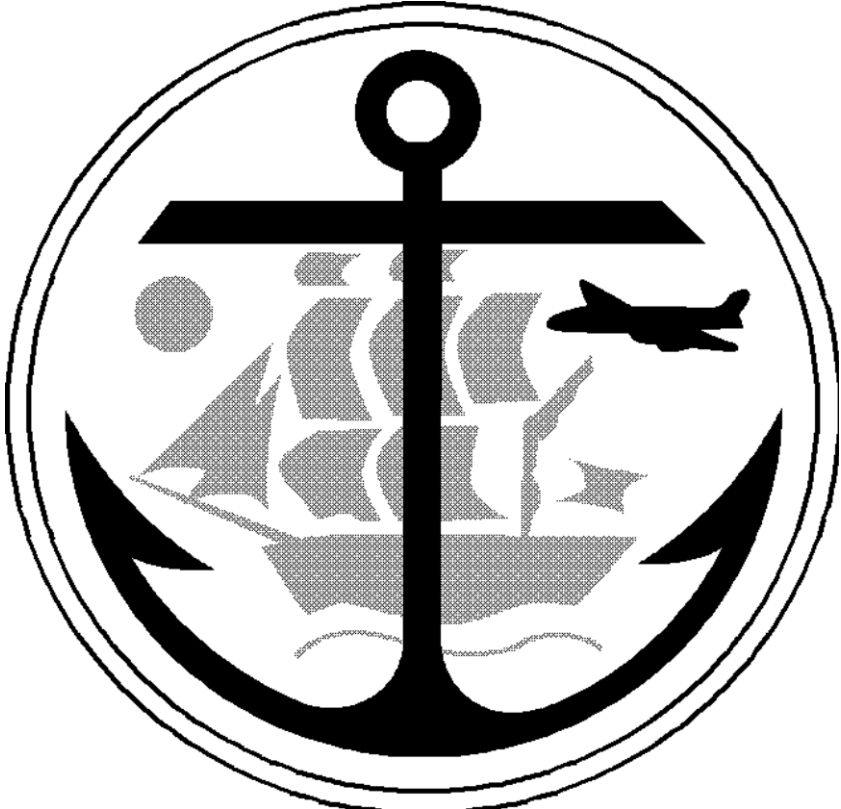


ERWWTF EQ Repairs & Structural Retrofits

INVITATION TO BID NO. 2022C044



**Municipality of Anchorage
Anchorage Water and Wastewater Utility
3000 Arctic Boulevard
Anchorage, AK 99503**



Municipality of Anchorage

Anchorage Water and Wastewater Utility



2022 SEWER IMPROVEMENTS

ERWWTF EARTHQUAKE REPAIRS AND STRUCTURAL RETROFIT



Date: 03/17/2022

These documents were prepared under the supervision of a registered Professional Engineer.



Municipality of Anchorage

Anchorage Water and Wastewater Utility



2022 SEWER IMPROVEMENTS

ERWWTF EARTHQUAKE REPAIRS AND STRUCTURAL RETROFITS

MASTER INDEX

- I. Invitation to Bid
- II. Special Provisions
- III. Technical Specifications
- IV. Submittal List and Standard Forms
- V. Contract and Bid Documents
- VI. Bid Proposal
- VII. Other Utility Requirements (NOT USED)
- VIII. Minimum Rates of Pay
 - A. State of Alaska Wage Rate
 - B. Federal Wages: General Decision Number: AK20220001 10/14/2022
- IX. AWWU Disadvantaged Business Enterprise Program (MBE/WBE) (NOT USED)
- X. EEO Contract Compliance Specifications
- XI. FEMA Funding Requirements
- XII. Record Drawings
- XIII. Soil Boring Logs (NOT USED)
- XIV. Temporary Construction Permits and Easements (NOT USED)
- XV. Permits (NOT USED)
- XVI. Traffic Control Plans (NOT USED)
- XVII. Annotated Site Photos (NOT USED)
- XVIII. Hazardous Materials Survey Report (NOT USED)
- XIX. Maximo Asset Reports (NOT USED)
- XX. Drawings (Under Separate Cover)

The most current version of the Municipality of Anchorage Standard Specifications (M.A.S.S.), 2015 at the time of publishing these contract specifications, is provided on the Municipality website at

http://www.muni.org/departments/project_management/pages/mass.aspx.



Municipality of Anchorage

Anchorage Water and Wastewater Utility



2022 SEWER IMPROVEMENTS

ERWWTF EARTHQUAKE REPAIRS AND STRUCTURAL RETROFITS

Notifications will be sent when updates are made to the document, but each user of M.A.S.S. is responsible to verify that they are using the most current version.



Municipality of Anchorage

Anchorage Water and Wastewater Utility



2022 SEWER IMPROVEMENTS

ERWWTF EARTHQUAKE REPAIRS AND STRUCTURAL RETROFITS

SECTION I

INVITATION TO BID

MUNICIPALITY OF ANCHORAGE

PURCHASING DEPARTMENT

Invitation to Bid

No. 2022C044

Sealed bids will be received in accordance with the time schedule shown below by the Municipality of Anchorage at the Purchasing Department, 632 W. 6th Ave., Suite 520, Anchorage, Alaska 99501 for:

ERWWTF EQ Repairs & Structural Retrofits

The Work that is presented in the Bid Proposal for this Contract consists of these scheduled work elements:

Schedule A:

1. Earthquake Repairs for Building 1 and Building 2.
2. Remove and Replace sections of damaged insulation and wrap. Aeration Building and Building 2.
3. Repair drywall cracks. Building 1 and Building 2.

Schedule B:

1. Structural Retrofits for Building 1, Aeration Building, and Building 2.
2. Install new collector beam and weld, Aeration Building and Building 2

ESTIMATED CONSTRUCTION COST: **Between: \$500,001 - \$1,000,000**

Site Visit: **OCTOBER 25, 2022, AT 10:00 A.M., LOCAL TIME**
15524 Artillery Rd
EAGLE RIVER, AK 99577
MANDATORY

Pre-Bid Conference: **N/A**

Questions Due: **12:00 P.M. Local Time, October 28, 2022**

Bid Opening: **2:00 P.M. Local Time, November 17, 2022**

All Pre-Bid Conferences and/or Bid Openings may be attended in person or via conference call at this number (907) 343-6089. You may call in five (5) minutes before any scheduled conference. EMAILED BIDS WILL NOT BE ACCEPTED.

ALL QUESTIONS SHALL BE SUBMITTED PRIOR TO THE QUESTION DUE DATE THIS WILL BE THE FINAL OPPORTUNITY TO ASK QUESTIONS OR REQUEST CLARIFICATIONS.

Requests for interpretation or clarification of the bidding Documents shall be made in writing to the Purchasing Office (wwwpur@muni.org). Please reference the Invitation to Bid Number & Project Title. Do not contact the specified department directly.

To maintain the project schedule, Interpretations, corrections, or changes to the Bidding Documents shall be made by Addendum and shall not be binding unless included in the Addendum. It is your responsibility to periodically check the website for addenda.

Municipality of Anchorage
ITB: 2022C044

At the above indicated time, the bids will be opened publicly and read. Bids must be received by the Purchasing Officer prior to the time fixed for opening of the bids to be considered. Time of receipt will be as determined by the time stamp in the Purchasing Office, Suite 520.

The Municipality of Anchorage reserves the right to reject any and all bids and to waive any informalities in the bids. No bidder may withdraw his bid after the hour set for the opening of bids or before the award of contract unless said award is delayed for a period exceeding sixty (60) days from the time of the opening.

The Municipality shall not be responsible for bid preparation costs, nor for costs, including attorney fees, associated with any (administrative, judicial or otherwise) challenge to the determination of the lowest responsive and responsible bidder and/or award of contract, and/or rejection of bids. By submitting a bid, each bidder agrees to be bound in this respect and waives all claims to such costs and fees.

Contracts shall be awarded by written notice issued by the Purchasing Officer to the lowest responsive and responsible bidder; however, preference will be given to local bidders in compliance with Anchorage Municipal Code Section 7.20.040.

The Municipality of Anchorage assumes no responsibility for any interpretations or presentations made by any of its officers or agents unless such interpretations or presentations are made by written addendum to this Invitation to Bid.

Bonding Requirements are per MASS/MASS B or as per special provisions

THE MUNICIPALITY OF ANCHORAGE IS AN “EQUAL OPPORTUNITY EMPLOYER”

PUBLISH ONE TIME

Date: October 17, 2022

Senior Buyer Assigned to this Project:
Melanie A Clark



Chris Hunter
Deputy Purchasing Director



Municipality of Anchorage

Anchorage Water and Wastewater Utility



2022 SEWER IMPROVEMENTS

ERWWTF EARTHQUAKE REPAIRS AND STRUCTURAL

RETROFITS

SECTION II

SPECIAL PROVISIONS



Municipality of Anchorage

Anchorage Water and Wastewater Utility



2022 SEWER IMPROVEMENTS

ERWWTF EARTHQUAKE REPAIRS AND STRUCTURAL RETROFITS

INDEX TO THE SPECIAL PROVISIONS

General Provisions	1
General Statement and Extent of Work	1
Specifications, Codes, Ordinances, and Standards	1
Changes to the Municipality of Anchorage Standard Specifications (MASS).....	2
Division 10 Standard General Provisions.....	3
Section 10.01 Definitions	3
Section 10.04 Scope of Work.....	3
Section 10.05 Control of Work	5
Section 10.06 Legal Relations and Responsibilities.....	7
Section 10.07 Measurement and Payment	7
Section 10.08 Forms	10
Division 20 Earthwork (NOT USED)	11pg8
Section 20.01 General	11
Division 30 Portland Cement Concrete (NOT USED)	12
Section 30.01 General	12
Division 40 Asphalt Surfacing (NOT USED)	13
Section 40.01 General	13
Division 50 Sanitary Sewers (NOT USED)	14
Section 50.01 General	14
Division 55 Storm Drain Systems (NOT USED).....	15
Section 55.01 General	15
Division 60 Water Systems (NOT USED)	16
Section 60.01 General	16
Division 65 Municipal Construction Surveys (NOT USED)	17
Section 65.01 General	17
Division 70 Miscellaneous (NOT USED).....	18
Section 70.01 General	18
Division 75 Landscaping Improvements (NOT USED).....	19
Section 75.01 General	19
Division 80 Traffic Signals and Illumination (NOT USED).....	20
Section 80.01 General	20

GENERAL PROVISIONS

GENERAL STATEMENT AND EXTENT OF WORK

All proposed Work for the ERWWTF Earthquake Repairs and Structural Retrofits Project is located in Eagle River, Alaska, as shown on the Drawings. The Work included in this Contract consists of furnishing all labor, equipment, materials, supervision, and other facilities necessary to complete the Work set forth in the Plans, and Specifications, and terms of the Contract successfully.

The Work that is presented in the Bid Proposal for this Contract consists of these scheduled work elements:

Schedule A:

1. Earthquake Repairs for Building 1 and Building 2.
2. Remove and Replace sections of damaged insulation and wrap. Aeration Building and Building 2.
3. Repair drywall cracks. Building 1 and Building 2.

Schedule B:

1. Structural Retrofits for Building 1, Aeration Building, and Building 2.
2. Install new collector beam and weld, Aeration Building and Building 2

Work of each schedule includes but is not limited to: temporary removal of treatment unit process(es) from service (shutdowns); setup and removal of temporary access lifts, ladders, and/or scaffolding; collection of field data, selective demolition; temporary removal and replacement of building elements, furnish and/or fabricate and install new structural and building systems elements, furnish and install coating systems, restore unit process(es) back into service, and restoration of all affected elements and/or systems.

It shall be the responsibility of the bidder to prepare the bid so that all materials and working arrangements harmoniously conform to the intent of the Contract Specifications and Special Provisions.

SPECIFICATIONS, CODES, ORDINANCES, AND STANDARDS

The Contractor shall perform all Work in accordance with the Contract Documents, which include the most current edition of the **Municipality of Anchorage Standard Specifications 2015**, at the time of publishing of these contract specifications (hereinafter referred to as M.A.S.S.), and herein revised and supplemented as the Special Provisions.

The Contractor shall perform all Work in accordance with the latest edition of all applicable codes, ordinances, standards, and associated addenda including the AWWU Design and Construction Practices Manual (hereinafter referred to as D.C.P.M.).

In addition, the Contractor shall perform work in accordance with FEMA Required Contract Provisions for Federal-Aid Contracts (hereinafter referred to as FEMA

Provisions) attached in Section XI. In the event of a conflict between M.A.S.S. or the Special Provisions and the FEMA Provisions, the FEMA Provisions prevail.

The M.A.S.S. and D.C.P.M. are available for download at the following links:

M.A.S.S.

http://www.muni.org/departments/project_management/pages/mass.aspx

D.C.P.M.

<https://www.awwu.biz/about-us/reliable-infrastructure/design-and-construction-practices-manual>

CHANGES TO THE MUNICIPALITY OF ANCHORAGE STANDARD SPECIFICATIONS (MASS)

The following enumerated provisions of MASS are amended as hereinafter stated.

DIVISION 10 STANDARD GENERAL PROVISIONS

SECTION 10.01 DEFINITIONS

Add the following item to the list of definitions:

Record Drawings – Detailed drawings that accurately depict all changes in location (both horizontal and vertical), material, equipment, and other elements of Work accomplished by the Contractor. The drawings shall also depict the horizontal and vertical locations of all other utilities and obstructions encountered during construction. Final elevations and locations shall be clearly marked with actual dimensions.

Wherever referenced in MASS or this document, the following definitions are changed as follows:

Owner – For the purposes of this contract, the Owner is AWWU. Owner shall include AWWU employees and its designated representatives.

Purchasing Officer – Municipality of Anchorage Purchasing Manager.

Substantial Completion – The time at which the WORK (or specified part thereof) has progressed to the point where 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.

SECTION 10.04 SCOPE OF WORK

Article 4.8 Work Incidental to the Contract

Delete the numbered item thirteen and replace with the following:

13. Securing, permitting, maintaining, and restoring a stockpile/materials staging area as necessary to complete the Work.
14. Incidental work of MASS Divisions 20 through 80, excepting those NOT USED.
15. Other items indicated on the Drawings or in these Specifications, but not specifically listed as a bid item in these Contract Documents.

Article 4.17 Utilities

Add the following sentence to the end of the seventh paragraph:

Utility locates are the responsibility of the Contractor to request, coordinate with the Work, maintain, and protect.

Replace the list of Utility Companies in Article 4.17 with the following:

Alaska Communications (ACS) - Larry Smith, 564-1812

Anchorage Water & Wastewater Utility (AWWU) – Joe Sanks, 564-2717

AT&T – Mike Barsalou 264-7325

Chugach Electric Association (CEA) – Gary Meadows, 242-2191

ENSTAR Natural Gas - Stan Staples, 334-7777

GCI Cable – David Blehm, 868-6769

Municipal Light & Power (ML&P) – Victor Willis, 263-5812

Solid Waste Services (SWS) – Evalu Filitaula, 343-6258 or 317-6863

Alaska Waste – Josh James, 688-4446

Add the following new Article:

Article 4.22 Responsibility of Contractor to Act in Emergency

In case of an emergency that threatens loss and/or injury of property and/or safety of life, the Contractor shall act, without previous instructions from the Engineer, as the situation may warrant. The Contractor shall notify the Engineer thereof immediately thereafter. Any claim for compensation by the Contractor, together with substantiating documents in regard to expense, shall be submitted to the Owner through the Engineer. The amount of compensation shall be determined by agreement.

The Contractor shall supply the Engineer, prior to commencement of Work, with an emergency telephone number through which a responsible Contractor's representative can be contacted on a twenty-four (24) hour a day basis.

