INVITATION TO BID

Fairbanks Pioneer Home Sanitary Waste System Upgrades ANC 15-22C

<u>Bidders are invited to submit sealed bids, in single copy to:</u> Provide all labor, supervision, permits and materials to upgrade the sanitary waste system and lift station repairs. All work is to be performed as described in the attached Drawings and Specifications.

A Pre-Bid walk through is scheduled for <u>January 27, 2015 at 2:00 pm</u> at the Facility main entry. Andy Carie, Maintenance Foreman (907) 458-2227 will conduct the walk through. Bidders are encouraged to attend.

Project related questions or clarifications: Mark Moon, Project Manager at (907) 269-7812.

Bids will be opened publicly at <u>2:00 pm</u> local time <u>February 11, 2015</u> at 3601 C Street, <u>Room 578</u> in Anchorage, AK.

Bids, modifications or withdrawals transmitted by mail must be received no later than 30 minutes prior to the scheduled time of bid opening.

<u>Linda Kush at 3601 C Street, Suite 578 Anchorage AK</u> must receive hand-delivered bids, modifications or withdrawals prior to the scheduled time of bid opening.

Faxed bid modifications must be addressed to:

• DHSS/FMS/Facilities - ATTN: Linda Kush - Fax number: (907) 334-2689

Engineer's Estimate: less than \$205,000

Project completion date: 180 days from issuance of Notice to Proceed

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 Health & Social Services, and Procurement

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

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

Issued: January 20, 2015

Fairbanks Pioneer Home Sanitary Waste System Upgrade Fairbanks, AK PROJECT NO. ANC 15-22C

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Fairbanks Pioneer Home Sanitary Waste System Upgrade Fairbanks, AK PROJECT NO. ANC 15-22C

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INVITATION TO BID

for Construction Contract

Date January 20, 2015

Fairbanks Pioneer Home Sanitary Waste System Upgrades – ANC 15-22C

Project Name and Number

Location of Project: 2221 Eagan Avenue Fairbanks, AK

Contracting Officer: Mike Frawley

Issuing Office: Dept. of Health & Social Services, Office of the Commissioner, Finance & Management Services

State Funded [X] Federal Aid []

<u>Description of Work:</u> Contractor to submit a bid to provide all labor, supervision, permits and materials to upgrade the sanitary waste system and lift station repairs. All work is to be performed as described in the attached Drawings and Specifications.

A Pre-Bid walk through is scheduled for January 27, 2015 at 2:00 pm at the Facility main entry. Andy Carie, Maintenance Foreman (907) 458-2227 will conduct the walk through. Bidders are encouraged to attend.

The Engineer's Estimate is: Less than \$205,000.00

All work shall be completed by **180 days from issuance of Notice to Proceed**.

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 <u>2:00 PM</u> local time, at <u>3601 C</u> <u>Street, Suite 578 Anchorage, AK 99503</u> on the <u>11th</u> day of <u>February</u> 2015.

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 15-22C
Fairbanks Pioneer Home Sanitary Waste
System Upgrades

ATTN: Linda Kush
State of Alaska
Department of Health and Social Services
Finance & Management Services, Facilities Office
3601 C Street, Suite 578 Anchorage, AK 99503

Bids, amendments or withdrawals transmitted by mail must be received in the above specified post office box no later than Seven (7) hours prior to the scheduled time of bid opening. Hand-delivered bids, amendments or withdrawals must be received at <u>3601 C Street, Suite 578 Anchorage, AK</u> prior to the scheduled time of bid opening. Faxed bid amendments must be addressed to <u>Linda Kush</u>. Fax number: (907) 334-2689.

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 06D-7 (7/03) 00020 Page 1 of 2

NOTICE TO BIDDERS

Bidders are hereby notified that data to assist in preparing bids is available as follows: Not applicable

Plans and Specifications may be printed by the Bidder from:

the State of Alaska website under Public Notices On-line button, click on the More Public Notices button, Browse
Active Public Notice button, then Health & Social Services, and Procurement, then click on the project number for
documents

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 <u>technical aspects</u> 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:

Mark Moon, Project Manager

Fax: (907) 334-2689 Phone: (907) 269-7812 Email: mark.moon@alaska.gov

All questions concerning **bidding procedures** should be directed to:

ATTN: Linda Kush

DHSS/Division of Finance & Management Services, Facilities

3601 C Street, Suite Anchorage, AK 99503 Phone: (907) 269-7813 / linda.kush@alask.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 actually 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 06D-7 (7/03) 00020 Page 2 of 2

INFORMATION TO BIDDERS

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

EXAMINATION OF CONTRACT REQUIREMENTS

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

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

CONDITIONS AT SITE OF WORK

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

PREPARATION OF BIDS

- (a) Bids shall be submitted on the forms furnished, and must be manually signed in ink. If erasures or other changes appear on the forms, each such erasure or change must be initialed by the person signing the proposal.
- (b) The bid schedule will provide for quotation of a price or prices for one or more pay items which may include unit price or lump sum items and alternative, optional or supplemental price schedules or a combination thereof which will result in a total bid amount for the proposed construction.
 - Where required on the bid form, bidders must quote on all items and THEY ARE WARNED that failure to do so will disqualify them. When quotations on all items are not required, bidders should insert the words "no bid" in the space provided for any item not requiring a quotation and for which no quotation is made.
- (c) The bidder shall specify the price or prices bid in figures. On unit price contracts the bidder shall also show the products of the respective unit prices and quantities written in figures in the column provided for the purpose and the total amount of the proposal obtained by adding the amounts of the several items. All the figures shall be in ink or typed.

Fairbanks Pioneer Home Sanitary Waste System Upgrades - ANC 15-22C

- (d) Neither conditional nor alternative bids will be considered unless called for.
- (e) Unless specifically called for, telegraphic or telefacsimile bids will not be considered.
 - (f) Bid Schedule form should be enclosed in a separate sealed envelope and enclosed with all other bidding forms required at the opening.

BID SECURITY

All bids shall be accompanied by a bid security in the form of an acceptable Bid Bond (Form 06D-14), or a certified check, cashier's check or money order made payable to the State of Alaska. The amount of the bid security is specified on the Invitation to Bid.

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

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

The bid securities of the two lowest bidders will be held by the Department until the Contract has been executed, after which such bid securities will be returned. All other bid securities will be returned as soon as practicable. If all bids are rejected, all bid securities will be returned as soon as practicable.

BIDDERS QUALIFICATIONS

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

SUBMISSION OF BIDS

Bids must be submitted as directed on the Invitation for Bids. Do not include in the envelope any bids for other work.

ADDENDA REQUIREMENTS

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

Every effort will be made by the Department to insure that Contractors receive all addenda when issued. Addenda will be issued to the individual or company to whom bidding documents were issued. Addenda may be issued by any reasonable method such as hand delivery, mail, telefacsimile, telegraph, email, internet download, courier and in special circumstances by phone. Addenda will be issued to the address, telefacsimile number or phone number as stated on the planholder's list unless picked up in person or included with the bid documents. It is the bidder's responsibility to insure that he has received all addenda affecting the Invitation for Bids. No claim or protest will be allowed based on the bidder's allegation that he did not receive all of the addenda

Fairbanks Pioneer Home Sanitary Waste System Upgrades - ANC 15-22C

for an Invitation for Bids. The Department is not responsible for issuing addenda to non-registered bidders.

WITHDRAWAL OR REVISION OF BIDS

A bidder may withdraw or revise a bid after it has been deposited with the Department, provided that the request for such withdrawal or revision is received by the designated office, in writing, by telegram, or by telefacsimile, before the time set for opening of bids.

Telegraphic or telefacsimile modifications shall include both the modification of the unit bid price and the total modification of each item modified, but shall not reveal the amount of the total original or revised bids. Form 06D-16 shall be used to submit such modifications.

RECEIPT AND OPENING OF BIDS

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

BIDDERS PRESENT

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

BIDDERS INTERESTED IN MORE THAN ONE BID

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

REJECTION OF BIDS

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

Fairbanks Pioneer Home Sanitary Waste System Upgrades - ANC 15-22C

AWARD OF CONTRACT

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

END OF SECTION

SUPPLEMENTARY INFORMATION TO BIDDERS

This document modifies or adds to the provisions of Department of Health & Social Services form 06D-3, INFORMATION TO BIDDERS.

Following subparagraph (c) under subject area "PREPARATION OF BIDS", add the following subparagraph:

"(C-1) When provided within the supplements to the bid schedule the Bidder shall specify those Alaska bidder and product preferences applicable to their bid. All entries made by the Bidder and designating applicable preferences must conform to the requirements of AS 36.30 and the instructions on the forms to warrant consideration."

Following subject area "REJECTION OF BIDS", add the following subject area:

"CONSIDERATION OF PROPOSALS

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

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

If a Bidder fails to list a Subcontractor or lists more than one Subcontractor for the same portion of Work and the value of that Work is in excess of one-half of one percent of the total bid, the Bidder agrees that it shall be considered to have agreed to perform that portion of Work without the use of a Subcontractor and to have represented that the Bidder is qualified to perform the Work.

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

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

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

A Bidder may replace a listed Subcontractor who:

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

Modify subject area "AWARD OF CONTRACT" as follows:

Subparagraph (a) substitute the word "generally" for the phrase "as soon as practical and"

Subparagraph (b) delete and substitute the following:

"All Bidders will be notified of the DEPARTMENT's intent to Award the Contract and the successful Bidder will be requested to execute certain documents, including the Contract form and bonds."

Supplementary 00101 Page 2 of 2
Info. to Bidders Issued: December 1987 (Revised 12/88, 11/92)



REQUIRED DOCUMENTS

State Funded Contracts

Fairbanks Pioneer Home Sanitary Waste System Upgrades - ANC 15-22C

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

- 1. **Bid Form (Form 06D-9)**
- 2. Bid Schedule
- 3. Bid Bond (Form 06D-14)
- **4.** Any bid revisions must be submitted by the bidder prior to bid opening on the following form:

Bid Modification (Form 06D-16)

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 06D-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. Contract (Form 06D-10A)
- 2. DD Form 214 or NGB Form 22 (if claiming Alaska Veterans Preference under AS 36.30.175(d))
- 3. Payment Bond (Form 06D-12)
- 4. Performance Bond (Form 06D-13)
- 5. Contractor's Questionnaire (Form 06D-8)
- 6. Contractor's Certification of Subcontractors (Form 05)
- 7. Certificate of Insurance (from carrier)
- 8. Dept. of Labor Notice of Work Form HSS/FMS Facilities will file the project with Labor first. Labor will then assign their file number for the project and email the information to both HSS FMS/Facilities and Contractor. Contractor will then file their information with Labor shortly thereafter.



ALASKA VETERAN'S PREFERENCE AFFIDAVIT

In response to the Invitation to Bid for:

<u>Fairbanl</u>	ks Pioneer Home Sanitary Wa	aste System Upgrades – ANC 15-22C,
	nalty of perjury that or the Alaska Veteran's Prefere	ence under the following conditions:
a five perce		as an Alaska bidder and is a qualifying entity, ed to the bid price (preference may not exceed by" means a:
(2) Partners Veteran' (3) Limited I	s;	a Veteran; 1 if a majority of the members are Alaska der AS 10.50 if a majority of the individuals are
actually per services pro	forming, controlling, managing	on, a bidder must add value by the bidder itself and supervising a significant part of the sold supplies of the general nature solicited to general public.
(c) In this section	on, "Alaska Veteran" means an	individual who is a:
` ,	t of this state; and means an individual who:	
(A) Serve	ed in the:	
(i) (ii)	States armed forces; or	States, including a reserve unit of the United Alaska Army National Guard, the Alaska Air a Naval Militia; and
(B) Was	separated from the service und	der a condition that was not dishonorable.
Auth	orized Signature	
Pı	inted Name	 Date

Form 06D-17 (April 2012) Page 1 of 19



BID FORM

For

Fairbanks Pioneer Home Sanitary Waste System Upgrades – ANC 15-22C		
Project Name and Number		
Ву		
Company Name		
Company Address (Street or PO Box, City, State, Zip)		
To the CONTRACTING OFFICER, DEPARTMENT OF HEALTH & SOCIAL 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, 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 $\underline{180 \text{ days from}}$ $\underline{\text{issuance of Notice to Proceed}}$, unless extended in writing by the Contracting Officer.		
The Undersigned proposes to furnish Payment Bond in the amount of 50% and Performance Bond in the amount of 50% (of the contract), as surety conditioned for the full, complete and faithful performance of this contract.		

Form 06D-9 (7/03) Page 1 of 2

	dersigned ackn umber and date		of the following addend	da to the drawings a	and/or specifications	
	Addenda Number	Date Issued	Addenda Number	Date Issued	Addenda Number	Date Issued
corpora	tion of which h	e is a member, has	of perjury under the l	lirectly, entered into	States, that neither he, it any agreement, parti-	nor the firm, association, or cipated in any collusion, or
	ndersigned ha	s read the foreg	oing proposal and l	hereby agrees to	the conditions stated	d therein by affixing his
			Signature	of Authorized Compan	ny Representative	
			Typed or I	Printed Name and Title	e	
			Phone Nur	nber	Fax Number	
			Email Add	Iress		

Form 06D-9 (7/03) Page 2 of 2



ALASKA PRODUCTS PREFERENCE WORKSHEET SMALL PROCUREMENT CONTRACT (CONSTRUCTION RELATED)

(See Instructions on back)

Project Name: 1	Fairbanks Pioneer Hon	<u>ne Sanitary Waste S</u>	ystem Upgrades		
Project Number	:: <u>ANC 15-22C</u>				
Procurement A	gency: <u>FMS Facilities</u>	Contracto	r:		
PRODUCT	MANUFACTURER	CLASS & PREFERENCE PERCENTAGE	TOTAL DECLARED VALUE	REDUCTION AMOUNT	

TOTAL

INSTRUCTIONS FOR ALASKA PRODUCTS PREFERENCE WORKSHEET

Special Notice: All procurements, except those funded from Federal sources, shall contain Contract provisions for the preference of Alaska products. To be considered for the Alaska Product Preference, each product listed by the Bidder on this worksheet must have current certification from the Alaska Products Preference Program at the time of Bid Opening. A product with expired certification at the bid opening date will not be considered eligible. Products that are not specified for use on the project will not be considered eligible. The Alaska Product Preference Program List of certified products is available online at: <a href="http://www.commerce.state.ak.us/ded/dev/prodpref/p

BIDDERS INSTRUCTIONS:

- A. General. The contracting Agency may request documentation to support entries made on this form. False presentations may be subject to AS 36.30.687. All Bidder's entries must conform to the requirements covering bid preparations in general. Discrepancies in price extensions shall be resolved by multiplying the declared total value times the preference percentage and adjusting any resulting computation(s) accordingly.
- B. Form Completion BASIC BIDS.
 - (1) Enter project number and name, the words "Basic Bid" and the CONTRACTOR'S name in the heading of each page as provided.
 - (2) The Bidder shall compare those candidate products appearing on the preference listing (see Special Notice comments above) against the requirements of the technical specifications appearing in the contract documents. If the Bidder determines that a candidate product can suitably meet the contract requirements, then that product may be included in the worksheet as follows.
 - (3) For each suitable product submitted under the "Basic Bid" enter:
 - The product name, generic description and its corresponding technical specification section number under the heading "PRODUCT",
 - The company name of the Alaska producer under the heading "Manufacturer", and
 - The product class (I, II, or III) and preference percentage (3, 5, or 7% respectively) under the "CLASS/% heading.
 - (4) For each product appearing on the list and to be utilized by the CONTRACTOR enter:
 - Under the heading "TOTAL DECLARED VALUE" the manufacturer's quoted price of the product, (caution: this value is to be the manufacturer's quoted price at the
 place of origin and shall not include costs for freight, handling or miscellaneous charges of incorporating the product into the Work,) and
 - The resulting preference i.e. the preference percentage times the total declared value amount under the heading "REDUCTION AMOUNT".
 - (5) Continue for all "suitable" basic bid products. If the listing exceeds one page enter the words "Page # __ SUB" in front of the word "TOTAL" and on the first line of the following pages enter "SUBTOTAL OF REDUCTION AMOUNT FROM PREVIOUS PAGE".
 - (6) On the final page of the listing enter "BASIC BID PREFERENCE GRAND" immediately before the word "TOTAL".
 - (7) Total the entries in the "REDUCTION AMOUNT" column for each page by commencing at the first entry for that page. If a continuation page exists, ensure that the subtotal from the previous page is computed into the running total. Number pages as appropriate.
 - (8) Compute a Grand Total for the Basic Bid Preference. Enter the amount on the final page of the worksheet. (Note: When solicitations require written bids this amount should also be entered on line "C" of the Basic Bid Schedule.) Submit worksheet(s) with the Bid Schedule.

C. Form Completion – ALTERNATE BIDS.

- (1) Enter project number and name, the words "ALTERNATE BID #__", and CONTRACTOR'S name in the heading of each page as provided.
- (2) On the first entry line enter "ADDITIONAL ALASKA PRODUCTS FOR ALTERNATE BID #__", and repeat procedures 2 through 5 under part B these Bidder's instructions except that references to "Basic Bid" shall be replaced with the words "Alternate Bid #__."
- (3) Following the listing of all additional Alaska products enter the words "ADDITIONAL PRODUCTS PREFERENCE FOR ALTERNATE BID #__ SUBTOTAL" and enter a subtotal amount for all additional products as listed. Subtotal amount to be determined by adding all additional product entries in the "REDUCTION AMOUNT" column.
- (4) Skip three lines and enter "LESS THE FOLLOWING NON-APPLICABLE ALASKA PRODUCTS:
- (5) Beginning on the next line, enter the product name and manufacturer of each Alaska Product appearing on the "Basic Bid" listing which would be deleted or reduced from the Project should the "Alternate Bid" be selected. Details of entry need only be sufficient to clearly reference the subject product. (i.e. "Pre-hung doors by Alaska Door Co., Anchorage.") Products being reduced shall specify the amount of the reduction. Should no products require deletion enter "None". When a product is listed as a "NON-APPLICABLE ALASKA PRODUCT" for this alternate bid and if under the basic bid the Bidder received a preference on his basic bid as a result of that product, then the applicable entries under the headings "TOTAL DECLARED VALUE" and "REDUCTION AMOUNT" (for each product and from the basic bid listing) shall also be entered into the corresponding headings of this form. Where only a portion of the products has been deleted, the entry (which will differ from those on the basic bid listing) may be "pro-rated" or as otherwise substantiated.
- (6) Following the listing of all non-applicable Alaska products enter the words "NON-APPLICABLE PRODUCTS PREFERENCE FROM BASIC BID ____ SUBTOTAL" and enter a subtotal amount for all non-applicable products listed. Subtotal amount to be determined by adding all non-applicable entries in the "REDUCTION AMOUNT" column.
- (7) At the bottom of the final page enter the words "ALTERNATE BID # PREFERENCE GRAND" immediately before the word "TOTAL".
- (8) Compute a Grand Total for the Alternate Bid Preference (for Alternate #___) by subtracting the non-applicable product preference subtotal from the additional product preference subtotal. Enter on the final page. (Note: When solicitations require written bids this amount should also be entered on line "C" of the Alternate Bid Schedule.) Submit separate worksheet(s) with each Alternate Bid.

BID SCHEDULE

Project: Fairbanks Pioneer Home Sanitary Waste System Upgrades – ANC 15-22C

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.

PAY ITEM DESCRIPTION OF PAY ITEM		DESCRIPTION OF PAY ITEM	TOTAL BID PRICE, IN FIGURES
1. BASIC I	BID	All work described in the Specifications and Cons Documents for the Project # ANC 15-22C	truction
a.	Lum	o Sum Total Basic Bid	\$
b.	Alasl	ca Bidder's Preference - (5% of Basic Bid)	\$
c.		xa Veterans Preference - 5% of Basic Bid 7 not exceed \$5,000)	\$
d.	Alasl	ka Products Preference - (Attach worksheet(s))	\$
e.	Adju	sted Basic Bid: (a – b –c - d)	\$
Contractor'	's Nan	ne (Printed)	
Alaska Cor	ntracto	or's Registration #	Expires
Alaska Bus	siness	License #	Expires



BID BOND

For

	Fairbanks Pioneer Home Sanitary Waste System Upgrades – ANC 15-22C Project Name and Number					
	DATE BOND EXECUTED:					
PRINCIPAL (I	Legal name and business ac	ldress):	TYPE OF ORGA	ANIZATION:		
			[] Individual [] Joint Ventur	[] Partnership e [] Corporation		
			STATE OF INC	ORPORATION:		
SURETY(IES)	(Name and business addre	ess):				
Α.		B.	C	•		
PENAL SUM	OF BOND:		D	ATE OF BID:		
the amount sta		nt of which sum will be		te (State of Alaska), in the penal sum of elves and our legal representatives and		
date as shown		d Project in accordance	with contract documer	mitted the accompanying bid in writing, nts filed in the office of the Contracting he amount stated above.		
	I's bid is accepted and he he obligation to the State c			d if the Principal fails to enter into the fect.		
If the Principal	enters into the contract, th	en the foregoing obligati	on is null and void.			
PRINCIPAL						
Signature(s)	1.	2.		3.		
Name(s) & Title(s) (Typed)	1.	2.		3.		
				Corporate Seal		
	See Instr					

CORPORATE SURETY(IES)

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



BID MODIFICATION

Fa	uirbanks Pioneer Home Sanitary Waste Sys Project Name and Nun	stem Upgrades – ANC 15-220 aber	:
Modification Number: _	-		
Note: All revisions sha Changes to the	all be made to the unadjusted bid amount(s). adjusted bid amounts will be computed by the	<u>Department</u> .	
PAY ITEM NO.	PAY ITEM DESCRIPTION	REVISION TO UNIT BID PRICE +/-	REVISION TO BID AMOUNT +/-
		N/A	
	TOTAL REVISION: \$		
	Name of Bidding Firm		
	Responsible Party Signature	Date	
	This form may be duplicated if addition	nal nages are needed	
	rms form may be duplicated if addition	nai pages are necucu.	



Date

STATE OF ALASKA DEPARTMENT OF HEALTH & SOCIAL SERVICES

SUBCONTRACTOR LIST

<u>Fairbanks Pioneer Home Sanitary Waste System Upgrades – ANC 15-22C</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 receipt of written notice from the Department.

Failure to submit this form with all required information by the due date will result in the bidder being declared non-responsive and may result in the forfeiture of the Bid Security.

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

Check as applicable:

All work on the below-referenced project will be accomplished without subcontracts greater than ½ of 1% of the contract amount.

OR

LIST FIRST TIER SUBCONTRACTORS ONLY

Subcontractor List is as follows:

EIGITINGI TIER SEDECTITATETORS OF EI					
FIDM NAME ADDDESS	AK BUSINESS LICENSE No. & CONTRACTOR'S	SCOPE OF WORK			
FIRM NAME, ADDRESS,					
& PHONE No.	REGISTRATION No.	TO BE PERFORMED			

CONTINUE SUBCONTRACTOR INFORMATION ON REVERSE

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

Signature of Authorized Company Representative

Title

Company Name

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

Form 06D-5 (10/12) Page 1 of 2

Phone Number

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

Form 06D-5 (10/12) Page 2 of 2



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

BIDDER REGISTRATION

All firms must register annually or prior to project award with the Alaska Department of Transportation and Public Facilities (DOT&PF) Civil Rights Officer (CRO). Complete this form for each contractor and subcontractor. Firms will be listed on the bidder registration online directory http://www.dot.state.ak.us/cvlrts/bidreg.shtml.

Name of Firm:		
Street Address:		
Mailing Address:		
Contact Name:		
Telephone Number:		
Fax number:		
E-mail Address:		
Date Firm was Established:		
The firm listed above is a (check all that apply):		
Prime Contractor? Subcontractor? Subcontractor? Service Provider? Material Supplier? Manufacturer? Certified DBE? * Identify material: Manufacturer? Identify product: Certified DBE? * *DBE- Disadvantaged Firm's gross annual receipts: <pre></pre>		
Signature of Company Representative	Title	Date
Send this completed form to: ADOT&PF Civil Rights Office PO Box 196900 Anchorage, Alaska 99519-6900		ur completed form to: 69-0847
If you have any question	ns, please call (907) 269-0	851.



CONSTRUCTION CONTRACT

Fairbanks Pioneer Home Sanitary Waste System Upgrades – ANC 15-22C

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 Name
O All (0) A BOB (0) (1 77)
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, 180 days from issuance of Notice to Proceed. 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

<u>Four Hundred-five</u> Dollars (\$405.00) 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 damages.

WITNESS WHEREOF, the parties hereto have executed this Contract and hereby agree to its te	erms and conditions.
CONTRACTOR	
ompany Name	
gnature of Authorized Company Representative	_
ped or Printed Name and Title	_
ate	_
	(Corporate Seal)
STATE OF ALASKA DEPARTMENT OF HEALTH & SOCIAL SERVICE	s
Signature of Contracting Officer	_
Mike Frawley, Chief/Contracting Officer, FMS Facilities	
Typed or Printed Name	_
Date	



PERFORMANCE BOND

Bond No. _____ For Fairbanks Pioneer Home Sanitary Waste System Upgrades - ANC 15-22C **Project Name and Number** KNOW ALL WHO SHALL SEE THESE PRESENTS: That of as Principal, and as Surety, of firmly bound and held unto the State of Alaska in the penal sum of: **Dollars** good and lawful money of the United States of America for the payment whereof, well and truly to be paid to the State of Alaska, we bind ourselves, our heirs, successors, executors, administrators, and assigns, jointly and severally, firmly by these presents. WHEREAS, the said Principal has entered into a written contract with said State of Alaska, on the ______ of ___ A.D., 20 , for construction of the above-named project, said work to be done according to the terms of said contract. Now, THEREFORE, the conditions of the foregoing obligation are such that if the said Principal shall well and truly perform and complete all obligations and work under said contract and if the Principal shall reimburse upon demand of the Department of Transportation and Public Facilities any sums paid him which exceed the final payment determined to be due upon completion of the project, then these presents shall become null and void; otherwise they shall remain in full force and effect. IN WITNESS WHEREOF, we have hereunto set our hands and seals at ____ ______this ______ day of ______ A.D., 20____. Principal: Address: By: Contact Name: Phone: (Surety: Address: **Contact Name:** Phone: (The offered bond has been checked for adequacy under the applicable statutes and regulations: Alaska Department of Health & Social Services Authorized Representative 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.
- 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

Health and	Bond No	
	For	
Fairbanks I	Pioneer Home Sanitary Waste System Upgrades – ANC 15-2 Project Name and Number	2C
WYOW ALL WILL CHALL CEE T	v	
KNOW ALL WHO SHALL SEE T	HESE PRESENTS:	
That of		as Principal,
and		us i interput,
of		as Surety,
firmly bound and held unto the State	e of Alaska in the penal sum of:	Dallors
	1 11 61 C.1 W. 1644 C.A. C.A. C. A. C.	Dollars
(+	good and lawful money of the United States of America for the paymen	
well and truly to be paid to the Sta jointly and severally, firmly by these	ate of Alaska, we bind ourselves, our heirs, successors, executors, adn e presents.	ninistrators, and assigns,
	entered into a written contract with said State of Alaska, on the	
A.D., 20, for construction of t	the above-referenced project, said work to be done according to the terr	ns of said contract.
under said contract, whether said la	e, all just claims for labor performed and materials and supplies furnished by the performed and said materials and supplies be furnished under athorized modifications thereto, then these presents shall become null	the original contract, any
IN WITNESS WHEREOF, we have this	e hereunto set our hands and seals at A.D., 20	,
	Principal:	
	Address:	
	By:	
	Contact Name:	
	Phone: ()	
Sstr.		
Surety: Address:		
Address:		
By:		
Contact Name:		
Phone: ()		
The offered b	bond has been checked for adequacy under the applicable statutes and regulation	ons:
Alaska Department of Health & Soc	cial Services 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

Fairbanks Pioneer Home Sanitary Waste System Upgrades – ANC 15-22C Project Name and Number

A.		FINANCIAL								
1.		Have you ever failed to complete a contract due to insufficient resources? [] No [] Yes If YES, explain:								
	_									
	2.	Describe any arrange	ements you have m	nade to finance this	work:					
В.	1.	EQUIPMENT Describe below the equip	nment vou have av	ailable and intend t	o use for this projec	f				
	1.	ITEM	QUAN.	MAKE	MODEL	SIZE/ CAPACITY	PRESENT MARKET VALUE			

2.	What percent of the total value of this contract do yo	ou intend to subcontract? %
3.	Do you propose to purchase any equipment for use [] No [] Yes If YES, describe type, quan	
4.	Do you propose to rent any equipment for this work [] No [] Yes If YES, describe type and of	
5.	Is your bid based on firm offers for all materials nec [] Yes [] No If NO, please explain:	essary for this project?
C.	EXPERIENCE	
1.	Have you had previous construction contracts or subco	ontracts with the State of Alaska?
_	Describe the most recent or current contract, its compl	etion date, and scope of work:
-		
2.	List, as an attachment to this questionnaire, other cons scope of work, and total contract amount for each proj	truction projects you have completed, the dates of completion, ect completed in the past 12 months.
	I hereby certify that the above statements	are true and complete.
Name	of Contractor	Name and Title of Person Signing
Signat	ture	Date

STATE OF ALASKA DEPARTMENT OF HEALTH & SOCIAL SERVICES DOCUMENT 00700 - ISSUED DECEMBER 2011

GENERAL CONDITIONS OF THE CONSTRUCTION CONTRACT FOR BUILDINGS

ARTICI	T = 1	 DEFINITIONS

ARTICLE 2 - AUTHORITIES AND LIMITATIONS

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

ARTICLE 3 - CONTRACT DOCUMENTS: INTENT, AMENDING, REUSE

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

ARTICLE 4- LANDS AND PHYSICAL CONDITIONS

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

ARTICLE 5 - BONDS AND INSURANCE

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

ARTICLE 6 - CONTRACTOR'S RESPONSIBILITIES

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

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6.17	Safety and Protection
6.18	Safety Representative
6.19	Emergencies
6.20	Shop Drawings and Samples
6.21	Shop Drawing and Sample Review
`6.22	Maintenance During Construction
6.23	Continuing the Work
6.24	Consent to Assignment
6.25	Use of Explosives
6.26	CONTRACTOR's Records
6.27	Load Restrictions
0.27	Load Restrictions
7 - LA	WS AND REGULATIONS
7.1	Laws to be Observed
7.2	Permits, Licenses, and Taxes
7.3	Patented Devices, Materials and Processes
7.4	Compliance of Specifications and Drawings
7.5	Accident Prevention
7.6	Sanitary Provisions
7.7	Business Registration
7.8	Professional Registration and Certification
7.9	Local Building Codes
7.10	Air Quality Control
7.11	Archaeological or Paleontological Discoveries
7.12	Applicable Alaska Preferences
7.12	Wages and Hours of Labor
7.14	Overtime Work Hours and Compensation
7	o remain work from and composition
8 - OT	HER WORK
8.1	Related Work at Site
8.2	Access, Cutting, and Patching
8.3	Defective Work by Others
8.4	Coordination
9 - CH	ANGES
1.0	DEPARTMENT's Right to Change
9.2	Authorization of Changes within the General Scope
9.3	Directive
9.4	Change Order
9.5	Shop Drawing Variations
9.6	Changes Outside the General Scope; Supplemental Agreement
9.7	Unauthorized Work
9.8	Notification of Surety
9.9	Differing Site Conditions
9.10	Interim Work Authorization
	INTRACT PRICE; COMPUTATION AND CHANGE
10.1	Contract Price
10.2	Claim for Price Change

ARTICLE

- Claim for Price Change Change Order Price Determination 10.3
- 10.4 Cost of the Work

ARTICLE

ARTICLE

ARTICLE

- 10.5 Excluded Costs
- 10.6 CONTRACTOR's Fee
- 10.7 Cost Breakdown
- 10.8 Cash Allowances

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- 10.9 Unit Price Work
- 10.10 Determinations for Unit Prices

ARTICLE 11- CONTRACT TIME, COMPUTATION AND CHANGE

- 11.1 Commencement of Contract Time; Notice to Proceed
- 11.2 Starting the Work
- 11.3 Computation of Contract Time
- 11.4 Time Change
- 11.5 Extension Due to Delays
- 11.6 Essence of Contract
- 11.7 Reasonable Completion Time
- 11.8 Delay Damages

ARTICLE 12 - QUALITY ASSURANCE

- 12.1 Warranty and Guaranty
- 12.2 Access to Work
- 12.3 Tests and Inspections
- 12.4 Uncovering Work
- 12.5 DEPARTMENT May Stop the Work
- 12.6 Correction or Removal of Defective Work
- 12.7 One Year Correction Period
- 12.8 Acceptance of Defective Work
- 12.9 DEPARTMENT may Correct Defective Work

ARTICLE 13- PAYMENTS TO CONTRACTOR AND COMPLETION

- 13.1 Schedule of Values
- 13.2 Preliminary Payments
- 13.3 Application for Progress Payment
- 13.4 Review of Applications for Progress Payments
- 13.5 Stored Materials and Equipment
- 13.6 CONTRACTOR's Warranty of Title
- 13.7 Withholding of Payments
- 13.8 Retainage
- 13.9 Request for Release of funds
- 13.10 Substantial Completion
- 13.11 Access Following Substantial Completion
- 13.12 Final Inspection
- 13.13 Final Completion and Application for Payment
- 13.14 Final Payment
- 13.15 Final Acceptance
- 13.16 CONTRACTOR's Continuing Obligation
- 13.17 Waiver of Claims by CONTRACTOR
- 13.18 No Waiver of Legal Rights

ARTICLE 14- SUSPENSION OF WORK AND TERMINATION

- 14.1 DEPARTMENT May Suspend Work
- 14.2 Default of Contract
- 14.3 Rights or Remedies
- 14.4 Convenience Termination

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ARTICLE 15- CLAIMS AND DISPUTES

- 15.1 Notification
- 15.2 Presenting the Claim
- 15.3 Claim Validity, Additional Information & DEPARTMENT's Action
- 15.4 Contracting Officer's Decision
- 15.5 Fraud and Misrepresentation in Making Claims

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ACKNOWLEDGMENT

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

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

ARTICLE 1 - DEFINITIONS

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

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

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

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

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

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

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

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

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

A.S - Initials which stand for Alaska Statute.

