | 4922.43 | 111.12 | ALCOVE WALL | | |
| 80 | 4410.41 | 4932.60 | 111.34 | ALCOVE WALL | | |
| 81 | 4403.86 | 4938.58 | 111.45 | ALCOVE WALL | | |
| 82 | 4385.98 | 4963.37 | 111.83 | ALCOVE WALL | | |
| 83 | 4384.63 | 5012.54 | 111.00 | CB, AD | | |
| 84 | 4439.09 | 4979.40 | 112.23 | CB, SC | | |
| 85 | 4491.90 | 4973.55 | 101.26 | CB, AD | | |
| 86 | 4515.22 | 4970.87 | 96.50 | OUTFALL | | |

NOTE:
TABLE ELEVATIONS AT MATCH POINTS ARE SHOWN FOR REFERENCE PURPOSES ONLY, MATCHING EXISTING SURFACES SHALL TAKE PRECEDENCE, NOTIFY ENGINEER PRIOR TO GRADING OF ANY SUBSTANTIAL DISCREPANCIES.

POINT TABLE ABBREVIATIONS: SEE SHEET G1.2 FOR ABBREVIATIONS DESCRIPTIONS.

| | CURVE TABLE | | | | | | |
|---------|-------------|--------|----------|-------|--|--|--|
| CURVE # | LENGTH | RADIUS | DELTA | CHORD | | | |
| C2 | 53.76 | 35.00 | 88.0124 | 48.63 | | | |
| C5 | 45.26 | 110.00 | 23.5730 | 44.94 | | | |
| C6 | 18.42 | 10.00 | 105.5594 | 15.93 | | | |
| C7 | 63.38 | 95.00 | 38.2255 | 62.21 | | | |
| C8 | 19.13 | 40.00 | 27.4039 | 18.95 | | | |
| C10 | 18.15 | 12.00 | 86.6377 | 16.47 | | | |
| C11 | 6.24 | 10.67 | 33.5332 | 6.15 | | | |
| C12 | 13.81 | 10.00 | 79.1539 | 12.74 | | | |
| C13 | 72.91 | 90.00 | 46.4154 | 70.93 | | | |
| C14 | 11.96 | 20.00 | 34.2550 | 11.78 | | | |
| C15 | 4.71 | 3.00 | 90.0000 | 4.24 | | | |
| C16 | 3.50 | 1.50 | 133.6250 | 2.76 | | | |
| C17 | 11.48 | 20.00 | 32.8970 | 11.33 | | | |
| C18 | 3.50 | 1.50 | 133.6250 | 2.76 | | | |
| C19 | 12.54 | 12.00 | 59.8530 | 11.97 | | | |

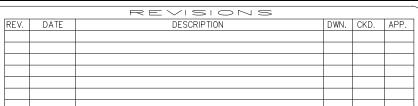
| | CURVE TABLE | | | | | | |
|---------|-------------|--------|----------|-------|--|--|--|
| CURVE # | LENGTH | RADIUS | DELTA | CHORD | | | |
| C20 | 18.15 | 10.00 | 104.0061 | 15.76 | | | |
| C21 | 17.56 | 98.00 | 10.2638 | 17.53 | | | |
| C22 | 17.97 | 7.00 | 147.0600 | 13.43 | | | |
| C23 | 14.14 | 8.00 | 101.2415 | 12.37 | | | |
| C24 | 12.54 | 40.00 | 17.9563 | 12.48 | | | |
| C25 | 35.58 | 95.00 | 21.4608 | 35.38 | | | |
| C26 | 5.36 | 3.00 | 102.2916 | 4.67 | | | |
| C27 | 13.17 | 8.00 | 94.2877 | 11.73 | | | |
| C28 | 31.14 | 48.00 | 37.1704 | 30.60 | | | |
| C29 | 8.47 | 4.00 | 121.3921 | 6.98 | | | |
| C30 | 12.63 | 32.00 | 22.6159 | 12.55 | | | |
| C31 | 4.09 | 3.00 | 78.0438 | 3.78 | | | |
| C32 | 27.19 | 24.82 | 62.7619 | 25.85 | | | |
| C33 | 5.36 | 2.00 | 153.4975 | 3.89 | | | |
| C34 | 20.57 | 87.00 | 13.5466 | 20.52 | | | |

| | CURVE TABLE | | | | | |
|---------|-------------|--------|----------|-------|--|--|
| CURVE # | LENGTH | RADIUS | DELTA | CHORD | | |
| C35 | 21.20 | 10.00 | 121.4491 | 17.45 | | |
| C36 | 12.07 | 102.00 | 6.7823 | 12.07 | | |
| C37 | 21.20 | 10.00 | 121.4491 | 17.45 | | |
| C38 | 23.50 | 38.50 | 34.9692 | 23.13 | | |
| C39 | 31.69 | 18.50 | 98.1586 | 27.96 | | |
| C40 | 17.67 | 98.50 | 10.2755 | 17.64 | | |
| C41 | 18.15 | 58.67 | 17.7246 | 18.08 | | |
| C42 | 30.50 | 49.50 | 35.3017 | 30.02 | | |
| C43 | 59.13 | 44.50 | 76.1318 | 54.87 | | |

| LIGHT POLES | | | | | | | |
|-------------|----------|---------|-------------|--|--|--|--|
| POINT NO. | NORTHING | EASTING | DESCRIPTION | | | | |
| 101 | 4379.73 | 5006.05 | LP, A1 | | | | |
| 102 | 4354.57 | 4966.71 | LP, A2 | | | | |
| 103 | 4374.58 | 4934.41 | LP, A3 | | | | |
| 104 | 4395.81 | 4900.87 | LP, A4 | | | | |
| 105 | 4425.64 | 4878.09 | LP, A5 | | | | |
| 106 | 4464.28 | 4881.20 | LP, A6, BB | | | | |
| 107 | 4491.39 | 4922.21 | LP, A7, BB | | | | |
| 108 | 4504.51 | 4962.68 | LP, A8 | | | | |
| 109 | 4509.13 | 5005.78 | LP, A9 | | | | |
| 110 | 4377.48 | 4950.89 | LP, A10 | | | | |
| 111 | 4396.53 | 4923.95 | LP, A11 | | | | |
| 112 | 4418.07 | 4899.49 | LP, A12 | | | | |
| 113 | 4446.78 | 4893.39 | LP, A13 | | | | |

| LIGHT POLES | | | | | | |
|-------------|-----------------------------|---------|--------------|--|--|--|
| POINT NO. | NORTHING | EASTING | DESCRIPTION | | | |
| 114 | 4460.95 | 4920.68 | LP, A14 | | | |
| 115 | 4462.28 | 4951.71 | LP, A15 | | | |
| 116 | 116 4439.91 4982.48 LP, A16 | | LP, A16 | | | |
| 117 | 4431.46 | 4935.57 | LP, A17 | | | |
| 118 | 4414.81 | 4988.80 | LP, B1 | | | |
| 119 | 4415.15 | 5019.26 | LP, B2 | | | |
| 120 | 4463.26 | 4871.62 | LP, A6, AA3 | | | |
| 121 | 4483.33 | 4905.19 | LP, A7, AA3 | | | |
| 122 | 4492.35 | 4845.18 | LP, A18, AA3 | | | |
| 123 | 4517.33 | 4868.41 | LP, A19, AA3 | | | |
| 124 | 4515.37 | 4911.03 | LP, A20, AA3 | | | |







DRAWN: WRB APPROVED: TCB

9360 Glacier Highway Ste 100 Juneau, Alaska 99801 Phone: 907-586-2093 Fax: 907-586-2099 www.pndengineers.com

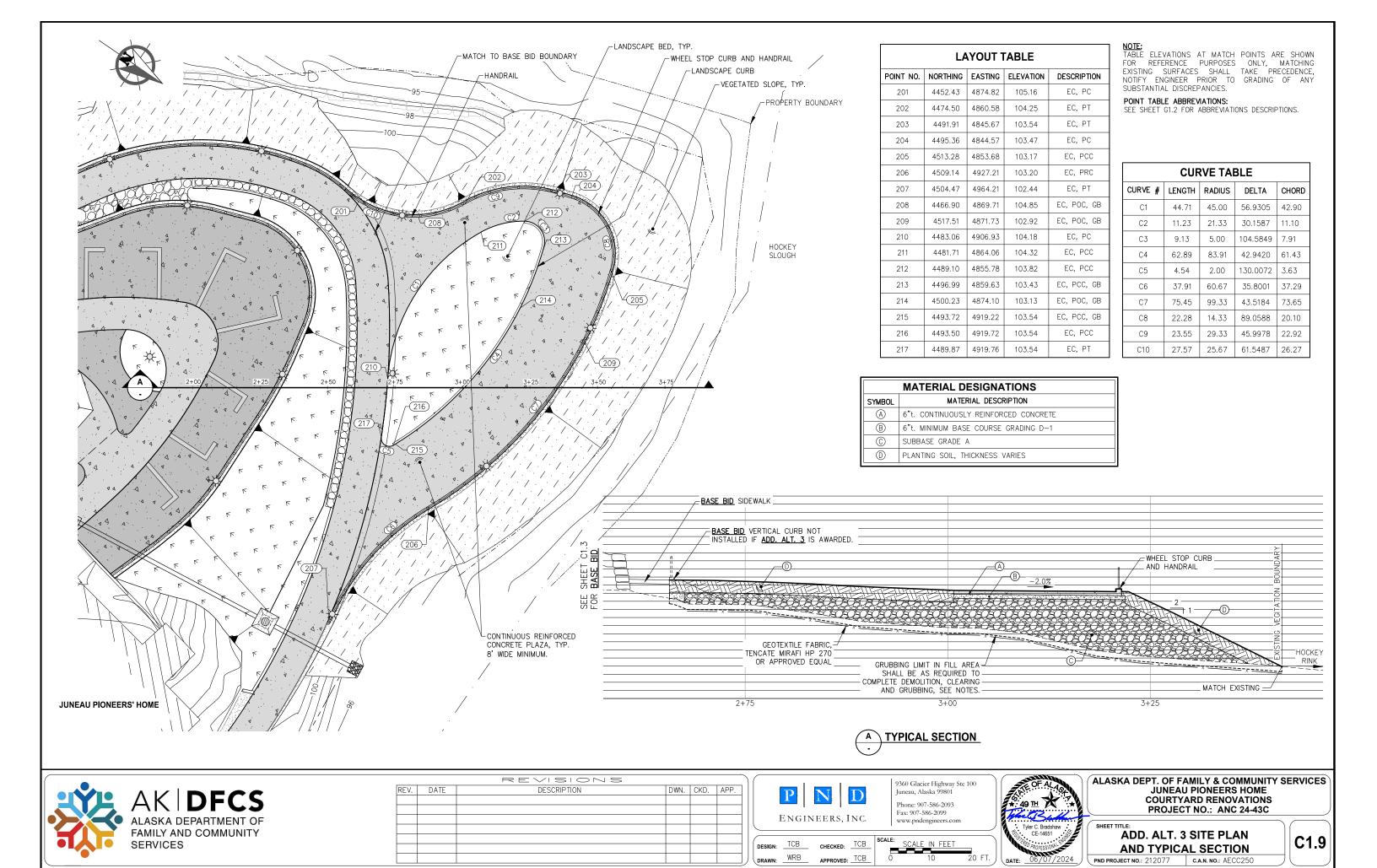
7/Jer C. Bradshaw CE-14651 PATE: 06/07/2024 ALASKA DEPT. OF FAMILY & COMMUNITY SERVICES
JUNEAU PIONEERS HOME
COURTYARD RENOVATIONS
PROJECT NO.: ANC 24-43C

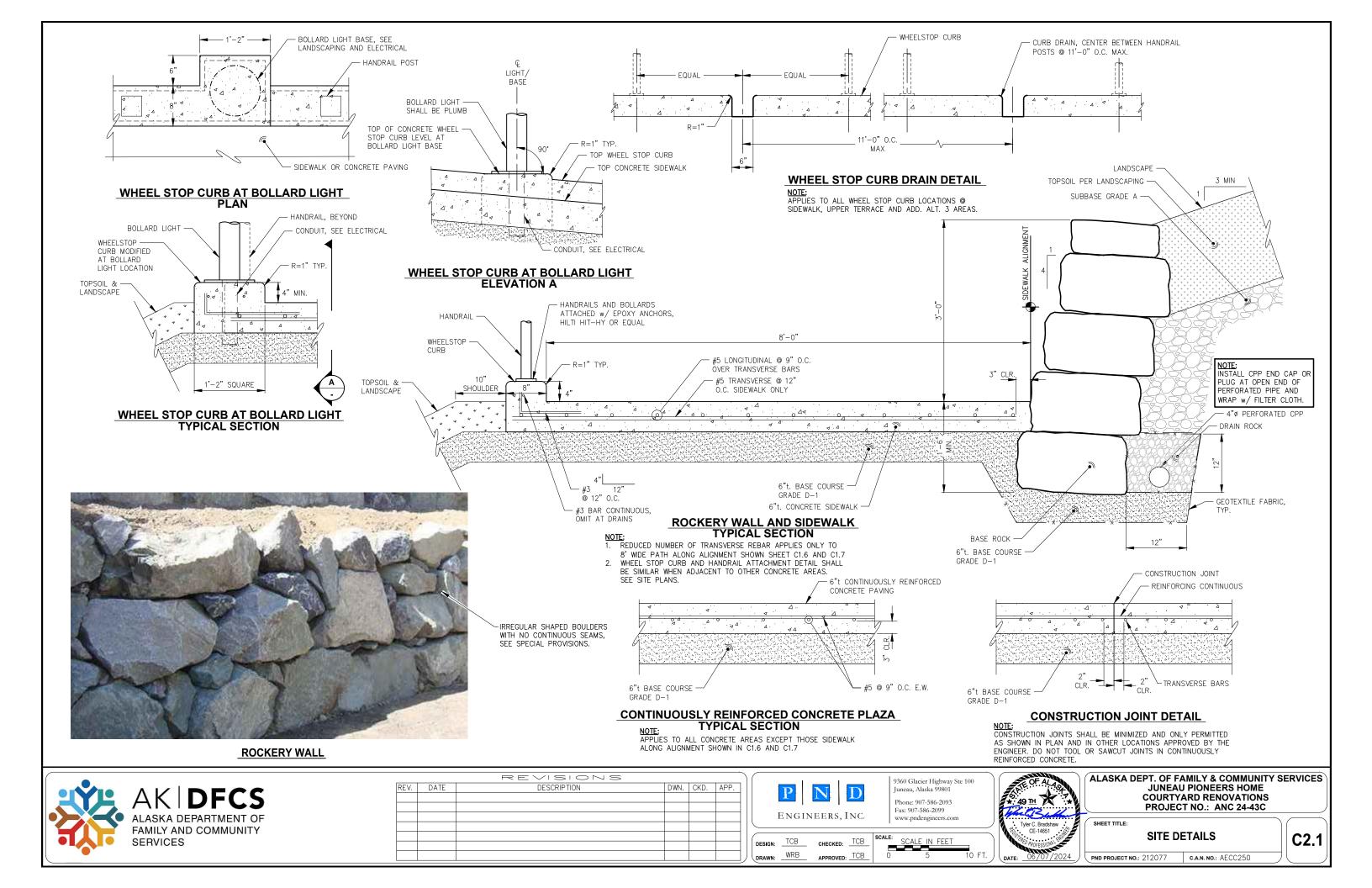
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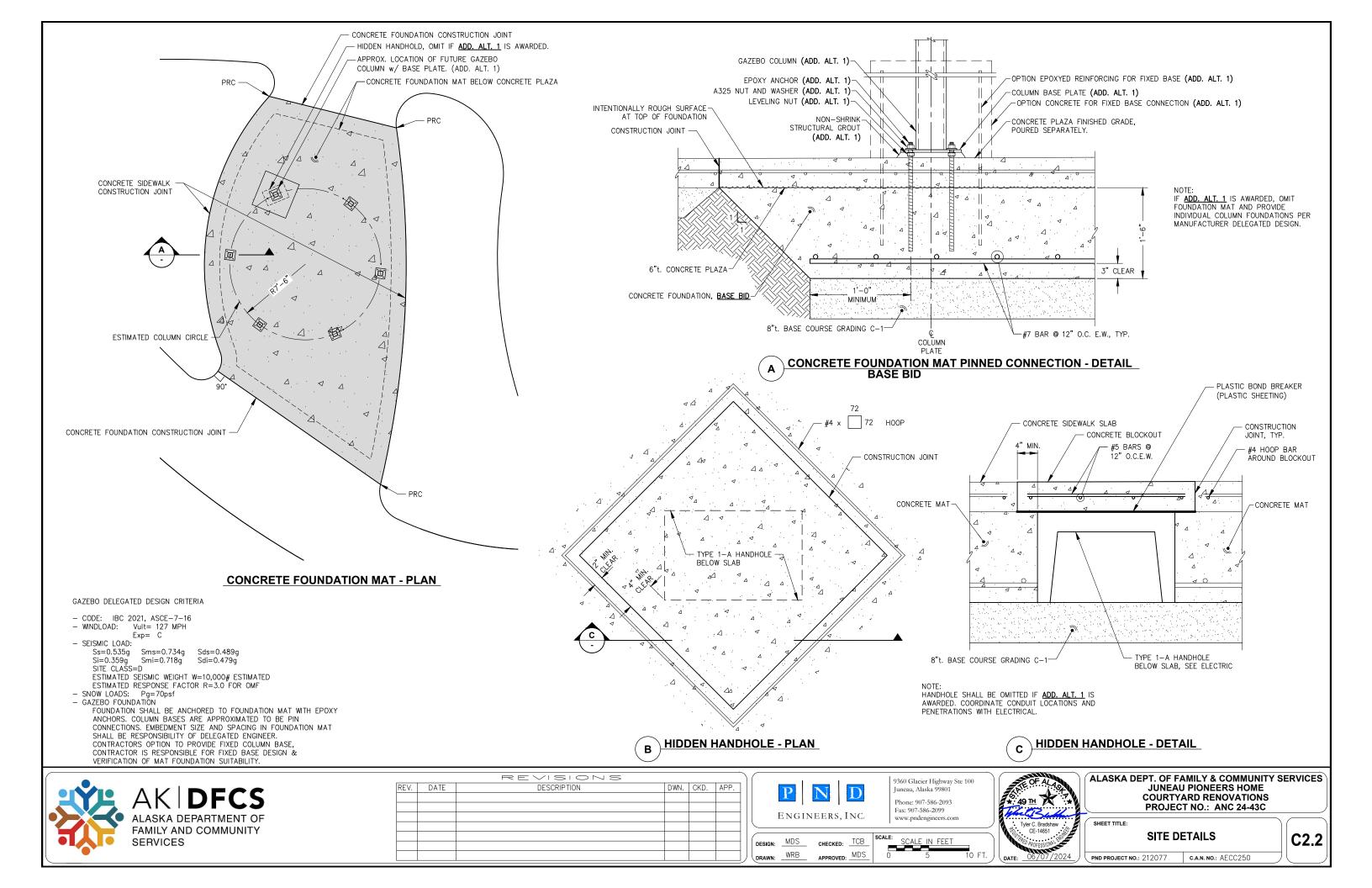
LAYOUT TABLES

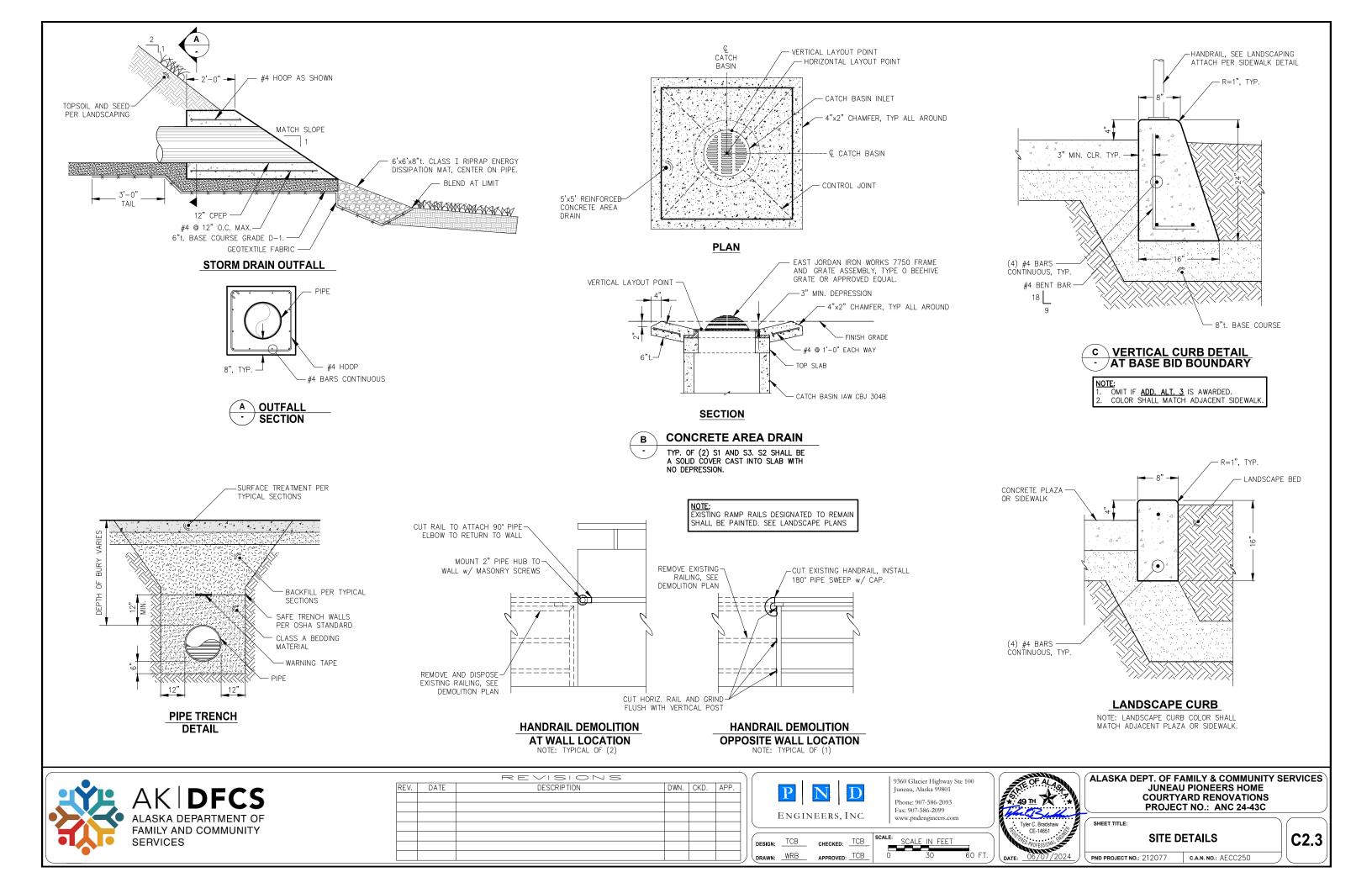
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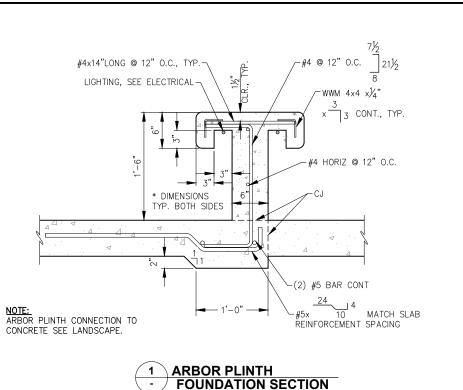
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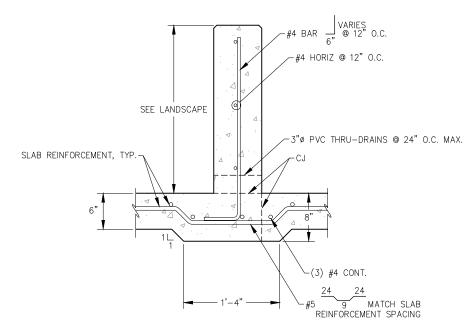


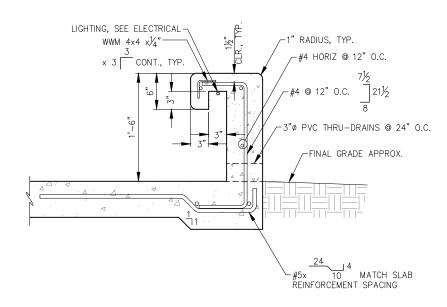








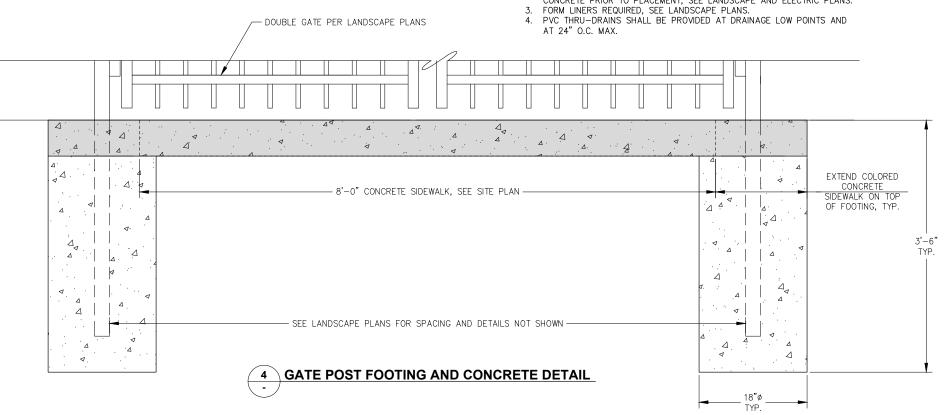




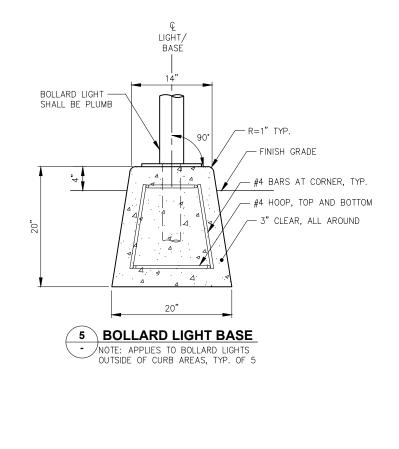
2 WALL FOUNDATION SECTION

NOTES: (ALL DETAILS THIS SHEET)

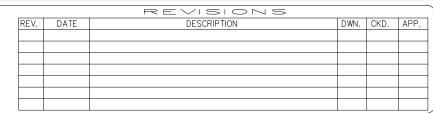
SEE LANDSCAPE FOR DETAILS NOT CALLED OUT.
 ELECTRIC CONDUIT AND LIGHTING SHALL BE COORDINATED WITH CONCRETE PRIOR TO PLACEMENT, SEE LANDSCAPE AND ELECTRIC PLANS.



3 COURTYARD WALL - LIGHTED **FOUNDATION**









DESIGN: MDS CHECKED: MDS DRAWN: DRD APPROVED: TCB



Juneau, Alaska 99801

Fax: 907-586-2099

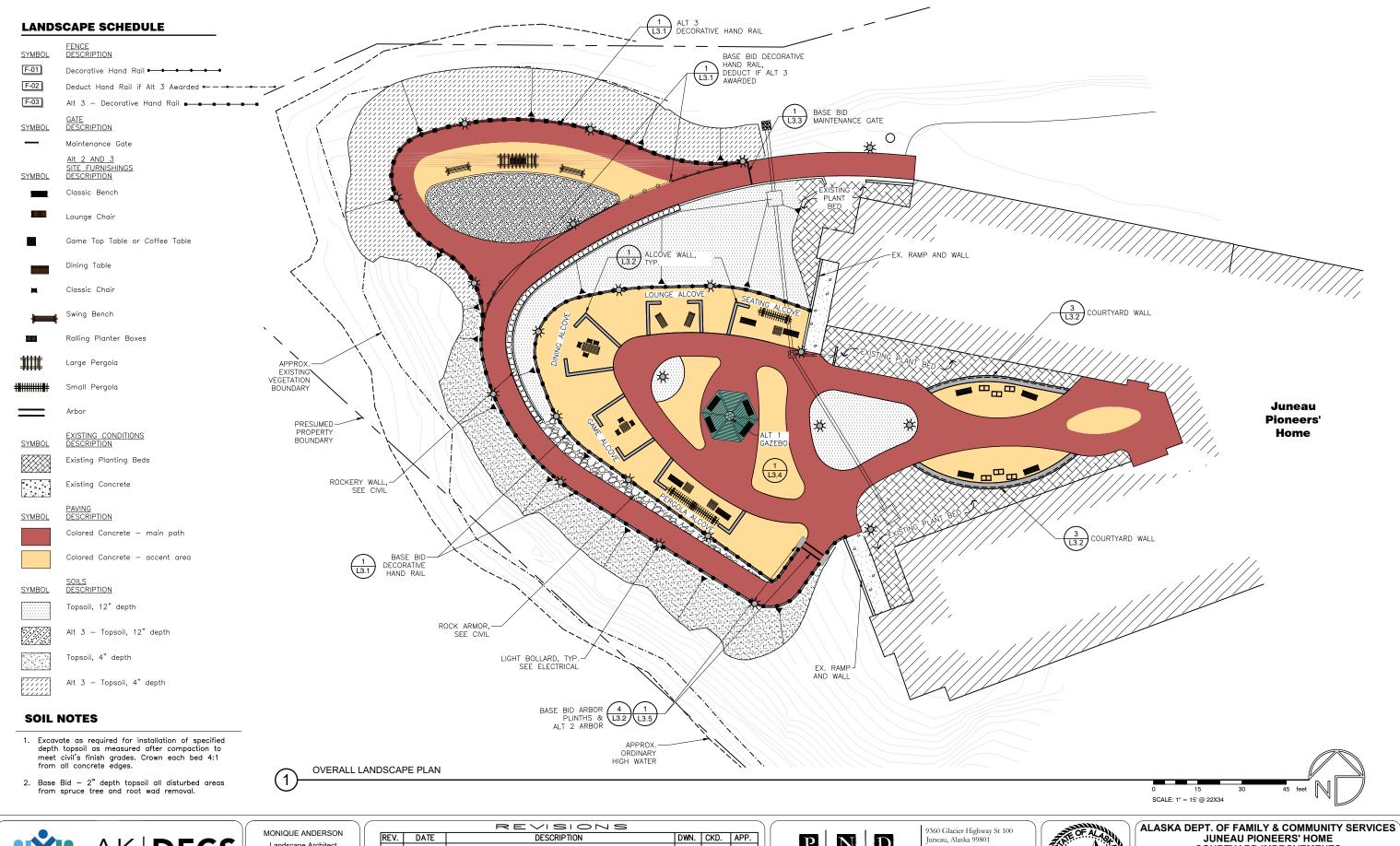
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SCALE IN INCHES

ALASKA DEPT. OF FAMILY & COMMUNITY SERVICES JUNEAU PIONEERS HOME **COURTYARD RENOVATIONS** PROJECT NO.: ANC 24-43C

SHEET TITLE: SITE DETAILS

C2.4





Landscape Architect

ANDERSON LAND PLANNING

PO Box 6078 Sitka, AK 99835 :: 907-230-6003

| | | REVISIONS | | | |
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| REV. | DATE | DESCRIPTION | DWN. | CKD. | APP. |
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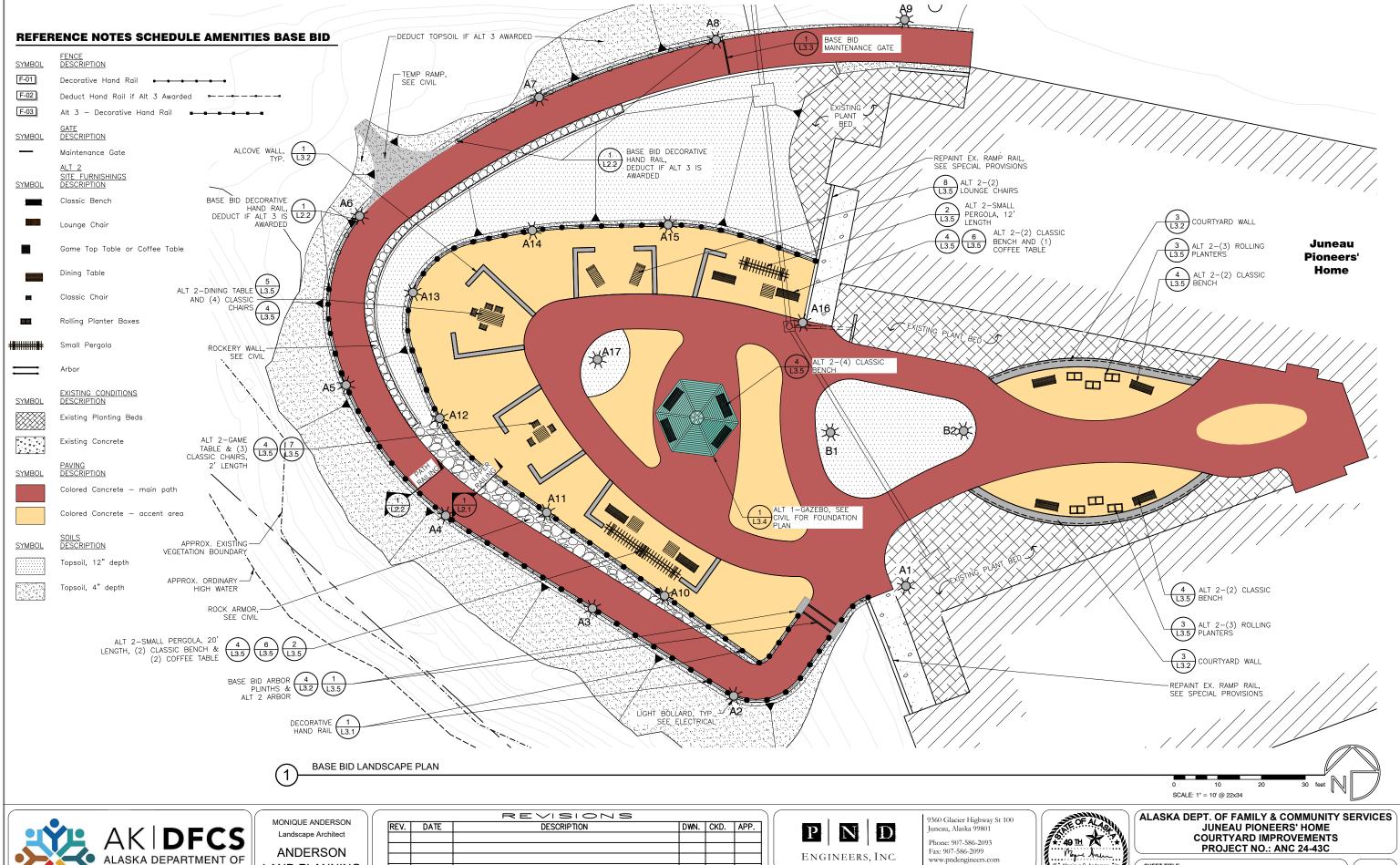




COURTYARD IMPROVEMENTS PROJECT NO.: ANC 24-43C

OVERALL LANDSCAPE PLAN

PND PROJECT NO.: 212077 C.A.N. NO.: AECC250 L1.1





LAND PLANNING

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| REVISIONS | | | | | | |
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| REV. | DATE | DESCRIPTION | DWN. | CKD. | APP. | |
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| GINEERS, INC. | Phone: 907-586-2093 Fax: 907-586-2099 www.pndengineers.com | | * 49 IH Roue Arun Monique S. Anderson |
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| CHECKED: ALP | SCALE: | | No.10961 |
| APPROVED: MSA_ | | ノし | DATE: 06-07-202 |

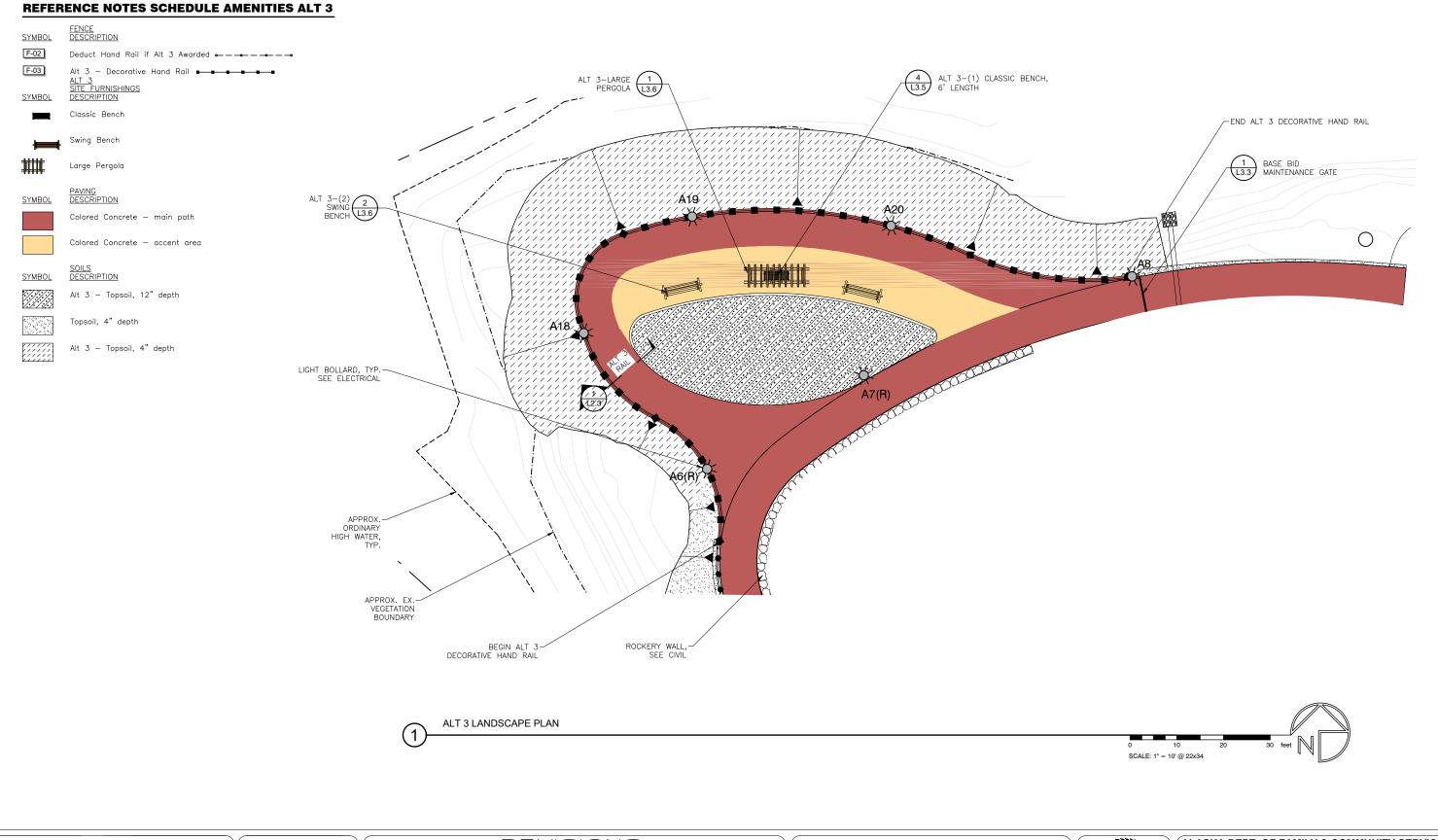
DESIGN: MSA

DRAWN: MSA



BASE BID LANDSCAPE PLAN

PND PROJECT NO.: 212077 C.A.N. NO.: AECC250 L1.2





MONIQUE ANDERSON Landscape Architect

ANDERSON LAND PLANNING

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| REV. | DATE | DESCRIPTION | DWN. | CKD. | APP. |
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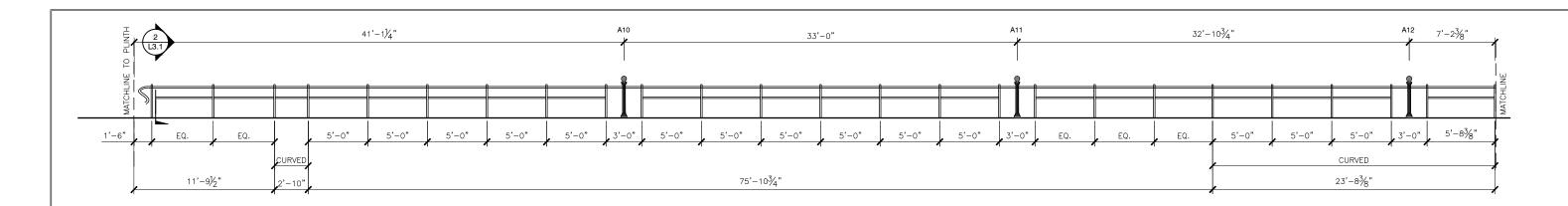
ENGINEERS, INC.

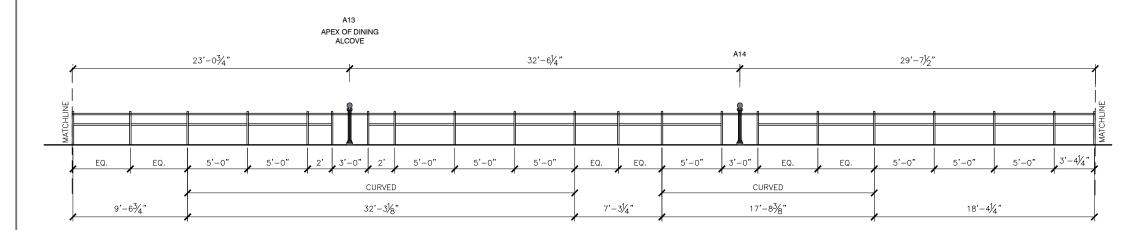


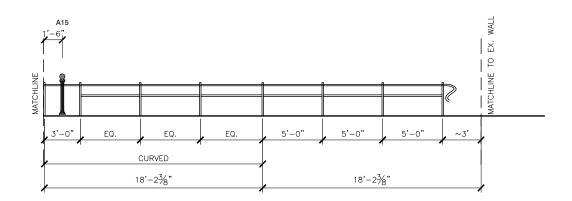
ALASKA DEPT. OF FAMILY & COMMUNITY SERVICES
JUNEAU PIONEERS' HOME **COURTYARD IMPROVEMENTS** PROJECT NO.: ANC 24-43C

ALT 3 LANDSCAPE PLAN

PND PROJECT NO.: 212077 C.A.N. NO.: AECC250 L1.3







- NOTES:

 1. SEE DETAILS #1-3 ON SHEET L3.1 FOR DECORATIVE HAND RAIL DETAILS.

 2. SEE CIVIL FOR GRADES/CURB INFORMATION.

 3. SEE ELECTRICAL FOR LIGHT BOLLARDS.

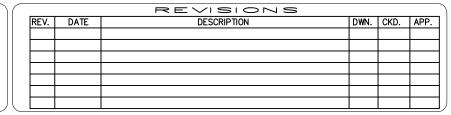




MONIQUE ANDERSON Landscape Architect

ANDERSON LAND PLANNING

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9360 Glacier Highway St 100 Juneau, Alaska 99801

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| DESIGN: | MSA | CHECKED: | ALP | SCALE: |
|---------|-----|-----------|-----|--------|
| DRAWN. | MSA | APPROVED: | MSA | |

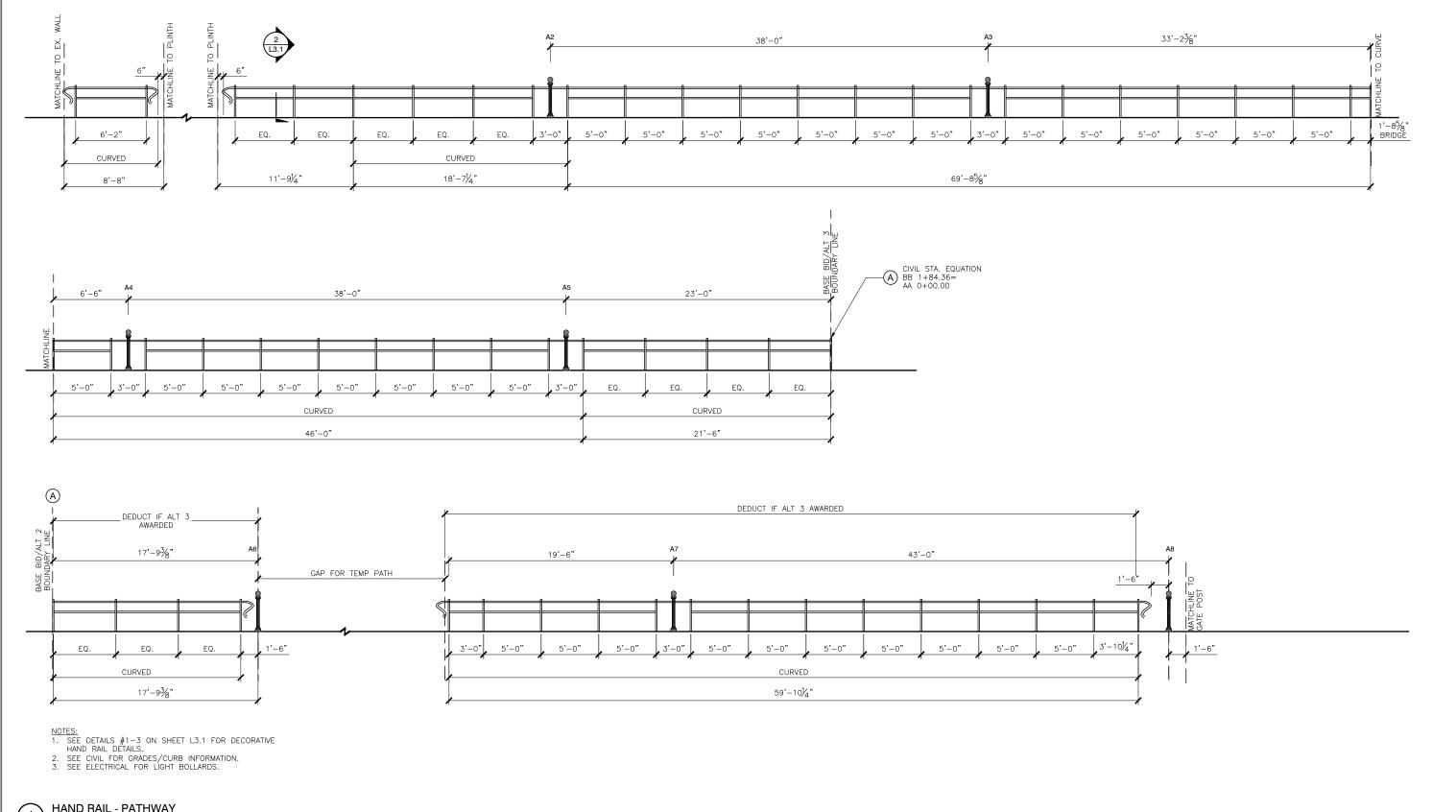
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ALASKA DEPT. OF FAMILY & COMMUNITY SERVICES
JUNEAU PIONEERS' HOME **COURTYARD IMPROVEMENTS** PROJECT NO.: ANC 24-43C

UPPER TERRACE HAND RAIL ELEV

PND PROJECT NO.: 212077 C.A.N. NO.: AECC250 L2.1



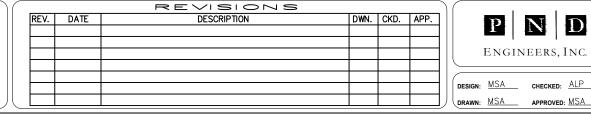
HAND RAIL - PATHWAY



MONIQUE ANDERSON Landscape Architect

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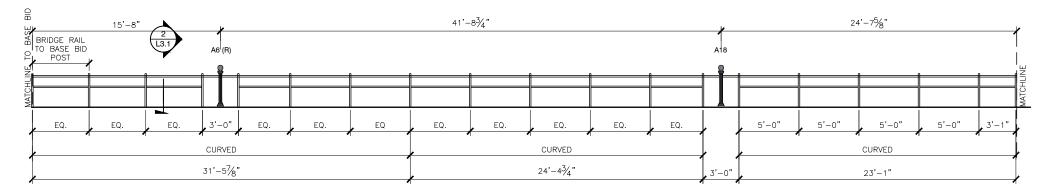
Phone: 907-586-2093 Fax: 907-586-2099 www.pndengineers.com DATE: 06-07-2024

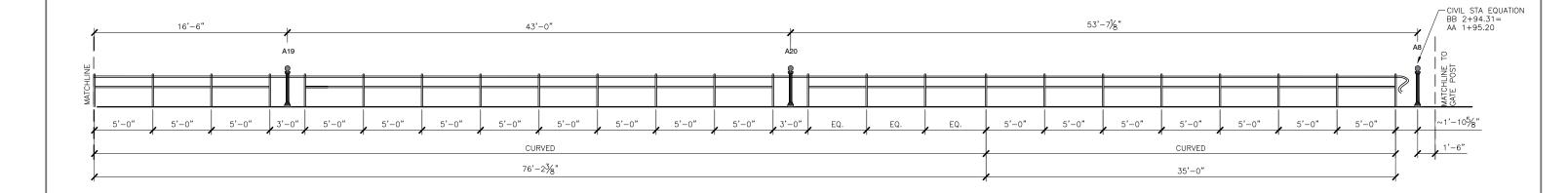
ALASKA DEPT. OF FAMILY & COMMUNITY SERVICES
JUNEAU PIONEERS' HOME **COURTYARD IMPROVEMENTS** PROJECT NO.: ANC 24-43C

SHEET TITLE:

PATHWAY HAND RAIL ELEVATION







- NOTES:

 1. SEE DETAILS #1-3 ON SHEET L3.1 FOR DECORATIVE HAND RAIL DETAILS.
 2. SEE CIVIL FOR GRADES/CURB INFORMATION.
 3. SEE ELECTRICAL FOR LIGHT BOLLARDS.