Article 4.23 Daily Progress Reports

The Contractor shall submit daily progress reports to the Owner. The reports for the current workweek shall be submitted no later than the following Monday by 12:00 p.m. The development, preparation, and presentation of all daily progress reports are incidental to the Contract and no separate payment shall be made. Each daily report shall include:

1. Names and hours worked for all personnel on site, including personnel for all subcontractors.
2. Construction equipment on hand, including utility vehicles such as pickup trucks, maintenance vehicles, etc.
3. Documentation of weather conditions and any resulting impacts to the Work.
4. General progress of the Work, including a list of activities started and completed, mobilization and demobilization of subcontractors, and major milestones achieved.
5. Contractor's plan for management of site (e.g., lay down and staging areas, construction traffic, etc.), utilization of construction equipment, buildup of trade labor, and identification of potential Contract changes.
6. Identification of new activities and sequences as a result of executed Contract changes (if any).
7. Description of actual or potential delays, including related causes, and the steps taken or anticipated to mitigate their impact.
8. Changes to activity logic.

9. Changes to the critical path.
10. Identification of, and accompanying reason for, any activities added or deleted since the last report.
11. Steps taken to recover the schedule from Contractor caused delays.

SECTION 10.05 CONTROL OF WORK

Article 5.3 Construction Progress Schedule and Schedule of Values

Add the following paragraphs after the second paragraph:

The Contractor shall also deliver, at the same time as the Construction Progress Schedule, in a form satisfactory to the Owner, a Schedule of Values detailing the costs of providing all labor, equipment, supplies, transportation, handling, and disposal in connection with the removal of system plant infrastructure as listed in the table below.

Plant system category	Plant system subcategory
Wastewater treatment and disposal plant	<ul style="list-style-type: none"> • Treatment structures and improvements • Treatment and disposal equipment
General plant	<ul style="list-style-type: none"> • Structures and improvements

Work items not listed in a subcategory shall be incidental to the subcategory item.

A. Schedule of values format and content:

1. Arrange the schedule of values in tabular form with separate columns to indicate the following for each item listed:
 - a. Related specification section or division.
 - b. Description of Work.
 - c. Name of subcontractor.
 - d. Name of manufacturer or fabricator.
 - e. Name of supplier.
 - f. Change orders (numbers) that affect value.
 - g. Dollar value (percentage of contract sum to nearest percent, adjusted to total 100 percent).
2. Provide a breakdown of the contract sum in sufficient detail to facilitate continued evaluation of applications for payment and progress reports. Coordinate with the project manual table of contents. Break principal subcontract amounts down into several line items.
3. Round amounts to nearest whole dollar. The total shall equal the contract sum.
4. Provide a separate line item in the schedule of values for each part of the Work where applications for payment may include materials or equipment, purchased or fabricated and stored, but not yet installed.

- a. Differentiate between items stored on-site and items stored off-site. Include requirements for insurance and bonded warehousing, if required.
5. Provide separate line items on the schedule of values for initial cost of the materials, for each subsequent stage of completion, and for total installed value of that part of the Work.
6. Margins of cost: Show line items for indirect costs and margins on actual costs only when such items are listed individually in applications for payment. Each item in the schedule of values and applications for payment shall be complete. Include the total cost and proportionate share of general overhead and profit margin for each item.
 - a. Temporary facilities and other major cost items that are not direct cost of actual work-in-place may be either shown as separate line items in the schedule of values or distributed as general overhead expense, at the Contractor's option.
7. Schedule updating: Update and resubmit the schedule of values prior to the next applications for payment when Change Orders or construction change directives result in a change in the contract sum.
8. See additional requirements in Section 01 20 00 PRICE AND PAYMENT PROCEDURES and Section 01 32 00 CONSTRUCTION PROGRESS DOCUMENTATION.

Article 5.4 Non-Working Hours, Holidays, Saturdays, and Sundays

Add the following sentence to the end of the last paragraph:

A standard workday is a ten (10) hour workday (excluding meal times) within the timeframe of no earlier than 7:00 a.m. and no later than 7:00 p.m.

Article 5.5 Shop Drawings

Add the following sentence to the end of the last paragraph:

Reference Section 01 33 00 – Submittal Procedures of the Technical Specifications for additional requirements.

Article 5.6 Product Data

Add the following sentence to the end of the last paragraph:

Reference Section 01 33 00 – Submittal Procedures of the Technical Specifications for additional requirements.

Article 5.22 Time for Completion of Work

Add the following sentences to the end of the first paragraph:

The Contractor shall achieve Substantial Completion of the work under this Contract within three hundred and sixty (360) calendar days of the effective date of the "Notice to Proceed".

The Contractor shall complete all work under this Contract within four hundred and twenty (420) calendar days of the effective date of the "Notice to Proceed".

Article 5.27 Liquidated Damages

Delete the first two sentences of the first paragraph and replace with the following:

The Owner may deduct out of any progress payment the sum of Five Hundred Dollars (\$500.00) per day as Liquidated Damages for each and every calendar day that the Substantial Completion Date is delayed beyond the Substantial Completion Date specified in Article 5.22, Time for Completion of Work. The Owner may deduct out of any progress payment the sum of Two Hundred Fifty Dollars (\$250.00) per day as Liquidated Damages for each and every calendar day that the Final Acceptance Date is delayed beyond the Contract Completion Date.

SECTION 10.06 LEGAL RELATIONS AND RESPONSIBILITIES

Article 6.6 Permits

Add the following sentence to the end of the sixth paragraph:

The Contractor shall identify the “Anchorage Water and Wastewater Utility” as the applicant on any permit application forms.

Article 6.9 Insurance

Remove and replace the fifth sentence of the first paragraph with the following:

The insurance company must provide written notification to the MOA contract administrator of any material change, cancellation, or non-renewal of the insurance policies. If the insurer does not notify the MOA in these circumstances, it will be the contractor’s responsibility to make that notification.

SECTION 10.07 MEASUREMENT AND PAYMENT

Article 7.5 Progress Payments

Add the following paragraphs after the second paragraph:

A. Applications for payment

1. Each application for payment shall be consistent with previous applications and payments as certified by the Owner’s representative and paid for by the Owner.
 - a. The initial application for payment, the application for payment at time of Substantial Completion, and the final application for payment involve additional requirements.
2. Application preparation: Complete every entry on the form. Include notarization and execution by a person authorized to sign legal documents on behalf of the Contractor.
 - a. Entries shall match data on the schedule of values and the Contractor's construction schedule. Use updated schedules if revisions were made.
 - b. Include amounts of Change Orders and construction change directives issued prior to the last day of the construction period covered by the application.
3. Transmittal: Submit one (1) signed and notarized original copy of each application for payment to the Owner’s representative by a method ensuring

- receipt within twenty-four (24) hours. One copy shall be complete, including OEO reports and similar attachments, when required.
- a. Transmit each copy with a transmittal form listing attachments and recording appropriate information related to the application, in a manner acceptable to the Engineer.
4. Initial application for payment: Administrative actions and submittals, that must precede or coincide with submittal of the first application for payment, include the following:
- a. List of subcontractors.
 - b. List of principal suppliers and fabricators.
 - c. Schedule of values.
 - d. Contractor's construction schedule (preliminary if not final).
 - e. Schedule of principal products.
 - f. Schedule of unit prices.
 - g. Submittal schedule (preliminary if not final).
 - h. List of Contractor's staff assignments.
 - i. List of Contractor's principal consultants.
 - j. Copies of permits.
 - k. Initial progress report.
5. Application for payment at substantial completion: Submit an application for payment following issuance of substantial completion.
- a. This application shall reflect certificates of partial substantial completion issued previously for Owner occupancy of designated portions of the Work.
 - b. Administrative actions and submittals that shall precede or coincide with this application include:
 - i. Occupancy permits and similar approvals.
 - ii. Warranties (guarantees) and maintenance agreements.
 - iii. Maintenance instructions.
 - iv. Changeover information related to Owner's occupancy, use, operation, and maintenance.
 - v. Final cleaning.
 - vi. List of incomplete Work, recognized as exceptions to Engineer's issuance of substantial completion.

Contractor shall submit, with the first application for payment, a copy of the Notice of Work executed by the State Department of Labor, Wage & Hour Administration. Failure to submit a copy of this form with the first application for payment will result in the withholding

of \$5,000 from the progress payment. Additionally, a filing may be issued to the Wage & Hour Administration for failure to provide such notice.

Add the following to the list of Withholdings, in the fourth paragraph (insert the new numbered items six through eight and renumber the previous six through eight as nine through eleven):

6. Failure to submit the detailed Schedule of Values consisting of several elements as required. (The Engineer cannot pay on any of the items specified to be broken down until the breakdown is received and accepted).
7. A maximum of \$5,000 for failure to provide a Notice of Work and/or a Notice of Completion as required by Alaska Statute 36.05.045. For final payments, the difference between \$5,000 and the actual amount paid for the Notice of Work filing shall be withheld until such time as the Contractor provides a copy of the Notice of Completion executed by the Wage & Hour Administration to the Engineer.
8. The value of items missing by the contract documents. Examples include, but are not limited to, record drawings; operations and maintenance manuals; Department of Labor Notice of Work and/or Notice of Completion, ADEC Notice of Completion form, or other items as listed in the schedule of values or elsewhere required in the contract documents.

Add the following sentence to the end of the list of withholdings:

Monies withheld under Article 7.5 - Progress Payments, shall be paid to the Contractor by subsequent pay estimates that follow the date on which the Contractor satisfactorily corrects the deficiencies causing the withholding.

Delete the fifth paragraph and replace with the following:

The amount of any withholding for items one (1) through eight (8) above shall be the reasonable value of the Work or remedy to be accomplished as estimated by the Engineer, without regard to bid amount or cost to the Contractor. The amount of withholding for items nine (9) through eleven (11) shall be in accordance with the claimed amount or the applicable Contract provisions.

Add the following paragraph to the end of the Article:

The monthly pay estimate shall be computed on the basis of Work completed. All quantities shall be subject to review by the Engineer prior to approval for payment. Monthly price allocation for payment of lump sum items shall be based on the approved construction progress schedule and schedule of values.

Article 7.7 Final Payment

Add the following paragraphs after the first paragraph:

Additional administrative actions and submittals that must precede or coincide with submittal of the final application for payment include the following:

1. Evidence of completion of project closeout requirements.
2. Completion of items specified for completion after substantial completion and all applicable punchlist(s) from the Engineer.
3. Proof that incomplete Work has been completed and accepted by the Owner.

4. Transmittal of required project construction records to the Owner's representative.
5. Removal of temporary facilities and services, surplus materials, rubbish, and similar elements.
6. Change of door and gate locks to Owner.
7. Approved redlines for record drawings.

Article 7.8 Correction of Work after Final Acceptance Date

Delete the first sentence of the first paragraph and replace with the following:

Placement of the Project on warranty shall not relieve the Contractor of his responsibility for paying all costs resulting from defects in materials or workmanship supplied under the terms of the Contract, and for correction of those defects, for a period of two (2) years following the Final Acceptance Date.

SECTION 10.08 FORMS

Delete this Section. All forms required for this Project are provided in Section IV of the Contract Documents.

DIVISION 20 EARTHWORK (NOT USED)

SECTION 20.01 GENERAL

Add the following Article to the end of this Section

Article 1.10 Measurement and Payment

No measurement for payment will be made for Work in this Division: Delete all references to measurement for payment in Division 20. All work shall be incidental to the Lump Sum items included in the Contract Bid Schedule.

No separate payment will be made for Work in this Division: Delete all references to payment and pay items in Division 20. All work shall be incidental to the Lump Sum items included in the Contract Bid Schedule.

DIVISION 30 PORTLAND CEMENT CONCRETE (NOT USED)

SECTION 30.01 GENERAL

Add the following Article to the end of this Section

Article 1.12 Measurement and Payment

No measurement for payment will be made for Work in this Division: Delete all references to measurement for payment in Division 30. All work shall be incidental to the Lump Sum items included in the Contract Bid Schedule.

No separate payment will be made for Work in this Division: Delete all references to payment and pay items in Division 30. All work shall be incidental to the Lump Sum items included in the Contract Bid Schedule.

DIVISION 40 ASPHALT SURFACING (NOT USED)

SECTION 40.01 GENERAL

Add the following Article to the end of this Section

Article 1.7 Measurement and Payment

No measurement for payment will be made for Work in this Division: Delete all references to measurement for payment in Division 40. All work shall be incidental to the Lump Sum items included in the Contract Bid Schedule.

No separate payment will be made for Work in this Division: Delete all references to payment and pay items in Division 40. All work shall be incidental to the Lump Sum items included in the Contract Bid Schedule.

DIVISION 50 SANITARY SEWERS (NOT USED)

SECTION 50.01 GENERAL

Add the following Article to the end of this Section

Article 1.7 Measurement and Payment

No measurement for payment will be made for Work in this Division: Delete all references to measurement for payment in Division 50. All work shall be incidental to the Lump Sum items included in the Contract Bid Schedule.

No separate payment will be made for Work in this Division: Delete all references to payment and pay items in Division 50. All work shall be incidental to the Lump Sum items included in the Contract Bid Schedule.

DIVISION 55 STORM DRAIN SYSTEMS (NOT USED)

SECTION 55.01 GENERAL

Add the following Article to the end of this Section

Article 1.6 Measurement and Payment

No measurement for payment will be made for Work in this Division: Delete all references to measurement for payment in Division 55. All work shall be incidental to the Lump Sum items included in the Contract Bid Schedule.

No separate payment will be made for Work in this Division: Delete all references to payment and pay items in Division 55. All work shall be incidental to the Lump Sum items included in the Contract Bid Schedule.

DIVISION 60 WATER SYSTEMS (NOT USED)

SECTION 60.01 GENERAL

Add the following Article to the end of this Section

Article 1.6 Measurement and Payment

No measurement for payment will be made for Work in this Division: Delete all references to measurement for payment in Division 60. All work shall be incidental to the Lump Sum items included in the Contract Bid Schedule.

No separate payment will be made for Work in this Division: Delete all references to payment and pay items in Division 60. All work shall be incidental to the Lump Sum items included in the Contract Bid Schedule.

DIVISION 65 MUNICIPAL CONSTRUCTION SURVEYS (NOT USED)

SECTION 65.01 GENERAL

Add the following Article to the end of this Section

Article 1.3 Measurement and Payment

No measurement for payment will be made for Work in this Division: Delete all references to measurement for payment in Division 65. All work shall be incidental to the Lump Sum items included in the Contract Bid Schedule.

No separate payment will be made for Work in this Division: Delete all references to payment and pay items in Division 65. All work shall be incidental to the Lump Sum items included in the Contract Bid Schedule.

DIVISION 70 MISCELLANEOUS (NOT USED)

SECTION 70.01 GENERAL

Add the following Article to the end of this Section

Article 1.3 Measurement and Payment

No measurement for payment will be made for Work in this Division: Delete all references to measurement for payment in Division 70. All work shall be incidental to the Lump Sum items included in the Contract Bid Schedule.

No separate payment will be made for Work in this Division: Delete all references to payment and pay items in Division 70. All work shall be incidental to the Lump Sum items included in the Contract Bid Schedule.

DIVISION 75 LANDSCAPING IMPROVEMENTS (NOT USED)

SECTION 75.01 GENERAL

Add the following Article to the end of this Section

Article 1.4 Measurement and Payment

No measurement for payment will be made for Work in this Division: Delete all references to measurement for payment in Division 75. All work shall be incidental to the Lump Sum items included in the Contract Bid Schedule.

No separate payment will be made for Work in this Division: Delete all references to payment and pay items in Division 75. All work shall be incidental to the Lump Sum items included in the Contract Bid Schedule.

DIVISION 80 TRAFFIC SIGNALS AND ILLUMINATION (NOT USED)

SECTION 80.01 GENERAL

Add the following Article to the end of this Section

Article 1.12 Measurement and Payment

No measurement for payment will be made for Work in this Division: Delete all references to measurement for payment in Division 80. All work shall be incidental to the Lump Sum items included in the Contract Bid Schedule.