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

Bid Bond - A type of Proposal Guaranty.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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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 II
- 10. Thanksgiving Day Fourth Thursday in November
- II. Christmas Day December 25
- 12. Every Sunday
- 13. Every day designated by public proclamation by the President of the United States or the Governor of the State as a legal Holiday.

If any Holiday listed above falls on a Saturday, Saturday and the preceding Friday are both legal Holidays. If the Holiday should fall on a Sunday, except (12) above, Sunday and the following Monday are both legal Holidays. See Title 44, Alaska Statutes.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

ARTICLE 2 - AUTHORIZATION AND LIMITATIONS

2.1 Authorities and Limitations

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

2.2 Evaluations by Contracting Officer:

- 2.2.1 The Contracting Officer will decide all questions which may arise as to:
 - a. Quality and acceptability of materials furnished;
 - h. 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.

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2.3 Means & Methods:

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

2.4 Visits to Site/Place of Business:

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

ARTICLE 3 - CONTRACT DOCUMENTS: INTENT, AMENDING, REUSE

3.1 Incomplete Contract Documents:

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

3.2 Copies of Contract Documents:

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

3.3 Scope of Work:

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

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

3.4 Intent of Contract Documents:

- 3.4.1 It is the intent of the Contract Documents to describe a functionally complete Project to be constructed in accordance with the Contract Documents. Any Work, materials or equipment that may reasonably be inferred from the Contract Documents as being required to produce the intended result will be supplied, without any adjustment in Contract Price or Contract Time, whether or not specifically called for.
- 3.4.2 Reference to standard specifications, manuals or codes of any technical society, organization or association, or to the Regulatory Requirements of any governmental authority, whether such reference be specific or by implication, shall mean the edition stated in the Contract Documents or if not stated the latest standard specification, manual, code or Regulatory Requirements in effect at the time of Advertisement for the Project (or, on the Effective Date of the Contract if there was no Advertisement). However, no provision of any referenced standard specification, manual or code (whether or not specifically incorporated by reference in the Contract Documents) shall be effective to change the duties and responsibilities of the DEPARTMENT and the CONTRACTOR, or any of their consultants, agents or employees from those set forth in the Contract Documents, nor shall it be effective to assign to the DEPARTMENT or any of the DEPARTMENT's Consultants, agents or employees, any duty or authority to supervise or direct the furnishing or performance of the Work or any duty or authority to undertake responsibility contrary to the provisions of paragraphs 2.3 or 2.4.

3.5 Discrepancy in Contract Documents:

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

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

3.5.2 Discrepancy - Order of Precedence:

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

Contents of Addenda Supplementary Conditions General Conditions General Requirements Technical Specifications

Drawings

Recorded dimensions will govern over scaled dimensions

Large scale details over small scale details

Schedules over plans

Architectural drawings over structural drawings Structural drawings over mechanical and electrical drawings

3.6 Clarifications and Interpretations:

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

3.7 Reuse of Documents:

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

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

ARTICLE 4 - LANDS AND PHYSICAL CONDITIONS

4.1 Availability of Lands:

The DEPARTMENT shall furnish as indicated in the Contract Documents, the lands upon which the Work is to be performed, rights-of-way and easements for access thereto, and such other lands which are designated for use of the CONTRACTOR in connection with the Work. Easements for permanent structures or permanent changes in existing facilities will be obtained and paid for by the DEPARTMENT, unless otherwise provided in the Contract Documents. The CONTRACTOR shall provide for all additional lands and access thereto that may be required for temporary construction facilities or storage of materials and equipment. The CONTRACTOR shall provide all waste and disposal areas, including disposal areas for hazardons or contaminated materials, at no additional cost to the DEPARTMENT.

4.2 Visit to Site:

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

4.3 Explorations and Reports:

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

4.4 Utilities:

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

- 4.4.2 The CONTRACTOR shall have full responsibility for:
 - a. Reviewing and checking all information and data concerning utilities.
 - 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

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authority.

4.5 Damaged Utilities:

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

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

4.6 Utilities Not Shown or Indicated:

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

4.7 Survey Control:

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

ARTICLE 5 - BONDS, INSURANCE, AND INDEMNIFICATION

5.1 Delivery of Bonds:

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

5.2 Bonds:

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

5.3 Replacement of Bond and Surety:

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

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

5.4 Insurance Requirements:

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

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

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

The minimum limits of liability shall be:

1. If the CONTRACTOR carries a *Comprehensive General Liability* policy, the limits of liability shall not be less than a Combined Single Limit for bodily injury, property damage and Personal Injury Liability of:

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$1,000,000 each occurrence
$2,000,00 aggregate
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2. If the CONTRATOR carries a Commercial General Liability policy, the limits of liability shall not be less than:

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$1,000,000 each occurrence (Combined Single Limit for bodily injury and property damage) $1,000,000 for Personal Injury Liability
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$2,000,000 aggregate for Products-Completed Operations $2,000,000 general aggregate
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The State of Alaska, DEPARTMENT of Transportation and Public Facilities shall be named as an "Additional Insured" under all liability coverages listed above.

c. Automobile Liability Insurance:

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

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$1,000,000 each occurrence (Combined Single Limit for bodily injury and property damage.)
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d. Builder's Risk Insurance:

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

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

e. Other Coverages:

As specified in the Supplementary Conditions.

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

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

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

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

5.5 Indemnification:

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

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ARTICLE 6 - CONTRACTOR'S RESPONSIBILITIES

6.1 Supervision of Work:

The CONTRACTOR shall supervise and direct the Work competently and efficiently, devoting such attention thereto and applying such skills and expertise as may be necessary to perform the Work in accordance with the Contract Documents. All Work under this Contract shall be performed in a skillful and workmanlike manner. The CONTRACTOR shall be solely responsible for the means, methods, techniques, sequences and procedures of construction.

6.2 Superintendence by CONTRACTOR:

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

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

6.3 Character of Workers:

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

6.4 CONTRACTOR to Furnish:

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

6.5 Materials and Equipment:

All materials and equipment shall be of specified quality and new, except as otherwise provided in the Contract Documents. If required by the Contracting Officer, the CONTRACTOR shall furnish satisfactory evidence (including reports of required tests) as to the kind and quality of materials and equipment. All materials and equipment shall be applied, installed, connected, erected, used, cleaned, and conditioned in accordance with the instructions of the applicable Supplier except as otherwise provided in the Contract Documents; but no provision of any such instructions will be effective to assign to the DEPARTMENT or any of the DEPARTMENT's Consultants, agents or employees, any duty or authority to supervise or direct the furnishing or performance of the Work or any duty or authority to undertake responsibility contrary to the provisions of paragraphs 2.3 or 2.4.

6.6 Anticipated Schedules:

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

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

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

6.7 Finalizing Schedules:

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

6.8 Adjusting Schedules:

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

6.9 Substitutes or "Or-Equal" Items:

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

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- 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.
- All variations of the proposed substitute from that specified will be identified in the application and available maintenance, repair and replacement service will be indicated. The application will also contain an itemized estimate of all costs that will result directly or indirectly from acceptance of such substitute, including costs of redesign and claims of other contractors affected by the resulting change, all of which shall be considered by the DEPARTMENT in evaluating the proposed substitute. The DEPARTMENT may require the CONTRACTOR to furnish at the CONTRACTOR's expense additional data about the proposed substitute. The Contracting Officer may reject any substitution request which the Contracting Officer determines is not in the best interest of the DEPARTMENT.
- 6.9.5 Substitutions shall be permitted during or after the bid period as allowed and in accordance with Document 00020 Invitation for Bids, Document 00700 General Conditions, and Document 01630 Product Options and Substitutions.

6.10 Substitute Means and Methods:

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

6.11 Evaluation of Substitution:

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

6.12 Dividing the Work:

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

6.13 Subcontractors:

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

- Contracting Officer. This Approval will not be given until the CONTRACTOR submits to the Contracting Officer a written statement concerning the proposed award to the Subcontractor which shall contain required Equal Employment Opportunity documents, evidence of insurance whose limits are acceptable to the CONTRACTOR, and an executed copy of the subcontract. All subcontracts shall contain provisions for prompt payment, release of retainage, and interest on late payment amounts and retainage as specified in A.S. 36.90.210. Contracts between subcontractors, regardless of tier, must also contain these provisions. No acceptance by the Contracting Officer of any such Subcontractor shall constitute a waiver of any right of the DEPARTMENT to reject Defective Work.
- 6.13.2 The CONTRACTOR shall be fully responsible to the DEPARTMENT for all acts and omisions of the Subcontractors, Suppliers and other persons and organizations performing or furnishing any of the Work under a direct or indirect contract with CONTRACTOR just as CONTRACTOR is responsible for CONTRACTOR's own acts and omissions.
- 6.13.3 All Work performed for CONTRACTOR by a Subcontractor will be pursuant to an appropriate written agreement between CONTRACTOR and the Subcontractor which specifically binds the Subcontractor to the applicable terms and conditions of the Contract Documents for the benefit of the DEPARTMENT and contains waiver provisions as required by paragraph 13.17 and termination provisions as required by Article 14.
- 6.13.4 Nothing in the Contract Documents shall create any contractual relationship between the DEPARTMENT and any such Subcontractor, Supplier or other person or organization, nor shall it create any obligation on the part of the DEPARTMENT to pay or to see to the payment of any moneys due any such Subcontractor, Supplier or other person or organization except as may otherwise be required by Regulatory Requirements. The DEPARTMENT will not undertake to settle any differences between or among the CONTRACTOR, Subcontractors, or Suppliers.
- 6.13.5 The CONTRACTOR and Subcontractors shall coordinate their work and cooperate with other trades so to facilitate general progress of Work. Each trade shall afford other trades every reasonable opportunity for installation of their work and storage of materials. If cooperative work of one trade must be altered due to lack of proper supervision, or failure to make proper provisions in time by another trade, such conditions shall be remedied by the CONTRACTOR with no change in Contract Price or Contract Time.
- 6.13.6 The CONTRACTOR shall include on his own payrolls any person or persons working on this Contract who are not covered by written subcontract, and shall ensure that all Subcontractors include on their payrolls all persons performing Work under the direction of the Subcontractor.

6.14 Use of Premises:

The CONTRACTOR shall confine construction equipment, the storage of materials and equipment and the operations of workers to the Project limits and approved remote storage sites and lands and areas identified in and permitted by Regulatory Requirements, rights-of-way, permits and easements, and shall not unreasonably encumber the premises with construction equipment or other materials or equipment. The CONTRACTOR shall assume full responsibility for any damage to any such land or area, or to the owner or occupant thereof or of any land or areas contiguous thereto, resulting from the performance of the Work. Should any claim be made against the DEPARTMENT by any such owner or occupant because of the performance of the Work, the CONTRACTOR shall hold the DEPARTMENT harmless.

6.15 Structural Loading:

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

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6.16 Record Documents:

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

6.17 Safety and Protection:

The CONTRACTOR alone shall be responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the Work. The CONTRACTOR shall take all necessary precautions for the safety of, and shall provide the necessary protection to prevent damage, injury or loss to:

- 6.17.1 All employees on the Work and other persons and organizations who may be affected thereby;
- 6.17.2 All the Work and materials and equipment to be incorporated therein, whether in storage on or off the site; and
- 6.17.3 Other property at the site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures, and utilities not designated for removal, relocation or replacement in the course of construction.

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

6.18 Safety Representative:

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

6.19 Emergencies:

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

6.20 Shop Drawings and Samples:

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

6.21 Shop Drawing and Sample Review:

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

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

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

6.22 Maintenance During Construction:

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

6.23 Continuing the Work:

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

6.24 Consent to Assignment:

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

6.25 Use of Explosives:

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

6.26 CONTRACTOR's Records:

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

Documents.

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

6.27 Load Restrictions

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

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

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

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ARTICLE 7 - LAWS AND REGULATIONS

7.1 Laws to be Observed

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

7.2 Permits, Licenses, and Taxes

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

7.3 Patented Devices, Materials and Processes

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

7.4 Compliance of Specifications and Drawings:

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

7.5 Accident Prevention:

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

7.6 Sanitary Provisions:

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

7.7 Business Registration:

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

7.8 Professional Registration and Certification:

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

7.9 Local Building Codes:

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

7.10 Air Quality Control:

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

7.11 Archaeological or Paleontological Discoveries:

When the CONTRACTOR's operation encounters prehistoric artifacts, burials, remains of dwelling sites, or paleontological remains, such as shell heaps, land or sea mammal bones or tusks, the CONTRACTOR shall cease operations immediately and notify the Contracting Officer. No artifacts or specimens shall be further disturbed or removed from the ground and no further operations shall be performed at the site until so directed. Should the Contracting Officer order suspension of the CONTRACTOR's operations in order to protect an archaeological or historical finding, or order the CONTRACTOR to perform extra Work, such shall be covered by an appropriate Contract change document.

7.12 Applicable Alaska Preferences:

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

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

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

7.13 Wages and Hours of Labor:

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

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

7.14 Overtime Work Hours and Compensation:

Pursuant to 40 *U.S.C.* 327-330 and AS 23.10.060 -.110, the CONTRACTOR shall not require nor permit any laborer or mechanic in any workweek in which he is employed on any Work under this Contract to work in excess of eight hours in any Calendar Day or in excess of forty hours in such workweek on Work subject to the provisions of the *Contract Work Hours and Safety Standards Act* unless such laborer or mechanic receives compensation at a rate not less than one and one half times his basic rate of pay for all such hours worked in excess of eight hours in any Calendar Day or in excess of forty hours in such workweek whichever is the greater number of overtime hours. In the event of any violation of this provision, the CONTRACTOR shall be liable to any affected employee for any amounts due and penalties and to the DEPARTMENT for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or nechanic 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.

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ARTICLE 8 - OTHER WORK

8.1 Related Work at Site:

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

8.2 Access, Cutting, and Patching:

The CONTRACTOR shall afford each utility owner and any other contractor who is a party to such a direct contract with the DEPARTMENT (or the DEPARTMENT, if the DEPARTMENT is performing the additional work with the DEPARTMENT's employees) proper and safe access to the site and a reasonable opportunity for the introduction and storage of materials and equipment and the execution of such work, and shall properly connect and coordinate the Work with the work of others. The CONTRACTOR shall do all cutting, fitting and patching of the Work that may be required to make its several parts come together properly and integrate with such other work, the CONTRACTOR shall not endanger any work of others by cutting, excavating or otherwise altering their work and will only cut or alter such other work with the written consent of the Contracting Officer. The duties and responsibilities of the CONTRACTOR under this paragraph are for the benefit of other contractors to the extent that there are comparable provisions for the benefit of the CONTRACTOR in said direct contracts between the DEPARTMENT and other contractors.

8.3 Defective Work by Others:

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

8.4 Coordination:

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

ARTICLE 9 - CHANGES

9.1 DEPARTMENT's Right to Change:

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

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

9.2 Authorization of Changes within the General Scope;

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

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

9.3 Directive:

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

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9.4 Change Order:

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

9.5 Shop Drawing Variations:

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

9.6 Changes Outside the General Scope; Supplemental Agreement:

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

9.7 Unauthorized Work:

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

9.8 Notification of Surety:

If notice of any change affecting the general scope of the Work or the provisions of the Contract Documents (including, but not limited to, Contract Price or Contract Time) is required by the provisions of any bond to be given to a Surety, the giving of any such notice will be the CONTRACTOR's responsibility, and the amount of each applicable bond will be adjusted accordingly.

9.9 Differing Site Conditions:

- 9.9.1 The CONTRACTOR shall promptly, and before such conditions are disturbed (except in an emergency as permitted by paragraph 6.19), notify the Contracting Officer in writing of: (1) subsurface or latent physical conditions at the site differing materially from those indicated in the Contract, and which could not have been discovered by a careful examination of the site, or (2) unknown physical conditions at the site, of an unusual nature, differing materially from those ordinarily encountered and generally recognized as inherent in work of the character provided for in this Contract. The Contracting Officer shall promptly investigate the conditions, and if the Contracting Officer finds that such conditions do materially so differ and cause an increase or decrease in the CONTRACTOR's cost of, or time required for, performance of this Contract, an adjustment shall be made and the Contract modified in writing accordingly. An adjustment in compensation shall be computed under Article 10.
- 9.9.2 Any claim for additional compensation by the CONTRACTOR under this clause shall be made in accordance with Article 15. In the event that the Contracting Officer and the CONTRACTOR are unable to reach an agreement concerning an alleged differing site condition, the CONTRACTOR will be required to keep an accurate and detailed record which will indicate the actual "cost of the work" done under the alleged differing site condition. Failure to keep such a record shall be a bar to any recovery by reason of such alleged differing site conditions. The Contracting Officer shall be given the opportunity to supervise and check the keeping of such records.

9.10 Interim Work Authorization:

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

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ARTICLE 10 - CONTRACT PRICE; COMPUTATION AND CHANGE

10.1 Contract Price:

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

10.2 Claim for Price Change:

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

10.3 Change Order Price Determination:

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

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

10.4 Cost of the Work:

The term "cost of the work" means the sum of all costs necessarily incurred and paid by the CONTRACTOR in the proper performance of the Work. Except as otherwise may be agreed to in writing by the DEPARTMENT, such costs shall be in amount no higher than those prevailing in the locality of the Project, shall include only the following items and shall not include any of the costs itemized in subparagraph 10.5:

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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10.6 CONTRACTOR's Fee:

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

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

10.7 Cost Breakdown:

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

10.8 Cash Allowances:

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

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

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

10.9 Unit Price Work:

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

- DEPARTMENT in accordance with paragraph 10.10.
- 10.9.2 Each unit price will be deemed to include an amount considered by the CONTRACTOR to be adequate to cover the CONTRACTOR's overhead and profit for each separately identified item. If the "Basis of Payment" clause in the Contract Documents relating to any unit price in the bid schedule requires that the said unit price cover and be considered compensation for certain work or material essential to the item, this same work or material will not also be measured or paid for under any other pay item which may appear elsewhere in the Contract Documents.
- 10.9.3 Payment to the CONTRACTOR shall be made only for the actual quantities of Work performed and accepted or materials furnished, in conformance with the Contract Documents. When the accepted quantities of Work or materials vary from the quantities stated in the bid schedule, or change documents, the CONTRACTOR shall accept as payment in full, payment at the stated unit prices for the accepted quantities of Work and materials furnished, completed and accepted; except as provided below:
 - a. When the quantity of Work to be done or material to be furnished under any item, for which the total cost of the item exceeds 10% of the total Contract Price, is increased by more than 25 percent of the quantity stated in the bid schedule, or change documents, either party to the Contract, upon demand, shall be entitled to an equitable unit price adjustment on that portion of the Work above 125 percent of the quantity stated in the bid schedule.
 - b. When the quantity of Work to be done or material to be furnished under any major item, for which the total cost of the item exceeds 10% of the total Contract Price, is decreased by more than 25 percent of the quantity stated in the bid schedule, or change documents either party to the Contract, upon demand, shall be entitled to an equitable price adjustment for the quantity of Work performed or material furnished, limited to a total payment of not more than 75 percent of the amount originally bid for the item.

10.10 Determinations for Unit Prices:

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

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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, grauting is within the sole discretion of the Contracting Officer, and refusal or failure to grant a limited Notice to Proceed shall not be a basis for claiming for delay, extension of time, or alteration of price.

11.3 Computation of Contract Time:

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

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

- 11.3.2 When the Contract completion time is specified as a fixed calendar date, it shall be the date of Substantial Completion.
- 11.3.3 The Contract Time shall be as stated on form 25D-9, Proposal.

11.4 Time Change:

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

11.5 Extension Due to Delays:

The right of the CONTRACTOR to proceed shall not be terminated nor the CONTRACTOR charged with liquidated or actual damages because of delays to the completion of the Work due to unforeseeable causes beyond the control and without the fault or negligence of the CONTRACTOR, including, but not restricted to the following: acts of God or of the public enemy, acts of the DEPARTMENT in its contractural 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 occurences above, does not of itself justify a time extension, provided that the CONTRACTOR shall within twenty four (24) hours from the beginning of any such delay (unless the Contracting Officer shall grant a further period of the time prior to the date of final settlement of the Contract), notify the Contracting Officer in writing of the cause of delay. The Contracting Officer shall ascertain the facts and the extent of the delay and extend the time for completing the Work when the findings of fact justify such an extension.

11.6 Essence of Contract:

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

11.7 Reasonable Completion Time:

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

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

11.8 Delay Damages:

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

Liquidated and actual damages for delay shall be paid by the CONTRACTOR or his Surety to the DEPARTMENT in the amount as specified in the Supplementary Conditions for each Calendar Day the completion of the Work or any part thereof is delayed beyond the time required by the Contract, or any extension thereof. If a listing of incidents resulting from a delay and expected to give rise to actual or liquidated damages is not established by the Contract Documents, then the CONTRACTOR and his Surety shall be liable to the DEPARTMENT for any actual damages occasioned by such delay. The CONTRACTOR acknowledges that the liquidated damages established herein are not a peualty 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.

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ARTICLE 12 - QUALITY ASSURANCE

12.1 Warranty and Guaranty:

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

12.2 Access to Work:

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

12.3 Tests and Inspections:

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

12.4 Uncovering Work:

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

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

12.5 DEPARTMENT May Stop the Work:

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

12.6 Correction or Removal of Defective Work:

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

12.7 One Year Correction Period:

If within one year after the date of Substantial Completion of the relevant portion of the work or such longer period of time as may be prescribed by Regulatory Requirements or by the terms of any applicable special guarantee required by the Contract Documents or by any specific provision of the Contract Documents, any Work is found to he 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.

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12.9 DEPARTMENT May Correct Defective Work:

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

ARTICLE 13 - PAYMENTS TO CONTRACTOR AND COMPLETION

13.1 Schedule of Values:

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

13.2 Preliminary Payments:

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

13.3 Application for Progress Payment:

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

13.4 Review of Applications for Progress Payment:

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

13.5 Stored Materials and Equipment:

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

13.6 CONTRACTOR's Warranty of Title:

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

13.7 Withholding of Payments:

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

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

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

13.8 Retainage:

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

13.9 Request for Release of Funds:

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

13.10 Substantial Completion:

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

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

inspections, thereafter.

13.11 Access Following Substantial Completion:

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

13.12 Final Inspection:

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

13.13 Final Completion and Application for Payment:

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

13.14 Final Payment:

- 13.14.1 If on the basis of the Contracting Officer's observation of the Work during construction and final inspection, and the Contracting Officer's review of the final Application for Payment and accompanying documentation all as required by the Contract Documents; and the Contracting Officer is satisfied that the Work has been completed and the CONTRACTOR's other obligations under the Contract Documents have been fulfilled, the DEPARTMENT will process final Application for Payment. Otherwise, the Contracting Officer will return the Application for Payment to the CONTRACTOR, indicating in writing the reasons for refusing to process final payment, in which case the CONTRACTOR shall make the necessary corrections and resubmit the final Application for Payment.
- 13.14.2 If, through no fault of the CONTRACTOR, Final Completion of the Work is significantly delayed, the Contracting Officer shall, upon receipt of the CONTRACTOR's final Application for Payment, and without terminating the Contract, make payment of the balance due for that portion of the Work fully completed and accepted. If the remaining balance to be held by the DEPARTMENT for Work not fully completed or corrected is less than the retainage provided for in paragraph 13.9, and if bonds have been furnished as required in paragraph 5.1, the written consent of the Surety to the payment of the balance due for that portion of the Work fully completed and accepted shall be submitted by the CONTRACTOR to the DEPARTMENT with the application for such payment. Such payment shall be made under the terms and conditions governing final payment, except that it shall not constitute a waiver of claims.

13.15 Final Acceptance:

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

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13.16 CONTRACTOR's Continuing Obligation:

The CONTRACTOR's obligation to perform and complete the Work and pay all laborers, Subcontractors, and materialmen in accordance with the Contract Documents shall be absolute. Neither any progress or final payment by the DEPARTMENT, nor the issuance of a certificate of Substantial Completion, nor any use or occupancy of the Work or any part thereof by the DEPARTMENT or Using Agency, nor any act of acceptance by the DEPARTMENT nor any failure to do so, nor any review and Approval of a Shop Drawing or sample submission, nor any correction of Defective Work by the DEPARTMENT will constitute an acceptance of Work not in accordance with the Contract Documents or a release of the CONTRACTOR's obligation to perform the Work in accordance with the Contract Documents.

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

13.17 Waiver of Claims by CONTRACTOR:

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

13.18 No Waiver of Legal Rights:

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

ARTICLE 14 - SUSPENSION OF WORK, DEFAULT AND TERMINATION

14.1 DEPARTMENT May Suspend Work:

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

14.2 Default of Contract:

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

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

14.3 Rights or Remedies:

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

14.4 Convenience Termination:

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

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

- CONTRACTOR or sold pursuant to the provisions of this section and not otherwise recovered by or credited to the DEPARTMENT; and,
- d. All progress payments made to the CONTRACTOR under the provisions of this section.
- 14.4.8 Where the Work has been terminated by the DEPARTMENT said termination shall not affect or terminate any of the rights of the DEPARTMENT against the CONTRACTOR or his Surety then existing or which may thereafter accrue because of such default. Any retention or payment of monies by the DEPARTMENT due to the CONTRACTOR under the terms of the Contract shall not release the CONTRACTOR or its Surety from liability.
- 14.4.9 The CONTRACTOR's termination claim may not include claims that pre dated the notice for termination for convenience. Those claims shall be prosecuted by the CONTRACTOR under Article 15.
- 14.4.10 The CONTRACTOR'S termination claim may not exceed the total dollar value of the contract as awarded plus agreed upon change orders less the amounts that have been paid for work completed.
 - a. Unless otherwise provided for in the Contract Documents, or hy applicable statute, the CONTRACTOR, from the effective date of termination and for a period of three years after final settlement under this Coutract, 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 the CONTRACTOR, actually reflected in its 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 coutract control where they are more restrictive than, or inconsistent with, these federal cost principles."

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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 reutal 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 eosts 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.

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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.

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 - Not applicable

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. Workers' Compensation Insurance: The Contractor shall provide and maintain, for all employees of the Contractor engaged in work under this contract, Workers' Compensation Insurance as required by AS 23.30.045. The Contractor shall be responsible for Workers' Compensation Insurance for any subcontractor who provides services under this contract, to include:
 - 1. Waiver of subrogation against the State and Employer's Liability Protection in the amount of \$500,000 each accident/\$500,000 each disease.
 - 2. If the Contractor directly utilizes labor outside of the State of Alaska in the prosecution of the work, "Other States" endorsement shall be required as a condition of the contract.
 - 3. Whenever the work involves activity on or about navigable waters, the Workers' Compensation policy shall contain a United States Longshoreman's and Harbor Worker's Act endorsement, and when appropriate, a Maritime Employer's Liability (Jones Act) endorsement with a minimum limit of \$1,000,000."

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) – Not Applicable

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-10.11-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..."

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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 \$405.00 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 14.2, 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
 - i. Disregards Regulatory Requirements of any public body having jurisdiction, or
 - j. Otherwise violates in any substantial way any provisions of the Contract Documents, or
 - k. fails to comply with Contract minimum wage payments or civil rights requirements, or
 - 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
 - Direct costs of repairing equipment to render it operable for use on the terminated work
- 14.4.4 The termination claim shall be submitted promptly, but in no event later than 90 days from the effective date of termination, unless extensions in writing are granted by the Contracting Officer upon written request of the CONTRACTOR made within the 90 day period. Upon failure of the CONTRACTOR to submit his termination claim within the time allowed, the Contracting Officer may determine, on the basis of information available to him, the amount, if any, due to the CONTRACTOR by reason of the termination and shall thereupon pay to the CONTRACTOR the amount so determined.
- 14.4.5 The CONTRACTOR and the Contracting Officer may agree upon whole or any part of the amount or amounts to be paid to the CONTRACTOR by reason of the total or partial termination of Work pursuant to this section. The Contract shall be amended accordingly, and the CONTRACTOR shall be paid the agreed amount.
- 14.4.6 In the event of the failure of the CONTRACTOR and the Contracting Officer to agree in whole or in part, as provided heretofore, as to the amounts with respect to costs to be paid to the CONTRACTOR in connection with the termination of the Work the Contracting Officer shall determine, on the basis of information available to him, the amount, if any, due to the CONTRACTOR by reason of the termination and shall pay to the CONTRACTOR the amount determined as follows:
 - a. All costs and expenses reimbursable in accordance with the Contract not previously paid to the CONTRACTOR for the performance of the Work prior to the effective date of the Notice of Termination:
 - b. So far as not included under "a" above, the cost of settling and paying claims arising out of the termination of the Work under subcontracts or orders which are properly chargeable to the terminated portions of the Contract;
 - c. So far as practicable, claims by the contractor for idled or stand-by equipment shall be made as follows: Equipment claims will be reimbursed as follows:
 - 1. Contractor-owned equipment usage, based on the contractor's ownership and operating costs for each piece of equipment as determined from the contractor's accounting records. Under no circumstance, may the contractor base equipment claims on published rental rates.
 - 2. Idle or stand-by time for Contractor-owned equipment, based on 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;
 - 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

Fairbanks Pioneer Home Sanitary Waste System Upgrades - ANC 15-22C

that the Contract provides entitlement to relief for such act, event, or condition.

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

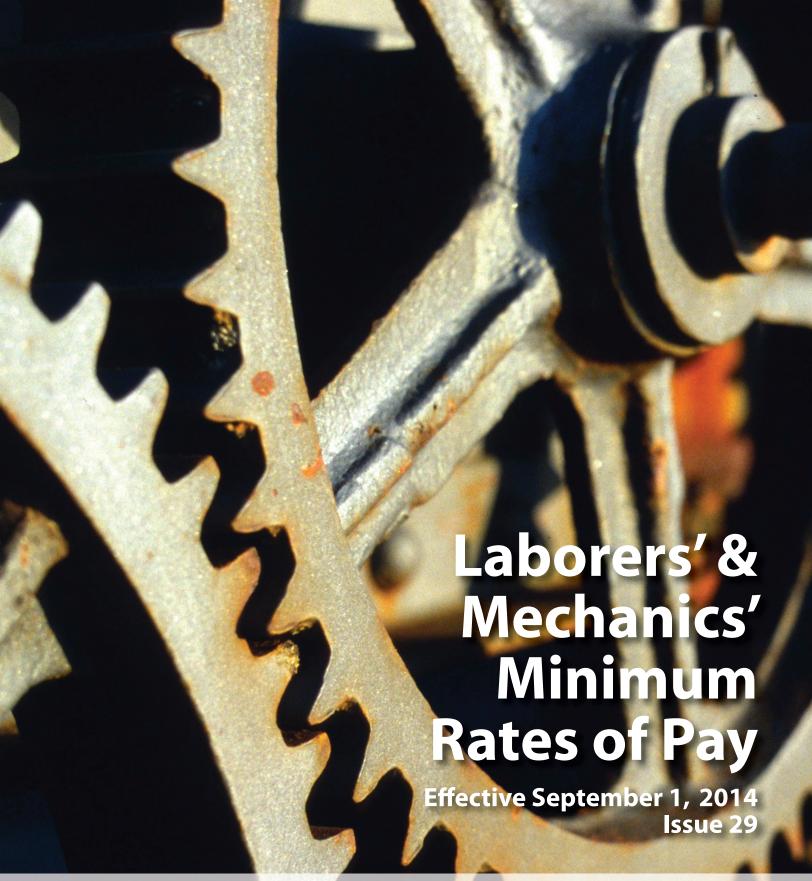
15.4 Contracting Officer's Decision

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

15.5 Fraud and Misrepresentation in Making Claims

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

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Title 36. Public Contracts
AS 36.05 & AS 36.10
Wage & Hour Administration
Pamphlet No. 600





Department of Labor and Workforce Development

Office of the Commissioner

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

September 1, 2014

TO ALL CONTRACTING AGENCIES:

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

This pamphlet identifies current prevailing wage rates and resident hire classifications for public construction contracts (any construction projects awarded by the State of Alaska or its political subdivisions, such as local governments and certain non-profit organizations).