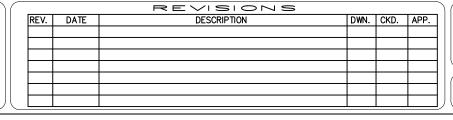
S-HAND-09



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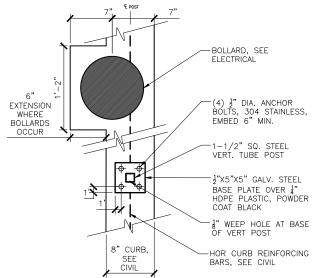
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ALT 3 HAND RAIL ELEVATION

L2.3

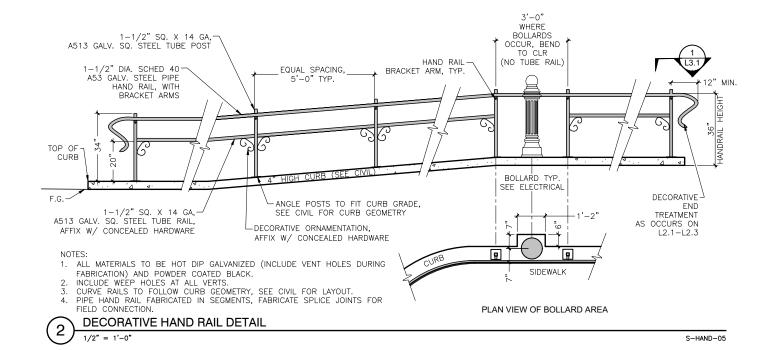


DECORATIVE HAND RAIL BASE PLATE

S-HAND-06

BASE ENLARGEMENT

-BOLLARD, TYP., SEE ELECTRICAL _1" = 1'-0" -1-1/2" SQ. X 14 GA, A513 GALV. SQ. STEEL TUBE POST, CHAMFER TOP, POWDER COATED BLACK -1-1/2" DIA. SCHED 40 A53 GALV. STEEL PIPE HAND RAIL, WEEP-BASE WITH BRACKET ARM ROWDER COATED BLACK BRACKET -BOLLARD, TYP. ENLARGEMENT SEE ELECTRICAL 1" = 1'-0" 2-1/4" MIN. -CLR FROM POST SQ. STEEL TUBE RAIL & BOLLARD 4" HIGH -PIPE HAND RAIL - WHEEL CURB BRACKET ARM, FOR HAND RAIL ELEVATIONS 1-1/2" MIN. CLR BELOW CONCEALED HAND RAIL 8" WIDTH SEE CIVIL CURB. SEE CIVIL 6" EXTENSION WHERE BOLLARDS OCCUR, SEE CIVIL **DECORATIVE HAND RAIL**





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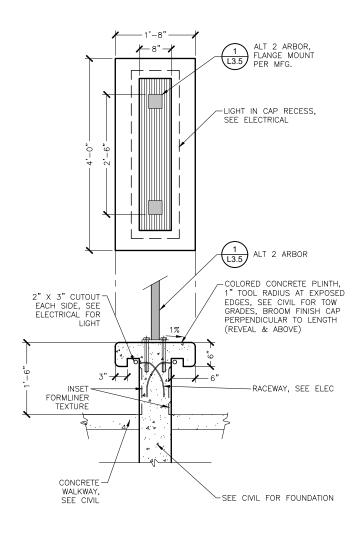
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S-HAND-04

SHEET TITLE:

LANDSCAPE DETAILS

PND PROJECT NO.: 212077 C.A.N. NO.: AECC250 L3.1

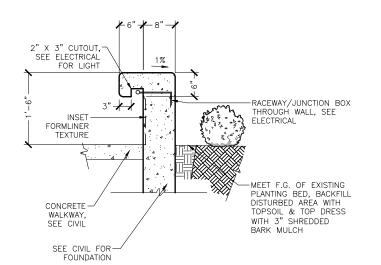


NOTES:

1. SEE SPECIAL PROVISIONS FOR FORMLINER TEXTURE
SELECTION

4 ARBOR PLINTH

1" = 1'-0" S-WALL-17



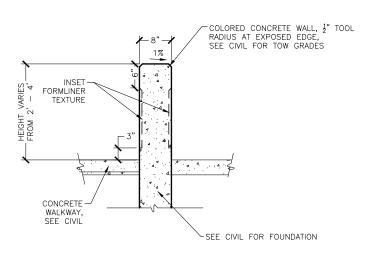
NOTES:

1. SEE SPECIAL PROVISIONS FOR FORMLINER TEXTURE

SELECTION.
2. TERMINATE LIGHT RECESS AND FORMLINER 6" FROM WALL ENDS.

COURTYARD WALL - LIGHTED

1" = 1'-0" S-WALL-11

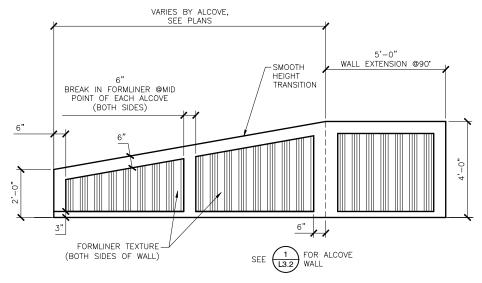


NOTES:

1. SEE SPECIAL PROVISIONS FOR FORMLINE TEXTURE SELECTION.

ALCOVE WALL

1" = 1'-0" S-WALL-12



2 ALCOVE WALL ELEVATION

1/2" = 1'-0"

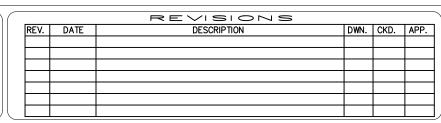
S-WALL-14



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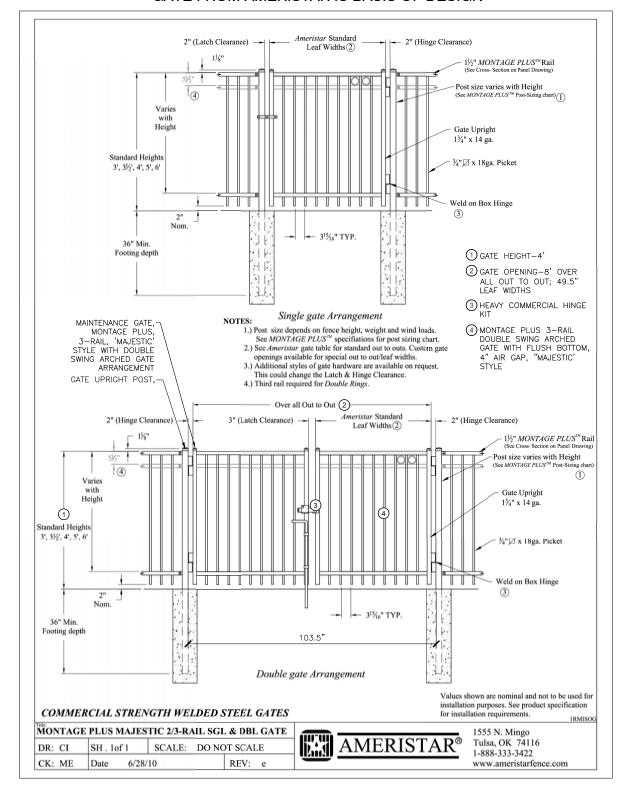


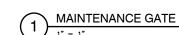
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SHEET TITLE:

L3.2

GATE FROM AMERISTAR IS BASIS OF DESIGN





S-GATE-03

L3.3



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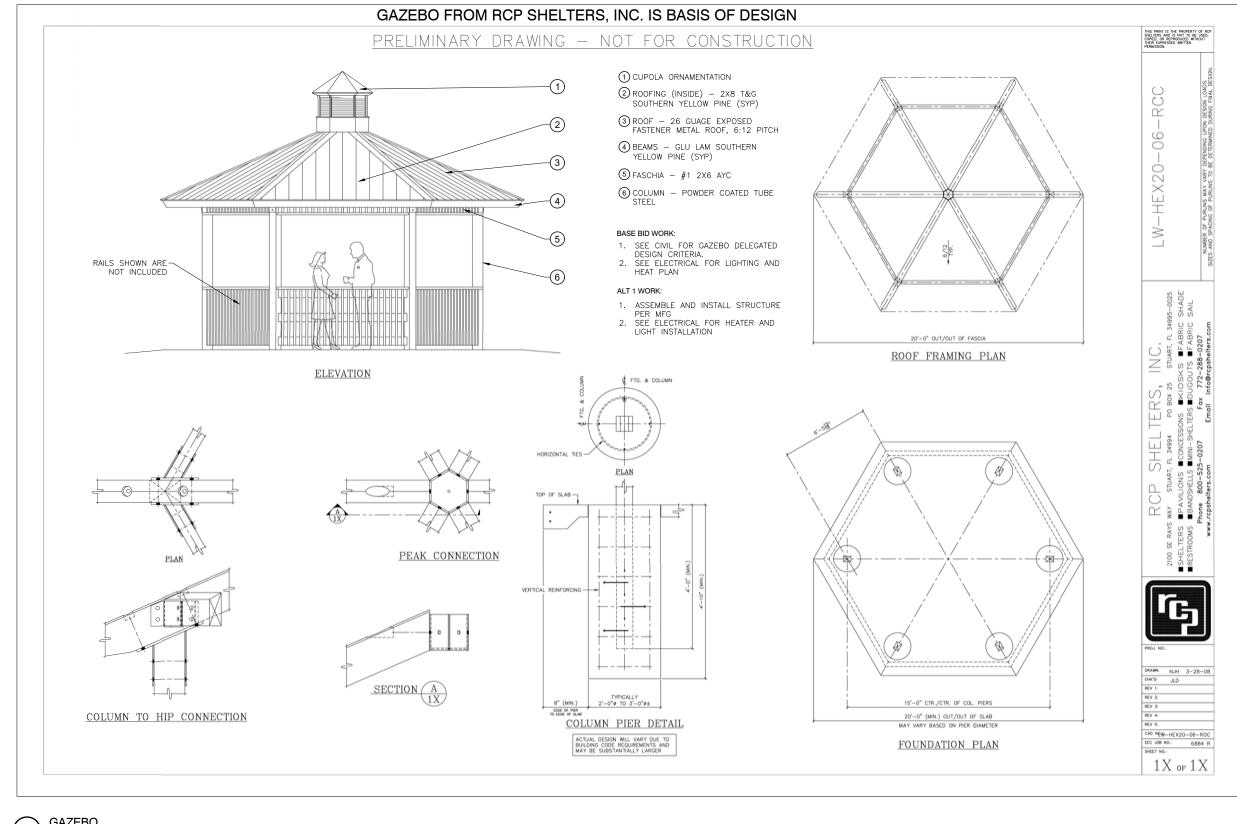
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| DESIGN: MSA CHECKED | o: ALP SCALE: | NO. 10961 |
| DRAWN: MSA APPROVE | :D: MSA | DATE: 06-07-2024 |



ALASKA DEPT. OF FAMILY & COMMUNITY SERVICES JUNEAU PIONEERS' HOME **COURTYARD IMPROVEMENTS** PROJECT NO.: ANC 24-43C

SHEET TITLE:

LANDSCAPE DETAILS



GAZEBO

L3.4



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COURTYARD IMPROVEMENTS PROJECT NO.: ANC 24-43C

SHEET TITLE:

ALT 1 GAZEBO

PND PROJECT NO.: 212077 C.A.N. NO.: AECC250



1 GAME TOP TABLE WITH 2X4 SLATS

② CAST IRON POST

NOTES:

- 1. RECYCLED PLASTIC
- 2. SURFACE MOUNT PER MFG. USING EPOXY ANCHORS 3. COLOR- BLACK

GAME TABLE

S-FURN-19

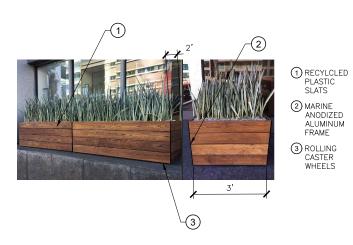


1. RECYCLED PLASTIC

SLATS
2. SURFACE MOUNT PER MFG. USING EPOXY ANCHORS.

3. COLOR- BLACK

DINING TABLE S-FURN-18



NOTES:

- MATERIAL RECYCLED
 PLASTC SLATS
 FRAME COLOR BLACK

ROLLING PLANTERS

S-FURN-21

1) SPINDLE TOP ARBOR 2 ARBOR PLINTHS 3 LATTICE SIDE PANELS 4 ARBOR PLINTH MATERIAL — AZEK (PVC)
COLOR — PAINTED WHITE
FLANGE MOUNT PER
MFG. USING EPOXY
ANCHORS ~9.5' WIDE **ARBOR**



1 MOLDED PLASTIC LOUNGE

1. SURFACE MOUNT PER MFG. USING EPOXY ANCHORS

2. COLOR- BLACK

PLASTIC SLATS

2 POWDER COAT ALUMINUM FRAME

NOTES:

-(2)

- 1. RECYCLED PLASTIC SLATS
- 2. SURFACE MOUNT PER MFG. USING EPOXY
- ANCHORS
 3. COLOR- BLACK

-(2)

1 RECYCLED PLASTIC SLATS

2 POWDER COAT FRAME

NOTES:

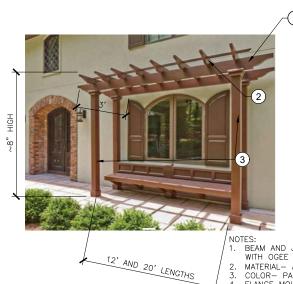
- 1. 6' BENCH AND 2' CHAIR
- LENGTHS

 2. RECYCLED PLASTIC SLATS

 3. SURFACE MOUNT PER MFG.
 USING EPOXY ANCHORS

 4. COLOR— BLACK

CLASSIC BENCH AND CHAIR



NOTES:

1. BEAM AND JOISTS
WITH OGEE END CUTS
2. MATERIAL— AZEK (PVC)
3. COLOR— PAINTED WHITE
4. FLANGE MOUNT PER

S-STRC-08

① BEAMS (4X8)

2 JOISTS

3 POSTS (5X5)

(3X6)

MFG. USING EPOXY ANCHORS

SMALL PERGOLA (2)

S-STRC-09

8 LOUNGE CHAIR

NOTES:

S-FURN-20

COFFEE TABLE

S-FURN-17

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S-FURN-16

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ALT 2 LANDSCAPE DETAILS

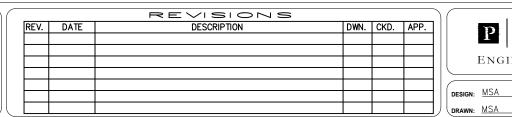
PND PROJECT NO.: 212077 C.A.N. NO.: AECC250



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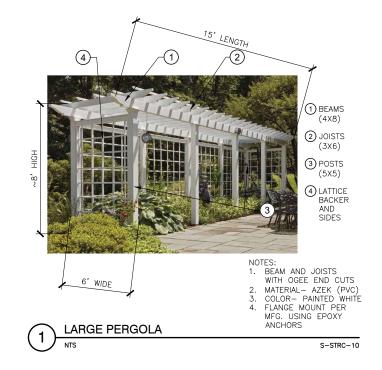


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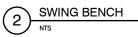
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L3.5







S-FURN-22



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JUNEAU PIONEERS' HOME
COURTYARD IMPROVEMENTS
PROJECT NO.: ANC 24-43C

SHEET TITLE

ALT 3 LANDSCAPE DETAILS

L3.6

| PLANT | SCH | IEDULE | BASE BID | | | |
|--|----------|--------|--|------------|---------------------------|-------------------------|
| SYMBOL | CODE | QTY | BOTANICAL / COMMON NAME | SIZE | FURN | SPACING |
| CONIFER TR | EES | | | | | |
| | TP | 11 | Thuja occidentalis 'Pyramidalis' Pyramidal Arborvitae | 6-7' Ht | CG | |
| DECIDUOUS | TREES | | | | | |
| | CJ | 1 | Cercidiphyllum japonicum pendula Katsura Tree | 1.5" Cal. | CG | |
| | MS | 1 | Malus sargentii Sargent Apple | 1.5" Cal. | | |
| | PS2 | 1 | Prunus serrulata 'Kwanzan' Flowering Cherry | 1.75" Cal. | CG | |
| SMALL TREE | :s | | | | | 1 |
| | АМ | 1 | Acer shirasawanum 'Moonrise' Moonrise Fullmoon Maple | 4-5' Ht | B&B or CG | |
| | AF2 | 1 | Acer x pseudosieboldianum 'Wabi Sabi' Wabi Sabi Maple | #15 | CG | |
| BORDER PEI | RENNIAL: | S | | | 1 | |
| → | НА | 15 | Hakonechloa macra 'Aureola' Golden Variegated Forest Grass | #3 | CG | |
| * | SU | 15 | Salvia nemorosa 'Bumbleberry' Bumbleberry Meadow Sage | #1 | CG | |
| LARGE | | | Bullibleberry Meddow Sage | | | |
| £., | HG | 3 | Hydrangea paniculata 'Grandiflora' PeeGee Panicle Hydrangea | #5 | CG | |
| \odot | RS | 3 | Ribes sanguineum 'King Edward VII' Red Flowering Currant | #7 | CG | |
| 3. · · · · | RR | 2 | Rosa rugosa Rugosa Rose | #5 | CG | |
| $\left(\cdot\right)$ | SN | 3 | Spiraea nipponica 'Snowmound' Snowmound Spirea | #5 | CG | |
| MEDIUM | | | | | | |
| | BS | 6 | Buxus sempervirens Common Boxwood | #3 | CG | |
| AND SELECTION OF THE PARTY OF T | PP2 | 4 | Picea abies 'Pusch' Pusch Dwarf Norway Spruce | #5 | CG | |
| | RI | 9 | Rhododendron impeditum Impeditum Dwarf Rhododendron | #2 | CG | |
| | SS2 | 9 | Spiraea japonica 'Shirobana' Shirobana Japanese Spirea | #3 | CG | |
| | TC | 22 | Taxus cuspidata 'Nana' Dwarf Japanese Yew | #3 | CG | |
| | | | Dwarr Sapanese rew | | | |
| VINES | СТ | 13 | Clematis tangutica Golden Clematis | #2 | in decorative ceramic pot | |
| DEDENNIALS | | | Golden Clematis | | | |
| PERENNIALS | HX2 | 25 | Helleborus x | SP#1 | CG | triang. space @ 24" oc |
| | HP2 | 38 | Hybrid Hellebore Heuchera x 'Plum Pudding' | SP#4 | CG | triang. space @ 30" |
| GROUND CO | + | 1 | Plum Pudding Coral Bells | " | | 3 1 |
| | AJ | 89 | Ajuga reptans 'Black Scallop' Black Scallop Carpet Bugle | SP#2 | flat@ | triang. space @18" o.c. |
| | AR2 | 53 | Arabis alpina 'Snowcap' Alpine Rockcress | SP#2 | flat@ | triang. space @18" o.c. |
| | a | 1 | / ipine Nockeress | | | 1 |
| SEED ADD::0 | | | | | | |
| SEED AREAS | LM | 744 sf | Lawn Mix | seed | | |

| PLANT | SCI | HEDULE | ALT 3 | | | |
|---|---------|----------|--|-----------|---------------------------|------------------------|
| SYMBOL | CODE | QTY | BOTANICAL / COMMON NAME | SIZE | FURN | SPACING |
| DECIDUOUS | TREES | | | | | |
| | AR | 1 | Acer rubrum 'October Glory' TM October Glory Maple | 2" Cal. | CG | |
| SMALL TREE | S | | | | | |
| | AG2 | 1 | Acer griseum Paperbark Maple | 1.5" Cal. | B&B or CG | |
| | АМ | 1 | Acer shirasawanum 'Moonrise' Moonrise Fullmoon Maple | 4-5' Ht | B&B or CG | |
| BORDER PE | RENNIAL | S | | | | |
| | НА | 11 | Hakonechloa macra 'Aureola' Golden Variegated Forest Grass | #3 | CG | |
| * | su | 5 | Salvia nemorosa 'Bumbleberry' Bumbleberry Meadow Sage | #1 | CG | |
| ARGE | | | | | | |
| (*) | HG | 2 | Hydrangea paniculata 'Grandiflora' PeeGee Panicle Hydrangea | #5 | CG | |
| 7. T | RR | 2 | Rosa rugosa Rugosa Rose | #5 | CG | |
| 0 | SN | 2 | Spiraea nipponica 'Snowmound' Snowmound Spirea | #5 | CG | |
| /EDIUM | | | | • | | |
| MEDIUM MEDIUM MANAGEMENT OF THE PROPERTY OF | BS | 3 | Buxus sempervirens Common Boxwood | #3 | CG | |
| AND SALANTE | PP2 | 1 | Picea abies 'Pusch' Pusch Dwarf Norway Spruce | #5 | CG | |
| • | RI | 3 | Rhododendron impeditum Impeditum Dwarf Rhododendron | #2 | CG | |
| VINES | | | | | 1 | _ |
| J | СТ | 7 | Clematis tangutica Golden Clematis | #2 | in decorative ceramic pot | |
| PERENNIALS | , | | | | | |
| · · · · · · · · · · · · · · · · · · · | ВМ | 34 | Brunnera macrophylla 'Jack Frost' TM Siberian Bugloss | SP#1 | CG | triang. space @ 24" oc |
| | vs | 51 | Veronica spicata 'Red Fox' Red Fox Spike Speedwell | SP#1 | CG | triang. space @ 24" oc |
| SEED AREAS | 3 | | | 1 | | |
| | NS2 | 3,184 sf | Native Seed Mix Alt 3 | seed | | |
| 这次没 | NSD | 685 sf | Native Seed Mix — Add to Base Bid if Alt 3 not selected | seed | | |

PLANTING NOTES:

- Coordinate earthwork to ensure final grades are met and positive drainage is achieved. All soft surfaces to be 1" below adjacent hard surfaces.
- 2. Base Bid 2" depth topsoil all disturbed areas from spruce tree and root wad removal. All other disturbed areas (cut/fill slopes) to receive 4" topsoil and native seed mix.
- 3. <u>Landscape Beds</u>: Excavate as necessary to allow placement of planting soil (as measured after compaction) and to achieve soil depths per planting details (which may be additional to the soils plan) to meet finish grades. Mound @ 4:1 from all edges for installation of soil type per plans.
- All plants: Nursery grown to ANSI Z60.1 standards. See planting details on sheets L4.3-4.4 for planting of trees, shrubs and perennial/grasses.
- All planting areas to receive 3" shredded bark mulch unless otherwise noted.
- Stake locations of trees for owner/landscape architect approval prior to
- 6. See Civil sheets for structures, roof overhangs, doors, windows, walls, walkways and utilities.



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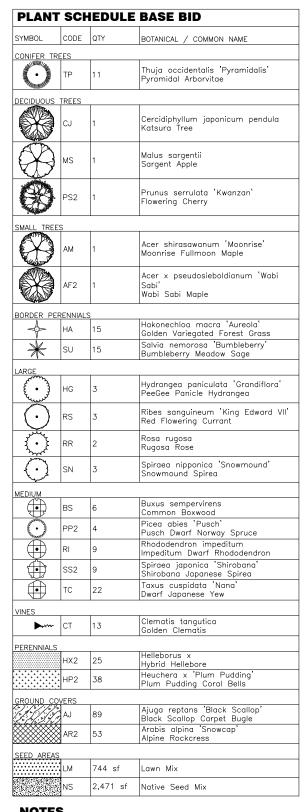
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PLANTING SCHEDULE



NOTES

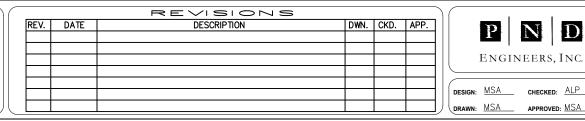
Base Bid — 2" depth topsoil all disturbed areas from spruce tree and root wad removal.



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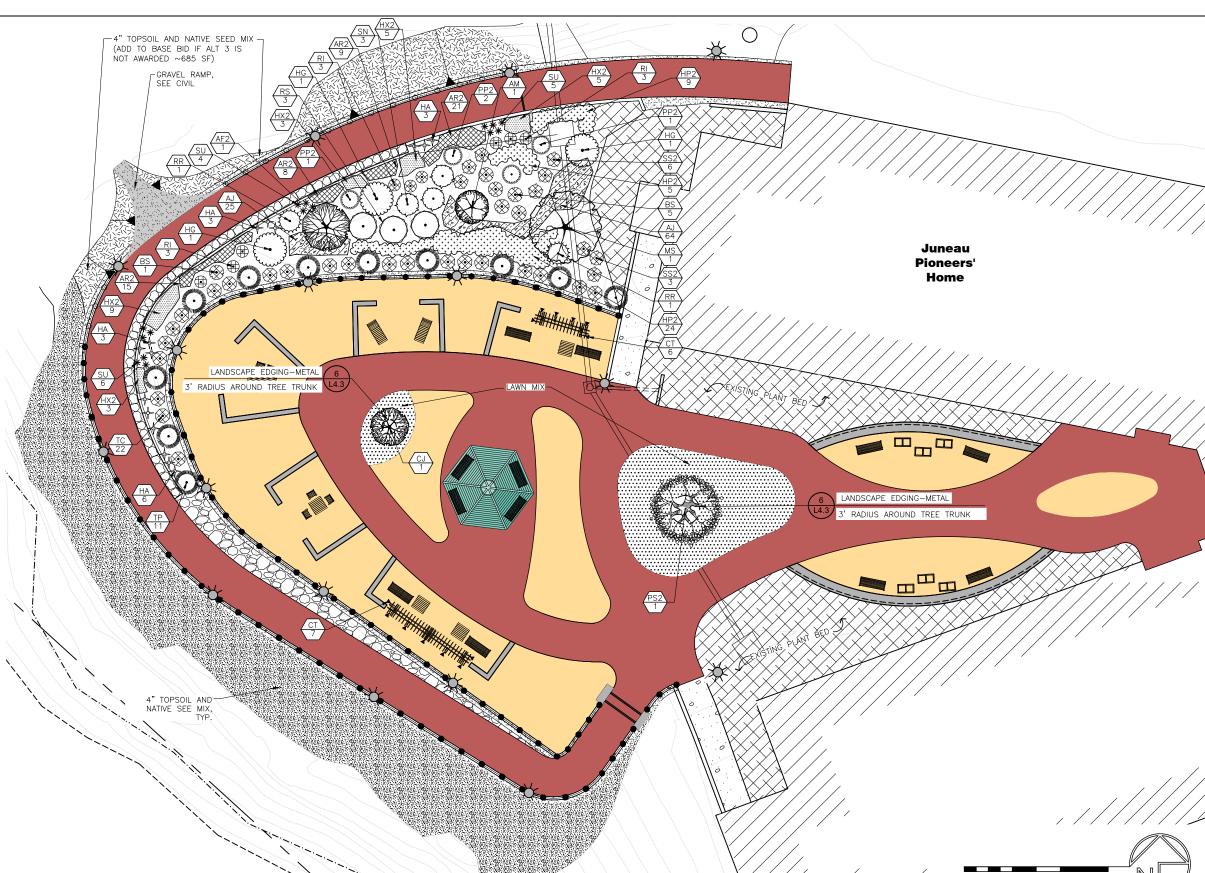
PLAN

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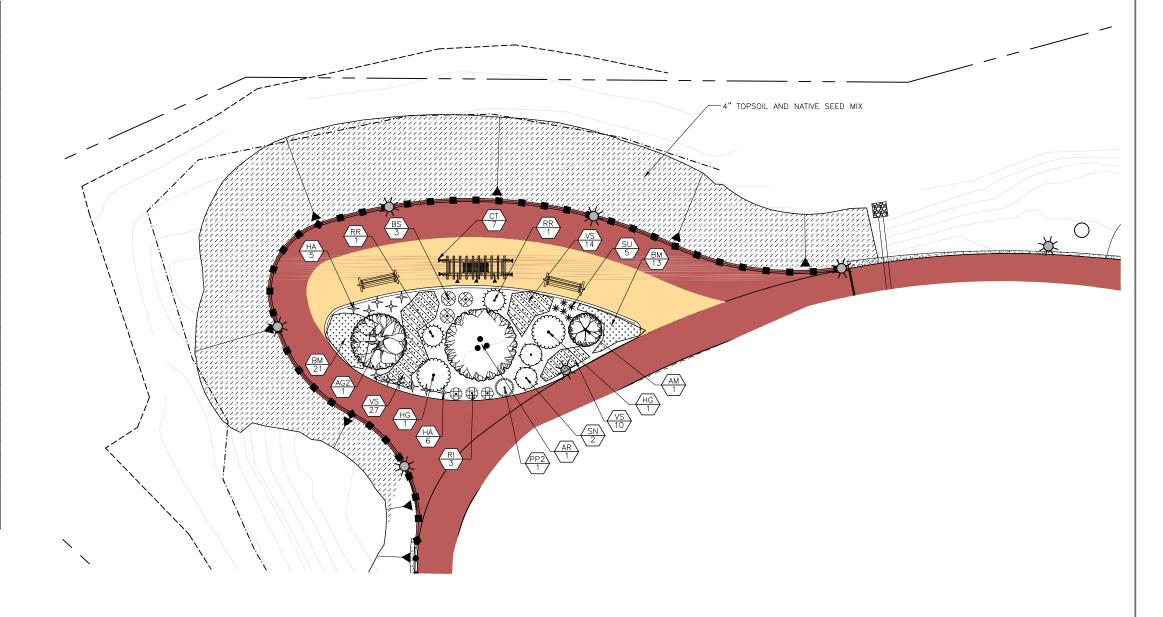
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| OF ALAST | COURTYA | AMILY & CON PIONEERS' RD IMPROV T NO.: ANC |
|---------------------------------|-------------------------|---|
| onique S. Anderson | SHEET TITLE: | |
| No.10961 ROFESSIONAL LANGSCARE | BASE BID P | LANTING I |
| 06-07-2024 | PND PROJECT NO.: 212077 | C.A.N. NO.: AEC |

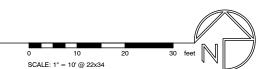
SCALE: 1" = 10' @ 22x34



| SYMBOL | CODE | QTY | BOTANICAL / COMMON NAME | |
|---------------------|--|----------|--|--|
| DECIDUOUS | TPFFS | | 125 | |
| | AR | 1 | Acer rubrum 'October Glory' TM October Glory Maple | |
| SMALL TRE | ES | | • | |
| | AG2 | 1 | Acer griseum Paperbark Maple | |
| | AM | 1 | Acer shirasawanum 'Moonrise' Moonrise Fullmoon Maple | |
| BORDER P | ERENNIAL | S | | |
| - | НА | 1 1 | Hakonechloa macra 'Aureola' Golden Variegated Forest Grass | |
| * | SU | 5 | Salvia nemorosa 'Bumbleberry' Bumbleberry Meadow Sage | |
| _ARGE | | | | |
| £.3 | HG | 2 | Hydrangea paniculata 'Grandiflora' PeeGee Panicle Hydrangea | |
| 3°. | RR | 2 | Rosa rugosa Rugosa Rose | |
| \odot | SN | 2 | Spiraea nipponica 'Snowmound' Snowmound Spirea | |
| MEDIUM | | | | |
| | BS | 3 | Buxus sempervirens Common Boxwood | |
| MANAGARA CONTRACTOR | PP2 | 1 | Picea abies 'Pusch' Pusch Dwarf Norway Spruce | |
| • | RI | 3 | Rhododendron impeditum Impeditum Dwarf Rhododendron | |
| VINES | | | | |
| N | • СТ | 7 | Clematis tangutica Golden Clematis | |
| PERENNIAL | <u>ş </u> | | | |
| | ВМ | 34 | Brunnera macrophylla 'Jack Frost' TM Siberian Bugloss | |
| | vs | 51 | Veronica spicata 'Red Fox' Red Fox Spike Speedwell | |
| SEED AREA | 4S | | | |
| | /1NS2 | 3,184 sf | Native Seed Mix Alt 3 | |



ALT 3 PLANTING PLAN





MONIQUE ANDERSON Landscape Architect

ANDERSON LAND PLANNING

PO Box 6078 Sitka, AK 99835 :: 907-230-6003

| REVISIONS | | | | | | | | | | |
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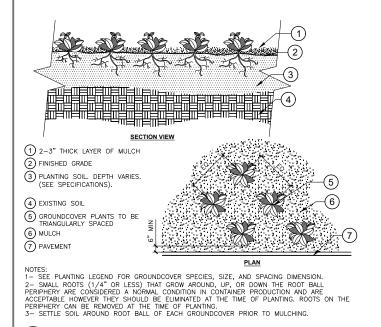
DESIGN: MSA CHECKED: ALP DRAWN: MSA APPROVED: MSA



ALASKA DEPT. OF FAMILY & COMMUNITY SERVICES
JUNEAU PIONEERS' HOME
COURTYARD IMPROVEMENTS
PROJECT NO.: ANC 24-43C

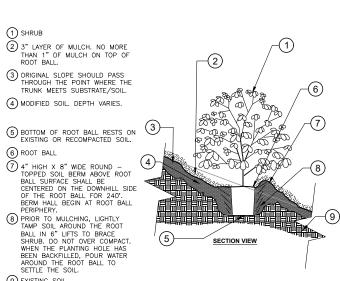
ALT 3 PLANTING PLAN

C.A.N. NO.: AECC250 PND PROJECT NO.: 212077



PERENNIAL, GRASS AND GROUNDCOVER FX-PL-FX-GROU-01

PLANTING BED .



SECTION VIEW



1. METAL EDGING SHALL BE & "WIDE X 5-1/2" DEEP ALUMINUM, STANDARD-PROFILE EXTRUDED EDGING, FABRICATED IN STANDARD LENGTHS WITH INTERLOCKING SECTIONS WITH LOOPS STAMPED FROM FACE OF SECTIONS TO RECEIVE STAKES. 2. MANUFACTURERS INCLUDE BUT ARE NOT LIMITED TO: a. Curv-Rite, Inc. b. Permaloc Corporation

LANDSCAPE EDGING,

WITH STAKES, MAX 1/2 ABOVE SURFACE

MULCH PER PLANS -

PLANTING SOIL PER LAYOUT AND SOILS
PLAN

c. Sure-Loc Edging Corporation

LANDSCAPE EDGING-METAL

S-EDGE-08

SHRUB ON SLOPE 5% TO 50%

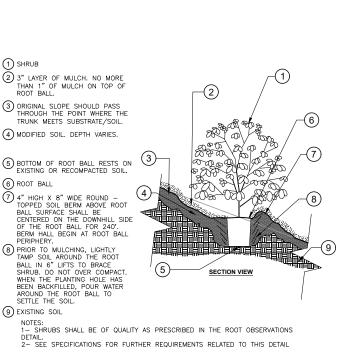
NOTES: 1- TREES SHALL BE OF QUALITY PRESCRIBED IN CROWN OBSERVATIONS

OBSERVATIONS DETAILS

2— SEE SPECIFICATIONS FOR FURTHER REQUIREMENTS RELATED TO THIS DETAIL.

8

TREE ON SLOPE



NOTES: 1- TREES SHALL BE OF QUALITY PRESCRIBED IN CROWN OBSERVATIONS OBSERVATIONS DETAILS. 2- SEE SPECIFICATIONS FOR FURTHER REQUIREMENTS RELATED TO THIS DETAIL. (3)

① CENTRAL LEADER. (SEE CROWN OBSERVATIONS DETAIL).

2 TRUNK CALIPER SHALL MEET ANSI Z60 CURRENT EDITION FOR ROOT BALL SIZE.

(3) ROOT BALL MODIFIED AS REQUIRED.

ROUND-TOPPED SOIL BERM 4" HIGH X 8" WIDE ABOVE ROOT BALL SURFACE SHALL BE CONSTRUCTED AROUND THE ROOT BALL. BERM SHALL BEGIN AT ROOT BALL PERIPHERY.

(5) FINISHED GRADE.

6 PLANTING SOIL DEPTH PER PLANS AND WIDTH 3X ROOTBALL DIAMETER.

(7) EXISTING SOIL.

8 BOTTOM OF ROOT BALL RESTS ON EXISTING OR RECOMPACTED SOIL.

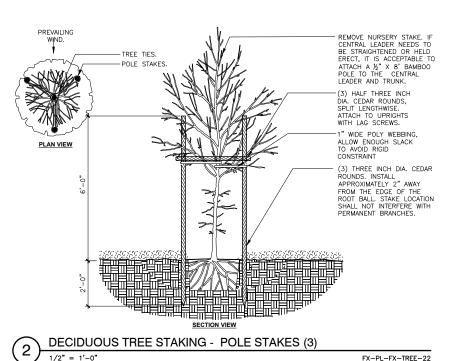
9 TOP OF ROOT BALL SHALL BE FLUSH WITH FINISHED GRADE.

10 PRIOR TO MULCHING, LIGHTLY TAMP SOIL AROUND THE ROOT BALL IN 6" LIFTS TO BRACE TREE. DO NOT OVER COMPACT. WHEN THE PLANTING HOLE HAS BEEN BACKFILLED, POUR AROUND THE ROOT BALL TO SETTLE THE SOIL.

(1) 3" LAYER OF MULCH. NO MORE THAN 1" OF MULCH ON TOP OF ROOT BALL.

TREE W/ BERM

FX-PL-FX-TREE-05



DECIDUOUS TREE STAKING - POLE STAKES (3) FX-PL-FX-TREE-22



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FX-PL-FX-SHRB-01

1 CENTRAL LEADER. (SEE CROWN OBSERVATIONS DETAIL).

WHERE THE TRUNK BASE MEETS SUBSTRATE/SOIL. (3) PRIOR TO MULCHING, LIGHTLY TAMP SOIL AROUND THE ROOT BALL IN 6" LIFTS TO BRACE TREE. DO NOT OVER COMPACT. WHEN THE PLANTING HOLE HAS BEEN BACKFILLED, POUR WATER AROUND THE ROOT BALL TO SETTLE THE SOIL.

4 3" LAYER OF MULCH. NO MORE THAN 1" OF MULCH ON TOP OF ROOT BALL.

ROUND-TOPPED SOIL BERM 4" HIGH X 8" WIDE ABOVE ROOT BALL SURFACE SHALL BE CENTERED ON THE DOWNHILL SIDE OF THE ROOT BALL FOR 240'. BERM SHALL BEGIN AT ROOT BALL PERIPHERY.

FX-PL-FX-TREE-07

6 BOTTOM OF ROOT BALL RESTS ON EXISTING OR RECOMPACTED SOIL.

TRUNK CALIPER SHALL MEET ANSI Z60 CURRENT EDITION FOR ROOT BALL SIZE.

(8) ROOT BALL MODIFIED AS REQUIRED.

(10) MODIFIED SOIL. DEPTH VARIES.

SLOPE 5% (20:1) TO 50% (2:1)

(5) ORIGINAL GRADE.

2 ORIGINAL SLOPE SHOULD PASS THROUGH THE POINT







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ALASKA DEPT. OF FAMILY & COMMUNITY SERVICES JUNEAU PIONEERS' HOME **COURTYARD IMPROVEMENTS** PROJECT NO.: ANC 24-43C

SHEET TITLE

PLANTING DETAILS

PND PROJECT NO.: 212077 C.A.N. NO.: AECC250

ACCEPTABLE

TOP OF-

THE POINT WHERE TOP-MOST ROOT(S) EMERGES FROM THE TRUNK (ROOT COLLAR) SHOULD BE WITHIN THE TOP 2" OF SUBSTRATE. THE ROOT COLLAR AND THE ROOT BALL INTERIOR SHOULD BE FREE OF DEFECTS INCLUDING CIRCLING, KINKED, ASCENDING, AND STEM GIRDLING ROOTS. STRUCTURAL ROOTS SHALL REACH THE PERIPHERY NEAR THE TOP OF THE ROOT BALL.

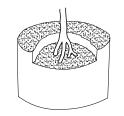
WHERE TOP-MOST

ROOT EMERGES FROM TRUNK.

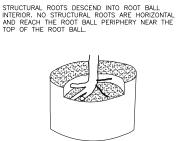
STRUCTURAL

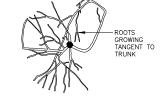
STRUCTURAL ROOTS CIRCLE INTERIOR OF ROOT BALL. NO STRUCTURAL ROOTS ARE HORIZONTAL AND REACH THE ROOT BALL PERIPHERY NEAR THE TOP OF THE ROOT BALL.

ONLY ABSORBING ROOTS REACH THE PERIPHERY NEAR THE TOP OF THE ROOT BALL. STRUCTURAL ROOTS MOSTLY WRAP OR ARE DEFLECTED ON THE ROOT BALL INTERIOR.



STRUCTURAL ROOTS CIRCLE AND DO NOT RADIATE FROM THE TRUNK.





STRUCTURAL ROOTS PRIMARILY GROW TO ONE SIDE.

STRUCTURAL ROOTS MISSING FROM ONE SIDE, AND/OR GROW TANGENT TO

ROOTS RADIATE FROM TRUNK AND REACH SIDE OF ROOT BALL WITHOUT DEFLECTING DOWN OR AROUND.

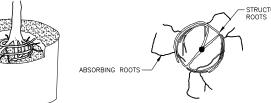
ROOT COLLAR -

1- OBSERVATIONS OF ROOTS SHALL OCCUR PRIOR TO ACCEPTANCE. ROOTS AND SUBSTRATE MAY BE REMOVED DURING THE OBSERVATION PROCESS; SUBSTRATE/SOIL SHALL BE REPLACED AFTER OBSERVATION HAS BEEN COMPLETED.

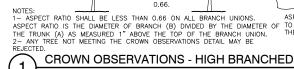
2- SMALL ROOTS (1/4" OR LESS) THAT GROW AROUND, UP, OR DOWN THE ROOT BALL PERIPHERY ARE CONSIDERED A NORMAL CONDITION IN CONTAINER PRODUCTION AND ARE ACCEPTABLE HOWEVER THEY SHOULD BE ELIMINATED AT THE TIME OF PLANTING. ROOTS ON THE PERIPHERY CAN BE REMOVED AT THE TIME OF PLANTING. (SEE ROOT BALL SHAVING CONTAINER DETAIL).
3- SEE SPECIFICATIONS FOR OBSERVATION PROCESS AND REQUIREMENTS.

ROOT OBSERVATIONS DETAIL - CONTAINER

FX-PL-FX-OBSV-02



REJECTABLE



ONE CENTRAL LEADER 'NO CODOMINANT

MULTIPLE LEADERS.

ACCEPTABLE

FX-PL-FX-0BSV-03

A B Aspect
Ratio
1.50" 0.50" 0.33

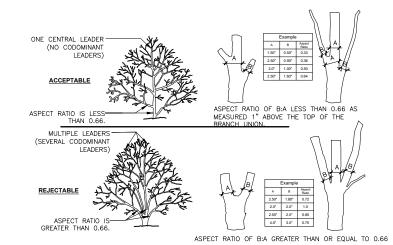
2.50" 0.90" 0.36 2.0" 1.00" 0.50

A B Aspect Ratio 2.50" 1.80" 0.72

2.0" 2.0" 1.0 2.50" 2.0" 0.80

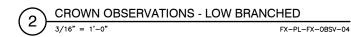
ASPECT RATIO OF B:A GREATER THAN OR EQUAL TO 0.66 AS MEASURED 1" ABOVE THE TOP OF THE BRANCH UNION.

ASPECT RATIO OF B:A LESS THAN 0.66 AS MEASURED 1" ABOVE THE TOP OF T



NOTES:
1- ASPECT RATIO SHALL BE LESS THAN 0.66 ON ALL BRANCH UNIONS. ASPECT RATIO IS THE DIAMETER OF BRANCH (B) DIVIDED BY THE DIAMETER OF THE TRUNK (A) AS MEASURED 1" ABOVE THE TOP OF THE BRANCH UNION.

2- ANY TREE NOT MEETING THE CROWN OBSERVATIONS DETAIL MAY BE REJECTED.

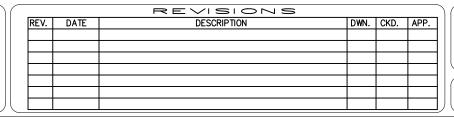




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ENGINEERS, INC.







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ALASKA DEPT. OF FAMILY & COMMUNITY SERVICES JUNEAU PIONEERS' HOME **COURTYARD IMPROVEMENTS** PROJECT NO.: ANC 24-43C

PLANTING DETAILS

PND PROJECT NO.: 212077 C.A.N. NO.: AECC250



RECEPTACLE → R 🂢 AT BOLLARD

ILLUMINATED BOLLARD

LIGHT POLE □•

SWITCHING

TOGGLE SWITCH

D DIMMER SWITCH

PHOTOCELL

TC TIME CLOCK

• PUSHBUTTON STATION

WIRING

JUNCTION BOX

HANDHOLE

CONDUIT CONCEALED IN CEILING OR

CONDUIT CONCEALED IN FLOOR OR UNDER SLAB

— HOT CONDUCTOR

NEUTRAL CONDUCTOR

GROUND CONDUCTOR HOMERUN TO INDICATED DESTINATION

FLEXIBLE CONDUIT CONNECTION

NOTE: WIRING NOT SHOWN WHERE ONLY A HOT, NEUTRAL, AND GROUND ARE REQUIRED.