END OF SPECIAL PROVISIONS



Municipality of Anchorage

Anchorage Water and Wastewater Utility



2022 SEWER IMPROVEMENTS

ERWWTF EARTHQUAKE REPAIRS AND STRUCTURAL

RETROFITS

SECTION III

TECHNICAL SPECIFICATIONS



Municipality of Anchorage

Anchorage Water and Wastewater Utility



2022 SEWER IMPROVEMENTS

ERWWTF EARTHQUAKE REPAIRS AND STRUCTURAL RETROFITS

INDEX TO TECHNICAL SPECIFICATIONS

SPECIFICATIONS GROUP

GENERAL REQUIREMENTS SUBGROUP

Division 01 – General Requirements

01 10 00	Summary of Work	1 - 4
01 14 00	Project Constraints	1 - 17
01 20 00	Price and Payment Procedures	1 - 5
01 31 00	Project Management and Coordination	1 - 6
01 32 00	Construction Progress Documentation	1 - 7
01 33 00	Submittal Procedures	1 - 6
01 52 00	Construction Facilities	1 - 5
01 78 00	Contract Closeout	1 - 2

FACILITY CONSTRUCTION SUBGROUP

Division 02 – Existing Conditions

02 41 19	Selective Demolition	1 - 4
----------	----------------------	-------

Division 07 – Thermal and Moisture Protection

07 81 00	Applied Fire Resistive Materials	1 - 13
----------	----------------------------------	--------

Division 09 – Finishes

09 51 00	Suspended Acoustical Ceilings	1 - 4
09 97 00	Special Coatings	1 - 14

SECTION 01 10 00
SUMMARY OF WORK

PART 1 GENERAL

1.1 OVERVIEW

- A. The Project is the Eagle River WWTF Earthquake Repairs and Structural Retrofits.
- B. The Work to be performed under this Contract consists generally of repairs of earthquake damage resulting from the November 30, 2018 earthquake, and upgrades to infrastructure that will improve seismic resiliency.
- C. The Work is to be completed at the Eagle River Wastewater Treatment Facility (ERWWTF) located at 15524 Artillery Road, Eagle River, Alaska 99577.
- D. When these Technical Specifications reference General Requirements or General Conditions, that refers to the requirements of Division 01 of the Technical Specifications. Where reference is made to General Provisions or Special Provisions, that refers to the MASS Division 10.00.

1.2 RELATED SECTIONS

- A. Municipality of Anchorage Standard Specifications (MASS), Special Provisions
- B. Division 01 – General Requirements; and all Technical Specifications
- C. Division 02 through Division 46

1.3 GENERAL

- A. Specifications and Drawings in these Contract Documents establish the performance, quality requirements, location, and general arrangement of materials and equipment, and establish the minimum standards for quality of workmanship and appearance.
- B. Work shown on the Drawings is intended to be depictive and may not be an exact and complete representation of the actual finished Work. Include fasteners, supports, hardware, and other appurtenances and accessories to provide complete and functioning systems.
- C. Under this contract, the CONTRACTOR will supply all labor, tools, equipment, materials, supplies, and manufactured articles, transportation, and services, including fuel, power, and essential communications, for performing all Work or other operations required for the fulfillment of the Contract in accordance with the Contract Documents.

1.4 SUMMARY OF WORK

- A. This section generally describes the project and the Work to be performed under this Contract. Detailed requirements and the full extent of the Work are described in applicable specification sections and shown on the Drawings.

- B. **Schedule A. Earthquake Repairs.** The Work of the Schedule A will be completed as LUMP SUM PRICE and UNIT PRICE Work that includes but is not limited to the following:
1. LUMP SUM PRICE
 - a. Building 1
 - 1) Demolish existing rod cross bracing at building braced frames. Furnish and install new replacement rod cross bracing.
 - 2) Demolish pipe supports damaged in primary clarifier area. Furnish and install new replacement pipe supports.
 - 3) Demolish damaged Concrete Masonry Units (CMUs) in wall at steel brace penetration. Furnish and install new replacement CMUs.
 - 4) Apply coating systems to new infrastructure and new CMUs at wall section to match existing.
 - 5) Repair floor slab in walkway that connects Building 1 to Building 4.
 - b. Building 2
 - 1) Demolish broken roof-to-wall clips at interior Mezzanine. Furnish and install new replacement roof to wall clips. Restore wall assembly at repair locations with framing and new gypsum wallboard.
 - 2) Demolish damaged seismically braced pipe supports. Furnish and install new replacement seismically braced pipe supports.
 - 3) Repair construction joint in aeration basins.
 - 4) Apply coating systems to new gypsum wallboard section and infrastructure to match existing.
 - 5) Replace damaged and missing insulation and wrap on 2-inch W1 pipeline.
 2. UNIT PRICE
 - a. Remove and Replace sections of insulation and wrap damaged by chaffing of the pipe supports on the 6-inch W3 pipeline in the Aeration Building and Building 2.
 - b. Repair drywall cracks on walls. Building 1 and Building 2.

- C. **Schedule B. Structural Retrofits.** The Work of the Schedule B will be completed for a LUMP SUM PRICE that includes but is not limited to the following:
1. LUMP SUM PRICE
 - a. Building 1
 - 1) Demolish diagonal rod bracing at roof. Furnish and install new diagonal rod bracing at roof.
 - 2) Add blocking between existing roof purlins.
 - 3) Add collector beams between existing building frames
 - 4) Replace seismic bracing of suspended ceiling tiles in Admin Area
 - 5) Replace seismic bracing of cable tray in Storage Area.
 - 6) Apply coating systems to new infrastructure and existing infrastructure to match existing.
 - b. Building 2
 - 1) Retrofit of existing connection between braced frame gusset plate and flange plate of Pre-Engineered Metal Building (PEMB) frame
 - 2) Demolish diagonal rod bracing at roof. Furnish and install new diagonal rod bracing at roof.
 - 3) Add blocking between existing roof purlins.
 - 4) Add collector beams between existing building frames.
 - 5) Apply coating systems to new infrastructure and existing infrastructure to match existing.
 - c. Aeration Building
 - 1) Retrofit of existing connection between braced frame gusset plate and flange plate of Pre-Engineered Metal Building (PEMB) frame.
 - 2) Demolish diagonal rod bracing at roof. Furnish and install new diagonal rod bracing at roof.
 - 3) Add blocking between existing roof purlins.
 - 4) Add collector beams between existing building frames.
 - 5) Apply coating systems to new infrastructure and existing infrastructure to match existing.
 2. UNIT PRICE
 - a. Install new collector beams including welds in the Aeration Building and Building 2.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION

3.1 REQUIREMENTS FOR SUBSTANTIAL COMPLETION

- A. See Section 01 14 00 PROJECT CONSTRAINTS, paragraph 1.6 for these requirements.

END OF SECTION

SECTION 01 14 00
PROJECT CONSTRAINTS

PART 1 GENERAL

1.1 WORK INCLUDED

- A. CONTRACTOR shall furnish a Narrative Work Plan that describes the CONTRACTOR's phasing, and sequence of demolition and construction activities in the various areas at the Eagle River Wastewater Treatment Facility (ERWWTF). The Narrative Work Plan must identify those activities that may be performed concurrently and those that must be deferred or delayed until completion of other activities. The Narrative Work Plan must complement the CONTRACTOR's schedule, to be developed in accordance with Section 01 32 00 CONSTRUCTION PROGRESS DOCUMENTATION.
- B. The Narrative Work Plan must also discuss equipment the CONTRACTOR will use to support prosecution of the work, including access, means and methods for removing the materials to be demolished, and collaboration with plant operations. It must consider equipment dimensions and weights, proposed lifting methods, mitigation of damage to other building components and equipment.
- C. A purpose of the Narrative Work Plan is to identify physical and scheduling constraints in the work beyond what is suggested or identified in these Technical Specifications and drawings.

1.2 RELATED SECTIONS

- A. MASS Standard Construction Specifications, Division 10 – General Provisions, Section 10.05 Control of Work, Article 5.3 Construction Progress Schedule and Schedule of Values.
- B. Division 01 – General Requirements
- C. Section 01 31 00 – Project Management and Coordination
- D. Section 01 32 00 – Construction Progress Documentation

1.3 PROJECT CONSTRAINTS

- A. The Work is to be executed in the sequential phases identified in this specification.
- B. The initiation of Work will be allowed only after CONTRACTOR's submission and OWNER's review and approval of both the detailed construction schedule and the CONTRACTOR's Narrative Work Plan, as well as CONTRACTOR's submittal and OWNER's approval of the Confined Space Entry Plan per 01 31 00 PROJECT MANAGEMENT AND COORDINATION, paragraph 1.12.B.
- C. Demolition Work should be scheduled to end with the arrival of the materials and the equipment planned for installation.
- D. The intent of the sequence of activities is the orderly progression of the Work with a minimization of temporary facilities, the completion of activities in a logical fashion that eliminates rework, coordination of all new installations to complete the overall project within the time frame outlined in the Contract Documents.

- E. To complete this work, the CONTRACTOR will need to have one or more unit processes temporarily removed from service. In anticipation of these interruptions in normal treatment plant operations, CONTRACTOR shall coordinate with OWNER for needed plant lockout and returning plant to service. OWNER will lead in these activities with CONTRACTOR's participation and assistance.
- F. The existing treatment facility is to be maintained in continuous operation during construction of the Project, except for limited shutdowns of portions of the unit processes as described herein, and per requirements of Section 01 31 00 PROJECT MANAGEMENT AND COORDINATION. To this end, the CONTRACTOR shall establish a schedule of proposed shutdowns in cooperation with the OWNER and the plant operating staff, to minimize shutdown times through advanced planning. CONTRACTOR shall have all equipment, materials, and labor on hand at time of any planned shutdown. Work shall not proceed prior to the approval of associated submittals. Scheduled shutdown activity shall be included in the overall Project Schedule. The Project Schedule is to be updated and maintained as specified in Section 01 32 00 CONSTRUCTION PROGRESS DOCUMENTATION.
- G. The existing wastewater treatment facilities where CONTRACTOR's work is to be done will be occupied by the OWNER throughout the construction period. The CONTRACTOR shall provide all necessary access to treatment facilities and process control equipment by the OWNER'S plant operating staff as required to safely and efficiently operate/maintain the facilities. Additionally, the CONTRACTOR is to provide for unimpeded access for all delivery vehicles transporting materials, chemicals, and/or equipment to the facility for the OWNER's operations.
- H. Bypassing of untreated or partially treated wastewater to the plant's effluent is not permitted.

1.4 SHUTDOWNS

- A. Shutdowns of portions of the unit processes operations shall be accomplished by the CONTRACTOR in cooperation with the Plant Superintendent/Foreman only when properly coordinated in advance by the CONTRACTOR with the OWNER in accordance with the requirements of this section and Section 01 32 00 CONSTRUCTION PROGRESS COORDINATION.
 - 1. Aeration Basins
 - a. The plant has two aeration basins that operate in parallel. Ordinarily both Aeration Basins are in service.
 - b. Between November 1st and May 1st both Aeration Basins are to remain in service.
 - c. Access to Aeration Basins for Control Joint Repair:
 - 1) Each Aeration Basin has a control joint to be repaired as part of this Project's scope of work.
 - 2) Replacement of this control joint sealant is the only reason the Contractor will be allowed access to a drained Aeration Basin.

- 3) Any overhead structural repair work to be completed above the Aeration Basins for this Project is to be accessed either while the Aeration Basins remain full of process liquids and in normal service for wastewater treatment operations, or during the brief allocated duration of time allowed for each basin's control joint repair.
 - 4) The Owner will be responsible for draining an Aeration Basin. The Contractor will be responsible for hosing down and clearing areas of the basin needed to facilitate access to the Aeration Basin control joint to be repaired by the Contractor.
 - 5) Once drained and the basin control joint work area is cleaned of wastewater settled solids, an Aeration Basin will be available for up to a maximum of 10 calendar days per basin. This time should be sufficient for curing the specified control joint sealant to be used for the Project.
 - 6) The Contractor is to protect the grid of aeration piping and diffusers installed in each Aeration Basin while conducting activities within a drained basin.
 - 7) A minimum of 60 calendar days elapsed time is required to occur between return of the first drained Aeration Basin to service and initiating draining the second Aeration Basin.
- d. At least one aeration basin to remain in service at all times. Only one of the two Aeration Basins may be removed from service and drained (shutdown) at any given time.
 - e. Each Aeration Basins' shutdown must be coordinated and approved by the OWNER and downtime limited according to the approved schedule.
2. Primary Clarifiers
 - a. The treatment plant has a total of three Primary Clarifiers configured to operate in parallel. At times the treatment process uses two of the three Primary Clarifiers.
 - b. The duration of time required by AWWU to transfer treatment operations from one set of Primary Clarifiers to another is 10 days.
 - c. The elapsed time for a Primary Clarifier shutdown must be coordinated with and approved by the OWNER. Elapsed times for Primary Clarifier shutdowns are to be limited to those time intervals identified for these events in the approved schedule.
 3. Secondary Clarifiers
 - a. The treatment plant has a total of two Secondary Clarifiers. These two clarifiers are configured to operate in parallel.
 - b. Both Secondary Clarifiers are expected to remain in service while work above them is in progress.

4. Tertiary Filter
 - a. The treatment plant is configured with a Tertiary Filter that operates on secondary effluent produced by the Secondary Clarifiers. Normally the Tertiary Filter is in operation at all times except for quarterly chemical cleaning of filter media. The filter is configured with channels and control gates that enable it to be temporarily bypassed.
 - b. The Tertiary Filter is expected to remain in service while work above it is in progress.
- B. Shutdowns shall be initiated and terminated only during normal working hours of plant operating personnel, or as otherwise coordinated with and approved by the OWNER.
- C. Power outages required to perform the work shall be coordinated with the overall construction Project Schedule and not exceed 2 hours duration, and shall meet the conditions specified in this section and the following restrictions.
CONTRACTOR shall:
 1. submit a detailed outage plan and time schedule for OWNER's operations at least two weeks prior to the scheduled outage.
 2. notify OWNER at least 48-hours in advance of any power outage per the approved schedule or otherwise.
 3. provide a temporary power circuit to minimize power outage.

1.5 SEQUENCE OF CONSTRUCTION

- A. The OWNER must continue to operate the wastewater treatment system, except for limited shutdown periods. As such, this sequence of construction is intended to provide a scenario where interruptions to plant operations are minimized. The duration of interruptions to process flows is to be minimized by providing temporary work-arounds as needed, pre-fabrication of systems to the extent possible, and completing major portions of construction prior to executing final installations.
- B. The sequence of construction outlined herein is not mandatory as presented, nor shall it preclude CONTRACTOR's ability to propose alternative approaches to sequencing the Work. The CONTRACTOR will prepare and submit for OWNER approval the CONTRACTOR's proposed sequence of construction that optimizes efficiency for the CONTRACTOR while limiting operational impacts to the OWNER.