Because these rates may change, this publication is printed in the spring and fall of every year, so please be sure you are using the appropriate rates. The rates published in this edition become effective September 1, 2014.

All projects with a final bid date of September 11, 2014, or later, must pay the prevailing wage rates contained in this pamphlet. As the law now provides, these rates will remain stable during the life of a contract or for 24 calendar months, whichever is shorter. The date the prime contract is awarded is the date from which the 24 months will be counted. Upon expiration of the initial 24-month period, the <u>latest</u> wage rates issued by the department shall become effective for a subsequent 24-month period or until the original contract is completed, whichever occurs first. This process shall be repeated until the original contract is completed.

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

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

For additional copies of this pamphlet, contact the nearest office of the Division of Labor Standards and Safety, Wage and Hour office or visit the Internet site at:

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

For questions regarding prevailing wage or resident hire requirements, please contact the nearest Wage and Hour office. These offices are listed on Page xi.

Sincerely,

Dianne Blumer
Commissioner

Bunes

EMPLOYMENT PREFERENCE INFORMATION (EFFECTIVE August 16, 2013)

By authority of <u>AS 36.10.150</u> and <u>8 AAC 30.064</u>, the Commissioner of Labor and Workforce Development has determined the 15 boroughs and census areas listed below to be Zones of Underemployment. A Zone of Underemployment requires that Alaska residents who are eligible under <u>AS 36.10.140</u> be given a minimum of 90 percent employment preference on public works contracts throughout the state in certain job classifications. This hiring preference applies on a project-by-project, craft-by-craft or occupational basis and must be met each workweek by each contractor/subcontractor.

For additional information about the Alaska resident hire requirements, contact the nearest Wage and Hour Office in Anchorage at (907) 269-4900, in Fairbanks at (907) 451-2886 or in Juneau at (907) 465-4248.

The following classifications qualify for a minimum of 90 percent Alaska resident hire preference:

Aleutians East Borough: Plumbers and Pipefitters

Aleutians West Borough: Painters

Bethel Census Area: Culinary Workers, Foremen and Supervisors, Mechanics, Painters, Surveyors, Tug

Boat Workers

Denali Borough: Carpenters

<u>Dillingham Census Area</u>: Carpenters, Culinary Workers, Electricians, Equipment Operators, Foremen and Supervisors, Laborers, Mechanics, Truck Drivers, Tug Boat Workers

<u>Hoonah-Angoon Census Area</u>: Carpenters, Culinary Workers, Electricians, Equipment Operators, Foremen and Supervisors, Laborers, Mechanics, Painters, Truck Drivers

<u>Nome Census Area</u>: Carpenters, Culinary Workers, Electricians, Equipment Operators, Foremen and Supervisors, Laborers, Mechanics, Surveyors, Truck Drivers, Tug Boat Workers, Welders

Northwest Arctic Borough: Carpenters, Culinary Workers, Electricians, Equipment Operators, Foremen and Supervisors, Plumbers and Pipefitters, Surveyors, Truck Drivers, Tug Boat Workers, Welders

<u>Petersburg Borough</u>: Culinary Workers, Engineers and Architects, Foremen and Supervisors, Laborers <u>Prince of Wales-Hyder Census Area</u>: Carpenters, Culinary Workers, Electricians, Equipment Operators,

Foremen and Supervisors, Laborers, Mechanics, Surveyors, Truck Drivers, Welders

Skagway: None

<u>Southeast Fairbanks Census Area</u>: Carpenters, Culinary Workers, Equipment Operators, Laborers, Painters, Truck Drivers

<u>Wade Hampton Census Area</u>: Carpenters, Electricians, Engineers and Architects, Mechanics, Roofers Yakutat: None

<u>Yukon-Koyukuk Census Area</u>: Culinary Workers, Electricians, Foremen and Supervisors, Painters, Plumbers and Pipefitters, Surveyors, Truck Drivers, Tug Boat Workers, Welders

This determination is effective August 16, 2013, and remains in effect until June 30, 2015.

The first person on a certified payroll in any classification is called the "first worker" and is not required to be an Alaskan resident. However, once the contractor adds any more workers in the classification, then all workers in the classification are counted, and the 90 percent is applied to compute the number of required Alaskans to be in compliance. To compute the number of Alaskan residents required in a workweek in a particular classification, multiply the number of workers in the classification by 90 percent. The result is then rounded down to the nearest whole number to determine the number of Alaskans that must be employed.

If a worker works in more than one classification during a week, the classification in which they spent the most time would be counted for employment preference purposes. If the time is split evenly between two classifications, the worker is counted in both classifications.

If you have difficulty meeting the 90 percent requirement, an approved waiver must be obtained <u>before</u> a non-Alaskan resident is hired who would put the contractor/subcontractor out of compliance (<u>8 AAC 30.081 (e) (f)</u>). The waiver process requires proof of an intensive search for qualified Alaskan workers. To apply for a waiver, contact the nearest Wage and Hour Office for instructions.

Here is an example to apply the 90 percent requirement to four carpenter workers. Multiply four workers by 90% and drop the fraction (.90 X 4 = 3.6 - .6 = 3). The remaining number is the number of Alaskan resident carpenters required to be in compliance in that particular classification for that week.

The penalties for being out of compliance are serious. <u>AS 36.10.100</u> (a) states "A contractor who violates a provision of this chapter shall have deducted from amounts due to the contractor under the contract the prevailing wages which should have been paid to a displaced resident, and these amounts shall be retained by the contracting agency." If a contractor/subcontractor is found to be out of compliance, penalties accumulate until they come into compliance.

If you have difficulty determining whether a worker is an Alaska resident, you should contact the nearest Wage and Hour Office. Contact Wage and Hour in Anchorage at (907) 269-4900, in Fairbanks at (907) 451-2886, or in Juneau at (907) 465-4842.

Alaska Department of Labor and Workforce Development Labor Standards & Safety Division Wage and Hour Administration

Wage and Hour Administration
Web site: http://labor.state.ak.us/lss/pamp600.htm

Anchorage Juneau Fairbanks

1251 Muldoon Road, Suite 113 1111 W. 8th Street, Suite 302 Regional State Office Building Anchorage, Alaska 99504-2098 Juneau, Alaska 99801 675 7th Ave., Station J-1

Phone: (907) 269-4900 Phone: (907) 465-4842 Fairbanks, Alaska 99701-4593 Phone: (907) 451-2886

Email: Email: Email:

anchorage.lss-wh@alaska.gov juneau.lss-wh@alaska.gov fairbanks.lss@alaska.gov

DEBARMENT LIST

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

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

Company Name Date of Debarment Debarment Expires

No companies are currently debarred.

SPECIAL NOTICE TO BIDDERS

NEW "LITTLE DAVIS BACON ACT" CHANGES FILING PROCESS AND ASSESSES SPECIAL FEES ON PUBLIC WORKS CONSTRUCTION PROJECTS

The news release concerning these changes is at: http://labor.state.ak.us/news/2003/news03-23.htm

Governor Sean Parnell signed changes to CSHB 155 into law on July 22, 2011 (effective October 20, 2011), in addition to Governor Murkowski CSHB 155 changes on June 16, 2003 (effective July 2, 2003). The new laws allow contractors working on certain public construction projects to file bi-weekly versus weekly-certified payrolls to the Alaska Department of Labor and Workforce Development (DOLWD), filing requirements **and** it levies filing fees.

• What does this change accomplish?

State Funded Projects - Instead of submitting certified payrolls weekly, prime Contractors working on State funded public construction projects are now allowed to file certified payrolls every other week - biweekly payroll reports on State funded project shall not contain Social Security Numbers. In conjunction with this statutory change, the DOLWD is revising the certified payroll form. The revised certified payroll form is available at: http://www.labor.state.ak.us/lss/lssforms.htm

Federally Funded Projects - Federal weekly payroll filing requirements under 29 CFR 5.5 (a) (3) <u>are not changed</u> by this new law. But, the assessment of a one percent fee based on the estimated value of work performed and of the value of each subcontractor's price now applies (see below).

And, Federal Statue and form 25D-55 <u>still require</u> Social Security Numbers for the certified weekly payroll reports submitted on Federally funded projects.

· Are there special forms to file and fees to pay?

Effective October 20, 2011, the prime Contractor working on any public construction project exceeding \$25,000 must file a "Notice of Work" and a "Notice of Completion" form with the DOLWD.

A one percent filing fee will be assessed on contracts with an amount of \$25,000 or more. The fee will be based on the estimated value of work to be performed by the prime contractor, and one percent of the value of each subcontractor's price. The maximum fee is \$5,000.00.

Amounts paid to owner/operators who do not use employees are exempt from the filing fee.

The Contractor must provide to the Contracting Agency a copy of the "Notice of Work" form that has been date stamped as received by the DOL along with confirmation of fee payment before work on the project may commence.

And, the Contractor must file a "Notice of Completion" with the DOLWD when work is completed. The Contracting Agency will not perform the "close-out for final project completion" until notice from the DOLWD that they have processed the Contractors "Notice of Completion" form. The "Notice of Work" and "Notice of Completion" forms are available at: http://www.labor.state.ak.us/lss/lssforms.htm

• What about emergency work and projects bid opened before July 1, 2003?

There are special provisions for filing the "Notice of Work" and the payment of fees for an emergency response project. Contractors have 14 days after starting work in which to file the "Notice of Work" and pay the fees on an emergency response project.

A prime Contractor under a contract that had a final bid date before July 1, 2003 will not be required to pay a filing fee, regardless of when the work starts.

How can I find out more about this new law?

Contact the Dept. of Labor Workforce and Development, Wage and Hour Administration at:

Juneau 907.465.4842 Anchorage 907.269.4900 Fairbanks 907.451.2886



STATE OF ALASKA DEPARTMENT OF HEALTH & SOCIAL SERVICES

Fairbanks Pioneer Home Sanitary Waste System Upgrades – ANC 15-22C

SECTION 00850 DRAWING INDEX

GENERAL

G001 Title Page

ARCHITECTURAL - N/A

MECHANICAL

M001 Mechanical Schedules, Legends, Abbreviations & Construction Phasing Plan	M001	Mechanical	Schedules,	Legends,	Abbreviations &	Construction	Phasing Plan
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M100 Crawlspace Plumbing Demolition Plan

M101 Northwest Crawlspace Large Scale Plumbing Demolition Plan

M102 Southwest Crawlspace Large Scale Plumbing Demolition Plan

M103 East Crawlspace Large Scale Plumbing Demolition Plan

M110 1st Floor Demolition Plan

M201 Northwest Crawlspace Large Scale Plumbing Plan

M202 Southwest Crawlspace Large Scale Plumbing Plan

M203 East Crawlspace Large Scale Plumbing Plan

M210 1st Floor Plan – West

M211 1st Floor Plan – East

M300 Plumbing & Electrical Details

ELECTRICAL

See M300

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:

Andy Carie, Maintenance Foreman (907) 458-2227 OR cell (907) 687-5433 andrew.carie@alaska.gov

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. No smoking is allowed in or near the building. Contractor's employees may smoke in their vehicle if they are 100 feet from the building. Illegal drugs, use or possession are not allowed on the Owner's property.
- 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. 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 to between 7 p.m. and 7 a.m. Monday through Friday and all day Saturday and Sunday.
- G. Limit construction access to building to the location indicated. Keep construction access points locked at all times. Contractor will be provided with two sets of keys for construction access points.
- H. Move Owner tools, equipment, shelving, stored materials, etc. as required to accomplish Work. Return to original location as soon as possible.
- I. Protect Owner tools, equipment, shelving, stored materials, and equipment, etc. from Work.
- J. In Owner occupied areas:
 - 1. Limit use of premises for Work and for construction operations to between 7:00

a.m. and 5:00 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. There will be a need for evening work on this project whenever the plumbing switch over and lift station work is performed. Scheduling and coordination with the Facility Maintenance Foreman and the Project Manager will be necessary to ensure the residents and staff are affected as little as possible during this transition.
- 3. Cover and protect from dust and debris, at the start of each work day, 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 work day.
- 4. Do not use furniture, such as countertops, desks, filing cabinets, book shelves, and tables as work surfaces or as steps to access Work.
- 5. At the end of each workday, move back to original location equipment and furniture moved to accommodate Work. Do not move electronic equipment unless absolutely necessary to accomplish Work.
- 6. At the end of each workday replace ceiling tiles removed to access Work.
- 7. At the end of each work day, 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.

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.

PART 2 PRODUCTS Not Used PART 3 PARTS Not Used

SECTION 01005 ADMINISTRATIVE PROVISIONS

END OF SECTION

01005-5

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 7:00 am and 5:00 pm, unless specifically approved by the Maintenance Foreman. Requests for work outside of these hours must be submitted in writing 48 hours in advance.
- B. There will be a need for evening work on this project whenever the plumbing switch over and lift station work is performed. Scheduling and coordination with the Facility Maintenance Foreman and the Project Manager will be necessary to ensure the residents and staff are affected as little as possible during this transition.
- C. 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.
- D. No firearms or ammunition allowed on the grounds, to include locked vehicles.
- E. 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.

COMMON TERMINOLOGY 1.05

- A. Certain items used generally throughout the Specifications and Drawings are used as follows:
 - 1. Indicated: The term "indicated" is a cross reference to details, notes or schedules on the Drawings, other paragraphs or schedules in the Specifications, and similar means of recording requirements in the Contract Documents. Where terms such as "shown", "noted", "schedules", and "specified" are used in lieu of "indicate", it is for the purpose of helping the reader accomplish the cross reference, and no limitation of location is intended except as specifically noted.
 - The person or entity engaged by CONTRACTOR, his Subcontractor or 2. Installer: 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.

Sanitary Waste System Upgrades ANC 15-22C

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.

SUBMITTALS WITH APPLICATION FOR PAYMENT 1.07

- A. Submit the following with each Application for Payment.
 - 1. Updated construction schedule as required by Section 01300 - Submittals.
 - Updated Schedule of Values as required by Section 01300 Submittals: 2. 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 3 EXECUTION Not Used

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 effect 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:
 - 1. 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.
- 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.

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.
 - 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 EXPLANATIONS: DRAWINGS AND SPECIFICATIONS

Section 01073

Explanations: Drawings And Specifications

PART 1 GENERAL

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.

- Section 01073
 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.

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PART 2 [Not Used] **PRODUCTS**

PART 3 [Not Used] **EXECUTION**

END OF SECTION

01073-3

SECTION 01090 REFERENCE STANDARDS

PART 1 GENERAL

1.01 REQUIREMENTS INCLUDED

- 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 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 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

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 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)

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. Cut rigid materials using masonry saw or core drill. Pneumatic tools and electric hammers are not permitted.
- F. Conduct all operations with a minimum of noise.

- G. 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.
- H. 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.
- 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.
- 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.

Section 01120 Alteration Project Procedures

B. After the demolition Work in any area is completed, clean the area before new construction is started.

END OF SECTION

01120 - 4

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:
 - Completeness, including the attachments.
 - 2. Proper execution (signatures), including the attachments.
 - 3. 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.
- 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 Health & Social 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.

PROJECT: Fairbanks Pioneer Home Sanitary Wastes System Upgrades PROJ. #: ANC 15-22C PRIME CONTRACTOR:					
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 funder Contract Minimum Wage Schedule Civil Rights Representative (Form 25A302)	ed projects 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?				
	iato paymont and retainage comorning to 710 co.s.	5.210:	Yes□	No 🗌	
7.	Does the Subcontract specifically bind the Subcontractor to the applicable terms and conditions of the Contract Documents for the benefit of the Department and does it contain waiver provisions and termination provisions as required by the Contract Documents?				
	termination provisions as required by the Contract	Documents:	Yes□	No□	
8.	a. Does the Subcontractor have adequate insurance coverages as specified in the Contract Documents?				
			Yes□	No□	
	If not, does the Contractor stipulate that the insurance limits of the Subcontractor are acceptable to the Contractor and that he has notified his insurance carrier of the reduced insurance limits?				
			Yes□	No□	
	b. Does the evidence of insurance certify that the policies described thereon comply with all aspect of the insurance requirements for this project?				
	or the modification requirements for this project:		Yes□	No	

REV 2/12

PROJ	ECT: Fairbanks Pioneer Home Sanitary Waste System Upgrades PROJECT #: ANC 15-22C			
Subco	ontractor Name:			
	c. Does the evidence of insurance list the Department as an "Additional Insured" or "Certificate Holder"?			
	Yes□ 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.				
	IFICATION (to be completed and signed by PRIME CONTRACTOR): I certify all the above to be not correct.			
CONT	RACTOR'S Signature:			
CONT	RACTOR'S Printed Name:			
CONT	RACTOR'S Company:			
Date:				
	DEPARTMENT'S APPROVAL/DISAPPROVAL			
Contra	ubject subcontract is APPROVED . Nothing in this approval should be construed as relieving the Prime actor of the responsibility for complete performance of the work or as a waiver of any right of the tment to reject defective work.			
SIGNA	TURE: DATE: Mike Frawley, Contracting Officer			
The su	Mike Frawley, Contracting Officer ubject subcontract is NOT APPROVED for the following reasons:			
SIGNA	TURE: DATE:			
	Mark Moon, 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 pre-installation 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

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.
- 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 - Not applicable

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, and 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.
- 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 electronic submittals as required for the first submission. 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.
 - 3. 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

- 1. List installed value of each major item of Work and each subcontracted item of Work as a separate line item to serve as a basis for computing values for progress payments. Round off values to nearest dollar.
- 2. For each major subcontract, list products and operations of that subcontract as separate line items.
- 3. Coordinate listings with progress schedule.
- 4. Component listings shall each include a directly proportional amount of CONTRACTOR's overhead and profit.
- 5. For items on which payments will be requested for stored products, list

sub-values for cost of stored products with taxes paid.

- 6. Specific line item Values as indicated below shall be minimum acceptable amounts and must be included on all approved Schedules of Values and Applications for Payment.
 - a. <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

- 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.
- 2. Provide one copy of data with cover letter for each copy of the Application for Payment. Show application number and date, and line item by number and description.

1.06 SHOP DRAWINGS, PRODUCT DATA AND SAMPLES

A. SHOP DRAWINGS:

- 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

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

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 01541 FACILITY KEYS

PART 1 GENERAL Not Used
PART 2 PRODUCTS Not Used
PART 3 EXECUTION Not Used

3.01 FACILITY KEY REQUEST

- A. Submit written key request on CONTRACTOR company letterhead to the DEPARTMENT a minimum of 5 working days prior to the time key(s) will be needed.
 - 1. Include the following information in the written key request:
 - a. List all sub-tier subcontractors between CONTRACTOR and the subcontractor needing access.
 - b. Name the person who will carry key on his/her person.
 - c. List all door numbers where their access is requested.
 - e. Signature of person authorized by Contractor Authorities form to request keys for this project.

3.02 KEY ISSUANCE

A. Keys shall be picked up by the CONTRACTOR authorized representative from the Engineer.

3.03 KEY CONTROL

- A. The CONTRACTOR shall maintain a Key Control Log for all requests/issuances/returns of keys for the project.
- 3.04 KEY RETURNS
 - A. Return all keys directly to the Engineer.
- 3.05 LOST KEYS
 - A. Report all missing keys immediately to the Engineer.
- 3.06 LOST KEY FEES
 - A. The fee for changing each lock operated by the lost key shall be \$50 per lock.

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.
- 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.
- 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. <u>HANDLE AND STORE MATERIALS FOR CONSTRUCTION, PRODUCTS OF</u> 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

 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.
- Substitute products shall not be ordered or installed without written acceptance.
- DEPARTMENT will determine acceptability of substitutions.

C. REQUESTS FOR SUBSTITUTIONS

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

- 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

Not Used

Fairbanks Pioneer Home Sanitary Waste System Upgrades ANC 15-22C Section 01600 Material and Equipment

PART 3 EXECUTION

Not Used

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:
 - 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

- Submit application for final payment in accordance with provisions of the General Conditions of the Contract.
- F. Using Agency will occupy Concourse A 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 three sets of revised final volumes 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 delivered to the OWNER, in duplicate giving a summary of guarantees attached and stating the following in respect to each:
 - 1. Character of Work affected.
 - 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

FAIRBANKS PIONEER HOME SANITARY WASTE SYSTEM UPGRADES FAIRBANKS, ALASKA

PROJECT NO.: ANC 15-22C

MASTER FORMAT	MECHANICAL
22 01 00	Operation and Maintenance
22 02 00	Common Submittal Requirements
22 05 00	Common Work Results
22 05 10	Common Work Results for Piping
22 05 29	Hangers and Supports
22 05 48	Vibration and Seismic Controls for Plumbing Piping and Equipment
22 05 53	Identification
22 06 62	Cast Iron Pipe and Fittings
22 13 00	Sanitary Waste and Vent System
22 13 29	Sewage Lift Stations
22 42 00	Plumbing Fixtures and Trim
	EL EGEDAGA A
	ELECTRICAL
26 05 10	General Provisions
26 05 19	Wire Conductors and Cables
26 05 25	Codes, Permits and Fees
26 05 30	Tests and Inspections
26 05 33	Raceways
26 05 34	Outlet Boxes
26 27 26	Wiring Devices and Plates
26 28 16	Overcurrent Protection Devices
	CIVIL
32 20 00	Earth Moving
32 13 13	Concrete paving
32 13 13	concrete paring

Design Alaska, Inc.

PART 1 GENERAL

PROJECT NO.: ANC 15-22C

1.1 SCOPE: SECTION 22 01 00 – OPERATION AND MAINTENANCE

A. This Section covers form, content, and submittal of mechanical system Operation and Maintenance Manuals.

PART 2 PRODUCTS

2.1 FORM

- A. Arrange operation and maintenance data sequentially by Specification Section.
- B. Provide 2 indexes at the front of the binder that locates individual items by tab number. The first by Specification Section. The second, an alphabetical index of all items without regard to Specification Section.
- C. Separate each item with consecutively numbered heavy stock divider sheets with plastic index tab. Type item number on both sides of paper inserts.
- D. Precede each item with a completed Item Data Sheet. See required format attached to the end of this Specification Section.
- E. Material included shall indicate the specific item(s) utilized for this Project. Delete or cross out all other items.
- F. Provide complete operation and maintenance manual submittals. Partial or incomplete submittals required under this Section will be returned without review.

2.2 DATA

- A. Provide data for all items, equipment, and equipment components specified or indicated under this Division, so that the Owner's maintenance personnel will have complete service and replacement information required for routine maintenance and repair and to provide maximum usable life. Include data not only for maintainable and repairable items, but also for replaceable but not repairable items. Typical items for which information is required include:
 - 1. Equipment including all components and accessories such as motors, pulleys, belts, couplings, switches, etc.
 - 2. Plumbing fixtures including fixtures, faucets, flush valves, floor drains, cleanouts, roof drains, and other components.

- B. Include the following data for each item as applicable. Some of these data can be extracted from equipment review submittals and included with the Operation and Maintenance Manuals.
 - 1. Manufacturer's catalog literature and illustrations.
 - 2. Operating characteristics including capacity data, performance curves, flow rates, pressure drops, etc.
 - 3. Dimensions and connection sizes.
 - 4. Installation and adjustment instructions, requirements, and recommendations.
 - 5. Parts lists and assembly Drawings.
 - 6. Maintenance, operational, and troubleshooting instructions.
 - 7. Warranty data.
- C. Data shall be as provided by the equipment manufacturer or supplier.
- D. Data are required for all component items of equipment whether or not the components are products of the equipment manufacturer.
- E. All material must be clearly readable. "Faxed" then photocopied information is not acceptable.

2.3 BINDING

- A. Bind the Operation and Maintenance Manuals in 3 ring, D-ring style binders with page lifters and vinyl covers. Expandable catalog type 2 hole binders with soft board covers and metal prong fasteners will not be accepted.
- B. Provide multiple binders as required to limit single binder thickness to three inches. Divide binders at logical points. Do not overfill binders.
- C. Label the front cover and end panel. Label to include Project title, Project number, date, and facility name.

PART 3 EXECUTION

3.1 REQUIRED COPIES AND TIMING

A. Review Submittals:

- Submit for review two copies plus the number required by the Contractor. The Contracting Officer will retain one copy for his reference and the additional reviewed copy will be returned to the Contractor.
- 2. Submit for review not less than thirty days prior to Substantial Completion Inspection.

- B. Final Operation and Maintenance Manuals:
 - 1. Provide five complete, reviewed, corrected and accepted Operation and Maintenance Manuals to the Contracting Officer a minimum of five working days prior to Project Substantial Completion Inspection and 5 working days prior to any scheduled training on equipment covered by the Operations and Maintenance Manual.

END OF SECTION

ITEM DATA SHEET

1.	Item name/Drawing equipment number:
2.	Specification section/Drawing number:
3.	Manufacturer/model number:
4.	Size/capacity:
5.	Use and location: (1)
6.	Spare parts source:
7.	Providers of warranty service:
8.	Other Contractor comments:
	(1) This information must be provided for all items. Be specific as possible.

PART 1 GENERAL

PROJECT NO.: ANC 15-22C

1.1 SCOPE: SECTION 22 02 00 – COMMON SUBMITTAL REQUIREMENTS

A. This Section covers required mechanical equipment review submittals of material, equipment, items and accessories covered under this Division for review by the Contracting Officer to determine conformance with the Project design concepts and Contract documents prior to commencement of Work under this Division.

PART 2 PRODUCTS

2.1 FORM

- A. Each equipment review submittal or resubmittal shall be indexed, tabbed, and bound copies of data, Drawings, and materials lists. Alphabetize the index by item name and list the Specification Section and item number under which each item is submitted.
- B. Submittal information is required for all material and equipment specified or indicated on the Drawings.
- C. Organize submittals by Specification Section. Separate each Section by a heavy stock divider sheet with plastic index tab. Type Specification Section numbers on both sides of paper inserts.
- D. Identify each item of the submittal with an item number. Number the first item within a Specification Section "#1", the second item within a Specification Section "#2", and so forth. Restart numbering sequence with each Specification Section.
- E. Include equipment indicated on the Drawings, but not covered by a Specification Section, with the appropriate volume under a tab marked "Drawings". Rules for item numbering and item data sheets apply.
- F. Precede each item with a completed Item Data Sheet. See required format attached to the end of this Specification Section.
- G. Material submitted shall indicate the specific item(s) proposed for this Project. Delete or cross out all other items.
- H. Long lead mechanical equipment may be submitted for review in a separate volume. Include all long lead items in a single volume that is indexed, tabbed and bound as required for regular mechanical equipment review submittals. Maintain the long lead item submittal as a separate volume throughout the submittal review process; do not incorporate into the regular mechanical equipment review volumes.

- I. Each submittal or resubmittal of each volume shall be complete and shall contain all previously submitted material except that being replaced by new or revised material which shall be removed. Partial or improperly indexed or tabbed submittals or resubmittals shall be rejected without review or comment.
- J. With each resubmittal include a complete summary of all changes and additions made to the equipment review submittal since the previous submittal. Only those items included in the summary will be reviewed with the resubmitted package.
- K. Do not submit "updates" for previous submittal packages with resubmittals. Previous submittals will not be updated.

2.2 DATA

- A. Include the following data for each item as applicable:
 - 1. Manufacturer and model number.
 - 2. Drawing equipment number.
 - 3. Catalog literature.
 - 4. Operating characteristics including capacity data, performance curves, flow rates, pressure drops, etc.
 - 5. Electrical characteristics and wiring diagrams.
 - 6. Dimensions and connection sizes.
 - 7. Installation and adjustment instructions, requirements and recommendations.
 - 8. Color samples.
 - 9. Warranty data.
- B. A list of minimum submittals required is provided in each Section. These lists are not necessarily complete or all inclusive and the Contractor is responsible for complete submittal.

2.3 BINDING

- A. Bind the mechanical equipment review submittals in three (3) ring, D-ring style binders with page lifters and vinyl covers. Expandable catalog type two (2) hole binders with soft board covers and metal prong fasteners will not be accepted.
- B. Provide multiple binders as required to limit single binder thickness to three inches. Divide binders at logical points.
- C. Label the front cover and end panel. Label to include Project title, Project number, date, and facility name.

PART 3 EXECUTION

3.1 REQUIRED COPIES AND TIMING

- A. Submit a minimum of four, plus the number required by the Contractor, identical copies of the mechanical equipment review submittal or resubmittal for review and acceptance by the Contracting Officer. Three copies of each submittal or resubmittal will be retained by the Contracting Officer.
- B. Materials submitted shall be reviewed and accepted by the Contracting Officer before Contractor releases material for fabrication or shipment.

END OF SECTION

ATTACHMENT: ITEM DATA SHEET

ITEM DATA SHEET

(3)

representative is not acceptable.

1.	Item number:
2.	Item name/Drawing equipment number:
3.	Specification section/Drawing number:
4.	Manufacturer/model number:
5.	Use and location: (1)
6.	Spare parts source:
7.	Providers of warranty service:
8.	Proposed deviations from the Contract Documents: (2)
9.	Other Contractor comments:
10.	Contractor Certification: (3) The undersigned Contractor Representative certifies that he has reviewed the attached information and has determined that the proposed material complies with the requirements of the Contract Documents; he has coordinated installation of the material with the work of other trades and existing conditions; he has determined and verified field measurements, field construction criteria, manufacturer's installation requirements affecting the proposed material; and has notified the Contracting Officer of conflicts.
	Contractor Representative's Signature
(1)	Unless otherwise indicated, provide this information only when the product's use and location is not obvious.
(2)	If this section is left blank it will be assumed that proposed equipment is exactly as specified and indicated on the Drawings.

Design Alaska, Inc. 22 02 00 - 4

The Contractor referenced here is the General Contractor for the project. The signature of a subcontractor

PART 1 GENERAL

1.1 SCOPE: SECTION 22 05 00 – COMMON WORK RESULTS

- A. This Section covers general mechanical requirements for Work covered under this Division.
- B. All Work and services specifically covered under this Division is supplementary to that covered under other Divisions of these Contract Documents. The requirements of this Division which are more stringent than that covered under other parts of these Contract Documents apply to Work covered under this Division.
- C. All incidental Work required but not specified under this Division shall comply with the Division in which it is specified.
- D. Review the Drawings and Specifications of all other Divisions for additional Work under Division 22.

1.2 GENERAL REQUIREMENTS

- A. Provide the Owner with complete, coordinated, operating, balanced, tested, and adjusted mechanical systems.
- B. Place all equipment in operation and instruct the Owner's maintenance personnel as to the proper operation, periodic maintenance, and lubrication of new mechanical equipment and systems.
- C. The Drawings are somewhat diagrammatic and do not attempt to show all offsets or fittings required for installation of the mechanical system. Furnish and install pipes with fittings required for complete and proper installation of mechanical systems specified or required under this Division.
- D. Provide piping, equipment, and accessories indicated on the Drawings unless it is specifically indicated that the piping, equipment, or accessory is existing.
- E. Install piping and equipment in accordance with manufacturer's recommendations, with accessories recommended by the manufacturer for service intended, and with accessories indicated. Should recommendations conflict with Contract Documents, contact Contracting Officer for clarification before proceeding.
- F. Coordinate the installation of the mechanical systems with the Work of other trades and existing conditions. Route mechanical systems as required to avoid interference with the Work of other trades and existing conditions.
- G. Provide access to concealed piping accessories, and equipment requiring access for periodic maintenance, inspection, replacement, or adjustment.
- H. Do not scale the Mechanical Drawings. Verify dimensions as construction progresses.

- PROJECT NO.: ANC 15-22C
 - I. Report any errors, discrepancies, or ambiguities to the Contracting Officer, who will answer all questions and interpret intended meaning of these Contract Documents. Accept Contracting Officer's interpretation as final.
 - J. Perform Work in a neat and workmanlike manner with skilled craftsmen specializing in said Work.
 - K. Provide new equipment and materials direct from the manufacturer unless specifically indicated otherwise. Remanufactured equipment and materials are specifically not acceptable.
 - L. Provide the product of only one manufacturer for each item or type of item provided in quantity.
 - M. Where the selection of materials or methods is left to the discretion of the Contractor, faithfully pursue the use of the best available materials or methods suitable for the purpose intended.
 - N. Install Owner furnished fixtures, appliances, and equipment indicated to be Contractor installed, and furnish and install all piping required to connect Owner furnished fixtures, appliances, and equipment to the Mechanical systems, in accordance with the fixture, appliance, or equipment manufacturer's recommendations and as indicated.

1.3 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 and existing conditions.
- B. Failure to visit the jobsite will in no way relieve the successful bidder from 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.

1.4 PERMITS, TESTING, AND INSPECTIONS

- A. Obtain, pay for, and comply with the requirements of all permits, fees and inspections by public authorities required for the Work covered under this Division of the Specifications.
- B. Transmit copies of permit applications, permits received, and public authority inspection reports to the Contracting Officer.
- C. Test mechanical systems in accordance with the most restrictive procedures as defined under applicable codes or as specified elsewhere under this Division.
 - 1. Provide a minimum of 3 working days' notice to Contracting Officer and public authorities prior to performance of test.
 - 2. If less than required notice is given, the Contracting Officer may require the Contractor to repeat the test at no additional cost to the Owner.
 - 3. Test Work prior to insulating or concealing. If less than required notice is given prior to insulating or concealing, the Contracting Officer may require the Contractor to uncover such Work for inspection and recover same at no additional cost to the Owner.