POWER DEVICES

SPECIAL PURPOSE RECEPTACLE

SIMPLEX RECEPTACLE

DOUBLE DUPLEX RECEPTACLE

DUPLEX RECEPTACLE

ABOVE COUNTER RECEPTACLE

DIAGRAMS

CIRCUIT BREAKER 60

NORMALLY OPEN PUSHBUTTON

NORMALLY CLOSED PUSHBUTTON

HAND-OFF-AUTO SWITCH

SWITCH

NORMALLY OPEN CONTACTS

NORMALLY CLOSED CONTACTS

CONTACTOR COIL

RELAY COIL

−III− FUSE



TRANSFORMER

DISTRIBUTION

BRANCH CIRCUIT PANELBOARD

MOTOR CONNECTION

 \Box DISCONNECT SWITCH FUSED DISCONNECT SWITCH

 \boxtimes COMBINATION STARTER

STARTER OR CONTACTOR

SIGNAL

DATA OUTLET

REFERENCE SYMBOLS

12 SHEET NOTE REFERENCE

DETAIL REFERENCE E4.1

(E) EXISTING

(N) NEW (X) REMOVE

(RL) RELOCATE

REPLACE

(X/S) REMOVE AND SALVAGE

ABBREVIATIONS

AC ALTERNATING CURRENT

AMPERE (RATED) FUSE

ABOVE FINISHED FLOOR

ABOVE FINISHED GRADE

AMPERE (RATED) SWITCH

AUXII IARY

CONDUIT

CELLING CLG

FULL LOAD AMPERES

GROUND FAULT CIRCUIT INTERRUPTER

GROUND

GALVANIZED RIGID CONDUIT

HORSEPOWER

ΗZ HERTZ

KII OWATTS KW

KII OVOLT-AMPERES

LTG LIGHTING

LOW VOLTAGE (DC CIRCUIT)

MAX MAXIMUM

MIN

MINIMUM

MAIN LUGS ONLY MLO

MOUNTED MTD

NEUTRAL (GROUNDED CONDUCTOR)

NORMALLY CLOSED

NATIONAL ELECTRICAL CODE

NATIONAL ELECTRICAL MANUFACTURER'S

ASSOCIATION

NORMALLY OPEN

ABBREVIATIONS

OC ON CENTER

OUTSIDE DIAMETER OD

OWNER FURNISHED, CONTRACTOR

OFOI OWNER FURNISHED, OWNER INSTALLED

РΗ PHASE

REC RECEPTACLE

TYP TYPICAL

UNDERWRITERS LAB UL

UON UNLESS OTHERWISE NOTED

UNINTERRUPTIBLE POWER SUPPLY **UPS**

VOLTS

VOLT-AMPERES

VARIABLE FREQUENCY DRIVE

WEATHERPROOF

XFMR TRANSFORMER

ELECTRICAL DRAWING LIST

E1.0 ELECTRICAL LEGEND AND ABBREVIATIONS

E2.0 DEMOLITION PLAN PHASE I

E3.0 SITE PLAN PHASE I

E4.0 DEMOLITION AND SITE PLANS PHASE II

E5.0 ENLARGED PLANS PHASE I

E6.0 DETAILS

E7.0 DETAILS

E8.0 DETAILS

E9.0 SCHEDULES

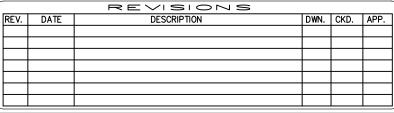
GENERAL NOTES:

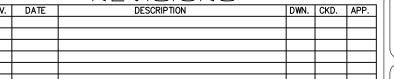
1. REFER TO THE LANDSCAPE DRAWINGS FOR BOLLARD LOCATIONS IN THE HANDRAILS. REFER TO THE CIVIL SUMMARY TABLES FOR LOCATIONS OF REMAINING BOLLARDS. ROUGH-IN ACCORDING TO CIVIL SURVEY DATA AND LANDSCAPE DETAILS. DO NOT SCALE THE ELECTRICAL DRAWINGS.

2. LUMINAIRES A1 THROUGH A20 SHALL BE FURNISHED UNDER THE BASE BID. LUMINAIRES REQUIRED FOR ALTERNATE 3 SHALL BE TURNED OVER TO THE OWNER IF ALTERNATE 3 IS NOT AWARDED.





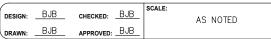










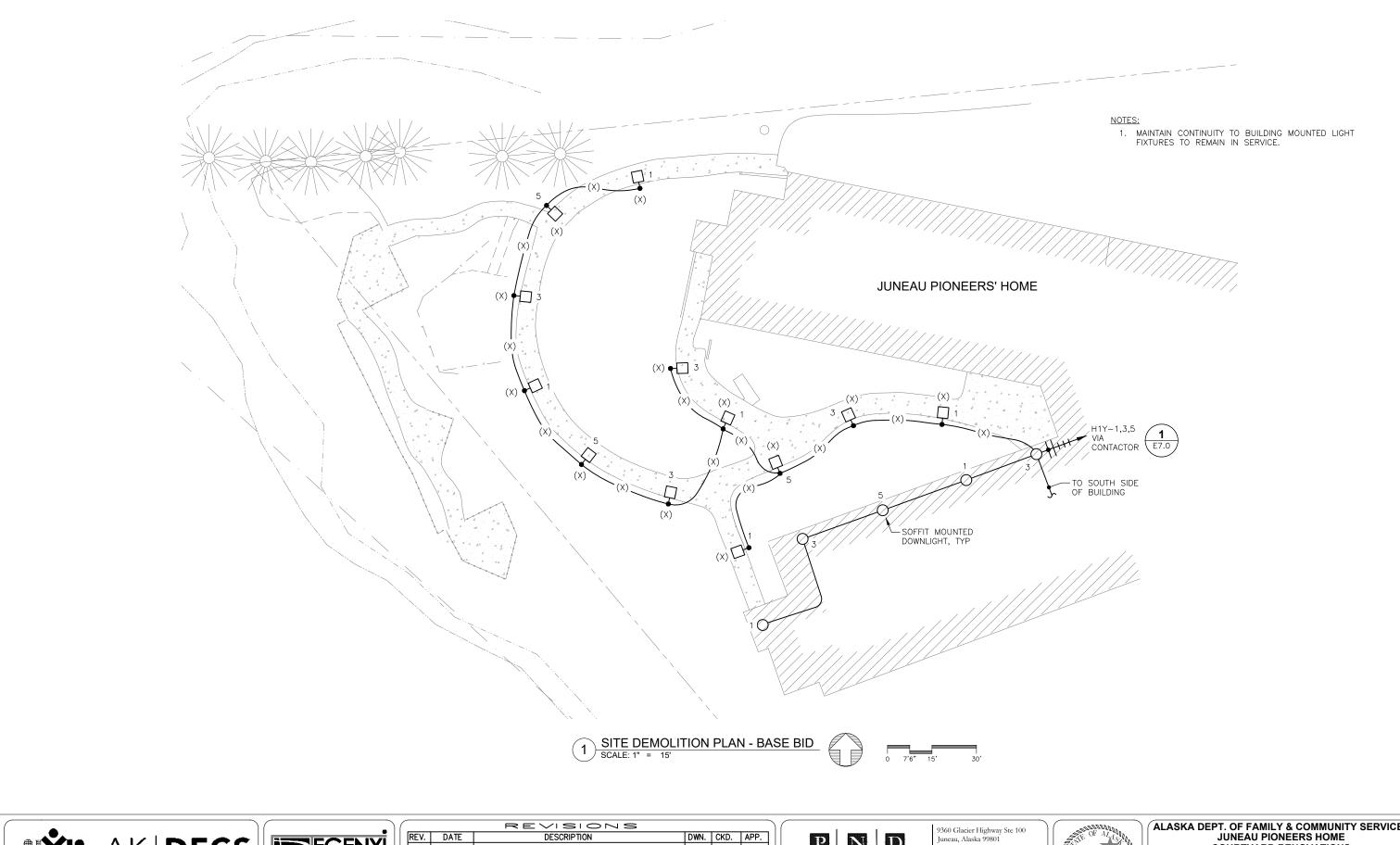




ALASKA DEPT. OF FAMILY & COMMUNITY SERVICES JUNEAU PIONEERS HOME **COURTYARD RENOVATIONS** PROJECT NO.: ANC 24-43C

ELECTRICAL LEGEND AND ABBREVIATIONS

E1.0







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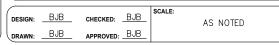








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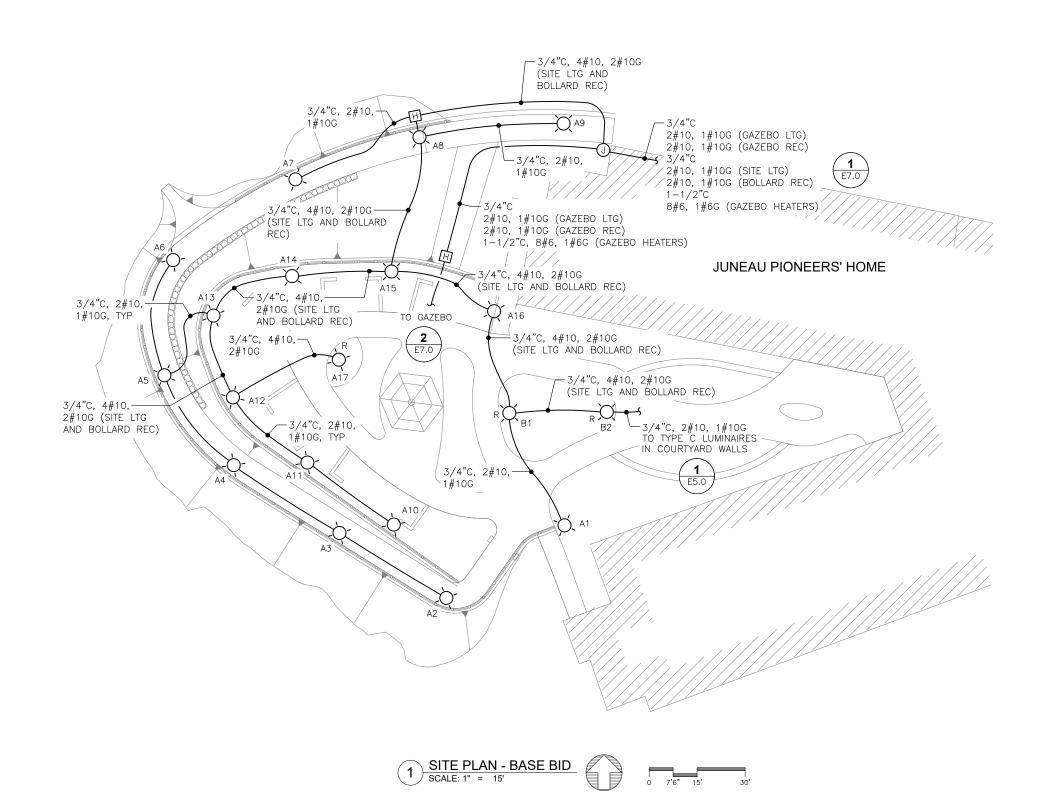




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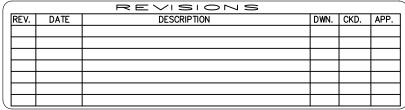
DEMOLITION PLAN BASE BID
 PND PROJECT NO.: 212077
 C.A.N. NO.: AECC250

E2.0











DRAWN: BJB APPROVED: BJB







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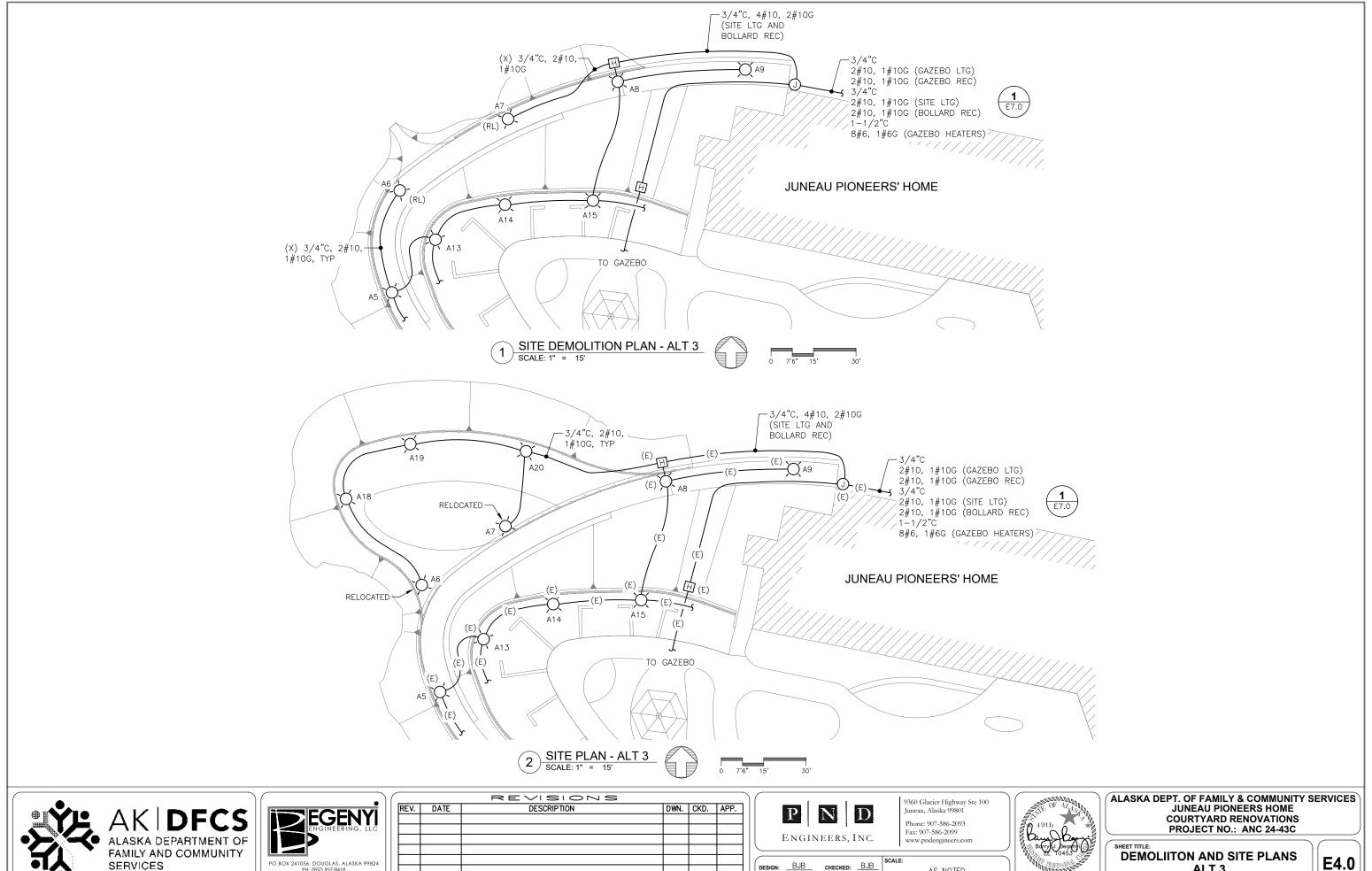


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SHEET TITLE:

SITE PLAN BASE BID

E3.0



DESIGN: BJB CHECKED: BJB

DRAWN: BJB APPROVED: BJB





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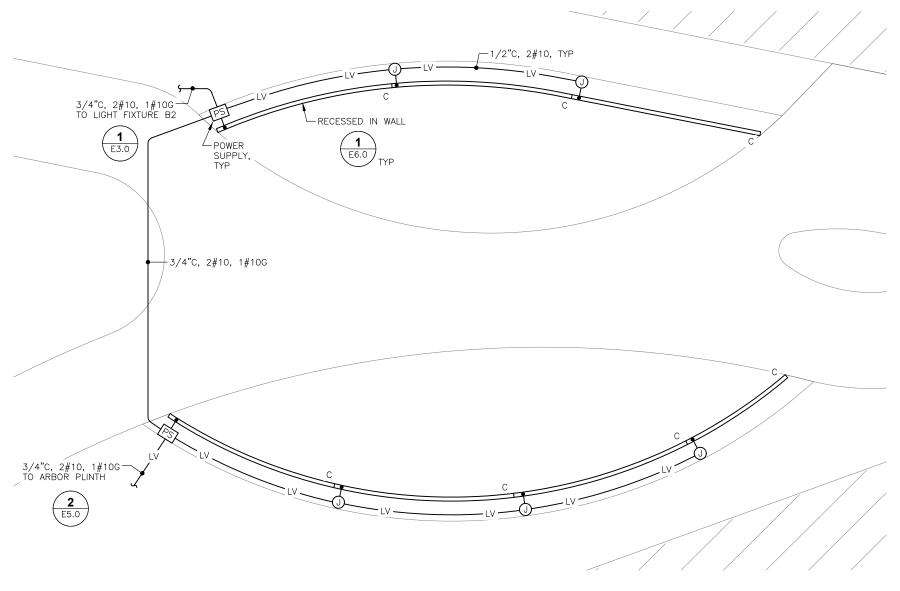
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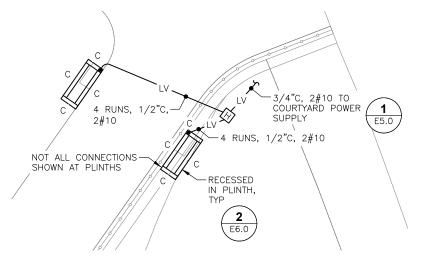
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DEMOLIITON AND SITE PLANS ALT 3

NOTES:

- 1. MOUNT POWER SUPPLY IN 16"HX6"WX4"D ENCLOSURE.
- 2. PROVIDE CONDUIT ONLY TO ARBOR PLINTH UNDER BASE BID.





ARBOR PLINTH LIGHTING PLAN - BASE BID SCALE: 1/4" = 1'-0"





COURTYARD LIGHTING PLAN - BASE BID 1) SCALE: 1/4" = 1'-0"









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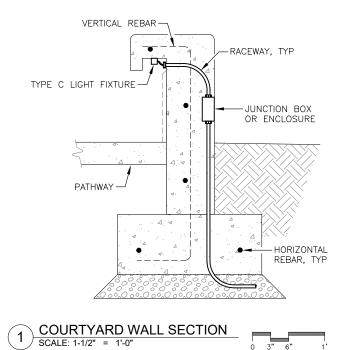
| INC. | Phone: 907-586-2093 Fax: 907-586-2099 www.pndengineers.com | 49th |
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| <u>BJB</u> : <u>BJB</u> | SCALE: AS NOTED | DATE: 6/7/24 |

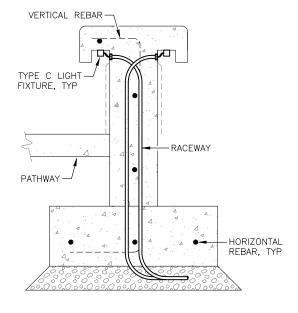


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JUNEAU PIONEERS HOME COURTYARD RENOVATIONS PROJECT NO.: ANC 24-43C

ENLARGED PLANS BASE BID

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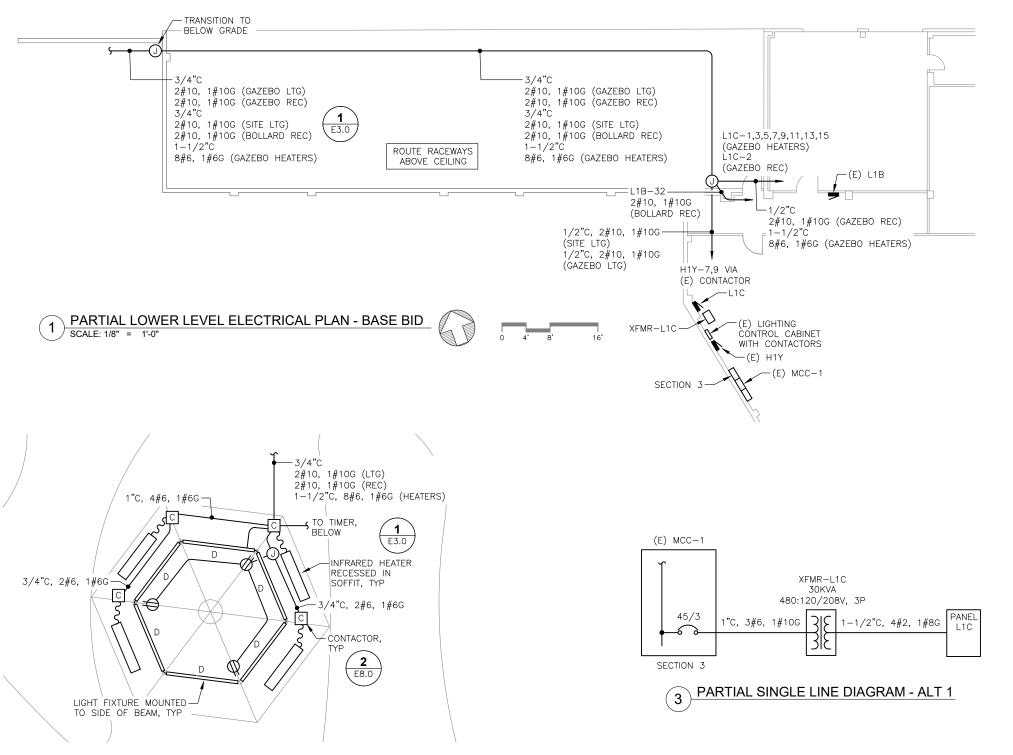


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COURTYARD RENOVATIONS
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SHEET TITLE:

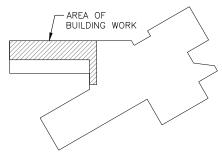
DETAILS

E6.0



NOTES:

- 1. MOUNT GAZEBO HEATER TIMER SWITCH TO COLUMN. FIELD COORDINATE EXACT LOCATION.
- 2. LOCATE GAZEBO HEATER CONTACTORS IN STRUCTURE NEAR HEATERS. COORDINATE EXACT LOCATION.
- 3. MOUNT GAZEBO DUPLEX RECEPTACLES TO COLUMNS AT 18-INCHES AFG. FIELD COORDINATE EXACT LOCATION.
- 4. PROVIDE GAZEBO CONDUITS UNDER BASE BID. STUB INTO TYPE 1A HANDHOLE AT THE GAZEBO. REFER TO DRAWING C1.8 FOR DETAILS.
- 5. PROVIDE NEW CIRCUIT BREAKER IN EXISTING SIEMENS MOTOR CONTROL CENTER MCC-1. A SPARE BUCKET IS AVAILABLE AT THE BOTTOM OF SECTION 3. COORDINATE EXACT REQUIREMENTS WITH THE MANUFACTURER.



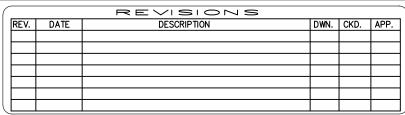




SERVICES



GAZEBO ELECTRICAL PLAN - ALT 1





DESIGN: BJB CHECKED: BJB

DRAWN: BJB APPROVED: BJB

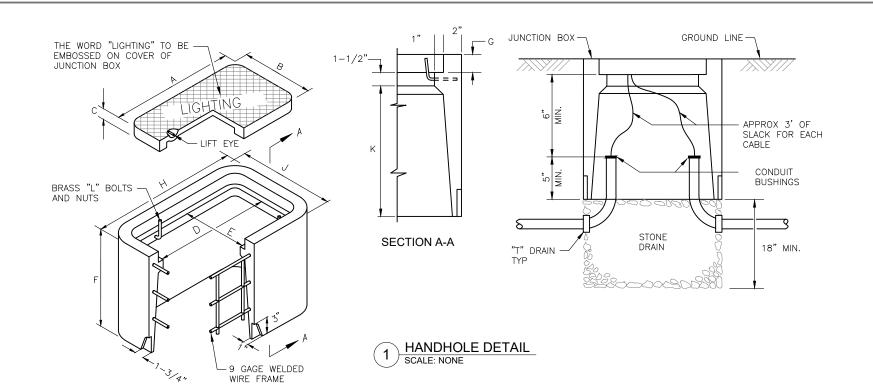
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ALASKA DEPT. OF FAMILY & COMMUNITY SERVICES JUNEAU PIONEERS HOME **COURTYARD RENOVATIONS** PROJECT NO.: ANC 24-43C

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SHEET TITLE:

DETAILS

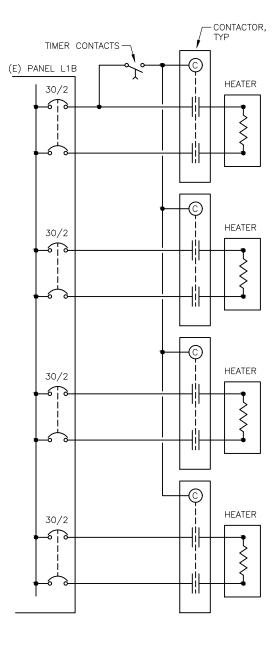


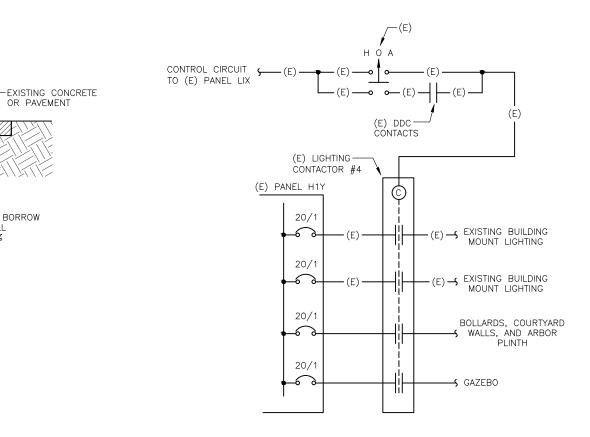
OR PAVEMENT

| DIMENSIONS (IN.) | | | | |
|------------------|--------|--|--|--|
| TYPE I | | | | |
| Α | 15 | | | |
| A B C | 10 | | | |
| С | 1-3/4 | | | |
| D | 13-1/2 | | | |
| Ε | 8-1/2 | | | |
| F | 12 | | | |
| F G | 1-3/4 | | | |
| Н | 19-1/2 | | | |
| J | 14-1/2 | | | |
| K | 8-3/4 | | | |

NOTES:

- 1. GAZEBO HEATER: HIGH PERFORMANCE, WATERPROOF, SHORTWAVE INFRARED HEATER FOR OUTDOOR USE IN COMMERCIAL APPLICATIONS, 4500W, 208V. SOLARIA MODEL SICR60240G, WITH TRIM KIT SICR-H3-TRMG, OR SIMILAR. RECESS IN EVE PER MANUFACTURERS INSTRUCTIONS.
- 2. GAZEBO HEATER TIMER: SPRING WOUND COUNTDOWN TIMER, COMMERCAIAL, 125-277V, 60HZ, DPST, 60 MINUTE MAX. INTERMATIC MODEL FF-460M, OR
- 3. GAZEBO HEATER CONTACTOR: 30A, 2-POLE, 110VAC COIL, NORMALLY OPEN, SQUARE D 8910DP, OR SIMILAR. MOUNT IN NEMA 4X ENCLOSURE.





LIGHTING CONTROL DIAGRAM SCALE: NONE

GAZEBO HEATER CONTROL DIAGRAM **2** SCALE: NONE



HYDROSEED -

TOP SOIL

GRASS

AREA



GRAVEI

ARFA

DETECTÁBLE —

WARNING TAPE

WHICHEVER IS GREATER.

TOPPING COURSE

CLEAN SAND BEDDING COMPACTED TO 95%

 $\circ \circ \circ$

NOTE: PAVEMENT THICKNESS SHALL BE 3" OR MATCH

EXISTING, WHICHEVER IS GREATER. CONCRETE THICKNESS SHALL BE 4" OR MATCH EXISTING,

SCALE: NONE

TRENCH DETAIL

PAVED

ARFAS

NEW CONCRETE OR PAVEMENT

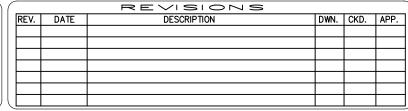
6" AGGREGATE

BASE COURSE

EXISTING MATERIAL, BORROW

OR SELECT BACKFILL

COMPACTED TO 90%





9360 Glacier Highway Ste 100 Juneau, Alaska 99801 Phone: 907-586-2093 Fax: 907-586-2099 www.pndengineers.com

| DESIGN: | BJB | CHECKED: | BJB | SCALE: AS NOTED | |
|---------|-------|-----------|-------|--------------------|---|
| DRAWN: | _BJB_ | APPROVED: | _BJB_ | | , |



ALASKA DEPT. OF FAMILY & COMMUNITY SERVICES JUNEAU PIONEERS HOME **COURTYARD RENOVATIONS** PROJECT NO.: ANC 24-43C

| HEET TITLE: | |
|-------------|--------|
| | DETAIL |

E8.0

| | LUMINAIRE SCHEDULE | | | | | | | | | | | |
|------|--|---------------------------|--|------|--------------|----------|---------|---------------------|--|--|--|--|
| TYPE | DESCRIPTION | MANUFACTURER | CATALOG NUMBER | OTY. | LAMP TYPE | VOLTAGE | | MOUNTING | NOTES | | | |
| А | BOLLARD WITH 180-DEGREE HOUSESIDE SHIELD | US ARCHITECTURAL LIGHTING | BE13E-BAL-VPA-SYM-36LED- NW-277-RAL-9005-T | -, | LED | 277 | 39 | ON GRADE | PROVIDE GFI OPTION FOR BOLLARD A17 | | | |
| В | BOLLARD WITH TYPE V DISTRIBUTION | US ARCHITECTURAL LIGHTING | BE13E-BAL-VPA-SYM-36LED- NW-277-RAL-9005-T- HS180-GFI | | LED | 277 | 39 | ON GRADE | | | | |
| С | FLEXIBLE LINEAR STRIP AND POWER SUPPLY | Q-TRAN | KURV-SW-WSC-WET-40-SO- ENC/TL-S-BRL-N/A-WH QZ-192W-UNV-24V-ND-WH | | LED | 277/24DC | 1.5W/FT | CHANNEL IN WALL CAP | | | | |
| D | NARROW LINEAR ASYMMETRIC | A-LIGHT | P1 SERIES | | LED | 277 | | SIDE OF BEAM | FINAL SPECIFICATION PENDING GAZEBO CONSTRUCTION DETAILS | | | |

| | | | | PAN | EL H1 | Y (E | KISTIN | IG) | | | |
|-------------|---|---------------------------------------|----------------------------------|-------------------|-----------------------------|---------------------------------|--------|----------------------------------|----------------------|-----------------------------|-------------|
| POLE NO. | LOAD SERVED | | LOAD | | СВ | PH | СВ | LOAD | | | POLE NO. |
| NO. | | | TYPE | KVA | | | | TYPE | KVA |] | NO. |
| 1 | EXTERIOR LIGHTING (1) | | L | 4.4 | 20/1 | Α | 20/1 | L | 4.4 | EXTERIOR LIGHTING (1) | 2 |
| 3 | EXTERIOR LIGHTING (1) | | L | 4.4 | 20/1 | В | 20/1 | L | | EXTERIOR LIGHTING (1) | 4 |
| 5 | EXTERIOR LIGHTING (1) | | L | 4.4 | 20/1 | С | 20/1 | L | 4.4 | EXTERIOR LIGHTING (1) | 6 |
| 7 | BOLLARDS | | L | 1.0 | 20/1 | Α | 20/1 | | | SPARE | 8 |
| 9 | SPARE | | | | 20/1 | В | 20/1 | | | SPARE | 10 |
| 11 | SPARE | | | | 20/1 | С | 20/1 | | | SPARE | 12 |
| 13 | | | | | | A | | | | SPACE | 14 |
| 15 17 | SPACE SPACE | | | | | B C | | | | SPACE SPACE | 16 18 |
| AIC R. | GE: 277/480, 3P, 4W ATING: 10,000A TING: SURFACE LUGS ONLY | (R) REC (M) MO (C) CO (N) NO | HTING DEPTACL TOR NTINUOL N—CONT | E JS INUOUS | NNECTEI AD (KVA) 27.4 | 100 NEO NEO 125 100 | | LOAD 44 24 LOAD LOAD | EMANI KVA 27.4 | 1. EXISTING BRANCH CIRCUIT. | |
| BUS: | 100A | TOTAL | DI LLD | | • | 112 | 3 220 | | 27.0 | | |

| | | | | | PAN | EL L | 1C | | | | |
|-------------|----------------------|----------------|--------------------|-----|--------------------|--------------|------------------|------|--------------|--------------------|-------------|
| POLE NO. | | | LOAD | | СВ | PH | СВ | LO | AD | LOAD SERVED | POLE NO. |
| INO. | | | TYPE | KVA | | | | TYPE | KVA | | 100. |
| 1 | GAZEBO HEATER | | С | 2.3 | 30/2 | Α | 20/1 | R | 0.5 | GAZEBO RECEPTACLES | 2 |
| 3 | | | С | 2.3 | | В | 20/1 | | | SPARE | 4 |
| 5 | GAZEBO HEATER | | С | 2.3 | 30/2 | С | 20/1 | | | SPARE | 6 |
| 7 | | | С | 2.3 | | Α | 20/1 | | | SPARE | 8 |
| 9 | 9 GAZEBO HEATER | | С | 2.3 | 30/2 | В | 20/1 | | | SPARE | 10 |
| 11 | | | С | 2.3 | | С | 20/1 | | | SPARE | 12 |
| 13 | GAZEBO HEATER | | С | 2.3 | 30/2 | Α | 20/1 | | | SPARE | 14 |
| 15 | | | С | 2.3 | | В | 20/1 | | | SPARE | 16 |
| 17 | SPARE | | | | 20/1 | С | 20/1 | | | SPARE | 18 |
| VOLTA | GE: 120/208, 3P, 4W | LOAD S | UMMARY | COI | NNECTEL AD (KVA |) | DEMANE FACTOR |) D | EMAN[KVA | NOTES: | |
| AIC R | ATING: 10,000A | (L) LIGH | HTING | | | 100 | 0% OF L | _OAD | | | |
| | | (R) RECEPTACLE | | 0.5 | NE | NEC 220-44 | | 0.5 | | | |
| MOUN | MOUNTING: SURFACE (M | | (M) MOTOR | | • | | NEC 430-24 | | • | | |
| | MAIN: 100/3 (N) | | NOUNITI | IS | 18.0 | 125% OF LOAD | | _OAD | 22.5 | | |
| MAIN: | | | (N) NON-CONTINUOUS | | S . | 100 | D% OF ι | _OAD | | | |
| | | | BFEED | | • | NE | 220- | 56 | | | |
| BUS: | 100A | TOTAL | | | | | | | 23 | | |





|) (| | | REVISIONS | | | |
|-----|----------|------|-------------|------|------|------|
| Ш | REV. | DATE | DESCRIPTION | DWN. | CKD. | APP. |
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| ル | ackslash | | | | | |



9360 Glacier Highway Ste 100 Juneau, Alaska 99801

| 1 | ENGIN | EERS, INC. | Fac: 907-586-2095 Fax: 907-586-2099 www.pndengineers.com | Borry U Begonij |
|---|-------------|---------------|--|------------------|
| 1 | DESIGN: BJB | снескер: ВЈВ | SCALE: AS NOTED | No to the second |
|] | DRAWN: BJB | APPROVED: BJB | | DATE: 6/7/24 |



ALASKA DEPT. OF FAMILY & COMMUNITY SERVICES
JUNEAU PIONEERS HOME
COURTYARD RENOVATIONS
PROJECT NO.: ANC 24-43C

SHEET TITLE:

SCHEDULES

E9.0

SECTION 01005 ADMINISTRATIVE PROVISIONS

PART I GENERAL

1.01 REQUIREMENTS INCLUDED

- A. Local Conditions
- B. Permits, Fees, and Inspections
- C. Alternates
- D. Preconstruction Meeting
- E. Applications for Payment
- F. Contractor Use of Premises
- G. Owner Occupancy
- H. Owner Furnished Products
- Coordination
- J. Reference Standards

1.02 RELATED REQUIREMENTS

A. General and Special Conditions

1.03 LOCAL CONDITIONS

- A. Bidders shall familiarize themselves with the Contract Documents and existing conditions, which affect Work, required by the Contract Documents. It will be assumed that bidders have made a personal examination of the jobsite, existing conditions, and documents for prior construction projects associated with this facility made available by the Owner for review by Bidders during the bid period.
- B. Failure to visit the jobsite, to review existing conditions, or to review documents for prior construction projects associated with this facility made available by the Owner for review by Bidders during the bid period will in no way relieve the successful Bidder nom the necessity of furnishing any materials or performing any Work that may be required to complete the Work in accordance with the Contract Documents with no additional cost to the Owner.
- C. For building access and for access to the documents for prior construction projects associated with this facility contact:

Noah Lager, Maintenance Foreman, 907 203-0909

1.04 PERMITS, FEES, AND INSPECTIONS

- A. Obtain, pay for, and comply with the requirements of all permits, fees, and inspections required by public authorities.
- B. Transmit copies of permit applications, permits received, and public authority inspection reports to the Contracting Officer within three days of making permit application or receiving permits or reports.

1.05 ALTERNATES

- A. Alternates will be exercised at the option of Owner as specified on Bid Schedule. Accepted alternates will be indicated on the Contract and included within the conformed Contract Documents.
- B. Coordinate related work and modify surrounding work affected by accepted alternates as required to complete the Work.
- C. Provide all Work as part of the Base Bid except that Work specifically indicated to be provided as part of an alternate.

1.06 PRECONSTRUCTION MEETING

A. Attend Owner initiated preconstruction meeting.

1.07 APPLICATIONS FOR PAYMENT

- A. Submit two copies of each application under procedures of Section 01027.
- B. Content and Format: That specified for schedule of values in Section 01027.

1.08 CONTRACTOR USE OF PREMISES

- A. Limit use of premises for Work and for construction operations, to allow for Owner occupancy, Work of other Contractors, and public access.
- B. Limit areas of construction operations to those areas requiring renovation only.
- C. Give written notice two weeks in advance of beginning of Work in any Work area.
- D. Do not smoke except in specifically designated smoking areas.
- E. Take reasonable and adequate precautions to protect the Owner's property from damage during execution of Work. Restore any damage to Owner property resulting from execution of Work or replace in a manner satisfactory to the Contracting Officer.
- F. Take reasonable and adequate precautions to protect the Owner's property from damage during execution of Work. Restore any damage to Owner property resulting from execution of Work or replace in a manner satisfactory to the Contracting Officer.
- G. Limit construction activities which generate noise levels in excess of NC=40 in classrooms, NC=50 in office areas, and NC=60 in other areas.
- H. Limit construction access to building to the location indicated. Keep construction access points locked at all times.
- I. Move Owner tools, equipment, shelving, stored materials, etc. as required to accomplish Work. Return to original location as soon as possible.
- J. Protect Owner tools, equipment, shelving, stored materials, and equipment, etc. from Work.
- K. In Owner occupied areas:
 - 1. Limit use of premises for Work and for construction operations to between 8:00

a.m. and 7:00 p.m. Monday through Friday. If requested by the Contractor and approved by the Project Manager, the Contractor may work on the project outside these hours if the Contractor's activities do not interfere with owner operations.

- 2. Cover and protect from dust and debris, at the start of each workday, electronic office equipment such as personal computers, computer terminals, facsimile machines, copiers, printers, postage meters, VCRs, monitors, typewriters, etc. Remove protection at the end of each workday.
- 3. Do not use furniture, such as countertops, desks, filing cabinets, bookshelves, and tables as work surfaces or as steps to access Work.
- 4. At the end of each workday, move back to original location equipment and furniture moved to accommodate Work. Do not move electronic equipment unless necessary to accomplish Work.
- 5. At the end of each workday replace ceiling tiles removed to access Work.
- 6. At the end of each workday, clean work areas, including floors with a vacuum, and remove tools, equipment, and construction material from work areas.
- M. Coordinate temporary shutdowns of any of the existing facilities' mechanical or electrical systems affecting systems in Owner occupied areas with the Contracting Officer. Schedule shutdowns for nights and weekends. Provide a minimum five-day notice.
- N. Existing systems shall be fully operational for intended purpose at the beginning of each Owner workday.
- O. During any period in which Contractor's operations on site halt for two weeks or more, including winter shutdowns, a smoothly graded path of no more than 5% slope shall be provided through the site form a building exit to the lower parking area as a means of egress.

1.09 OWNER OCCUPANCY

- A. The Owner will occupy premises during entire period of construction for the conduct of its normal operations.
- B. Maintain IBC complying access to and through corridors, stairways, and building exits at all times.
- C. Cooperate with Owner to minimize conflict and to facilitate its operations. In case of conflict accept Contracting Officer's direction as final and adjust use of premises accordingly.
- D. Coordinate Work in and use of premises with the Owner.

1.10 COORDINATION

A. Coordinate Work of the various Sections of Specifications prior to ordering materials and fabrication to assure efficient and orderly sequence of installation of construction elements, with provisions for accommodating items installed later. Notify Contracting Officer of conflicts between elements prior to installation of any element.

- B. Verify 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 installation of mechanical and electrical Work, which is indicated diagrammatically on Drawings. Follow routing shown for ducts and conduits as closely as practical. Make piping, duct, and conduit runs parallel with lines of building. Utilize spaces efficiently to maximize accessibility for other installations, for maintenance, and for repairs.
- D. In finished areas, unless otherwise indicated, conceal pipes, ducts, and wiring in the construction.
- E. After Owner acceptance of Work, coordinate access to site by various trades for correction of defective Work and Work not in accordance with Contract Documents, to minimize disruption of Owner activities.

1.11 REFERENCE STANDARDS

- A. For products or workmanship specified by association, trades, or regulatory agency standards, comply with requirements of the standard, except when more rigid requirements are specified or are required by applicable codes.
- B. Obtain a copy of standards referenced. Maintain a copy at the jobsite during execution of Work to which the standard applies.
- C. The date of the standard is that in effect as of the bid date except when a specific date is specified.

1.12 ONE YEAR CORRECTION PERIOD

- A. If within one year after the date of Final Completion 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, materials, or products are found to be defective, the Contractor shall promptly, without cost to the Owner 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.
- B. 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 Owner 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.
- C. In special circumstances where a particular item of equipment is placed in continuous service for the benefit of the Owner 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 of by Change Order.
- D. Provisions of this paragraph are not intended to shorten the statue of limitations for bringing an action.

| Juneau Pioneer Home | |
|-----------------------|--|
| Courtyard Renovations | |

SECTION 01005 ADMINISTRATIVE PROVISIONS ANC 24-43C

PART 2 PRODUCTS Not Used

PART 3 PARTS Not Used

SECTION 01010

SUMMARY OF WORK

PART 1 GENERAL

1.01 REQUIREMENTS INCLUDED

- A. Basic Bid.
- B. Work by Others.
- C. Hazardous Materials
- D. Work Inside Facility
- E. Work Plans and Access to Facility, Individual Work Areas
- F. Shut Offs/Disruptions to Service
- G. Use of Premises.
- H. Using Agency Occupancy.
- Coordination
- J. Parking/Staging

1.02 RELATED REQUIREMENTS

- A. Document 00200 Information available to bidders.
- B. Document 00700 General Conditions: Provisions for use of site and Using Agency occupancy. Relations of CONTRACTOR- Subcontractors.
- C. Document 00800 Supplementary Conditions: Modifications to General Conditions.
- D. Section 01400 Quality Control
- E. Section 01540 Security.

1.03 WORK COVERED BY CONTRACT DOCUMENTS

- A. Work covered by the contract documents is located
- B. The DEPARTMENT is acting for the State of Alaska.

1.04 CONTRACT METHOD

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

1.05 BASIC BID

- A. That portion of the Work described within these documents (taken as a whole) as the Basic Bid scope. Basic Bid work includes all work shown on the plans and specifications.
- B. Project will be constructed under a general construction contract.

1.06 WORKS BY OTHERS

A. Cooperate with other Contractors and the DEPARTMENT to minimize conflict with construction operation.

1.07 HAZARDOUS MATERIALS

A. All light fixtures to be removed shall be treated as positive for containing PCBs unless proven otherwise.

B. CONTRACTOR to be aware that other hazardous materials may be within the facility. See Section 00700 Article 4.3.

1.08 WORK INSIDE FACILITY

- A. Work within the facility shall be conducted only between the hours of 8:00 am and 5:30 pm, unless specifically approved by the Maintenance Supervisor. 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 tool storage shed/box or vehicle. CONTRACTOR will be liable for any damages to persons and/or property resulting from unattended tools or equipment.
- C. No firearms or ammunition allowed on the grounds, to include locked vehicles.
- D. The use of powder-activated tools must be approved by the project manager. Request for such tools must be submitted to the Maintenance Supervisor in writing three (3) working days in advance.

1.09 SHUTOFFS / DISRUPTIONS TO SERVICE

- A. Work with the Maintenance Supervisor to schedule disruption for a time, which minimizes impact on facility operations. Provide the Engineer written notification of any disruption to service at least 24 hours in advance of scheduled disruption or shutoff.
- B. Plan work to minimize down time. Work with DEPARTMENT to schedule disruption for a time that minimizes impact on USING AGENCY's operations.
- C. Provide written work plan and schedule for disruptions to service that exceed one hour.
- D. Contractor must provide protection as stated in Municipal Fire Codes and Safety Codes while working on the fire protection system.

1.10 CONTRACTOR'S USE OF PREMISES

- A. Coordinate use of the premises under direction of DEPARTMENT.
- B. Assume full responsibility for protection and safekeeping of products under this Contract.
- C. Assume full responsibility for the protection of the existing facility and contents, from damage due to construction operations.

1.11 USING AGENCY OCCUPANCY

- A. The User Agency will continue operations adjacent to the site during entire construction period. Cooperate with DEPARTMENT in scheduling operations to minimize conflict and to facilitate the User Agency's operations.
- B. CONTRACTOR shall provide Material Safety Data Sheets for all products that may produce unpleasant odors.

1.12 COORDINATION

- A. Coordinate Work of the various elements of the plans to assure 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 trades having interdependent responsibilities for installing,

connecting to, and placing in service, such equipment.

- C. Coordinate space requirements and installation of mechanical and electrical work, which are 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. .
- E. Execute cutting and patching to integrate elements of Work, provide openings for penetrations of existing surfaces. Seal penetrations through floors, walls, partitions, and ceilings.

1.13 PARKING / STAGING

- A. CONTRACTOR to coordinate staging area with Facility Maintenance Supervisor.
- B. CONTRACTOR may use established facility parking.
- C. CONTRACTOR will be responsible for all additional required storage/staging and parking off site at no charge to the Department.

PART 2 PRODUCTS Not Used
PART 3 EXECUTION Not used

SECTION 01020 INTENT OF DOCUMENTS

PART 1GENERAL

1.01 REQUIREMENTS INCLUDED

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

1.02 RELATED REQUIREMENTS

- A. Document 00700 General Conditions: Article 1 Definitions relating to 'Drawings' and 'Specifications'.
- B. Document 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.

- 2. CONTRACTOR shall provide verification of actual site conditions and shall provide complete and operational systems as specified when drawings do not provide full detail.
- 3. 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.
- 4. 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.
- 5. 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.
- 6. The figured dimensions on the Drawings or notes indicating dimensions shall be used instead of measurements of the Drawings by scale.
- 7. No scale measurements shall be used as a dimension to work with except on "full size" Drawings not dimensioned.