1.6 SUGGESTED SEQUENCE OF WORK

- A. A general Sequence of Construction for major Work items may include the following.
- B. Building 1
 - 1. Schedule A Building 1
 - a. Repair Floor Slab in Hallway between Building 1 and Building 4
 - 1) Grind down existing slab and prepare surface to receive leveling coat
 - 2) Re-level floor slab with application of specified repair product.
 - b. CMU Repairs at Grid 2 near Grid A
 - 1) Demolish broken CMU's
 - 2) Install new CMU's
 - 3) Patch wall with cementitious material
 - 4) Apply surface coatings to match existing
 - 5) Provide Finished Protective Coating System Inspections
 - c. W3 Pipe Insulation Repair
 - d. Cable Tray Bracing
 - 1) Demolish existing Storage Room cable tray supports
 - 2) Furnish and install new replacement cable tray support
 - e. Drywall Crack Repairs
 - f. Unit Heater in Air Supply Unit Room
 - 1) Brace Unit Heater
 - 2) Provide flexible gas supply piping at connection to unit heater
 - 2. Schedule B Building 1 Structural Retrofits
 - a. Work at or Near Ceiling
 - 1) Grid 9 Purlin Blocking
 - a) Remove ceiling tiles in Hallway and Conference Room adjacent to Grid 9
 - b) Set up ladders and/or scaffolding to access work
 - c) Collect measurements for new Grid 9 purlin blocking
 - d) Field fabricate new Purlin Blocking
 - e) Prepare and apply Protective Coating Systems to surfaces specified to receive them.
 - (1) Prepare surfaces to receive coatings
 - (2) Provide inspections of prepared surfaces prior to application of coatings

- (3) Apply specified surface coating systems
- (4) Provide inspections of coated surfaces.
- f) Install structural elements following completion and curing of Protective Coating Systems.
- g) Coordinate with OWNER to schedule/execute OWNER-Provided Special Inspection Services
- h) Apply repair protective coating systems to weld areas or elsewhere where metal surfaces remain exposed resulting from structural element installation
- i) Dismantle ladders and scaffolding
- j) Replace ceiling tiles adjacent to Grid 9
- 2) Grid 8 Purlin Blocking
 - a) Same work sequence as for Grid 9 Purlin Blocking installation
- 3) Grid 7 Purlin Blocking between Grids A and D, and Grid A Collector Beams between Grids 6 and 7
 - a) Grid A-7 View from Mezzanine



- b) Stage manlift or scaffolding in truck bay adjacent to Grid 7
- c) Collect measurements for new structural elements and field fabricate to suit.
- d) Prepare and apply Protective Coating Systems to surfaces specified to receive them. Perform QA/QC inspections for coating system work.
- e) Install structural elements following completion and curing of Protective Coating Systems.

- f) Coordinate with OWNER to schedule/execute OWNER-Provided Special Inspection Services
 - g) Apply repair protective coating systems to weld areas or elsewhere where metal surfaces remain exposed resulting from structural element installation
 - h) Dismantle scaffolding and/or remove manlift
- 4) Grid 7 Purlin Blocking between Grids D and E, and Grid E Collector Beams between Grids 6 and 7
- a) Grid E-7 Viewed from Mezzanine Walkway



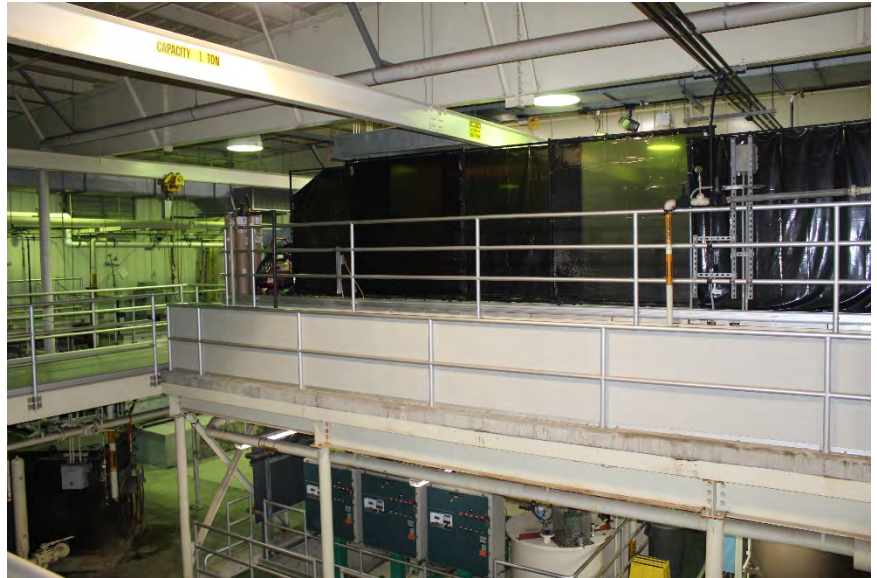
- b) Stage scaffolding for access to Grid 7 between Grids D and E
- c) Stage scaffolding for access to Grid E between Grids 6 and 7

d) Grid 6-E Viewed from Mezzanine



- e) Collect measurements for new structural elements and field fabricate to suit.
- f) Prepare and apply Protective Coating Systems to surfaces specified to receive them. Perform QA/QC inspections for coating system work.
- g) Install structural elements following completion and curing of Protective Coating Systems.
- h) Coordinate with OWNER to schedule/execute OWNER-Provided Special Inspection Services
- i) Apply repair protective coating systems to weld areas or elsewhere where metal surfaces remain exposed resulting from structural element installation
- j) Dismantle scaffolding and/or remove manlift
Dismantle scaffolding

- 5) Grid 6 Purlin Blocking
 - a) View of Grid 6 from Mezzanine



- b) Request Plant Operations use North GBT for sludge dewatering
 - c) Stage scaffolding for access to Grid 6
 - d) Collect measurements for new structural elements and field fabricate to suit.
 - e) Prepare and apply Protective Coating Systems to surfaces specified to receive them. Perform QA/QC inspections for coating system work.
 - f) Install structural elements following completion and curing of Protective Coating Systems.
 - g) Coordinate with OWNER to schedule/execute OWNER-Provided Special Inspection Services
 - h) Apply repair protective coating systems to weld areas or elsewhere where metal surfaces remain exposed resulting from structural element installation
 - i) Dismantle scaffolding and/or remove manlift
 - j) Notify Plant Operations South GBT can be returned to service if desired.
 - b. Work above the Primary Clarifiers
 - 1) The sequence of work for overhead structural upgrades to be done above the Primary Clarifiers, is to be determined as follows.
 - a) Perform work between Grids 4 and 5 before performing work between Grids 2 and 3 if Plant Operations has the southern-most Primary Clarifier

online and in service at the time the Contractor is to initiate work above the Primary Clarifiers.

- b) Alternately, perform work between Grids 2 and 3 before performing work between Grids 4 and 5 if Plant Operations has the northern-most Primary Clarifier online and in service when the Contractor is to initiate work above the Primary Clarifiers.
- c. Grids 4 and 5 Purlin Blocking, Grid A Collector Beams between Grids 4 and 5, Grid E Collector Beams between Grids 4 and 5, and Diagonal Roof Rod Bracing between Grids 4 and 5
 - 1) Area Between Grids 4 and 5 Along Grid A. Note Overhead Piping Racks Which Must Remain In Place and In Service (Typical of Grids A & E and for Grid 1-8 In Building One).



- 2) Request Plant Operations remove northern-most Primary Clarifier and center Primary Clarifier (Primary Clarifiers 1&2) from service and drain them.
- 3) If not using suspension scaffolding, clean Clarifiers 1&2 after Plant Operations have drained them
- 4) Stage scaffolding in and/or over Primary Clarifiers 1&2 and to the east and west of them as needed.
- 5) Collect measurements for new structural elements and field fabricate to suit.
- 6) Prepare and apply Protective Coating Systems to surfaces specified to receive them. Perform QA QC inspections for coating system work.
- 7) Install structural elements following completion and curing of Protective Coating Systems.

- 8) Coordinate with OWNER to schedule/execute OWNER-Provided Special Inspection Services
 - 9) Apply repair protective coating systems to weld areas or elsewhere where metal surfaces remain exposed resulting from structural element installation
 - 10) Dismantle scaffolding and/or remove manlift.
- d. Grids 2 and 3 Purlin Blocking, Grid A Collector Beams between Grids 2 and 3, Grid E Collector Beams between Grids 2 and 3, and Diagonal Roof Rod Bracing between Grids 2 and 3.
- 1) Request Plant Operations remove southern-most Primary Clarifier (Primary Clarifier 3) from service and drain it.
 - 2) If not using suspension scaffolding, clean Primary Clarifier 3 after Plant Operations have drained it.
 - 3) Stage scaffolding in and/or over Primary Clarifier 3 and to the east and west of it as needed.
 - 4) Collect measurements for new structural elements and field fabricate to suit.
 - 5) Prepare and apply Protective Coating Systems to surfaces specified to receive them. Perform QA QC inspections for coating system work.
 - 6) Install structural elements following completion and curing of Protective Coating Systems.
 - 7) Coordinate with OWNER to schedule/execute OWNER-Provided Special Inspection Services
 - 8) Apply repair protective coating systems to weld areas or elsewhere where metal surfaces remain exposed resulting from structural element installation
 - 9) Dismantle scaffolding and/or remove manlift.
3. Wall Rod Bracing
- a. Demolish existing wall rod bracing.
 - b. Furnish and install new replacement wall rod bracing.
 - c. Repair factory coatings as needed per Special Coatings Section 09 97 00.
 - d. Coordinate with OWNER to schedule/execute OWNER-Provided Special Inspection Services
4. Schedule B Building 1 Ceiling Tiles
- a. Remove and dispose of all existing ceiling tiles in Admin area
 - b. Furnish and install new suspended ceiling tile system, including structural bracing and seismic restrain systems for tiles

C. Aeration Building

1. Schedule A Aeration Basin Control Joint Repair

a. North Aeration Basin (#2)



- 1) Request Plant Operations drain North Aeration Basin (#2).
- 2) Wash down drained Aeration Basin taking care not to damage aeration diffuser grids.
- 3) Erect scaffolding in drained basin.
- 4) Repair Control Joint
- 5) Remove scaffolding in drained basin.
- 6) Request Plant Operations refill Aeration Basin #2.

b. South Aeration Basin (#1)

- 1) After the specified elapsed time between refilling one Aeration Basin and draining the other has expired, Contractor may request Plant Operations drain Aeration Basin #1.
- 2) Repeat the Control Joint Repair steps executed for Aeration Basin #2.
- 3) Request Plant Operations refill Aeration Basin #1.

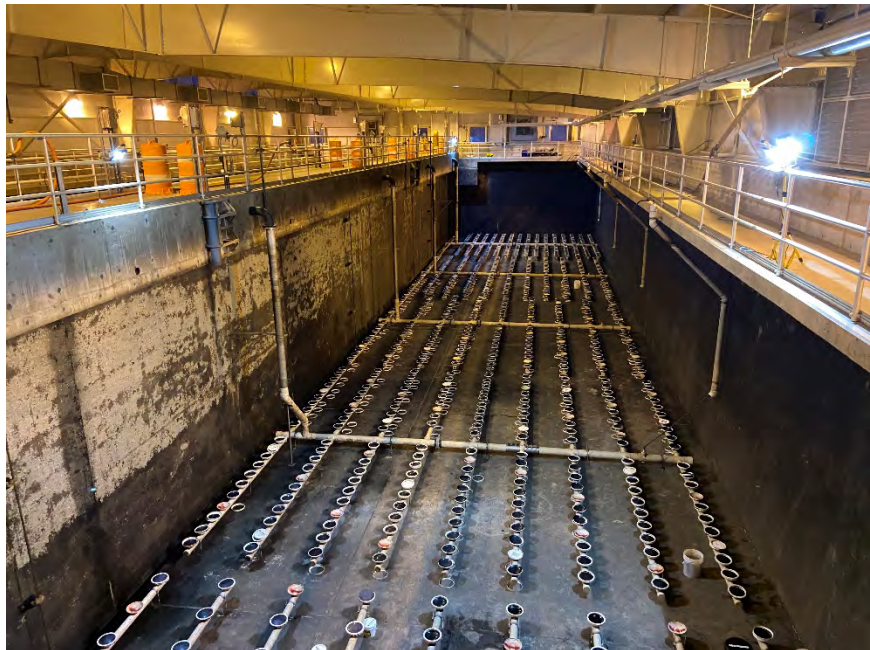
2. Schedule A W3 Pipe Insulation Repair



- a. Remove damaged W3 pipe insulation and replace with specified insulation system

3. Schedule B Aeration Basin Building Structural Retrofits

- a. North half of Grids A through J Purlin Blocking, Braced Frame Gusset Plate Retrofits, Diagonal Roof Rod Bracing, and Collector Beam Retrofits.



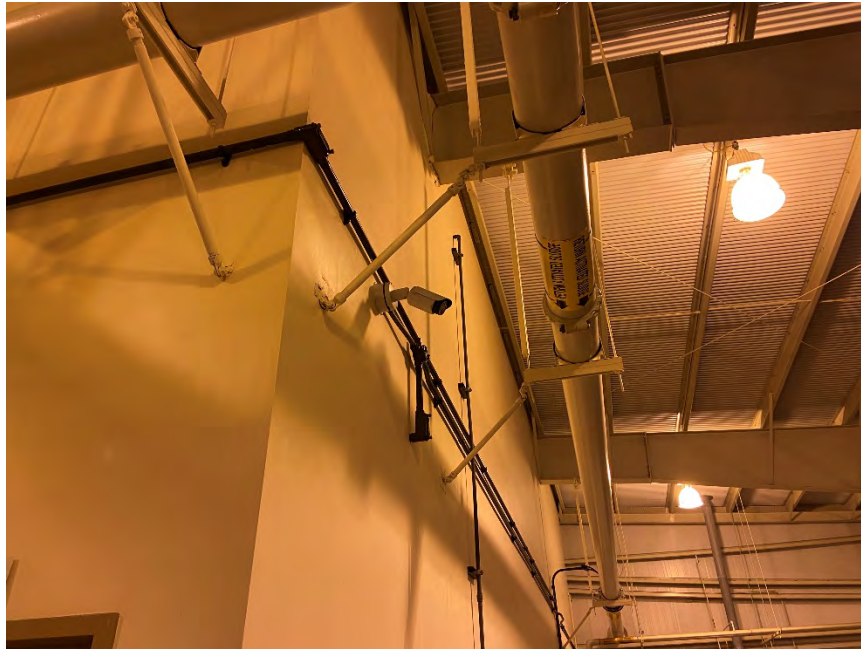
- 1) Erect suspended scaffolding over top of Aeration Basin. For this work the Aeration Basin is to remain in operation and full of process liquids. Contractor to use scaffolding

- suspended above the basin for access to and execution of Project work scope.
- 2) Spread netting over aeration basins to capture debris and/or other materials from falling into operating Aeration Basin.
 - 3) Inspect Grid 25.7 (north wall) for occurrence and connection of collector beams to building frames. Some collector beams may not be installed. Others may be installed and not welded securely to the building frames at Grids A through H. Report results of inspection to Engineer.
 - 4) Collect measurements for northern half of Grids A through J for the following
 - a) Braced Frame Gusset Plate Retrofit
 - b) new Purlin Blocking
 - c) new Collector Beam Retrofits
 - d) new Diagonal Roof Rod Bracing
 - 5) Field fabricate new structural elements for
 - a) Braced Frame Gusset Plate Retrofit
 - b) Purlin Blocking
 - c) Collector Beam Retrofits
 - d) Diagonal Roof Rod Bracing
 - 6) Prepare and apply Protective Coating Systems to surfaces specified to receive them. Perform QA QC inspections for coating system work.
 - 7) Install structural elements following completion and curing of Protective Coating Systems.
 - 8) Coordinate with OWNER to schedule/execute OWNER-Provided Special Inspection Services
 - 9) Apply repair protective coating systems to weld areas or elsewhere where metal surfaces remain exposed resulting from structural element installation
 - 10) Dismantle scaffolding and netting
- b. South half of Grids A through H Purlin Blocking, Braced Frame Gusset Plate Retrofits, Diagonal Roof Rod Bracing, and Collector Beams.
- 1) Repeat same work scope completed for inspection, measurement, fabrication, installation of structural upgrades for South half of Grids A through H.