- 4. Submit certificate of compliance for all tests indicating system tested, results of tests, witnesses and dates prior to calling for Substantial Completion and final inspections.
- 5. During testing, isolate piping system equipment and accessories that are not rated to withstand test pressures or perform test prior to connection of such equipment and accessories to the piping system.

D. Substantial Completion and Final Inspections:

1. Provide minimum of 14 calendar days' notice to Contracting Officer and public authorities of intent to have Work ready for inspection. Confirm that Work will be ready for inspection a minimum of 3 working days' notice prior to requested inspection.

2. Prior to inspection:

- a. Deliver to the Contracting Officer required equipment, Drawings, and records.
- Clean fixtures and equipment. Remove manufacturer's stickers and leave free of dust and dirt.
- c. Remove boxes, scrap, and other debris.
- d. Touch up holidays or damaged painted surfaces.
- e. Contractor's Mechanical Administrator, licensed by the State of Alaska, shall review mechanical systems installation for conformance with Contract Documents. With request for inspection, Contractor's Mechanical Administrator shall verify in writing that this review has been performed and note anything not conforming to Contract Documents.
- f. With request for re-inspection of Work previously inspected, provide the Owner's previous inspection's deficiency list accompanied by an item by item statement of measures taken to correct the previously listed deficiencies.
- g. Deliver to Owner personnel all special tools and devices furnished by the manufacturer with items, specialties or equipment to allow installation, disassembly, adjustment, repair or maintenance. Identify special tools or devices as to item to which it is applicable.
- h. Provide mechanical receivables that the Owner is to receive upon completion of the Project. Turn over an inventory list of materials provided for the Owner's use to the Contracting Officer prior to scheduling substantial completion and final inspections.
- i. Deliver to the Contracting Officer a Certificate of Instruction signed by all Owner personnel receiving instruction, all Contractor personnel providing instruction, and indicating dates of instruction.

3. During inspection:

- a. Provide complete and operating systems suitable for the season.
- Demonstrate that the mechanical system performs in accordance with the Contract Documents. Provide material and personnel required to perform the demonstration.
- c. Provide assistance to inspection personnel required for a complete and thorough inspection.

1.5 CODES, ORDINANCES, AND STANDARDS

- A. Federal, State and local Codes and Ordinances take precedence over these Specifications and Drawings where conflicts occur unless the Drawings or Specifications call for more stringent requirements. Notify the Contracting Officer in writing of conflicts.
- B. Follow latest adopted editions of Code of Federal Regulations, Alaska Administrative Code, International Building Code, International Mechanical Code, , Uniform Plumbing Code, International Fire Code, National Electrical Code, ADA Accessibility Guidelines, NFPA, ASME, NEMA, ASHRAE, etc. as applicable.
- C. Comply with all applicable laws, building and construction codes, OSHA Safety and Health Regulations and applicable requirements of any governmental agency under whose jurisdiction this Work is being performed.

1.6 TEMPORARY OPERATION OF FACILITY'S EXISTING MECHANICAL SYSTEMS

- A. The facility's existing mechanical systems may be utilized for temporary heat and ventilation. The system or parts of the system utilized shall be complete in all respects prior to consideration of use.
- B. Install indicated filters in all air-handling equipment placed in operation during construction. Install new filters before acceptance of substantial completion by the Owner.
- C. Install temporary one (1) inch thick roll filter media over all return and exhaust air intake grills and openings and over all fan intakes. Change filters as required and leave in place until the areas receive final cleaning for inspection.
- D. When each piece of equipment is initially placed in service, measure the motor current draw. If it exceeds the nameplate amperage (not service factor amperage), adjust fan and/or motor sheaves or pump balancing cocks to bring motor current draw below the full load current rating. If this is not possible, stop operation and notify the Contracting Officer.
- E. Test, clean, and flush liquid systems prior to utilization.
- F. Clean, repair, and lubricate new piping, ductwork, equipment and accessories as required to return the systems to like new condition prior to substantial completion and final inspections.

- G. Clean, repair, and lubricate existing piping, ductwork, equipment and accessories as required to return the systems to condition before start of construction prior to substantial completion and final inspections.
- H. The Contractor retains all responsibility for providing required maintenance until acceptance of substantial completion by the Owner. Fuel and power consumed during temporary use of the facility's new mechanical systems will be paid for by the Owner. Take steps to conserve energy.

1.7 MECHANICAL COMPLIANCE RECORD

- A. Record the performance of all tests, sterilization, cleaning, flushing and refilling of mechanical systems required under this Division.
- B. Include date, time and time interval, test results, brief description of method of tests, and witnesses.
- C. Submit this record to the Contracting Officer prior to scheduling Substantial Completion and final inspections.

1.8 INSTRUCTION OF OWNER'S PERSONNEL

- A. Instruct designated Owner personnel in the proper operation, periodic maintenance and lubrication of the project's mechanical systems, equipment and accessories utilizing an accepted Operations and Maintenance Manual.
- B. As instructors, include journeymen plumbers each fully knowledgeable of the project's mechanical systems and equipment.
- C. Instruct only those Owner personnel specifically designated by the Contracting Officer. Instruction of other Owner personnel will not meet the requirements of this Section.
- D. Include system operations; periodic maintenance including locations and techniques; periodic lubrication including materials, methods and locations; and location of concealed valves, instruments, dampers, etc..
- E. Instruct Owner personnel for a minimum of 8 hours plus that required by other sections of this Division of the Specifications.
- F. Schedule the instruction period in the same manner as for system tests. The Contractor is obligated to only one instruction period. The instruction period may be divided into more than one period with the concurrence of the Contracting Officer.

1.9 RECORD DOCUMENTS

- A. Add the following to the list of items required by Division 1 that be legibly marked on Contract Drawings:
 - 1. Changes made to equipment identification assignments, replacing Contract Document assigned equipment designations, at each location that designation occurs.

2. Valve numbering for each valve assigned a number at each location shown on the Drawings.

1.10 RECORD DOCUMENTS

- A. Maintain one record copy of:
 - 1. Contract Drawings.
 - 2. Specifications.
 - 3. Addenda.
 - 4. Change Orders and other modifications to the Contract.
 - 5. Reviewed Shop Drawings, product data, and samples.
 - 6. Survey and field records.
 - 7. Field test records.
 - 8. Inspection certificates.
 - 9. Manufacturer's certificates.
- B. Store Record Documents and samples in clean, dry, and legible condition in Field Office apart from documents used for construction.
- C. Keep Record Documents and samples available for inspection by Contracting Officer.
- Record information concurrently with construction progress. Do not conceal any Work until required information is recorded.
- E. Legibly mark Contract Drawings and Shop Drawings to record actual construction, including:
 - 1. Measured horizontal and vertical locations of underground utilities and appurtenances, referenced to permanent surface improvements.
 - 2. Measured locations of internal utilities and appurtenances concealed in construction, referenced to visible and accessible features of construction.
 - 3. Field changes of dimension and detail.
 - 4. Changes made by Addenda.
 - 5. Changes made by Change Orders.
 - 6. Details not on original Contract Drawings.
 - 7. References to related Shop Drawings and Change Orders.

- 8. Actually installed manufacturer, trade name, and catalog number of each product listed.
- 9. Changes made to equipment identification assignments, replacing Contract Document assigned equipment designations, at each location that designation occurs.
- 10. Valve numbering for each valve assigned a number at each location shown on the Drawings.
- F. Legibly mark contract Specifications to record actual construction, including:
 - 1. Manufacturer, trade name, and catalog number of each product actually installed, particularly optional items and substitute items.
 - 2. Changes made by Addenda and Change orders.
- G. Upon request by the Contracting Officer submit complete collection of Record Documents to the Contracting Officer for review and duplication as desired.
- H. Two weeks prior to request for final inspection submit project record documents, including blueline Drawings of Contractor designed systems such as fire protection systems and control systems, to the Contracting Officer for review. Documents shall bear a statement signed and dated by a legal representative of the Contractor indicating that the Record Documents reflect "As-built" conditions.
- I. At Contract closeout, deliver corrected Record Documents to the Contracting Officer. Contract Drawings will be provided to the Contractor by the Contracting Officer in AutoCAD format. CAD files shall be modified as necessary to correctly show all features of the project as it has been constructed by bringing the contract set into agreement with the approved preliminary As-built prints. Upon completion, the As-built drawing set shall be delivered to the Contracting Officer in AutoCAD format, on full-size Mylar sheets, and on full-size paper prints, together with the preliminary As-built marked prints.

1.11 WARRANTY

- A. All manufacturer and supplier standard equipment, item or accessory warranties covered under this Division shall be the Contractor's responsibility under Project warranty period.
- B. Equipment, item, or accessory warranties shall commence upon the date of Final Acceptance by the Owner.
- C. Transfer all manufacturer and supplier standard equipment, item or accessory warranties to the Owner upon expiration of Project warranty period.
- D. Any warranties, more stringent than manufacturer's standard, specified or indicated under this Division remain the responsibility of the Contractor before and after expiration of Project warranty period.
- E. Minimum manufacturer or supplier warranty is that of the manufacturer or supplier used as the basis of design.

1.12 MECHANICAL WORK IN EXISTING FACILITIES

- A. Carefully lay out Work in advance.
- 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. Beginning of Work means acceptance of existing conditions. Match existing products and Work unless otherwise noted. Notify Contracting Officer of conflicts in writing.
- C. Verify locations and elevations of utilities that are crossed or connected to prior to installation of new Work.
- D. When portions of existing mechanical, electrical, structural, etc. conditions are shown, it is not meant to indicate that all of such systems are shown.
- E. Where cutting, channeling, chasing, or drilling of floors, walls, partitions, ceilings or other surfaces is necessary for the proper installation, support or anchorage of the mechanical equipment, piping, or ductwork, carefully perform this Work and patch to match existing conditions.
- F. Repair any damage to building, piping, or equipment with skilled mechanics of the appropriate trade.
- G. Coordinate connection of new services to existing building systems, including required systems shut downs, with the Contracting Officer. Limit required shut down periods to a minimum. Isolate, drain, and refill existing systems as required to accommodate Work. Restore existing systems to full operational condition.
- H. Cut, move, or remove existing items as necessary for installation of new Work and restore and replace at completion.
- I. Remove from site removed materials unless otherwise indicated that the material is to be salvaged for the Owner.
- J. Remove, cut, and patch in a manner to minimize damage and to provide means of restoring items to original conditions.
- K. Replace existing mechanical insulation that is removed to accomplish Work with new insulation matching existing.
- L. Remove piping connected to or serving fixtures or equipment being removed and other piping being removed, back to its main or connection to a still active branch and cap. Remove associated hangers and supports. Patch, to match existing, pipe insulation on mains at removed branch lines. If such piping is connected to mains or still active branches in areas that are not accessible or that are not being made accessible, then remove piping into area of non-accessibility and cap. Patch, to match existing, openings in walls, ceilings, or floors left or created as a result of piping removal.

1.13 EXPOSED PIPING, EQUIPMENT, AND ACCESSORIES

- A. Exposed piping, ductwork, equipment, and accessories have been sized, routed, and coordinated to provide a neat, clean architectural appearance.
- B. Fabricate and install exposed piping, ductwork, equipment, and accessories so that finished product exhibits a quality, craftsmanship, and appearance aesthetically acceptable to the Contracting Officer and suitable for final finishing.

1.14 ASBESTOS FREE MECHANICAL SYSTEMS

A. Provide mechanical systems that do not contain asbestos or asbestos-containing materials.

1.15 PROJECT COMPLETION DOCUMENTATION AND MATERIAL TURN OVER

- A. See individual specification sections for required project completion documentation, and required maintenance or spare parts to be turned over to the Contracting Officer, including the following:
 - 1. Record documents and reports:
 - a. Record documents Section "Common Work Results".
 - b. Sterilization testing certificate Section "Plumbing Specialties".
 - c. Conformed O&M manuals Section "Operation and Maintenance".
 - d. Test performance records for sterilization, cleaning, flushing and refilling of mechanical systems Section "Common Work Results".
 - 2. Training completion record:
 - a. Mechanical instructions training completion record Section "Common Work Results"
 - Mechanical access panels and marker familiarization training completion record
 Section "Common Work Results".

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION (NOT USED)

END OF SECTION

FAIRBANKS PIONEER HOME

PART 1 **GENERAL**

1.1 SCOPE: SECTION 22 05 10 - COMMON WORK RESULTS FOR PIPING

A. This Section covers selection and installation of basic pipe materials and specialties.

SUBMITTALS 1.2

- Manufacturer's Data: A.
 - 1. Catalog Cuts and selections for equipment and accessory items.
- B. Installation Details: Provide fire stopping installation details for each project specific fire stopping application to comply with UL listing.

C. Substantial deviations:

- 1. Submit to the Contracting Officer Shop Drawings of any proposed substantial deviations in the piping systems for this facility from these documents for review and acceptance. Include 4, plus the number required by the Contractor, copies of each Shop Drawing submitted.
- 2. Any substantial deviations from these documents installed prior to Contracting Officer review and acceptance of submittal may be required by the Contracting Officer to be removed and the indicated system be installed at no additional cost to the Owner.
- 3. The Contracting Officer is the sole judge of what constitutes a substantial deviation and what is an acceptable alternate technique or method.

PART 2 **PRODUCTS**

2.1 **GENERAL**

- Provide all pipes, fittings, and accessories required for complete functioning installation of all A. piping systems specified and required under this Division.
- B. Miscellaneous items specified and required under this Division are not necessarily indicated on the Drawings.

2.2 MECHANICAL PIPE SEALS

Watertight, modular mechanical type, consisting of interlocking links shaped to continuously fill A. the annular space between the pipe and wall opening. Thunderline Link-Seal, Metraflex, or equal.

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- B. Loosely assembled links with carbon steel, galvanized plated bolts and nuts forming a continuous rubber belt around the pipe with a glass reinforced, nylon plastic pressure plate under each bolt head and nut.
- C. Provide seal elements constructed from materials recommended by the manufacturer for the installed application.
- D. Primer coated steel wall sleeve with continuously welded water stop plate of same manufacturer as links to assure proper size selection. Thunderline Link-Seal Model WS, Metraflex, or equal.

2.3 DIELECTRIC PIPE PROTECTION

- A. Polyvinyl, 20 millimeter, self-adhesive. Westape, Calpico, 3M or equal.
- B. Dielectric nipples and flanges only. Dielectric unions are specifically not allowed.

2.4 FIRESTOPPING

- A. Capable of maintaining an effective barrier against flame, heat, and smoke. Metalines, Dow, 3M, Hilti, or equal.
- B. Provide installations classified in Underwriters Laboratories (UL) Building Materials Directory or listed in the Warnock Hersey International Directory.
- C. Paintable where exposed to view.
- D. Waterproof in plumbing chases.
- E. Provide the product of more than one manufacturer if required to provide listed installations throughout.

PART 3 EXECUTION

3.1 GENERAL INSTALLATION AND APPEARANCE

- A. Conceal piping above ceilings or in walls unless otherwise noted. Expose piping in spaces without ceiling or furred-in enclosures.
- B. Install piping in truss space in areas with exposed trusses unless otherwise noted.
- C. Route piping within the facility vapor retarder and insulation boundary.
- D. Ream pipes thoroughly and clean before installation.
- E. Flush lines clear of debris, scale and discoloration prior to startup. Clean out all strainers and drip pockets after flushing.
- F. Run pipes with proper grade to provide for easy drainage and venting.

- G. Support piping to provide an installation that is without sag or droops.
- H. Provide pipe supports and offsets, loops or accessories at equipment connections to minimize connection stress caused by normal system warm-up, cool-down and equipment operation.
- I. Install parallel runs of non-insulated piping as required to provide a minimum of 6 inch clearance between piping.
- J. Install parallel runs of insulated piping as required to provide a minimum of 4 inch clearance between insulation surfaces.
- K. Seal pipe penetrations at floor and wall penetrations with firestopping installed as indicated. Note that this applies to all floor and wall penetrations, not just fire barrier penetrations.
- L. At floor penetrations of mechanical rooms or other rooms containing floor drains, except slab on grade floors, seal piping floor penetrations water tight with water proof fire stop sealant.
- M. Provide escutcheons around pipes at finished floor, ceiling or wall penetrations. Slip steel escutcheons onto piping prior to joining pipe. Set steel escutcheons with bead of paintable silicon sealant at perimeter, press tight to wall or floor, and remove excess sealant.
- N. Seal, vapor tight, penetrations through building vapor retarders and exterior surfaces resulting from installation of mechanical system components as required to maintain vapor retarder integrity.
 - 1. At vapor retarder pipe penetrations provide a double splice patch (one on each side of vapor retarder) by cutting a square piece of vapor retarder 12 inches larger on all sides than the pipe. Cut a round hole in the center of the square splice patch smaller than the pipe to form a stretched fit. Force thread the pipe through the splice patch and tape all sides to the vapor retarder and tape the vapor retarder to the pipe at the penetration.

3.2 FITTINGS AND ACCESSORIES

- A. Make changes of direction, branches, and reductions in pipe size with fittings. Bushings are allowed only in non-pressurized tanks and similar equipment.
- B. Provide unions or flanges at connections to equipment and control valves to allow maintenance. Locate unions or flanges to allow maintenance without removal of any additional piping other than that between the union or flange and the equipment. Use of dielectric unions is prohibited.
- C. Provide mechanical pipe seals where indicated. Provide steel wall sleeves at wall penetrations where mechanical pipe seals are installed except penetrations of existing poured concrete walls which may be core drilled to manufacturers recommended diameter.

END OF SECTION

PART 1 GENERAL

PROJECT NO.: ANC 15-22C

1.1 SCOPE: SECTION 22 05 29 – HANGERS AND SUPPORTS

A. This Section covers selection, installation, and adjustment of equipment and material used to hang and/or support mechanical systems and equipment.

1.2 SUBMITTALS

- A. Manufacturer's Data:
 - 1. Catalog Cuts and Selections for equipment and accessory items.
- B. Application Schedule: Hanger and supports schedule indicating the type of product and materials proposed for each size or application.
- C. Test Reports: Third party reports or certifications where indicated.
- D. Shop Drawings for fabricated pipe or equipment hangers or supports including:
 - 1. Dimensions.
 - 2. Construction details.
 - 3. Materials.
 - 4. Deflection for spring hangers.
 - 5. Rated or design load, actual load and safety factors.
 - 6. Applications.

PART 2 PRODUCTS

2.1 GENERAL

A. Provide factory standard hangers and supports complete with necessary inserts, bolts, nuts, rods, washers, and other accessories. Tolco, B-Line, Anvil, or equal.

2.2 NON INSULATED PIPE HANGERS

- A. Pipe hangers placed in direct contact with pipe:
 - 1. Pipe hangers for 8 inches and smaller cast iron and steel pipe: Swivel loop style, galvanized carbon steel. Tolco Figure 2 or equal.

2.3 RISER CLAMPS

PROJECT NO.: ANC 15-22C

- A. Riser clamps for cast iron and steel pipe: Electro-galvanized carbon steel. Tolco Figure 6 or equal.
- B. Riser clamps for DWV pipe: Carbon steel. Tolco Figure 6 or equal.

2.4 HANGER RODS

- A. Electro-galvanized carbon steel. Tolco Figure 100 or equal.
- B. Select equipment hanger rods as required to properly support the equipment in-service load. Select tank, coil, etc. supports assuming that they are full of water when in service.
- C. Size equipment hangar rods as follows:

<u>Load/rod</u>	Hanger Rod
0 - 300 pounds	3/8 inch
301 - 600 pounds	1/2 inch
601 - 900 pounds	5/8 inch

D. Size pipe hanger rods as follows:

Pipe Size	Hanger Rod
1/2 to 2 inches	3/8 inch
2-1/2 to 4 inches	1/2 inch
5 to 6 inches	5/8 inch

2.5 CHANNEL STRUTS

A. Fabricated from 0.105 inch thick rolled mild steel. Unistrut, Erico Caddy, Power Strut, or equal. Select as follows for spans up to 7 feet. For longer spans or greater loads submit Shop Drawing for review.

Total Load	<u>Unistrut</u>	Power Strut
0 - 245 pounds	P1000	PS 200
246 - 680 pounds	P1001	PS 200 2T3

B. Finish: Zinc plated electrostatically for interior applications and hot dipped galvanized after fabrication for exterior applications.

2.6 ARTICULATING HANGER SYSTEMS

- A. Malleable iron eye socket fitting. Tolco Figure 307 or equal.
- B. Carbon steel linked welded eye rod. Tolco Figure 101L or equal.

2.7 STEEL STRUCTURE ATTACHMENTS

- A. Beam clamps: Malleable/ductile iron with set screw and lock nut and with retainer strap. Tolco Figure 65 and Tolco Figure 66 or equal. Provide retainer strap listed with clamp or provide a steel strap of not less than 16 gauge thickness and not less than 1.0 inch wide for pipe diameters up to 8 inch.
- B. Welded beam attachments: Carbon steel. Tolco 50,304 or 305 or equal.
- C. Channel strut beam or truss clamps: Carbon steel with retainer rod and hook. Tolco Figure 60 or equal.
- D. Steel truss attachments: Carbon steel fittings compatible with truss.

2.8 STEEL WALL BRACKETS

A. Carbon steel constructed so that hanger rod can be placed anywhere on horizontal member. Tolco Figure 30M or equal for loads up to 1000 pounds and Tolco Figure 30H or equal for loads up to 2000 pounds.

2.9 CONCRETE ANCHOR BOLTS

- A. Submit concrete anchors used in each application with installation instructions and ICC evaluation report or other third party test report showing seismic rating.
- B. Provide concrete anchor bolts tested and listed by third party suitable for the applicable seismic loads. Powers Wedge-Bolt, Hilti Kwik Bolt TZ or equal.

PART 3 EXECUTION

3.1 GENERAL

- A. Examine existing conditions and provide additional structural members or framing required to support the mechanical systems.
- B. Where seismic restraints on piping and duct systems are not required as indicated in Section 22 05 48 provide articulating hangers so that systems can swing freely.
- C. Provide additional support at valves, elbows, bends, and other locations where concentrated loads occur.

D. Where groups of three or more pipes occur they may be supported with trapeze hangers constructed from channel strut and hanger rods. Space trapeze hangers for smallest pipe supported.

E. Hanger spacing:

Metallic Pipe Size (Inches)	Maximum Spacing Between Supports (Feet)
1/2	5
3/4	6
1	7
1-1/4	8
1-1/2	9
2	10
2-1/2	11
3	12
4	14
5	16
6	17

- F. Do not support piping 4 inches size and larger from a single joist or structural member.
- G. Support hub and no-hub cast iron piping at each joint, in accordance with above hanger spacing table, or in accordance with coupling manufacturer's recommendations, whichever is more stringent.
- H. Support piping with sleeved couplings and grooved end piping at each length of pipe and at each fitting, in accordance with above hanger spacing table, or in accordance with coupling manufacturer's recommendations, whichever is more stringent.
- I. Provide floor mounted channel strut racks to support piping, ductwork, and equipment that cannot be otherwise supported from structure overhead or from walls.
- J. Seal all penetrations of vapor retarder or membranes vapor tight.
- K. Adjust hangers and supports and place grout for concrete supports to bring support to proper elevations.
- L. When copper piping is placed in direct contact with channel strut supports, wrap piping at point of contact with 2 wraps of dielectric pipe wrap.
- M. Cut, drill, and punch metals cleanly and accurately. Remove burrs and ease edges. Remove sharp or rough areas on exposed surfaces.

SECTION 22 05 29

3.2 WALL MOUNTED PIPING

- Unless otherwise indicated, support piping that is installed exposed on walls with channel strut and A. compatible pipe clamps. Space supports in accordance with "Hanger Spacing" table.
- Support vertical piping drops within 1 foot of top of drop and within 1 foot of bottom of drop and B. in accordance with "Hanger Spacing" table.
- C. Where groups of 2 or more pipes occur support piping from common channel strut.
- D. Secure channel strut to poured concrete walls with expansion anchors, to CMU walls with expansion anchors in grouted cells, and to stud walls with screws into studs or blocking.
- E. Cut multiple channel strut supports for a piping run or drop to consistent lengths.

SEISMIC PROTECTION FOR MECHANICAL SYSTEMS 3.3

Mechanical equipment shall be installed in accordance with ASCE 7 as referenced by IBC 2006. A. Section 22 05 48 summarizes the requirements of ASCE 7 for this Project.

STEEL STRUCTURES 3.4

- Secure to steel structures through use of beam clamps with retainer strap, channel strut with A. retainer rod and hook or with welded beam attachments.
- В. Bolts and nuts shall conform to ASTM A307 and flat washers are required under all nuts.
- C. Weld in accordance with American Welding Society Code AWS D1.1, latest edition, using E70xx electrodes.
- D. Verify with steel truss and deck manufacturer's maximum allowable loads on single point support; provide additional steel supports as required to comply with maximum recommended values.

END OF SECTION

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PART 1 GENERAL

1.1 SCOPE: SECTION 22 05 48 – SEISMIC PROTECTION

A. This Section covers calculations, installation, and materials used to seismically restrain mechanical systems and equipment.

1.2 SUBMITTALS

- A. Manufacturer's Data:
 - Catalog cuts and selections of components for packaged seismic restraint systems and equipment.
- B. Application Schedule: Seismic restraint schedule indicating the type of product and materials, proposed for each restraint system and application.
- Test Reports and Certificates: Third party reports or certifications for concrete anchor bolts and where indicated.
- D. Name and contact information of registered engineer providing seismic restraint design services.
- E. Submit plan with location of seismic restraints for distribution systems or submit letter verifying that seismic restrain locations will be field located under the supervision of registered engineer providing seismic restraint design services.
- F. Shop Drawings and calculations. Calculations for seismic restraints shall be in accordance with ASCE 7-05.
 - 1. Each equipment anchorage submittal and each submittal for piping supports not in accordance with referenced standards shall include the following data unless otherwise indicated:
 - a. Force calculations. Include equipment tag, equipment weight, center of gravity, seismic constants, and height within structure in calculations.
 - b. Catalog data indicating operating weight, dimensions, materials and construction details with anchors adequate to resist calculated forces.
- G. Restraint Detail Index: Submit an index for equipment weighing over 20 pounds similar to the following example. Where equipment is rigidly mounted to the structure or plenum wall such as cabinet unit heaters or propeller fans indicate as N/A. Where a detail provided as part of the Contract Documents is used, indicate detail reference. For each piece of equipment indicate anchor diameter, and embed depth where post installed concrete anchors are used.

Index Example:

Equipment Symbol	Equipment Type	Detail Tab or Reference	Anchor Diameter	Anchor Embed Depth
AHU-1	Air Handling Unit	2/M5 & 3/M5	1 /2 inch	4 inches
EF-1	Utility Fan	Tab 1	3/8 inch	N/A
RF-1	Propeller Fan	N/A	N/A	N/A
WH-1	Water Heater	6/M5	3/8 inch	N/A

1.3 SEISMIC DESIGN

- A. Project is designed in accordance with IBC 2009. Chapter 16 structural provisions references ASCE 7-05 which cover the design of the structural system and the installation of mechanical equipment within the structure.
- B. Install mechanical equipment in accordance with ASCE 7-05. This section summarizes the requirements in Chapter 13 for this Project. The design constants for this Project include:
 - 1. The Occupancy Category for this Project is **III**.
 - 2. The Seismic Design Category for this Project is **D**.
 - 3. Use value of $S_{DS} = 0.73$ for seismic force calculations.
 - 4. All systems that are not related to life safety or for continued operation are Ip=1.0.

1.4 SYSTEMS NOT REQUIREING SEISMIC RESTRAINT

- A. Equipment exempted from seismic restraint by ASCE 7-05: Chapter 13:
 - 1. All equipment with an Ip = 1.0 weighing 400 pounds or less, mounted at 4 foot or less above floor level and flexible connectors between the components and associated ductwork, piping and conduit are provided.
 - 2. All equipment with an Ip = 1.0 weighing 20 pounds or less or, for distribution systems, weighing 5 pounds per foot or less and flexible connectors between the components and associated ductwork, piping and conduit are provided.

1.5 EQUIPMENT SEISMIC RESTRAINT

A. Equipment shall be supported and attached to withstand seismic forces. Shop Drawings and calculation details for anchorage of equipment shall be submitted in accordance with this section. Shop drawings for restraint within or upon equipment base may be provided by a specialty equipment consultant or equipment manufacturer. For connections to building structure provide shop drawings signed by professional engineer registered in Alaska.

- B. Special Certification Requirements for Designated Seismic Systems:
 - 1. In accordance with ASCE 7-05 section 13.2.2 Certifications shall be provided for designated seismic systems assigned to Seismic Design Categories C through F or system is assigned an Ip = 1.5.

1.6 PIPING SEISMIC RESTRAINT

A. General:

 Verify that the hanger support system and its attachment to the structure are adequate for the gravity load plus the vertical seismic force equal to the maximum horizontal seismic force.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION

3.1 GENERAL

- A. Examine existing conditions and provide additional structural members or framing required to support the mechanical systems.
- B. Seal all penetrations of vapor retarder or membranes vapor tight.
- C. Install anchor bolts in accordance with manufacturers' instructions and third party evaluation report including special inspection as required.
- D. Friction clips shall not be used for anchorage.
- E. Powder driven fasteners shall not be used in tension load applications.
- F. When connecting braces to trusses connect to top cord of truss unless otherwise indicated.

END OF SECTION

PART 1 GENERAL

1.1 SCOPE: SECTION 22 05 53 – IDENTIFICATION

A. This Section covers the identification of mechanical systems and components.

1.2 SUBMITTALS

- A. Manufacturer's Data:
 - 1. Catalog Cuts and selections for identification products and accessory items.
- B. Application Schedule: Prior to ordering, submit valve tag schedule indicating the type of service and size proposed for each application.

PART 2 PRODUCTS

2.1 PIPE MARKERS

- A. Pressure-sensitive identification markers banded in place with color-coded tape incorporating direction of flow arrows. "Opti-Code" markers and "Arrows On a Roll", Seton Name Plate Corp., Brady, Brimar, or equal. Painted stencil markers are not acceptable.
- B. Provide markers of length and with letter size indicated below. Diameter listed is outer diameter of insulation if piping is insulated.

Nominal	Marker	Letter
Diameter	Length	<u>Height</u>
	 _	 _
3/4 to 1-1/4 inch	8 inches	1/2 inch
1-1/2 to 2 inches	8 inches	3/4 inch
2-1/2 to 7 inches	12 inches	1-1/4 inch

C. Provide marker with appropriately color-coded background and with a clearly printed legend to identify the contents of the pipe in conformance with the "Scheme for the Identification of Piping Systems" (ANSI A13.1).

2.2 PIPE MARKERS

A. Removable and reusable, color-coded, vinyl identification markers and direction of flow arrows on plastic base, held in place with color-coded, plastic coated wire. Brady Snap-On, Brimar or preapproved equal.

B. Provide markers of length and with letter size indicated below. Diameter listed is outer diameter of insulation if piping is insulated.

Nominal	Base	Base
<u>Diameter</u>	<u>Length</u>	<u>Height</u>
3/4 inch or less	4.5 inches	1 inch
1 to 2-1/2 inches	11 inches	1-1/2 inches
3 inches or greater	18 inches	2-1/2 inches

C. Provide marker with appropriately color-coded background and with a clearly printed legend to identify the contents of the pipe in conformance with the "Scheme for the Identification of Piping Systems" (ANSI A13.1).

2.3 EQUIPMENT LABELS

- A. Minimum one inch high by one-sixteenth inch thick, black, laminated plastic with white core. "Setonply" by Seton Nameplate Corp., Craftmark, Brimar, or equal.
- B. Engraved with three-eighths inch high characters identifying the item or equipment by symbol and description indicated on the Drawings.

2.4 ACCESS PANEL AND CEILING IDENTIFICATION MARKERS

- A. Color coded dots. Avery or equal.
- B. Color coded tacks. Craftmark or equal.
- C. Color code markers as follows:
 - 1. Plumbing valves and devices: Green.

PART 3 EXECUTION

3.1 GENERAL INSTALLATION

- A. Identify new piping and equipment in the facility whether concealed within accessible spaces or exposed.
- B. Do not label piping exposed to view in offices or in public access areas.
- C. Identify insulated and uninsulated piping.
- D. Locate identification so that it is readable by a person standing on the floor for exposed items or at point of access for concealed items.

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3.2 PIPING

- A. Provide identification at both sides of partitions and floors, at all branch takeoffs, at connections to equipment and at intermediate intervals not in excess of fifty feet.
- B. Secure pipe pressure-sensitive vinyl markers in place with pressure-sensitive tape incorporating direction of flow arrows on both ends of label. At each end make two complete wraps around the pipe with tape so that tape is wrapped back on itself to assure attachment.

3.3 EQUIPMENT

- A. Identify equipment, i.e., tanks, etc., with equipment labels mounted in readily accessible and readable location.
- B. Mechanically secure labels with a minimum of two screws, bolts, or rivets. Adhesive backing does not provide secure mounting.

3.4 ACCESS PANEL IDENTIFICATION MARKERS

- A. Provide identification markers on access panels to indicate the location of concealed mechanical items that may require service or adjustment.
- B. Apply markers to the exposed face of panel or the ceiling tee bar nearest the concealed item.
- C. Familiarize the Owner's maintenance personnel with the location and function of the markers during the instruction period.