1.05 COMMON TERMINOLOGY

- A. Certain items used generally throughout the Specifications and Drawings are used as follows:
 - 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 Contracting Officer for clarification.

PART 2 PRODUCTS Not Used

PART 3 EXECUTION Not Used

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. Document 00510 Construction Contract Contract Form 06D-10a and Bid Schedule: Method of Payment and Contract Price and Amounts of Liquidated Damages.
- B. Document 00700 General Conditions: Progress Payments, and Final Payment.
- C. Section 00800 Supplementary Conditions to General Conditions of the Construction Contract for Buildings: SC-11.2 and SC-11.8.
- D. Section 01300 Submittals: Procedures, Schedule of Values.
- E. 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 DEPARTMENT.
- B. Execute certification by original signature of authorized officer upon each copy of 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 two copies 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 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

SECTION 01028 CHANGE ORDER PROCEDURES

PART 1GENERAL

1.01 REQUIREMENTS INCLUDED

A. Procedures for processing Change Orders.

1.02 RELATED REQUIREMENTS

- A. Document 00312 Bid Schedule: Total amount bid for lump sum items
- B. Document 00510 Contract Form: Total amount of Contract Price, as awarded
- C. Document 00700 General Conditions: Governing requirements for changes in the Work, in Contract Price, and Contract Time.
- D. Document 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.

1.06 CONSTRUCTION CHANGE AUTHORIZATION

A. Shall be in accordance with Article 9 - Changes: in Document 00700 - General 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, subcontracts and 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.

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 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 plus fee via Change Order.

1.09 COST OF THE WORK CHANGE ORDER

A. CONTRACTOR shall submit documentation required in 1.04 on a daily basis for certification by the Project Manager. 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 support data of all costs. Support 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 Schedule of Values and 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 subschedules to adjust times for other items of Work affected by the change, and resubmit.
- C. Promptly enter changes in project record documents.

PART 2PRODUCTS Not Used

PART 3EXECUTION Not Used

Section 01040 Coordination

SECTION 01040 COORDINATION

PART 1 GENERAL

1.01 REQUIREMENTS INCLUDED

A. Coordination of Work of Contract.

1.02 RELATED REQUIREMENTS

- A. Section 01010 Summary of Work.
- B. Section 01045 Cutting and Patching.
- C. Section 01200 Project Meetings.
- D. Section 01600 Material and Equipment: Substitutions.
- E. Section 10701 Contract Closeout Procedures.

1.03 DESCRIPTION

- A. Coordinate scheduling, submittals, and work of the various sections of Specifications to assure efficient and orderly sequence of installation of construction elements, with provisions for accommodating items to be installed later.
- B. Coordinate sequence of Work to accommodate Using Agency occupancy as specified in Section 01005.

1.04 MEETINGS

A. Coordinate sequence of Work to accommodate Using Agency occupancy as specified in Section 01005.

1.05 COORDINATION OF SUBMITTALS

- A. Schedule and coordinate submittals specified in Section 01300.
- B. Coordinate Work of various sections having interdependent responsibilities for installing connecting to, and placing in service, such equipment.
- C. Coordinated requests for substitutions to assure compatibility of space, of operating elements, and affect on Work of other sections.

1.06 COORDINATION OF SPACE

- A. Coordinate use of Project space and sequence of installation of mechanical and electrical Work which is indicated diagrammatically on Drawings. Follow routings shown for pipes, ducts, and conduits as closely as practicable, with due allowance for available physical space; make runs parallel with lines of building. Utilize space efficiently to maximize accessibility for other installations, for maintenance, and for repairs.
- B. In finished areas, except as otherwise shown, conceal pipes, ducts, and wiring in the construction. Coordinate locations of fixtures and outlets with finish elements.

1.07 COORDINATION OF CONTRACT CLOSEOUT

- A. Coordinate completion and cleanup of Work of separate sections in preparation for Substantial Completion.
- B. After Using Agency occupancy of premises, coordinate access to site by various sections for correction of Defective Work and Work not in accordance with Contract Documents, to minimize disruption of Using Agency activities.
- C. Assemble and coordinate close submittal specified in Section 01701.

PART 2 PRODUCTS Not Used

PART 3 EXECUTION Not Used

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 01005 Administrative Provisions
- B. Section 01010 Summary of Work.
- 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:
 - Structural integrity of any element of Project.
 - 2. Integrity of weather-exposed or moisture-resistant element.
 - 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 of affected Work.
- 3. Necessity for cutting or alteration.
- 4. Description of proposed Work, and products 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.

PART 2 PRODUCTS

2.01 MATERIALS

- A. Those required for original installation.
- B. For any change in materials, submit request for substitution under provisions of Section 01600.

Juneau Pioneer Home Courtyard Renovations ANC 24-43C PART 3 EXECUTION

3.01 GENERAL

- A. 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.

3.02 INSPECTION

- A. Inspect existing conditions, including elements subject to damage or movement during cutting and patching.
- B. Notify the Department immediately of any suspected hazardous materials.
- C. After uncovering, inspect conditions affecting performance of work.
- D. Beginning of cutting or patching means acceptance of existing conditions.

3.03 PREPARATION

- A. Provide supports to assure structural integrity of surroundings; devices and methods to protect other portions of Project from damage.
- B. 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. Cut rigid materials using masonry saw or core drill. Pneumatic tools not allowed without prior approval. Cutting structural reinforcement with heat is strictly forbidden without prior written approval.
- C. Restore Work with new products in accordance with requirements of Contract Documents.
- D. Fit Work tightly to pipes, sleeves, ducts, conduit, and other penetrations through surfaces.
- E. 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 listed U.L. assembly requirements.
- F. Refinish surfaces to match adjacent finishes. For continuous surfaces, refinish to nearest intersection; for an assembly, refinish entire unit.

Section 01073

SECTION 01073 EXPLANATIONS: DRAWINGS AND SPECIFICATIONS

PART 1 GENERAL

ANC 24-43C

1.1 REQUIREMENTS INCLUDED

A. Explanation of terminology used within the Drawings and Specifications.

1.2 RELATED REQUIREMENTS

- A. Section 01005 Administrative Provisions
- B. Section 01010 Summary of Work
- C. Section 01020 Intent of Documents

1.3 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 meaning or to fully describe the Work of each Division or Section, and are not an integral part of the text that specifies the requirements. Contracting Officer 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. Section number is shown with the page number at the bottom of each page. "End of Section" is noted on the last page of each Section. It is Contractor's responsibility to verify that Contract Documents received for bidding and construction are complete in accordance with Table of Contents.
- C. These Specifications are of the abbreviated, or "streamlined" type, and include incomplete sentences.
- D. 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.
- E. Omitted words or phrases shall be supplied by inference in the same manner as they are when a "note" occurs on the Drawings.

1.4 DRAWINGS: CONTENT EXPLANATION

- A. 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.
- B. 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.
- C. 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.

Explanations: Drawings and Specifications

- D. The figured dimensions on the Drawings or notes indicating dimensions shall be used instead of measurements of the Drawings by scale. No scale measurements shall be used as a dimension.
- E. Provide piping, ductwork, equipment, and accessories indicated on the Drawings unless it is specifically indicated that the piping, ductwork, equipment, or accessory is existing.
- F. Unless otherwise indicated, abbreviations and symbols used in the Drawings and Specifications are intended to have the meaning commonly accepted in the construction industry. Contact the Contracting Officer for definition if any question arises concerning them.
- G. Certain items used generally throughout the Specifications and Drawings are used as follows:
 - 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. <u>Installer:</u> The person or entity engaged by Contractor, his subcontractor or subsubcontractor 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. <u>Provide:</u> Except to the extent further defined, the term "provide" means to supply and install, complete and ready for the intended use.
 - 4. <u>Furnish:</u> Except as otherwise defined in greater detail, the term "furnish" is used to mean the same as "provide".
 - 5. <u>Guarantee and Warranty:</u> "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.
 - 6. 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, shall culminate in the entire completed Project, or the various separately identifiable parts thereof.
 - 7. <u>Contracting Officer:</u> Contracting Officer means Contracting Officer or Contracting Officer's Representative.

1.5 CONFLICTS

A. Report any conflicts to Contracting Officer for clarification.

Juneau Pioneer Home Section 01073
Courtyard Renovations Explanations: Drawings and Specifications

ANC 24-43C

PART 2 PRODUCTS [Not Used]

PART 3 EXECUTION [Not Used]

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. Document 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

Section 01090 Reference Standards

ADC Air Diffusion Council

230 North Michigan Avenue

Chicago, IL 60601

AGC Associated General Contractors

America

1957 E Street, N.W. Washington, DC 20006

Al Asphalt Institute

Asphalt Institute Building College Park, MD 20740

AITC American Institute of Timber Construction

333 W. Hampden Avenue Englewood, CO 80110

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

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

Section 01090 Reference Standards

ASTM American Society for Testing and Materials

1916 Race Street Philadelphia, PA 19103

AWWA American Water Works Association

6666 West Quincy Avenue

Denver, CO 80235

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

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

Section 01090 Reference Standards

GA Gypsum Association

1603 Orrington Avenue Evanston, IL 60201

IEEE Institute of Electrical and Electronics Engineers

345 East 47th Street New York, NY 10017

IMIAC 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 Mosiac Association

3166 Des Plaines Avenue Des Plaines, IL 60018 01090-4

Section 01090 Reference Standards

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

RIS Redwood Inspection Service

One Lombard Street San Francisco, CA 94111

RCSHSB Red Cedar Shingle and Handsplit Shake Bureau

515 116th Avenue Bellevue, WA 98004

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)

Alteration Project Procedures

SECTION 01120 ALTERATION PROJECT PROCEDURES

PART 1 GENERAL

1.01 REQUIREMENTS INCLUDED

- A. Procedural requirements.
- B. Rehabilitation and renovation of existing spaces and materials.

1.02 RELATED REQUIREMENTS

- A. Section 01005 Administrative Provisions
- B. Section 01010 Summary of Work
- C. Section 01045 Cutting and Patching

PART 2 PRODUCTS

2.01 PRODUCTS FOR PATCHING AND EXTENDING WORK

- A. New Materials: As specified in individual Specification Sections.
- B. Match existing products and work for patching and extending Work.
- C. Determine type and quality of existing products by inspection and any necessary testing, and workmanship by use of existing as a standard. 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 and Contract Documents.

PART 3 EXECUTION

3.01 GENERAL

- A. Remove existing work, materials and items as indicated on the Drawings, as required by job site conditions, as scheduled, and as specified herein, to accomplish new Work and alteration in the existing building.
- B. Remove work carefully and only to the extent required for the final Work. Minimize damage to adjacent materials.
- C. When portions of existing conditions are shown, it is not meant to indicate that all existing conditions are shown.
- D. Patch existing surfaces which are made defective in appearance or function by the execution of Work.
- E. Conduct all operations with a minimum of noise.
- F. Take reasonable and adequate precautions to protect the Owner's property from damage during demolition Work, moving of debris, and damage by the elements. Restore any damage to Owner property due to the aforesaid work or replace in a manner satisfactory to the Contracting Officer.

- Courtyard Reno ANC 24-43C
 - G. Provide and maintain suitable barricades, shelters, lights, and danger signals during the progress of the Work. Provide barricades meeting the requirements of the applicable building codes. Assume the responsibility of barriers to completion of Contract and remove at completion of Contract.
 - H. Locate penetrations to avoid structural members.

3.02 INSPECTION

- A. Verify that demolition is complete, and areas are ready for installation of new Work.
- B. Beginning of restoration Work means acceptance of existing conditions.

3.03 PREPARATION

- A. Plan all work in advance, informing Contracting Officer of procedure and schedule.
- B. Verify existing conditions affecting Work including existing sizes and materials indicated prior to beginning Work or ordering materials that are affected by existing conditions. Notify Contracting Officer of conflicts in writing.
- C. Erect dust-proof partitions where demolition work is in progress and as directed. Such partitions shall remain in place until their removal is directed.
- D. Where openings are to be cut in existing structures, cut such openings with care. Where materials, equipment, frames, etc., are to be removed, remove such items with care to minimize damage to adjacent materials.
- E. Cut, move, or remove items as necessary for access to alterations and renovations Work; replace and restore at completion.
- F. Cut pockets, openings, chases, depressions, etc., to install or allow for installation of materials or equipment.
- G. Remove from site unsuitable material not marked for salvage, such as rotted wood, rusted metals, and deteriorated masonry and concrete; replace materials as specified for finished Work
- H. Remove from site, including concealed spaces, debris and abandoned items resulting from demolition operations from the site promptly. No accumulation of debris will be permitted.
- I. Prepare surfaces and remove surface finishes to provide for proper installation of new Work and new finishes.
- J. Close openings in exterior surfaces to protect existing work and salvage items from weather and extremes of temperature and humidity. Insulate ductwork and piping to prevent condensation in exposed areas.

3.04 INSTALLATION

A. Coordinate Work of alterations and renovations to expedite completion and to accommodate Owner occupancy. Remove, cut, and patch Work in a manner to minimize damage and to provide means of restoring products and finishes to original condition.

- B. Refinish visible existing surfaces to remain in renovated rooms and spaces with a neat transition to adjacent new finishes.
- C. In addition to specified replacement of equipment restore existing mechanical and electrical systems to full operational condition.
- D. Install products as specified in individual Specification Sections.

3.05 TRANSITIONS

- A. Where new Work abuts or aligns with existing, make 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 Contracting Officer.

3.06 ADJUSTMENTS

- A. Where removal of partitions results in adjacent spaces becoming one, rework floors, walls, and ceilings to a smooth plane without breaks, steps, or bulkheads. Where a change of plane of 1/4 inch or more occurs, submit recommendation for providing a smooth transition for Contracting Officer review.
- B. Trim existing doors as necessary to clear new floor finishes; refinish trimmed areas.
- C. Fit Work at penetrations of surfaces as specified in Sections 01005 and 01045.

3.07 REPAIR OF DAMAGED SURFACES

- A. Patch or replace portions of existing surfaces which are disturbed, damaged, or otherwise made defective in appearance or function by the execution of Work under this Contract. Restore to original condition.
- B. Repair substrate prior to patching finish.

3.08 FINISHES

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

3.09 CLEANING

- A. In addition to cleaning specified in Section 01500, clean Owner occupied areas of Work daily.
- B. After the demolition Work in any area is completed, clean the area before new construction is started.

SECTION 01126 - CONTRACTOR'S CERTIFICATION OF SUBCONTRACTS

PART 1 GENERAL

1.1 SECTION INCLUDES

A. Procedures for preparing, submitting and accepting subcontracts.

1.2 RELATED REQUIREMENTS

- A. Bidding and Contract Requirement Document 00100 Instructions to Bidders, Requirements of Apparent Low Bidder.
- B. Bidding and Contract Requirement Document 00101 Supplemental Information to Bidders.
- C. Bidding and Contract Requirement Document 00430 Subcontractor List
- D. Bidding and Contract Requirement Section 00700 General Conditions: Article 6.13 Subcontractors.
- E. Bidding and Contract Requirement Section 00800 Supplementary Conditions: Paragraph SC-6.13 Replacing Subcontractors
- F. Section 01300 Submittals: Submittal Procedures.
- G. Section 01305 Submittal Register Form.

1.3 SUBMITTALS

- A. Submit under transmittal letter specified in Section 01300 Submittals.
- B. CONTRACTOR shall submit the initial and final Subcontractor Certification Form(s).

1.4 PREPARATION OF CERTIFICATION

- A. CONTRACTOR to prepare and sign certification forms for all subcontractors regardless of subcontract amount (see Section 00700, Paragraph 6.13.1).
- B. Submit certification form to the DEPARTMENT for approval prior to the subcontractor's start of work. Attach additional information to the certification form where required,
- C. Certification Forms: Use only forms provided by the DEPARTMENT.
- D. The DEPARTMENT will reject substitute certification forms.

1.5 CONSIDERATION OF CERTIFICATION

- A. The DEPARTMENT will review each certification form after receipt and within a reasonable period of time, for the following:
 - 1. Completeness, including the attachments.
 - 2. Proper execution (signatures), including the attachments.
 - Contractor restrictions for adding subcontractors, changing subcontractors, and value of contract.
- B. The DEPARTMENT will return any submittals that are incomplete or not properly executed under a transmittal letter denoting the deficiencies found. The CONTRACTOR shall correct and resubmit according to Section 01300 Submittals.
- C. SUBCONTRACTORS NOT APPROVED BY THE DEPARTMENT SHALL NOT BE ALLOWED ON SITE.
- D. The DEPARTMENT will not process payments for work performed by a non-certified subcontractor.

1.6 ACKNOWLEDGEMENT OF CERTIFICATION

A. Submittals examined by the DEPARTMENT and determined to be complete and properly executed shall be acknowledged as such by the DEPARTMENT on the approval line of the certification form and returned to the CONTRACTOR.

1.7 CHANGES TO APPROVED SUBCONTRACTORS LIST

A. Deletion or replacement of subcontractors listed on approved form 06D-5, or the addition of subcontractors not listed on approved form 06D-5 shall be in accordance with Bidding and Contract Requirement Document 00101, Supplementary Information to Bidders.

PART 2 PRODUCTS

Not Used

PART 3 EXECUTION

Not Used

STATE OF ALASKA Department of Family & Community Services FMS Facilities

SUBCONTRACTOR CERTIFICATION



Note: The Contractor shall provide this form for <u>ALL</u> subcontractors working on this project. This form is applicable to all projects, including Small Procurement Contracts, and must be completed in full.

| PROJ | ECT: Alaska Veterans & Pioneers Home – Restroom Renov | vations PRC | J. #: ANC 2 | 3-22C | | |
|-------|---|------------------|----------------------|-------------------|--|--|
| PRIME | E CONTRACTOR: | | | | | |
| | ant to the Contract Documents, we hereby stipulate the following list: | ng concerning t | he award of W | ork to the | | |
| 1. | First Tier Subcontractor: | DBE? | Yes 🗌 | No□ | | |
| | Second Tier: | DBE? | Yes□ | No□ | | |
| | Third Tier: | DBE? | Yes□ | No□ | | |
| | Fourth Tier: | DBE? | Yes□ | No□ | | |
| 2. | Date of Subcontract: | | | | | |
| 3. | Amount of Subcontract: \$ | | | | | |
| 4. | Scope of Work: | | | | | |
| | | | | | | |
| 5. | Are the following documents kept on file by both the Contractor and the Subcontractor (check the appropriate answer)? | | | | | |
| | EEO-1 Certification (Form 25A304), federally funded projects Contract Minimum Wage Schedule Civil Rights Representative (Form 25A302) | s only | Yes□ Yes□ Yes□ | No□ No□ No□ | | |
| 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? | | | | | |
| | late payment and retainage comorning to A3 30.90.210? | | Yes□ | No□ | | |
| 7. | Does the Subcontract specifically bind the Subcontractor to the Contract Documents for the benefit of the Department and termination provisions as required by the Contract Document | nd does it conta | | | | |
| | termination provisions as required by the Contract Document | is? | Yes□ | No□ | | |
| 8. | a. Does the Subcontractor have adequate insurance coverages as specified in the Contract Documents? | | | | | |
| | | | Yes⊡ | No□ | | |
| | If not, does the Contractor stipulate that the insurance limits of the Subcontractor are acceptable to the Contractor and that he has notified his insurance carrier of the reduced insurance limits? | | | | | |
| | | | Yes□ | No□ | | |
| | b. Does the evidence of insurance certify that the polici | ies described | thereon comp | y with all | | |
| | aspects of the insurance requirements for this project? | | Yes□ | No□ | | |

REV 2/12

| PROJE | ECT: Alaska Veterans & Pioneers Home – Restroom Renovations PROJ. #: ANC 23-22C |
|---------|---|
| Subco | ntractor Name: |
| | c. Does the evidence of insurance list the Department as an "Additional Insured" or "Certificate Holder"? |
| | Yes No No |
| | d. Does the evidence of insurance commit to providing 30 day written notice of cancellation or reduction of any coverage? |
| | Yes No |
| | 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: |
| true an | FICATION (to be completed and signed by PRIME CONTRACTOR): I certify all the above to be ad correct. RACTOR'S Signature: |
| | RACTOR'S Printed Name: |
| | RACTOR'S Company: |
| Date: | |
| | DEPARTMENT'S APPROVAL/DISAPPROVAL |
| Prime (| ubject subcontract is APPROVED . Nothing in this approval should be construed as relieving the Contractor of the responsibility for complete performance of the work or as a waiver of any right of the ment to reject defective work. |
| SIGNAT | TURE: DATE: Amy Burke, Contracting Officer |
| The sul | Amy Burke, Contracting Officer bject subcontract is NOT APPROVED for the following reasons: |
| | |
| SIGNAT | TURE: DATE: |

Project Manager

SECTION 01200 PROJECT MEETINGS

PART 1 GENERAL

1.01 REQUIREMENTS INCLUDED

- A. CONTRACTOR participation in preconstruction conferences.
- B. CONTRACTOR administration of progress meetings.

1.02 RELATED REQUIREMENTS

- A. Document 00120 Supplementary Instructions to Bidders: Pre-Bid Conference.
- B. Section 01010 Summary of Work: Coordination.
- C. Section 01300 Submittals: Construction Progress Schedules, Shop drawings, Product data, and Samples.
- D. Section 01400 Quality Control.
- E. Section 01700 Contract Closeout: Project Record Documents, Operation and Maintenance Data.

1.03 PRECONSTRUCTION CONFERENCES.

- A. DEPARTMENT will administer preconstruction conference for execution of Contract and exchange of preliminary submittals and review of administrative procedures.
- B. DEPARTMENT will administer site mobilization conference at Project site for clarification of CONTRACTOR responsibilities in use of site and coordination with Using Agency for occupancy throughout the duration of the work. CONTRACTOR shall provide the detailed written work plan in preparation for this meeting.

1.04 PROGRESS MEETINGS

- A. Contractor shall schedule and administer weekly Project meetings throughout progress of the Work (unless this requirement is waived by the Project Manager), and other meetings as required to coordinate work, and preinstallation conferences.
- B. Attendance: Job superintendent, major Subcontractors and Suppliers; DEPARTMENT and Consultants as appropriate to agenda topics for each meeting.
- C. Minimum Required Agenda: Review of Work progress, status of progress schedule and adjustments thereto, Work anticipated in the next week, delivery schedules, submittals, maintenance of quality standards, pending changes and substitutions, and other items affecting progress of Work.

PART 2 PRODUCTS Not Used

PART 3 EXECUTION Not Used

END OF SECTION

SECTION 01230 ALTERNATES

PART 1 GENERAL

1.01 SUMMARY

A. This Section includes administrative and procedural requirements for alternates.

1.02 DEFINITIONS

- A. Alternate: An amount proposed by bidders and stated on the Bid Form for certain work defined in the Bidding Requirements that may be added to or deducted from the Base Bid amount if Owner decides to accept a corresponding change either in the amount of construction to be completed or in the products, materials, equipment, systems, or installation methods described in the Contract Documents.
 - 1. The cost or credit for each alternate is the net addition to or deduction from the Contract Sum to incorporate alternate into the Work. No other adjustments are made to the Contract Sum.

1.03 PROCEDURES

- A. Coordination: Modify or adjust affected adjacent work as necessary to completely integrate work of the alternate into Project.
 - 1. Include as part of each alternate, miscellaneous devices, accessory objects, and similar items incidental to or required for a complete installation whether or not indicated as part of alternate.
- B. Notification: Immediately following award of the Contract, the owner will notify each party involved, in writing, of the status of each alternate. Indicate if alternates have been accepted, rejected, or deferred for later consideration. Include a complete description of negotiated modifications to alternates.
- C. Execute accepted alternates under the same conditions as other work of the Contract.
- D. Schedule: A Schedule of Alternates is included at the end of this Section. Specification Sections referenced in schedule contain requirements for materials necessary to achieve the work described under each alternate.

PART 2 PRODUCTS (Not Used)

PART 3 EXECUTION

3.01 SCHEDULE OF ALTERNATES

A. Not Applicable to this project

END OF SECTION

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. Field Samples.

1.02 RELATED REQUIREMENTS

- A. Section 01010 Summary of Work.
- B. Section 01027 Applications for Payment.
- C. Section 01400 Quality Control: Manufacturers' Field Services, Testing Laboratory Services.
- D. Section 01600 Material and Equipment: Products List.
- E. Section 01700 Contract Closeout: Closeout Procedures.

1.03 PROCEDURES

- A. Deliver submittals to DEPARTMENT as directed.
- B. 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.
- C. Submit initial progress schedules and Schedule of Values in five copies in accordance with paragraph SC6.6 of Document 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.
- D. Comply with progress schedule for submittals related to Work progress. Coordinate submittal of related items.
- E. 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 6 are required and 4 were returned for revisions, submit 6 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.
- F. 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 three times (incomplete or improper submittals count as one). CONTRACTOR shall pay all review costs associated with more than three 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.
 - Submittal dates for required for 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. ELECTRONIC VERSION: REQUIRED FOR ALL PROJECTS WHEN THE ORIGINAL CONTRACT AMOUNT IS EQUAL TO OR GREATER THAN \$500,000.00. 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 on CD for IBM and compatible using Microsoft Project 2000 version 9.0. CD will not be returned by the DEPARTMENT.
 - 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 for listing component parts. Identify each line item by number and title of listed Specification sections.

B. CONTENT

- 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 01300-2

Section 01300 Submittals

- 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. <u>Section 01700 Contract Closeout. Value of all required Substantial Completion Submittals and Closeout Submittals shall</u> be not less than 10% of the final contracted amount.
 - b. No progress payments will be made for Substantial Completion Submittals and Closeout Submittals until <u>all</u> 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 four copies of Schedule prior to submitting the CONTRACTOR's first Application for Payment. 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.
- 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

- Submit only pages which are pertinent; mark each copy of standard printed data
 to identify pertinent products, referenced to Specification section and Article
 number. Show reference standards, performance characteristics, and capacities;
 wiring and piping diagrams and controls; component parts; finishes; dimensions;
 and required clearances.
- 2. Modify manufacturer's standard schematic drawings and diagrams to supplement standard information and to provide information specifically applicable to the Work.

Delete information not applicable.

C. 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.
- 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, 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

- 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 six that will be retained by DEPARTMENT.
- 7. Submit number of copies of product data and manufacturer's instructions CONTRACTOR requires, <u>plus three copies</u>, <u>which will be retained by DEPARTMENT</u>.
- 8. Submit number of samples specified in individual Specifications sections.
- 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 6 are required and 4 were returned for revisions, submit 6 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 on 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 FIELD SAMPLES

A. Provide field samples of finishes at Project 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. Document 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, and Tests required for inspection of the existing roof deck and structural members.
- C. Section 01090 Reference Standards: Applicability of Reference Standards.
- D. 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, 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.

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. Construction Enclosures.
- H. Barriers.
- I. Barricades, Warnings, and Markings (Airport Operations).
- J. Protection of Installed Work.
- K. Security.
- L. Water Control.
- M. Cleaning During Construction.
- N. Removal.
- O. Waste Storage Equipment.
- P. Cleaning of the Project Area.
- Q. Disposal.
- R. Tool Control

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 01540 Security.
- D. Section 01700 Contract Closeout: Final cleaning.

1.03 ELECTRICITY, LIGHTING

- A. 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.
- B. Provide lighting for construction operations.
- C. Take precautions to conserve energy. Wasteful use of power will be back charged to the CONTRACTOR.

1.04 HEAT, VENTILATION

- A. Provide as required to maintain specified conditions for construction operations, to protect materials and finishes from damage due to temperature or humidity.
- B. Do not use permanent facilities for temporary purposes.
- C. Fully exhaust to the outside welding fumes generated from operations related to performance of the Work.
- D. 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.

1.06 WATER

- A. Provide service required for construction operations. Extend branch piping with outlets located so that water is available by use of hoses.
- B. The DEPARTMENT will pay for water used.
- C. 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. Designated existing facilities may be used during construction operation; maintain in clean sanitary condition. Do not use facilities for construction for cleaning of construction equipment.

1.08 DUST CONTROL

- A. Execute Work by methods that minimize raising of dust or airborne debris from construction or demolition operations
- B. Provide positive means to prevent air-borne dust from dispersing into the atmosphere

1.09 CONSTRUCTION ENCLOSURES

- A. Provide temporary enclosures/partitions around areas inside the facility that are affected by the construction. Enclosures/partitions shall:
 - 1. Isolate construction from Using Agency and residents. Enclosure/partitions must be secured with a padlock.
 - 2. Prevent the penetration of dust and/or moisture into occupied areas. Partitions must be sealed at ceiling and floor.
 - 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. Be constructed of metal studs, painted GWB, 10 mil polyethylene, and sound attenuation insulation. Enclosures/Partitions shall extend from floor to ceiling with complete closure at adjoining walls.

B. The CONTRACTOR shall include his plan for construction enclosures in the work plan prepared under Section 01010.

1.10 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..

1.11 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.

1.12 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 DEPARTMENT security program.

1.13 WATER CONTROL

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

1.14 CLEANING DURING CONSTRUCTION

A. In accordance with Part 2 and Part 3 of this specification.

1.15 REMOVAL

- A. Remove temporary materials, equipment, 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.

PART 2 PRODUCTS

2.01 WASTE STORAGE EQUIPMENT

A. Provide covered containers for deposit of materials, waste materials, debris, and rubbish.

PART 3 EXECUTION

3.01 CLEANING OF THE PROJECT AREA

- A. Maintain all areas under CONTRACTOR's control free of waste materials, debris, and rubbish. Maintain site in a clean and orderly condition.
- B. Remove debris and rubbish from pipe chases, plenums, attics, crawl spaces, and other closed or remote spaces, prior to closing the space.
- C. Immediately clean interior areas after completion of the work to provide suitable conditions for building occupants and residents. All resident occupied areas and areas used by the general public require cleanup at the end of each shift.

- D. Broom clean interior areas prior to start of surface finishing, and continue cleaning on an as needed basis.
- E. Control cleaning operations so that dust and other particulates will not adhere to wet or newly-coated surfaces.

3.02 DISPOSAL

A. Promptly remove waste materials, debris, and rubbish from site periodically and dispose of in accordance with all Federal, State and local regulations.

END OF SECTION

01500-4

SECTION 01540 SECURITY

PART 1 GENERAL

1.01 REQUIREMENTS INCLUDED

- A. Security Check
- B. Facility Liaison
- C. Personnel Access
- D. Contraband
- E. Tool Control

1.02 RELATED REQUIREMENTS

- A. Section 01010 Summary of Work.
- B. Section 01500 Construction Facilities and Temporary Controls.

PART 2 PRODUCTS Not Used.

PART 3 EXECUTION

3.01 SECURITY CHECK

- A. All personnel will be required to undergo a security check prior to commencement of work.
- B. The security check will look for recent or frequent past convictions or for outstanding warrants. The Department of Health & Social Services reserves the right to disqualify anyone from access to the work site. A past conviction will not automatically disqualify.

3.02 FACILITY LIAISON

- A. A staff person will be assigned to act as the liaison with the contractor and the facility.
- B. In the event of an emergency affecting the secure operations of the youth facility, the liaison is authorized to direct the contractor to take appropriate action. The directions of the liaison will be followed immediately. This provision supplements Article 6.19 of the General Conditions of the construction contract for facilities.
- C. The liaison shall be briefed each week by the contractor regarding the contractor's work requirements and weekly work plan for the subsequent week.

3.03 PERSONNEL ACCESS

- A. All access to the work site, which is within a youth facility, will be monitored and controlled by the Department of Health & Social Services in order to prevent importation of contraband and escape of residents.
- B. Contractors, subcontractors, and employees may be denied access or be removed from the facility for the following reasons:
 - 1. Contractors or workers that are incompetent, careless or otherwise detrimental to the work or the security of the facility.
 - 2. Security requirements.
 - 3. Disruptive, abrasive, and/or argumentative conduct.

- 4. Possession or being under the influence of alcohol, drugs and/or any substance that is considered contraband by the facility (including use of tobacco products).
- 5. Refusal to submit to search of personal property/belongings or themselves.
- 6. Health problems.
- 7. Failure to show proper identification.
- 8. Failure to follow the direction of youth facility officers and/or staff members.
- 9. Having any contact or interaction with inmates.
- 10. Failure to pass security check.

3.04 CONTRABAND

A. The mailing, bartering, introducing, exchanging, or buying of items between residents and contractors or their employees is strictly prohibited without the written consent of the superintendent of the institution.

Title II - 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
- (2) a deadly weapon;
- (3) an article that is intended by the defendant to be used as a means of facilitating an escape; or
- (4) a controlled substance.
- B. Promoting contraband in the first degree is a class C felony

Section 11.56.380. Promoting contraband in the second degree.

- a. A person commits the crime of promoting contraband in the second degree if the person:
 - (1) introduces, takes, conveys, or attempts to introduce, take or convey contraband into a facility; or
 - (2) 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.
- b. Promoting contraband in the second degree is a class A misdemeanor.

Section 11.56.390. Definition.

In AS 11.56300 - 11.56.390, "contraband" means any article or thing which persons confined in a correctional facility are prohibited by law from obtaining, making, or possessing in that correctional facility.

C. Contractor is hereby advised that all personnel working at the site will be required to sign a statement that they fully understand sections 3.03 and 3.04 referenced above.

3.05 TOOL CONTROL

A. Do not leave accessible work areas of the youth facility unattended without first removing or securing all tools and objects which would be considered contraband. Tools will be confiscated and the contractors' personnel responsible will be removed from the site.

3.06 DEPARTMENT OF HEALTH & SOCIAL SERVICES DIVISION OF JUVENILE JUSTICE YOUTH CORRECTION SECURITY CLEARANCE PROCEDURES

A. The following documents pertain to mandatory security background checks for anyone going to work inside a youth detention facility. This is a requirement and the paperwork must be processed prior to anyone going to work at the facility.

The completed forms are to be sent to the following address:

Johnson Youth Center 3252 Hospital Drive Juneau, AK 99801

ATTN: August Campos, Maintenance Foreman

Phone: (907) 523-6848 / Fax (907) 586-2680

Please direct any questions or comments concerning the security section to Mr. Campos at the referenced phone number.

SECTION 01600 MATERIAL AND EQUIPMENT

PART 1 GENERAL

1.01 REQUIREMENTS INCLUDED

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

1.02 RELATED REQUIREMENTS

- A. Section 01005 Administrative Provisions.
- B. Section 01010 Summary of Work.
- C. Section 01090 Reference Standards.
- D. Section 01400 Quality Control: Manufacturers' Certificates.
- E. Section 01700 Contract Closeout: Closeout Procedures, Operation and Maintenance Data, Warranties, Spare Parts and Maintenance Materials.

1.03 PRODUCTS

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

1.04 TRANSPORTATION AND HANDLING

- A. Transport products by methods to avoid product damage; deliver in undamaged condition in manufacturer's unopened containers or packaging, dry.
- B. Provide equipment and personnel to handle products by methods to prevent soiling or damage.
- C. Immediately on delivery, inspect shipment to assure:
 - 1. Product complies with requirements of Contract Documents and reviewed submittals.
 - 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.

1.05 STORAGE AND PROTECTION

A. HANDLE AND STORE MATERIALS FOR CONSTRUCTION, PRODUCTS OF DEMOLITION, AND OTHER ITEMS TO AVOID DAMAGE TO BUILDING.

- B. Store products in accordance with manufacturer's instructions, with seals and labels intact and legible. Store sensitive products in weather-tight enclosures; maintain within temperature and humidity ranges required by manufacturer's instructions.
- C. Arrange storage to provide access for inspection. Periodically inspect to assure products are undamaged, and are maintained under required conditions.
- D. Provide Material Safety Data Sheets (MSDS) for all products which may produce unpleasant or noxious odors. CONTRACTOR shall provide for adequate venting if needed.

1.06 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.
- C. Products Specified by Naming One or More Manufacturers followed by the term "No Substitutions": Use only specified manufacturers, no substitutions allowed.

1.07 PRODUCTS LIST

- A. Within 7 days after date of Notice to Proceed, transmit four copies of a list of products, which are proposed for installation, including name of manufacturer.
- B. Tabulate products by Specifications 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.

1.08 SUBSTITUTIONS

A. SUBSTITUTION SUBMITTAL PERIOD

1. Product substitution requests will be considered only within 7 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. (Submit on Substitution Request Form "B")

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.

C. REQUESTS FOR SUBSTITUTIONS

1. Submit separate request for each substitution. Document each request with 01600-2

- complete data substantiating compliance of proposed substitution with requirements of Contract Documents.
- 2. Identify product by 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.
- 3. Attach product data as specified in Section 01340.
- 4. List similar projects using product, dates of installation, and names of design Consultant(s) and owner.
- 5. Give itemized comparison of proposed substitution with specified product, listing variations, and reference to Specification sections and Article numbers.
- 6. Give quality and performance comparison between proposed substitution and the specified product.
- 7. Give cost data comparing proposed substitution with specified product, and amount of net change to Contract Price.
- 8. List availability of maintenance services and replacement materials.
- 9. State effect of substitution on construction schedule, and changes required in other Work or products.

D. CONTRACTOR REPRESENTATION

- 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 which may later become apparent.

E. SUBMITTAL PROCEDURES

- 1. Submit five copies of <u>complete</u> request for Substitution Request Form. 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.
- 2. DEPARTMENT will review CONTRACTOR's requests for substitutions within 5 days of receipt.
- 3. After receipt of submittal, DEPARTMENT will notify CONTRACTOR, in writing, of decision to accept or reject requested substitution within 5 days.
- 4. For accepted products, submit Shop Drawings, product data, and samples under provisions of Section 01300.

PART 2 PRODUCTS PART 3 EXECUTION Not Used Not Used

Section 01600 Material and Equipment

END OF SECTION

01600-4

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.
- G. Maintenance Service.

1.02 RELATED REQUIREMENTS

- A. Document 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.

1.03 CLOSEOUT PROCEDURES

- A. Substantial Completion and Final Completion:
 - 1. Substantial Completion:
 - a. Submit the following prior to requesting a Substantial Completion Inspection:
 - 1. Evidence of Compliance with Requirements of Governing Authorities:
 - I. Certificate of Occupancy.
 - II. Required Certificates of Inspection.
 - 2. Project Record Documents in accordance with sub section 1700-1.05
 - 3. Operation and Maintenance Data in accordance with sub section 1700-1.06
 - 4. Spare Parts and Maintenance Materials in accordance with sub section 1700-1.08
 - b. Substantial Completion shall be considered by the DEPARTMENT when:
 - 1. Written notice is provided 7 days in advance of inspection date.
 - 2. List of items to be completed or corrected is submitted.
 - 3. Operation and Maintenance Manuals are submitted and approved by the DEPARTMENT.
 - 4. Equipment and systems have been tested, adjusted, balanced and are fully operational.
 - 5. Automated and manual controls are fully operational.
 - 6. Operation of system has been demonstrated to DEPARTMENT 01700-1

Personnel.

- 7. Certificate of Occupancy is submitted.
- 8. Certificates of Inspection for required inspections have been submitted.
- 9. Project Record Documents for the Work or the portion of the Work being accepted are submitted and approved.
- Spare parts and maintenance materials are turned over to DEPARTMENT.
- 11. All keys are turned over to the DEPARTMENT.
- c. Should the DEPARTMENT inspection find Work is not substantially complete, the Department will promptly notify CONTRACTOR in writing, listing observed deficiencies.
- d. The CONTRACTOR shall remedy deficiencies and send a second written notice of Substantial Completion.
- e. When the DEPARTMENT finds Work is substantially complete the DEPARTMENT will prepare a certificate of Substantial Completion in accordance with provisions of General Conditions

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

- Should status of completion of Work require more than two re-inspections by the DEPARTMENT due to failure of Work to comply with CONTRACTOR's responsibility, the DEPARTMENT will deduct the cost of re-inspection from final payment to CONTRACTOR as provided in the Contract Documents.
- 2. Re-inspection fees shall not exceed \$5,000 for any one re-inspection.

D. CLOSEOUT SUBMITTALS

- 1. Warranties and Bonds: Under provisions of Section 01700.
- 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.
- F. Using Agency will occupy Facility for the purpose of conduct of business, under provision stated in certificate of Substantial Completion.
- G. DEPARTMENT will issue a summary Change Order reflecting final adjustments to Contract Price not previously made by Change Order.

1.04 FINAL CLEANING

- A. Execute final cleaning prior to Substantial Completion inspection.
- B. Clean interior and exterior surfaces exposed to view; remove temporary labels, stains and foreign substances, 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 materials which will not create hazards to health or property, and which will not damage surfaces. Follow manufacturers' 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. Maintain on site, one set of the following Record Documents; record actual revisions to the Work:
 - 1. Drawings.
 - 2. Specifications.
 - 3. Addenda.
 - 4. Change Orders and other modifications to the Contract.
 - 5. Reviewed shop drawings, product data, and samples.
 - 6. Manufacturers instructions for assembly, installation, and adjusting.
- B. Ensure entries are complete and accurate, enabling future reference by DEPARTMENT.
- C. Store Record Documents separate from documents used for construction.
- D. Record information concurrent with construction progress.
- E. SPECIFICATIONS: Legibly mark and record at each product section description of actual products installed, including the following:
 - 1. Manufacturer's name and product model and number.
 - 2. Product substitutions or alternates utilized.
 - 3. Changes made by Addenda and Modifications.
- F. Record Drawings and Shop Drawings: Legibly mark each item to record actual construction graphically to scale including:

- 1. Measured depths of foundations in relation to finish first floor datum.
- 2. Measured horizontal and vertical locations of underground utilities and appurtenances, referenced to permanent surface improvements.
- 3. Measured locations of internal utilities and appurtenances concealed in construction, referenced to visible and accessible features of the Work.
- 4. Field changes of dimension and detail.
- 5. Details not on original Contract drawings.

1.06 OPERATION AND MAINTENANCE INSTRUCTIONS

- A. Submit data bound in 8-1/2 by 11 inch (A4) text pages, 3-D side ring binders with durable plastic covers.
- B. Prepare binder covers with printed title "OPERATION AND MAINTENANCE INSTRUCTIONS", title of project, and subject matter of binder when multiple binders are requested.
- C. Internally subdivide the binder contents with permanent page dividers, logically organized as described below; with the tab titling clearly printed under reinforced laminated plastic tabs.
- D. Contents: Prepare a Table of Contents for each volume, with each product or system description identified, typed on 24 pound white paper, in 3 parts as follows:
 - 1. Part 1: Directory, listing names, addresses, and telephone numbers of Architect/Engineer, CONTRACTOR, subcontractors, and major equipment suppliers.
 - Part 2: Operations and maintenance instructions, arranged by system and subdivided by Specification Section. For each category, identify names, addresses, and telephone numbers of subcontractors and suppliers. Identify the following:
 - a. Significant design criteria.
 - b. List of equipment.
 - c. Parts list for each component.
 - d. Operating instructions.
 - e. Maintenance instructions for equipment and systems.
 - f. Maintenance instructions for [special] finishes, including recommended cleaning methods and materials and special precautions identifying detrimental agents.
 - 3. Part 3: Project Documents and Certificates, including the following:
 - a. Shop drawings and product data.
 - b. Certificates.
 - c. Originals of warranties and bonds.
- E. Submit one draft copy of completed volumes five working days prior to Substantial Completion inspection. This copy will be reviewed and returned, with DEPARTMENT comments. Revise content of all document sets as required prior to final submission.
- F. Submit two sets of revised final volumes and a digital copy on a CD Rom disc within ten days after Substantial Completion Inspection.

1.07 WARRANTIES

A. As a condition precedent to Final Payment, all guaranties and warranties as specified under various sections of the Contract Documents shall be obtained by the CONTRACTOR and

Section 01700 Contract Closeout

delivered to the OWNER, in duplicate giving a summary of guarantees attached and stating the following in respect to each:

- Character of Work affected.
- 2. Name of Subcontractors.
- 3. Period of Guarantee.
- 4. Conditions of Guarantee.
- B. Delivery of said guarantees and/or warrantees shall not relieve the CONTRACTOR from any obligations assumed under any other provision of the Contract.
- C. If, within any guarantee period, repairs or changes are required in connection with the guaranteed Work, which in the opinion of the OWNER is rendered necessary as the result of the use of materials, equipment or workmanship, which are defective, or inferior, or not in accordance with the terms of the Contract, the CONTRACTOR shall, upon receipt of notice from the OWNER, and without expense to the OWNER, proceed within seven (7) calendar days to:
 - 1. Place in satisfactory conditions in every particular all of such guaranteed Work, correct all defects therein, and make good all damages to the structure or site.
 - 2. Make good all Work or materials, or the equipment and contents of structures or site disturbed in fulfilling any such guarantee.
- D. If the CONTRACTOR, after notice, fails to comply without the terms of the guarantee, the OWNER may have the defects corrected and the CONTRACTOR and CONTRACTOR's Surety shall be liable for all expenses incurred in connection therewith, including Engineer's fees.

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

State of Alaska, Standard Specifications for Highway Construction, 2020 Edition, Section 109 and Divisions 200 – 700, are incorporated into this Contract and Modified as Follows:

SPECIAL PROVISIONS AND STANDARD MODIFICATIONS FOR



JUNEAU PIONEERS HOME COURTYARD RENOVATIONS

Project No. ANC 24-43C

This Contract is subject to and hereby incorporates by reference the Alaska Department of Transportation and Public Facilities Standard Specifications for Highway Construction, 2020 Edition; Section 109 and Divisions 200 – 700. All Provisions contained in this section are considered Special Provisions unless otherwise designated as a Statewide Standard Modification (SM or HSM), Southcoast Region Standard Modification (SRM), Statewide Special Provision (S, HSP, SSP, or ES), or Southcoast Region Special Provision (SRS).

June 2024

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MEASUREMENT AND PAYMENT

SPECIAL PROVISIONS

<u>Delete Articles 109-1.05 – 109-1.08 in their entirety.</u> Provisions therein shall be in accordance with Section 00700.

SECTION 201 CLEARING AND GRUBBING

SPECIAL PROVISIONS

201-3.05 SELECTIVE TREE REMOVAL Delete the last sentence and replace with the following:

Remove stumps and root wads for selected trees. Backfill voids with material designated in the drawings. Backfill materials used for this purpose shall not be measured directly for payment, but shall be considered Subsidary to Selective Tree Removal.

REMOVAL OF STRUCTURES AND OBSTRUCTIONS

STANDARD MODIFICATIONS

SRM-5 02/26/2020

202-3.02 MAIL BOXES. Delete this subsection and replace with the following:

Reference the location of existing mail boxes and newspaper delivery tubes. After referencing, remove existing mail boxes and newspaper delivery tubes within the project limits and temporarily reset them at approved locations. Install the boxes and tubes in such a position that their usefulness will not be impaired. Salvage any planter boxes, plaques, and other decorations and give them to the homeowner. Do not reinstall any of the decorative items.

After construction has been completed, reinstall the existing mail boxes and tubes on new posts. Meet the requirements of Alaska Standard Plans M-20 and M-23 for the new posts. Place them in the referenced location, adjusting the offset from the road to meet the box-to-shoulder distance in M-20. Repair or replace any posts, boxes, tubes, and other material broken or damaged by the Contractor.

202-5.01 BASIS OF PAYMENT. Items 202.0010.0000 through 202.0012.0000. <u>Add the following after</u> "Payment includes": referencing existing location,

| 202-5.01 BASIS OF PAYMENT. <u>In the first paragraph, replace the worfollowing:</u> "and 202.0013" | <u>rds</u> "and 22.0013" <u>with</u> <u>the</u> |
|---|---|
| In the fourth paragraph, replace the words "Items 020.0014 " with the "Items 202.0014 " | n <u>e</u> <u>following:</u> |
| HSM20-4 11/30/2020 | |

EXCAVATION AND EMBANKMENT

STANDARD MODIFICATIONS

203-2.01 MATERIALS. 1. <u>Unclassified Excavation</u>. <u>Delete the second sentence</u>.