D. Building 2

1. Schedule A Earthquake Repairs

- a. Replace damaged and missing insulation and wrap on 2-inch W1 pipeline.
- b. Process Pipe Support Repair



- 1) Demolish damaged Pipe Supports
 - 2) Furnish and install new replacement pipe supports
 - 3) Apply Protective Coating Systems
 - 4) Provide Finished Protective Coating System Inspections
 - c. Remove damaged W3 insulation, furnish and install replacement pipe system insulation.
 - d. Reinstall wall support clips at mezzanine walls shown in the Drawings
 - e. Repair Drywall Cracking
2. Schedule B Structural Retrofits
- a. Grids K through S Purlin Blocking, Braced Frame Gusset Plate Retrofits, Diagonal Roof Rod Bracing, and Collector Beam Retrofits
 - 1) Stage scaffolding and/or manlifts over Clarifiers and Tertiary Filter as needed. Do not obstruct access by Operations Personnel to any of the following:
 - a) Clarifier bridges
 - b) Perimeter 4 feet of Clarifiers outer circumference to facilitate access for spray wash down with hoses
 - c) RAS/WAS pump station stairway

- d) Soda ash supersack movement into position from north side of Building 2 to supersack unloader in RAS/WAS pump station
 - e) MCC at south edge of Building 2
 - f) W3 Pump control panel at north edge of Building 2
 - g) Blower Room
 - h) Tertiary Filter traveling bridge
- 2) Spread debris capture netting over process basins to protect infrastructure below.
 - 3) Inspect Grids 25 and 26 for occurrence and connection of collector beams to building frames. Some collector beams may not be installed. Others may be installed and not welded securely to the building frames at Grids A through H. Report results of inspection to Engineer.
 - 4) Collect measurements for Grids K through S for the following
 - a) Braced Frame Gusset Plate Retrofit
 - b) new Purlin Blocking
 - c) new Collector Beam Retrofits
 - d) new Diagonal Roof Rod Bracing
 - 5) Field fabricate new structural elements for
 - a) Braced Frame Gusset Plate Retrofit
 - b) Purlin Blocking
 - c) Collector Beam Retrofits
 - d) Diagonal Roof Rod Bracing
 - 6) Prepare and apply Protective Coating Systems to surfaces specified to receive them. Perform QA QC inspections for coating system work.
 - 7) Install structural elements following completion and curing of Protective Coating Systems.
 - 8) Coordinate with OWNER to schedule/execute OWNER-Provided Special Inspection Services
 - 9) Apply repair protective coating systems to weld areas or elsewhere where metal surfaces remain exposed resulting from structural element installation
 - 10) Dismantle scaffolding and netting. Demobilize manlifts.

1.7 REQUIREMENTS FOR SUBSTANTIAL COMPLETION

- A. MASS Division 10, Section 10.05 Control of Work, Article 5.22 Time for Completion of Work – substantially complete means:
1. Inspections of building structural upgrades have been completed and found to comply with contract requirements. Reports include
 - a. Special inspections per International Building Code (IBC) and MOA requirements.
 - b. Protective coating surface preparation and coating product application inspections.
 2. The unit processes temporarily removed from service to accommodate execution of the Project Scope of Work have been cleaned of construction debris, and returned to service to the satisfaction of the OWNER.
 3. The following is fulfilled:
 - a. Submittals have been completed and approved.
 - b. Punch-list items from Substantial Completion inspections have been addressed to the satisfaction of the OWNER.
 - c. The CONTRACTOR's Red-lines/record drawings in both hard-copy and electronic format have been submitted and approved.
 - d. Revisions to the Technical Manuals that may have resulted from the field tests have been made and reviewed and approved.
 4. Construction debris has been removed.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION

3.1 GENERAL

- A. Provide area lighting to support construction and on-going treatment operations;
- B. Control fugitive dust to prevent dust entry into existing ventilated electrical panels and enclosures; and
- C. No physical Work will be allowed to commence at the project site prior to approval of the CONTRACTOR's schedule and Narrative Work Plan.

END OF SECTION

SECTION 01 20 00
PRICE AND PAYMENT PROCEDURES

PART 1 GENERAL

1.1 ADMINISTRATIVE SUBMITTALS

- A. Schedule of Values
- B. Schedule of Estimated Progress Payments
- C. Application for Payment

1.2 RELATED SECTIONS

- A. Municipality of Anchorage Standard Specifications (MASS), Division 10 – General Provisions, Section 10.07 Measurement and Payment; Special Provisions; and Division 1 - General Requirements.
- B. 01 10 00 – Summary of Work
- C. 01 14 00 – Project Constraints
- D. 01 31 00 – Project Management and Coordination
- E. 01 32 00 – Construction Progress Documentation
- F. 01 33 00 – Submittal Procedures
- G. 01 78 00 – Contact Closeout

1.3 SCHEDULE OF VALUES

- A. Format: Prepare a schedule of values for each of the following items as a minimum:
 - 1. Each specification section/item.
 - 2. Separate items in “2” (in Payment paragraph of this specification Section) into major components within each specification section. Include at least one line each for “procured and stored materials” and at least one line for installation of each such item.
 - 3. Mobilization and Demobilization. Total payment for Item 1 (in Payment paragraph of this specification Section) shall not exceed 5 percent of the total base bid, with an allocation as follows:
 - a. Mobilization, maximum of 65% of Item 1, Mobilization and Demobilization (in Payment paragraph of this specification Section). Mobilization includes financing the work, obtaining all bonds, permits, and insurance; furnishing, erecting, and maintaining all temporary buildings, including the cost of property and all temporary utilities; pre-construction condition assessments, development of required safety plans, and move-in of all equipment, tools, and personnel and other items as described in specification Section 01 52 00, FACILITIES AND TEMPORARY CONTROLS.

- b. Demobilization, minimum of 35% of Item 1, Mobilization and Demobilization (in Payment paragraph of this specification Section). Demobilization includes disassembling, disconnecting, and move-out of all temporary buildings, equipment, and supplies, and final cleanup of the site.
4. Submittals, maximum of 3 percent of all Bid Items excluding Mobilization and Demobilization (in PAYMENT paragraph of this specification Section)
5. Temporary facilities
6. Contract changes
7. Record Drawings
8. Functional Testing and Start-up
9. Performance Testing
10. Training
11. Close-out documents
- B. An unbalanced or front-end loaded schedule of values will not be acceptable. Include proportional amount of Contractor's overhead and profit in each line item. Round amounts to the nearest dollar.
- C. Summation of the complete schedule of values representing all Work under this agreement shall equal the Contract Price.
- D. Coordinate Schedule of Value items with Bid Items and activities in the progress schedule.
- E. Submit Schedule of Values via electronic transmission, in a spreadsheet format compatible with Microsoft Excel®.

1.4 SCHEDULE OF ESTIMATED PROGRESS PAYMENTS

- A. Show estimated payment requests throughout Contract Times aggregating initial Contract Price.
- B. Base estimated progress payments on initially acceptable progress schedule. Adjust to reflect subsequent adjustments in progress schedule and Contract Price as reflected by modifications to the Contract Documents.

1.5 APPLICATION FOR PAYMENT

- A. Refer to MASS Standard Construction Specifications, Division 10 – General Provisions, Section 10.07 Measurement and Payment; and Special Provisions.
- B. Submittal Tracking Record: Attach one Submittal Tracking Record to each detailed Application for Payment for each submission. Include Request for Payment of Materials and Equipment on Hand as applicable. Execute certification by authorized officer of Contractor.
- C. Use detailed Application for Payment Form suitable to Owner. Include accepted Schedule of Values for each portion of Work, the unit price breakdown for Work to be paid on unit price basis, a listing of Owner-selected equipment, if applicable, and allowances, as appropriate.
 1. Form(s) to conform to the examples furnished by Owner for Lump Sum Work, Unit Price Work, and materials on hand.

- a. Progress schedule shall be progressed to date showing actual work progress.
 - b. Narrative report that references and supports the progress schedule.
 - c. Contractor Design Clarification/Verification Request (DCVR) log.
 - d. Contractor Submittal log.
- D. Preparation
1. Round values to nearest one dollar.
 2. List each Change Order and Written Amendment executed prior to date of submission as separate line item. Totals to equal those shown on the Summary Sheet.
 3. Submit Application for Payment, including a Transmittal Summary Form, a detailed Application for Payment Form, a listing of materials on hand, and such supporting data as may be required.

1.6 MEASUREMENT – GENERAL

- A. For items paid on a lineal foot basis, coordinate with OWNER to measure these items for payment in the field. Work with OWNER's staff to ensure fair, accurate and equitable measurements. Agree to methods and process prior to beginning the work.
- B. For items paid per each unit of work basis, coordinate with OWNER to measure these items for payment in the field. Work with OWNER's staff to ensure fair, accurate and equitable measurements. Agree to methods and process prior to beginning the work.
- C. For items paid on a lump sum basis, there will be no measurement required.

1.7 PAYMENT

- A. Refer to the Municipality of Anchorage Standard Specifications (MASS), Division 10 – General Provisions, Section 10.07 Measurement and Payment; and Special Provisions.
- B. The Schedule of Values will be the basis for payment.
- C. Payment will not be made for following:
 1. Quantities of material wasted or disposed of in manner not called for under Contract Documents.
 2. Rejected loads of material, including material rejected after it has been placed by reason of failure of Contractor to conform to provisions of Contract Documents. Loading, hauling, and disposing of rejected material.
 3. Defective Work not accepted by Owner.
- D. Payment will be made for the following items on a percent complete basis, which shall be supported by the Schedule of Values.

E. **Schedule A. Earthquake Repairs** per Specification, Division 01, Section 01 10 00 SUMMARY OF WORK, paragraph 1.4.B.

Items	Description
Item 1 – Schedule A	<p>Paid on a LUMP SUM PRICE basis:</p> <p>The lump sum price shall include full compensation for: Mobilization including obtaining all financing, bonds, permits, and insurance; furnishing, erecting, and maintaining all temporary buildings, including the cost of property and all temporary utilities; pre-construction condition assessments, development of required safety plans, and move-in of all equipment, tools, construction facilities, and personnel; site work; and Demobilization including disassembling, disconnecting, and move-out of all temporary buildings, equipment, and supplies, and final cleanup of the site after the project is completed and accepted by OWNER; and furnishing of all labor, materials, equipment, and incidentals associated with the Earthquake Repairs as defined by Work specified and shown on the Drawings, and including but not limited to: project management and development of work plans, schedules, submittals, regular maintenance of red line record information, construction progress photographs, coordination with OWNER, and contract closeout; temporary installations, temporary process operations, including related equipment, appurtenances, and other falsework; and all other Work complete and functional.</p>
Item 2 – Schedule A	<p>Paid on a UNIT PRICE basis:</p> <p>The unit price for each shall include full compensation for: Removal and Replacement of sections of damaged insulation and wrap in the Aeration Building and Building 2. See Drawing G.5 for details of Water Piping Insulation Repair.</p>
Item 3 – Schedule A	<p>Paid on a UNIT PRICE basis:</p> <p>The unit price per linear foot shall include full compensation for: Repairing drywall cracks on walls in Building 1 and Building 2. See Drawing S0.2 for details of Drywall Crack Repair.</p>

F. **Schedule B. Structural Retrofits** per Specification, Division 01, Section 01 10 00 SUMMARY OF WORK, paragraph 1.4.B.

Items	Description
Item 1 – Schedule B	<p>Paid on a LUMP SUM PRICE basis:</p> <p>The lump sum price shall include full compensation for: Mobilization including obtaining all financing, bonds, permits, and insurance; furnishing, erecting, and maintaining all temporary buildings, including the cost of property and all temporary utilities; pre-construction condition assessments, development of required safety plans, and move-in of all equipment, tools, construction facilities, and personnel; site work; and Demobilization including disassembling, disconnecting, and move-out of all temporary buildings, equipment, and supplies, and final cleanup of the site after the project is completed and accepted by OWNER; and furnishing of all labor, materials, equipment, inspections, and incidentals associated with the Structural Retrofits as defined by Work specified and shown on the Drawings, and including but not limited to: project management and development of work plans, schedules, submittals, regular maintenance of red line record information, construction progress photographs, coordination with OWNER, and contract closeout; temporary installations, temporary process operations, including related equipment, appurtenances, and other falsework; and all other Work complete and functional.</p>
Item 2 – Schedule B	<p>Paid on a UNIT PRICE basis:</p> <p>The unit price for each shall include full compensation for: Install new collector beams including welds in Aeration Building and Building 2 per details S2.1/10 and S2.1A/12.</p>

1.8 PARTIAL PAYMENT FOR STORED MATERIALS AND EQUIPMENT

- A. Refer to MASS Division 10 – General Provisions, Section 10.07 Measurement and Payment; and Special Provisions.
- B. Payments will be made for materials and equipment delivered or stored after submittals and shop drawings are acceptable to the OWNER, and only for materials and equipment to be permanently incorporated into the work.

1.9 FINAL APPLICATION FOR PAYMENT

- A. Refer to the Standard General Provisions, MASS Division 10 Article 7.7.
- B. Prior to submitting final application, make acceptable delivery of required documents. Refer to Section 01 78 00 CONTRACT CLOSEOUT.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION (NOT USED)

END OF SECTION

SECTION 01 31 00
PROJECT MANAGEMENT AND COORDINATION

PART 1 GENERAL

1.1 WORK INCLUDED

- A. This Section addresses the project management and coordination efforts the CONTRACTOR will perform as part of the Work. Items include:
1. Coordinating with the OWNER and the Facility Operators to manage Project Constraints, process Shutdowns, and Sequencing of Activities and Construction, as summarized in the specification Sections 01 10 00 SUMMARY OF WORK and 01 14 00 PROJECT CONSTRAINTS.
 2. Providing as required: temporary utilities, temporary facilities, material and equipment staging, maintenance of treatment plant operations, protection of the OWNER's property, and maintenance of access ways for delivery vehicles and emergency response vehicles, such as fire and ambulance.

1.2 OTHER WORK

- A. Other work will be performed at the Project Site by entities other than the CONTRACTOR prior to, during, in sequence with, and following performance of the work of this Contract.
1. This other work involves the various agencies with which the CONTRACTOR shall coordinate to complete the work of this Contract.
 2. CONTRACTOR shall submit to the OWNER a list of persons contacted at the various utilities and agencies, and date of contact per the requirements of specification Section 01 33 00 SUBMITTAL PROCEDURES.
- B. Utilities and agencies include but are not limited to the following:
1. AWWU Operations & Maintenance
 2. Ongoing delivery of chemicals and supplies to the ERWWTF
 3. Sludge vehicle haul operations
 4. Headworks grit and screenings vehicle haul operations
- C. Coordination with other work ongoing at the project site while this Work is in progress. This may include, but is not limited to the following:
1. Normal day-to-day maintenance activities at the ERWWTF
 2. Other contractors performing work at the ERWWTF on behalf of AWWU

1.3 RELATED SECTIONS

- A. Municipality of Anchorage Standard Specifications (MASS), Division 10 – General Provisions, Section 10.05 Control of Work, Article 5.3 Construction Progress Schedule and Schedule of Values; Special Provisions; and Division 1 - General Requirements.
- B. 01 10 00 – Summary of Work
- C. 01 14 00 – Project Constraints
- D. 01 32 00 – Construction Progress Documentation
- E. 01 33 00 – Submittal Procedures
- F. 02 41 19 – Selective Demolition

1.4 REFERENCES

- A. Throughout these specifications, there are references to various standards and codes. CONTRACTOR shall use the most current edition of specified standards and codes (as amended by the Municipality of Anchorage) whether these are specifically noted within the specifications or not.