3.5 PIPE AND VALVE MARKER AND TAG SCHEDULE

	MARKER	MARKER
<u>SERVICE</u>	<u>LABEL</u>	B.G. COLOR
Waste or Soil	Waste	Green
Pumped Waste	Waste	Green
Vent	Vent	Green

END OF SECTION

Design Alaska, Inc. 22 05 53 - 3

PART 1 GENERAL

PROJECT NO.: ANC 15-22C

1.1 SCOPE: SECTION 22 06 62 – CAST IRON PIPE AND FITTINGS

A. This Section covers selection and installation of cast iron pipe and fittings.

1.2 SUBMITTALS

A. Submittals are not required under this Section.

PART 2 PRODUCTS

2.1 MATERIALS

A. Non-Pressure Service:

- Pipe: Centrifugal castings made of gray cast iron with compact close grain and sound and true to pattern conforming to CISPI Standard 301. Interior surfaces reasonably smooth and free from defects which would render them unfit for their intended use. Tyler, AB&I or equal.
- 2. Couplings for above ground "no-hub" pipe: Compression type with neoprene collar, stainless steel shield, stainless steel worm drive clamps, and stainless steel set screws conforming to CISPI Standard 310. Two clamps per joint through 4 inch pipe size, four clamps per joint through 10-inch pipe size. Mission series C_C or equal.
- 3. Couplings for buried "no-hub" pipe, interior: Heavy duty compression type with neoprene collar, stainless steel shield, stainless steel worm drive clamps, and stainless steel set screws conforming to CISPI Standard 310. Four clamps per joint through 4 inch pipe size, 6 clamps per joint through 10 inch pipe size. Collar flanged to facilitate shield alignment. Mission series C_HW or equal.
- 4. Couplings for piping requiring seismic restraint: Heavy duty compression type with neoprene collar, stainless steel shield, stainless steel worm drive clamps, and stainless steel set screws conforming to CISPI Standard 310. Four clamps per joint through 4-inch pipe size, 6 clamps per joint through 10 inch pipe size. Collar flanged to facilitate shield alignment. Mission series C_HW or equal.

PART 3 EXECUTION

3.1 APPLICATION AND INSTALLATION

A. Specific pipe, joint and fitting application and installation is specified with various piping systems covered elsewhere under this Division.

Design Alaska, Inc. 22 06 62 - 1

- B. Cut pipe square and clean, ream, and clear pipe of all burrs and debris.
- C. Install couplings in accordance with manufacturer's recommendations.

END OF SECTION

Design Alaska, Inc. 22 06 62 - 2

PART 1 GENERAL

1.1 SCOPE: SECTION 22 13 00 – SANITARY WASTE AND VENT SYSTEM

A. This Section covers the selection, installation, and testing of waste piping systems.

1.2 SUBMITTALS

- A. Manufacturer's Data, catalog cuts and selections of pipe and fittings are not required.
 - 1. Catalog cuts and selections of equipment and accessory items.
 - a. Provide a separate complete submittal for each equipment packages even though some accessory items may be repeated in several packages.
- B. Application Schedule: Pipe and fittings schedule indicating the type of product and materials, proposed for each size or application.

PART 2 PRODUCTS

2.1 WASTE AND VENT PIPING

- A. At minor modifications to existing piping: Match existing.
- B. Above ground:
 - 1. Service weight cast iron soil pipe and fittings. "No hub" pipe and fittings with compression type couplings.
 - 2. Where seismic restraint of piping is required join piping with heavy duty compression type fittings, Mission C HW or equal.
 - 3. Copper DWV pipe and fittings with lead free solder.
- C. Underground within the building: Service weight cast iron soil pipe and fittings. Bell and spigot pipe and fittings with double seal compression joints or "no-hub" pipe and fittings with heavy duty compression type couplings. Provide continuous machine applied corrosion protective coating. Galvanizing is not acceptable.

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PART 3 EXECUTION

3.1 INSTALLATION

- A. Pitch drainage piping down 1/4 inch per foot in direction of flow unless otherwise indicated.
- B. Provide cleanouts where indicated, at the base of every stack, every 75 feet along buried interior runs, at every 200 feet along exterior runs, for each aggregate change of direction greater than 135 degrees, and where otherwise required by code. Provide access panels or grade cover boxes where required and as indicated.

3.2 TESTING

- A. Test new and existing waste and vent system by plugging all openings and filling system with water. Test with a minimum of 10 feet of water head on all joints with no level drop in one half hour period.
- B. Report any leaks in the existing system to the Contracting Officer. At the option of the Contracting Officer, he will issue a Contract Amendment to repair leaks or he will have Government maintenance personnel repair the leaks.

END OF SECTION

Design Alaska, Inc. 22 13 00 - 2

PART 1 GENERAL

1.1 SCOPE: SECTION 22 13 29 – SEWAGE LIFT STATION

A. This Section covers the selection, installation, and operation of sewage lift stations.

1.2 SUBMITTALS

- A. Manufacturer's Data:
 - 1. Catalog cuts and selections accessory items.
 - 2. Shop Drawings: Sump liner.

PART 2 PRODUCTS

2.1 GENERAL

A. Provide 300 series stainless steel fasteners.

2.2 SUMP LINER

A. Provide extruded polyvinyl chloride liner rated to operate to 200 degrees F, 1/8 inch gauge, factory fabricated and welded with creased corners. Witt Koroseal, or equal.

PART 3 EXECUTION

3.1 INSTALLATION

- A. Install as indicated and in accordance with manufacturer's recommendations.
- B. Remove foreign materials and protrusions, fill cracks and voids, and clean sump basin prior to sump liner installation.
- C. Touch up all holidays and damage to sump cover and access frame and cover corrosion protection coating with material similar to original coating.

END OF SECTION

Design Alaska, Inc. 22 13 29 - 1

PART 1 GENERAL

1.1 SCOPE: SECTION 22 42 00 – PLUMBING FIXTURES AND TRIM

A. This Section covers the selection and installation of plumbing fixtures, trim, drains and cleanouts and their connection to the domestic water and waste piping system.

1.2 SUBMITTALS

- A. Manufacturer's Data:
 - 1. Catalog cuts and selections for fixtures and accessory items.
 - a. Provide a separate complete submittal for each fixture type even though some trim items may be repeated in several fixtures.
 - b. Rough-in data for each fixture.
- B. Shop Drawing: provide drawings and details for each trench drain installation, including an elevation view, indicating all components making up each trench drain.

PART 2 PRODUCTS

2.1 GENERAL

A. Provide IAPMO and ADA complying products and installations.

2.2 GREASE INTERCEPTOR

A. GI: Grease Interceptor. Rated for 75 GPM continuous flow, 150 pound grease holding capacity. Floor mounted installation with steel receiving cradle and cover, semi-automatic type with grease accumulating cone, line shut off valve, rigid draw off pipe, and flow control valve. Corrosion resistant coating inside and outside. Zurn Z1173-RD or equal.

2.3 CLEANOUTS

- A. Vinyl tile floors: Cast iron body and frame with round adjustable scoriated secured cast iron top. Spigot outlet with taper thread, bronze closure plug. J. R. Smith 4223 or equal.
- B. Carpeted floors: Cast iron body and frame with round adjustable scoriated secured nickel bronze top. Spigot outlet with taper thread, bronze closer plug. Carpet clamping flange. J. R. Smith 4023-X or equal.
- C. Ceramic tile floors: Cast iron body and frame with square adjustable scoriated secured nickel bronze top. Taper thread, bronze closure plug. J. R. Smith 4043 or equal.

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PART 3 EXECUTION

3.1 INSTALLATION

- A. Connect water and waste to all items requiring same.
- B. Install grease trap and accessories, including flow control fitting, in accordance with manufacturer's recommendations.

END OF SECTION

Design Alaska, Inc. 22 42 00 - 2

PART 1 GENERAL

PROJECT NO.: ANC 15-22C

1.1 SCOPE: SECTION 26 05 10 – GENERAL PROVISIONS

- A. This Section covers general electrical requirements for Work covered under this Division.
- B. All Work and Services specifically covered under this Division is supplementary to that covered under other Divisions of these Contract Documents. The requirements of this Division, which are more stringent than that covered under other parts of these Contract Documents, apply to Work covered under this Division.
- C. All incidental Work required but not specified under this Division shall comply with the Division in which it is specified.
- D. Review the Drawings and Specifications of all other Divisions for additional Work under Division 26.

1.2 DEFINITIONS

- A. Furnish: Shall mean deliver to the project site.
- B. Install: Shall mean build into the work, including connections and any parts commonly considered as incidental to a complete installation.
- C. Provide: Shall mean furnish and install complete.
- D. Work or Project: Shall mean all work required by the Contract Agreement.

1.3 ABBREVIATIONS AND INITIALS

A. Any or all of the following may appear in the Contract Documents, and shall be applied per the following explanations:

a.c. or AC Alternating Current (60 Hz. unless otherwise noted)

AFF Above Finished Floor AFG Above Finished Grade

AIC Amperes Interrupting Capacity (RMS Symmetrical)

ANSI American National Standards Institute
ASTM American Society for Testing and Materials

AWG American Wire Gauge Size

d.c. or DC Direct Current

EMT Electrical Metallic Tubing

gnd Ground

GFCI Ground Fault Circuit Interrupter

Hertz or Hz Frequency in Cycles per Second

HP Horsepower

ICEA Insulated Cable Engineers Association

IEEE Institute of Electrical and Electronics Engineers

IES Illuminating Engineering Society
IMC Intermediate Metal Conduit

Ltg Lighting

MSS Motor Starting Switch MCC Motor Control Center

NEC National Electrical Code NESC National Electrical Safety Code

NECA National Electrical Contractors Association, Inc.
NEMA National Electrical Manufacturers Association

NIC Not in Contract NIE Not in Electrical

O.L. Motor Overload Devices

OSHA Occupational Safety and Health Administration

RSC Rigid Steel Conduit

UL Underwriter's Laboratories

VAC or VDC Volts, AC or DC, respectively

B. Other abbreviations and initials, which may appear in the Contract Documents, are intended to have the meanings commonly accepted in the electrical construction industry, and the Owner shall be contacted for definition if any question arises concerning them.

1.4 DRAWINGS

- A. Unless otherwise indicated, drawing symbols conform to the applicable standards of ANSI. The Drawings (or Contract Drawings) rely heavily upon symbolic representation of the features shown, and represent exact details only so far as indicated. The following should also be kept in mind:
 - The Drawings are, to some extent, diagrammatic and are not intended to show exact details.
 - Dimensions scaled from the Drawings may vary due to tracing tolerances, printing distortion, field conditions, field changes, and other factors. For these reasons, it shall be the Contractor's responsibility to field-verify dimensions that pertain to his work. The Contractor shall make minor relocations where necessary to resolve conflicts or present a uniform appearance. The Drawings show exact location of electrical features only where specifically dimensioned.

- 3. The Electrical Contractor shall review the Contract Documents of the other trades on the Project, and shall coordinate the installation of electrical features with the work of all other trades. In areas such as mechanical rooms where conflicts are likely with structural, mechanical, or other features, the electrical installation shall be performed after the other trades, and arranged to eliminate conflicts.
- 4. The Drawings and Specifications are complementary to each other and what is called for by one shall be as binding as if called for by all. Discrepancies between any combination of Drawings, specification, and/or field conditions shall be promptly brought to the attention of the Owner for a decision. Failure to obtain such decision before proceeding shall automatically leave the Contractor liable for all expenses necessary to correct the situation to the satisfaction of the Owner.
- 5. Provide fixtures, devices, equipment, conduit, conductors and accessories indicated on the drawings unless it is specifically indicated that the fixture, device, equipment, conduit, conductor, or accessory is existing.

1.5 GENERAL REQUIREMENTS

- A. Provide all work as shown on the Drawings and in these Specifications for a complete, safe, and functional installation.
- B. The Contractor is responsible for providing a complete and operating facility. The intention of the Contract Documents is to include all labor and materials, equipment, and transportation necessary or reasonably inferable as being necessary for the execution of the work. Where minor adjustments of the work are necessary for purposes of fabrication or installation of items or resolution of conflicts between items within the intent of the Contract Documents, the Contractor shall make such adjustments at no added expense to the Owner. Where such adjustments affect functional or aesthetic design of the work, they shall first be submitted to the Owner's Representative for review and approval.
- C. Unless otherwise noted, all materials shall be of new manufacture and installed before expiration of their shelf life, if applicable.
- D. Materials and equipment are to be those of major and reputable manufacturers with ability to render competent and thorough service through local and regional organizations capable of expeditiously providing service, parts, and assistance.
- E. Materials of similar nature, style, function, purpose and/or appearance shall be like products from the standard product line of the same manufacturer.
- F. All products shall be listed and labeled by an approved national testing laboratory for their intended use and location in all cases where such products are listed and labeled. Where no product listed by an approved national testing laboratory for the application is available, provide certification of performance, function and rating from an independent testing agency or laboratory approved by the Owner.
- G. The omission of express reference to any parts, supplies, services, or facilities necessary for, or incidental to, a complete installation shall not be construed as a release from furnishing such items at no additional cost to the owner.

- H. Any deviations from the installation shown in these Contract Documents, due to a particular manufacturer's requirements, shall be made without additional cost to the Owner.
- I. Verification is required of all equipment sizes and locations prior to the ordering or installation of connection materials and disconnecting equipment to ensure that the power connections are of the proper size and type, and in the proper location. Verify all electrical loads (voltage, phase, full load amperes, number and point of connections, minimum circuit ampacity, etc.) for equipment furnished under all divisions of this specification, by reviewing respective shop drawings furnished under each division. Meet with each subcontractor furnishing equipment requiring electrical service and review electrical characteristics. Report any variances from electrical characteristics noted on the drawings with the Owner before proceeding with rough work. Obtain and review the equipment shop drawings to determine particular final connection requirements before rough-in begins for each equipment item.
- J. All materials shall be installed in a neat, orderly, and secure fashion, as required by these specifications and commonly recognized standards of good workmanship. The norms for execution of the work shall be in conformity with NEC Chapter 3 and the National Electrical Contractors' Association "National Electrical Installation Standards", for which the Owner's judgment shall be final.
- K. Electrical equipment shall be installed in spaces that are accessible and in a manner that allows for maintenance and replacement. Entries into spaces shall allow for the passage of equipment. Coordinate the final locations with piping, ducts and equipment of other trades to insure proper access for all trades. Coordinate location of concealed equipment, disconnects and boxes with access panels and doors.

1.6 REPAIR OF EXISTING FEATURES

A. Where existing or previously-completed building surfaces or other features must be cut, penetrated, or otherwise altered for the installation of electrical features, such work shall be carefully laid out and performed, and any subsequent patching or repairs that it necessitates shall be performed by skilled mechanics of the trades involved, at no additional cost to the Owner.

1.7 WORK INCIDENTAL TO SUBSTITUTIONS

A. When substitutions for specified Methods or materials alter the relationship between the Work actually required and that called for by the Contract Documents, the Contractor shall bear responsibility for all expenses incurred by any necessary revisions, including the Work of other trades.

1.8 PROTECTION AND CLEANING

- A. All electrical equipment shall, during the entire duration of construction work, be protected against water, dust, debris, overspray or any other contamination, whether environmental in origin or as a result of construction work.
- B. All construction dust, debris, overspray, scrap and surplus materials, etc., resulting from this Work shall be cleared away, leaving the installation in completely clean condition.

- C. Clean up all equipment to factory condition. Use touch-up paint where required. All cleaning shall be in accordance with the manufacturer's recommendations.
- D. These cleaning requirements apply not only to exterior surfaces, but also interiors of accessible enclosures. In particular, the interiors of equipment having contacts or heat dissipating components shall be thoroughly vacuum-cleaned prior to energizing.

1.9 SERVICE INTERRUPTIONS

A. All Work covered by this Contract shall be performed on de-energized circuits. Where such deenergization would deprive the Owner of existing service, the Contractor shall give him at least 24 hours advance notice of the outage, or more if the Owner requires. The Contractor will not necessarily be entitled to any extra compensation or time extension for the Owner's inability to grant an outage at a time convenient to the Contractor.

1.10 UTILITY REQUIREMENTS

A. It shall be the Contractor's responsibility to contact all Utility providers (Power, Telephone and Cable TV) and verify the extent of the service work to be performed by the Contractor and by the provider in order to provide complete utility services. Fully coordinate with the utility providers to assure the work related to the services to the facility will be established at the date of substantial completion.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION (NOT USED)

END OF SECTION

PART 1 GENERAL

PROJECT NO.: ANC 15-22C

1.1 SCOPE: SECTION 26 05 19 – WIRE CONDUCTORS AND CABLES

- A. Provide 600 volt building wire and cable as shown on the drawings and further specified herein. All wire and cable shall conform to the latest specifications of the NEC and/or the ICEA. Acceptable manufacturers include, but are not limited to, the following: American Insulated Wire, BICC General, Carol Cable, Excel Wire & Cable, Okonite, Southwire, Superior Essex, or equal.
- B. All wire and cable sizes noted on the drawings are for copper conductors, and copper conductors only shall be used for building wire throughout the entire installation.

PART 2 PRODUCTS

2.1 CONDUCTORS

A. All conductors shall be copper, except as otherwise noted. Conductors No. 10 AWG and smaller shall be stranded or solid. Conductors No. 8 AWG or larger shall be stranded.

2.2 INSULATION TYPES

- A. Branch circuit conductors shall be 600 volt insulated, and unless otherwise noted on the drawings, shall have the following insulation types:
 - 1. Indoor spaces THHN/THWN or XHHW.
- B. Nylon-jacketed conductors such as types THHN or THWN shall not be used in any location subjected to ambient temperatures below 32 degrees Fahrenheit.

2.3 METAL CLAD (MC) CABLE

- A. Provide metal-clad cable (Type MC) that complies with UL Standard 1569, the NEC, and this Section.
- B. Metal-clad cable shall consist of THHN insulated solid copper conductors, a Mylar wrapping around the conductor bundle, and a close fitting aluminum or galvanized steel outer sheath.
- C. Provide minimum 12 AWG conductors in Type MC cables.
 - 1. Provide larger conductor sizes as required to limit branch circuit voltage drop to 3 percent at the full connected load.
 - 2. Use larger conductor sizes to adjust allowable ampacity if there are more than 3 current-carrying conductors in a cable.

- 3. For isolated ground power circuits provide Type MC cables with a separate neutral conductor for each phase conductor; uniquely identify each neutral with a colored stripe on the white insulation corresponding to the phase conductor insulation color.
- D. Provide MC cables with the specified conductor color coding.
- E. Metal-clad cable manufacturer: AFC Cable Systems Inc.
- F. Provide NRTL listed, insulated throat, snap-in steel box connectors for Type MC cables. Manufacturer: O-Z/Gedney ETP "Speed-Lock".

PART 3 EXECUTION

3.1 COLOR CODING

A. Conductors No. 6 AWG and smaller shall be color-coded by factory pigmentation of the insulation. Larger conductors may be color-coded by wrapping the ends with colored tape in all enclosures, except that white (or gray) and green conductors may never be phase-taped for any use other than neutral and ground, respectively. Color-coding throughout the entire installation shall be as follows:

SYSTEM VOLTAGE			
Conductor	208Y/120	480Y/277	
Phase A	Black	Brown	
Phase B	Red	Orange	
Phase C	Blue	Yellow	
Neutral	White	Gray	
Ground	Green	Green	

3.2 INSTALLATION

- A. Install cable in accordance with NECA Standards of Installation.
- B. Branch circuit conductors shall be No. 12 AWG copper, except for the following:
 - 1. On 120 volt, 20 amp circuits over 70 feet (actual measured one-way distance) from panel to the last receptacle or middle of the lighting string (as appropriate), use No. 10 conductors for the entire circuit.
 - 2. Where branch circuit conductor sizes are indicated on the drawings, they shall take precedence over the foregoing. Where field conditions dictate circuit routings that increase conductor lengths beyond what would be expected from the layout shown on the drawings, they shall be submitted to the Owner for acceptance.
- C. All conductor connections shall be made up securely with solderless pressure connectors such as setscrew lugs, wirenuts, "wingnuts", insulated tap connectors, insulation piercing tap connectors, or suitable crimp fittings. Split bolt connector shall not be used. Where the connector manufacturer does not require twisting together of conductors, conductors shall be left untwisted.

- D. Use compression type connectors for copper wire splices and taps, #6 AWG and larger. Utilize heat shrink tubing of the proper voltage rating for uninsulated conductors and connectors.
- E. Thoroughly clean wires before installing lugs and connectors.
- F. Make splices, taps and terminations to carry full ampacity of conductors without perceptible temperature rise.
- G. Terminate spare conductors with wire nuts.
- H. Where stranded conductors are used, their ends shall be terminated with crimp-on connectors (T & B Sta-Kon, or equal), set screw lugs, box lugs, or self-lifting pressure terminals.
- I. Flexible cords shall be connected to equipment, fixtures, boxes, or other enclosures only by means of cord-grip bodies or other strain-relief fittings specifically designed for the purpose.
- J. Where conductors or their connectors are to be connected to metal surfaces, the surface shall first be scraped free of any paint, oxide, or other non-conductive substances. Where there is a possibility of corrosion due to moisture or other cause, a conductive corrosion inhibitor shall be used between the conductor and the metal surface.
- K. Where compression fittings are used to terminate conductors operating under 600 volts, the fitting shall have a viewport, or other approved method, so that it can be verified that the conductor is properly seated in the connector.
- L. Conductor terminations shall use the manufacturer's recommended methods and hardware unless specifically noted otherwise.
- M. Conductors shall be pulled into raceways only by constant-tension pulling methods. Where necessary, wire-pulling lubricants of a type that is not harmful to conductor insulation and will not harden shall be used.
- N. Completely and thoroughly swab raceway system before installing conductors.
- O. Neatly train and lace wiring inside boxes, equipment and panelboards.
- P. All conductors shall be protected from damage. Where the conductor or insulation is damaged, the Owner may require, at no cost to the Owner, the replacement of the entire conductor, or the implementation of an approved repair method approved by the Owner.
- Q. Provide dedicated neutral conductors to branch circuits where neutral conductors are required. Multi-wire branch circuits are not permitted. Use of handle tied breakers to provide simultaneous disconnection of ungrounded conductors for multi-wire branch circuits is not permitted unless specifically called out elsewhere in these contract documents.

3.3 TYPE MC CABLE INSTALLATION

- A. Install MC cables according to NECA 1 Standard Practices for Good Workmanship in Electrical Construction, NECA 120 Standard for Installing Armor and Metal Clad Cable, the NEC section 330, and requirements in this Section.
- B. Route MC cables to meet Project conditions.
- C. Use Type MC cables for 15- and 20-ampere branch circuit wiring beyond the first outlet or junction box; however, use conduit for the "homerun" from the first outlet or junction box to the branch circuit panelboard.
- D. Use Type MC cables in interior, dry locations where it will be concealed above ceilings, in drywall partitions, in equipment enclosures, or below raised floors.
- E. Install and support Type MC cables as required in Article 330 of the NEC. Use NRTL listed spring steel MC cable supports or UV resistant plastic tie wraps to support Type MC cables; do not use wire to support Type MC cables.

3.4 SEPARATION OF SYSTEMS

- A. Wiring of different voltage levels, frequency, current characteristics (AC & DC) or functions (normal vs. emergency) shall not share the same raceway or enclosures unless specifically shown on the drawings or permitted by the Owner, or inherently necessary for correct system function (i.e., at transfer switches, transformers, etc.).
- B. For A.C. Variable Frequency Drives and Inverters of any kind, conductors for supply, load, and control functions shall not share the same raceway.

END OF SECTION

PART 1 GENERAL

1.1 SCOPE: SECTION 26 05 25 – CODES, PERMITS AND FEES

A. This Section covers general electrical code requirements for work covered under this Division.

1.2 CODES

- A. All work shall comply with the latest adopted editions of:
 - 1. The National Electrical Code.
 - 2. The National Electrical Safety Code.
 - 3. The NFPA Codes.
 - 4. OSHA Regulations.
 - 5. Applicable standards of NEMA, and ANSI.
 - 6. The National Electrical Installation Standards (NEIS) by the National Electrical Contractors Association (NECA).
 - 7. Previous editions of the above, where required by Federal, State or Local laws and regulations.
 - 8. All applicable Federal, State and Local laws and regulations.

1.3 WAIVERS & INTERPRETATIONS

A. Where the authority having jurisdiction grants waivers or less stringent interpretations of the foregoing, they shall not constitute a release from strict application of these requirements, unless specifically accepted by the Owner.

1.4 PERMITS AND FEES

- A. Obtain and pay for all permits required for the work covered by this Division of the Specifications.
- PART 2 PRODUCTS (NOT USED)
- PART 3 EXECUTION (NOT USED)

END OF SECTION

PART 1 GENERAL

1.1 SCOPE: SECTION 26 05 30 – TESTS AND INSPECTIONS

A. This Section covers the requirements for Contractor Provided testing of the work and other inspections as required by the contract documents and/or the Owner.

1.2 TESTS AND INSPECTIONS

- A. In addition to any tests required elsewhere in these Specifications, the Owner may require appropriate tests and/or uncovering of any electrical features whose integrity he has reason to doubt. Such tests may include, but are not limited to, continuity, circuit resistance, and insulation resistance of circuits and equipment, including wires, cables, and grounding. Where such tests or uncovering are required, the Contractor shall furnish all personnel, equipment, and services necessary to conduct the tests, and/or uncovering and subsequent reconstruction.
- B. In addition to any inspections required elsewhere in these specifications or requested by the Owner, the Owner may conduct periodic inspections of the work, as he deems appropriate. For all inspections, the Contractor shall make available qualified electrical personnel to answer questions, demonstrate operation of completed features of the work, provide safe access to enclosures, and the like.
- C. Upon completion of the testing, the Contractor shall prepare a written statement for the Owner's signature, attesting to the fact that the tests were successfully completed and all equipment performed properly. A signed copy of this statement shall be bound into each copy of the Operation and Maintenance Manuals.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION (NOT USED)

END OF SECTION

PART 1 GENERAL

1.1 SCOPE: SECTION 26 05 33 – RACEWAYS

A. All conductors shall be run in metal raceways as follows unless of a Metal Clad (MC) type cable assembly or otherwise noted on the Drawings.

1.2 APPLICATIONS

- A. Branch Raceways Unless otherwise shown, raceways concealed in non-concrete walls or above suspended ceilings shall be Electrical Metallic Tubing (EMT); exposed raceways shall be EMT in mechanical and electrical spaces, shops and other similar unfinished type areas with exposed devices and features, and shall be surface metal raceway in finished areas.
- B. Other raceways shall be as noted on the Drawings or further specified herein.
- C. Nonferrous metal conduit is not permitted unless specifically noted.

PART 2 PRODUCTS

2.1 TYPE

- A. Minimum size for all raceways shall be 1/2-inch diameter.
- B. Raceways shall be of types and characteristics recognized by the NEC.

2.2 QUALITY ASSURANCE

A. Conduit and fittings shall be standard types and sizes as manufactured by a nationally recognized manufacturer of this type of materials and be in conformity with applicable standards and UL listings.

2.3 CONDUIT AND TUBING

- A. Electrical Metallic Tubing shall be hot-dip galvanized, with smooth interior. Acceptable manufacturers include, but are not limited to the following: Allied Tube & Conduit, J & L, Triangle, Western Tube & Conduit, Youngstown, or equal.
 - 1. EMT shall be made up with concrete-tight compression fittings. Provide rain-tight compression EMT fittings for exterior locations. Connectors shall have insulated throats.

2.4 CONDUIT BODIES

PROJECT NO.: ANC 15-22C

A. Use of conduit bodies having the "LL" or "LR" configurations is not permitted unless specifically called for or accepted by the Owner.

PART 3 EXECUTION

3.1 LAYOUT

- A. Raceways shall be concealed, except in mechanical and electrical rooms and as otherwise noted on the drawings. Exposed raceways shall be run square with the building lines. Concealed raceways shall be run perpendicular or parallel to walls, and shall be grouped together to minimize congestion where practical.
- B. Unless otherwise noted on the Drawings or directed by the Owner, branch circuit raceways shall be sized per the NEC tables.
- C. Structural members shall not be cut, drilled, or notched for raceways or other electrical features unless specifically accepted by the Owner.
- D. Underfloor raceways for slab-on-grade construction shall be embedded in the fill under the slab, not in the slab itself. Where raceways are required or permitted to be embedded in concrete, the thickness of concrete on all sides of each raceway shall not be less than 2 inches.
- E. Metal raceways crossing expansion joints, and in other required places, shall make provision for 3-way movement at such points. Such fittings shall be installed so that they are initially in the center of all 3 axes of movement (i.e.: not deflected to make part of a conduit bend, or compressed or extended to compensate for incorrect conduit length).
- F. At all raceway penetrations of the vapor barrier provide a double splice patch (one on each side of vapor barrier) by cutting a square piece of vapor barrier 12 inches larger on all sides than the pipe. Cut a round hole in the center of the square splice patch, smaller than the pipe, to form a stretched fit. Force the pipe through the splice patch and tape all sides to the vapor barrier and seal the vapor barrier to the pipe at the penetration with an adhesive compatible with the vapor barrier material.
- G. Provide solid blocking installed flat at all vapor barrier penetrations. On the interior face of the exterior stud wall, flat blocking installed at each penetration shall be a minimum of four inches larger than the penetration. Locate the penetration at the centerline of the flat blocking.
- H. All raceways running from a warm area to a cold area, and all raceways passing through penetrations in vapor barriers, shall be securely sealed inside the warm end with ductseal, a silicone compound not harmful to the wire insulation, or equal.
- I. Maintain a minimum 6 inch clearance between conduit and piping. Maintain 12 inch clearance between conduit and heat sources such as flues, steam pipes, heating pipes, and heating appliances.
- J. Pull wires shall be provided in all spare and unused conduits. (Nylon "jet-line" or equal).

- K. Where electrical raceways must penetrate roofing membranes, such penetrations shall be flashed and sealed as required for mechanical piping penetrations of roof.
- L. Raceways shall be installed in switchboards, panelboards, gutters, pull boxes and the like from the back of the enclosure closest to the mounting surface, to the front in a manner that will not obstruct the future installation of raceways.
- M. The ceiling grid and ceiling support wire shall not be used for raceway support. Support all wiring from the structural ceiling. Fixture wire support may be used for flexible wiring but shall not be used for supporting other raceway types.
- N. Panelboard, switchgear and motor control center enclosures, and enclosures for other similar equipment shall not be used for through wiring. Only manufacturer installed wiring shall be allowed to run between such enclosures which have multiple sections.
- O. Do not route raceways on floor unless specifically shown on drawings.

3.2 ASSEMBLY

- A. Raceways shall be physically and electrically continuous from enclosure to enclosure. Electrical continuity for nonmetallic conduits shall be assured by inclusion of an NEC-sized grounding conductor. For metallic conduits, it shall be assured by making up all joints wrench-tight and free of foreign materials. Threaded conduits shall enter enclosures by means of threaded hubs or double-locknut-and bushing connections. For conduits of one inch trade size and larger, bushings shall be of the insulated type.
- B. Conduit joints shall be cut square, reamed smooth, and cleaned of burrs, cutting oil, cuttings, and other foreign materials prior to assembly. Ends shall be capped to prevent entrance of foreign materials during construction.
- C. Bends, offsets, and saddles shall be made with factory elbows and fittings, or field-made with approved benders, to not less than NEC-required radii.
- D. Raceways shall be securely fastened in place at NEC-required intervals and at each elbow by means of malleable one-hole straps, clamp-backs where necessary, two-hole sheetmetal straps, or other approved devices; all with fastening hardware per Section 16190. Wire shall not be used for fastening raceways. The use of adjustable "trapeze" hangers made of U-channel strut suspended by threaded rods is encouraged for the support of groups of parallel conduits. Conduits shall be secured to each such trapeze by means of the strut manufacturer's standard conduit clamps or by J-bolts, with U-bolts at elbows and ends of runs.
- E. Use a junction box at transitions between different types of raceway. Exception: Use one piece manufactured transition fittings between rigid and flexible conduit. Use manufactured transition fitting between conduit and multi-outlet assembly.
- F. Where connecting HDPE conduits is required, the conduit shall be joined by fusion splicing or with other products listed specifically and designed for this purpose.

END OF SECTION

PART 1 GENERAL

1.1 SCOPE: SECTION 26 05 34 – OUTLET BOXES

A. Provide outlet boxes for connection of branch circuits to fixtures and devices as shown on the plans and further specified herein.

PART 2 PRODUCTS

2.1 MANUFACTURERS

A. Boxes shall be the products of Raco, Steel City, Appleton, Crouse-Hinds, or equal.

2.2 TYPES AND SIZES

- A. Boxes shall be deep-type (2-1/8 inches nominal) unless space limitations or drawing notes require shallower boxes. Boxes shall be as follows:
 - 1. Cast boxes with threaded hubs, external mounting brackets or holes, and gasketed covers shall be used in the following locations:
 - a. Wet or Damp locations.