2. <u>Classified Excavation.</u>, b. <u>Rock Excavation.</u> <u>Replace with the following:</u> Rock that cannot be excavated without blasting or specialized equipment designed for the removal of rock.

SRM-6 02/26/2020

203-3.04 COMPACTION WITH MOISTURE AND DENSITY CONTROL. <u>In the second paragraph of this subsection, delete the words</u> "and ATM 214".

HSM20-5 11/30/2020

STRUCTURE EXCAVATION FOR CONDUITS AND MINOR STRUCTURES

STANDARD MODIFICATIONS

204-2.01 MATERIALS. <u>Delete the first paragraph and replace with the following:</u> Unless detailed otherwise on the Plans, use bedding material to 12 inches above the pipe. Install a bedding plug at the inlet end of the culvert pipe with a compacted, dense-graded material, such as E-1, F-1, or other approved material.

For corrugated polyethylene pipe, water and sewer conduit, or minor structures, use bedding material meeting the following gradation:

| SIEVE | SIEVE PERCENT PASSING BY WEIGHT | | |
|---------|---------------------------------|--|--|
| 1 ½ in. | 100 | | |
| No. 4 | 30-70 | | |
| No. 200 | 0-10 | | |

For corrugated metal pipe, use bedding material meeting Subsection 703-2.07 Selected Material Type B, with 100% passing the 3-inch sieve.

Do not use Reclaimed Asphalt Material (RAM), Recycled Asphalt Pavement (RAP), or any mixture containing asphaltic material for bedding and backfill material.

Add the following to the second paragraph: unless otherwise detailed on the Plans.

204-3.01 CONSTRUCTION REQUIREMENTS. <u>Delete the first sentence of the fourth paragraph and replace with the following:</u> Unless otherwise detailed on the Plans, native material may be utilized for electrical conduit backfill outside the pavement structure if it meets the minimum requirements of Selected Material, Type C, as specified in Subsection 703-2.07.

<u>Add the following:</u> Construct a bedding plug near the culvert inlet by backfilling around the bottom, sides, and top of the pipe with the approved material. Construct the bedding plug, as measured along the pipe axis, with a length 1.5 times the pipe diameter, not to exceed 8 feet in length.

204-5.01 BASIS OF PAYMENT. Add the following to the first paragraph: The installation of a bedding plug is subsidiary to the conduit or other minor structure installation.

<u>Delete the fourth paragraph and replace with the following:</u> Bedding is subsidiary to the culvert, conduit and minor structure installation. Backfill materials are subsidiary to the culvert, conduit, and minor structure, with the exception of material required whose source is outside the project limits. Backfill required from outside the project limits will be paid for at the contract unit price for the material being used, or as extra work if no contract unit price is established for that item.

SRM-7 02/26/2020

ANC 24-43C

EXCAVATION AND FILL FOR MAJOR STRUCTURES

STANDARD MODIFICATION

205-3.05 COMPACTION. <u>In the second paragraph of numbered paragraph</u> 1. <u>Compaction With Moisture and Density Control</u>, <u>delete the words</u> "and ATM 214".

HSM20-5 11/30/2020

AGGREGATE BASE AND SURFACE COURSE

STANDARD MODIFICATIONS

301-3.03 SHAPING AND COMPACTION.

<u>Add the following to the end of the first paragraph</u>: If the maximum density cannot be determined by ATM 207 or ATM 212, the Engineer may use ATM 309. The control strip for ATM 309 shall be at least 300 feet long using a vibratory compactor with a minimum dynamic force of 40,000 pounds.

<u>Delete the last paragraph beginning with</u> "The finished surface" <u>and replace with the following:</u> After the base course compaction is complete the Engineer will test the surface for smoothness and accuracy of grade and crown with a 10 foot straightedge. Correct any areas that vary more than 3/8 inch when measured in any direction with the straightedge, or vary more than 1/2 inch from the proposed grade as established by grade hubs. Make corrections by scarifying, reshaping, re-compacting, and otherwise manipulating, until the required smoothness and accuracy is obtained.

| ······································ | | | | | |
|--|--------------|-------------------------------------|------------------------------|--|--|
| SRM-8 | 08/10/2020 | | | | |
| 301-3.03 "and ATI | | . In the second paragraph of this s | subsection, delete the words | | |
| HSM20- | 5 11/30/2020 | | | | |
| SPECIA | L PROVISIONS | | | | |

CONCRETE FOR STRUCTURES

STANDARD MODIFICATIONS

501-2.02 COMPOSITION OF MIXTURE – JOB MIX DESIGN., 7. <u>Job Mix Design Verification.</u>, a. <u>Required Average Compressive Strength.</u>, (1) <u>Field Test Records.</u>, <u>Add the following new paragraph:</u> Use only consecutive compressive strength tests performed within the last 12 months.

SRM-11 02/26/2020

501-2.02 COMPOSITION OF MIXTURE - JOB MIX DESIGN. Replace Table 501-4 with the following:

TABLE 501-4 AIR CONTENT REQUIREMENTS

| Class of Concrete | Air Content |
|-------------------|---|
| Α | 6.0% ±0.5% |
| A-A | 6.0% ±0.5% |
| Р | 3.50% minimum¹ and Super Air Meter (SAM) number ≤0.20¹ |
| DS | Not required |

¹Not required for web and bottom flange of precast, prestressed decked bulb-tee girders.

HMS20-23 12/31/2021

SECTION 514 CONCRETE SURFACE TREATMENTS

SPECIAL PROVISIONS

514-2.01 MATERIALS Add the following to item 1.

Alcove wall form liner shall be: (Urethane Formliners) Scott Systems – https://www.scottsystem.com/concrete-formliners/urethane/textures/

Exposed architectural concrete surface treatment shall be Scott System elastomeric form liner 'Gravestake #152' urethane texture as manufactured by Scott System 109 General Fellows Road, Greenwich, NY 12834, ph. 1-518-864-1220 or approved equal.

514-4.01 METHOD OF MEASUREMENT Delete items 1 and 2 and replace with the following:

Surface Treatments provided as a requirement of this Section shall not be measured directly for payment, but shall be considered incidental to other pay items.

514-5.01 BASIS OF PAYMENT Delete this Article.

COMMERCIAL CONCRETE

STANDARD MODIFICATIONS

550-2.02 COMPOSITION OF MIXTURE – JOB MIX DESIGN. <u>Add the following to the first paragraph of 1. Submittals.:</u>

Submit the JMD on Form 25D-203.

HSM20-25 12/31/2021

550-2.02 COMPOSITION OF MIXTURE - JOB MIX DESIGN.

Replace Table 550-1 with the following:

TABLE 550-1 COMMERCIAL CONCRETE DESIGN REQUIREMENTS

| Class | B-B | В | W |
|---|--------------|--------------|---------------------|
| Water-Cement Ratio, lbs/lbs, maximum | 0.40 | 0.45 | 0.50 |
| Total Air Content, % | 5.5 – 6.5 | 5.5 – 6.5 | 4.0 – 6.5 |
| Coarse Aggregate Gradation, AASHTO M 43 | No. 57 or 67 | No. 57 or 67 | No. 7, 8, 57, or 67 |
| Compressive Strength, psi, minimum | 5,000 | 4,000 | 3,000 |

Alternative sizes of coarse aggregate, as shown in AASHTO M 43, may be used when approved in writing.

HSM20-8 11/30/2020

SPECIAL PROVISIONS

550-2.02 COMPOSITION OF MIXTURE – JOB MIX DESIGN. Replace the note below "Table 550-1 COMMERCIAL CONCRETE DESIGN REQUIREMENTS" with the following:

Alternate sizes of coarse aggregate may be used on condition that the nominal maximum aggregate size remains unchanged and the concrete is proportioned according to ATM 530.

SRS-24 11/30/2020

CULVERTS AND STORM DRAINS

STANDARD MODIFICATIONS

603-3.03 JOINING PIPE.

Add the following before the numbered list of items: Make joints watertight. Install flexible watertight gaskets at joints between new sections of pipe and joints between new and existing sections of pipe.

| SRM-13 | 02/26/2020 | | | |
|--------|------------|--|--|--|
| | | | | |
| | | | | |

603-2.01 MATERIALS. <u>Add the following:</u> Provide coupling bands that have the same coating and same material as the pipe.

603-3.03 JOINING PIPE. <u>Replace item 2. with the following:</u> Provide coupling bands that have the same coating and same material as the pipe.

- 2. <u>Metal Pipe.</u> Join metal pipe firmly using one of the types of coupling bands shown on the Plans and as described below. Provide coupling bands that are no more than two nominal sheet thickness lighter than the pipe being joined and in no case thinner than the minimum sheet thickness of the material. The minimum sheet thickness is 0.048 inches for aluminum and 0.052 inches for steel. Furnish and install flexible watertight gaskets or O-rings as shown on the Plans.
 - a. Annular, Spiral, Semi-Corrugated, and Rod and Lug Bands. Provide standard bands as described by ASTM A760 and ASTM B745. Join the pipe so the gap between the pipes is in the center of the band and is no wider than one corrugation width.
 - b. Dimple and Bias Bands. Use these band only where it is not possible to use other bands, such as on field-cut pipe ends or joining new pipe to existing pipe. Join the pipe so the gap between the pipes is in the center of the band and is no wider than 2 inches.

HSM20-47 01/29/2024

603-5.01 BASIS OF PAYMENT. In the PAY ITEM table, capitalize the units for pay items 603.0003. and 603.0004.

| | PAY ITEM | |
|-------------|-------------------------------|------|
| Item Number | Item Description | Unit |
| 603.0003 | End Section for CSP Inch | EACH |
| 603.0004 | End Section for Inch CSP Arch | EACH |

HSM20-9 11/30/2020

MANHOLES AND INLETS

STANDARD MODIFICATIONS

604-2.01 MATERIALS. <u>Delete the lines for Concrete and Precast Concrete Manhole Sections and replace with the following: </u>

Concrete

Cast-in-Place Section 550, Class B Precast Concrete Manhole Sections Subsection 712-2.05

604-3.01 CONSTRUCTION REQUIREMENTS. <u>Delete</u> "Use full mortar joints no more than 1/2 inch wide. Set metal frames in full mortar bed." <u>and replace with the following:</u>

For new construction and reconstruction of existing manholes and inlets use a rubber adjustment riser with a maximum of one concrete grade ring to bring the frame to grade.

For adjusting existing manholes and inlets, remove all existing grade rings and clean the top of the structure of all grout, adhesive, and loose material. Use a rubber adjustment riser with a maximum of two concrete grade rings to bring the frame to grade. Do not re-use existing grade rings.

Use rubber adjustment risers for the top riser. Use Infra-Riser by EJ, FlexORing by American Highway Products, Rubber Riser Rings by Sealing Systems Inc., Pro-Ring by Cretex Specialy Products, or approved equal rubber or recycled rubber adjustment risers, tapered to match the roadway slope. Seal rubber adjustment risers in place according to the manufacturer's written instructions.

Use concrete grade rings with a maximum height of 4 inches, meeting AASHTO M 199 or ASTM C478. Seal concrete grade rings to the manhole cone, and seal between concrete grade rings with a preformed flexible joint sealant meeting ASTM C990. Install preformed flexible joint sealant according the joint sealant manufacturer's written instructions. Make all seals watertight.

SRM-14 04/20/2021

SPECIAL PROVISIONS

604-5.01 BASIS OF PAYMENT.

Add the following item:

| | PAY ITEM | |
|--------------|---------------------|------|
| Item Number | Item Description | Unit |
| 604.0017.001 | Storm Drain Outfall | LS |

UNDERDRAINS

SPECIAL PROVISIONS

605-2.01 MATERIALS Replace "Porous Backfill Material" with the following:

Porous Backfill Material (Drain Rock) Section 703-2.05, Table 703-7, Grade B

Add the following:

Filter Cloth: Section 729-2.01, Item 1

SIDEWALKS

SPECIAL PROVISIONS

Add the following Article

608-102 SUBMITTALS

The Contractor shall submit the following as a requirement of this section:

- 1. Job Mix Design, (JMD) in accordance with Section 550.
- 2. Concrete Placement Plan accordance with Section 501. In addition to requirements listed in section 501, include:
 - a. Construction Joint layout.
 - b. Access and sequence of concrete placement as it relates to the upper terrace, sidewalk and lower areas.

608-2.01 MATERIALS Replace numbered item 1. Concrete Sidewalk, with the following:

1. Colored Concrete Sidewalk and Plaza

Base/Bed Course Material Subsection 703-2.03 Joint Fillers Subsection 705-2.01 Joint Sealer Subsection 705-2.02 Concrete Section 550, Class B

Concrete Color Additives:

Concentrated pigments specially processed for mixing into concrete and complying with ASTM C979.

Manufacturer: Davis Colors

Contact Information:

Phone: 800-356-4848 or 323-269-7311.

E-mail: info@daviscolors.com. Web Site: www.daviscolors.com.

Submit the following color tiles for Owner selection with the Job Mix Design in accordance with Section 550:

- 1. Tile Red Smooth #1117
- 2. Brick Red Smooth #160
- 3. Western Gold #5844
- 4. Cliffside Brown #660
- 5. Harvest Gold
- 6. Spanish Gold

608-3.01 CONCRETE SIDEWALKS Delete the 5th and 6th Paragraphs and replace with the following.:

Colored concrete sidewalks and plaza shall be continuously reinforced as shown in the Drawings. Do not tool or sawcut joints unless specifically called for in the Drawings. Expansion joints shall not be permitted. Construction joints shall be as shown in the Drawings between varying colored areas. Construction joints shall be permitted elsewhere only upon Engineer approval. Joints shall be shown in the approved Concrete Placement Plan.

608-4.01 METHOD OF MEASUREMENT *Add the following:*

<u>Colored Concrete Sidewalk and Plaza.</u> Colored concrete sidewalk shall only apply to the designated areas along the sidewalk alignment as shown in the Drawings. All other colored concrete flatwork shall be measured as Colored Concrete Plaza. Measurement areas for Colored Concrete Sidewalk and Plaza shall exclude the Wheel Stop Curb.

608-5.01 BASIS OF PAYMENT. Add the following items:

| PAY ITEM | | |
|-------------|--|------|
| Item Number | Item Description | Unit |
| 608.0009.01 | 6-Inch Thick Continuously Reinforced, Colored Concrete Plaza | SY |
| 608.0010.01 | 6-Inch Thick, 8'- Foot Wide Continuously Reinforced, Colored Concrete Sidewalk | SY |

CURBING

STANDARD MODIFICATIONS

609-2.01 MATERIALS. <u>Under Asphalt Binder replace PG52-28 with PG 58-28E.</u>

609-3.01 GENERAL. Add the following: Provide sealant matching the color of the curbing.

609-5.01 BASIS OF PAYMENT.

<u>Add the following</u>: Imported bed course material will be paid for under Item 301.0001.00D1. Regrading and recompacting existing bed course is subsidiary to work under this section.

<u>Delete Pay Items 609.0005.</u> <u>and 609.0006.</u> <u>Bed Course Material.</u>

SRM-18 06/18/2021

SEEDING

STANDARD MODIFICATIONS

618-3.02 SEEDING SEASONS. <u>Delete the third paragraph and replace with:</u> Seed disturbed areas after permanent cessation of ground disturbing activities in that area within the time period specified in the Alaska Department of Environmental Conservation (ADEC) Alaska Pollutant Discharge Elimination System (APDES) Construction General Permit (CGP) for Alaska, Section 4.5 Final Stabilization, and Section 641 Erosion, Sediment, and Pollution Control.

SRM-20 02/26/2020

SPECIAL PROVISIONS

Add the following subsection:

618-2.02 QUALITY ASSURANCE.

- 1. Provide for Engineer inspection un-opened seed mixture containers with original seed tags showing percentage of seed mix, purity, year of production, net weight, date and location of packaging. Seed mix should also be certified to be free of weeds. Seed containers or tags that have been tampered with, opened or altered are cause for rejection.
- 2. Provide fresh re-cleaned seed of the latest crop meeting the minimum purity and germination requirement.

Add the following subsection:

618-2.03 SEED MIXTURE.

| Lawn | M | ix |
|------|---|----|
| | | |

| Seed type | % by Wt. | Min. % Purity | Min.% Germination |
|-----------------------------|-------------|------------------|----------------------|
| 'Nugget' Kentucky Bluegrass | 40 | 95 | 90 |
| 'Merion' Kentucky Bluegrass | 40 | 95 | 90 |
| 'Boreal' Red Fescue | 15 | 95 | 90 |
| Annual Rye | 5 | 95 | 80 |

Application Rate: 3 pounds per 1,000 square feet

Native Seed Mix

| Seed type | % by Wt. | Min. % Purity | Min.% Germination |
|--------------------------------------|-------------|------------------|----------------------|
| 'Boreal' Red Fescue | 35 | 95 | 90 |
| 'Norcoast' Bering Hairgrass | 35 | 95 | 75 |
| Nortan' tufted hairgrass | 15 | 95 | 75 |
| Iris setosa (Iris) | 5 | 95 | 80 |
| Lupinus nootkatensis (Nootka Lupine) | 5 | 95 | 80 |
| Achillea millefolium (Yarrow) | 5 | 95 | 80 |

Application Rate: 2 pounds per 1,000 square feet

618-3.01 SOIL PREPARATION. Delete the second paragraph and substitute the following:

Subbase shall be free of construction debris, ruts and gullies. The top 2" should be in a friable, non-compacted condition (allowing a heel to make a 1/4" impression). If any area to be seeded is heavily compacted, the top 6-8" should be scarified. Rake or scarify and cut or fill irregularities that develop as required until area is true and uniform, free from lumps, depressions, and irregularities.

618-3.02 SEEDING SEASONS. Delete and substitute the following:

Seed shall be installed between May 1 and August 15 for summer establishment; and after the first hard frost and before snow accumulation for dormant seeding in the fall. Dormant seeding in the fall is entirely at the Contractor's risk. In the event that dormant seeding is unsuccessful, it shall be the Contractor's responsibility to re-seed the following spring.

Seeding should not be done during windy conditions or when climatic or ground conditions would hinder placement or proper germination of seed mixes.

Seed all ground-disturbed areas that require seeding within <u>fourteen days</u> of the permanent cessation of ground-disturbing activities in that area.

618-3.03 APPLICATION. Delete the first paragraph and substitute the following:

Verify that prepared subbase is ready to receive the work of this Section. Beginning of installation means acceptance of existing site condition.

618-3.04 MAINTENANCE AND WATERING. <u>In the second paragraph delete</u> "Water applied by this Subsection is a paid contract item."

618-4.01 METHOD OF MEASUREMENT. <u>Delete</u> the item Water for Seeding.

618-5.01 BASIS OF PAYMENT <u>Replace</u> <u>the</u> <u>2nd</u> <u>sentence</u> <u>with</u> Soil preparation, fertilizer, and water are subsidiary.

Add the following pay item:

| | PAY ITEM | |
|-------------|------------------|------|
| Item Number | Item Description | Unit |
| 618.0006 | Seeding, | SF |

PLANTING TREES AND SHRUBS

SPECIAL PROVISIONS

Delete Section 621 Planting Trees and Shrubs and replace with the following:

SECTION 621 PLANTINGS

621-1.01 GENERAL DESCRIPTION. The scope of work includes all labor, materials, appliances, tools, equipment, facilities, transportation and services necessary for, and incidental to performing all operations in connection with furnishing, delivery, and installation of plant (also known as "landscaping") complete as shown on the drawings and as specified herein.

The scope of work in this section includes, but is not limited to, the following:

- 1. Locate, purchase, deliver and install all specified plants.
- 2. Water all specified plants.
- 3. Mulch, fertilize, stake, and prune all specified plants.
- 4. Maintenance of all specified plants until the beginning of the warranty period.
- 5. Plant warranty.
- 6. Clean up and disposal of all excess and surplus material.
- 7. Maintenance of all specified plants during the warranty period.

621-1.02 RELATED DOCUMENTS AND REFERENCES.

- A. Related Specification Sections:
 - 1. Section 620- Planting Soil
 - 2. Section 618- Seeding
- B. References: The following specifications and standards of the organizations and documents listed in this paragraph form a part of the specification to the extent required by the references thereto. In the event that the requirements of the following referenced standards and specification conflict with this specification section the requirements of this specification shall prevail. In the event that the requirements of any of the following referenced standards and specifications conflict with each other the more stringent requirement shall prevail or as determined by the Engineer.
 - 1. ANSI Z60.1 American Standard for Nursery Stock, most current edition.
 - 2. ANSI A 300 Standard Practices for Tree, Shrub and other Woody Plant Maintenance, most current edition and parts.
 - 3. Interpretation of plant names and descriptions shall reference the following documents. Where the names or plant descriptions disagree between the several documents, the most current document shall prevail.
 - 4. Manual of Woody Landscape Plants; Michael Dirr; Stipes Publishing, Champaign, Illinois; Most Current Edition.
 - 5. The New Sunset Western Garden Book, Oxmoor House, most current edition.

- 6. Pruning practices shall conform to recommendations "Structural Pruning: A Guide For The Green Industry" most current edition; published by Urban Tree Foundation, Visalia, California.
- 7. Glossary of Arboricultural Terms, International Society of Arboriculture, Champaign IL, most current edition.

621-1.03 VERIFICATION. All scaled dimensions on the drawings are approximate. Before proceeding with any work, the Contractor shall carefully check and verify all dimensions and quantities, and shall immediately inform the Engineer of any discrepancies between the information on the drawings and the actual conditions, refraining from doing any work in said areas until given approval to do so by the Engineer.

In the case of a discrepancy in the plant quantities between the plan drawings and the plant call outs, list or plant schedule, the number of plants or square footage of the planting bed actually drawn on the plan drawings shall be deemed correct and prevail.

621-1.04 CHANGES IN THE WORK.

The Engineer may order changes in the work, and the contract sum should be adjusted accordingly. All such orders and adjustments plus claims by the Contractor for extra compensation must be made and approved in writing before executing the work involved.

All changes in the work, notifications and contractor's request for information (RFI) shall conform to the contract general condition requirements.

621-1.05 CORRECTION OF WORK. The Contractor, at their own cost, shall re-execute any work that fails to conform to the requirements of the contract and shall remedy defects due to faulty materials or workmanship upon written notice from the Engineer, at the soonest as possible time that can be coordinated with other work and seasonal weather demands.

621-1.06 DEFINITIONS. All terms in this specification shall be as defined in the "Glossary of Arboricultural Terms" or as modified below.

- A. Boxed trees: A container root ball package made of wood in the shape of a four-sided box.
- B. Container plant: Plants that are grown in and/or are currently in a container including boxed trees.
- C. Defective plant: Any plant that fails to meet the plant quality requirement of this specification.
- D. End of Warranty Final Acceptance: The date when the Engineer accepts that the plants and work in this section meet all the requirements of the warranty. It is intended that the materials and workmanship warranty for Planting, Planting Soil, and Irrigation work run concurrent with each other.
- E. Field grown trees (B&B): Trees growing in field soil for at least 12 months prior to harvest.
- F. Healthy: Plants that are growing in a condition that expresses leaf size, crown density, color; and with annual growth rates typical of the species and cultivar's horticultural description, adjusted for the planting site soil, drainage and weather conditions.
- G. Kinked root: A root within the root package that bends more than 90 degrees.
- H. Maintenance: Actions that preserve the health of plants after installation and as defined in this specification.
- I. Maintenance period: The time period, as defined in this specification, which the Contractor is to provide maintenance.
- J. Normal: the prevailing protocol of industry standard(s).
- K. Engineer: The person appointed by the Owner to represent their interest in the review and approval of the work and to serve as the contracting authority with the Contractor. The Engineer may appoint other persons to review and approve any aspects of the work.

- L. Reasonable and reasonably: When used in this specification relative to plant quality, it is intended to mean that the conditions cited will not affect the establishment or long term stability, health or growth of the plant. This specification recognizes that it is not possible to produce plants free of all defects, but that some accepted industry protocols and standards result in plants unacceptable to this project.
- M. When reasonable or reasonably is used in relation to other issues such as weeds, diseased, insects, it shall mean at levels low enough that no treatment would be required when applying recognized Integrated Plant Management practices.
- N. This specification recognizes that some decisions cannot be totally based on measured findings and that professional judgment is required. In cases of differing opinion, the Engineer's expert shall determine when conditions are judged as reasonable.
- O. Root ball: The mass of roots including any soil or substrate that is shipped with the tree within the root ball package.
- P. Root ball package. The material that surrounds the root ball during shipping. The root package may include the material in which the plant was grown, or new packaging placed around the root ball for shipping.
- Q. Root collar (root crown, root flare, trunk flare, flare): The region at the base of the trunk where the majority of the structural roots join the plant stem, usually at or near ground level.
- R. Shrub: Woody plants with mature height approximately less than 15 feet.
- S. Spade harvested and transplanted: Field grown trees that are mechanically harvested and immediately transplanted to the final growing site without being removed from the digging machine.
- T. Stem: The trunk of the tree.
- U. Substantial Completion Acceptance: The date at the end of the Planting, Planting Soil, and Irrigation installation where the Engineer accepts that all work in these sections is complete and the Warranty period has begun. This date may be different than the date of substantial completion for the other sections of the project.
- V. Stem girdling root: Any root more than ¼ inch diameter currently touching the trunk, or with the potential to touch the trunk, above the root collar approximately tangent to the trunk circumference or circling the trunk. Roots shall be considered as Stem Girdling that have, or are likely to have in the future, root to trunk bark contact.
- W. Structural root: One of the largest roots emerging from the root collar.
- X. Tree: Single and multi-stemmed plants with mature height approximately greater than 15 feet. **621-1.07 SUBMITTALS.**

Submit all product submittals 8 weeks prior to installation of plantings.

- A. Product data: Submit manufacturer product data and literature describing all products required by this section to the Engineer for approval. Provide submittal eight weeks before the installation of plants.
- B. Samples: Submit samples of each product and material where required by the specification to the Engineer for approval. Label samples to indicate product, characteristics, and locations in the work. Samples will be reviewed for appearance only. Compliance with all other requirements is the exclusive responsibility of the Contractor.

621-1.08 OBSERVATION OF THE WORK.

The Engineer may observe the work at any time. They may remove samples of materials for conformity to specifications. Rejected materials shall be immediately removed from the site and replaced at the Contractor's expense. The cost of testing materials not meeting specifications shall be paid by the Contractor.

The Engineer shall be informed of the progress of the work so the work may be observed at the following key times in the construction process. The Engineer shall be afforded sufficient time to schedule visit to the site. Failure of the Engineer to make field observations shall not relieve the Contractor from meeting all the requirements of this specification.

- 1. SITE CONDITIONS PRIOR TO THE START OF PLANTING: review the soil and drainage conditions.
- 2. COMPLETION OF THE PLANT LAYOUT STAKING: Review of the plant layout.
- 3. PLANT QUALITY: Review of plant quality at the time of delivery and prior to installation. Review tree quality prior to unloading where possible, but in all cases prior to planting.
- 4. COMPLETION OF THE PLANTING: Review the completed planting.

621-1.09 QUALITY ASSURANCE.

- A. Substantial Completion Acceptance Acceptance of the work prior to the start of the warranty period:
 - Once the Contractor completes the installation of all items in this section, the Engineer will
 observe all work for Substantial Completion Acceptance upon written request of the Contractor.
 The request shall be received at least ten calendar days before the anticipated date of the
 observation.
 - 2. Substantial Completion Acceptance by the Engineer shall be for general conformance to specified size, character and quality and not relieve the Contractor of responsibility for full conformance to the contract documents, including correct species.
 - 3. Any plants that are deemed defective as defined under the provisions below shall not be accepted.
- B. The Engineer will provide the Contractor with written acknowledgment of the date of Substantial Completion Acceptance and the beginning of the warranty period and plant maintenance period (if plant maintenance is included).
- C. Contractor's Quality Assurance Responsibilities: The Contractor is solely responsible for quality control of the work.
- D. Installer Qualifications: The installer shall be a firm having at least 5 years of successful experience of a scope similar to that required for the work, including the handling and planting of large specimen trees in urban areas. The same firm shall install planting soil (where applicable) and plant material.
 - 1. The bidders list for work under this section shall be approved by the Engineer.
 - 2. Submit references of past projects, employee training certifications that support that the Contractors meets all of the above installer qualifications and applicable licensures.

621-1.10 PLANT WARRANTY.

A. Plant Warranty:

- 1. The Contractor agrees to replace defective work and defective plants. The Engineer shall make the final determination if plants meet these specifications or that plants are defective.
- 2. Plants warranty shall begin on the date of Substantial Completion Acceptance and continue for the following periods, classed by plant type:
 - a. Trees 1 Year(s).
 - b. Shrubs 1 Year(s).
 - c. Ground cover and perennial flower plants 1 Year(s).
- When the work is accepted in parts, the warranty periods shall extend from each of the partial Substantial Completion Acceptances to the terminal date of the last warranty period. Thus, all warranty periods for each class of plant warranty, shall terminate at one time.
- 4. All plants shall be warrantied to meet all the requirements for plant quality at installation in this specification. Defective plants shall be defined as plants not meeting these requirements. The Engineer shall make the final determination that plants are defective.
- 5. Plants determined to be defective shall be removed immediately upon notification by the Engineer and replaced without cost to the Owner, as soon as weather conditions permit and within the specified planting period.
- 6. Any work required by this specification or the Engineer during the progress of the work, to correct plant defects including the removal of roots or branches, or planting plants that have been bare rooted during installation to observe for or correct root defects shall not be considered as grounds to void any conditions of the warranty. In the event that the Contractor decides that such remediation work may compromise the future health of the plant, the plant or plants in question shall be rejected and replaced with plants that do not contain defects that require remediation or correction.
- 7. The Contractor is exempt from replacing plants, after Substantial Completion Acceptance and during the warranty period, that are removed by others, lost or damaged due to occupancy of project, lost or damaged by a third party, vandalism, or any natural disaster.
- 8. Replacements shall closely match adjacent specimens of the same species. Replacements shall be subject to all requirements stated in this specification. Make all necessary repairs due to plant replacements. Such repairs shall be done at no extra cost to the Owner.
- 9. The warranty of all replacement plants shall extend for an additional one-year period from the date of their acceptance after replacement. In the event that a replacement plant is not acceptable during or at the end of the said extended warranty period, the Engineer may elect one more replacement items or credit for each item. These tertiary replacement items are not protected under a warranty period.
- 10. During and by the end of the warranty period, remove all tree wrap, ties, and guying unless agreed to by the Engineer to remain in place. All trees that do not have sufficient caliper to remain upright, or those requiring additional anchorage in windy locations, shall be staked or remain staked, if required by the Engineer.
- B. End of Warranty Final Acceptance Acceptance of plants at the end of the warranty period.
 - 1. At the end of the warranty period, the Engineer shall observe all warranted work, upon written request of the Contractor. The request shall be received at least ten calendar days before the anticipated date for final observation.

2. End of Warranty Final Acceptance will be given only when all the requirements of the work under this specification and in specification sections Planting Soil and Irrigation have been met.

621-1.11 SELECTION AND OBSERVATION OF PLANTS.

- A. The Engineer may review all plants subject to approval of size, health, quality, character, etc. Review or approval of any plant during the process of selection, delivery, installation and establishment period shall not prevent that plant from later rejection in the event that the plant quality changes or previously existing defects become apparent that were not observed.
- B. Plant Selection: The Engineer reserves the right to select and observe all plants at the nursery prior to delivery and to reject plants that do not meet specifications as set forth in this specification. If a particular defect or substandard element can be corrected at the nursery, as determined by the Engineer, the agreed upon remedy may be applied by the nursery or the Contractor provided that the correction allows the plant to meet the requirements set forth in this specification. Any work to correct plant defects shall be at the contractor's expense.
 - a. The Engineer may make invasive observation of the plant's root system in the area of the root collar and the top of the root ball in general in order to determine that the plant meets the quality requirements for depth of the root collar and presence of roots above the root collar. Such observations will not harm the plant.
- **C.** The Contractor shall bear all cost related to plant corrections.
- D. All plants that are rejected shall be immediately removed from the site and acceptable replacement plants provided at no cost to the Owner.
- E. Submit to the Engineer, for approval, plant sources including the names and locations of nurseries proposed as sources of acceptable plants, and a list of the plants they will provide. The plant list shall include the botanical and common name and the size at the time of selection. Observe all nursery materials to determine that the materials meet the requirements of this section.
- F. Where requested by the Engineer, submit photographs of plants or representative samples of plants. Photographs shall be legible and clearly depict the plant specimen. Each submitted image shall contain a height reference, such as a measuring stick. The approval of plants by the Engineer via photograph does not preclude the Engineer's right to reject material while on site.

621-1.12 PLANT SUBSTITUTIONS FOR PLANTS NOT AVAILABLE.

Submit all requests for substitutions of plant species, or size to the Engineer, for approval, prior to purchasing the proposed substitution. Request for substitution shall be accompanied with a list of nurseries contacted in the search for the required plant and a record of other attempts to locate the required material. Requests shall also include sources of plants found that may be of a smaller or larger size, or a different shape or habit than specified, or plants of the same genus and species but different cultivar origin, or which may otherwise not meet the requirements of the specifications, but which may be available for substitution.

621-1.13 SITE CONDITIONS.

A. It is the responsibility of the Contractor to be aware of all surface and sub-surface conditions, and to notify the Engineer, in writing, of any circumstances that would negatively impact the health of plantings. Do not proceed with work until unsatisfactory conditions have been corrected.

621-6

a. Should subsurface drainage or soil conditions be encountered which would be detrimental to growth or survival of plant material, the Contractor shall notify the Engineer in writing, stating the conditions and submit a proposal covering cost of corrections. If the Contractor fails to notify the Engineer of such conditions, he/she shall remain responsible for plant material under the warranty clause of the specifications.

- B. It is the responsibility of the Contractor to be familiar with the local growing conditions, and if any specified plants will be in conflict with these conditions. Report any potential conflicts, in writing, to the Engineer.
- C. Actual planting shall be performed during those periods when weather and soil conditions are suitable in accordance with locally accepted horticultural practices.
- D. Do not install plants into saturated or frozen soils. Do not install plants during inclement weather, such as rain or snow or during extremely hot, cold or windy conditions.

621-2.1 PLANTS: GENERAL

- A. Standards and measurement: Provide plants of quantity, size, genus, species, and variety or cultivars as shown and scheduled in contract documents.
 - 1. All plants including the root ball dimensions or container size to trunk caliper ratio shall conform to ANSI Z60.1 "American Standard for Nursery Stock" latest edition, unless modified by provisions in this specification. When there is a conflict between this specification and ANSI Z60.1, this specification section shall be considered correct.
 - Plants larger than specified may be used if acceptable to the Engineer. Use of such plants shall
 not increase the contract price. If larger plants are accepted the root ball size shall be in
 accordance with ANSI Z-60.1. Larger plants may not be acceptable if the resulting root ball
 cannot be fit into the required planting space.
 - 3. If a range of size is given, no plant shall be less than the minimum size and not less than 50 percent of the plants shall be as large as the maximum size specified. The measurements specified are the minimum and maximum size acceptable and are the measurements after pruning, where pruning is required.
- B. Proper Identification: All trees shall be true to name as ordered or shown on planting plans and shall be labeled individually or in groups by genus, species, variety and cultivar.
- C. Compliance: All trees shall comply with federal and state laws and regulations requiring observation for plant disease, pests, and weeds. Observation certificates required by law shall accompany each shipment of plants.

D. Plant Quality:

1. **General**: Provide healthy stock, grown in a nursery and reasonably free of die-back, disease, insects, eggs, bores, and larvae. At the time of planting all plants shall have a root system, stem, and branch form that will not restrict normal growth, stability and health for the expected life of the plant.

2. Plant quality above the soil line:

- a. Plants shall be healthy with the color, shape, size and distribution of trunk, stems, branches, buds and leaves normal to the plant type specified. Tree quality above the soil line shall comply with the project Crown Acceptance details and the following:
 - i. Crown: The form and density of the crown shall be typical for a young specimen of the species or cultivar pruned to a central and dominant leader.
 - ii. Leaves: The size, color, and appearance of leaves shall be typical for the time of year and stage of growth of the species or cultivar. Trees shall not show signs of

- prolonged moisture stress or over watering as indicated by wilted, shriveled, or dead leaves.
- iii. Branches: Shoot growth (length and diameter) throughout the crown should be appropriate for the age and size of the species or cultivar. Trees shall not have dead, diseased, broken, distorted, or otherwise injured branches.
 - 1. Main branches shall be distributed along the central leader not clustered together. They shall form a balanced crown appropriate for the cultivar/species.
 - 2. Branch diameter shall be no larger than two-thirds (one-half is preferred) the diameter of the central leader measured 1 inch above the branch
 - 3. The attachment of the largest branches (scaffold branches) shall be free of included bark.
- iv. Trunk: The tree trunk shall be relatively straight, vertical, and free of wounds that penetrate to the wood (properly made pruning cuts, closed or not, are acceptable and are not considered wounds), sunburned areas, conks (fungal fruiting bodies), wood cracks, sap leakage, signs of boring insects, galls, cankers, girdling ties, or lesions (mechanical injury).
- v. Temporary branches, unless otherwise specified, can be present along the lower trunk below the lowest main (scaffold) branch, particularly for trees less than 1 inch in caliper. These branches should be no greater than 3/8-inch diameter. Clear trunk should be no more than 40% of the total height of the tree.
- b. Trees shall have one central leader. If the leader was headed, a new leader (with a live terminal bud) at least one-half the diameter of the pruning cut shall be present.
 - i. All trees are assumed to have one central leader trees unless a different form is specified in the plant list or drawings.
- c. All graft unions, where applicable, shall be completely closed without visible sign of graft rejection. All grafts shall be visible above the soil line.
- d. Trunk caliper and taper shall be sufficient so that the lower five feet of the trunk remains vertical without a stake. Auxiliary stake may be used to maintain a straight leader in the upper half of the tree.

3. Plant quality at or below the soil line:

- a. Plant roots shall be normal to the plant type specified. Root observations shall take place without impacting tree health. Root quality at or below the soil line shall comply with the project Root Acceptance details and the following:
 - i. The roots shall be reasonably free of scrapes, broken or split wood.
 - ii. The root system shall be reasonably free of injury from biotic (e.g., insects and pathogens) and abiotic (e.g., herbicide toxicity and salt injury) agents. Wounds resulting from root pruning used to produce a high quality root system are not considered injuries.
- b. A minimum of three structural roots reasonably distributed around the trunk (not clustered on one side) shall be found in each plant. Root distribution shall be uniform throughout the root ball, and growth shall be appropriate for the species.
- c. The root collar shall be within the upper 2 inches of the substrate/soil. Two structural roots shall reach the side of the root ball near the top surface of the root ball. The grower may

request a modification to this requirement for species with roots that rapidly descend, provided that the grower removes all stem girdling roots above the structural roots across the top of the root ball.

- d. The root system shall be reasonably free of stem girdling roots over the root collar or kinked roots from nursery production practices.
- e. At time of observations and delivery, the root ball shall be moist throughout. Roots shall not show signs of excess soil moisture conditions as indicated by stunted, discolored, distorted, or dead roots.

621-2.2 ROOT BALL PACKAGE OPTIONS. The following root ball packages are permitted. Specific root ball packages shall be required where indicated on the plant list or in this specification. Any type of root ball packages that is not specifically defined in this specification shall not be permitted.

A. BALLED AND BURLAPPED PLANTS

- 1. All Balled and Burlapped Plants shall be field grown, and the root ball packaged in a burlap and twine and/or burlap and wire basket package.
- 2. Plants shall be harvested with the following modifications to standard nursery practices.
 - 1.) Prior to digging any tree that fails to meet the requirement for maximum soil and roots above the root collar, carefully removed the soil from the top of the root ball of each plant, using hand tools, water or an air spade, to locate the root collar and attain the soil depth over the structural roots requirements. Remove all stem girdling roots above the root collar. Care must be exercised not to damage the surface of the root collar and the top of the structural roots.

B. SPADE HARVESTED AND TRANSPLANTED

- 1. Spade Harvested and Transplanted Plants shall meet all the requirements for field grown trees. Root ball diameters shall be of similar size as the ANSI Z60.1 requirements for Balled and Burlapped plants.
- 2. Trees shall be harvested prior to leafing out (bud break) in the spring or during the fall planting period except for plants know to be considered as fall planting hazards. Plants that are fall planting hazards shall only be harvested prior to leafing out in the spring.
- 3. Trees shall be moved and planted within 48 hours of the initial harvesting and shall remain in the spade machine until planted.

C. CONTAINER (INCLUDING ABOVE-GROUND FABRIC CONTAINERS AND BOXES) PLANTS

- 1. Container plants may be permitted only when indicated on the drawing, in this specification, or approved by the Engineer.
- 2. Provide plants shall be established and well rooted in removable containers.
- 3. Container class size shall conform to ANSI Z60.1 for container plants for each size and type of plant.

D. PERENNIALS AND GROUNDCOVERS

1. Container or flat-grown plants should be sized as noted in the planting plan. Plants shall be well-rooted and healthy.

621-2.3 PLANTING SOIL.

Planting Soil as used in this specification means the soil at the planting site, or imported as modified and defined in specification Section 620 Planting Soil.

621-2.4 MULCH

Mulch shall be "Walk on" grade, coarse, ground, from tree and woody brush sources. The size range shall be a minimum (less than 25% or less of volume) fine particles 3/8 inch or less in size, and a maximum size of individual pieces (largest 20% or less of volume) shall be approximately 1 to 1-1/2 inch in diameter and maximum length approximately 4 to 8". Pieces larger than 8 inch long that are visible on the surface of the mulch after installation shall be removed.

Submit supplier's product specification data sheet and a one gallon sample for approval.

621-2.5 TREE STAKING AND GUYING MATERIAL.

- A. Tree guying to be flat woven polypropylene material, 3/4 inch wide, and 900 lb. break strength. Color to be Green. Product to be ArborTie manufactured by Deep Root Partners, L.P. or approved equal.
- B. Stakes shall be lodge pole stakes free of knots and of diameters and lengths appropriate to the size of plant as required to adequately support the plant.
- C. Submit manufacturer's product data for approval.

621-2.5 EDGING.

- A. Shall be aluminum, standard-profile extruded edging, fabricated in standard lengths with interlocking sections with loops stamped from face of sections to receive stakes.
- B. Size 3/16" by 5-1/2" deep.

621-3.1 SITE EXAMINATION.

Examine the surface grades and soil conditions to confirm that the requirements of the Specification Section – Planting Soil - and the soil and drainage modifications indicated on the Planting Soil Plan and Details (if applicable) have been completed. Notify the Engineer in writing of any unsatisfactory conditions.

621-3.2 DELIVERY, STORAGE AND HANDLING.

- A. Protect materials from deterioration during delivery and storage. Adequately protect plants from drying out, exposure of roots to sun, wind or extremes of heat and cold temperatures. If planting is delayed more than 24 hours after delivery, set plants in a location protected from sun and wind. Provide adequate water to the root ball package during the shipping and storage period.
 - 1. All plant materials must be available for observation prior to planting.
- B. Do not deliver more plants to the site than there is space with adequate storage conditions. Provide a suitable remote staging area for plants and other supplies.
 - 1. The Engineer or Contractor shall approve the duration, method and location of storage of plants.

C. Provide protective covering over all plants during transporting.

621-3.3 PLANTING SEASON.

- A. Planting shall only be performed when weather and soil conditions are suitable for planting the materials specified in accordance with locally accepted practice. Install plants during the planting time as described below unless otherwise approved in writing by the Engineer. In the event that the Contractor request planting outside the dates of the planting season, approval of the request does not change the requirements of the warranty.
- B. No planting shall take place during extremely hot, dry, windy or freezing weather.

621-3.4 COORDINATION WITH PROJECT WORK.

- C. The Contractor shall coordinate with all other work that may impact the completion of the work.
- D. Prior to the start of work, prepare a detailed schedule of the work for coordination with other trades.
- E. Coordinate the relocation of any irrigation lines, heads or the conduits of other utility lines that are in conflict with tree locations. Root balls shall not be altered to fit around lines. Notify the Engineer of any conflicts encountered.

621-3.5 LAYOUT AND PLANTING SEQUENCE.

- A. Relative positions of all plants and trees are subject to approval of the Engineer.
- B. Notify the Engineer, one (1) week prior to layout. Layout all individual tree and shrub locations. Place plants above surface at planting location or place a labeled stake at planting location. Layout bed lines with paint for the Engineer's approval. Secure the Engineer's acceptance before digging and start of planting work.
- C. When applicable, plant trees before other plants are installed.
- D. It is understood that plants are not precise objects and that minor adjustments in the layout will be required as the planting plan is constructed. These adjustments may not be apparent until some or all of the plants are installed. Make adjustments as required by the Engineer including relocating previously installed plants.

621-3.6 SOIL PROTECTION DURING PLANT DELIVERY AND INSTALLATION.

- A. Protect soil from compaction during the delivery of plants to the planting locations, digging of planting holes and installing plants.
- B. Where possible deliver and plant trees that require the use of heavy mechanized equipment prior to final soil preparation and tilling. Where possible, restrict the driving lanes to one area instead of driving over and compacting a large area of soil.
- C. Till to a depth of 6 inches, all soil that has been driven over during the installation of plants.

621-3.7 INSTALLATION OF PLANTS: GENERAL

A. Observe each plant after delivery and prior to installation for damage of other characteristics that may cause rejection of the plant. Notify the Engineer of any condition observed.

- B. No more plants shall be distributed about the planting bed area than can be planted and watered on the same day.
- C. The root system of each plant, regardless of root ball package type, shall be observed by the Contractor, at the time of planting to confirm that the roots meet the requirements for plant root quality in Part 2 Products: Plants General: Plant Quality. The Contractor shall undertake at the time of planting, all modifications to the root system required by the Engineer to meet these quality standards.
 - a. Modifications, at the time of planting, to meet the specifications for the depth of the root collar and removal of stem girdling roots and circling roots may make the plant unstable or stress the plant to the point that the Engineer may choose to reject the plant rather than permitting the modification.
 - b. Any modifications required by the Engineer to make the root system conform to the plant quality standards outlined in Part 2 Products: Plants General: Quality, or other requirements related to the permitted root ball package, shall not be considered as grounds to modify or void the plant warranty.
 - c. The resulting root ball may need additional staking and water after planting. The Engineer may reject the plant if the root modification process makes the tree unstable or if the tree is not healthy at the end of the warranty period. Such plants shall still be covered under the warranty
- D. Exposed Stem Tissue after Modification: The required root ball modifications may result in stem tissue that has not formed trunk bark being exposed above the soil line. If such condition occurs, wrap the exposed portion of the stem in a protective wrapping with a white filter fabric. Secure the fabric with biodegradable masking tape. DO NOT USE string, twine, green nursery ties or any other material that may girdle the trunk if not removed.
- A. For trees to be planted in prepared Planting Soil that is deeper than the root ball depth, compact the soil under the root ball using a mechanical tamper to assure a firm bedding for the root ball. If there is more than 12 inches of planting soil under the root ball excavate and tamp the planting soil in lifts not to exceed 12 inches.
- B. Set top outer edge of the root ball at the average elevation of the proposed finish. Set the plant plumb and upright in the center of the planting hole. The tree graft, if applicable, shall be visible above the grade. Do not place soil on top of the root ball.
- C. The Engineer may request that plants orientation be rotated when planted based on the form of the plant.
- D. Backfill the space around the root ball with the same planting soil or existing soil that was excavated for the planting space. See Specification Section Planting Soil, for requirements to modify the soil within the planting bed.
- E. Brace root ball by tamping Planting Soil around the lower portion of the root ball. Place additional Planting Soil around base and sides of ball in six-inch (6") lifts. Lightly tamp each lift using foot pressure or hand tools to settle backfill, support the tree and eliminate voids. DO NOT over compact the backfill or use mechanical or pneumatic tamping equipment. Over compaction shall be defined as greater than 85% of maximum dry density, standard proctor or greater than 250 psi as measured by a cone penetrometer when the volumetric soil moisture is lower than field capacity.
 - a. When the planting hole has been backfilled to three quarters of its depth, water shall be poured around the root ball and allowed to soak into the soil to settle the soil. Do not flood

the planting space. If the soil is above field capacity, allow the soil to drain to below field capacity before finishing the planting. Air pockets shall be eliminated and backfill continued until the planting soil is brought to grade level.