1.5 OWNER COORDINATION

- A. The CONTRACTOR is to coordinate with the OWNER as the Work progresses. OWNER coordination will include:
 - 1. CONTRACTOR participation in meetings
 - 2. CONTRACTOR's access and use of OWNER facilities
 - 3. CONTRACTOR's impacts on operations at the ERWWTF

1.6 MOBILIZATION

- A. Mobilization shall include, but is not limited to the items listed herein:
 - 1. Obtain Permits, Licenses and Approvals (other than those provided by OWNER in Section XV) in accordance with the requirements of the General Conditions and retain onsite.
 - 2. Moving CONTRACTOR's equipment and facilities to site
 - 3. Installing separately-metered temporary construction power, wiring, and lighting facilities
 - 4. Providing onsite communication facilities, including internet access
 - 5. Providing onsite sanitary and potable water facilities
 - 6. Posting OSHA required notices and establishing a project safety program

1.7 PROTECTION OF WORK AND PROPERTY

- A. Comply with OWNER's safety rules while on OWNER's property.
- B. Inform OWNER of accidents at the Project Site and of related claims.
- C. In the performance of Work, CONTRACTOR is responsible for adapting the means, methods, techniques, sequences, and procedures of the construction to allow the OWNER to maintain the continuous operation of the Wastewater Treatment Plant consistent with Environmental Protection Agency and Alaska Department of Environmental Conservation permits and approvals. In performing such Work, it may be necessary for the CONTRACTOR to plan, design, and provide various temporary services, utilities, connections, temporary piping, temporary pumping, heating, access, and similar items which shall be included in the Contract Price.

1.8 CONTRACTOR MEETING PARTICIPATION

- A. General: The OWNER will arrange for facilities to be used for all meetings, will prepare a meeting agenda with input from the CONTRACTOR and OWNER, will preside at meetings, will record minutes to include significant proceedings and decisions, and will distribute minutes of these meetings within 5 days of the meeting.
- B. Preconstruction Conference: Within 21 days after contract time begins and before commencement of Work. Representatives of OWNER, CONTRACTOR, and key Subcontractors shall attend as needed. CONTRACTOR shall be prepared to discuss:
 - 1. Schedules, submittals, applications for payment, and record keeping
 - 2. Status of bonds and insurance
 - 3. Status of permits and approvals necessary for construction, including CONTRACTOR submitted review documents to the Municipality of Anchorage Building Safety Department and resulting permits/approvals
 - 4. Summary of Work, Sequencing of Construction, Sequencing of critical path items, and near term (3-week) schedule and sequence of work
 - 5. Use of site, access, office and storage areas, security, and temporary facilities
 - 6. CONTRACTOR's safety plan and representative
 - 7. CONTRACTOR's quality control plan and personnel qualifications
- C. Progress Meetings: Weekly meetings will be conducted at the site during periods when construction is occurring to review Work progress, evaluate the schedule, review shop drawings and submission requirements, review pay applications, and other matters requiring discussion and resolution.
- D. Quality Control Meetings:
 - 1. Monthly meetings will be conducted either on site or by teleconference to review the following:
 - a. Test and inspection reports,
 - b. Maintenance of CONTRACTOR's record red line drawings,

- c. Other matters related to the quality of the Work.
- 2. Additional quality control meetings may be requested by the OWNER.
- E. Pre-Installation Meetings:
 - 1. When required in individual Specification sections, convene at site prior to commencing Work of that section.
 - 2. Require attendance of entities directly affecting, or affected by, Work of that section.
 - 3. Notify OWNER seven (7) days in advance of meeting date.
 - 4. Provide suggested agenda to OWNER to include reviewing conditions of installation, preparation and installation or application procedures, and coordination with related work and work of others.
- F. Other Meetings: In accordance with Contract Documents and as may be required by OWNER.

1.9 ACCESS AND USE OF OWNER FACILITIES

- A. OWNER maintains security at all its facilities including the ERWWTF. All buildings and gates are required to be securely locked at all times.
- B. CONTRACTOR will be responsible for coordinating with OWNER's security staff to receive instruction in the required security requirements and obtain pass keys for use during the execution of the Work to enable passage through gates and doorways.
- C. Conduct Work outside regular working hours only with consent of OWNER.
- D. CONTRACTOR may use the following OWNER facilities at ERWWTF during the course of the Work, as coordinated with the OWNER and within the limitations noted further below.
 - 1. Utility Water
- E. When using OWNER facilities at the ERWWTF:
 - 1. Priority for concurrent use of facilities must be given to OWNER staff.
 - 2. CONTRACTOR must maintain OWNER facilities in clean and operable condition. Failure to do so will result in forfeiture of CONTRACTOR access to OWNER facilities.

1.10 IMPACTS TO FACILITY OPERATIONS

- A. The ERWWTF is a wastewater treatment facility. Unit processes within the ERWWTF are those portions of the overall treatment plant infrastructure which when operated together comprise the overall treatment process. Do not proceed with Work affecting a unit process operation without obtaining OWNER's advance approval per the SHUTDOWNS paragraph of specification Section 01 14 00 PROJECT CONSTRAINTS.
- B. Perform Work continuously during critical connections and changeovers, and as required to prevent interruption of OWNERS' treatment operations. Under no circumstances cease Work at the end of a normal working day if such actions may inadvertently cause a cessation of any facility operating process, in which case, remain onsite until necessary repairs are complete.

- C. Do not close or open valves or flow control gates, or take other action which would affect the operation of the existing treatment systems/unit processes, except as specifically required by the Contract Documents and after approval of OWNER.

1.11 OWNER USE OF THE SITE

- A. The OWNER may utilize all or part of the existing facilities during the entire period of construction for the conduct of the OWNER's normal operations.
- B. The CONTRACTOR shall cooperate and coordinate with the OWNER to facilitate the OWNER's operations and to minimize interference with the CONTRACTOR's operations at the same time.
- C. In any event, the OWNER shall be allowed access to the Site during the period of construction.

1.12 CONTRACTOR USE OF SITE

- A. CONTRACTOR use of the Site shall be limited to its construction operations and on-site storage of materials.
- B. Health and Safety: CONTRACTOR shall develop a Confined Space Entry Plan, in accordance with State and Federal OSHA regulations, as part of an overall health and safety plan for this project. Entry into all below-ground facilities shall include continuous air monitoring.
- C. Interference with Work on Utilities: CONTRACTOR shall cooperate fully with all utility forces of the OWNER or forces of other public or private agencies engaged in the relocation, altering, or otherwise rearranging of any facilities that interfere with the progress of the Work, and shall schedule the Work to minimize interference with said relocation, altering, or other rearranging of facilities.
- D. No Early Start: CONTRACTOR shall not commence any construction activities until all submittals required in MASS Section 10.05 – Control of Work, have been completed.

1.13 PHYSICAL CONDITIONS

- A. Exercise reasonable care to verify locations of existing subsurface structures and facilities embedded within and/or beneath floor slabs. Thoroughly check immediate and adjacent areas subject to disturbance by visual examination for indications of subsurface structures and embedded facilities.
- B. Make exploratory examinations where existing underground or embedded facilities or structures may potentially conflict with the Work. Conduct exploratory examinations in the presence of OWNER and sufficiently ahead of construction to avoid possible delays to CONTRACTOR's Work.
- C. Historic record drawings may be furnished to the CONTRACTOR upon request, but shall not be relied upon exclusive of complete and comprehensive investigative efforts and confirmation of installation, details, materials, and dimensions.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION**3.1 PARKING AREAS**

- A. Control vehicular parking to preclude interference with OWNERS' operations, construction operations, or access by utility trucks and emergency vehicles. Protect OWNER's existing property including site and buildings.

3.2 TEMPORARY UTILITIES AND FIRE PROTECTION

- A. Lighting: Provide temporary lighting to meet all applicable safety requirements during Work.
- B. Protection of Systems, Finishes, and Coatings from Weather: Provide covers and enclosures as required to protect the Work from rain, snow, and wind, to maintain adequate environmental conditions to facilitate the Work, to meet specified minimum conditions for the installation of materials, and to protect materials, equipment, finishes, and coating systems from damage due to moisture, wind, or temperature.
- C. Provide Heating, Cooling, Ventilation and Dehumidification as required to:
 - 1. Maintain adequate environmental conditions to facilitate the Work
 - 2. Protect Contractor and/or OWNER personnel
 - 3. Meet specified minimum conditions for the installation of materials
 - 4. Protect materials, equipment, finishes, and coating systems from damage due to temperature and/or humidity.
- D. Fire Protection: Furnish and maintain on site, adequate firefighting equipment for extinguishing incipient fires.

3.3 CUTTING, FITTING, AND PATCHING

- A. Cut, fit, adjust, or patch Work as required, to make Work complete.
- B. Restore existing equipment and facilities impacted by the Work, including:
 - 1. Repair of blemishes to walls or other finished surfaces,
 - 2. Replacement of materials and/or equipment defaced, damaged, or otherwise negatively impacted in the execution of the Work.
- C. Make restorations with new materials and appropriate methods as specified for new Work of similar nature; if not specified, use best-recommended practice of manufacturer or appropriate trade association.

3.4 DISPOSITION OF CONSTRUCTION WASTES

- A. Provide OWNER-approved containers for collection of waste materials, debris, and rubbish. CONTRACTOR to remove waste generated in the execution of the Work from the project site and dispose at an Alaska Department of Environmental Conservation/US Environmental Protection Agency approved disposal facility, at minimum one-week intervals for the duration of the Project.

END OF SECTION

SECTION 01 32 00
CONSTRUCTION PROGRESS DOCUMENTATION

PART 1 GENERAL

1.1 SUBMITTALS

- A. Preliminary Progress Schedule: Submit at least 3 workdays prior to preconstruction conference.
- B. Detailed Progress Schedule including Narrative Work Plan:
 - 1. Submit initial Detailed Progress Schedule within 10 days after Effective Date of the Notice to Proceed.
 - 2. Submit an Updated Progress Schedule with each pay application, in accordance with Article DETAILED PROGRESS SCHEDULE AND NARRATIVE WORK PLAN (see below).
- C. Submit with Each Progress Schedule Submission electronic files for the following:
 - 1. CONTRACTOR's certification as Microsoft Office text document that progress schedule submission is the actual schedule being utilized for execution of the Work.
 - 2. Project schedule compatible with latest version of Project Professional by Microsoft Corporation unless otherwise approved by OWNER.
 - 3. Narrative Progress Report as a Microsoft Office Word text document.

1.2 RELATED SECTIONS

- A. Municipality of Anchorage Standard Specifications (MASS), Division 10 – General Provisions, Section 10.05 Control of Work, Article 5.3 Construction Progress Schedule and Schedule of Values; Special Provisions; and Division 1 - General Requirements.
- B. 01 10 00 – Summary of Work
- C. 01 14 00 – Project Constraints
- D. 01 20 00 – Price and Payment Procedures
- E. 01 31 00 – Project Management and Coordination
- F. 01 33 00 – Submittal Procedures

1.3 PRELIMINARY PROGRESS SCHEDULE

- A. In addition to basic requirements outlined in General Provisions, show a detailed schedule, beginning with Notice to Proceed, for minimum duration of 40 days, and a summary of balance of Project through Final Completion.
- B. Coordinate activities in the progress schedule with the Schedule of Values.

- C. Show activities including, but not limited to the following:
 - 1. Notice to Proceed.
 - 2. Permits.
 - 3. Submittals, with review time.
 - 4. Initial site work.
 - 5. Specified Work sequences and construction constraints.
 - 6. Contract Milestone and Completion Dates.
 - 7. Major Work.
 - 8. Unit Process Shutdowns and startups.
 - 9. Project close-out summary.
 - 10. Demobilization summary.
- D. Update and submit Progress Schedule monthly; as part of progress payment application process. Failure to do so may cause OWNER to withhold all or part of the monthly progress payment until the Progress Schedule is updated in a manner acceptable to OWNER.
- E. Format: In accordance with Article in this Specification entitled PROGRESS SCHEDULE - CRITICAL PATH NETWORK.

1.4 DETAILED PROGRESS SCHEDULE AND NARRATIVE WORK PLAN

- A. In addition to requirements of General Provisions, submit Detailed Progress Schedule beginning with Notice to Proceed and continuing through Final Completion to be based upon Narrative Work Plan.
- B. Show the duration and sequences of activities required for complete performance of the Work reflecting means and methods chosen by CONTRACTOR.
- C. When accepted by OWNER, Detailed Progress Schedule and Narrative Work Plan will replace Preliminary Progress Schedule and become Baseline Schedule. Subsequent revisions will be considered Updated Progress Schedules.
- D. Format per Article PROGRESS SCHEDULE - CRITICAL PATH NETWORK.
- E. Update monthly to reflect actual progress, occurrences, and any weather delays.

1.5 PROGRESS SCHEDULE - CRITICAL PATH NETWORK

- A. General: Comprehensive computer-generated schedule using Critical Path Method (CPM), generally as outlined in Associated General CONTRACTORS of America (AGC) Publication No. 1107.1, "Construction Planning and Scheduling", latest edition. If a conflict occurs between the AGC publication and this specification, this specification shall govern.
- B. Contents:
 - 1. Schedule shall begin with the date of Notice to Proceed and conclude with the date of Final Completion.
 - 2. Identify Work calendar basis using days as a unit of measure.
 - 3. Show complete interdependence and sequence of construction and Project-related activities reasonably required to complete Work.

4. Identify Work of separate stages and other logically grouped activities, and clearly identify critical path of activities.
 5. Reflect sequences of Work, restraints, delivery windows, review times, Contract Times and Project Milestones set forth in the Agreement, Section 01 31 00 PROJECT MANAGEMENT AND COORINDINATION.
 6. Develop a Work Breakdown Structure (WBS) aligned with the contract bid items and the Schedule of Values as identified in Section 01 20 00 PRICE AND PAYMENT PROCEDURES.
 7. Include as applicable, at a minimum:
 - a. Work deviations from those presented in Contract Documents.
 - b. Obtaining permits.
 - c. Submittals for early product procurement and long lead time items.
 - d. Mobilization and other preliminary activities.
 - e. Initial site Work, and temporary facilities and utilities.
 - f. Specified Work sequences, constraints, coordination of trades, and Milestones, including Substantial Completion date(s) Subcontract Work, plant shutdown events.
 - g. Submittal/procurement cycle.
 - h. Equipment design, fabrication, factory testing, and delivery dates.
 - i. Demolition.
 - j. Concrete Work.
 - k. Structural Work.
 - l. Coating Systems Work
 - m. Unit processes shutdowns and startups activities.
 - n. Record Documents.
 - o. Project closeout and cleanup.
 - p. Demobilization.
 8. No activity duration, exclusive of those for Submittals review and product fabrication/delivery, shall be less than 1 day or more than 30 days, unless otherwise approved.
 9. Activity duration for Submittal Review shall not be less than review time specified unless clearly identified and prior written acceptance has been obtained from OWNER.
- C. Network Graphical Display:
1. Plot or print on paper a hard copy of electronic submittal.
 2. Title Block: Show name of Project, OWNER, date submitted, revision or update number, and the name of the scheduler. Updated schedules shall indicate data date.
 3. Identify horizontally across the top of the schedule the time frame by year, month, and day.

4. Identify each activity with a unique number and a brief description of the Work associated with that activity.
 5. Indicate the critical path.
 6. Show, at a minimum, the controlling relationships between activities.
 7. Plot activities on a time-scaled basis, with the length of each activity proportional to the current estimate of the duration.
 8. Plot activities on an early start basis unless otherwise requested by OWNER.
 9. Provide a legend to describe standard and special symbols used.
- D. Schedule Report:
1. Print on paper hard copy of electronic submittal.
 2. List information for each activity in tabular format, including, at a minimum:
 - a. Activity Identification Number.
 - b. Activity Description.
 - c. Original Duration.
 - d. Remaining Duration.
 - e. Early Start Date (Actual start on Updated Progress Schedules).
 - f. Early Finish Date (Actual finish on Updated Progress Schedules).
 - g. Late Start Date.
 - h. Late Finish Date.
 - i. Total Float.
 3. Sort reports, in ascending order, as listed below:
 - a. Activity number sequence with predecessor and successor activity.
 - b. Activity number sequence.
 - c. Early-start.
 - d. Total float.