PART 3 EXECUTION

3.1 COORDINATION OF LOCATIONS

- A. Provide electrical boxes as shown on the drawings, and as required for splices, taps, wire pulling, equipment connections and code compliance.
- B. Electrical box locations shown on the drawings are approximate unless dimensioned. Verify location of floor boxes prior to rough-in.
- C. Locate and install boxes to allow access. Where installation is inaccessible, coordinate locations and sizes of required access doors.
- D. Locate and install to maintain headroom and to present a neat appearance.

3.2 INSTALLATION

A. Outlet boxes shall be installed plumb with, and securely fastened to the structural framing of, the surrounding construction.

- B. Recessed boxes shall have the correct plaster rings and recess distances so that the device cover plates are tight to the wall or ceiling finish.
- C. No through-wall boxes will be permitted. Where outlets are shown mounted back-to-back on a common wall, they shall be offset horizontally a minimum of 12 inches, to minimize sound transmission.
- D. Install boxes in walls without damaging wall insulation.
- E. Coordinate mounting heights and locations of outlets mounted above counters, benches, and backsplashes.
- F. Where sheetmetal boxes penetrate the building vapor barrier, their exterior surfaces shall be completely covered with overlapped application of vapor-barrier tape to effectively seal all unused knockouts and other holes against vapor migration. The edges of the hole in the vapor barrier shall be securely sealed to the lip of the box with vapor barrier tape and/or an adhesive compatible with the vapor barrier material.
- G. Provide the best suitable box for each outlet requirement. Extension rings should not be used on new construction except where needed to bring an outlet box to 1/8 inch of the finished wall or ceiling, or where required by specific device requirements. No more than one extension ring should be used for each outlet box.

END OF SECTION

PART 1 GENERAL

PROJECT NO.: ANC 15-22C

1.1 SCOPE: SECTION 26 27 26 – WIRING DEVICES AND PLATES

A. Provide wiring devices and cover plates as shown on the drawings and further specified herein.

1.2 SUBMITTALS

- A. Submit manufacturer's product data and specifications.
- B. Submit product data showing configurations, finishes, dimensions, and manufacturer's instructions.

PART 2 PRODUCTS

2.1 LIGHT SWITCHES

- A. Light switches shall be:
 - 1. Premium specification grade, AC quiet type, with screw terminals.
 - 2. Rated 20 amperes at 120 volts for 120 volt circuits.
 - 3. Two-pole, three-way, four-way, key-operated and other types of switches shall be provided where indicated on the drawings. Where not otherwise designated, switches shall be single-pole, single-throw.
 - 4. Switch handles shall be ivory, except where pilot-light switches are called for, in which case they shall have a neon lamp mounted in a translucent red handle.
 - 5. Pilot light switches shall be neon lamp type mounted in the handle (lighted handle), "on" when switch is "on", rated for the voltage of the wiring system. Lighted switches shall be the same except "on" when the switch is "off".

2.2 RECEPTACLES

- A. Single and duplex receptacles shall be Extra Heavy Duty grade, nylon faced, ivory-color, self-grounding, 120 volt, 20 amp, 3-wire, NEMA 5-20R configuration, with screw terminals.
 - 1. Receptacles connected to the Standby system shall be gray in color.

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- B. Special purpose receptacles shall be Specification grade, with the NEMA configuration noted on the drawings. A matching plug shall be furnished for every special receptacle.
- C. Weatherproof covers shall have a full width hinged cover suitable for receptacles installed in wet locations to maintain the integrity of the receptacle when the attachment plug is inserted. Covers shall be constructed of die cast aluminum, for duplex receptacles, drilled for four screw holes for horizontal.
- D. GFI receptacles shall be of NEMA 5-15R configuration, for single-strap mounting, with "test" and "reset" buttons accessible from front. Ground fault trip level shall be 5mA, and the trip circuitry shall be essentially immune to nuisance tripping due to spurious influences such as RF noise. Feedthrough terminals shall be provided for protection of downstream outlets.

2.3 MANUFACTURERS

A. Among the acceptable wiring devices and plates are the products of Arrow-Hart, Bryant, Hubbell, Leviton, Pass & Seymour, or equal.

2.4 TERMINALS

A. Wiring devices shall have binding-screw type terminals only. Terminals using spring pressure to secure the wire and make electrical contact are not permitted.

PART 3 EXECUTION

3.1 WIRING

- A. Devices shall be connected with no more than one conductor under each screw terminal.
- B. Connect wiring device grounding terminal to outlet box with bonding jumper and to branch circuit equipment grounding conductor. Grounding through the yoke or screw contact is not an acceptable alternate to the ground wire.
- C. Connect wiring devices by wrapping conductor around screw terminal for termination of solid conductors #10 AWG and smaller. Use compression or clamp type terminals for stranded wire.

3.2 INSTALLATION

- A. Provide cover plates of the appropriate configuration for all devices provided for the project, suitable for the box and installation.
- B. Devices and plates shall be installed using the fasteners supplied or recommended by the manufacturer for the components to be installed. The use of sheet metal screws instead of machine screws where threaded holes are provided is not acceptable.
- C. Install devices and wall plates flush and level.

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- D. Operate each wall switch with circuit energized and verify proper operation.
- E. Verify that each receptacle device is energized.
- F. Test each receptacle device for proper polarity and voltage drop.
- G. Test each GFI receptacle for proper operation, including ground fault test.

END OF SECTION

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PART 1 GENERAL

1.1 SCOPE: SECTION 26 28 16- OVERCURRENT PROTECTIVE DEVICES

A. Provide fuses and circuit breakers of the correct sizes and types as called for on the Contract Drawings and further specified herein.

1.2 SUBMITTALS

- A. Submit manufacturer's product data and specifications.
- B. Submit product data showing sizes, configurations and manufacturer's instructions.

PART 2 PRODUCTS

2.1 CIRCUIT BREAKERS

- A. Unless otherwise noted, circuit breakers shall be of the molded-case thermal-magnetic type, with the following features:
 - 1. Size, number of poles, and interrupting capacity as shown on the drawings. Ampere ratings shall be clearly visible, even when the breaker is installed in its appropriate enclosure.
 - 2. Voltage rating to suit the voltage of the system on which they are used.
 - 3. Each breaker pole shall provide both instantaneous and inverse-time tripping, with tripping clearly indicated, and a common-tripping tie to any other poles in the same breaker. Handle-ties are not acceptable for this purpose.
 - 4. Breakers shall be operated by a toggle handle and shall have a quick-make, quick-break, overcenter switching mechanism that includes a trip-free feature so that the contacts cannot be held closed against tripping currents.
 - 5. Circuit breakers shall be labeled or listed by an independent testing laboratory, and shall conform to the latest NEMA Standards and the short-circuit test parameters of NEMA Publication AB 1.
 - 6. Circuit breakers shall not use solid-state components for any function except ground-fault tripping.

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PART 3 EXECUTION

3.1 GENERAL

- A. Provide overcurrent protective devices as shown on the drawings and as specified herein.
- B. Single pole breakers with handle ties are not acceptable for multi-pole breakers.

3.2 INSTALLATION

A. Inside the cover of each fusible switch enclosure, the correct size and type of fuse for that switch shall be plainly and legibly typed on a card placed in a plastic pocket. A laminated schedule of fuses needed for each disconnect provided shall be mounted in the main mechanical room.

END OF SECTION

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PART 1 GENERAL

1.1 SCOPE: SECTION 32 13 13 – CONCRETE PAVING

- A. Section Includes:
 - 1. Walks.

1.2 SUBMITTALS

- A. Product Data: For each type of product indicated.
- B. Other Action Submittals:
 - Design Mixtures: For each concrete paving mixture. Include alternate design mixtures
 when characteristics of materials, Project conditions, weather, test results, or other
 circumstances warrant adjustments.

1.3 QUALITY ASSURANCE

- A. Ready-Mix-Concrete Manufacturer Qualifications: A firm experienced in manufacturing ready-mixed concrete products and that complies with ASTM C 94/C 94M requirements for production facilities and equipment.
- B. ACI Publications: Comply with ACI 301 unless otherwise indicated.

1.4 ENVIRONMENTAL CONDITIONS

- A. Cold Weather: ACI 306.1 Cold weather is defined as a period when for more than 3 consecutive days the mean daily temperatures drop below 40 degrees Fahrenheit. When temperatures above 50 degrees Fahrenheit occur during more than half on any 24 hour period, the concrete should no longer be regarded as winter concrete. Heating of concrete should not exceed 90 degrees Fahrenheit.
- B. Inclement weather: Protect freshly placed concrete against damage by infiltration of any adverse weather. When damage might occur: (1) stop the concrete placement against the nearest construction joint or bulkhead and (2) cover the concrete at once with water proof protection until concrete has set.
- C. Sprayed-on Protective Coatings: Apply in accordance with manufacturer's written instructions. Protection from rain, air moisture, or large temperature ranges shall be provided in accordance with the manufacturer's instructions.

D. Hot Weather: ACI 305R. Work plans must include preparation to limit the temperature effects on concrete. As the selected limiting temperatures, usually but not always between 75 degrees Fahrenheit to 100 degrees F is approached and exceeded, unfavorable effects of high temperature are likely.

PART 2 PRODUCTS

2.1 STEEL REINFORCEMENT

A. Plain-Steel Welded Wire Reinforcement: ASTM A 185/A 185M, fabricated from as-drawn steel wire into flat sheets.

2.2 CONCRETE MATERIALS

- A. Cementitious Material: Use the following cementitious materials, of same type, brand, and source throughout Project:
 - 1. Generally retain first option in first subparagraph below unless concrete with lighter shades or brighter colors is required.
- B. Portland Cement: ASTM C 150
- C. Retain one or both of first two subparagraphs below if supplementary cementing materials are permitted.
- D. Retain subparagraph below if factory-blended hydraulic cement is permitted. Verify availability of options before specifying.
- E. Retain one of three options in first paragraph below or revise to suit Project. Insert requirement for recycled content of coarse aggregate if required for LEED-NC or LEED-CS Credits MR 4.1 and MR 4.2. Verify availability before specifying. See Evaluations.
- F. Normal-Weight Aggregates: ASTM C 33, uniformly graded. Provide aggregates from a single source.
- G. Water: Potable and complying with ASTM C 94/C 94M.

2.3 CURING MATERIALS

- A. Clear, Waterborne, Membrane-Forming Curing Compound: ASTM C 309, Type 1, Class B, dissipating.
- B. White, Waterborne, Membrane-Forming Curing Compound: ASTM C 309, Type 2, Class B, dissipating.

2.4 RELATED MATERIALS

C. Joint Fillers: ASTM D 1751, asphalt-saturated cellulosic fiber or ASTM D 1752, cork or self-expanding cork in preformed strips.

2.5 CONCRETE MIXTURES

- A. Prepare design mixtures, proportioned according to ACI 301, with the following properties:
 - 1. Compressive Strength (28 Days): 3000 psi.
 - 2. Maximum Water-Cementitious Materials Ratio at Point of Placement: 0.45.
 - 3. Slump Limit: 8 inches plus or minus 1 inch.
 - 4. Air Content: 5-1/2 percent plus or minus 1.5 percent.

2.6 CONCRETE MIXING

A. Ready-Mixed Concrete: Measure, batch, and mix concrete materials and concrete according to ASTM C 94/C 94M. Furnish batch certificates for each batch discharged and used in the Work.

PART 3 EXECUTION

3.1 EXAMINATION AND PREPARATION

A. Remove loose material from compacted subbase surface immediately before placing concrete.

3.2 EDGE FORMS AND SCREED CONSTRUCTION

A. Set, brace, and secure edge forms, bulkheads, and intermediate screed guides to required lines, grades, and elevations. Install forms to allow continuous progress of work and so forms can remain in place at least 24 hours after concrete placement.

3.3 JOINTS

- A. General: Form construction, isolation, and contraction joints and tool edges true to line, with faces perpendicular to surface plane of concrete. Construct transverse joints at right angles to centerline unless otherwise indicated.
- B. Construction Joints: Install so strength and appearance of concrete are not impaired, at locations indicated or as approved by Engineer.
 - 1. Use a bonding agent at locations where fresh concrete is placed against hardened or partially hardened concrete surfaces.

- 2. Use epoxy-bonding adhesive at locations where fresh concrete is placed against hardened or partially hardened concrete surfaces.
- C. Isolation Joints: Form isolation joints of preformed joint-filler strips abutting concrete curbs, catch basins, manholes, inlets, structures, other fixed objects, and where indicated.
- D. Contraction Joints: Form weakened-plane contraction joints, sectioning concrete into areas as indicated. Construct contraction joints for a depth equal to at least one-fourth of the concrete thickness, to match jointing of existing adjacent concrete paving
- E. Edging: After initial floating, tool edges of paving, gutters, curbs, and joints in concrete with an edging tool to a 1/4-inch radius. Repeat tooling of edges after applying surface finishes. Eliminate edging-tool marks on concrete surfaces.

3.4 CONCRETE PLACEMENT

- A. Moisten subbase to provide a uniform dampened condition at time concrete is placed.
- B. Comply with ACI 301 requirements for measuring, mixing, transporting, placing, and consolidating concrete.
- C. Deposit and spread concrete in a continuous operation between transverse joints. Do not push or drag concrete into place or use vibrators to move concrete into place.
- D. Screed paving surface with a straightedge and strike off.
- E. Cold-Weather Placement: Comply with ACI 306.1 and as follows. Protect concrete work from physical damage or reduced strength that could be caused by frost, freezing actions, or low temperatures.
 - 1. When average high and low temperature is expected to fall below 40 degrees F (4.4 degrees C) for three successive days, maintain delivered concrete mixture temperature within the temperature range required by ACI 301.
 - 2. Do not use frozen materials or materials containing ice or snow. Do not place concrete on frozen subgrade or on subgrade containing frozen materials.
 - 3. Do not use calcium chloride, salt, or other materials containing antifreeze agents or chemical accelerators unless otherwise specified and approved in mixture designs.
- F. Hot-Weather Placement: Comply with ACI 301 and as follows:
 - 1. Maintain concrete temperature below 90 degrees F (32 degrees C) at time of placement. Chilled mixing water or chopped ice may be used to control temperature, provided water equivalent of ice is calculated to total amount of mixing water. Using liquid nitrogen to cool concrete is Contractor's option.

3.5 FLOAT FINISHING

- A. General: Do not add water to concrete surfaces during finishing operations.
- B. Initial floating operation is included in "Concrete Placement" Article.
- C. Float Finish: Begin the second floating operation when bleed-water sheen has disappeared and concrete surface has stiffened sufficiently to permit operations. Float surface with power-driven floats or by hand floating if area is small or inaccessible to power units. Finish surfaces to true planes. Cut down high spots and fill low spots. Refloat surface immediately to uniform granular texture.
 - 1. Retain one or more of three subparagraphs below or revise to suit Project.
 - 2. Burlap Finish: Drag a seamless strip of damp burlap across float-finished concrete, perpendicular to line of traffic, to provide a uniform, gritty texture.
 - 3. Medium-to-Fine-Textured Broom Finish: Draw a soft-bristle broom across float-finished concrete surface perpendicular to line of traffic to provide a uniform, fine-line texture.
 - 4. Medium-to-Coarse-Textured Broom Finish: Provide a coarse finish by striating float-finished concrete surface 1/16 to 1/8 inch deep with a stiff-bristled broom, perpendicular to line of traffic.

3.6 CONCRETE PROTECTION AND CURING

- A. General: Protect freshly placed concrete from premature drying and excessive cold or hot temperatures.
- B. Comply with ACI 306.1 for cold-weather protection.
- C. Begin curing after finishing concrete but not before free water has disappeared from concrete surface.
- D. Curing Methods: Cure concrete by curing compound.

3.7 REPAIRS AND PROTECTION

- A. Remove and replace concrete paving that is broken, damaged, or defective or that does not comply with requirements in this Section. Remove work in complete sections from joint to joint unless otherwise approved by Architect.
- B. Maintain concrete paving free of stains, discoloration, dirt, and other foreign material. Sweep paving not more than two days before date scheduled for Substantial Completion inspections.

END OF SECTION

PART 1 GENERAL

1.1 DESCRIPTION

- A. Provide all site preparation, excavating, filling, compacting, and related items of work required to complete the earthwork as indicated on the Drawings and as specified herein.
- B. Remove from site and legally dispose of all excavated materials that are not suitable for reuse as fill. Disposal site as selected by Contractor.

1.2 REFERENCES

The publications are referred to in this Specification by basic designation only.

- A. Alaska Department of Environmental Conservation (ADEC)
 - 18 AAC 72 Wastewater Disposal
- B. Construction Safety Code of Alaska Dept. of Labor.
- C. OSHA Requirements.

1.3 JOB CONDITIONS

- A. The Contractor should visit the site and acquaint himself with site conditions.
- B. Carefully maintain all bench marks, property corners, monuments and other reference points; if disturbed or destroyed, replace. Replacement of survey monuments, property corners, or other legal monuments or reference points shall be performed under the direct supervision of a Land Surveyor licensed to practice in Alaska.
- C. Inspect site and ascertain the existence or lack of utilities prior to commencing excavation work. Damage to utilities shown or referenced on the Drawings, or those located by utility companies or local authorities for the Contractor, shall be repaired or replaced at Contractor's expense.
- D. Inactive and abandoned utilities encountered in excavating and grading shall be removed, plugged or capped as directed by the Project Manager. If there are not specific requirements, plug or cap such utility lines at least 3 feet outside of new building walls or as required by local regulations.

PART 2 PRODUCTS

2.1 MATERIALS

A. Unless otherwise noted on the Drawings or Specifications, all soil materials shall meet the requirements of this Section.

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B. Structural Fill: Non frost susceptible, clean, free draining sand, gravel, or other inorganic soil materials meeting the following gradation after compaction:

Size % Passing

3" 100 No. 4 Mesh 30-60

No. 200 Mesh Less than 5 (based on minus 3/4" fraction)

PART 3 EXECUTION

3.1 EXCAVATION

A. General

- 1. Unauthorized over-excavation beyond limits set by Drawings and/or Specifications shall be replaced with structural fill materials as specified elsewhere in this Section. Backfill and compaction of unauthorized over-excavation shall be at Contractor's expense.
- 2. Provide adequate lights, flares, and guards as required to protect the public.
- 3. Protect adjacent building foundations, utilities, and survey controls by careful excavation and shoring as required.

B. Sheeting and Bracing:

- Contractor is responsible for establishing excavation backslopes and protecting banks for safe working conditions and prevention of erosion.
- 2. Furnish, place, and maintain such sheeting and bracing as may be required to support the sides of the trenches and excavation and prevent any movement therein which might damage or delay the work or cause injury to adjacent property, and as necessary to provide full safety for workers and the public. If, in the opinion of the Project Manager, any timbering is inadequate, the Project Manager may order additional supports which must be furnished and placed, but compliance with such orders or failure of the Project Manager to give them shall not release the Contractor from responsibility in respect to the adequate maintenance of trenches or excavation. If necessary to preserve a suitable grade, the trench or excavation shall be solid-sheeted with interlocking sheeting which shall be driven far enough below grade to prevent the in-flow of material from outside the trench or excavation lines. Transverse bulkheads may also be required to prevent movement along the line of the trench.
- 3. Unless expressly ordered by the Project Manager, remove all shoring materials from the trench or excavations before or during the backfilling operations. If, in the opinion of the Project Manager, the safety of the street, public or private utilities, or public or private property requires that any portion of the shoring materials be left in the trench, the Project Manager shall so order, in writing, and shall designate particularly what shoring materials be left in place. Sheeting left in the trench shall be cut off about two feet below the finished surface of the ground.

C. Dewatering:

- 1. Prevent surface water and subsurface or ground water from flowing into excavations and from flooding Project site and surrounding area.
- 2. Do not allow water to accumulate in excavations. Remove water to prevent softening of foundation support, undercutting footings, and soil changes detrimental to stability of subgrades and foundations. Provide and maintain pumps, well points, sumps, suction and discharge lines, and other dewatering system components necessary to convey water away from excavations.
- 3. Establish and maintain temporary drainage ditches and other diversions outside excavation limits to convey rain water and water removed from excavations to collecting or run-off areas. Do not use trench excavations as temporary drainage ditches.
- 4. Legally dispose of all water resulting from dewatering or other site operations.
- Acquire all permits necessary for dewatering and disposal of dewatering effluent including a State of Alaska Department of Natural Resources Temporary Water Use Permit and a State of Alaska Department of Environmental Conservation Excavation Dewatering Permit.

3.2 PLACEMENT OF FILL MATERIALS

A. General:

- 1. Obtain Project Manager's approval of excavations prior to placement of fills.
- 2. No extra payment for fill in excess of limits shown on Drawings or as specified herein without written approval of Project Manager.
- 3. Remove all forms, trash and debris from excavation before starting backfill.
- 4. Lifts shall be placed on level planes. Step sides and bottom of excavations if necessary to accomplish level fills.
- 5. Each lift of backfill material to be carried level to all sides of excavated area. No partial fills permitted.
- 6. Edges of fills shall be compacted and brought up at a maximum slope of 2:1.
- 7. Clean up and grade all areas disturbed by placement of backfill.

B. Structural Fill:

1. Material required (MINIMUM) beneath referenced structure or area when not specifically detailed on plans:

a. Building footings: 12 inches

b. Exterior walks and curbs: 12 inches

- 2. Maximum loose depth of each lift shall be eight (8) inches in areas to be compacted by machine.
- 3. Fill in horizontal layers shall not exceed six (6) inches loose depth where hand tampers or hand operated vibratory compactors are used.

C. Common Fill:

- 1. Use common fill for backfill as shown on the plans and for areas outside of building and paved parking areas, except where other materials are indicated on Drawings.
- 2. Maximum loose thickness 12 inches under area grading or landscape areas.

3.3 BACK FILL FOR STRUCTURES

- A. Backfill shall be placed at same vertical rate and at same time on both sides of all foundations.
- B. Avoid damage to foundation walls.
- C. Tamp by hand tampers only unless walls are equally backfilled both sides as a simultaneous operation, or unless structural floor system which serves to brace wall is in place and properly anchored.
- D. Backfill against insulation with care to prevent damage.

3.4 COMPACTION

A. General:

- 1. Adjust moisture content as required to accomplish proper compaction and to provide dust control when required by the Project Manager.
- 2. Compaction shall be thorough and to minimum density specified herein at all points throughout depth of fill.
- 3. Compact to specified percentage of maximum dry unit weight at optimum moisture content obtainable by ASTM D-1557, Procedure A or B as appropriate.
- 4. Compact to specified percentage of maximum dry unit weight at optimum moisture content obtainable by AASHTO T-180 and corrected by AASHTO T-224, as required.
- 5. When multiple lifts are required to achieve the specified grade, each lift shall be compacted to the specified density prior to placing the next lift.

B. Compaction Requirements

Soil Material	% of Maximum Dry Unit Weight
Top 6 inches of subgrade under structural fill or bedding	95%
Structural Fill	95%
Top 6 inches of subgrade under common fill	90%
Common Fill against foundations and footings	
within 5 feet of foundation wall	95%
Top 18 inches of Common Fill in areas to receive topsoil	90%

C. General.

- 1. Compaction shall be thorough.
- 2. Compact by routing construction equipment and/or rollers uniformly over the entire surface of each layer before the next layer is placed. Compact until embankment does not rut under the loaded hauling equipment.
- 3. Keep dumping and rolling areas separate. Do not cover any lift by another until the required compaction has been completed.

3.5 AREA GRADING

- A. Areas indicated for general area grading or to be landscaped or topsoiled shall be graded and filled in accordance with the Drawings and these Specifications.
- B. Slope from elevation of new improvements to meet existing grade at slopes as indicated on the Drawings. Where slope is not indicated, maximum slope shall be 2 horizontal to 1 vertical (2:1).
- C. Regrade all areas indicated on Drawings plus all areas disturbed by Contractor's operations.
- D. Replace any items damaged by Contractor's operations.

3.6 DISPOSAL OF WASTE AND FINAL CLEAN UP

A. Waste:

- 1. Includes excess excavation not suitable for fill.
- 2. Includes unusable, surplus or damaged materials.
- 3. Remove from Owner's site unless directed otherwise by Project Manager.
- 4. Legally dispose of all waste in a safe manner.

FAIRBANKS, ALASKA PROJECT NO.: ANC 15-22C

B. Cleanup:

1. Leave site in neat and orderly condition with all refuse removed and grounds raked within project limits, storage areas and other areas disturbed by Contractor during construction.

END OF SECTION

FAIRBANKS PIONEER HOME -SANITARY WASTE SYSTEMS UPGRADES

PROJECT NO.: ANC 15-22C

DRAWINGS

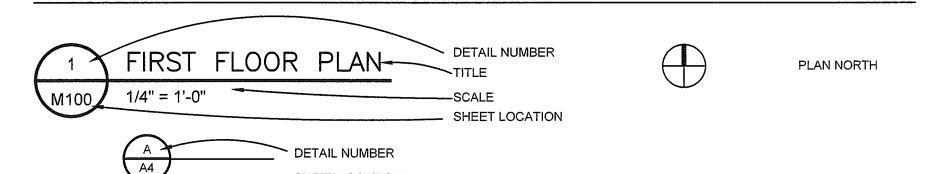
MECHANICAL SCHEDULES, LEGENDS, ABBREVIATIONS AND CONSTRUCTION PHASING PLAN CRAWLSPACE PLUMBING DEMOLITION PLAN NORTHWEST CRAWLSPACE LARGE SCALE PLUMBING DEMOLITION PLAN SOUTHWEST CRAWLSPACE LARGE SCALE PLUMBING DEMOLITION PLAN NORTHWEST CRAWLSPACE LARGE SCALE PLUMBING PLAN SOUTHWEST CRAWLSPACE LARGE SCALE PLUMBING PLAN EAST CRAWLSPACE LARGE SCALE PLUMBING PLAN

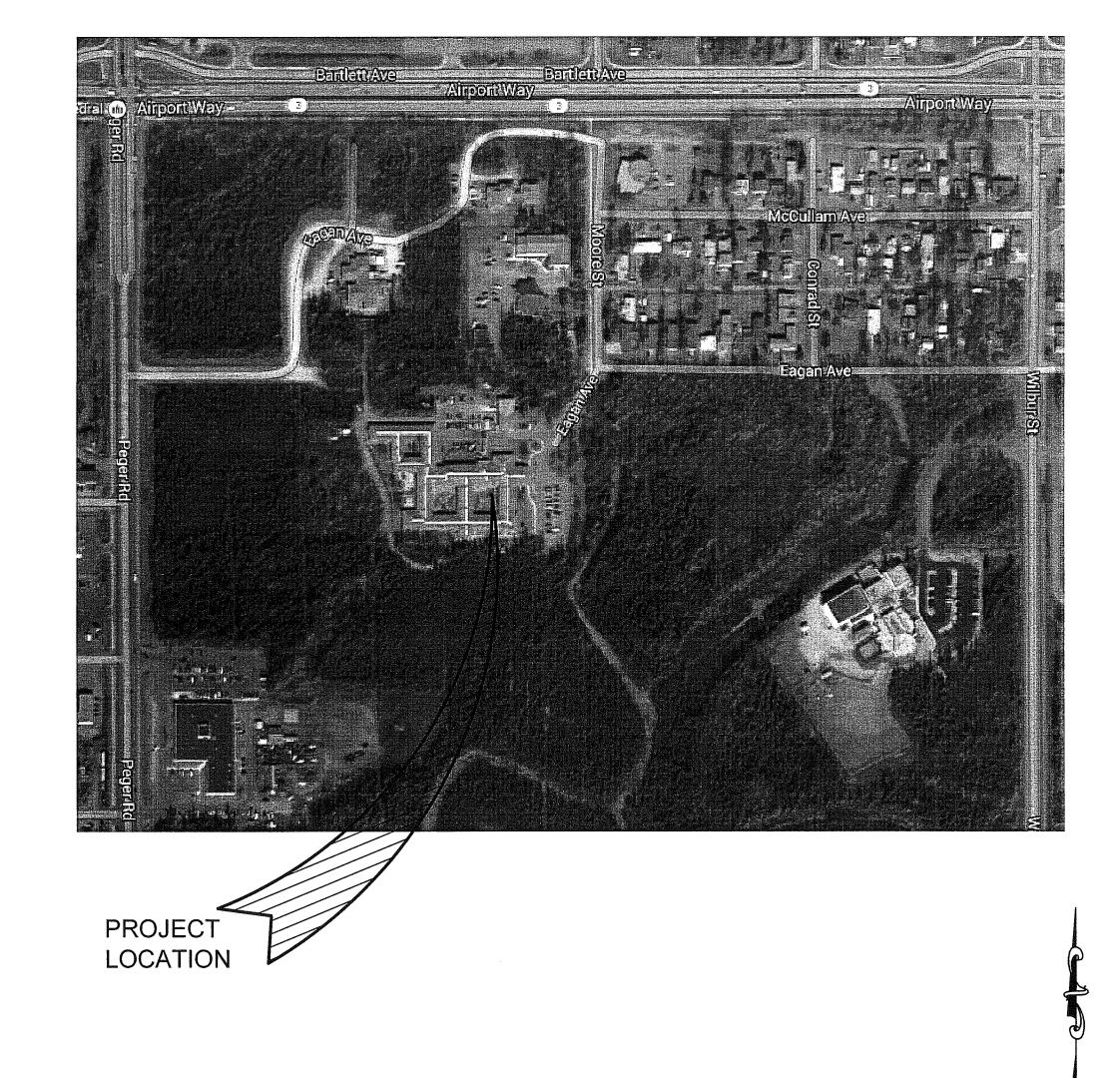
CODE

GOVERNING CODES -2009 INTERNATIONAL MECHANICAL CODE -2009 UNIFORM PLUMBING CODE -2014 NATIONAL ELECTRICAL CODE **AUTHORITY HAVING JURISDICTION**

PLUMBING AND ELECTRICAL DETAILS

LEGEND





VICINITY MAP - FAIRBANKS, ALASKA

ANC 15-22C **FAIRBANKS** PIONEER HOME - SANITARY WASTE SYSTEMS **UPGRADES**

COMM. NUMBER **DESIGNED BY** DRAWN BY

TITLE SHEET

TRUE NORTH

G001

ABBREVIATIONS

ENGLISH	ONITO	GA GCHWS(R)	GAUGE GLYCOL CHILLED WATER SUPPLY (RETURN)
#	POUNDS/PSI	GHS(R)	GLYCOL HEATING SUPPLY (RETURN)
 BHP	BRAKE HORSE POWER	· ·	,
BTUH	BRITISH THERMAL UNITS PER HOUR	H20	WATER
CFM	CUBIC FEET PER MINUTE	HB	HOSE BIBB
=	DEGREES FAHRENHEIT	HPS	HIGH PRESSURE STEAM
		HR	HOUR
=PM	FEET PER MINUTE	HTG	HEATING
=T	FEET		
T WG	FEET OF WATER GAUGE	HW	HOT WATER
GAL	GALLONS	HWS(R)	HEATING WATER SUPPLY (RETURN)
GPH	GALLONS PER HOUR		
3PM	GALLONS PER MINUTE	ID	INSIDE DIAMETER
HP	HORSEPOWER	ΙE	INVERT ELEVATION
N	INCH	INSUL	INSULATION
N WG	INCHES OF WATER GAUGE	IPS	IRON PIPE SIZE
<w< td=""><td>KILOWATT</td><td></td><td></td></w<>	KILOWATT		
.B		LAT	LEAVING AIR TEMPERATURE
	POUNDS	LGT	LEAVING GLYCOL TEMPERATURE
_F	LINEAL FOOT		
ИВН	ONE THOUSAND BTU PER HOUR	LPS	LOW PRESSURE STEAM
PSI	POUNDS PER SQUARE INCH		
NG	WATER GAUGE	M	MINUTES
		MAX	MAXIMUM
		MECH	MECHANICAL
STANDAR	D ABBREVIATIONS	MIN	MINIMUM
		MTR	MOTOR
_			
<u> </u>	AND	NC	NORMALLY OF OPEN OR MOTOR OPITERIA
@	AT		NORMALLY CLOSED OR NOISE CRITERIA
#	NUMBER	NG	NATURAL GAS
4	AIR	NIC	NOT IN CONTRACT
` AFF	ABOVE FINISHED FLOOR	NO	NORMALLY OPEN
AGT	AVERAGE GLYCOL TEMPERATURE	NPSH	NET PUMP SUCTION HEAD
		NTS	NOT TO SCALE
AHU ABD	AIR HANDLING UNIT		
APD	AIR PRESSURE DROP	OBVD	OPPOSED BLADE VOLUME DAMPER
APPR	APPROVED	OC OC	
APPROX	APPROXIMATE		ON CENTER
ARCH	ARCHITECTURAL	OD	OUTSIDE DIAMETER
AUTO	AUTOMATIC	OFCI	OWNER FURNISHED CONTRACTOR INSTALLE
٩V	ACID VENT	OFOI	OWNER FURNISHED OWNER INSTALLED
ΑW	ACID WASTE	ORD	OVERFLOW ROOF DRAIN
100	AOID WAOTE	ORL	OVERFLOW RAIN LEADER
2.01	DALANGING		OUTSIDE AIR (DAMPER)
BAL	BALANCING	OSAT	OUTSIDE AIR (BAMI ER)
BFF	BELOW FINISHED FLOOR	COAT	OSTORETHIN LIVE ENGLOTE
3FW	BOILER FEED WATER	DOTEN	DDECCLIDE AND TEMPERATURE BELIEF CO.
		P&TRV	PRESSURE AND TEMPERATURE RELIEF VALV
	COMMON	PD	PRESSURE DROP
CA	COMPRESSED AIR		PHASE
CAPAC	CAPACITY	PRDV	PRESSURE REDUCING VALVE
DAFAC DI		PRV	PRESSURE RELIEF VALVE
	CAST IRON		
CHWS(R)	` ,	RA(D)	RETURN AIR (DAMPER)
CLG	COOLING	, ,	ROOF DRAIN
0	CLEAN OUT		
R	CONDENSATE RETURN		RECIRCULATED HOT WATER
Σv	VALVE COEFFICIENT		RAIN LEADER
cw	COLD WATER	RPM	REVOLUTIONS PER MINUTE
WS(R)	CONDENSER WATER SUPPLY (RETURN)		
· • • • (1 · ()	SOMBLINGEN WATER SUPPLI (RETURN)	S	SECONDS
ND.	DECIDE		SHOWER
)B	DECIBEL		SIMILAR
)B	DRYBULB		STATIC PRESSURE
NΑ	DIAMETER		
N	DOWN		STAINLESS STEEL
OWDI	DOUBLE WIDTH DOUBLE INLET		STEAM
	· · · · · · · · · · · · · · · · · · ·	SWSI	SINGLE WIDTH SINGLE INLET
Α	EACH		
A(D)		THW	TEMPERED HOT WATER
	EXHAUST AIR (DAMPER)		TRAP PRIMER
AT	ENTERING AIR TEMP		TYPICAL
F	EXHAUST FAN		
GT	ENTERING GLYCOL TEMP	17	VOLTE OF VENT
LEC	ELECTRICAL		VOLTS OR VENT
SP	EXTERNAL STATIC PRESSURE		VARIABLE AIR VOLUME
WT	ENTERING WATER TEMPERATURE	VERT	VERTICAL
X	EXISTING	VFD	VARIABLE FREQUENCY DRIVE
			VOLUME
XIST	EXISTING		VENT THROUGH ROOF
			1
_	FORWARD CURVED	۱۸/	WASTE
С	FLOOR DRAIN		WASTE
		W/	WITH
)	FULL LOAD AMPERAGE		· · · · ·
D LA		W/O	WITHOUT
D LA	FULL LOAD AMPERAGE FLEXIBLE		WITHOUT WET BULB
C D LA LEX		WB	

MISCELLANEOUS EQUIPMENT SCHEDULE

SYMBOL	ITEM	CAPACITY / SIZE	MOTOR DATA	OPERATING 1 WEIGHT (LB)	BASIS OF DESIGN	REMARKS
GI-1	GREASE INTERCEPTOR	75 GPM MAXIMUM FLOW RATE 150 LB GREASE CAPACITY	-	1000	ZURN Z1173-RD	 SEMI-AUTOMATIC DRAW OFF PROVIDE WITH 4" INLET/OUTLET SIZES PROVIDE FLOW CONTROL TEE ADJUSTED BASED ON 4" CONNECTION SIZES. PROVIDE WITH ISOLATION VALVE BY SAM MANUFACTURER.