- F. Where indicated on the drawings, build a 4 inch high, level berm of Planting Soil around the outside of the root ball to retain water. Tamp the berm to reduce leaking and erosion of the saucer.
- G. Thoroughly water the Planting Soil and root ball immediately after planting.
- H. Remove all nursery plant identification tags and ribbons as per Engineer instructions. The Engineer's seals are to remain on plants until the end of the warranty period.
- I. Remove corrugated cardboard trunk protection after planting.
- J. Follow additional requirements for the permitted root ball packages.

621-3.8 PERMITTED ROOT BALL PACKAGES AND SPECIAL PLANTING REQUIREMENTS.

A. The following are permitted root ball packages and special planting requirements that shall be followed during the planting process in addition to the above General planting requirements.

B. BALLED AND BURLAPPED PLANTS

- a. After the root ball has been backfilled, remove all twine and burlap from the top of the root ball. Cut the burlap away; do not fold down onto the Planting Soil.
- b. If the plant is shipped with a wire basket that does not meet the requirements of a "Low Rise" basket, remove the top 6 8 inches of the basket wires just before the final backfilling of the tree.

C. SPADE HARVESTED AND TRANSPLANTED PLANTS

- a. After installing the tree, loosen the soil along the seam between the root ball and the surrounding soil out to a radius from the root ball edge equal to the diameter of the root ball to a depth of 8 10 inches by hand digging to disturb the soil interface.
- b. Fill any gaps below this level with loose soil.

D. GROUND COVER, PERENNIAL AND GRASSES

- a. Assure that soil moisture is within the required levels prior to planting. Irrigation, if required, shall be applied at least 12 hours prior to planting to avoid planting in muddy soils.
- b. Assure that soil grades in the beds are smooth and as shown on the plans.
- c. Plants shall be planted in even, triangularly spaced rows, at the intervals called out for on the drawings, unless otherwise noted. The first row of Annual flower plants shall be 6 inches from the bed edge unless otherwise directed.
- d. Dig planting holes sufficiently large enough to insert the root system without deforming the roots. Set the top of the root system at the grade of the soil.
- e. Schedule the planting to occur prior to application of the mulch. If the bed is already mulched, pull the mulch from around the hole and plant into the soil. Do not plant the root system in the mulch. Pull mulch back so it is not on the root ball surface.

- f. Press soil to bring the root system in contact with the soil.
- g. Spread any excess soil around in the spaces between plants.
- h. Apply mulch to the bed being sure not to cover the tops of the plants with or the tops of the root ball with mulch.
- i. Water each planting area as soon as the planting is completed. Apply additional water to keep the soil moisture at the required levels. Do not over water.

621-3.9 STAKING AND GUYING.

- A. Do not stake or guy trees unless specifically required by the Contract Documents, or in the event that the Contractor feels that staking is the only alternative way to keep particular trees plumb.
 - a. The Engineer shall have the authority to require that trees are staked or to reject staking as an alternative way to stabilize the tree.
 - b. Trees that required heavily modified root balls to meet the root quality standards may become unstable. The Engineer may choose to reject these trees rather than utilize staking to temporarily support the tree.
- B. Trees that are guyed shall have their guys and stakes removed after one full growing season or at other times as required by the Engineer.
- C. Tree guying shall utilize the tree staking and guying materials specified. Guying to be tied in such a manner as to create a minimum 12-inch loop to prevent girdling. Refer to manufacturer's recommendations and the planting detail for installation.
 - a. Plants shall stand plumb after staking or guying.
 - b. Stakes shall be driven to sufficient depth to hold the tree rigid.

621-3.10 PRUNING OF TREES AND SHRUBS.

- A. Pruning trees shall be limited to addressing structural defects as shown in details; follow recommendations in "Structural Pruning: A Guide For The Green Industry" published by Urban Tree Foundation, Visalia CA.
- All pruning shall be performed by a person experienced in structural tree pruning.
- C. Except for plants specified as multi-stemmed or as otherwise instructed by the Engineer, preserve or create a central leader.
- D. Remove and replace excessively pruned or malformed stock resulting from improper pruning that occurred in the nursery or after.
- E. Pruning shall be done with clean, sharp tools.
- F. No tree paint or sealants shall be used.

621-3.11 MULCHING OF PLANTS.

A. Apply 3 inches of mulch before settlement, covering the entire planting bed area. Install no more than 1 inch of mulch over the top of the root balls of all plants. Taper to 2 inches when abutting pavement.

- B. For trees planted in lawn areas the mulch shall extend to a 5 foot radius around the tree or to the extent indicated on the plans.
- C. Lift all leaves, low hanging stems and other green portions of small plants out of the mulch if covered.

621-3.12 PLANTING BED FINISHING.

- A. After planting, smooth out all grades between plants before mulching.
- B. Separate the edges of planting beds and lawn areas with a smooth, formed edge cut into the turf with the bed mulch level slightly lower, 1 and 2 inches, than the adjacent turf sod or as directed by the Engineer. Bed edge lines shall be a depicted on the drawings.

621-3.13 WATERING.

- A. The Contractor shall be fully responsible to ensure that adequate water is provided to all plants from the point of installation until the date of Substantial Completion Acceptance. The Contractor shall adjust the automatic irrigation system, if available, and apply additional or adjust for less water using hoses as required.
- B. Hand water root balls of all plants to assure that the root balls have moisture above wilt point and below field capacity. Test the moisture content in each root ball and the soil outside the root ball to determine the water content.

621-3.14 CLEAN-UP.

- A. During installation, keep the site free of trash, pavements reasonably clean and work area in an orderly condition at the end of each day. Remove trash and debris in containers from the site no less than once a week.
 - a. Immediately clean up any spilled or tracked soil, fuel, oil, trash or debris deposited by the Contractor from all surfaces within the project or on public right of ways and neighboring property.
- B. Once installation is complete, wash all soil from pavements and other structures. Ensure that mulch is confined to planting beds and that all tags and flagging tape are removed from the site. The Engineer's seals are to remain on the trees and removed at the end of the warranty period.
- C. Make all repairs to grades, ruts, and damage by the plant installer to the work or other work at the site.
- D. Remove and dispose of all excess planting soil, subsoil, mulch, plants, packaging, and other material brought to the site by the Contractor.

621-3.15 PROTECTION DURING CONSTRUCTION.

- A. The Contractor shall protect planting and related work and other site work from damage due to planting operations, operations by other Contractors or trespassers. Maintain protection during installation until Substantial Completion Acceptance. Treat, repair or replace damaged work immediately.
- B. Damage done by the Contractor, or any of their sub-contractors to existing or installed plants, or any other parts of the work or existing features to remain, including roots, trunk or branches of large existing trees, soil, paving, utilities, lighting, irrigation, other finished work and surfaces including those on adjacent property, shall be cleaned, repaired or replaced by the Contractor at no expense to the Owner. The Engineer shall determine when such cleaning, replacement or repair is satisfactory.

621-3.16 PLANT MAINTENANCE PRIOR TO SUBSTANTIAL COMPLETION ACCEPTANCE.

- A. During the project work period and prior to Substantial Completion Acceptance, the Contractor shall maintain all plants.
- B. Maintenance during the period prior to Substantial Completion Acceptance shall consist of watering, cultivating, weeding, mulching, removal of dead material, repairing and replacing of tree stakes, tightening and repairing of guys, repairing and replacing of damaged tree wrap material, resetting plants to proper grades and upright position, and furnishing and applying such sprays as are necessary to keep plantings reasonably free of damaging insects and disease, and in healthy condition. The threshold for applying insecticides and herbicide shall follow established Integrated Pest Management (IPM) procedures. Mulch areas shall be kept reasonably free of weeds, grass.

621-3.17 Substantial Completion Acceptance.

- A. Upon written notice from the Contractor, the Engineer shall review the work and make a determination if the work is substantially complete.
 - a. Notification shall be at least 7 days prior to the date the contractor is requesting the review.
- B. The date of substantial completion of the planting shall be the date when the Engineer accepts that all work in Planting, Planting Soil, and Irrigation installation sections is complete.
- C. The Plant Warranty period begins at date of written notification of substantial completion from the Engineer. The date of substantial completion may be different than the date of substantial completion for the other sections of the project.

621-3.18 MAINTENANCE DURING THE WARRANTY PERIOD.

- A. During the warranty period, provide all maintenance for all plantings to keep the plants in a healthy state and the planting areas clean and neat.
- B. General requirements:
 - 1. All work shall be undertaken by trained planting crews under the supervision of a foreman with a minimum of 5 years experience supervising commercial plant maintenance crews.
 - 2. All chemical and fertilizer applications shall be made by licensed applicators for the type of chemicals to be used. All work and chemical use shall comply with all applicable local, provincial and federal requirements.
 - 3. Assure that hoses and watering equipment and other maintenance equipment does not block paths or be placed in a manner that may create tripping hazards. Use standard safety warning barriers and other procedures to maintain the site in a safe manner for visitors at all times.
 - 4. All workers shall wear required safety equipment and apparel appropriate for the tasks being undertaken.
 - 5. The Contractor shall not store maintenance equipment at the site at times when they are not in use unless authorized in writing by the Engineer.
 - 6. Maintenance vehicles shall not park on the site including walks and lawn areas at any time without the Engineer's written permission.
 - 7. Maintain a detailed log of all maintenance activities including types of tasks, date of task, types and quantities of materials and products used, watering times and amounts, and number of each crew. Periodically review the logs with the Engineer, and submit a copy of the logs at the end of each year of the maintenance agreement.

8. Meet with the Engineer a minimum of three times a year to review the progress and discuss any changes that are needed in the maintenance program. At the end of the warranty period attend a hand over meeting to formally transfer the responsibilities of maintenance to the Engineer. Provide all information on past maintenance activities and provide a list of critical tasks that will be needed over the next 12 months. Provide all maintenance logs and soil test data. Make the Contractor's supervisor available for a minimum of one year after the end of the warranty period to answer questions about past maintenance.

C. Provide the following maintenance tasks:

- 1. Watering; Provide all water required to keep soil within and around the root balls at optimum moisture content for plant growth.
- Monitor soil moisture to provide sufficient water. Check soil moisture and root ball moisture with a soil moisture meter on a regular basis and record moisture readings. Do not over water.
- 3. Plant pruning: Remove cross over branching, shorten or remove developing co dominant leaders, dead wood and winter-damaged branches. Unless directed by the Engineer, do not shear plants or make heading cuts.
- 4. Restore plants: Reset any plants that have settled or are leaning as soon as the condition is noticed.
- 5. Guying and staking: Maintain plant guys in a taught position. Remove tree guys and staking after the first full growing season unless directed by Engineer.
- 6. Weed control: Keep all beds free of weeds. Hand-remove all weeds and any plants that do not appear on the planting plan. Chemical weed control is permitted only with the approval of the Engineer. Schedule weeding as needed but not less 12 times per year.
- 7. Trash removal: Remove all trash and debris from all planting beds and maintain the beds in a neat and tidy appearance. The number of trash and debris removal visits shall be no less than 12 times per year and may coincide with other maintenance visits.
- 8. Plant pest control: Maintain disease, insects and other pests at manageable levels. Manageable levels shall be defined as damage to plants that may be noticeable to a professional but not to the average person. Use least invasive methods to control plant disease and insect outbreaks.
- 9. The Engineer must approve in advance the use of all chemical pesticide applications.
- 10. Plant replacement: Replace all plants that are defective as defined in the warranty provisions, as soon as the plant decline is obvious and in suitable weather and season for planting as outlined in above sections. Plants that become defective during the maintenance period shall be covered and replaced under the warranty provisions.
- 11. Mulch: Refresh mulch once a year to maintain complete coverage but do not over mulch. At no time shall the overall mulch thickness be greater that 3 inches. Do not apply mulch within 6 inches of the trunks or stems of any plants. Replacement mulch shall meet the requirements of the original approved material. Mulch shall be no more than one inch on top of the root ball surface.
- 12. Bed edging: Check and maintain edges between mulch and lawn areas in smooth neat lines as originally shown on the drawings.

- 13. Leaf, fruit and other plant debris removal: Remove fall leaf, spent flowers, fruit and plant part accumulations from beds and paved surfaces. Maintain all surface water drains free of debris. Debris removal shall be undertaken at each visit to weed or pick up trash in beds.
- 14. Damage from site use: Repair of damage by site visitors and events, beyond normal wear, are not part of this maintenance. The Engineer may request that the Contractor repair damage beds or plantings for an additional cost. All additional work shall be approved in advance by the Engineer.

621-3.19 END OF WARRANTY FINAL ACCEPTANCE / MAINTENANCE OBSERVATION.

- A. At the end of the Warranty and Maintenance period the Engineer shall observe the work and establish that all provisions of the contract are complete and the work is satisfactory.
 - 1. If the work is satisfactory, the maintenance period will end on the date of the final observation.
 - 2. If the work is deemed unsatisfactory, the maintenance period will continue at no additional expense to the Owner until the work has been completed, observed, and approved by the Engineer.
- B. FAILURE TO PASS OBSERVATION: If the work fails to pass final observation, any subsequent observations must be rescheduled as per above. The cost to the Owner for additional observations will be charged to the Contractor at the prevailing hourly rate of the Engineer.

621-3.20 621-3.20 REHAB OF EXISTING LANDSCAPE BEDS

A. Provide the following maintenance tasks as directed by the Owner on existing landscape beds designated to remain: plant pruning, weed control, plant pruning, mulch refreshing and plant replacement. Labor to paid under pay item 621.7 including all equipment and tools. All other materials to be paid under established bid items.

621-4.01 METHOD OF MEASUREMENT. By the number of plants alive and healthy at the time of final inspection.

621-5.01 BASIS OF PAYMENT. Payment will be made under:

| PAY ITEM | | |
|-------------|-------------------------------------|------|
| Item Number | Item Description | Unit |
| 621.1 | Conifer Tree | Ea |
| 621.2 | Deciduous Tree | Ea |
| 621.3 | Large Shrub | Ea |
| 621.4 | Medium Shrub | Ea |
| 621.5 | Border Perennial/Vines | Ea |
| 621.6 | Perennials/Groundcovers | Ea |
| 621.7 | Rehabilitate Existing Landscape Bed | HR |

PIPE HANDRAIL

SPECIAL PROVISIONS

Delete Section and replace with the following Section:

SECTION 625

DECORATIVE HAND RAIL

625-1.01 DESCRIPTION. Furnish and place decorative hand rail at locations shown on the Plans. The Contractor shall provide all labor, materials and appurtenances necessary for installation of the custom welded ornamental steel rail system.

Work also includes modifying existing ramp handrails and touch up painting.

625-1.02 REFERENCES.

A. American Society for Testing and Materials (ASTM):

| 1. ASTM A36/A36M | Standard Specification for Carbon Structural Steel |
|--------------------|--|
| 2. ASTM A53/A53M | Standard Specification for Pipe, Steel, Black and Hot- Dipped, Zinc Coated, Welded and Seamless |
| 3. ASTM A123/A123M | Standard Specification for Zinc (Hot-Dip Galvanized) Coatings on Iron and Steel Products |
| 4. ASTM A143/A143M | Standard Practice for Safeguarding Against Embrittlement of Hot-Dip Galvanized Structural Steel Products and Procedure for Detecting Embrittlement |
| 5. ASTM A153/A153M | Standard Specification for Zinc Coating (Hot-Dip) on Iron and Steel Hardware |
| 6. ASTM A307 | Standard Specification for Carbon Steel Bolts, Studs, and Threaded Rod 60,000 psi Tensile Strength |
| 7. ASTM A384/A384M | Standard Practice for Safeguarding Against Warpage and Distortion During Hot-Dip Galvanizing of Steel Assemblies |
| 8. ASTM A385/A385M | Standard Practice for Providing High-Quality Zinc Coatings (Hot-Dip) |

9. ASTM A513/A513M Standard Specification for Electric-Resistance-

Welded Carbon and Alloy Steel Mechanical Tubing

10. ASTM A449 Standard Specification for Hex Cap Screws, Bolts and

Studs, Steel, Heat Treated, 120/105/90 ksi Minimum Tensile

Strength, General Use

11. ASTM A563 Standard Specification for Carbon and Alloy Steel Nuts

12. ASTM A780/A780M Standard Practice for Repair of Damaged and

Uncoated Areas of Hot-Dip Galvanized Coatings

13. ASTM D6386 Standard Practice for Preparation of Zinc (Hot-Dip

Galvanized) Coated Iron and Steel Product and Hardware

Surfaces for Painting

B. National Association of Architectural Metal Manufacturers (NAAMM):

1. ANSI/ Pipe Railing Systems Manual, Including Round Tube

NAAMM AMP 521 (AMP: Architectural Metal Products)

2. NAAMM AMP 500 Metal Finishes Manual for Architectural Metal Products

C. American Welding Society (AWS)

1. AWS D1.1/D1.1M, Structural Welding Code – Steel

- D. Steel Structures Painting Council (SSPC)
 - 1. SSPC-SP1 Surface Preparation Spec No. 1 Solvent Cleaning
 - 2. SSPC-SP3 Surface Preparation Spec No 3 Power Tool Cleaning
 - 3. SSPC-SP6 Surface Preparation Spec No 6 Commercial Blasing Cleaning
- E. Section 716 Structural Steel for general steel requirements.

625-1.03 QUALITY ASSURANCE.

- A. Metal handrails and railings shall be fabricated by firms or shops experienced and skilled in the custom fabrication of architectural metal handrails and railings, and shall meet the quality requirements of NAAMM's Pipe Railing Systems Manual.
- B. Field Measurements: Verify locations of curbs, walls, bollards and other construction contiguous to railings before fabrication and indicate measurements on Shop Drawings.

- C. Mockups: Build a mockup to verify selections made under Sample Submittals, to demonstrate aesthetic effects and to set quality standards for fabrication and installation.
 - 1. Select a mockup area for approval.
 - 2. Build mockup section consisting of 2 posts, hand rail and mid rail, decorative ornamentation and anchorage system components.
 - 3. Approved mockups may become part of the Completed Work.

625-1.04 SUBMITTALS.

- A. Shop Drawings: Contractor shall submit detailed Shop Drawings for review prior to fabrication. Drawings to show sizes, details of fabrication and construction, bends and radii, handrail brackets, locations of hardware, anchors, and accessories, and installation details. Include plans, elevations, sections and attachment details.
- B. Product Data: Submit manufacturers' product data of decorative components and brackets.
- C. Samples: Submit bracket arm and decorative ornamentation system.

625-1.05 DELIVERY, STORAGE AND HANDLING.

- A. Protect mechanical finishes on exposed surfaces of railings from damage before shipping. Properly crate, wrap, or package railing components for shipment and on-site storage.
- B. Store railing components in dry well-ventilated areas away from heat sources and direct sunlight. Do not expose to damp or wet conditions.
- C. Do not scratch or otherwise mar finished surfaces during hoisting and erection of the work. Maintain squareness of railings during hoisting and installation.

625-2.01 MATERIALS.

- A. Steel Pipe: Pipe for hand rail shall be seamless steel pipe, conforming to ASTM A53/A53M, Type S, Grade A, of diameters and sizes indicated. Special instructions shall be given the pipe manufacturer to provide Architectural Handrail Grade pipe.
- B. Steel Tube: Tube for posts and railings shall be seamless steel tube, conforming to ASTM A513, Type 5, of diameters and sizes indicated.
- C. Plate: Steel plate for anchor plates shall be standard steel plate, conforming to ASTM A36/A36M, weldable quality.
- D. All Pipe, Plate and Tubing shall be galvanized.
- E. Anchors, Fasteners, and Accessories: Provide all required anchors, fasteners, miscellaneous

components, and accessories as required for complete and finished railing installations. Do not use metals that are corrosive or incompatible with materials joined. Bolts and studs, nuts, and washers shall be Type 304 stainless steel fasteners.

F. Handrail Brackets: Provide either formed or cast-metal brackets with predrilled holes for concealed anchorage. Use brackets fabricated from same basic metal.

625-2.02 FABRICATION.

- A. Fabricate railings to comply with requirements indicated for design, dimensions, member sizes and spacing, details, finish, and anchorages.
- B. Welding: Contractor shall perform welding in the shop with welders qualified under the AWS D1.1/D1.1M welding code for class of work employed; protect adjacent construction and materials against damage; neatly and symmetrically make all welds; fill or grind to a uniform, smooth shape; where required to present uniform appearance, fill space between welds and weld irregularities with suitable metal putty or compound made for this purpose.
- C. Shop assemble railings to greatest extent possible to minimize field splicing and assembly. Disassemble units only as necessary for shipping and handling limitations.
 - a. Clearly mark units for reassembly and coordinated installation.
 - b. Use connections that maintain structural value of joined pieces.
- D. Cut, drill, and punch metals cleanly and accurately.
 - a. Remove burrs and ease edges to a radius of approximately <u>1/32 inch</u> unless otherwise indicated.
 - b. Remove sharp or rough areas on exposed surfaces.
- E. Form work true to line and level with accurate angles and surfaces.
- F. Fabricate connections that will be exposed to weather in a manner to exclude water.
 - a. Provide weep holes where water may accumulate.
 - b. Locate weep holes in inconspicuous locations.
- G. Cut, reinforce, drill, and tap as indicated to receive finish hardware, screws, and similar items.
- H. Connections: Shop fabricate railings with welded connections unless otherwise indicated.
- I. Welded Connections: Cope components at connections to provide close fit, or use fittings designed for this purpose. Weld all around at connections, including at fittings.

- 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 flux immediately.
- d. At exposed connections, finish exposed welds to comply with NOMMA's "Voluntary Joint Finish Standards" for Finish #1 welds; ornamental quality with no evidence of a welded joint.
- J. Mechanical Connections: Connect members with concealed mechanical fasteners and fittings.
 - a. Fabricate members and fittings to produce flush, smooth, rigid, hairline joints.
 - b. Fabricate splice joints for field connection using an epoxy structural adhesive if this is manufacturer's standard splicing method.
- K. Form changes in direction as follows:
 - a. By bending
 - b. Bend members in jigs to produce uniform curvature for each configuration required. Maintain cross section of member throughout entire bend without buckling, twisting, cracking, or otherwise deforming exposed surfaces of components.
- L. Close exposed ends of hollow railing members with prefabricated cap and end fittings of same metal and finish as railings.
- M. Provide wall returns at ends of wall-mounted handrails unless otherwise indicated. Close ends of returns, unless clearance between end of rail and wall is 1/4 inch or less.
- N. Brackets, Flanges, Fittings, and Anchors: Provide wall brackets, flanges, handrail brackets, miscellaneous fittings, and anchors to interconnect railing members to other Work unless otherwise indicated.

625-2.03 GENERAL FINISH REQUIREMENTS.

- A. Comply with NAAMM/NOMMA AMP 500's recommendations for applying and designating finishes.
- B. Protect mechanical finishes on exposed surfaces from damage by applying a strippable, temporary protective covering before shipment.
- C. Appearance of Finished Work: Variations in appearance of other components are acceptable if they are within the range of approved Samples and are assembled or installed to minimize contrast. Noticeable variations in the same unit are not acceptable.
- D. Provide exposed fasteners with finish matching appearance, including color and texture, of railings.

625-2.03 STEEL FINISH REQUIREMENTS.

- A. Hot-Dip Galvanizing: Pre-clean steel work in accordance with accepted methods to produce an acceptable surface.
 - a. Galvanize steel members, fabrications and assemblies after fabrication by the hot-dip

- process in accordance with ASTM A123 and at conform to recommended thickness requirements.
- b. Safeguard products against steel embrittlement in conformance with ASTM A143.
- c. Handle all articles in such a manner as to avoid any mechanical damage and to minimize distortion.
- d. Surface finish continuous, adherent, as smooth and evenly distributed as possible and free from any defect detrimental to the stated end use of the coated article.
- e. Adhesion withstand normal handling consistent with the nature and thickness of th coating and normal use of the article.
- B. Powder-Coat Finish for Galvanized Metal: Prepare, treat, and coat galvanized metal to comply with resin manufacturer's written instructions and as follows:
 - Prepare galvanized metal by thoroughly removing grease, dirt, oil, flux, and other foreign matter.
 - b. Treat prepared metal with zinc-phosphate pretreatment, rinse, and seal surfaces.
 - c. Material: <u>AAMA 2604</u> thermosetting polyester powder coating with cured-film thickness of not less than 3 mils.
 - d. Color: Black

625-3.01 EXAMINATION. Examine areas and conditions with Installer present for compliance with requirements for correct and level finished grade, mounting surfaces, installation tolerances and other conditions affecting performance.

625-3.01 INSTALLATION.

- A. Perform cutting, drilling, and fitting required for installing railings.
 - a. Fit exposed connections together to form tight, hairline joints.
 - b. Install railings level, plumb, square, true to line; without distortion, warp, or rack.
 - c. Set railings accurately in location, alignment, and elevation; measured from established lines and levels.
 - d. Do not weld, cut, or abrade surfaces of railing components that have been coated or finished after fabrication and that are intended for field connection by mechanical or other means without further cutting or fitting.
 - e. Set posts plumb within a tolerance of 1/16 inch in 3 ft.
 - f. Align rails so variations from level for horizontal members and variations from parallel with rake of steps and ramps for sloping members do not exceed 1/4 inch in 12 ft.
 - g. Adjust railings before anchoring to ensure matching alignment at abutting joints.
 - h. Fastening to in-Place Construction: Use anchorage devices and fasteners where necessary for securing railings and for properly transferring loads to in-place construction.
- B. Control of Corrosion: Prevent galvanic action and other forms of corrosion by insulating metals and other materials from direct contact with incompatible materials.
 - a. Coat concealed surfaces of aluminum that will be in contact with grout, concrete, masonry, wood, or dissimilar metals, with a heavy coat of bituminous paint.
- C. Railing connections:
 - Nonwelded Connections: Use mechanical or adhesive joints for permanently connecting railing components. Use wood blocks and padding to prevent damage to railing members and fittings. Seal recessed holes of exposed locking screws, using plastic cement filler

- colored to match finish of railings.
- b. Welded Connections: Use fully welded joints for permanently connecting stainless steel or steel railing components. Comply with requirements for welded connections, whether welding is performed in the shop or in the field. Do not weld aluminum.

D. Touchup Painting:

- a. Immediately after erection, clean field welds, bolted connections, and abraded areas of shop paint, and paint exposed areas with the same material used for shop painting to comply with SSPC-PA 1 for touching up shop-painted surfaces.
- E. Clean by washing thoroughly with clean water and soap, rinsing with clean water, and wiping dry.

625-3.02 MODIFY EXISTING HAND RAIL.

- A. Perform cutting, drilling, and fitting required for modifying existing ramp hand railings per drawings.
- B. Touchup hand rail painting:
 - a. All areas prescribed shall be re-galvanized and painted a 'black' color.
 - b. Re-galvanizing Basis of Design Product: ZRC Galvilite a product containing 95% zinc in dry film and recognized under the component program of Underwriter's Laboratories Inc., as an equivalent to hot-dip galvanizing, as manufactured by ZRC Worldwide, Marshfield, Massachusetts or other approved facility.
 - c. Re-Galvanizing Process
 - i. Thoroughly clean entire surface to be re-galvanized with Dura Prep Prep-88 or approved equal per manufacturers recommendation.
 - ii. Thoroughly abrade surface to be coated to remove rust, dirt and other loose materials such as zinc salts per Hand Tool Cleaning (SSPC-SP3) or Commercial Blast (SSPC-SP6).
 - iii. Clean surface with Lacquer Thinner to remove dirt, dust, grease and oils per SSPC-SP1, Solvent Cleaning.
 - iv. All surfaces exhibiting rust, provide surface prep to result in clean bare metal.
 - v. Prime all areas devoid of galvanizing with one coat of ZRC Compound, overlapping at least 2 inches over existing galvanizing.
 - vi. After curing, provide one finish coat ZRC Galvilite at sufficient wet film thickness to achieve a minimum dry film build of 2.5-3.5 mils, using manufacturer's recoat time directions.
 - vii. Protect 24-48 hours before coating with paint.
 - d. Acrylic Paint:
 - i. Apply acrylic paint according to manufacturer's written instructions.
 - ii. Use applicators and techniques suited for paint and substrate indicated.
 - iii. If undercoats or other conditions show through topcoat, apply additional coats until cured film has a uniform paint finish, color, and appearance.
 - iv. 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.
 - v. By brush or spray, apply a minimum wet film thickness of 6 Mils in two coats, per manufacturer's printed re-coat directions.

625-4.01 METHOD OF MEASUREMENT. See Section 109. Decorative handrail shall be measured from end post to end post.

625-5.01 BASIS OF PAYMENT. Payment will be made under:

| PAY ITEM | | |
|-------------|--------------------------|------|
| Item Number | Item Description | Unit |
| 625.1 | Decorative Hand Rail | LF |
| 625.2 | Modify Existing Handrail | LS |
| | | |

SECTION 637 ROCKERY WALL

637-1.01 DESCRIPTION This work consists of constructing rockeries, special rock embankments, and rock buttresses. Geotextile filters are designated according to Table 714-1.

MATERIALS Use materials that conform to the following:

Subbase Grade A Section 301
Geotextile Section 631

Drain Rock Subsection 703-2.10

Rock for rockeries As Specified
Perforated Pipe Section 706

1. <u>Rock for Rockeries</u> Rockeries shall be constructed of rock material salvaged from rockery walls existing throughout the site.

637-3.01 Construction Requirements

- 1. **Rockery.** Verify the limits of the rockeries. Notify the CO if planned rockery lengths, heights, or both are inadequate to intersect with adjacent slopes. Submit cross-sections verifying intersections for approval.
- 2. **Excavation.** Perform the work under Section 203 as required. Do not excavate more areas for rockeries than can be replaced with rockery construction in one shift unless shoring is provided. Protect backslopes from damage by surface water.
- 3. **Erection.** Remove sharp objects from the backslope before installing geotextile filter. Anchor geotextile filter to the excavation backslope to withstand backfilling operations. Overlap the geotextile filter at least 24 inches (600 millimeters) at seams. Reinforce damaged fabric with a patch of the same type of geotextile filter by overlapping the patch 36 inches (900 millimeters) beyond the damaged area in all directions.

Furnish and install drain systems according to Section 706 when specified.

Seat rocks firmly on a prepared foundation.

Place rocks to avoid continuous joints in either the vertical or horizontal direction. Locate at least one bearing point a distance no greater than 6 inches (150 millimeters) from the face of the rockery. Place each rock to ensure it bears on at least two rocks below. Place incrementally smaller rocks as construction proceeds in successive lifts. Slope the top surface of each rock towards the back of the rockery at an inclination of at least 5 percent.

Choke voids from the drain side of the rockery in each successive lift. Choke voids greater than 6 inches (150 millimeters) with a rock large enough to fill the void.

Backfill with Subbase Grade A concurrent with rock placement until level with the top of rock. Place subbbase in horizontal layers not to exceed 12 inches compacted depth. Compact each layer according to Section 301. Compact areas not accessible to rollers with other approved methods.

637-4.01 METHOD OF MEASUREMENT See Section 109, by the square foot of wall face. The vertical height of each section is measured on the outer face from the bottom of the lowermost face element to the top of the wall.

When measuring rockeries by the square feet of rockery front face; measure the rockery from the bottom of the base rock elevation to the top of the cap rock elevation. Measure front face on a plane parallel to the rockery face.

637-5.01 BASIS OF PAYMENT Payment Will be made under:

| PAY ITEM | | |
|-------------|------------------|------|
| Item Number | Item Description | Unit |
| 637.1 | Rockery Wall | SF |

MOBILIZATION AND DEMOBILIZATION

STANDARD MODIFICATIONS

Delete Section 640 and replace with the following:

640-1.01 DESCRIPTION. Perform work and operations necessary to:

- 1. move personnel, equipment, supplies, and incidentals to the project site;
- 2. establish offices, buildings, and other facilities, except as provided under Section 644;
- 3. install required bulletin boards;
- 4. perform other work and operations and pay costs incurred, before beginning construction;
- 5. complete similar demobilization activities;
- 6. furnish required submittals such as as-builts, certificates, payrolls, civil rights reports, and equipment warranties; and
- comply with the Alaska Department of Labor and Workforce Development (DOLWD) requirements for Worker Meals and Lodging, or Per Diem; as described in the State Laborer's and Mechanic's Minimum Rates of Pay (Pamphlet 600). On Federal-aid projects, PL 109-59, 119 STAT. 1233, Sec. 1409 (c) also applies.

Ensure subcontractors comply with the Federal and State DOLWD requirements.

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.

640-2.01 MATERIALS. None.

640-3.01 CONSTRUCTION REQUIREMENTS. Maintain a bulletin board with postings required by Alaska Statutes and on Federally Funded projects also post the Required Contract Provisions for Federal-Aid (FHWA) Construction Contracts Form 25D-55H (Form FHWA-1273), prominently and conspicuously placed on the project where the posting statements can be seen by each employee and prospective employees at all times. The Engineer may provide a current list of required postings when requested. Protect postings from the weather. Replace postings that become illegible.

640-4.01 METHOD OF MEASUREMENT. None.

640-5.01 BASIS OF PAYMENT.

- 1. <u>Mobilization and Demobilization</u>. Payment will be made according to Table 640-1, except no payments will be made if the bulletin board is not installed or maintained according to Subsection 640-3.01.
- 2. <u>Worker Meals and Lodging, or Per Diem.</u> 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.

TABLE 640-1 MOBILIZATION AND DEMOBILIZATION PAYMENT SCHEDULE

| Amount Paid | When Paid |
|---|--|
| 10% of Pay Item 640.1 or 1% of the Contract amount, whichever amount is less. | With first estimate for other bid items |
| 30% of Pay Item 640.1 or 3% of the Contract | When 4% of the original Contract amount is |
| amount, whichever amount is less. | earned from other bid items |
| 40% of Pay Item 640.1 or 4% of the Contract | When 8% of the original Contract amount is |
| amount, whichever amount is less. | earned from other bid items |
| 10% of Pay Item 640.1 or remaining amount of | With estimate following when all physical work and |
| Pay Item 640.1 less \$5,000, whichever amount is | cleanup are complete as described in Subsection |
| greater. | 105-1.15 |
| Remaining amount of Pay Item 640.1 | With Final Payment |

Payment will be made under:

| Pay Item | Pay Unit |
|---------------------------------------|----------|
| 640.1 Mobilization and Demobilization | Lump Sum |

SRM-22 02/26/2020

CONSTRUCTION SURVEYING AND MONUMENTS

STANDARD MODIFICATIONS

642-3.03 MONUMENTS. <u>Add the following to the last paragraph:</u> Do not cut monuments short. Flare out flanges as required by the manufacturer before setting the monument. Backfill around the monument in lifts, thoroughly tamping each lift. A monument that can be moved by hand is unacceptable. Remove the monument and reinstall with thinner lifts and more compactive effort.

SRM-24 02/26/2020

CPM SCHEDULING

SPECIAL PROVISIONS

Delete Section 646 CPM Scheduling and replace with the following:

646-1.01 DESCRIPTION. Provide a Baseline Progress Schedule (BPS) with Monthly Progress Schedule Updates (MPSU) for the project using the Critical Path Method (CPM). Use the progress schedule for identifying and monitoring the Critical Path.

646-1.02 PROJECT SHUTDOWNS. A winter shutdown is permitted on this project. Comply with the provisions of Section 01005, Article 1.08 to provide an egress path through the Site during any shutdown period of two weeks or more. Coordinate shutdowns with the building supervisor and the Engineer top ensure site safety and security, and all building services are maintained through shutdown periods.

646-2.01 SUBMITTAL OF SCHEDULES. Submit a BPS using the CPM at least 5 working days prior to the preconstruction conference. Use the date of contract award as the Data Date in the BPS. In the event that the date of the preconstruction conference is one month or greater than the BPS Data Date, also submit an MPSU at least 5 working days prior to the preconstruction conference.

Submit an electronic file of the BPS and each MPSU. Provide a schedule log in .pdf format with the BPS and each MPSU.

The approval by the Department of the BPS or MPSU shall not relieve the Contractor as the responsible party for: development and execution of the means, method, and timing of performance reflected in the schedule; and completing the project within the specified contract time.

Receive approval of the BPS before construction begins at the project site.

646-3.01 REQUIREMENTS AND USE OF SCHEDULES.

- Schedule Requirements. In developing the BPS and MPSU, utilize the Longest Path Method, as defined by American Association of Cost Engineers (AACE) International Recommended Practice No. 49R-06 for determining the critical path. Per 49R-06, the Contractor's Scheduler is required to have "an understanding of the methods and algorithms used by" the software the contractor intends to use for the project.
 - a. Constraints. Do not use constraints except for the following specified items.
 - Title the first activity "NTP Issued" and use a "Start On Or Before" constraint date equal to the effective date of the Notice to Proceed
 - Title the last activity "End Project". Constrain the project schedule to the Completion Date in such a way that if the schedule calculates an early finish, then the float calculation for the "End Project" milestone reflects positive float on the longest path and if the schedule calculates a late finish, the "End Project" milestone reflects negative float.
 - Constrain contractually required dates (Interim Completion Dates, Phase Completion Dates, etc.) to show negative float when the calculated late finish date is later than the contractually required date.
 - b. <u>Calendars.</u> Schedule activities on a calendar to which the activity logically belongs. Use calendars for shutdowns and work exclusion windows.

646-1

 Develop calendars to accommodate all Contract defined work period, review activities, concrete cure times, etc.

- Develop calendars to match the physical work plan with non-work periods identified including weekends and holidays.
- Develop seasonal calendar(s) and assign to seasonally affected activities as applicable.
- Use the same work hours per day in all calendars. Use the schedule narrative to explain shifts with different working hours or durations.
- c. <u>Activity Duration</u>. Estimate the duration for activities in the number of whole days. Use activity durations no longer than 1 work week, except for procurement and submittal activities. The Engineer may approve additional activities with durations greater than 1 work week that are explained in the schedule narrative if they do not alter the calculation of the critical path.
- d. <u>Relationships</u>. Use Finish-to-Start relationships only. Only two open ended activities are allowed: the "NTP Issued" activity shall have no predecessor logic and the "End Project" activity shall have no successor logic.
- e. <u>Activity Description</u>. Use an action verb and sufficient detail to clearly describe the scope of the activity.
- Schedule Updates. Submit the MPSU in an electronic format on a monthly basis. Include a narrative
 conforming to Subsection 108-1.03 requirements for progress schedule updates and the following.
 Identify and discus all schedule changes by activity description including what specifically was changed
 and why the change was needed. Include at a minimum new and deleted activities, logic changes, and
 calendar changes.

Whenever the MPSU demonstrates a decrease in the Total Float, include a Time Impact Analysis for each impact resulting in a delay to the "End Project" date. Perform each Time Impact Analysis per the recommendations in AACE International Recommended Practice No. 52R-06.

646-4.01 METHOD OF MEASUREMENT. Section 109.

646-5.01 BASIS OF PAYMENT. Payment for CPM Scheduling will be made in partial payments as follows:

- **a.** Thirty percent (30%) of the contract price for CPM Scheduling will be paid when the BPS is complete and accepted by the Engineer.
- **b.** The remaining balance will be prorated over the anticipated active construction period, with a portion included as part of each interim payment, for MPSU. If the anticipated construction period changes, the remaining balance will be re-prorated over the remaining anticipated active construction period.

Payment will be made under:

| Pay Item | Pay Unit |
|------------------------------|----------|
| 646.0001.0000 CPM Scheduling | Lump Sum |

EROSION, SEDIMENT, AND POLLUTION CONTROL

SPECIAL PROVISIONS

Add the following Section:

658-1.01 DESCRIPTION. Provide project administration and work relating to control of erosion, sediment, and discharge of pollutants according to this section and applicable local, state, and federal requirements. This section covers projects that disturb less than 1 acre in total.

658-1.02 DEFINITIONS. These definitions apply only to Section 658.

Alaska Certified Erosion and Sediment Control Lead (AK-CESCL). A person who has completed training, testing, and other requirements of, and is currently certified as, an AK-CESCL from an AK-CESCL Training Program (a program developed under a Memorandum of Understanding between the Department and others). The Department recognizes AK-CESCLs as qualified personnel required by this specification. An AK-CESCL must be recertified every three years.

Best Management Practices (BMPs). BMPs are structural, vegetative, or managerial practices used to treat, prevent, or reduce water pollution.

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

Construction Activity. Disturbance of soils associated with clearing that disturbs the vegetative mat/grubbing, grading, or excavating activities, or other construction-related activities (e.g. stockpiling of fill material, establishment of staging areas, or development of project specific material sources).

Construction General Permit (CGP). Permit AKR100000 authorizing storm water discharges from large and small construction activities, issued and enforced by DEC.

Disturbed Area. A portion of any site that has been altered from pre-existing conditions, including but not limited to the following: providing access to a site, grubbing and clearing vegetation (including the roots), grading, earth moving, altering land forms, and other Construction Activity (such as placement of project related stockpiles atop a soil surface). Includes the Project Zone and Support Activities.

Erosion and Sediment Control Plan (ESCP). The project specific document developed bythat illustrates measures to control erosion and sediment on the project.

Hazardous Material Control Plan (HMCP). The Contractor's detailed project specific plan for prevention of pollution from storage, use, transfer, containment, cleanup, and disposal of hazardous material (including, but are not limited to, petroleum products related to construction activities and equipment).

Immediately. No later than the end of the next working day.

Pollutant. Defined at 40 CFR § 122.2. A partial listing from this definition includes: dredged spoil, solid waste, sewage, garbage, sewage sludge, chemical wastes, biological materials, wrecked or discarded equipment, rock, sand, cellar dirt and industrial or municipal waste.

Project Zone. The physical area provided by the Department for Construction. The Project Zone includes the area of highway or facility under construction and Support Activities when those areas are provided by the Contract and are directly related to the Contract.

Support Activities that are furnished by the Contractor are not included in the Project Zone.

Spill Prevention, Control and Countermeasure Plan (SPCC Plan). The Contractor's detailed plan for petroleum spill prevention and control measures, that meet the requirements of 40 CFR 112.

Spill Response Field Representative. The representative with authority and responsibility for managing, implementing, and executing the HMCP and SPCC Plan. There are separate Spill Response Field Representatives for the Contractor, each Subcontractor, and each Utility.

Stabilization. The use of vegetative and/or non-vegetative cover to prevent erosion and sediment loss in areas exposed by Construction Activity.

Temporary Stabilization. Protecting soils from erosion and sediment loss by rainfall, snow melt, runoff, or wind with a temporary vegetative and/or non-vegetative protection cover. Temporary stabilization may include a combination of BMPs to reduce or eliminate erosion until either final stabilization can be achieved or until further construction activities take place to re-disturb this area.

Final Stabilization. Means that:

- 1. All soil disturbing activities in the Project Zone have been completed and either of the two following criteria have been met:
 - a. a uniform (e.g. evenly distributed, without large bare areas) perennial vegetative cover with a density of 70 percent of the native background vegetative cover for the area has been established on all unpaved areas and areas not covered by permanent structures; or
 - b. equivalent non-vegetative permanent stabilization measures have been employed (such as the use of riprap, gabions, porous backfill, railroad ballast or subballast, ditch lining, geotextiles, or fill material with low erodibility as determined by the Engineer.
- 2. When background native vegetation will cover less than 100 percent of the ground (e.g. arid areas, beaches), the 70 percent coverage criteria is adjusted as follows: if the native vegetation covers 50 percent of the ground, then 70 percent of 50 percent (0.70 X 0.50 = 0.35) would require 35 percent total cover for final stabilization. On a beach with no natural vegetation, no stabilization is required.
- 3. In areas with less than 20 inches of annual precipitation only, all soil disturbing activities in the Project Zone have been completed and temporary BMPs shown in the ESCP are installed along with an appropriate seed base to provide erosion control for at least three years without active maintenance.

Support Activities. Any concrete or asphalt batch plants, equipment staging yards, material storage areas, excavated material disposal areas, and borrow areas provided:

- 1. The support activity is directly related to the work that is covered under this Contract,
- 2. The support activity is not a commercial operation serving multiple unrelated construction projects.
- 3. The support activity does not operate beyond the completion of the Construction Activity of this project.

Material borrow areas that are developed specific for the project and are non-contiguous to the project site (e.g. the material is hauled in from another area not nearby the project area) are considered Support Activities.

658-2.01 MATERIALS. Use materials suitable to withstand hydraulic, wind, and soil forces, and to control erosion and trap pollutants according to the requirements of the ESCP and Specifications.

Use seed meeting Section 724. Use the temporary seed mixture specified by special provision, or use annual rye grass if no temporary seed mix is specified. Do not use temporary seed for stabilization on finished slopes.

Use straw and straw products certified weed free of prohibited and restricted noxious weed seed and quarantined pests, according to Alaska Administrative Code, Title 11, Chapter 34 (11 AAC 34). When straw or straw products certified according to 11 AAC 34 are not available, use non-certified products manufactured within Alaska before certified products manufactured in another state, country, or territory. Non-certified straw or straw products manufactured in another state, country, or territory shall not be used. Grass, legumes, or any other herbaceous plants produced as hay, shall not be substituted for straw or straw products.

658-3.01 CONSTRUCTION REQUIREMENTS. The Department has determined the work can be completed with a disturbed area in the Project Zone less than one acre, however the provisions of the CGP relating to projects disturbing less than 1 acre shall apply. ESCP submittal to ADEC is not required. Submittals to Engineer shall be required. Do not perform work in a manner that will increase the disturbed area in the Project Zone to one acre or more.

- 1. <u>Erosion and Sediment Control Plan.</u> Develop and submit to the Engineer for approval an erosion and sediment control plan inclusive of stormwater pollution prevention temporary construction BMP's in accordance with the CGP and *Alaska DOT&PF BMP Guide*. Plan shall include measures to ensure sediment generated from construction area runoff is prevented from entering adjacent lake waters.
- 2. <u>Before Construction Activity may Begin.</u> Delineate ground disturbance limits using stakes or flagging. Install sediment controls prior to the initiation of Construction Activity. The contractor shall return an updated ESCP to the project engineer.
- 3. <u>During Construction.</u> Comply with the requirements of the ESCP. Implement and maintain erosion and sediment control measures identified in the ESCP and as needed during construction to protect water quality. Take immediate action and notify the Engineer when any sediment plume, sheen, or other discharge of pollutants from construction activity occurs.

For projects that have temporary BMP's in place, perform inspections once every 7 calendar days using the inspection form included in the project ESCP.

Ensure all subcontractors understand and comply with the ESCP. Provide ESCP information to utility companies. Coordinate with subcontractors and utility companies doing work in the Project Zone so BMPs, including temporary and permanent stabilization measures, are installed, maintained, and protected from damage.