1.6 PROGRESS OF THE WORK

- A. Updated Progress Schedule must reflect:
1. Progress of Work to within 5 working days prior to submission.
 2. Approved changes in Work scope and activities modified since submission.
 3. Delays in Submittals or resubmittals, deliveries, or Work.
 4. Adjusted or modified sequences of Work.
 5. Other identifiable changes.
 6. Revised projections of progress and completion.
 7. Report of changed logic.

- B. Produce detailed sub-schedules during Project, upon request of OWNER, to further define critical portions of the Work such as facility shutdowns, etc.
- C. If CONTRACTOR fails to complete activity by its latest scheduled completion date and this failure is anticipated to extend Contract Times (or Milestones), CONTRACTOR will, within 7 days of such failure, submit a written statement as to how CONTRACTOR intends to correct nonperformance and return to acceptable current progress schedule. Actions by CONTRACTOR to complete Work within Contract Times (or Milestones) will not be justification for adjustment to Contract Price or Contract Times.
- D. OWNER may order CONTRACTOR to increase plant, equipment, labor force or working hours if CONTRACTOR fails to: (1) Complete a Milestone activity by its completion date, (2) Satisfactorily execute Work as necessary to prevent delay to overall completion of Project, at no additional cost to OWNER.

1.7 NARRATIVE PROGRESS REPORT AND PHOTOGRAPHS

- A. Format: Organize same as Progress Schedule. Identify, on a cover letter, reporting period, date submitted, and name of author of report.
- B. Contents:
 - 1. Number of days worked over the period, work force on hand, construction equipment on hand (including utility vehicles such as pickup trucks, maintenance vehicles, stake trucks, etc.).
 - 2. General progress of Work, including a listing of activities started and completed over the reporting period, mobilization/demobilization of SUB-CONTRACTORS, and major milestones achieved.
 - 3. Photographs showing general progress of Work.
 - 4. CONTRACTOR'S plan for management of site (e.g., lay down and staging areas, construction traffic, etc.), utilization of construction equipment, buildup of trade labor, and identification of potential Contract changes.
 - 5. Identify new activities/sequences as a result of executed Contract changes.
 - 6. Documentation of weather conditions over the reporting period, and any resulting impacts to the Work.
 - 7. Description of actual or potential delays, including related causes, and the steps taken or anticipated to mitigate their impact.
 - 8. Changes to activity logic and/or the critical path.
 - 9. Identification of, and accompanying reason for, any activities added or deleted since the last report.
 - 10. Steps taken to recover the schedule from CONTRACTOR-caused delays.

1.8 SCHEDULE ACCEPTANCE

- A. OWNER'S acceptance will demonstrate agreement that the proposed schedule conforms to requirements of Contract including, but not limited to, the following:
 - 1. Contract Times, including Final Completion and all intermediate Milestones are within the specified times.
 - 2. Specified Work sequences and constraints are shown as specified.

3. Complete Scope of Work is included.
 4. Access restrictions are accurately reflected.
 5. Level of detail is as specified herein.
 6. Submittal submission and review times are as specified.
 7. Duration of Activities are reasonable.
 8. Sequencing is reasonable, compatible with specified construction sequencing, and does not include preferential logic contrary to the contingency /float sharing clauses of this Specification.
 9. Meets all administrative requirements of Contract Documents.
 10. Updated schedules reflect actual dates and duration of Work performed.
- B. Schedule Review Disposition:
1. Accepted.
 2. Rejected as Noted:
 - a. Make requested corrections; resubmit within ten days.
 - b. Until acceptable to OWNER as the Baseline Progress Schedule, continue the review and revision process, during which time CONTRACTOR shall update the schedule on a monthly basis to reflect actual progress and occurrences to date.
- C. Narrative Report: All changes to activity duration and sequences, including the addition or deletion of activities subsequent to OWNER's acceptance of the Baseline Progress Schedule, shall be delineated in the Narrative Report current with the proposed Updated Progress Schedule.

1.9 ADJUSTMENT OF CONTRACT TIMES

- A. Reference MASS Division 10 General Provisions.
- B. Evaluation and reconciliation of Adjustments of Contract Times shall be based on the Updated Progress Schedule at the time of proposed adjustment or claimed delay.
- C. Float: Float time is a Project resource available to both parties to meet contract Milestones and Contract Times.
1. Use of float suppression techniques such as preferential sequencing or logic, special lead/lag logic restraints, and extended activity times are prohibited, and use of float time disclosed or implied by use of alternate float-suppression techniques shall be shared to proportionate benefit of OWNER and CONTRACTOR.
 2. Pursuant to above float-sharing requirement, no time extensions will be granted nor delay damages paid until a delay occurs which (i) impacts Project's critical path, (ii) consumes available float or contingency time, and (iii) extends Work beyond contract completion date.
- D. Claims Based on Contract Times:
1. Where OWNER has not yet rendered formal decision on CONTRACTOR'S claim for adjustment of Contract Times, and parties are unable to agree as to amount of adjustment to be reflected in progress schedule,

CONTRACTOR shall reflect an interim adjustment in the progress schedule as acceptable to OWNER.

2. It is understood and agreed that such interim acceptance will not be binding on either CONTRACTOR or OWNER and will be made only for the purpose of continuing to schedule Work until such time as formal decision has been rendered as to an adjustment, if any, of the Contract Times.
3. CONTRACTOR shall revise progress schedule prepared thereafter in accordance with OWNER 's formal decision.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION (NOT USED)

END OF SECTION

SECTION 01 33 00
SUBMITTAL PROCEDURES

PART 1 GENERAL

1.1 GENERAL

- A. Inquiries: Direct submittal inquiries to OWNER regarding procedure, purpose, or extent of Submittal.
- B. OWNER's Authorization: At any time, OWNER may authorize changes to procedures and requirements for Submittals. Such authorization will be in writing.
- C. Timeliness: Schedule and make submissions in accordance with requirements of individual Specification sections and in such sequence as to cause no delay in Work or in work of other contractors. CONTRACTOR shall have the completed and approved submittals and shop drawings on site prior to installation of such materials into the work.
- D. Identification of Submittals
 - 1. Complete, sign, and transmit with each Submittal package, one Transmittal of Contractor's Submittal Form, and a copy of the Contractor's submittal log pertaining to submitted section.
 - 2. Submittal Number Format: SSSSS-NN-V.
 - a. SSSSS: Specification Section under which information is submitted
 - b. NNN: Sequential Submittal Number (01 through 999).
 - c. V: Resubmission version with sequential alphabetic suffix.
 - 3. Format: Orderly, indexed with labeled tab dividers.
 - 4. Show date of submission and dates of previous submissions.
 - 5. Show Project title and OWNER's contract identification and number and Project ID number.
 - 6. Show names of CONTRACTOR, Subcontractor or Supplier, and manufacturer as appropriate.
 - 7. Identify Contract Document section and paragraph to which Submittal applies.
 - 8. Identify whether the submitted item or items are a substitution or an or-equal alternative to the item specified in the Contract Documents.
 - 9. Clearly identify revisions from previous submissions.
 - 10. When a submittal package spans several sections, submit each item under its respective specification heading and paragraph. Clearly note on each item transmittal that it is part of a larger package and include references to the additional submittals made in the relevant sections.
- E. On OWNER provided transmittal form meeting these requirements, CONTRACTOR shall mark the Submittal with uniform approval stamp before submitting to OWNER. Stamp to include CONTRACTOR's reviewer name, date of CONTRACTOR's approval, and statement certifying that submittal has been reviewed, checked, and approved for compliance with Contract Documents.

- F. Non-specified Submissions: Submissions not required or requested under these Contract Documents will not be reviewed and will be returned to CONTRACTOR.
- G. Incomplete Submittals
1. OWNER will either (i) request the entire Submittal be revised and resubmitted with Contractor's revision/correction and resubmission, or (ii) request only portions of the Submittal be revised and resubmitted for review.
 2. Submittals which do not clearly bear CONTRACTOR's uniform approval stamp with written indication of CONTRACTOR review and approval of Submittal, or which are transmitted with an unsigned or uncertified submission form or as may otherwise be required under Contract Documents, will be returned to CONTRACTOR unreviewed for resubmission in accordance with Contract Documents.
 3. Delays, re-sequencing, or other impact to Work resulting from CONTRACTOR's submission of unchecked or unreviewed, incomplete, inaccurate, or erroneous, or nonconforming Submittals, which will require CONTRACTOR's resubmission of a Submittal for OWNER's review, shall not constitute a basis of claim for adjustment in Contract Price or Contract Times.
- H. Disposition of Submittals: OWNER will review and indicate requirements for resubmission or acceptance on Submittal as follows:
1. No Exceptions Taken (NET)
 - a. The submittal was reviewed and no exceptions were taken.
 - b. The work may proceed may proceed without modification.
 2. Make Corrections Noted (MCN)
 - a. The submittal was reviewed and annotations made to clarify the information submitted.
 - b. The work may proceed with the clarifications and corrections made to the information submitted.
 3. Amend and Resubmit (AR)
 - a. The submittal was reviewed and comments made to identify incorrect submitted information.
 - b. The CONTRACTOR is to revise the submittal and resubmit for further review by the OWNER.
 4. Rejected: Resubmit (RR):
 - a. The submittal was reviewed and found to be unacceptable.
 - b. The CONTRACTOR is to revise the submittal and resubmit for further review by the OWNER.
- I. OWNER's Review: OWNER will act upon Contractor's Submittal and transmit response to CONTRACTOR not later than fifteen (15) working days after receipt, unless: (i) specified otherwise or (ii) accepted by OWNER as set forth in Paragraph OWNER's Duties below and identified on current accepted submissions. Re-submittals will be subject to the same review time.

J. OWNER's Duties

1. Review Submittals with reasonable promptness and in accordance with current accepted submissions from Contractor's Project Manager.
 - a. No adjustment of Contract Times or Price will be allowed due to OWNER's review of Submittals, unless all following criteria are met:
 - 1) CONTRACTOR has notified OWNER in writing that timely review of Submittal in question is critical to progress of Work, and has received OWNER's written acceptance to reflect such on current accepted submissions and progress schedule. Written agreement by the OWNER to reduce the above Submittal review time will be made only for unusual and Contractor-justified reasons. Acceptance of a progress schedule containing Submittal review times less than specified above or less than agreed to in writing by OWNER will not constitute OWNER's acceptance of the review times.
 - 2) OWNER has failed to review and return the first submission of a Submittal within the agreed time indicated on current accepted schedule of submissions or, if no time is indicated thereon, within twenty-one (21) calendar days.
 - 3) CONTRACTOR demonstrates that delay in progress of Work is directly attributable to OWNER's failure to return Submittal within time indicated and accepted by OWNER.
 - b. No adjustment of Contract Times or Price will be allowed due to delays in progress of Work caused by rejection and subsequent resubmission of Submittals, including multiple resubmissions.
2. Indicate the disposition of submittal reviews as set forth above.
3. Indicate requirements for resubmission as required.
4. Post reviewed submittals with review comments back to CONTRACTOR using agreed to methods.

K. Excessive Review

1. Review of the first submission and two resubmissions of Shop Drawings, test procedures, training plans, and O&M manuals will be performed by OWNER and OWNERS' Consultants, as appropriate, at no cost to CONTRACTOR.
2. Subsequent additional resubmissions of such Submittals will be reviewed by OWNER and OWNERS' Consultants; however, OWNER will document work hours and other expenses required to perform such additional review(s) and CONTRACTOR shall reimburse OWNER for these costs.

1.2 SHOP DRAWINGS

A. CONTRACTOR Shop Drawing Submittals to Identify and Indicate:

1. Pertinent Drawing sheet(s) and detail number(s), products, model numbers, part numbers, units and assemblies, and system or equipment identification or tag numbers.
2. Mark out information not germane to this project or include clear indication of only specific elements intended for this Project.

3. Field dimensions and relationships to other critical features of Work
- B. Resubmissions: Clearly identify each correction or change made from the previous submittal.
- C. All Manufacturers: Complete Inventory of spare parts and accessories for each piece of equipment.
- D. Preparation
 1. Format: Whenever possible, schedule for and combine Shop Drawings required for submission in each specification section or division into a single Submittal package. Also combine product data for like items into a single Submittal package.
 2. Present in a clear and thorough manner and of sufficient detail to show kind, size, arrangement, and function of components, materials, and devices and compliance with Contract Documents. Identify details by reference to plan sheet and detail, and schedule or room numbers shown on Drawings.
 3. Use Electronic Drawing File Formats: AutoCAD and/or PDF that are searchable files.
 4. False work drawings and load calculations for temporary supports; lifting capacity of equipment proposed for demolished equipment removal.
 5. Product Data: Clearly mark each copy to identify pertinent products or models and show performance characteristics and capacities, dimensions and clearances required, wiring or piping diagrams and controls, and external connections, anchorages, and supports required. Where a product is available in multiple models or configurations, clearly identify which model and what attributes the submitted product includes and provide a clear definition of what model number designations imply in terms of product characteristics. The CONTRACTOR shall complete the Item Data Sheet at the end of this Section for each submitted product approved for use in the work.
 6. Manufacturers' standard schematic drawings and diagrams as follows:
 - a. Modify to delete information that is not applicable to Work.
 - b. Supplement standard information to provide information specifically applicable to Work.
- E. Design Data
 1. Provide appropriately licensed professional ENGINEER to perform design, oversee preparation of Shop Drawings, manufacturing, and installation, as appropriate, and stamp and certify Shop Drawings conform to design requirements; and laws, regulations, and governing agencies.
 2. Provide project-specific information as required and as necessary to clearly show calculations, dimensions, logic and assumptions, and referenced standards and codes upon which design is based.
 3. File Format: PDF or other appropriate electronic format that is searchable.

1.3 SAMPLES

- A. Submit to OWNER.
- B. Description: Physical examples of materials, equipment, or workmanship that are representative of some portion of work and that establish the standards by which such portion of the Work will be judged.
- C. Copies: Submit two copies to OWNER, unless otherwise specified in individual Specification section or in sufficient quantity and of size to enable examination as required and to establish quality or equality thereof.
- D. Reference: Meet requirements specified in Contract Documents.
- E. Procedure: Submit in accordance with current accepted submissions so as not to delay Work and with sufficient time to allow examination.
- F. CONTRACTOR: Responsible for safe and proper delivery of Samples and to prepay cartage charges. Submit additional Samples as may be required.
- G. Identification: Clearly indicate Specification section, source, location, date taken, by whom, certification as required, and other appropriate information to facilitate OWNER's review.
- H. Use: Approved Sample items may be incorporated into Work when no longer needed by OWNER for reference.

1.4 QUALITY CONTROL SUBMITTALS

- A. Submit to OWNER
- B. Schedules required by specification Section 01 32 00 CONSTRUCTION PROGRESS DOCUMENTATION, including Narrative Work Plan.
- C. List of utilities and agencies contacted by CONTRACTOR as required by specification Section 01 31 00 PROJECT MANAGEMENT AND COORDINATION.
- D. Written procedures for maintaining and markup of record documents per the requirements of specification Section 01 78 00 CONTRACT CLOSEOUT.
- E. Written Test Reports of Each Test and Inspection: As a minimum, include the following:
 - 1. Date of test and date issued, project title and number, testing laboratory name, address, and telephone number; and name and signature of laboratory inspector.
 - 2. Date and time of sampling or inspection, and record of temperature and weather conditions.
 - 3. Identification of product and Specification section, location of Sample, test, or inspection in the Project; type of inspection or test with referenced standard or code, certified results of test.
 - 4. Compliance with Contract Documents, and identifying corrective action necessary to bring materials and equipment into compliance.
 - 5. Provide an interpretation of test results, when requested by OWNER.

1.5 SUBSTITUTE AND "OR-EQUAL" PRODUCTS

- A. Meet the requirements of the Standard General Provisions as modified by the Special Provisions, the Specification sections, and as set forth herein.
- B. Indicate for each item the status (substitute or "or-equal") and submission date.
- C. Include all supporting data to allow OWNER's review. Complete, sign, and transmit with each proposed substitute or "or-equal" item/method submission.
- D. Disposition procedure of "Or-Equal" Item: In accordance with specification section under paragraph "Disposition of Submittals".