MECHANICAL SYMBOLS

CONNECTION TO EXISTING

- ELBOW TURNED DOWN

── ELBOW TURNED UP

-e- TEE DOWN ➤ FLOW ARROW

PIPE CAP

= CLEAN OUT

FLOW CONTROL TEE

PIPING SYMBOLS PIPE CONNECTION

[1] OPERATING WEIGHT INDICATED. PLUS 10% IS MAXIMUM ALLOWED WEIGHT IF USING A SEISMIC DETAIL PROVIDED AS PART OF CONTRACT DOCUMENTS

SYMBOL	ABBREV	SYSTEM
	W	WASTE ABOVE GRADE
	WBG	WASTE BELOW GRADE
	V	VENT
		EXISTING PIPING/DUCTWORK/ EQUIPMENT
		EXISTING PIPING/DUCTWORK/ EQUIPMENT TO BE REMOVED

PROJECT DESCRIPTION

- 1. REPLACE A PORTION OF EXISTING WASTE MAIN PIPING LOCATED IN THE CRAWLSPACE. REMOVAL AND RECONNECTION OF EXISTING BRANCH LINES SERVED BY ABANDONED AND REMOVED WASTE MAIN.
- 2. REMOVE EXISTING GREASE INTERCEPTOR LOCATED IN CRAWLSPACE. INSTALL GREASE INTERCEPTOR TO SERVE REQUIRED KITCHEN FIXTURES. GREASE INTERCEPTOR TO BE LOCATED IN CRAWLSPACE.
- 3. MODIFY EXISTING LIFT STATION BASIN TO CORRECT A LEAK AT THE BASE OF THE BASIN BY INSTALLING LIFT STATION BASIN LINER. REMOVAL AND REINSTALLATION OF EXISTING LIFT STATION EQUIPMENT REQUIRED.

GENERAL CONDITIONS

- 1. CONTRACTOR TO PROVIDE DUMPSTER FOR PURPOSES OF DISPOSING OF ALL ITEMS REMOVED DURING PROJECT. COORDINATE LOCATION OF DUMPSTER WITH OWNER.
- 2. ALL DEMOLISHED ITEMS INCLUDING BUT NOT LIMITED TO HANGERS, PIPING, FITTINGS, VAPOR BARRIER, GREASE INTERCEPTOR SHALL BE
- REMOVED FROM THE SITE BY THE CONTRACTOR. 3. TWO OPTIONS FOR BRINGING NEW WASTE PIPING IN TO THE BUILDING ARE SHOWN. THE PREFERRED OPTION FOR BRINGING WASTE PIPING INTO CRAWLSPACE IS THROUGH INTERIOR ACCESS HATCHES IN FAN ROOM 6 OR THROUGH CRAWLSPACE ACCESS IN FAN ROOM IN
- BASEMENT. 10FT SECTIONS OF PIPING HAVE BEEN CONFIRMED TO FIT THROUGH EITHER LOCATION, SOME DIGGING OF CRAWLSPACE FLOOR MAY BE REQUIRED. SECONDARY OPTION IS TO BRING PIPES THROUGH NORTH WALL OUTSIDE DINING 036 VIA EXCAVATION AND SIDEWALK REMOVAL. EACH AT CONTRACTOR'S OPTION. EXCAVATION OPTION MAY BE MADE MORE COMPLEX IF CONSTRUCTION OCCURS DURING THE

CONSTRUCTION PHASING PLAN

GENERAL PHASING CRITERIA

- FACILITY IS OCCUPIED AND IN OPERATION 24/7, FACILITY MUST REMAIN IN OPERATION WITH MINIMAL SHUT DOWNS TO THE SEWER SYSTEM. IDEAL TIME FOR SHUT DOWNS IS IN THE EVENING AFTER 7:00 PM. FACILITY CAN ACCOMMODATE SOME DAYTIME SHUTDOWNS BUT THEY WILL BE LIMITED IN NUMBER OF 4. BATHROOMS SHUTDOWN AND THE DURATION OF THE
- COORDINATE ANY SYSTEM SHUTDOWNS WITH OWNER A MINIMUM 5.
- OF 48 HOURS PRIOR TO SHUT DOWN. INDIVIDUAL BATHROOMS NOT ASSOCIATED WITH THE KITCHEN MAY HAVE A MAXIMUM OF 4 HOUR SHUTDOWN AND NO MORE THAN 4 BATHROOMS AT A TIME. KITCHEN SHUTDOWNS WILL BE LIMITED TO 2 HOURS OR DONE BETWEEN THE HOURS OF 7:00PM AND 6:00AM. IF ENTIRE WING OR HALLWAY IS AFFECTED, SHUTDOWNS MUST BE DONE BETWEEN THE HOURS OF 7:00PM AND 6:00AM. SHUTDOWNS OF THE LIFT STATION IN THE BASEMENT WILL ALSO BE DONE BETWEEN THE HOURS OF 7:00PM AND 6:00AM.
- PROVIDE TEMPORARY WASTE PIPING AS REQUIRED TO LIMIT SHUT DOWN TIMES.
- THE BUILDING CRAWLSPACE IS THE RETURN AIR PATH FOR THE EXISTING AIR HANDLING UNITS. THERE ARE (5) AIR HANDLING UNITS LOCATED IN THE BUILDING THAT PULL RETURN AIR FROM THE CRAWLSPACE. MINIMIZE AIRBORNE PARTICULATES TO MAXIMUM EXTENT POSSIBLE. REPLACE ALL AIR HANDLER FILTERS WITH FILTERS MATCHING EXISTING AT A MINIMUM OF THREE TIMES PER WEEK. COORDINATE ANY AIR HANDLER SHUTDOWNS WITH OWNER. CRAWLSPACE FLOOR IS DIRT WITH VAPOR BARRIER COVERING. PROVIDE CRAWLSPACE VAPOR BARRIER ON CRAWLSPACE FLOOR IN WORK AREAS WHERE EXISTING VAPOR BARRIER HAS BEEN DAMAGED TO REDUCE DUST GENERATION.

LIST OF AIR HANDLER FILTERS ARE AS FOLLOWS: AHU-1,2,3 REQUIRE 8 EACH 20X24X2 FILTERS PER CHANGE AHU-5 REQUIRES 3 EACH 16X20X2 AND 3 EACH 20X20X2 FILTERS PER CHANGE

- AHU-6 REQUIRES 4 EACH 25X25X2 FILTERS PER CHANGE
- CAP WASTE PIPING OF ACTIVE PIPES AS REQUIRED TO PREVENT SEWER GASES FROM ENTERING CRAWLSPACE.
- THERE IS A LIMITED AMOUNT OF STORAGE SPACE IN THE BASEMENT FOR CONTRACTOR USAGE. AT CONTRACTOR'S OPTION, A CONNEX/TRAILER MAY BE LOCATED IN THE NORTH PARKING LOT. 120AC POWER IS AVAILABLE FROM EXISTING HEAD BOLT HEATERS.

WASTE MAIN PHASING

PERFORM A SYSTEM-WIDE SHUTDOWN TO REPLACE THE WASTE PIPE BETWEEN THE MECHANICAL ROOM GRINDER PUMP TO THE

- END OF THE DIAGONAL NORTHEAST/SOUTHWEST RUN INCLUDING ADDITIONAL TAPS FOR 6" MAINS.
- RETURN THE SYSTEM TO SERVICE.
- INSTALL 6" MAINS BESIDE THE EXISTING BURIED MAINS WITH TAPS FOR EACH BRANCH LINE. CONNECT EACH BRANCH LINE TO THE SYSTEM IN A BRIEF SYSTEM SHUTDOWN
- PERFORM BRIEF SHUTDOWNS WHERE NECESSARY TO CONNECT BRANCH LINES TO THE MAIN. CAP TEES UNTIL BRANCH PIPING IS CONNECTED.
- PERFORM SMALL LOCAL-AREA SHUTDOWNS TO TRANSFER BRANCHES FROM EXISTING MAINS TO PROVIDED MAINS.
- FLUSH ALL WASTE WASTE PIPING TO BE ABANDONED PRIOR TO ABANDONING PIPE. CAP ALL OPENINGS INCLUDING BUT NOT LIMITED TO BRANCH MAINS, CLEAN OUTS, TEES.

GREASE INTERCEPTOR PHASING

- INSTALL A CONCRETE PAD IN CRAWLSPACE BELOW EXISTING STORAGE ROOM ACCESS HATCH.
- INSTALL THE GREASE INTERCEPTOR AND CONNECT DISCHARGE PIPING TO THE WASTE MAIN.
- INSTALL WASTE LINES FROM THE INTERCEPTOR TO THE VICINITY OF FLOOR SINKS, FLOOR DRAINS AND WASH SINKS WITHOUT GRINDERS.
- PERFORM A LOCAL-AREA SHUTDOWN TO TRANSFER FLOOR SINKS. FLOOR DRAINS AND WASH SINKS WITHOUT GRINDERS TO GREASE INTERCEPTOR WASTE LINES.
- REMOVE EXISTING WASTE PIPING FROM FIXTURES AS SHOWN ON DEMOLITION SHEETS. REMOVE EXISTING GREASE INTERCEPTOR TO EXTENT SHOWN ON DRAWING DETAILS.

SANITARY LIFT STATION PHASING

- REMOVE AND SALVAGE PRIMARY LIFT STATION PUMPS.
- CONTROLS, AND FLOATS FLOATS FROM THE LIFT STATION LID. PERFORM A SYSTEM-WIDE SHUTDOWN BETWEEN THE HOURS OF 7:00 PM AND 6:00 AM.
- REMOVE AND SALVAGE THE MANUALLY OPERATED LIFT STATION PUMP AND ACCESSORIES..
- 4. EVACUATE THE LIFT STATION BASIN WITH A PUMP TRUCK AND CLEAN BASIN.
- 5. REMOVE THE 6" INLET BACK TO THE FLANGE AND THE BRACKETS WELDED TO THE SIDE OF THE BASIN. GRIND EDGES SMOOTH. CLEAN THE BASIN.
- PROVIDE A 6" WASTE LINE EXTENDING 6" INTO THE BASIN AND WELD TO EXISTING BASIN.
- INSTALL PVC LINER IN THE BASIN AND STEEL BASE PLATES. RECONNECT LIFT STATION PIPING
- REINSTALL ONE LIFT STATION PUMP.
- RETURN SANITARY WASTE SYSTEM TO SERVICE
- 10. REINSTALL THE EXISTING REDUNDANT LIFT STATION PUMP, CONTROLS, FLOATS, MAINTENANCE PUMP AND ACCESSORIES.



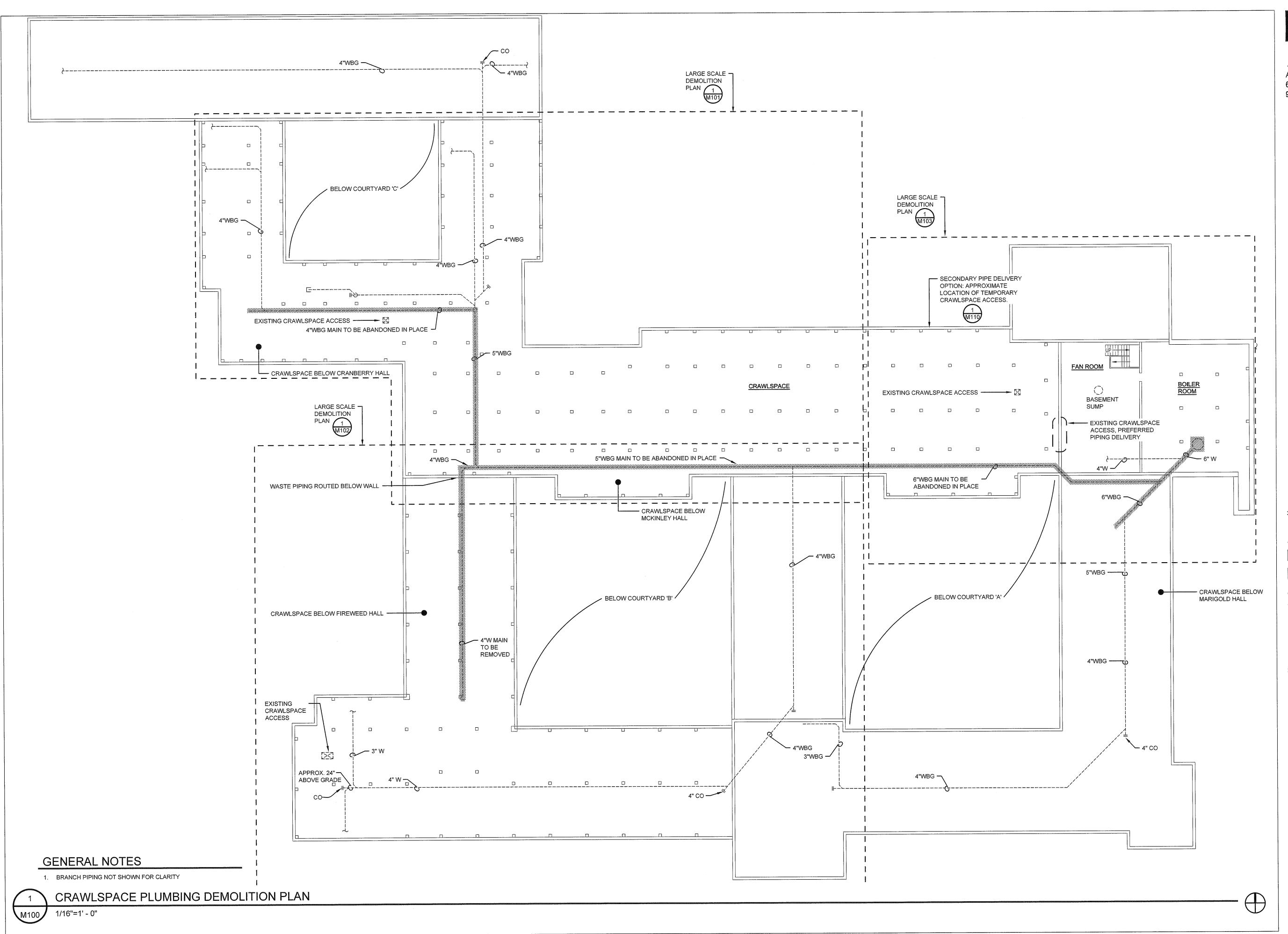
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ANC 15-22C **FAIRBANKS** PIONEER HOME - SANITARY WASTE SYSTEMS **UPGRADES**

ISSUE DATE 27 AUG 2014 COMM. NUMBER 381401 JMH DESIGNED BY MSO DRAWN BY SCALE

MECHANICAL SCHEDULES, LEGENDS, ABBREVIATIONS AND CONSTRUCTION PHASING PLAN



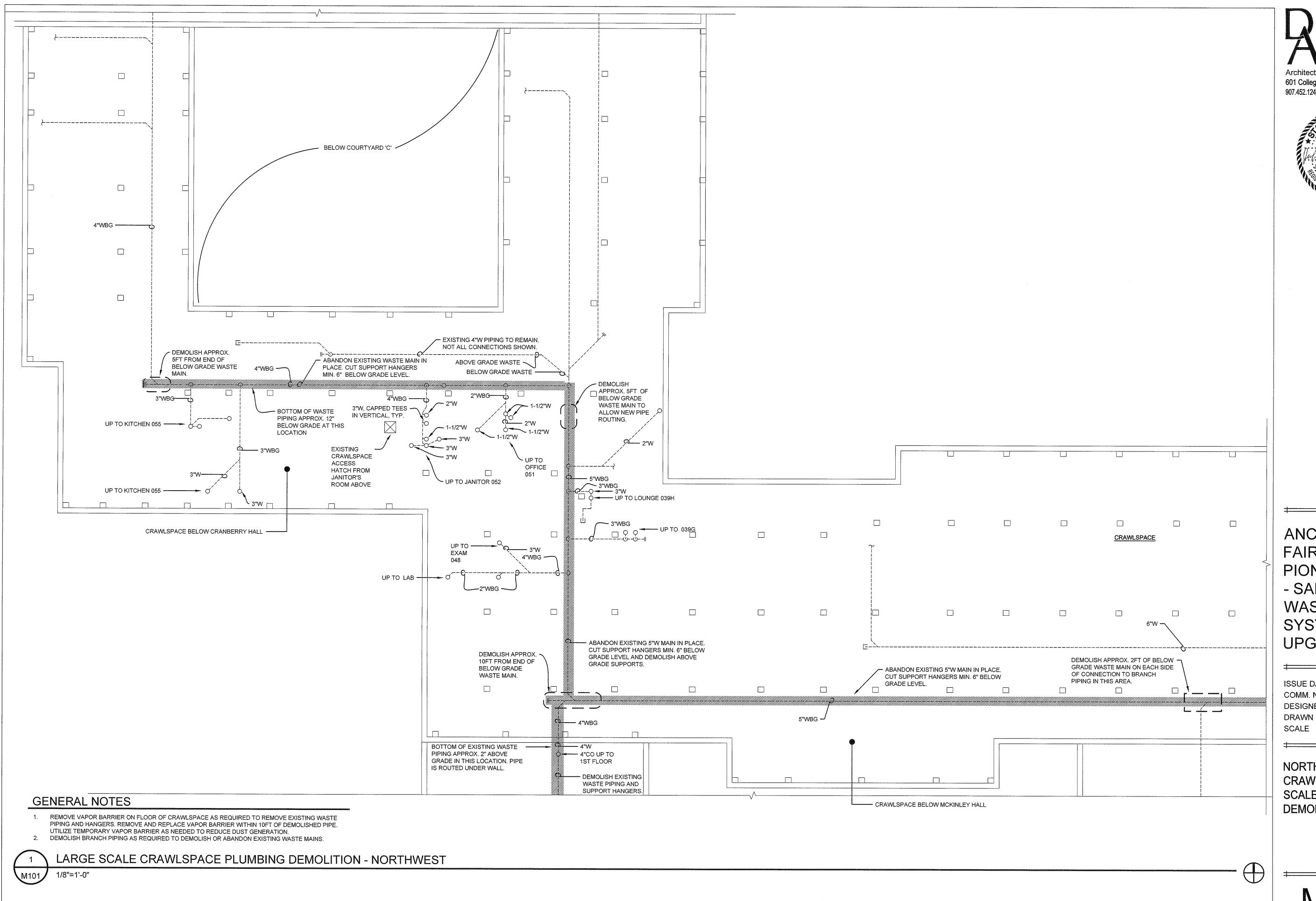
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WASTE
SYSTEMS
UPGRADES

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DESIGNED BY JMH
DRAWN BY MSO
SCALE 0" 1"

CRAWLSPACE
PLUMBING
DEMOLITION PLAN



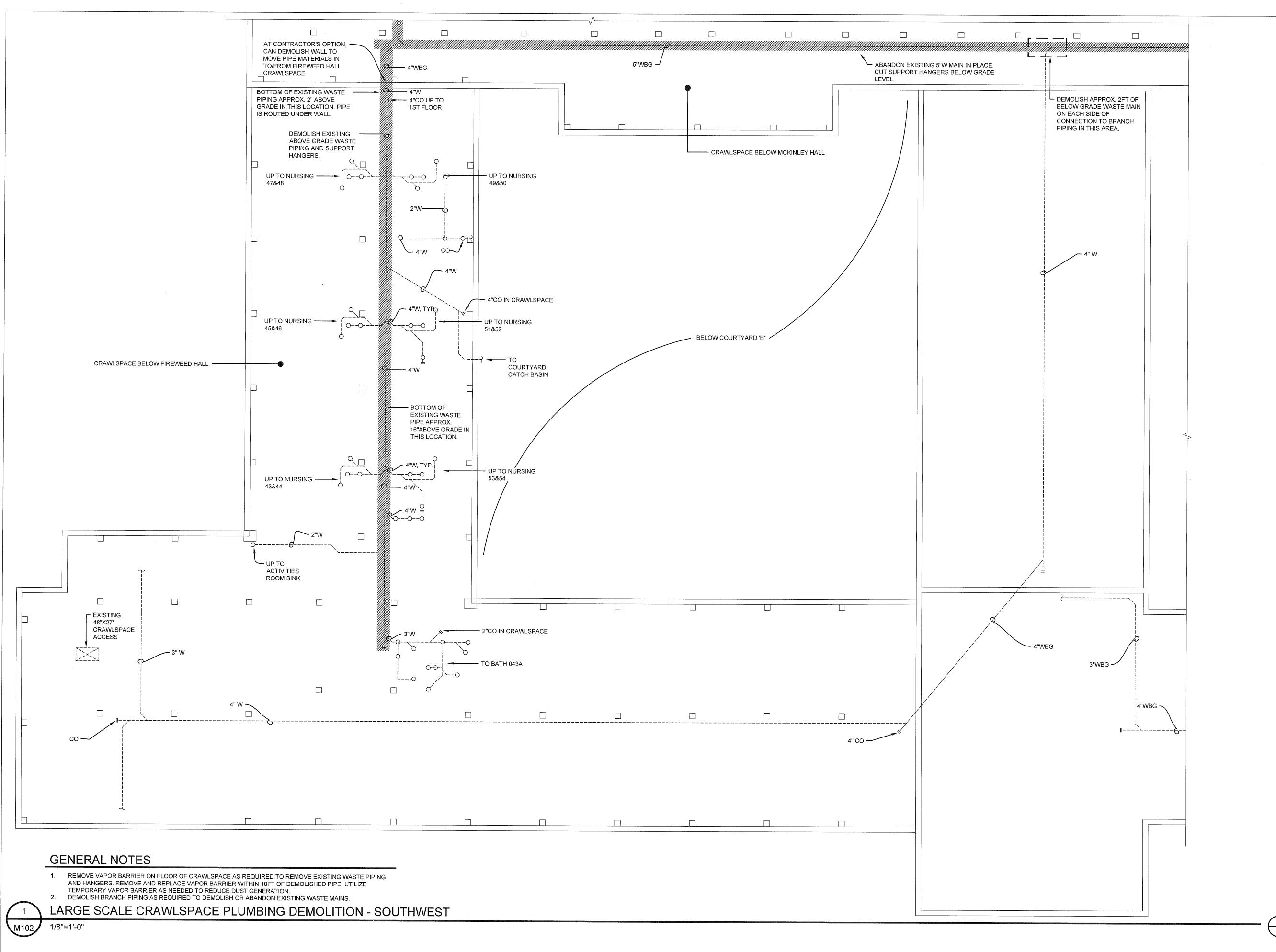
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NORTHWEST
CRAWLSPACE LARGE
SCALE PLUMBING
DEMOLITION PLAN



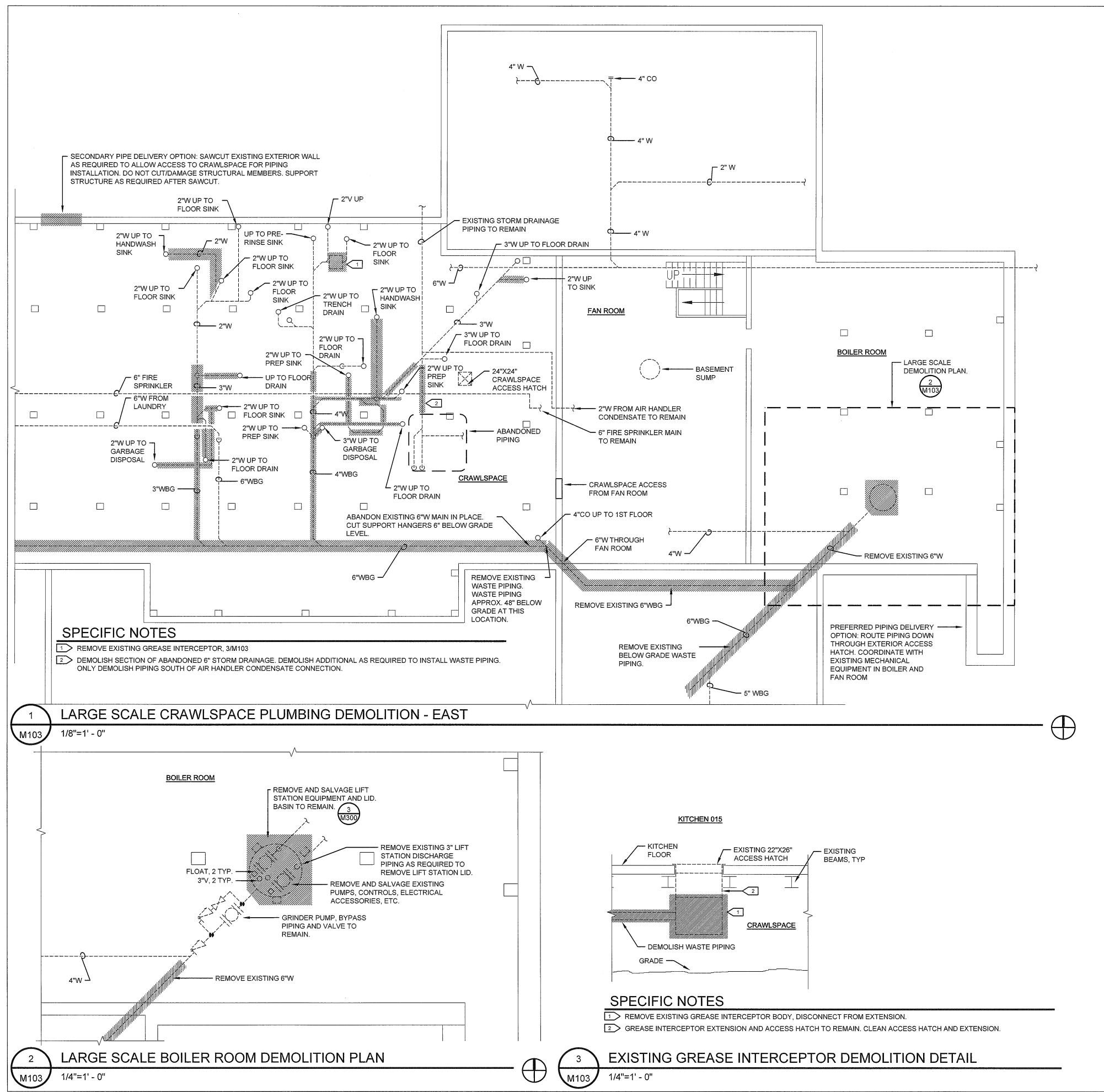
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SOUTHWEST
CRAWLSPACE LARGE
SCALE PLUMBING
DEMOLITION PLAN



GENERAL NOTES

- REMOVE VAPOR BARRIER ON FLOOR OF CRAWLSPACE AS REQUIRED TO REMOVE EXISTING WASTE PIPING AND HANGERS. REMOVE AND REPLACE VAPOR BARRIER WITHIN 10FT OF DEMOLISHED PIPE. UTILIZE TEMPORARY VAPOR BARRIER AS NEEDED TO REDUCE DUST GENERATION.
- REMOVE BRANCH PIPING AS REQUIRED TO DEMOLISH OR ABANDON EXISTING WASTE MAINS.
- 3. DEMOLISH ALL WASTE PIPING SERVING FIXTURES THAT WILL NOT BE SERVED BY GI-1 TO THEIR NEAREST CONNECTION POINT TO THE MAIN.