Notify the Engineer immediately if the actions of any utility company or subcontractor do not comply with the ESCP.

Use good housekeeping BMPs, including the following from the Alaska DOT&PF BMP Guide:

- a. BMP-06.00 Concrete Washout
- b. BMP-23.00 & 24.00 Stabilized Construction Exit
- c. BMP-41.00 Sanitary Waste Management
- d. BMP-42.00 Vehicle/Equipment Storage, Maintenance, & Fueling
- e. BMP-43.00 Bridge Maintenance
- f. BMP-44.00 Ditch Maintenance
- g. BMP-45.00 Snow Removal
- h. BMP-54.00 Site Delineation
- i. BMP-55.00 Street Sweeping

When dewatering, use BMP-09.00 Excavation Dewatering. For diversions, use BMP-15.00 Pumped Stream Diversion or BMP-34.00 & 35.00 Temporary Diversion Conveyance.

Comply with requirements of the HMCP and SPCC Plan.

4. <u>Pollutant and Hazardous Materials Requirements.</u> Contain, clean up, and dispose of discharges of petroleum products or other hazardous materials. Perform fueling operations in a safe and environmentally responsible manner.

Report spills of petroleum products or other hazardous materials to the Engineer and other agencies as required by law. Use the HMCP and SPCC Plan (if applicable) for contact information to report spills to regulatory agencies.

- 5. Maintenance of BMPs. Maintain BMPs:
 - a. If an incident of non-compliance with the ESCP is identified;
 - b. If any BMP is damaged, undercut, or unable to effectively perform the intended function; and
 - c. When sediment or debris fills any BMP to 1/2 (1/3 for silt fences) of its design storage capacity (or manufacturer's specifications or ESCP requirements, whichever is lower).

Perform maintenance immediately when water quality standards are not being attained, and within 7 days of identification for other maintenance actions.

- 6. <u>ESCP Changes.</u> The Engineer may order changes to the ESCP if the Engineer determines the ESCP is ineffective in preventing erosion or the discharge of pollutants. Implement changes necessary to comply with the revised ESCP.
- 7. <u>Stabilization.</u> Land may be disturbed and stabilized multiple times during a project. Coordinate work to minimize the amount of disturbed soil at any one time. Do not disturb more soil than can be stabilized with the resources available.

Temporarily stabilize portions of the Project Zone that are not in active construction. The Engineer will not relieve the Contractor of maintenance responsibility under 105-1.13 for a seasonal suspension of work until the Project Zone is temporarily stabilized.

Apply temporary seed and stabilization measures after preparing the surface according to 618-3.01.

When installing a culvert or other drainage structure where stream bypass is not used, install temporary or permanent stabilization concurrently or immediately after placing the culvert or drainage structure in a manner that complies with applicable project permits, and prevents discharge of pollutants. Install temporary and permanent stabilization:

- At the culvert or drainage structure inlet and outlet
- In the areas upstream and downstream that may be disturbed by the process of installing the culvert, culvert end walls, culvert end sections, or drainage structure

Before deactivating a stream bypass or stream diversion used for construction of a bridge, culvert, or drainage structure, install permanent stabilization:

- At the inlet and outlet of the culvert, drainage structure, or bridge
- In the area upstream and downstream of the culvert, drainage structure, or bridge, that is disturbed during installation or construction of the culvert, drainage structure, or bridge
- Under the bridge

8. <u>Ending ESCP Activities and BMP Maintenance.</u> The Engineer will determine when final stabilization has been achieved within the Project Zone. After achieving final stabilization, remove all temporary BMPs.

658-3.02 PERSONNEL QUALIFICATIONS. The Superintendent must have current certification as AK-CESCL.

The Department accepts people having any of the following certificates as equivalent to AK-CESCL, if the certificates are current according to the sponsoring organization's policies:

- CESSWI, Certified Erosion, Sediment and Storm Water Inspector
- CISEC, Certified Inspector in Sediment and Erosion Control
- CPESC, Certified Professional in Erosion and Sediment Control
- CPSWQ, Certified Professions in Storm Water Quality.

658-3.03 PLAN AND PERMIT SUBMITTALS. For plans listed in Subsection 108-1.03.5 (HMCP, SPCC Plan) use the Contractor submission and Department review deadlines identified in this Subsection.

Partial and incomplete submittals will not be accepted for review. Any submittal that is re-submitted or revised after submission, but before the review is completed, will restart the submittal review timeline. No additional Contract time or additional compensation will be allowed due to delays caused by partial or incomplete submittals, or required re-submittals.

- 1. <u>Erosion and Sediment Control Plan.</u> Submit an electronic copy, to the Engineer for approval. Develop ESCP inclusive of BMP's utilizing template provided in the CGP.
- Hazardous Material Control Plan. Submit an electronic copy, to the Engineer for approval. Use
 the DOT HMCP Template located at the following DOT&PF link;
 (https://dot.alaska.gov/stwddes/dcsconst/index.shtml under Construction Forms).
 The Department will review the HMCP submittal within 14 days after it is received.
- 3. <u>Spill Prevention, Control and Countermeasure Plan.</u> When a SPCC Plan is required under Subsection 658-3.05, submit an electronic copy of the SPCC Plan to the Engineer. Deliver these documents to the Engineer at least 14 days before beginning Construction Activity. The Department reserves the right to review the SPCC Plan and require modifications.
- 4. <u>Dewatering Permit.</u> When dewatering is required, review and comply with the DEC *Excavation Dewatering General Permit AKG0020000*. When filing a Notice of Intent is required to obtain coverage, provide the Engineer with a copy of the DEC authorization letter before beginning excavation dewatering.
- 5. <u>Temporary Water Use Authorization (TWUA)</u>. When dewatering or a diversion meets the limits in 11 AAC 93.035, obtain authorization from the Alaska Department of Natural Resources (DNR) for a TWUA. Provide the Engineer with a copy of the DNR authorization before beginning the dewatering or diversion.

658-3.04 HAZARDOUS MATERIAL CONTROL PLAN (HMCP) REQUIREMENTS. Prepare the HMCP for prevention of pollution from storage, use, containment, cleanup, and disposal of all hazardous material, including petroleum products related to construction activities and equipment. Compile Material Safety Data Sheets in one location and reference that location in the HMCP.

Designate a Contractor's Spill Response Field Representative with 24 hour contact information. Designate a Subcontractor Spill Response Coordinator for each subcontractor. The Superintendent and Contractor's Spill Response Field Representative must have 24 hour contact information for each Subcontractor Spill Response Coordinator and the Utility Spill Response Coordinator.

658-3.05 SPILL PREVENTION, CONTROL AND COUNTERMEASURE PLAN (SPCC Plan)

REQUIREMENTS. Prepare and implement an SPCC Plan as required by 40 CFR 112; when both of the following conditions are present on the Project:

- Oil or petroleum products from a spill may reach navigable waters (as defined in 40 CFR 112);
 and
- 2. Total above ground storage capacity for oil and any petroleum products is greater than 1,320 gallons (not including onboard tanks for fuel or hydraulic fluid used primarily to power the movement of a motor vehicle or ancillary onboard oil-filled operational equipment, and not including containers with a storage capacity of less than 55 gallons).

Reference the SPCC Plan in the HMCP.

658-3.06 SPILL AND NONCOMPLIANCE REPORTING. The Contractor must be familiar with all federal, state, and local environmental requirements.

The Contractor must report any sediment discharge or environmental permit noncompliance to the Engineer. Information must be provided orally immediately from the time the Contractor becomes aware of the circumstances, and provided in writing within 5 days after the oral notification. Provide:

- 1. A description of the discharge or noncompliance, including any estimated volume of discharge;
- 2. The dates and times of the discharge or noncompliance;
- 3. If it has not already been corrected, a statement regarding the anticipated time the discharge or noncompliance is expected to continue; and
- 4. Steps taken or planned to reduce, eliminate, and prevent reoccurrence of the discharge or noncompliance.

Report spills of oil and hazardous substances to the Engineer, and state and federal agencies as called for in the HMCP.

The Contractor is responsible for erosion, sediment, and pollution control for Support Activities outside of the Project Zone.

658-4.01 METHOD OF MEASUREMENT. Section 109 and as follows:

1. Item 658.1 is lump sum.

658-5.01 BASIS OF PAYMENT. Temporary erosion, sediment and pollution control measures that are required outside the Project Zone are at the Contractor's expense. Permanent erosion, sediment and pollution control measures will be measured and paid for under other Contract Items, when shown on the bid schedule.

<u>Item 658.1 Erosion, Sediment, and Pollution Control Without CGP Coverage.</u> At the Contract lump sum price for all acceptably performed erosion, sediment, and pollution control work.

Temporary erosion, sediment and pollution control measures that are required due to carelessness, negligence, or failure to install temporary or permanent controls as scheduled or ordered by the Engineer, or for the Contractor's convenience, are at the Contractor's expense.

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Payment will be made under:

| PAY ITEM | PAY UNIT |
|---|----------|
| 658.1 Erosion, Sediment, and Pollution Control Without CGP Coverage | Lump Sum |

SECTION 662 GENERAL ELECTRICAL REQUIREMENTS

SPECIAL PROVISION

Add the following section:

PART 1 - GENERAL

1.01 RELATED REQUIREMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specifications Sections, apply to this Section.
- B. This section applies to all sections of Electrical Technical Specifications, unless specified otherwise.
- C. The Drawings of other trades (Civil and Landscape) shall be examined for coordination and familiarity of work with other Contractors. Any duplication or omission of provisions in this project shall be brought to the attention of the Owner prior to Bidding.

1.02 DESCRIPTION

- A. The General Provisions are part of this Division and are to be considered a part of this Contract.
- B. Where items of the General Provisions are repeated in other Sections of the Specifications, it is merely intended to qualify or to call particular attention to them. It is not intended that any other parts of the General Provisions shall be assumed to be omitted if not repeated therein. This Section applies equally and specifically to all Contractors supplying labor and/or equipment and/or materials as required under each Section of this Division. Where conflicts exist between the drawings and the specifications or between this section of the specifications and other sections, the more stringent or higher cost option shall apply.
- C. If is the intent of this Section of the Specifications to establish a standard of quality and performance characteristics for basic materials and installation methods used in building electrical systems.

1.03 INTENT

- A. This Contract is for all labor, materials and equipment required for installation. The system shall be complete and finished in all respects, tested and ready for operation. Work shall include calibration of equipment with factory settings. All materials, equipment and apparatus shall be new and of high quality.
- B. Any apparatus, appliance, material or Work not shown on the Drawings but mentioned in the specification, or vice versa, or any incidental accessories necessary to make the Work complete in all respects and ready for operation as determined by good trade practice even if not particularly specified, shall be furnished, delivered and installed under their respective Divisions without any additional expense to the Owner.

- C. Minor details not usually shown or specified but necessary for proper installation and operation shall be included in the Work as though they were hereinafter shown or specified.
- D. Work under each Section shall include giving written notice to the Owner of any materials or apparatus believed inadequate or unsuitable; in violation of laws, ordinances, rules or regulations of Authorities Having Jurisdiction; and any necessary items of Work omitted. In the absence of such written notice, it is mutually agreed that Work under each Section has included the cost of all required items for the accepted, satisfactory functioning of the entire system without extra compensation.
- E. Locations of all existing systems and equipment shown on the Drawings are based on the best available information. The Contractor shall verify all dimensions and locations of existing systems and equipment in the field and adjust as necessary.
- F. Certain items of existing equipment may be indicated for removal or relocation. Items noted for removal shall be disconnected and disposed of by the Contractor in a safe, legal and responsible manner and location. Items noted for relocation are intended for reuse in another location as designated on the Drawings. It shall be the responsibility of the Contractor to remove the material from its present location, store the material in a safe place and reinstall the material in its new location. Questions regarding the suitability of the material or equipment shall be brought to the attention of the Owner in writing.
- G. Wherever a particular piece of equipment, device or material is specifically indicated on the Drawings by model number, type, series or other means, that specification shall take precedence over equipment or materials specified herein.

1.04 DEFINITIONS

- A. "Subcontractor" means the subcontractor working under this Division. Other Contractors are specifically designated "Mechanical Contractor", "General Contractor", and so on. Take care to ascertain limits of responsibility for connecting equipment which requires connection by two or more trades.
- B. "Install" shall mean set in place complete with all mounting facilities and connections as necessary ready for normal use or service.
- C. "Furnish" or "supply" shall mean purchase, deliver to, and off-load at the job site, all ready to be installed including where appropriate all necessary interim storage and protection.
- D. "Provide" shall mean furnish (or supply) and install as necessary.
- E. "Approved equal" means any product which in the opinion of the Engineer is equal in quality, arrangement, appearance, and performance to the product specified.
- F. "Wiring" shall mean cable assembly, raceway, conductors, fitting and any other necessary accessories to make a complete wiring system.
- G. "Product" shall mean any item of equipment, material, fixture, apparatus, appliance or accessory installed under this Division.
- H. Substitutions: Requests for changes in products, materials, equipment, and methods of construction required by Contact Documents proposed by the Contractor after award of the Contract are considered requests for "substitutions."

- I. Indicated: The term "indicated" refers to graphic representation, notes, or schedules on the Drawings, other paragraphs or schedules in the Specifications, and similar requirements in the Contract Documents. Where terms such as "shown," "noted," "scheduled," and "specified," are used, it is to help the reader locate the reference; no limitation on location is intended.
- J. Directed: Terms such as "directed," "requested," "authorized," "selected," "approved," "required," "and "permitted" mean "directed by the Engineer," "requested by the Engineer," and similar phrases.
- K. Approve: The term "approved," where used in conjunction with the Engineer's action on the Contractor's submittals, applications, and requests, is limited to the Engineer's duties and responsibilities as stated in General and Supplementary Conditions.
- L. Regulation: The term "Regulations" includes laws, ordinances, statutes, and lawful orders issued by authorities having jurisdiction, as well as rules, conventions, and agreements within the construction industry that control performance of the Work.
- M. Remove: The term "remove" means to disconnect from its present position, remove from the premises and to dispose of in a legal manner.
- N. Standard Product Warranties are preprinted written warranties published by individual manufacturers for particular products and are specifically endorsed by the manufacturer to the Owner.
- O. Special Warranties are written warranties required by or incorporated in the Contract Documents, either to extend time limits provided by standard warranties or to provide greater rights for the Owner.

1.05 DRAWINGS

- A. Drawings are diagrammatic and indicate the general arrangement of systems and Work included in the Contract. Consult the Civil and Landscape Drawings and Details for exact locations of fixtures and equipment, where same are not definitely located, obtain this information from the Engineer. Do not scale the Drawings.
- B. The Owner may, without extra charge, make reasonable modification in the layout as needed to prevent conflict with Work of other trades and/or for proper execution of the Work. A relocation of up to 10-feet would be considered reasonable.
- C. Where variances occur between the Drawings and the Specifications or within either of the Documents, the item or arrangement of better quality shall be included in the Contract price. The Owner and Engineer shall decide on the item and the manner in which the Work shall be installed.

1.06 SURVEYS AND MEASUREMENTS

A. Before submitting his Bid, the Contractor shall visit the site and become thoroughly familiar with all existing conditions under which his work will be installed. This Contract includes all modifications of existing systems required for the installation of new equipment. This Contract included all necessary offsets, transitions and modifications required to install all new equipment in existing spaces. All new and existing equipment and systems shall be fully operational under this Contract before the job is considered complete. The Contractor shall be held responsible

- for any assumptions he makes, and omissions or errors he makes as a result of his failure to become fully familiar with the existing conditions at the site and the Contract Documents.
- B. The Contractor shall base all measurements, both horizontal and vertical, from established bench marks. All Work shall agree with these established lines and levels. Verify all measurements at the site and check the correctness of same as related to the Work.
- C. Should the Contractor discover any discrepancies between actual measurements and those indicated which prevent following good practice or which interfere with the intent of the Drawings and Specifications, the Engineer will be notified and Work will not proceed until instructions from the Engineer are received.

1.07 CODES AND STANDARDS

- A. Reference Standard Compliance
 - 1. Where equipment or materials are specified to conform to industry and technical society reference standards of the organizations such as American National Standards Institute (ANSI), American Society for Testing and Materials (ASTM), National Electrical Manufacturers Association (NEMA), and Underwriters Laboratories Inc. (UL), submit proof of such compliance. The label or listing by the specified organization will be acceptable evidence of compliance.
 - 2. Independent Testing Organization Certificate: In lieu of the label or listing, indicated above, submit a certificate from an independent testing organization, competent to perform testing, and approved by the Engineer. The certificate shall state that the item has been tested in accordance with the specified organization's test methods and that the item complies with the specified organization's reference standard.
- B. The following Codes and Standards apply to all electrical work. Wherever Codes and/or Standards are mentioned in these Specification, the latest applicable edition or revision shall be followed:

The National Electrical Code

C. The following Standards shall be used where referenced by the following abbreviations:

ANSI American National Standards Institute

IEEE Institute of Electrical and Electronics Engineers
NEMA National Electrical Manufacturers Association
OSHA Occupational Safety and Health Administration

UL Underwriter's Laboratories

- D. All materials furnished and all work installed shall comply with the rules and recommendations of the NFPA, the requirements of the local utility companies, the recommendation of the fire insurance rating organization having jurisdiction and the requirements of all Governmental departments having jurisdiction.
- E. The Contractor shall include in the work, without extra cost to the Owner, any labor, materials, services, apparatus, and Drawings in order to comply with all applicable laws, ordinances, rules and regulation, whether shown on Drawings and/or specified or not.

1.08 PERMITS AND FEES

A. The Contractor shall give all necessary notices, obtain all permits; and pay all Government and State sales taxes and fees where applicable, and other costs, including utility connection or extensions in connection with the work, file all necessary Drawings, prepare all documents and

obtain all necessary approvals of all Governmental and State departments having jurisdiction, obtain all required certificates of inspection for his work, and deliver a copy to the Owner and Engineer before request for acceptance and final payment for the work.

1.09 EQUIPMENT SUBSTITUTIONS

- A. In these Contract Documents, one or more makes of materials, apparatus or appliances may have been specified for use in this installation. These describe the basis of design and approved equivalents. This has been done for convenience in fixing the standard of workmanship, finish and design required for the installation without consideration of any or all associated costs. The Contractor acknowledges that not all requirements are shown for either alternate acceptable manufacturers listed or those alternates requiring a request for substitution and it is their responsibility to coordinate all requirements necessary to accommodate any change from the basis of design listed or scheduled. The Contractor is required to submit any and all costs (including costs associated or required by all trades) along with performance differences as part of their request for substitution. The details of workmanship finish and design, and the guaranteed performance of any material, apparatus or appliance which the Contractor desires to deviate for those mentioned herein shall also conform to these standards.
- B. Where no specific make of material, apparatus or appliance is mentioned, any first-class product made by a reputable manufacturer may be submitted for the Engineer's review.
- C. Where two or more names are given as approved manufacturers of equivalents, the Contractor must use the specified item or one of the named equivalents which still must meet all of the performance characteristics of the basis of design make and model. Where one name only is used and is followed by the words "or approved equal", the Contractor must use the item named or he is required to apply for a substitution. Where one name only is used, the Contractor must use that item named.
- D. Where the Contractor proposes to deviate (provide an equivalent or request for substitution) from the equipment or materials as hereinafter specified, they are required to submit a request for substitution in writing. The Contractor shall state in their request whether it is a substitution or a non approved equivalent to that specified and the amount of credit or extra cost involved. The Base Bid shall be based on using the materials and equipment as specified with no exceptions.
- E. Where the Contractor proposes to use an item of equipment other than specified or detailed on the Drawings which requires any redesign of the electrical or civil, all such redesign and all new drawings and detailing required therefore shall be prepared by the Engineers of Record at the expense of the Contractor and at no additional cost to the Owner.
- F. Where such accepted deviation resulting from using an approved equivalent or substitution requires a different quantity and arrangement of conduit and equipment from that specified or indicated on the Drawings, the Contractor shall, after acceptance by the Engineer, furnish and install any such additional equipment required by the system at no additional cost to the Owner, including any costs added to other trades due to the deviation.
- G. Equipment, material or devices submitted for review as an "equivalent" shall meet the following requirements:
 - 1. The equivalent shall have the same construction features such as, but not limited to:
 - a. Material thickness, gauge, weight, density, etc.
 - b. Welded, riveted, bolted, etc., construction
 - c. Finish, undercoating, corrosion protection
 - 2. The equivalent shall perform with the same or better operating efficiency.

- 3. The equivalent shall be locally represented by the manufacturer for service, parts and technical information.
- 4. The equivalent shall bear the same labels of performance certification as is applicable to the specified item, such as UL or NEMA labels.
- H. Equipment, material or devices submitted for review as a "substitution" shall meet the following requirements:
 - Substitution Request Submittal: Requests for substitution will be considered if received in writing 14 days before the bid date. Requests received later than 14 days before the bid date may be considered or rejected at the discretion of the Engineer/Owner. Once the Contractor submits a complete request for substitution as determined by the Engineer, the Engineer reserves the rights to request the time necessary to evaluate the request for substitution and review it with the Owner.
 - 2. Submit electronic copy in pdf format of each request for substitution for consideration.
 - 3. Identify the product, or the fabrication or installation method to be replaced in each request. Include related Specification Section and Drawing numbers. Provide complete documentation showing compliance with the requirements for substitutions, and the following information, as appropriate:
 - a. Product Data, including Drawings and descriptions of products, fabrication and installation procedures.
 - b. Samples, where applicable or requested.
 - c. A detailed comparison of significant qualities may include elements such as size, weight, durability, performance and visual effect.
 - d. Coordination information, including a list of changes or modifications needed to other parts of the Work and to construction performed by the Owner and separate Contractors that will become necessary to accommodate the proposed substitution.
 - e. A statement indicating the substitution's effect on the Contractor's Construction Schedule compared to the schedule without approval of the substitution. Indicate the effect of the proposed substitution on overall Contract Time.
 - f. Cost information, including a proposal of the net change, if any in the Contract
 - g. Certification by the Contractor that the substitution proposed is equal-to or better in every significant respect to that required by the Contract Documents, and that it will perform adequately in the application indicated. Include the Contractor's waiver of rights to additional payment or time that may subsequently become necessary because of the failure of the substitution to perform adequately.
 - h. Engineer's Action: Within one (1) week of receipt of the request for substitution, the Engineer will notify the Contractor of acceptance or rejection of the proposed substitution. If a decision on use of a proposed substitute cannot be made or obtained within the time allocated, use the product specified by name. Acceptance of a product substitution will be in the form of an Addendum.
 - i. Other Conditions: The Contractor's substitution request will be received and considered by the Engineer when one or more of the following conditions are satisfied, as determined by the Engineer; otherwise requests will be returned without action except to record noncompliance with these requirements.
 - 1) The request is directly related to an "or equal" clause or similar language in the Contract Documents.
 - 2) The specified product or method of construction cannot be provided within the Contract Time. The request will not be considered if the product or method cannot be provided as a result of failure to pursue the Work promptly or coordinate activities properly.
 - 3) A substantial advantage is offered the Owner, in terms of cost, time, energy conservation or other considerations of merit, after deducting offsetting responsibilities the Owner may be required to bear. Additional responsibilities for the Owner may include additional compensation to the

Engineer for redesign and evaluation services, increased cost of other construction by the Owner or separate Contractors, and similar considerations.

1.10 SUBMITTAL PROCEDURES

- A. Provide Submittals in accordance with the requirements of Division 1 and as indicated in the following.
- B. Coordination: Coordinate preparation and processing of submittals with performance of construction activities. Transmit each submittal sufficiently in advance of performance of related construction activities to avoid delay.
 - Coordinate each submittal with fabrication, purchasing, testing, delivery, other submittals and related activities that require sequential activity.
 - 2. Coordinate transmittal of different types of submittals for related elements of the Work so processing will not be delayed by the need to review submittals concurrently for coordination. The Engineer reserves the right to withhold action on a submittal requiring coordination with other submittals until related submittals are received.
- C. Processing: Allow sufficient review time so that installation will not be delayed as a result of the time required to process submittals, including time for resubmittals.
 - Allow fourteen (14) days for initial review. Allow additional time if processing must be delayed to permit coordination with subsequent submittals. The Engineer will promptly advise the Contractor when a submittal being processed must be delayed for coordination.
 - 2. If an intermediate submittal is necessary, process the same as the initial submittal.
 - 3. Allow fourteen (14) weeks for reprocessing each submittal.
 - 4. No extension of Contract Time will be authorized because of failure to transmit submittals to the Engineer sufficiently in advance of the Work to permit processing.
- D. Submittal Preparation: Place a permanent label or title block on each submittal for identification. Indicate the name of the entity that prepared each submittal on the label or title block.
 - 1. Include the following information on the label for processing and recording action taken.
 - a. Project name.
 - b. Date.
 - c. Name and address of Engineer.
 - Name and address of Contractor.
 - e. Name and address of subcontractor.
 - f. Name and address of supplier.
 - g. Name of manufacturer.
 - h. Number and title of appropriate Specification Section.
 - i. Drawing number and detail references, as appropriate.
- E. Submittal Transmittal: Package each submittal appropriately for transmittal and handling. Transmit each submittal from Contractor to Engineer using a transmittal form. Submittals received from sources other than the Contractor will be returned without action. On the transmittal, record relevant information and requests for data. On the form, or separate sheet, record deviations from Contract Document requirements, including minor variations and limitations. Include Contractor's certification that information complies with Contract Document requirements.
- F. Except for submittals for record, information or similar purposes, where action and return is required or requested, the Engineer will review each submittal, mark to indicate action taken, and return promptly. Compliance with specified characteristics is the Contractor's responsibility.

G. Action Stamp: The Engineer will stamp each submittal with a uniform, self-explanatory action stamp. The stamp will be appropriately marked, to indicate the action taken.

1.11 SHOP DRAWINGS

- A. Submit newly prepared information, drawn to accurate scale. Highlight, encircle, or otherwise indicate deviations from the Contract Documents. Do not reproduce Contract Documents or copy standard information as the basis of Shop Drawings. Standard information prepared without specific reference to the Project is not considered Shop Drawings.
- B. The Contractor shall submit for review detailed Shop Drawings of all equipment and material specified in each section and coordinated ductwork layouts. No material or equipment may be delivered to the job site or installed until the Contractor has received shop drawings for the particular material or equipment which have been properly reviewed. Shop drawings shall be submitted before any material or equipment is purchased. The Contractor shall submit for review copies of all shop drawings to be incorporated in the Electrical Contract. Refer to the General Conditions and Supplementary General Conditions for the format required for submission.
- C. Provide shop drawings for all devices specified under equipment specifications for all systems including fire alarm, switchgear, clock, lighting, etc., or where called for elsewhere in the Specifications. Shop drawings shall include manufacturers' names, catalog numbers, cuts, diagrams, dimensions, identification of products and materials included, compliance with specified standards, notation of coordination requirements, notation of dimensions established by field measurement and other such descriptive data as may be required to identify and accept the equipment. A complete list in each category (example: all fixtures) of all shop drawings, catalog cuts, material lists, etc., shall be submitted to the Engineer at one time. No consideration will be given to a partial shop drawing submittal.
- D. Where multiple quantities or types of equipment are being submitted, provide a cover sheet (with a list of contents) on the submittal identifying the equipment or material being submitted.
- E. Failure to submit shop drawings in ample time for review shall not entitle the Contractor to an extension of Contract time. No claim for extension by reason of such default will be allowed, nor shall the Contractor be entitled to purchase, furnish and/or install equipment which has not been reviewed by the Engineer.
- F. The Contractor shall furnish all necessary templates, patterns, etc., for installation work and for the purpose of making adjoining work conform; furnish setting plans and shop details to other trades as required.
- G. Acceptance rendered on shop drawings shall not be considered as a guarantee of measurements or building conditions. Where drawings are reviewed, review does not mean that drawings have been checked in detail; said approval does not in any way relieve the Contractor from his responsibility or necessity of furnishing material or performing work as required by the Contract Drawings and Specifications. Verify available space prior to submitting shop drawings.
- H. Acceptance of shop drawings shall not apply to quantity nor relieve Contractor of his responsibility to comply with intent of Drawings and Specifications.
- I. Acceptance of shop drawings is final and no further changes will be allowed without the written consent of the Engineer.

- J. Shop drawing submittal sheets which may show items that are not being furnished shall have those items crossed off to clearly indicate which items will be furnished.
- K. Do not use Shop Drawings without an appropriate final stamp indicating action taken in connection with construction.

1.12 WORKMANSHIP

- A. Service Support: The equipment items shall be supported by service organizations which are reasonably convenient to the equipment installation in order to render satisfactory service to the equipment on a regular and emergency basis during the warranty period of the contract.
- B. Modification of References: In each of the publications referred to herein, consider the advisory provisions to be mandatory, as though the word, "shall" had been substituted for "should" wherever it appears.
- C. The Contractor shall furnish the services of an experienced superintendent who shall be constantly in charge of the installation of the work together with all skilled workmen, journeymen, electricians, helpers and laborers required to unload, transfer, erect, connect, adjust, start, operate and test each system.
- D. Unless otherwise specifically indicated on the Drawings or Specifications, all equipment and materials shall be installed with the acceptance of the Engineer and in accordance with the recommendations of the manufacturer. This includes the performance of such tests as the manufacturer recommends.
- E. All labor for installation of electrical systems shall be performed by experienced, skilled tradesmen under the supervision of a licensed journeyman foreman. All work shall be of a quality consistent with good trade practice and shall be installed in a neat, workmanlike manner. The Engineer reserves the right to reject any work which, in his opinion, has been installed in a substandard, dangerous or unserviceable manner. The Contractor shall replace said work in a satisfactory manner at no extra cost to the Owner.

1.13 SHUTDOWNS

- A. When installation of a new system requires the temporary shutdown of an existing operating system, the connection of the new system shall be performed at such time as designated by the Owner.
- B. The Engineer and the Owner shall be notified in writing of the estimated duration of the shutdown period at least ten (10) days in advance of the date the work is to be performed.
- C. Work shall be arranged for continuous performance whenever possible. The Contractor shall provide all necessary labor, including overtime if required, to assure that existing operating services will be shut down only during the time actually required to make necessary connections.

1.14 PROTECTION OF MATERIALS AND EQUIPMENT

A. Work under each Section shall include protecting the work and material of all other Sections from damage by work or workmen and shall include making good all damage thus caused.

- B. The Contractor shall be responsible for work and equipment until the facility has been accepted by the Owner. Protect work against theft, injury or damage and carefully store material and equipment received on site which is not immediately installed. Close open ends of work with temporary covers or plugs during construction to prevent entry of foreign material.
- C. Work under each Section includes receiving, unloading, uncrating, storing, protecting, setting in place and completely connecting equipment supplied under each Section. Work under each Section shall also include exercising special care in handling and protecting equipment and fixtures, and shall include the cost of replacing any of the equipment and fixtures which are missing or damaged.
- D. Equipment and material stored on the job site shall be protected from the weather, vehicles, dirt and/or damage by workmen or machinery. Ensure that all electrical or absorbent equipment or material is protected from moisture during storage.

1.15 ADJUSTING AND TESTING

A. After all the equipment and accessories to be furnished are in place, they shall be put in final adjustment and subjected to such operating tests so as to assure the Engineer that they are in proper adjustment and in satisfactory, permanent operating condition.

1.16 CLEANING

- A. The Contractor shall thoroughly clean all equipment of all foreign substances, oils, dust, dirt, etc., inside and out before final acceptance by the Engineer.
- B. During the course of construction, all conduits shall be capped in an acceptable manner to insure adequate protection against the entrance of foreign matter.
- C. Upon completion of all work under the Contract, the Contractor shall remove from the premises all rubbish, debris and excess materials left over from his work.
- D. Complete the following cleaning operations before requesting inspection for Certification of Substantial Completion.
 - 1. Remove labels that are not permanent labels.
 - 2. Wipe surfaces of electrical equipment. Clean light fixtures, poles, and posts.
- E. Comply with regulations of authorities having jurisdiction and safety standards for cleaning. Do not burn waste materials. Do not bury debris or excess materials on the Owner's property. Do not discharge volatile, harmful or dangerous materials into drainage systems. Remove and dispose of ALL waste materials, packaging material, skids etc. from the site and dispose of in a lawful manner in accordance with municipal, state and federal regulations.

1.17 OPERATING AND MAINTENANCE

A. Upon completion of all work and tests, the Contractor shall furnish the necessary skilled labor and helpers for operating his system and equipment for a period specified under each applicable Section of the Division. During this period, he shall fully instruct the Owner or the Owner's representative in the operation, adjustment and maintenance of all equipment furnished. The Contractor shall give at least seven (7) days notice to the Owner and the Engineer in advance of this period.

- B. The Contractor shall include the maintenance schedule for the principal items of equipment furnished under this Division.
- C. The Contractor shall physically demonstrate procedures for all routine maintenance of all equipment furnished under each respective Section to assure accessibility to all devices.

1.18 OPERATING AND MAINTENANCE MANUALS

- A. Prepare operating and maintenance manuals in accordance with the requirements of Division 1 and as follows. The Contractor shall prepare complete maintenance and operating instructions manual, in pdf format. Organize operating and maintenance data into tabs of suitable sets of manageable size. Mark appropriate identification on each tab.
- B. Include in the manual, a tabulated equipment schedule for all equipment. Schedule shall include pertinent data such as: make, model number, serial number, voltage, normal operating current, etc. Schedule shall include maintenance to be done and frequency.
- C. Maintenance and instruction manuals shall be submitted to the Owner at the same time as the seven (7) day notice is given prior to the instruction period.

1.19 ACCEPTANCES

- A. The equipment, materials, workmanship, design and arrangement of all work installed under the Electrical Sections shall be subject to the review of the Engineer.
- B. If extensive or unacceptable delivery time is expected on a particular item of equipment specified, the Contractor shall notify the Owner and Engineer, in writing, within thirty (30) days of the awarding of the Contract. In such instances, deviations may be made pending acceptance by the Engineer or the Owner's representative.
- C. Where any specific material, process or method of construction or manufacturing article is specified by reference to the catalog number of a manufacturer, the Specifications are to be used as a guide and are not intended to take precedence over the basic duty and performance specified or noted on the Drawings. In all cases, the Contractor shall verify the duty specified with the specific characteristics of the equipment offered for review. Equipment characteristics are to be used as mandatory requirements where the Contractor proposes to use an acceptable equivalent.
- D. If material or equipment is installed before it is reviewed and/or approved, the Contractor shall be liable for its removal and replacement at no extra charge to the Owner if, in the opinion of the Engineer, the material or equipment does not meet the intent of, or standard of quality implied by, the Drawings and Specifications.
- E. Failure on the part of the Engineer to reject shop drawings or to reject work in progress shall not be interpreted as acceptance of work not in conformance with the Drawings and/or Specifications. Work not in conformance with the Drawings and/or Specifications shall be corrected whenever it is discovered.

1.20 RECORD DRAWINGS

- A. General: Do not use record documents for construction purposes; protect from deterioration and loss in a secure, fire-resistive location; provide access to record documents for the Engineer's reference during normal working hours.
- B. Record Drawings: Maintain a clean, undamaged set of blue or black line white-prints of Contract Drawings and Shop Drawings. Mark the set to show the actual installation where the installation varies substantially from the Work as originally shown. Mark whichever drawing is most capable of showing condition fully and accurately; where Shop Drawings are used, record a cross-reference at the corresponding location on the Contract Drawings. Give particular attention to concealed elements that would be difficult to measure and record at a later date.
 - 1. Mark record sets with red erasable pencil; use other color to distinguish between variations in separate categories of the Work.
 - 2. Mark new information that is important to the Owner, but was not shown on Contract Drawings or Shop Drawings.
 - 3. Note related Change Order numbers where applicable.
 - 4. Organize record drawing sheets into manageable sets, bind with durable paper cover sheets, and print suitable titles, dates and other identification of the cover of each set.

1.21 GUARANTEES

- A. The Contractor shall guarantee all material and workmanship under these Specifications and the Contract for a period of one (1) year from the date of final acceptance by Owner. During this guarantee period, all defects developing through faulty equipment, materials or workmanship shall be corrected or replaced immediately by this Contractor without expense to the Owner. Such repairs or replacement shall be made to the Engineers satisfaction.
- B. Contractor shall provide name, address, and phone number of all contractors and subcontractors and associated equipment they provided.

1.22 PROJECT CLOSE-OUT

- A. Submit specific warranties, workmanship bonds, maintenance agreements, final certifications and similar documents.
- B. Deliver tools, spare parts, extra stock, and similar items.
- C. Complete start-up testing of systems, and instruction of the Owner's operating and maintenance personnel. Discontinue or change over and remove temporary facilities from the site, along with construction tools, and similar elements.
- D. Complete final clean up requirements, including tough-up painting. Touch-up and otherwise repair and restore marred exposed finishes.
- E. Inspection Procedures: On receipt of a request for inspection, the Engineer will either proceed with inspection or advise the Contractor of unfilled requirements. The Owner will prepare the Certificate of Substantial Completion following inspection, or advise the Contractor of construction that must be completed or corrected before the certificate will be issued.
 - 1. The Engineer will repeat inspection when requested and assured that the Work has been substantially completed.
 - 2. Results of the completed inspection will form the basis of requirements for final acceptance.

662-4.01 METHOD OF MEASUREMENT. See Section 109. Electrical, All shall include mounting hardware for all lights and concrete bases for those lights not mounted on curb.

662-5.01 BASIS OF PAYMENT. Payment will be made under:

| PAY ITEM | | | |
|-------------|------------------|----------|--|
| Item Number | Item Description | Unit | |
| 662.1 | Electrical, All | LUMP SUM | |

SECTION 663 ELECTRICAL DEMOLITION

SPECIAL PROVISION

Add the following section:

PART 1 - GENERAL

1.01 SUMMARY

- A. Section Includes:
 - 1. Demolition and removal of selected site elements.

1.02 DEFINITIONS

- A. Remove: Detach items from existing construction and legally dispose of them off-site unless indicated to be removed and salvaged or removed and reinstalled.
- B. Remove and Salvage: Carefully detach from existing construction, in a manner to prevent damage, and deliver to Owner.
- C. Existing to Remain: Existing items of construction that are not to be permanently removed and that are not otherwise indicated to be removed, removed and salvaged, or removed and reinstalled.

1.03 FIELD CONDITIONS

- A. Owner and the public will occupy the site immediately adjacent to selective demolition area. Conduct selective demolition so operations will not be disrupted.
- B. Conditions existing at time of inspection for bidding purpose will be maintained by Owner as far as practical.
- C. Notify Engineer 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 Engineer and Owner. Hazardous materials will be removed by Owner under a separate contract.
- E. Storage or sale of removed items or materials on-site is not permitted.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.01 EXAMINATION

A. Survey existing conditions and correlate with requirements indicated to determine extent of selective demolition required.

3.02 ELECTRICAL SYSTEMS

- A. Existing to Remain: Maintain services/systems indicated to remain and protect them against damage.
- B. Remove all equipment and devices indicated to be removed. Remove all wiring determined to be disconnected and abandoned. Remove all conduit and junction boxes determined to be empty and not intended to be utilized to reconfigure the systems.
- C. Existing concealed or underground conduits not interfering with the work may remain; however, wiring shall be removed from panelboards or source of power. No unused wiring shall be left in place.

3.03 DISPOSAL OF DEMOLISHED MATERIALS

- A. General: Except for items or materials indicated to remain Owner's property, remove demolished materials from Project site.
 - 1. Do not allow demolished materials to accumulate on-site.
- B. Disposal: Transport demolished materials off Owner's property and legally dispose of them.

3.04 CLEANING

A. 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.

LOW-VOLTAGE ELECTRICAL POWER CONDUCTORS AND CABLES

SPECIAL PROVISION

Add the following section:

PART 1 - GENERAL

- 1.01 SUMMARY
 - A. Section Includes:
 - 1. Building wires and cables rated 600 V and less.
 - 2. Connectors, splices, and terminations rated 600 V and less.
- 1.02 ACTION SUBMITTALS
 - A. Product Data: For each type of product.
- 1.03 INFORMATIONAL SUBMITTALS
 - A. Field quality-control reports.

PART 2 - PRODUCTS

- 2.01 CONDUCTORS AND CABLES
 - A. Copper Conductors: Comply with NEMA WC 70/ICEA S-95-658.
 - B. Conductor Insulation: Comply with NEMA WC 70/ICEA S-95-658 for Type XHHW-2.
- 2.02 CONNECTORS AND SPLICES
 - A. Description: Factory-fabricated connectors and splices of size, ampacity rating, material, type, and class for application and service indicated.
- 2.03 SYSTEM DESCRIPTION
 - A. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application.

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B. Comply with NFPA 70.

PART 3 - EXECUTION

3.01 CONDUCTOR MATERIAL APPLICATIONS

- A. Feeders: Copper, stranded.
- B. Branch Circuits: Copper. Stranded.

3.02 CONDUCTOR INSULATION AND MULTICONDUCTOR CABLE APPLICATIONS AND WIRING METHODS

- A. Feeders: Type XHHW-2, single conductors in raceway.
- B. Branch Circuits: Type XHHW-2 single conductors in raceway.

3.03 INSTALLATION OF CONDUCTORS AND CABLES

- A. Complete raceway installation between conductor and cable termination points according to Section 260533 "Raceways and Boxes for Electrical Systems" prior to pulling conductors and cables.
- B. Use manufacturer-approved pulling compound or lubricant where necessary; compound used must not deteriorate conductor or insulation. Do not exceed manufacturer's recommended maximum pulling tensions and sidewall pressure values.
- C. Use pulling means, including fish tape, cable, rope, and basket-weave wire/cable grips, that will not damage cables or raceway.
- D. Install exposed cables parallel and perpendicular to surfaces of exposed structural members, and follow surface contours where possible.

3.04 CONNECTIONS

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

GROUNDING AND BONDING FOR ELECTRICAL SYSTEMS

SPECIAL PROVISION

Add the following section:

PART 1 - GENERAL

1.01 SUMMARY

A. Section includes grounding and bonding systems and equipment.

PART 2 - PRODUCTS

2.01 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. Burndy; Part of Hubbell Electrical Systems.
 - 2. Dossert; AFL Telecommunications LLC.
 - 3. ERICO International Corporation.
 - 4. Fushi Copperweld Inc.
 - 5. Galvan Industries, Inc.; Electrical Products Division, LLC.
 - 6. Harger Lightning and Grounding.
 - 7. ILSCO.
 - 8. O-Z/Gedney; A Brand of the EGS Electrical Group.
 - 9. Robbins Lightning, Inc.
 - 10. Siemens Power Transmission & Distribution, Inc.

2.02 SYSTEM DESCRIPTION

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

2.03 CONDUCTORS

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

2.04 CONNECTORS

A. Listed and labeled by an NRTL acceptable to authorities having jurisdiction for applications in which used and for specific types, sizes, and combinations of conductors and other items connected.

PART 3 - EXECUTION

3.01 APPLICATIONS

A. Conductors: Stranded.

3.02 EQUIPMENT GROUNDING

- A. Install insulated equipment grounding conductors with the following items, in addition to those required by NFPA 70:
 - 1. Feeders and branch circuits.
 - 2. Lighting circuits.
 - 3. Receptacle circuits.
 - 4. Flexible raceway runs.

3.03 FIELD QUALITY CONTROL

A. Perform tests and inspections. Inspect physical and mechanical condition. Verify tightness of accessible, bolted, electrical connections with a calibrated torque wrench according to manufacturer's written instructions.

HANGERS AND SUPPORTS FOR ELECTRICAL SYSTEMS

SPECIAL PROVISION

Add the following section:

PART 1 - GENERAL

- 1.01 SUMMARY
 - A. Section includes:
 - 1. Hangers and supports for electrical equipment and systems.
- 1.02 QUALITY ASSURANCE
 - A. Comply with NFPA 70.

PART 2 - PRODUCTS

- 2.01 SUPPORT, ANCHORAGE, AND ATTACHMENT COMPONENTS
 - A. Steel Slotted Support Systems: Comply with MFMA-4, factory-fabricated components for field assembly.
 - 1. Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
 - a. Allied Tube & Conduit.
 - b. Cooper B-Line, Inc.
 - c. ERICO International Corporation.
 - d. GS Metals Corp.
 - e. Thomas & Betts Corporation.
 - f. Unistrut; Atkore International.
 - g. Wesanco, Inc.
 - 2. Metallic Coatings: Hot-dip galvanized after fabrication and applied according to MFMA-4.
 - 3. Channel Dimensions: Selected for applicable load criteria.
 - B. Raceway and Cable Supports: As described in NECA 1 and NECA 101.
 - C. Conduit and Cable Support Devices: Steel and malleable-iron clamps, and associated fittings, designed for types and sizes of raceway or cable to be supported.

- D. Mounting, Anchoring, and Attachment Components: Items for fastening electrical items or their supports include the following:
 - 1. Powder-Actuated Fasteners: Threaded-steel stud, for use in hardened portland cement concrete, steel, or wood, with tension, shear, and pullout capacities appropriate for supported loads and building materials where used.
 - a. Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
 - 1) Hilti, Inc.
 - 2) ITW Ramset/Red Head; Illinois Tool Works, Inc.
 - 3) MKT Fastening, LLC.
 - 4) Simpson Strong-Tie Co., Inc.
 - 2. Mechanical-Expansion Anchors: Insert-wedge-type, stainless steel, for use in hardened portland cement concrete with tension, shear, and pullout capacities appropriate for supported loads and building materials in which used.
 - Available Manufacturers: Subject to compliance with requirements, manufacturers
 offering products that may be incorporated into the Work include, but are not
 limited to, the following:
 - 1) Cooper B-Line, Inc.
 - 2) Empire Tool and Manufacturing Co., Inc.
 - 3) Hilti, Inc.
 - 4) ITW Ramset/Red Head; Illinois Tool Works, Inc.
 - 5) MKT Fastening, LLC.
 - 3. Concrete Inserts: Steel or malleable-iron, slotted support system units similar to MSS Type 18; complying with MFMA-4 or MSS SP-58.

PART 3 - EXECUTION

3.01 APPLICATION

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

3.02 SUPPORT INSTALLATION

- A. Comply with NECA 1 and NECA 101 for installation requirements except as specified in this Article.
- B. Mounting and Anchorage of Surface-Mounted Equipment and Components: Anchor and fasten electrical items and their supports to structural elements by the following methods unless otherwise indicated by code:

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1. To Masonry: Approved toggle-type bolts on hollow masonry units and expansion anchor fasteners on solid masonry units.

- 2. To Existing Concrete: Expansion anchor fasteners.
- 3. Instead of expansion anchors, powder-actuated driven threaded studs provided with lock washers and nuts may be used in existing standard-weight concrete 4 inches (100 mm) thick or greater. Do not use for anchorage to lightweight-aggregate concrete or for slabs less than 4 inches (100 mm) thick.
- C. Drill holes for expansion anchors in concrete at locations and to depths that avoid reinforcing bars.

3.03 PAINTING

A. Galvanized Surfaces: Clean, bolted connections, and abraded areas and apply galvanizing-repair paint to comply with ASTM A 780.

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RACEWAYS AND BOXES FOR ELECTRICAL SYSTEMS

SPECIAL PROVISION

Add the following section:

PART 1 - GENERAL

1.01 SUMMARY

- A. Section Includes:
 - 1. Metal conduits, tubing, and fittings.
 - 2. Nonmetal conduits, tubing, and fittings.
 - 3. Boxes, enclosures, and cabinets.
 - 4. Handholes and boxes for exterior underground cabling.