Resign Alaska

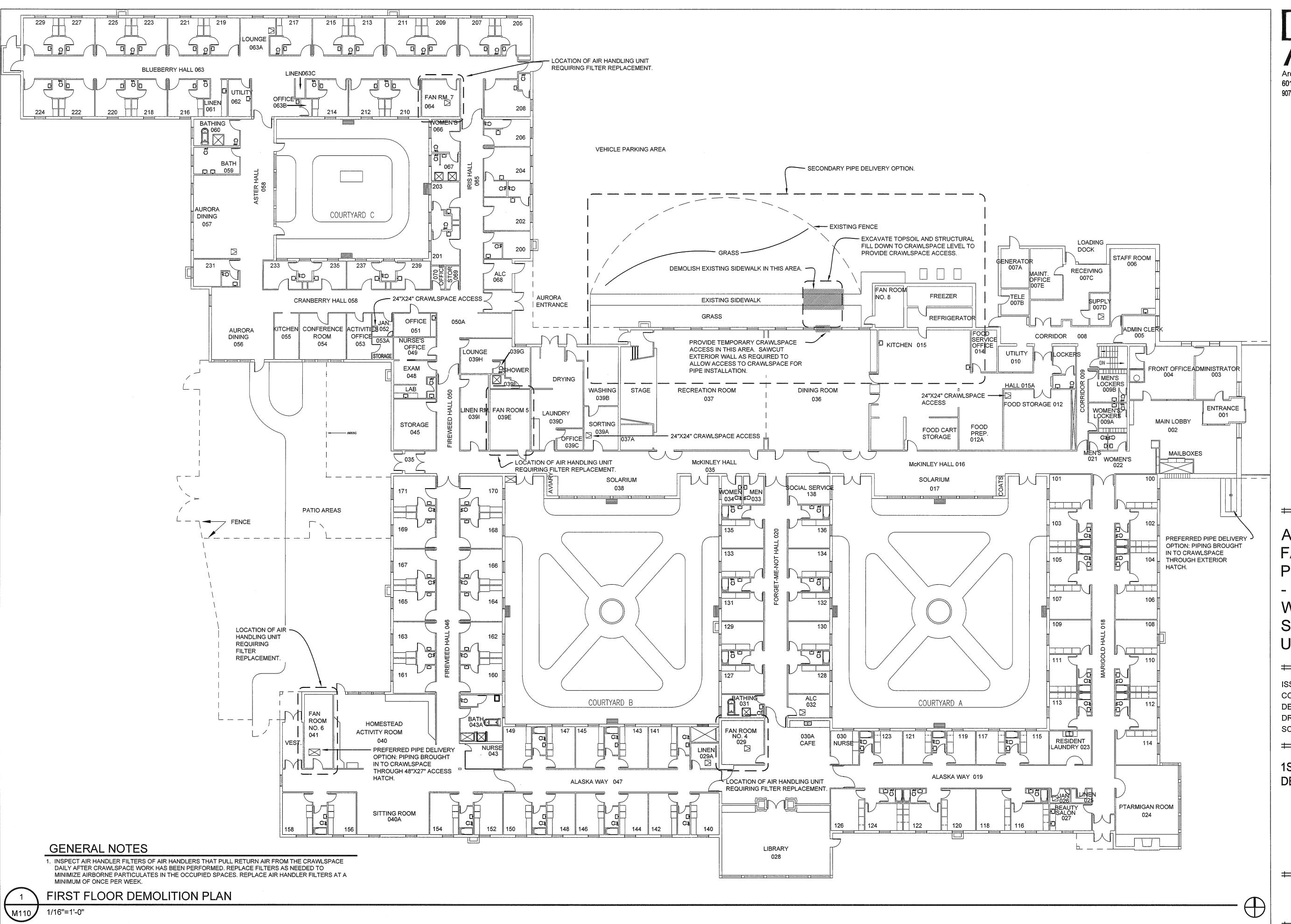
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EAST CRAWLSPACE LARGE SCALE PLUMBING DEMOLITION PLAN



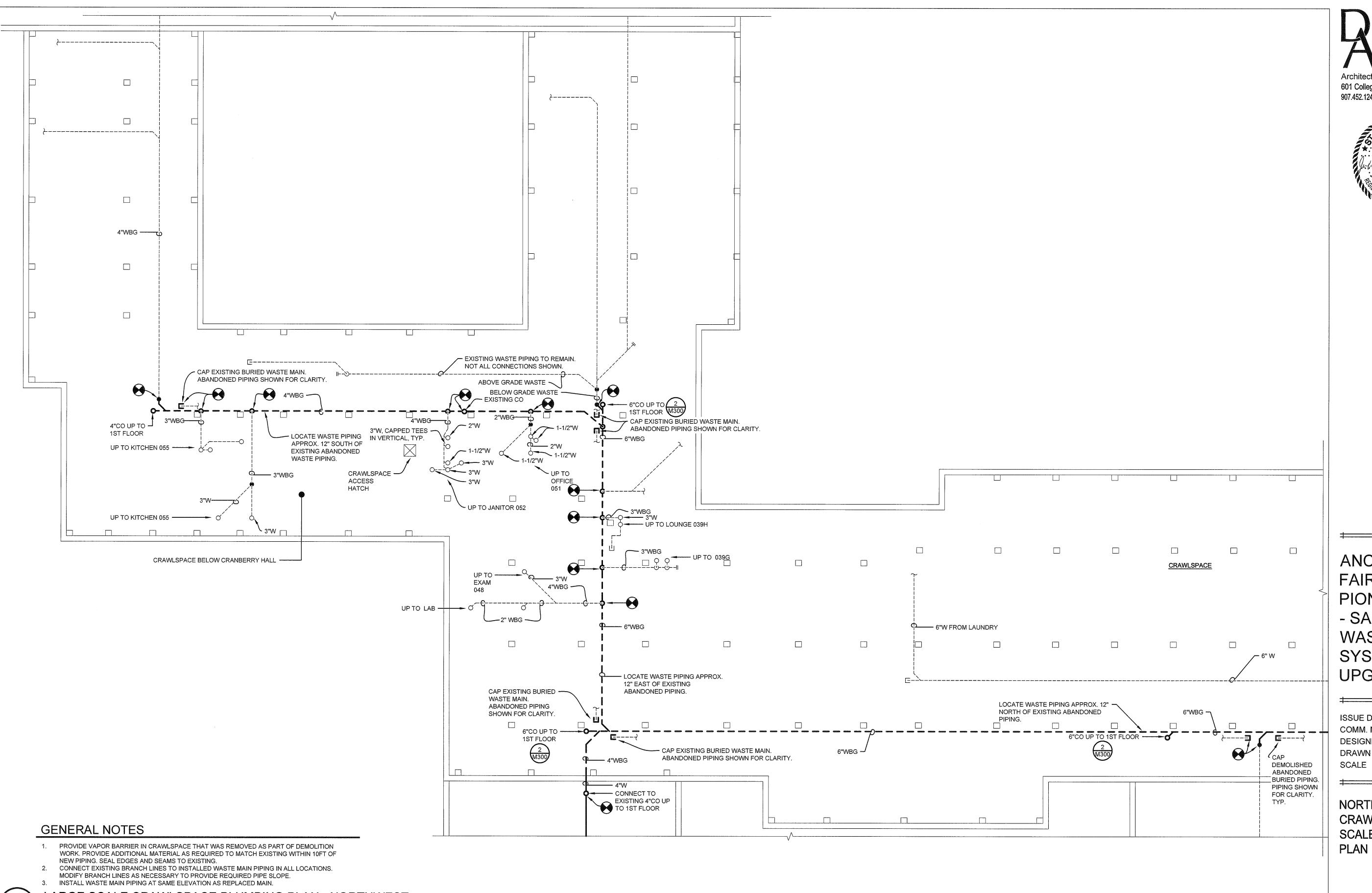
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1ST FLOOR
DEMOLITION PLAN



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No. ME 13114

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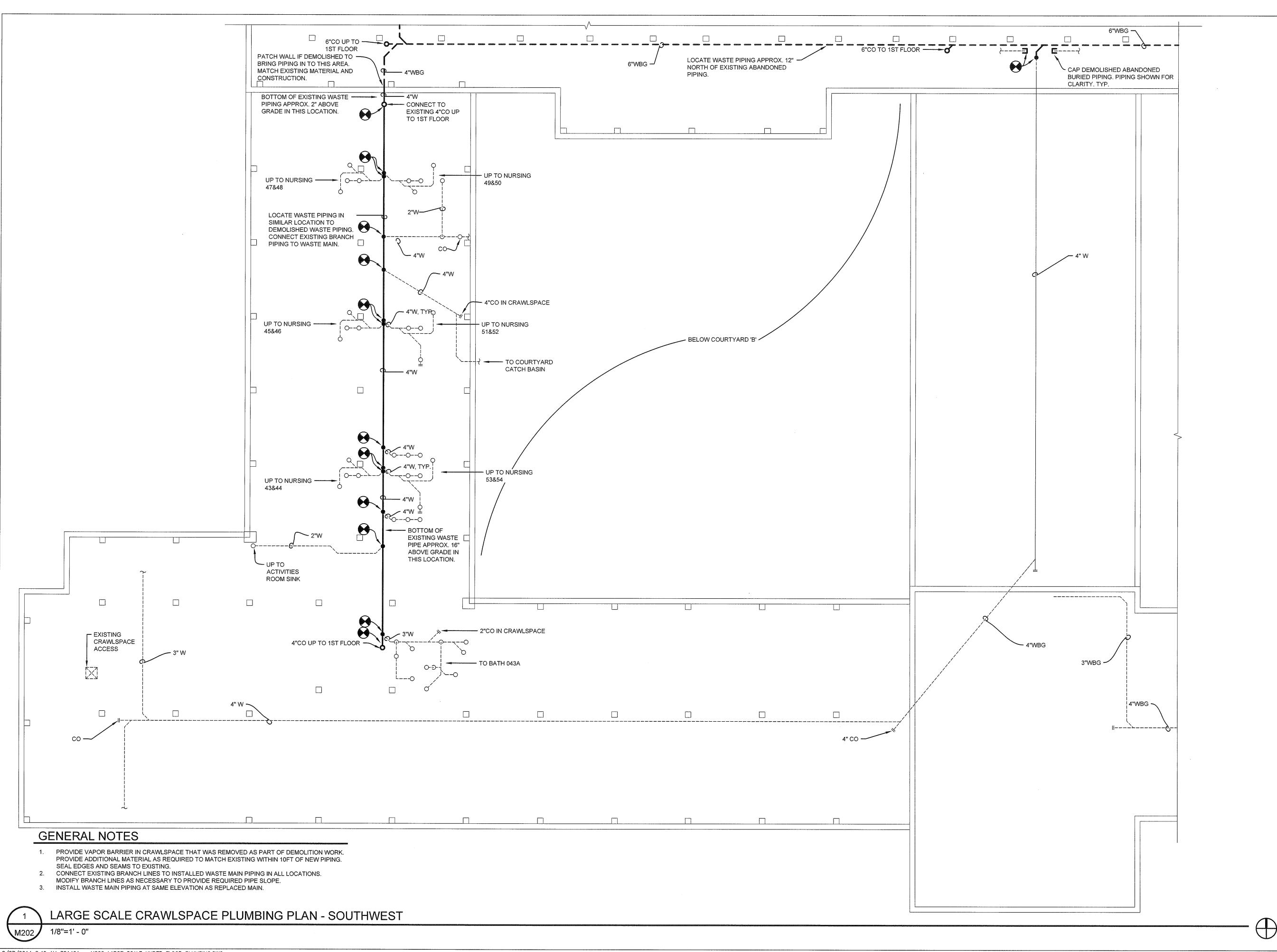
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NORTHWEST CRAWLSPACE LARGE SCALE PLUMBING

M201

M201

1/8"=1' - 0"



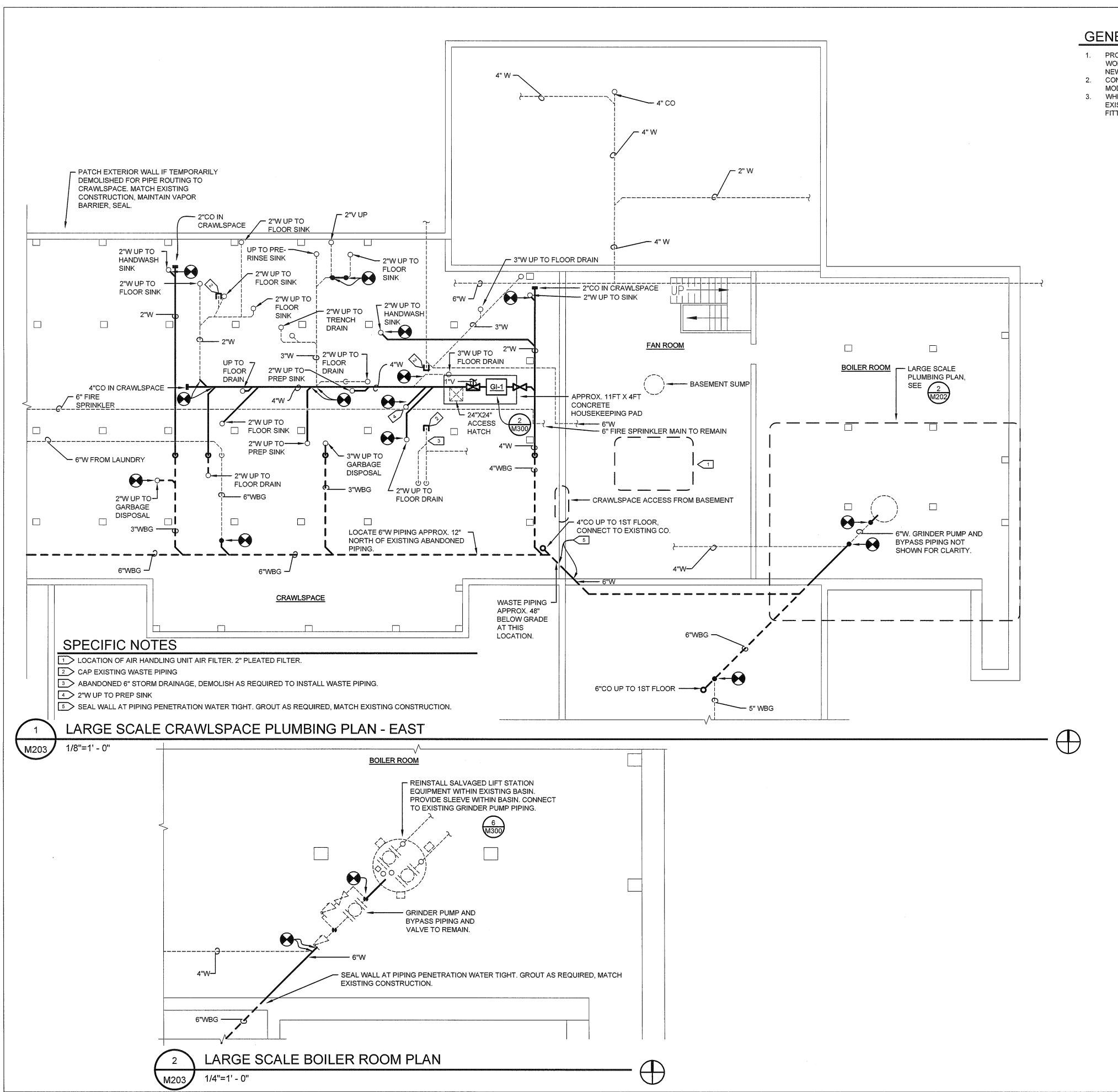
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ANC 15-22C FAIRBANKS PIONEER HOME - SANITARY WASTE SYSTEMS **UPGRADES**

ISSUE DATE 27 AUG 2014 COMM. NUMBER 381401 **DESIGNED BY** DRAWN BY

SOUTHWEST CRAWLSPACE LARGE SCALE PLUMBING PLAN



GENERAL NOTES

- PROVIDE VAPOR BARRIER IN CRAWLSPACE THAT WAS REMOVED AS PART OF DEMOLITION WORK. PROVIDE ADDITIONAL MATERIAL AS REQUIRED TO MATCH EXISTING WITHIN 10FT OF NEW PIPING. SEAL EDGES AND SEAMS TO EXISTING.
- 2. CONNECT EXISTING BRANCH LINES TO INSTALLED WASTE MAIN PIPING IN ALL LOCATIONS. MODIFY BRANCH LINES AS NECESSARY TO PROVIDE REQUIRED PIPE SLOPE.
- WHERE WASTE PIPING IN CRAWLSPACE IS REMOVED AND REPLACED AND CONNECTED TO EXISTING FIXTURES ON 1ST FLOOR, REPLACE PIPING TO EXISTING 1ST FLOOR FIXTURES TO 1ST FITTING BELOW FLOOR. THIS INCLUDES REPLACING THE TRAPS.



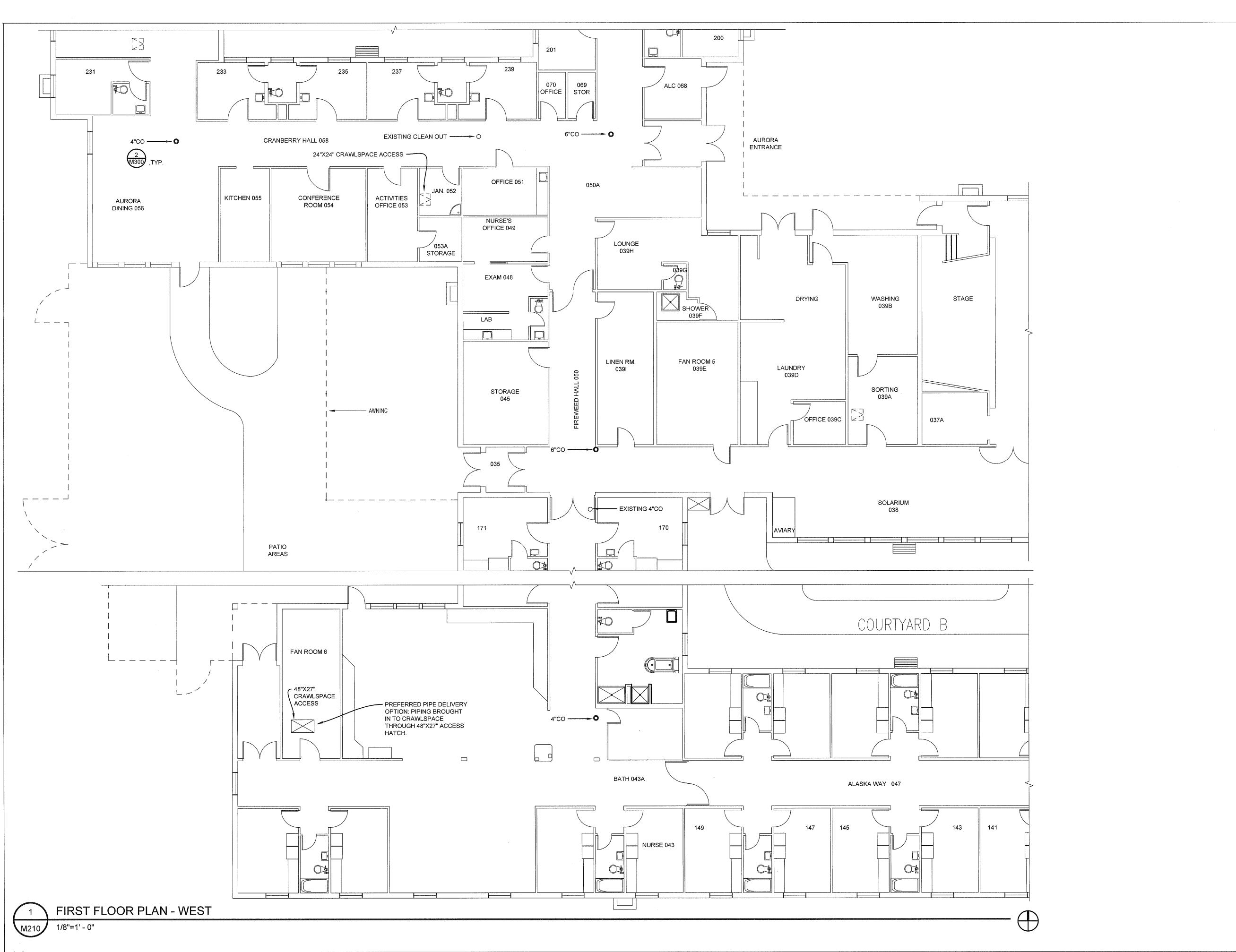
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EAST CRAWLSPACE LARGE SCALE PLUMBING PLAN



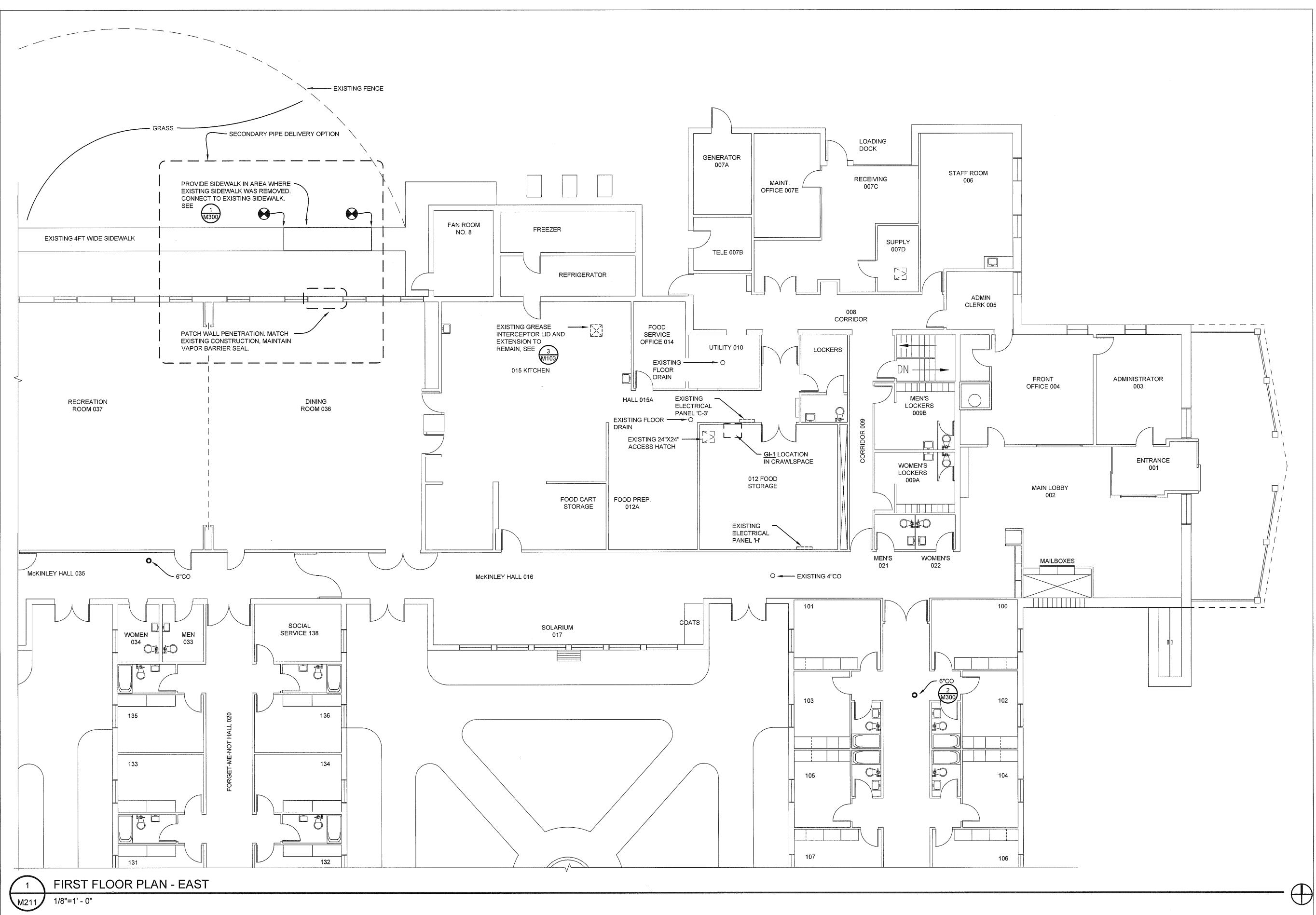
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1ST FLOOR PLAN -WEST

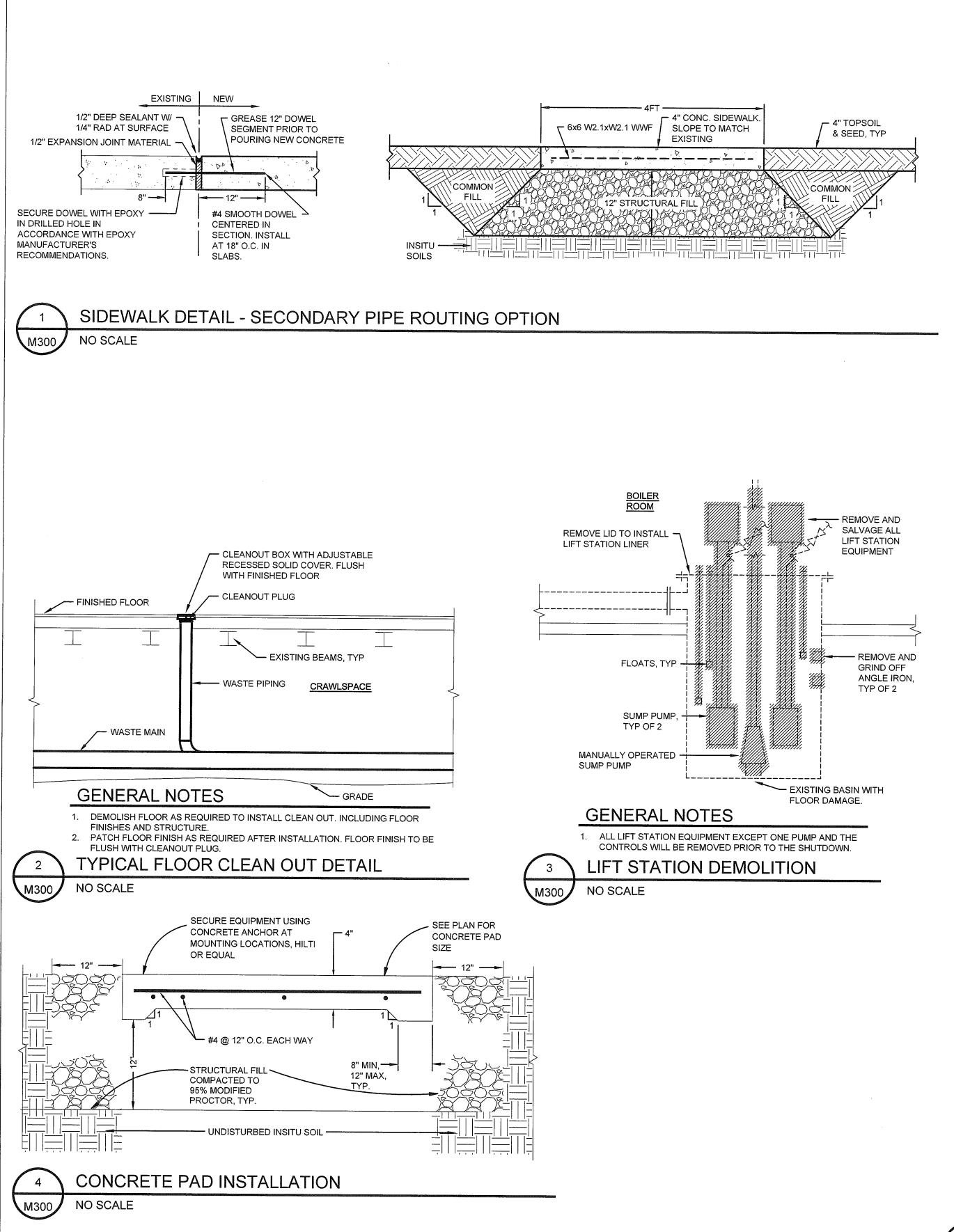


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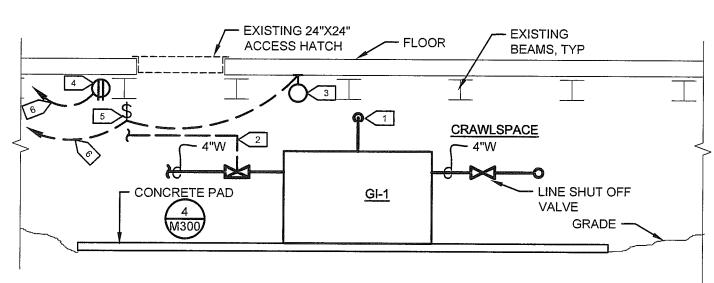


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WASTE
SYSTEMS
UPGRADES

1ST FLOOR PLAN -EAST



FOOD STORAGE 012



SPECIFIC NOTES

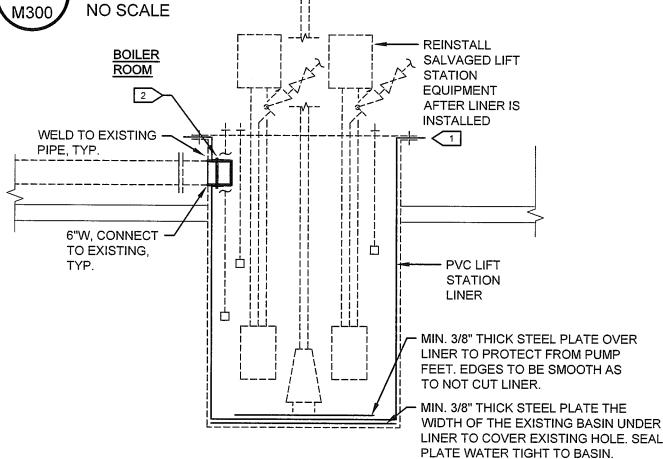
- 1 DRAW OFF HOSE. PROVIDE FITTING TO ALLOW FOR FLEXIBLE HOSE TO BE CONNECTED.
- 1"V. CONNECT TO EXISTING VENT PIPING ABOVE HIGHEST FLOOD RIM OF FIXTURE SERVED BY GI-1. ROUTE VENT PIPING UP WALL IN KITCHEN AREA. FIELD LOCATE EXISTING FIXTURE VENT TO CONNECT TO. COORDINATE WITH OWNER FOR VENT PIPE ROUTING.
- 3 VAPOR TIGHT HARSH ENVIRONMENT UTILITY LIGHT. LITHONIA LIGHT CONCEPTS OVT1501-120, OR EQUAL.
- DUPLEX GFCI RECEPTICLE.
- 5 LIGHT SWITCH LOCATED WITHIN REACH OF ACCESS HATCH.
- 6 CONNECT TO EXISTING PANEL C-3 LOCATED ABOVE WITH 2#12, #12 GND, 3/4" C. PROVIDE 20/1 CIRCUIT BREAKER.

GENERAL NOTES

- PROVIDE UPDATED PANEL SCHEDULE FOR EXISTING PANEL C-3.TRACE AND VERIFY UNKNOWN CIRCUITS AS NEEDED.
- CONTRACTOR MAY USE EXISTING 3/4" CONDUIT PENETRATIONS FROM CRAWL SPACE TO EXISTING PANEL C-3.
 ALL EXISTING LOADS ON EXISTING PANEL C3 WERE CALCULATED AS 80% OF THEIR RESPECTIVE CIRCUIT BREAKER SIZE.
- 4. SEE PLANS FOR PANEL C3 LOCATION.

			EX	ISTING P		C3'				
CKT P	TRIP	LOAD SERVED	LOAD TYPE	LOAD BUS	LOAD (VA)	LOAD TYPE	LOAD SERVED	TRIP	Р	CKT NO.
1 1	20	(N) CRAWLSPACE LIGHT	L	150 A	120	R	(N) CRAWL SPACE RECEPTACLE	20	1	2
3		(E) PREPARED SPACE	S	0 B	0		(E) PREPARED SPACE		<u> </u>	4
5		" "	S	0 C	0	S	27 27			6
7		27 27	S	0 A	0	S	23 23			8
9		" "	S	0 B	0		3)			10
11		" "	S	0 C	0		" "			12
13 1	20	(E) EXHAUST FAN EF-9	M	1,920 A	1,920	С	(E) WIRELESS NURSE CALL TRASNMITTER	20	1	14
15 1		(E) EXHAUST FAN EF-1	M	1,920 B	0		(E) SPARE	20	1	16
17 1		(E) SPARE	S	0 C	0	S	"	20	1	18
19 1	15	" "	S	0 A	2,880	М	(E) WALK IN FREEZER	30	3	20
21 1	15	"	S	0 B	2,880	М	" "			22
23 1	15	"	S	0 C	2,880		37 31			24
25		(E) PREPARED SPACE	S	0 A	1,920	М	(E) AHU-8, FAN ROOM 8	20	3	26
27		3)	S	0 B	1,920	М	33 21			28
29		"	S	0 C	1,920	M	" "			30
31 3	20	(E) WALK IN REFRIGERATOR	M	1,920 A	0		SPARE	20	1	32
33		" "	M	1,920 B	1,920	С	(E) UNKNOWN	20	2	34
35		2) 3)	M	1,920 C	1,920	C	" "		 -	36
37 3	15	(E) KITCH HOOD FAN EF-8	M	1,440 A	2,880	М	(E) WALK IN FREEZER	30	3	38
39		27	M	1,440 B	2,880	Μ	"			40
41			_ M _	1,440 C	2,880		27 27			42
		MPS MLO	PHASE A:	15,150 VA			CONNECTED: 42,990 VA	NOTES	'	d
TYPE:	208Y/	120 V 3 PH, 4 W.	PHASE B:	14,880 VA			AMPS: 119.3 A	(E): E	XISTIN	NG TO
		RMS SYMM. AMPS	PHASE C:	12,960 VA			VOLTAGE: 208 V	RÉMAII	1	
	DER CA	LCULATIONS:	(VA)		TYPE:			(R): R	EVISE	ED
LIGHTING			188 VA	0.5 A L	= LIGHTING	(LOAD	X 125%)	LOAD		
RECEPTAC			120 VA	0.3 A R	= RECEPTA	CLES (N	IEC 220.44)	(N): N	ΕW	
EQUIPMEN			7,200 VA	20.0 A C	= EQUIPMEN	NT (CON	ITINUOUS) X 125%	ČIŔCUI	T BRI	EAKER
	T (NON	I-CONTINUOUS)	O VA	0.0 A E	= EQUIPMEN	NON) TI	I-CONTINUOUS) X 100%			
MOTORS			37,460 VA	104.0 A M	= MOTORS	(LOAD	+ 25% OF LARGEST MOTOR)			
TOTAL DEM			44,968 VA		= FEEDERS	, · · -				
MOUNTI RECESS	NG	SPECIAL REQUIREMENTS:			= SPARE O	R SPAC	E		CATIC	
RECESS	שבט							KI	TCHE	N

GREASE INTERCEPTOR ELEVATION AND ELECTRICAL WORK



GENERAL NOTES

1. RETURN THE LIFT STATION TO SERVICE AFTER ONE PUMP AND ITS ASSOCIATED CONTROLS HAVE BEEN REINSTALLED. THEN REINSTALL THE SECOND PUMP AND THE MANUALLY OPERATED PUMP.

SPECIFIC NOTES

- PVC LIFT STATION LINER TO OVERLAP BASIN WITH FLANGED LIP BETWEEN BASIN EDGE AND LID. PROVIDE BOLTS SIMILAR TO EXISTING. TYPICAL.
- PROVIDE 6" PIPE EXTENSION, WELD TO EXISTING. PROVIDE PREFORMED LIFT STATION LINER THAT WRAPS AROUND PIPE INLET. SECURE WITH PIPE CLAMPS IN ACCORDANCE WITH MANUFACTURER'S INSTALLATION REQUIREMENTS. TYPICAL.

LIFT STATION ELEVATION



NO SCALE

Resign Alaska

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