1.02 ACTION SUBMITTALS

- A. Product Data: For enclosures and handholes.
- B. Shop Drawings: For power center enclosure. Include plans, elevations, sections, and attachment details.

PART 2 - PRODUCTS

- 2.01 METAL CONDUITS, TUBING, AND FITTINGS
 - A. Listing and Labeling: Metal conduits, tubing, and fittings shall be listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application.
 - B. GRC: Comply with ANSI C80.1 and UL 6.
 - C. PVC-Coated Steel Conduit: PVC-coated rigid steel conduit.
 - 1. Comply with NEMA RN 1.
 - 2. Coating Thickness: 0.040 inch (1 mm), minimum.
 - D. Fittings for Metal Conduit: Comply with NEMA FB 1 and UL 514B.
 - E. Joint Compound for GRC: Approved, as defined in NFPA 70, by authorities having jurisdiction for use in conduit assemblies, and compounded for use to lubricate and protect threaded conduit joints from corrosion and to enhance their conductivity.

2.02 NONMETALLIC CONDUITS, TUBING, AND FITTINGS

- A. Listing and Labeling: Nonmetallic conduits, tubing, and fittings shall be listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application.
- B. RNC: Type EPC-40-PVC, complying with NEMA TC 2 and UL 651 unless otherwise indicated.
- C. LFNC: Comply with UL 1660.
- D. Fittings for RNC: Comply with NEMA TC 3; match to conduit or tubing type and material.
- E. Fittings for LFNC: Comply with UL 514B.

2.03 BOXES, ENCLOSURES, AND CABINETS

- A. General Requirements for Boxes, Enclosures, and Cabinets: Boxes, enclosures, and cabinets installed in wet locations shall be listed for use in wet locations.
- B. Cast-Metal Access, Pull, and Junction Boxes: Comply with NEMA FB 1 and UL 1773, galvanized, cast iron with gasketed cover.

2.04 HANDHOLES AND BOXES FOR EXTERIOR UNDERGROUND WIRING

- A. General Requirements for Handholes and Boxes:
 - 1. Boxes and handholes for use in underground systems shall be designed and identified as defined in NFPA 70, for intended location and application.
 - 2. Boxes installed in wet areas shall be listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application.

PART 3 - EXECUTION

3.01 RACEWAY APPLICATION

- A. Outdoors: Apply raceway products as specified below unless otherwise indicated:
 - 1. Exposed Conduit: GRC.
 - 2. Underground Conduit: RNC.
 - 3. Boxes and Enclosures, Aboveground: NEMA 250, Type 3R and Type 4.
- B. Raceway Fittings: Compatible with raceways and suitable for use and location.
 - 1. Rigid Steel Conduit: Use threaded rigid steel conduit fittings unless otherwise indicated. Comply with NEMA FB 2.10.
 - 2. Flexible Conduit: Use only fittings listed for use with flexible conduit. Comply with NEMA FB 2.20.

3.02 INSTALLATION

- A. Comply with NECA 1 and NECA 101 for installation requirements except where requirements on Drawings or in this article are stricter. Comply with NECA 102 for aluminum conduits. Comply with NFPA 70 limitations for types of raceways allowed in specific occupancies and number of floors.
- B. Comply with requirements in Section 666 "Hangers and Supports for Electrical Systems" for hangers and supports.
- C. Arrange stub-ups so curved portions of bends are not visible above finished grade.
- D. Install no more than the equivalent of three 90-degree bends in any conduit run. Support within 12 inches (300 mm) of changes in direction.
- E. Threaded Conduit Joints, Exposed to Wet, Damp, Corrosive, or Outdoor Conditions: Apply listed compound to threads of raceway and fittings before making up joints. Follow compound manufacturer's written instructions.
- F. Terminate threaded conduits into threaded hubs or with locknuts on inside and outside of boxes or cabinets. Install bushings on conduits up to 1-1/4-inch (35-mm) trade size and insulated throat metal bushings on 1-1/2-inch (41-mm) trade size and larger conduits terminated with locknuts. Install insulated throat metal grounding bushings on service conduits.
- G. Install pull wires in empty raceways. Use polypropylene or monofilament plastic line with not less than 200-lb (90-kg) tensile strength. Leave at least 12 inches (300 mm) of slack at each end of pull wire. Cap underground raceways designated as spare above grade alongside raceways in use.
- H. Flexible Conduit Connections: Comply with NEMA RV 3.
 - 1. Use LFNC in damp or wet locations.
- I. Fasten junction and pull boxes to or support from structure. Do not support boxes by conduits.

3.03 INSTALLATION OF UNDERGROUND CONDUIT

- A. Direct-Buried Conduit:
 - 1. Excavate trench bottom to provide firm and uniform support for conduit.
 - 2. Install backfill,
 - 3. After installing conduit, backfill and compact. Start at tie-in point, and work toward end of conduit run, leaving conduit at end of run free to move with expansion and contraction as temperature changes during this process. Firmly hand tamp backfill around conduit to provide maximum supporting strength. After placing controlled backfill to within 12 inches (300 mm) of finished grade, make final conduit connection at end of run and complete backfilling with normal compaction.
 - 4. Install manufactured duct elbows for stub-up at equipment. Encase elbows for stub-up ducts throughout length of elbow.
 - 5. Install manufactured rigid steel conduit elbows for stub-ups at equipment.
 - a. Couple steel conduits to ducts with adapters designed for this purpose, and encase coupling with 3 inches (75 mm) of concrete for a minimum of 12 inches (300 mm) on each side of the coupling.

b. For stub-ups at equipment mounted on outdoor concrete bases and where conduits penetrate building foundations, extend steel conduit horizontally a minimum of 60 inches (1500 mm) from edge of foundation or equipment base. Install insulated grounding bushings on terminations at equipment.

3.04 INSTALLATION OF UNDERGROUND HANDHOLES AND BOXES

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

3.05 PROTECTION

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

END SPECIAL PROVISION

SECTION 668 WIRING DEVICES

SPECIAL PROVISION

Add the following section:

PART 1 - GENERAL

1.01 SUMMARY

- A. Section Includes:
 - 1. Receptacles, receptacles with integral GFCI.
 - 2. Weather-resistant receptacles.

1.02 ACTION SUBMITTALS

A. Product Data: For each type of product.

PART 2 - PRODUCTS

A. Source Limitations: Obtain each type of wiring device and associated wall plate from single source from single manufacturer.

2.02 GENERAL WIRING-DEVICE REQUIREMENTS

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

2.03 STRAIGHT-BLADE RECEPTACLES

- A. Convenience Receptacles, 125 V, 20 A: Comply with NEMA WD 1, NEMA WD 6 Configuration 5-20R, UL 498, and FS W-C-596.
 - 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. Cooper.
 - b. Hubbell.
 - c. Leviton.
 - d. Pass & Seymour.

2.04 GFCI RECEPTACLES

A. General Description:

- 1. Duplex, 125V, 20A.
- 2. Straight blade, non-feed-through type.
- 3. Comply with NEMA WD 1, NEMA WD 6, UL 498, UL 943 Class A, and FS W-C-596.
- 4. Include indicator light that shows when the GFCI has malfunctioned and no longer provides proper GFCI protection.

2.05 COVER PLATES

A. Wet-Location, Weatherproof Cover Plates: NEMA 250, complying with Type 3R, weather-resistant, die-cast aluminum with lockable cover. Color to match light pole.

PART 3 - EXECUTION

3.01 INSTALLATION

A. Comply with NECA 1, including mounting heights listed in that standard, unless otherwise indicated.

B. Conductors:

- Do not strip insulation from conductors until right before they are spliced or terminated on devices.
- 2. Strip insulation evenly around the conductor using tools designed for the purpose. Avoid scoring or nicking of solid wire or cutting strands from stranded wire.
- 3. The length of free conductors at outlets for devices shall meet provisions of NFPA 70, Article 300, without pigtails.

C. Device Installation:

- 1. Replace devices that have been in temporary use during construction and that were installed before building finishing operations were complete.
- 2. Keep each wiring device in its package or otherwise protected until it is time to connect conductors.
- 3. Do not remove surface protection, such as plastic film and smudge covers, until the last possible moment.
- 4. Connect devices to branch circuits using pigtails that are not less than 12 inches (152 mm) in length.
- 5. When there is a choice, use side wiring with binding-head screw terminals. Wrap solid conductor tightly clockwise, two-thirds to three-fourths of the way around terminal screw.
- 6. Use a torque screwdriver when a torque is recommended or required by manufacturer.
- 7. When conductors larger than No. 12 AWG are installed on 15- or 20-A circuits, splice No. 12 AWG pigtails for device connections.
- 8. Tighten unused terminal screws on the device.
- 9. When mounting into metal boxes, remove the fiber or plastic washers used to hold device-mounting screws in yokes, allowing metal-to-metal contact.

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3.02 FIELD QUALITY CONTROL

- A. Perform the following tests and inspections:
 - 1. Test Instruments: Use instruments that comply with UL 1436.
 - 2. Test Instrument for Convenience Receptacles: Digital wiring analyzer with digital readout or illuminated digital-display indicators of measurement.
- B. Tests for Convenience Receptacles:
 - 1. Line Voltage: Acceptable range is 105 to 132 V.
 - 2. Percent Voltage Drop under 15-A Load: A value of 6 percent or higher is unacceptable.
 - 3. Ground Impedance: Values of up to 2 ohms are acceptable.
 - 4. GFCI Trip: Test for tripping values specified in UL 1436 and UL 943.
 - 5. Using the test plug, verify that the device and its outlet box are securely mounted.
 - 6. Tests shall be diagnostic, indicating damaged conductors, high resistance at the circuit breaker, poor connections, inadequate fault current path, defective devices, or similar problems. Correct circuit conditions, remove malfunctioning units and replace with new ones, and retest as specified above.
- C. Wiring device will be considered defective if it does not pass tests and inspections.
- D. Prepare test and inspection reports.

SECTION 669 PANELBOARDS

SPECIAL PROVISION

Add the following section:

PART 1 - GENERAL

1.01 SUMMARY

A. Section Includes:

- 1. Lighting and appliance branch-circuit panelboards.
- 2. Disconnecting and overcurrent protective devices.

1.02 ACTION SUBMITTALS

A. Product Data:

- 1. Lighting and appliance branch-circuit panelboards.
- 2. Disconnecting and overcurrent protective devices.
- 3. Include materials, switching and overcurrent protective devices, accessories, and components indicated.
- 4. Include dimensions and manufacturers' technical data on features, performance, electrical characteristics, ratings, and finishes.
- B. Shop Drawings: For each panelboard and related equipment.
 - 1. Include dimensioned plans, elevations, sections, and details.
 - 2. Show tabulations of installed devices with nameplates, conductor termination sizes, equipment features, and ratings.
 - 3. Detail enclosure types including mounting and anchorage, environmental protection, knockouts, corner treatments, covers and doors, gaskets, hinges, and locks.
 - 4. Detail bus configuration, current, and voltage ratings.
 - 5. Short-circuit current rating of panelboards and overcurrent protective devices.

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6. Detail features, characteristics, ratings, and factory settings of individual overcurrent protective devices and auxiliary components.

1.03 INFORMATIONAL SUBMITTALS

A. Panelboard Schedules: For installation in panelboards.

1.04 CLOSEOUT SUBMITTALS

A. Warranty documentation.

1.05 WARRANTY

- A. Warranty: Installer warrants that fabricated and installed panelboards perform in accordance with specified requirements and agrees to repair or replace components or products that fail to perform as specified within warranty period.
 - 1. Warranty Period: One year from date of Substantial Completion; full coverage for labor, materials, and equipment.

PART 2 - PRODUCTS

2.01 PANELBOARDS COMMON REQUIREMENTS

- A. Electrical Components, Devices, and Accessories: Listed and labeled in accordance with NFPA 70, by qualified electrical testing agency recognized by authorities having jurisdiction, and marked for intended location and application.
- B. Comply with NEMA PB 1.
- C. Comply with NFPA 70.
- D. Enclosures: Surface-mounted, dead-front cabinets.
 - 1. Rated for environmental conditions at installed location.
 - a. Indoor Dry and Clean Locations: UL 50E, Type 1.
 - 2. Height: 7 ft (2.13 m) maximum.
 - 3. Hinged Front Cover: Entire front trim hinged to box and with standard door within hinged trim cover. Trims must cover live parts and may have no exposed hardware.
- E. Phase, Neutral, and Ground Buses:
 - 1. Material: Tin-plated aluminum.
- F. Conductor Connectors: Suitable for use with conductor material and sizes.
 - 1. Material: Tin-plated aluminum.
 - 2. Main and Neutral Lugs: Mechanical type, with lug on neutral bar for each pole in panelboard.
 - 3. Ground Lugs and Bus-Configured Terminators: Mechanical type, with lug on bar for each pole in panelboard.
- G. Future Devices: Panelboards must have mounting brackets, bus connections, filler plates, and necessary appurtenances required for future installation of devices.
- H. Panelboard Short-Circuit Current Rating:
 - 1. Fully rated to interrupt symmetrical short-circuit current available at terminals. Assembly listed, by qualified electrical testing laboratory recognized by authorities having jurisdiction, for 100 percent interrupting capacity.

2.02 POWER PANELBOARDS

- 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. Eaton.
 - 2. Siemens Industry, Inc., Energy Management Division.
 - 3. Square D; Schneider Electric USA.
- B. Listing Criteria: NEMA PB 1, distribution type.
- C. Mains: Circuit breaker.
- D. Branch Overcurrent Protective Devices: Bolt-on circuit breakers.

2.03 LIGHTING AND APPLIANCE BRANCH-CIRCUIT PANELBOARDS

- 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. Eaton.
 - 2. Siemens Industry, Inc., Energy Management Division.
 - 3. Square D; Schneider Electric USA.
- B. Listing Criteria: NEMA PB 1, lighting and appliance branch-circuit type.
- C. Mains: Circuit breaker.
- D. Branch Overcurrent Protective Devices: Plug-in circuit breakers, replaceable without disturbing adjacent units.
- E. Doors: Door-in-door construction with concealed hinges; secured with flush latch with tumbler lock; keyed alike.

2.04 DISCONNECTING AND OVERCURRENT PROTECTIVE DEVICES

- A. MCCB: Comply with UL 489, with interrupting capacity to meet available fault currents.
 - 1. Thermal-Magnetic Circuit Breakers:
 - a. Inverse time-current element for low-level overloads.
 - b. Instantaneous magnetic trip element for short circuits.
 - c. Adjustable magnetic trip setting for circuit-breaker frame sizes 250 A and larger.
 - 2. MCCB Features and Accessories:
 - a. Standard frame sizes, trip ratings, and number of poles.
 - b. Breaker handle indicates tripped status.
 - c. Lugs: Mechanical style, suitable for number, size, trip ratings, and conductor materials.
 - d. Handle Padlocking Device: Fixed attachment, for locking circuit-breaker handle in on or off position.

PART 3 - EXECUTION

3.01 INSTALLATION

- A. Comply with manufacturer's published instructions.
- B. Reference Standards:
 - 1. Panelboards: Unless more stringent requirements are specified in Contract Documents or manufacturers' published instructions, comply with NEMA PB 1.1.
 - 2. Mount top of trim 7.5 ft above finished floor unless otherwise indicated.
 - 3. Mount panelboard cabinet plumb and rigid without distortion of box.
 - 4. Mount recessed panelboards with fronts uniformly flush with wall finish and mating with back box.
 - 5. Install overcurrent protective devices and controllers not already factory installed.
 - 6. Install filler plates in unused spaces.

3.02 IDENTIFICATION

- A. Identify field-installed conductors, interconnecting wiring, and components; install warning signs complying with requirements in Section 260553 "Identification for Electrical Systems."
- B. Panelboard Nameplates: Label each panelboard with nameplate complying with requirements for identification specified in Section 260553 "Identification for Electrical Systems."
- C. Device Nameplates: Label each branch circuit device in power panelboards with nameplate complying with requirements for identification specified in Section 260553 "Identification for Electrical Systems."
- D. Install warning signs complying with requirements in Section 260553 "Identification for Electrical Systems" identifying source of remote circuit.
- E. Panelboard Label: Manufacturer's name and trademark, voltage, amperage, number of phases, and number of poles must be located on interior of panelboard door.
- F. Breaker Labels: Faceplate must list current rating, UL and IEC certification standards, and AIC rating.
- G. Circuit Directory:
 - 1. Provide directory card inside panelboard door, mounted in metal frame with transparent protective cover.
 - a. Circuit directory must identify specific purpose with detail sufficient to distinguish it from other circuits.
 - 2. Create directory to indicate installed circuit loads. Handwritten directories are not acceptable. Install directory inside panelboard door.

3.03 FIELD QUALITY CONTROL

A. Acceptance Testing Preparation:

- 1. Test insulation resistance for each panelboard bus, component, connecting supply, feeder, and control circuit.
- 2. Test continuity of each circuit.

B. Nonconforming Work:

- 1. Panelboards will be considered defective if they do not pass tests and inspections.
- 2. Remove and replace defective units and retest.

LOW-VOLTAGE DISTRIBUTION TRANSFORMERS

SPECIAL PROVISION

Add the following section:

PART 1 - GENERAL

1.01 SUMMARY

A. Section Includes:

1. Distribution, dry-type transformers with nominal primary and secondary rating of 600 V and less, with capacities up to 1500 kVA.

1.02 ACTION SUBMITTALS

- A. Product Data:
 - 1. For each type of product.
- B. Shop Drawings:
 - 1. Detail equipment assemblies and indicate dimensions, weights, loads, required clearances, method of field assembly, components, and location and size of field connections.
 - 2. Vibration Isolation Base Details: Detail fabrication including anchorages and attachments to structure and to supported equipment.

PART 2 - PRODUCTS

2.01 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. Eaton.
 - 2. Siemens Industry, Inc., Energy Management Division.
 - 3. Square D; Schneider Electric USA.
 - 4. Federal Pacific.
 - 5. Hammond Power Solutions.

2.02 GENERAL TRANSFORMER REQUIREMENTS

A. Description: Factory-assembled and -tested, air-cooled units for 60 Hz service.

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- B. Electrical Components, Devices, and Accessories: Listed and labeled in accordance with NFPA 70, by qualified electrical testing laboratory recognized by authorities having jurisdiction, and marked for intended location and application.
- C. Transformers Rated 15 kVA and Larger:
 - 1. Comply with 10 CFR 431 (DOE 2016) efficiency levels.
 - 2. Marked as compliant with DOE 2016 efficiency levels by qualified electrical testing laboratory recognized by authorities having jurisdiction.

2.03 DISTRIBUTION TRANSFORMERS

- A. Comply with NFPA 70.
- B. Cores: Electrical grade, non-aging silicon steel with high permeability and low hysteresis losses.
 - 1. One leg per phase.
- C. Coils: Continuous windings except for taps.
 - 1. Coil Material: Aluminum.
 - 2. Internal Coil Connections: Brazed or pressure type.
 - Terminal Connections: Welded.
- D. Enclosure: Ventilated.
 - 1. Core and coil must be encapsulated within resin compound to seal out moisture and air.
 - 2. KVA Ratings: Based on convection cooling only and not relying on auxiliary fans.
 - 3. Wiring Compartment: Sized for conduit entry and wiring installation.
 - 4. Environmental Protection:
 - a. Indoor: UL 50E, Type 2.
- E. Taps for Transformers 25 kVA and Larger: **Two 2.5 percent taps above and two 2.5 percent taps below normal full capacity**.
- F. Insulation Class, 30 kVA and Larger: 220 deg C, UL-component-recognized insulation system with maximum of **150 deg C** rise above 40 deg C ambient temperature.
- G. Grounding: Provide ground-bar kit or ground bar installed on inside of transformer enclosure.

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2.04 IDENTIFICATION

- A. Nameplates:
 - 1. Engraved, laminated-acrylic or melamine plastic signs for distribution transformers, mounted with corrosion-resistant screws. Nameplates and label products are specified in Section 260553 "Identification for Electrical Systems."

PART 3 - EXECUTION

3.01 EXAMINATION

- A. Examine conditions for compliance with enclosure- and ambient-temperature requirements for transformers.
- B. Verify that field measurements are as needed to maintain working clearances required by NFPA 70 and manufacturer's published instructions.

3.02 INSTALLATION

- A. Construct concrete bases and anchor floor-mounted transformers in accordance with manufacturer's published instructions.
 - Coordinate size and location of concrete bases with actual transformer provided. Cast anchor-bolt inserts into bases. Concrete, reinforcement, and formwork requirements are specified with concrete.
- B. Secure transformer to concrete base in accordance with manufacturer's published instructions.
- C. Secure covers to enclosure and tighten bolts to manufacturer-recommended torques to reduce noise generation.
- D. Remove shipping bolts, blocking, and wedges.

3.03 CONNECTIONS

- A. Ground equipment in accordance with the NEC.
- B. Connect wiring in accordance with Section 260519 "Low-Voltage Electrical Power Conductors and Cables."
- C. Tighten electrical connectors and terminals in accordance with manufacturer's published torquetightening values. If manufacturer's torque values are not indicated, use those specified in UL 486A-486B.
- D. Provide flexible connections at conduit and conductor terminations and supports to eliminate sound and vibration transmission to building structure.

3.04 FIELD QUALITY CONTROL

- A. Tests and Inspections:
 - 1. Small (Up to 167 kVA Single-Phase or 500 kVA Three-Phase) Dry-Type Transformer Field Tests:
 - a. Visual and Mechanical Inspection.
 - 1) Inspect physical and mechanical condition.
 - 2) Inspect anchorage, alignment, and grounding.

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- 3) Verify that resilient mounts are free and that shipping brackets have been removed.
- 4) Verify that unit is clean.
- 5) Perform specific inspections and mechanical tests recommended by manufacturer.

b. Electrical Tests:

- 1) Measure resistance at windings, taps, and bolted connections.
- 2) Verify correct secondary voltage, phase-to-phase and phase-to-neutral, after energization and prior to loading.

B. Nonconforming Work:

1. Transformer will be considered defective if it does not pass tests and inspections.

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2. Remove and replace units that do not pass tests or inspections and retest as specified above

3.05 CLEANING

A. Vacuum dirt and debris; do not use compressed air to assist in cleaning.

GATE

SPECIAL PROVISIONS

Add the following Section:

690-1.01 GENERAL DESCRIPTION. Furnish and place maintenance gate at location shown on the Plans. The Contractor shall provide all labor, materials and appurtenances necessary for installation of the welded ornamental steel gate system defined herein.

690-1.02 SYSTEM DESCRIPTION. The manufacturer shall supply a welded ornamental gate system with all components (posts, gates and hardware).

Manufacturer: Provide from the following or approved equal:

 Ameristar Perimeter Security USA, Region 1, Bob Kelley - <u>bkelley@ameristarfence.com</u>, ph. 888-333-3422.

Welded Ornamental Steel Gate System: Provide the following or approved equal:

- 1. Montage Plus® System
- 2. 4' High
- 3. 8' Gate Opening
- 4. 3-Rail
- 5. Double Swing Arched Gate
- 6. Flush Bottom
- 7. 4" Air Gap
- 8. Majestic Style
- 9. Black color
- 10. Heavy Commercial Hinge kit

690-1.03 QUALITY ASSURANCE. Use only new materials. Source limitations: Obtain each type through one source from a single manufacturer. The Contractor shall provide laborers and supervisors who are thoroughly familiar with the type of construction involved and materials and techniques specified.

690-1.04 REFERENCES.

- ASTM A653/A653M Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy Coated (Galvannealed) by the Hot-Dip Process.
- ASTM B117 Practice for Operating Salt-Spray (Fog) Apparatus.
- ASTM D523 Test Method for Specular Gloss
- ASTM D714 Test Method for Evaluating Degree of Blistering in Paint.
- ASTM D822 Practice for Conducting Tests on Paint and Related Coatings and Materials using Filtered Open-Flame Carbon-Arc Light and Water Exposure Apparatus.
- ASTM D1654 Test Method for Evaluation of Painted or Coated Specimens Subjected to Corrosive Environments.
- ASTM D2244 Test Method for Calculation of Color Differences from Instrumentally Measured Color Coordinates.

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 ASTM D2794 - Test Method for Resistance of Organic Coatings to the Effects of Rapid Deformation (Impact).

- ASTM D3359 Test Method for Measuring Adhesion by Tape Test.
- ASTM F2408 Ornamental Fences Employing Galvanized Steel Tubular Pickets.

690-1.05 SUBMITTAL. Submit product data including construction details, material descriptions, dimensions, installation details and finishes for approval.

690-1.06 PRODUCT HANDLING AND STORAGE. Upon receipt at the job site, all materials shall be checked to ensure that no damage occurred during shipping and handling. Materials shall be stored in such a manner to ensure proper ventilation and drainage, and to protect against damage, weather, vandalism and theft.

690-2.01 MATERIALS.

- A. Concrete for foundations shall be Class A per Section 501
- B. Steel material for fence panels and posts shall conform to the requirements of ASTM A653/A653M, with a minimum yield strength of 45,000 psi (310 MPa) and a minimum zinc (hot-dip galvanized) coating weight of 0.60 oz/ft² (184 g/m²), Coating Designation G-60.
- C. Material for pickets shall be 3/4" square x 18 Ga. tubing. The rails shall be steel channel, 1.5" x 1.4375" x 14 Ga. Picket holes in the rail shall be spaced (specify 4.675" o.c. for standard picket space or 3.500" o.c. for 3" air space). Fence posts and gate posts shall meet the minimum size requirements of **Table 1**.

| Table 1 – Minimum Sizes for Montage Plus Posts | | | |
|--|----------------------------|------------------------------|--|
| Fence Posts | Panel Height | | |
| 2-1/2" x 16 Ga. | Up to & Including 6' Heigh | Up to & Including 6' Height | |
| | | | |
| Cata Loof | Gate Height | | |
| Gate Leaf | Up to & Including 4' | Over 4' Up to & Including 6' | |
| Up to 4' | 2-1/2" x 14 Ga. | 3" x 12 Ga. | |
| 4'1" to 6' | 3" x 12 Ga. | 3" x 12 Ga. | |
| 6'1" to 8' | 3" x 12 Ga. | 4" x 12 Ga. | |

690-2.02 FABRICATION.

- A. Pickets, rails and posts shall be pre-cut to specified lengths. Rails shall be pre-punched to accept pickets.
- B. Pickets shall be inserted into the pre-punched holes in the rails and shall be aligned to standard spacing using a specially calibrated alignment fixture. The aligned pickets and rails shall be joined at each picket-to-rail intersection by Ameristar's proprietary fusion welding process, thus completing the rigid panel assembly (Note: The process produces a virtually seamless, spatter-free good-neighbor appearance, equally attractive from either side of the panel).

- C. The manufactured panels and posts shall be subjected to an inline electrode position coating (E-Coat) process consisting of a multi-stage pretreatment/wash, followed by a duplex application of an epoxy primer and an acrylic topcoat. The minimum cumulative coating thickness of epoxy and acrylic shall be 2 mils (0.058 mm). The color shall be <u>Black</u>. The coated panels and posts shall be capable of meeting the performance requirements for each quality characteristic shown in **Table 2** (Note: The requirements in Table 2 meet or exceed the coating performance criteria of ASTM F2408).
- D. The manufactured fence system shall be capable of meeting the vertical load, horizontal load, and infill performance requirements for Commercial weight fences under ASTM F2408.
- E. Gates with an out to out leaf dimension less than and including 72 inches shall be fabricated using Montage Plus ornamental panel material and 1-3/4" sq. x 14ga. gate ends. All rail and upright intersections shall be joined by welding. All picket and rail intersections shall also be joined by welding.

| Table 2 – Coating Performance Requirements | | | |
|--|-----------------------|---|--|
| Quality | ASTM Test Method | Performance Requirements | |
| Characteristics | | | |
| Adhesion | D3359 – Method B | Adhesion (Retention of Coating) over 90% of test | |
| | | area (Tape and knife test). | |
| Corrosion | B117, D714 & D1654 | Corrosion Resistance over 1,500 hours (Scribed per | |
| Resistance | | D1654; failure mode is accumulation of 1/8" coating | |
| | | loss from scribe or medium #8 blisters). | |
| Impact Resistance | D2794 | Impact Resistance over 60 inch lb. (Forward impact | |
| | | using 0.625" ball). | |
| Weathering | D822 D2244, D523 (60° | Weathering Resistance over 1,000 hours (Failure | |
| Resistance | Method) | mode is 60% loss of gloss or color variance of more | |
| | - | than 3 delta-E color units). | |

690-3.01 EXAMINATION. Examine areas and conditions with Installer present for compliance with requirements for correct and level finished grade, mounting surfaces, installation tolerances and other conditions affecting performance.

690-3.02 GATE INSTALLATION. Comply with manufacturer's written installation instructions, unless more stringent requirements are indicated. Gate posts shall be spaced according to the manufacturers' gate drawings, dependent on standard out-to-out gate leaf dimensions and gate hardware selected. Posts shall be set in concrete footers having a minimum depth of 36". Type and quantity of gate hinges shall be based on the application; weight, height, and number of gate cycles. The manufacturers' gate drawings shall identify the necessary gate hardware required for the application. Gate hardware shall be provided by the manufacture of the gate and shall be installed per manufacturer's recommendations.

690-3.03 CLEANING. The contractor shall clean the jobsite of excess materials; post-hole excavations shall be scattered uniformly away from posts.

690-4.01 METHOD OF MEASUREMENT. See Section 109. Concrete foundations shall be included in item 690.1.

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690-5.01 BASIS OF PAYMENT. Payment will be made under:

| PAY ITEM | | |
|-------------|------------------|----------|
| Item Number | Item Description | Unit |
| 690.1 | Maintenance Gate | LUMP SUM |
| | | |

SITE FURNISHINGS

SPECIAL PROVISIONS

Add the following Section:

691-1.01 GENERAL DESCRIPTION. Furnish and place site furnishings at locations shown on the Plans. The Contractor shall provide all labor, materials and appurtenances necessary for installation of each site furnishing system defined herein.

691-1.02 SUMMARY. This section includes the following products:

- 1. Arbor.
- 2. Classic Bench.
- 3. Lounge Chair.
- 4. Game Top Table.
- 5. Coffee Table.
- 6. Dining Table.
- 7. Classic Chair.
- 8. Swing Bench.
- 9. Rolling Planter Box.
- 10. Large Pergola.
- 11. Small Pergola, 12' length.
- 12. Small Pergola, 20' length.

691-1.03 QUALITY ASSURANCE. Use only new materials. Source limitations: Obtain each product type through one source from a single manufacturer.

691-1.05 SUBMITTAL. Submit for each type of product indicated. Include product data including construction details, material descriptions, dimensions, installation details and finishes for approval. Also include maintenance manuals.

691-1.06 PRODUCT HANDLING AND STORAGE. Upon receipt at the job site, all materials shall be checked to ensure that no damage occurred during shipping and handling. Materials shall be stored in such a manner to ensure proper ventilation and drainage, and to protect against damage, weather, vandalism and theft.

691-2.01 MATERIALS. Products subject to compliance with requirements or approved equal:

- 1. Arbor. Walpole Outdoors Rep: Hillary Campbell, hillary.campbell@walpoleoutdoors.com ph 508-921-4873 Custom AZEK Spindle Top Arbor with Arch and Lattice side panels, 8' tall, 4" sq. posts with steel cores, prefinished white, flange mount.
- 2. Classic Bench. <u>Wishbone</u> Rep: Nancy Casey, <u>nancy@gwpark.com</u> ph 907-394-2577– Classic Bench CB-6, 6' length, center arm (bolt-on), surface mount, 'carbon black' frame color, recycled

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plastic lumber color 'walnut'.

- 3. Lounge Chair. <u>Landscape Forms</u>, <u>west@landscapeforms.com</u>, ph 800-521-2546 Chill Chaise Lounge, surface mount, 'Otter' color.
- 4. Game Top Table. <u>Victor Stanley</u> Rep: Rebecca Day, <u>rebeccad@victorstanley.com</u> ph 800-368-2573 x 327 IP-48, gameboard top, surface mount, black color.
- 5. Coffee Table. <u>Wishbone</u> Rep: Nancy Casey, <u>nancy@gwpark.com</u> ph 907-394-2577 Mountain Classic Coffee Table, MCCT-37, surface mount, 'carbon black' frame color, recycled plastic lumber color 'walnut'.
- Dining Table. <u>Victor Stanley</u> Rep: Rebecca Day, <u>rebeccad@victorstanley.com</u> ph 800-368-2573 x 327 Classic table C-9, 6' length, surface mount, black frame color, recycled plastic slat maple color.
- 7. Classic Chair. <u>Wishbone</u> Rep: Nancy Casey, <u>nancy@gwpark.com</u> ph 907-394-2577 Classic Bench CB-2, 2' length, surface mount, 'carbon black' frame color, recycled plastic lumber color 'walnut'.
- 8. Rolling Planter Box. <u>DeepStreamDesign</u> Rep: Shelia Boyce, <u>dsdmiami@gmail.com</u> ph 305-857-0466 Custom Mariner Wood Garden Planter with wheels, 42" length x 24" width, recessed casters & brake.
- 9. Swing Bench. Westminster Teak, ph 888-592-8325 Veranda Swing Bench Set, 87" length x 55" width, 81" height, 100% Grade A Plantation Teak, stainless steel hardware, Teak Protector Plus Shield.
- 10. Small Pergola, Walpole Outdoors Rep: Hillary Campbell, hillary.campbell@walpoleoutdoors.com ph 508-921-4873 Custom AZEK Pergola, 3' wide, 5.5" sq. posts with steel cores, 3.5" x 7.25" beams with ogee end cuts, 2" x 5" straight joists with ogee end cuts, prefinished white, 12' and 20' lengths, flange mount.
- 11. Large Pergola. Walpole Outdoors Rep: Hillary Campbell, hillary.campbell@walpoleoutdoors.com ph 508-921-4873 Custom AZEK Garden Pergola with widely-spaced lattice side panels, 6' wide, 15' long, 8' high, 5.5" sq. posts with steel cores, 3.5" x 7.25" beams with ogee end cuts, 2" x 5" straight joists with ogee end cuts, widely spaced lattice panels, 8' height, prefinished white, flange mount.

691-3.01 EXAMINATION. Examine areas and conditions with Installer present for compliance with requirements for correct and level finished grade, mounting surfaces, installation tolerances and other conditions affecting performance.

691-3.02 INSTALLATION. Comply with manufacturer's written installation instructions, unless more stringent requirements are indicated. Complete field assembly of site furnishings. Owner Representative to approve locations of furnishings prior to installation. Install all furnishings level, plumb, true and securely anchored at locations indicated on the drawings.

691-3.03 CLEANING. After completing installation, inspect components. Remove spots, dirt and debris.

691-4.01 METHOD OF MEASUREMENT. See Section 109.

691-5.01 BASIS OF PAYMENT. Payment will be made under:

| PAY ITEM | | |
|-------------|-------------------------------|------|
| Item Number | Item Description | Unit |
| 691.1 | F&I Arbor | EA |
| 691.2 | F&I Classic Bench | EA |
| 691.4 | F&I Lounge Chair | EA |
| 691.5 | F&I Game Top Table | EA |
| 691.6 | F&I Coffee Table | EA |
| 691.7 | F&I Dining Table | EA |
| 691.8 | F&I Classic Chair | EA |
| 691.9 | F&I Rolling Planter Box | EA |
| 691.10 | F&I Swing Bench | EA |
| 691.11 | F&I Small Pergola, 12' length | EA |
| 691.12 | F&I Small Pergola, 20' length | EA |
| 691.13 | F&I Large Pergola | EA |

GAZEBO

SPECIAL PROVISIONS

Add the following Section:

692-1.01 GENERAL DESCRIPTION. Furnish and install gazebo at location shown on the Plans. The Contractor shall provide all labor, materials and appurtenances necessary for installation of the gazebo structure defined herein. Gazebo shall include design of Gazebo and Foundation to local codes as specified in the Drawings.

692-1.02 SUMMARY. The pre-manufactured gazebo structure shall be glued laminated with a clear space, without a center column or open knee bracing. Structure shall be designed by professional engineers. Structure includes the following:

- 1. Cupola ornamentation.
- 2. Interior wood roofing.
- 3. 26 gauge Exterior metal roof.
- 4. Wood beams.
- 5. Fascia Wood trim.
- 6. Steel Column support.
- 7. Eave height 7'-6". Roof pitch 6:12.
- 8. Wood color- white.
- 9. Electrical Provisioning.

692-1.03 QUALITY ASSURANCE. Source limitations: Obtain product through one source from a single manufacturer with a minimum of five (5) years experience.

692-1.05 SUBMITTAL. Submit product data including construction details, material descriptions, dimensions, installation details and finishes for approval meeting City and Borough of Juneau building design criteria. Include drawings for gazebo and foundation stamped by an Alaska registered engineer. Also include maintenance manuals.

692-1.06 PRODUCT HANDLING AND STORAGE. Upon receipt at the job site, all materials shall be checked to ensure that no damage occurred during shipping and handling. Materials shall be stored in such a manner to ensure proper ventilation and drainage, and to protect against damage, weather, vandalism and theft.

692-2.01 MATERIALS. Basis of Design Manufacturer. Products subject to compliance with requirements or approved equal:

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1. <u>RCP Shelters, Inc</u> – Rep: Nancy Casey, <u>nancy@gwpark.com</u> ph 907-394-2577 and <u>info@rcpshelters.com</u>, ph 772-288-3600.

692-3.01 EXAMINATION. Examine areas and conditions with Installer present for compliance with requirements for correct and level finished grade, mounting surfaces, installation tolerances and other conditions affecting performance.

692-3.02 INSTALLATION. Comply with manufacturer's written installation instructions, unless more stringent requirements are indicated. Complete field assembly of gazebo. Owner Representative to approve locations of gazebo prior to installation. Install level, plumb, true and securely anchored at locations indicated on the drawings.

692-3.03 CLEANING. After completing installation, inspect components. Remove spots, dirt and debris.

692-4.01 METHOD OF MEASUREMENT. See Section 109. Gazebo shall include engineered gazebo, with foundation design and installation.

692-5.01 BASIS OF PAYMENT. Payment will be made under:

| PAY ITEM | | |
|-------------|------------------|----------|
| Item Number | Item Description | Unit |
| 692.1 | Gazebo | Lump Sum |

AGGREGATES

STANDARD MODIFICATIONS

703-2.03 AGGREGATE FOR BASE AND SURFACE COURSE. <u>In Table 703-1 replace the line for Degradation Value with the following:</u>

TABLE 703-1 AGGREGATE QUALITY PROPERTIES FOR BASE AND SURFACE COURSE

| PROPERTY | BASE COURSE | SURFACE COURSE | TEST METHOD |
|-------------|-------------|----------------|--------------|
| Micro-Deval | 15%, max. | 15%, max. | AASHTO T 327 |

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703-2.04 AGGREGATE FOR HOT MIX ASPHALT. <u>Delete this subsection and replace with the following:</u> Process and crush aggregate that is free from clay balls, organic matter, other deleterious material, and not coated with dirt or other finely divided mineral matter. Use aggregate consisting of sound, tough, durable rock of uniform quality. Use an aggregate source that meets the requirements of Table 703-3.

TABLE 703-3 AGGREGATE SOURCE QUALITY FOR HMA

| PROPERTY | TEST METHOD | REQUIRE VALUE |
|------------------------|--------------|--------------------|
| L.A. Wear, % | AASTO T 96 | 45, max. |
| Micro-Deval, max | AASHTO T 327 | 18%, max. |
| Sodium Sulfate Loss, % | AASHTO T 104 | 9, max. (5 cycles) |
| Absorption, % | ATM 308 | 2.0, max. |

A maximum of 15% (by weight) of the aggregate may be blend material from a source that does not meet the requirements of Table 703-3 provided that the aggregate:

- 1. consists of natural sand, sand prepared from stone, crushed blast-furnace slag, gravel, or any combinations thereof, and
- 2. consists of hard, tough grains, free of injurious amounts of clay, loam, or other deleterious substances.

The combination of all aggregates shall meet the requirements of Table 703-3A and 703-4.

Table 703-3A BLENDED AGGREGATE QUALITY FOR HMA

| PROPERTY | TEST METHOD | REQUIRE VALUE |
|----------------------------|-------------|---------------|
| Fracture, % | ATM 305 | 90, 1 face |
| Flat – Elongated Pieces, % | ATM 306 | 8, max. (1:5) |
| Plasticity Index | ATM 205 | 4.0, max. |

TABLE 703-4
BROAD BAND GRADATIONS FOR HOT MIX ASPHALT AGGREGATE

Percent Passing by Weight

| CIEVE | GRADATION | | |
|----------|-----------|---------|----------|
| SIEVE | Type I | Type II | Type III |
| 1 inch | 100 | - | - |
| 3/4 inch | 80-90 | 100 | - |
| 1/2 inch | 60-84 | 75-90 | 100 |
| 3/8 inch | 48-78 | 60-84 | 80-90 |
| No. 4 | 28-63 | 33-70 | 44-81 |
| No. 8 | 14-55 | 19-56 | 26-70 |
| No. 16 | 9-44 | 10-44 | 16-59 |
| No. 30 | 6-34 | 7-34 | 9-49 |
| No. 50 | 5-24 | 5-24 | 6-36 |
| No. 100 | 4-16 | 4-16 | 4-22 |
| No. 200 | 4-7 | 4-7 | 4-7 |

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703-2.05 AGGREGATE FOR COVER COAT AND SURFACE TREATMENT. *In Table* <u>703-5 replace</u> the line for Degradation Value with the following:

TABLE 703-5 QUALITY PROPERTIES FOR COVER COAT AND SURFACE TREATMENT

| Micro-Deval | AASHTO T 327 | 15%, max. |
|-------------|--------------|-----------|
| | | |

HSM20-40 05/01/2022

703-2.08 FILTER BLANKET. Replace this subsection with the following:

Meet AASHTO M 80, Class A, and AASHTO M 43, size No. 467, except as follows:

Delete the following methods of sampling and testing:

AASHTO T 11 Amount of Material Finer than No. 200 Sieve

AASHTO T 27 Sieve Analysis

And substitute the following:

ATM 304 (Method A) Sieve Analysis of Fine and Coarse Aggregates and Material

Finer Than No. 200 Sieve in Mineral Aggregates by Washing

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703-2.09 SUBBASE. In Table 703-8 replace the line for Degradation Value with the following:

TABLE 703-8 QUALITY PROPERTIES FOR SUBBASE

| Micro-Deval AASHTO T 327 | 25%, max. |
|--------------------------|-----------|
|--------------------------|-----------|

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703-2.10 POROUS BACKFILL MATERIAL. Add the following to the end of the paragraph:

Use Gradation A unless otherwise specified.

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Add the following new subsection:

703-2.17 RECLAIMED ASPHALT MATERIAL (RAM). Material for RAM shall be a mixture of asphalt pavement, crushed and processed to produce particles not larger than 1 ½ inches with 95-100 percent smaller than 1 inch (based on visual inspections performed by the Engineer), and an equal amount of new Aggregate Base Course, Grading D-1, evenly mixed.

SRM-31 02/26/2020

SECTION 706

CONCRETE AND PLASTIC PIPE

STANDARD MODIFICATIONS

706-2.06 PLASTIC PIPE. Add the following:

Underdrains AASHTO M 278 Type SP

706-2.07 CORRUGATED POLYETHYLENE PIPE. <u>Delete the requirements for</u> Underdrains <u>and replace with the following:</u>

706-3

Underdrains AASHTO M 252 Type SP

AASHTO M 294 Type SP or DP

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SEED

STANDARD MODIFICATIONS

724-2.02 MATERIALS. Replace the second, third, and fourth paragraphs of this subsection with the following:

Furnish seed true of genus and species. Meet applicable requirements of the State of Alaska *Seed Regulations*, Alaska Administrative Code, Title 11, Chapter 34 (11 AAC 34), and the Federal Seed Act, 7 CFR Part 201.

The Engineer will review requests for genus, species, or cultivar substitution(s). The Contractor shall submit a proposed seed mix accompanied by approval from the Alaska Plant Materials Center, and confirmation the vendor can provide the requested mix in quantities adequate for the project.

- 1. Prohibited and Restricted Noxious Weeds and Quarantined Pests. Furnish seed certified to be free of prohibited noxious weeds or quarantined pests, and certified to contain no more than the maximum allowable tolerances for restricted noxious weeds, according to 11 AAC 34.
 - a. Seed found to contain prohibited noxious weeds or quarantined pests will be rejected, according to 11 AAC 34.020(a) and 11 AAC 34.105 through 34.180, respectively.
 - b. Seed found to contain restricted noxious weed seed in excess of the maximum allowable tolerance per pound will be rejected, according to 11 AAC 34.020(b).

Prohibited and restricted noxious weeds are listed in 11 AAC 34.020, and can be viewed at the following URL: http://plants.alaska.gov/invasives/noxious-weeds.htm.

724-1

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SOIL STABILIZATION MATERIAL

STANDARD MODIFICATIONS

727-2.02 MATTING.

4. Knitted Straw Mat. Replace this numbered item with the following: Commercially manufactured erosion control blanket. Use photodegradable netting and biodegradable thread. Use straw and straw products from oats, wheat, rye, barley, or other approved grain crops that are certified weed free of prohibited and restricted noxious weed seed and quarantined pests, according to Alaska Administrative Code, Title 11, Chapter 34 (11 AAC 34), and free of mold, or other objectionable material. When straw or straw products certified according to 11 AAC 34 are not available, use non-certified products manufactured within Alaska before certified products manufactured in another state, country, or territory. Non-certified straw or straw products manufactured in another state, country, or territory shall not be used. Grass, legumes, or any other herbaceous plants produced as hay, shall not be substituted for straw or straw products. May contain coconut or fiber to reinforce the straw. Follow the manufacturer's published recommendations.

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SPECIAL PROVISIONS

Add the following subsection:

727-2.04 BONDED FIBER MATRIX (BFM). Use a hydraulically-applied blanket/mulch/covering composed of long strand, thermally processed wood fibers and crosslinked, hydrocolloid tackifier. The BFM shall cure within 48 hours to achieve maximum performance. Once cured, the BFM shall form an intimate bond with the soil surface to create a continuous, absorbent, flexible erosion resistant blanket that allows for rapid germination and accelerated plant growth.

1. Wood Fibers

Wood fibers shall be long strand, whole wood fibers, thermo-mechanically processed from clean, whole wood chips. A minimum of 25% of the fibers shall average 3/8 inches long, with a minimum 50% retained on a No. 25 sieve. Wood chips shall not contain lead paint, printing ink, varnish, petroleum products, or other chemicals that will inhibit seed germination and growth.

Fibers shall be of such character that the fiber will disperse into a uniform slurry when mixed with water. Fibers shall be colored with water soluble, non-toxic dye, to contrast with the area on which the fiber is applied, and shall not stain concrete or painted surfaces.

2. Binder

The tackifier shall be nonflammable, nontoxic to aquatic organisms, and shall have no growth or germination inhibiting factors.

The tackifier shall be a hydrocolloid based (guar gum) binder. The tackifier shall be bonded to the fiber or prepackaged with the fiber by the manufacturer. The tackifier, including activating agents and additives, shall be a minimum of 10% by weight of the fiber.

The crosslinker shall contain slow-release and agricultural based fertilizers or other proprietary chemicals equaling less than 2% by volume.

Stabilizing emulsion shall be a concentrated liquid chemical that forms a plastic film upon drying and allows water and air to penetrate. Stabilizing emulsion shall be nontoxic to plant or animal life and nonstaining to concrete or painted surfaces. Once cured the mixture shall not dissolve nor disperse upon rewetting. The mixture shall be miscible with water at the time of mixing and application.

SRS-17 02/26/2020 (rev. 4/24/2023)