1.6 CONTRACT CLOSEOUT SUBMITTALS

- A. In accordance with specification Section 01 78 00 CONTRACT CLOSEOUT.

1.7 SUPPLEMENT

- A. The Transmittal of Contractor's Submittal form included in Part IV of the Contract Documents is part of this specification.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION (NOT USED)

END OF SECTION

SECTION 01 52 00
CONSTRUCTION FACILITIES

PART 1 GENERAL

1.1 WORK INCLUDED

- A. This section includes the work required to support the CONTRACTORS' construction activities at the Eagle River Wastewater Treatment Facility (ERWWTF). It includes temporary utilities, temporary facilities, material and equipment staging, maintenance of treatment plant operations, and protection of the OWNER's property.

1.2 RELATED SECTIONS

- A. Municipality of Anchorage Standard Specifications (MASS), Division 10 – General Provisions, Special Provisions; and Division 1 - General Requirements.
- B. 01 31 00 – Project Management and Coordination
- C. 01 33 00 – Submittal Procedures

1.3 SUBMITTALS

- A. Prepare, deliver, and process under provisions of Section 01 33 00 SUBMITTAL PROCEDURES.
- A. Copies of permits and approvals for construction as required by Laws and Regulations and governing agencies, local, State, and Federal.
- B. Complete list of all deviations from the Drawings and Specifications.
- C. Shop Drawings:
1. Construction Facilities Submittals:
 - a. Project site plan illustrating locations of job trailers, power source, and temporary stairs, and including:
 - 1) CONTRACTOR's field office
 - 2) OWNER's field office
 - 3) Construction staging area(s)
 - 4) Construction storage yard(s)
 2. Temporary Control Submittals:
 - a. Plans for the following at a minimum:
 - 1) interior dust control
 - 2) ladders and/or scaffolding equipment
 - 3) maintaining AWWU access to adjacent spaces
 - 4) staging of lifting and hauling equipment
 - b. Details of protective barriers and fencing

1.4 PERMITS

- A. Permits, Licenses and Approvals: Obtain required permits other than those provided by OWNER in Section XV in accordance with the requirements of the General Conditions, and retain onsite.

1.5 MOBILIZATION

- A. Mobilization shall include, but is not limited to the items listed herein:
 - 1. Obtaining required permits except those provided by OWNER in Section XV
 - 2. Moving CONTRACTOR's equipment and facilities to site, including onsite communication facilities/telephones, sanitary (lavatory), potable water, and breakroom
 - 3. Installing separately-metered temporary construction power, wiring, and lighting facilities
 - 4. Posting OSHA required notices and establishing safety program
 - 5. CONTRACTOR's superintendent shall be at the site full time

1.6 PROTECTION OF WORK AND PROPERTY

- A. Comply with OWNER's safety rules while on OWNER's property.
- B. Inform OWNER of accidents at the Project Site and of related claims.
- C. In the performance of Work, CONTRACTOR is to:
 - 1. Be responsible for adapting the means, methods, techniques, sequences, and procedures of the construction to allow the OWNER to maintain the continuous operation of the Treatment Plant consistent with Environmental Protection Agency and Alaska Department of Environmental Conservation permits and approvals.
 - 2. Plan, design, and provide various temporary services, utilities, connections, temporary piping, temporary pumping, heating, access, and similar items as may be needed to support continuous operation of the wastewater treatment process. Such measures shall be considered as incidental to the lump sum price bid for completion of the Work.

PART 2 PRODUCTS

2.1 GENERAL

- A. Products and materials employed for temporary construction facilities need not be new, but shall be clean, serviceable, fit for purpose, and safe for use at the facility.

2.2 CONTRACTOR'S FIELD OFFICES

- A. Ownership of equipment furnished under this article will remain, unless otherwise specified, that of CONTRACTOR.
- B. Minimum Features:
 - 1. 110-volt lighting and wall plugs.
 - 2. Fluorescent or incandescent ceiling lights.

3. Electric heating properly sized for Project locale and conditions. Provide ample electric power to operate installed systems.
 4. Railed stairways and landings at entrances.
 5. Exterior Door(s):
 - a. Number: One, minimum.
 - b. Type: Insulated.
 - c. Lock(s): Cylindrical; keyed alike.
 6. Minimum Interior Height: 8 feet.
- C. Floor Space for Conference Room: Minimum 160 square feet or otherwise suitable for not fewer than twelve people.
- D. Office Equipment-General:
1. Bottled Water Service: One, with cooler capable of producing hot water and cold water.
 2. Paper Cup Dispenser with Cups: One.
 3. Paper Towel Dispenser with Towels: One.
 4. Folding Table for meetings: Two, 36 inches by 72 inches.
 5. Chairs: Twelve.
 6. Coat Rack: One.
 7. First-Aid Kit: One.
 8. Carbon Dioxide (10-Pound) Fire Extinguisher: One.
 9. Telephone: One with one incoming/outgoing line, Touch-Tone, with conference speaker, and 12-foot coiled handset cord.
 10. Broadband internet connectivity with minimum download speeds of 2 Mbps and minimum upload speeds of 1 Mbps. Connection may be using a wireless card or connection to a wired network supporting CONTRACTOR's entire facility. Wireless signals are limited at the ERWWTF, but antenna raised at the west end of the treatment plant have been successful in securing wireless service for construction contractors active at the plant.

2.3 OWNER'S FIELD OFFICE

- A. Ownership of equipment furnished under this article will remain, unless otherwise specified, that of CONTRACTOR.
- B. Minimum Features:
1. 110-volt lighting and wall plugs.
 2. Fluorescent or incandescent ceiling lights.
 3. Electric heating properly sized for Project locale and conditions. Provide ample electric power to operate installed systems.
 4. Railed stairways and landings at entrances.
 5. Exterior Door(s):
 - a. Number: One, minimum.

- b. Type: Insulated.
 - c. Lock(s): Cylindrical; keyed alike.
 - 6. Minimum Interior Height: 8 feet.
 - 7. One 30 x 60 Office Desk
 - 8. One 36 x 72 Lay Down table
 - 9. One 48 wide, four-shelf book case
 - 10. One four drawer legal file cabinet
- C. Floor Space for Conference Room: Minimum 160 square feet or otherwise suitable for not fewer than twelve people.
- D. Office Equipment-General:
- 1. Bottled Water Service: One, with cooler capable of producing hot water and cold water.
 - 2. Paper Cup Dispenser with Cups: One.
 - 3. Paper Towel Dispenser with Towels: One.
 - 4. Folding Table for meetings: Two, 36 inches by 72 inches.
 - 5. Chairs: Twelve.
 - 6. Coat Rack: One.
 - 7. First-Aid Kit: One.
 - 8. Carbon Dioxide (10-Pound) Fire Extinguisher: One.
 - 9. Telephone: One with one incoming/outgoing line, Touch-Tone, with conference speaker, and 12-foot coiled handset cord.
 - 10. Broadband internet connectivity with minimum download speeds of 2 Mbps and minimum upload speeds of 1 Mbps. Connection may be using a wireless card or connection to a wired network supporting CONTRACTOR's entire facility. Wireless signals are limited at the ERWWTF, but antenna raised at the west end of the treatment plant have been successful in securing wireless service for construction contractors active at the plant.

PART 3 EXECUTION

3.1 TEMPORARY UTILITIES FOR CONSTRUCTION FACILITIES

- A. Electrical Power: Provide temporary power as necessary.
- B. Lighting: Provide temporary lighting to meet all applicable safety requirements.
- C. Fire Protection: Furnish and maintain on site, adequate firefighting equipment for construction facilities.
- D. Utilities: The OWNER will allow the CONTRACTOR use of existing site utilities at the ERWWTF including potable water, natural gas, and electrical power on the condition that these utilities are available without OWNER modification of existing utility infrastructure, that the CONTRACTOR's use of these utilities is only for advancing the work at the ERWWTF project site, and that the CONTRACTOR's use of these utilities does not interfere with the OWNER's operations at the

ERWWTF. Under these terms, the CONTRACTOR's use of these utilities will not be billed to the CONTRACTOR. The OWNER will provide a water meter to monitor potable water used by the CONTRACTOR. The CONTRACTOR will provide whatever temporary infrastructure and/or utility connection modifications necessary to utilize any of the existing utilities at the project site.

- E. Sanitary Facilities: Provide facilities for CONTRACTOR's employees, Subcontractors, and all other onsite CONTRACTOR personnel. Service, clean, and maintain facilities daily.

3.2 TEMPORARY CONTROLS

- A. Divert storm, drainage, and/or ground water interfering with construction.
- B. Provide, operate, and maintain temporary facilities to handle, treat, and dispose of runoff, dewatering and other construction waste waters in accordance with US Environmental Protection Agency and Alaska Department of Environmental Conservation guidelines and applicable regulatory requirements.
- C. Provide temporary barriers and fencing, as required to protect the Work and in accordance with applicable safety standards.

3.3 PARKING AREAS

- A. Control vehicular parking to preclude interference with OWNER's operations, construction operations, or access by emergency vehicles. Protect OWNER's existing property, site and wastewater treatment buildings.

3.4 DISPOSITION OF FACILITIES WASTES

- A. Provide OWNER-approved containers for collection of waste materials, debris, and rubbish. CONTRACTOR to remove waste generated in the execution of the Work from the project site and dispose at an Alaska Department of Environmental Conservation/US Environmental Protection Agency approved disposal facility, at minimum one-week intervals for the duration of the Project.

END OF SECTION

SECTION 01 78 00
CONTRACT CLOSEOUT

PART 1 GENERAL

1.1 SUBMITTALS

- A. Contract Closeout Submittals: Submit prior to application for final payment.
1. Approved Shop Drawings and Samples: As required in the General Provisions.
 2. Record Drawings.
 3. Special bonds, warranties, and service agreements.
 4. Final Application for Payment: Submit per the requirements of Section 01 20 00 PRICE AND PAYMENT PROCEDURES.

1.2 RECORD DOCUMENTS

- A. Maintain record documents through the duration of the Work as required in the General Provisions, Article 4.19 Record documents shall document factual information regarding the Work performed by the CONTRACTOR, both concealed and visible.
- B. Prior to submitting each progress payment request, CONTRACTOR shall request OWNER review status of current record documents. Failure to maintain record documents may result in OWNER's refusal of part of CONTRACTOR's application for partial or final payment.

1.3 RELEASE FROM AGREEMENTS

- A. Furnish OWNER written releases from property owners or public agencies where special agreements or easements have been made.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION

3.1 RECORD DOCUMENTS

- A. Identify the contact person responsible for maintaining the record documents and as-builts.
- B. Maintain one set of full-size drawings and specifications concurrently with the construction progress, labeled "RECORD DOCUMENTS" as required in the General Provisions, Article 4.19. Record document markups shall include but are not limited to the following, as applicable:
1. Depths and elevations of foundation features and structures.
 2. Horizontal and vertical locations of existing and new features, both visible and concealed, such as pipes, channels, underground facilities, utilities,

- and related appurtenances, and equipment. Provide swing tie to permanent existing surface structures.
3. Dimensions of existing and new features, both visible and concealed, such as pipes, channels, structural members, utilities, and related appurtenances, and equipment.
 4. Changes made through Addenda, Change Orders, Work Change Directives, Field Orders, and written interpretations and clarifications.
 5. Materials, equipment, and supplies actually installed in the Work.
- C. Make entries within 24 hours after receipt of information that a change in Work has occurred.
- D. Make dated entries on drawings and specifications legibly with erasable colored pencil based on the following color coding:
1. Green. Shows information deleted from documents.
 2. Red. Shows information added or changes made to the documents.
 3. Blue. Shows notes to OWNER.
- E. Furnish Certification in accordance with Special Provisions Division 10 Article 4.19.

3.2 FINAL CLEANING

- A. At completion of Work and prior to CONTRACTOR's request for recognition of Substantial Completion, or completion of the Work, clean the entire site.
1. Leave the Work and adjacent areas affected by the Work in a cleaned condition satisfactory to OWNER.
 2. Remove grease, dirt, dust, splatter, or other foreign material from exposed surfaces.
 3. Repair, patch, and touch up marred surfaces to specified finish and match adjacent surfaces.
 4. Clean all windows in project work areas.
 5. Replace air-handling filters and clean ducts, blowers, and coils of ventilation units operated for work areas during construction.
 6. Fill and repair wheeled vehicle travel areas to provide a smooth surface free of ruts and holes.
 7. Broom clean exterior paved driveways and parking areas.

END OF SECTION

SECTION 02 41 19
SELECTIVE DEMOLITION

PART 1 GENERAL

1.1 WORK INCLUDED

- A. This section addresses work scope to be undertaken as demolition and removal of existing infrastructure as shown in the Drawings and/or otherwise specified in the Contract Documents.

1.2 DEFINITIONS

- A. Selective Demolition is the removal of existing selected infrastructure from its current location at the Project Site in a manner that does not destroy the items to be removed, nor alter the ability of these items to be reused elsewhere for similar purpose. Selective demolition is to be executed so as not to damage adjacent infrastructure.
- B. Salvage is the transport and storage of items scheduled for demolition.
1. Salvaged items are to be removed using means and methods which do not alter the useful function of the item after removal and storage.
 2. Salvaged items are to be transported by the CONTRACTOR to a storage location designated by the Owner and/or otherwise indicated in these Contract Documents.
 3. Salvaged items are to be protected by the CONTRACTOR against damage or loss
 - a. During removal of the salvaged items from the Project Site
 - b. During transport to the OWNER's storage location.
- C. Disposal is the transport of items from the project site not scheduled for salvage, and delivery to a waste disposal site permitted to receive the items. Alternately, at the CONTRACTOR's choosing, items scheduled for disposal may be salvaged by the CONTRACTOR for his own use. The CONTRACTOR's election to salvage items scheduled for disposal shall not require interim storage of those items at the project site nor placement at a location where authority for that purpose has not been granted to the CONTRACTOR.

1.3 RELATED SECTIONS

- A. Municipality of Anchorage Standard Specifications (MASS), Division 10 – General Provisions; Special Provisions; and Division 1 - General Requirements.
- B. 01 14 00 – Project Constraints
- C. 01 31 00 – Project Management and Coordination
- D. 01 32 00 – Construction Progress Documentation

1.4 SUBMITTALS

- A. Prepare, deliver, and process submittals under provisions of Section 01 33 00 SUBMITTAL PROCEDURES.
- B. Complete list of all deviations from the Drawings and Specifications.
- C. Schedule of Selective Demolition Activities: Indicate detailed sequence of selective demolition and removal work, with starting and ending dates for each activity. Include indication of items to be disposed and salvaged.
 - 1. Submit minimum of 21 calendar days prior to initiating demolition work scope.
 - 2. Plan approval required prior to initiating demolition work scope.
 - 3. Plan must demonstrate accommodation of continued Owner operations at the Treatment Plant.
- D. Pre-demolition Photographs: Submit photo images showing existing conditions of adjoining construction relative to proposed demolition/upgrade work, including finished surfaces that might be misconstrued as damage caused by selective demolition operations.

1.5 REGULATORY REQUIREMENTS

- A. Conform to applicable codes for demolition of structure, safety of adjacent structures, dust control, lead coatings removal, service utilities, discovered hazards, and safety of personnel.
- B. Do not disable or disrupt building fire or life safety systems without prior written notice from the OWNER.
- C. Conform to state and federal procedures upon discovery of hazardous or contaminated materials.

1.6 PRE-DEMOLITION MEETING

- A. Prior to starting any demolition work, conduct a meeting with the OWNER. As a minimum discuss the demolition to be performed; the sequence of activities; temporary systems/unit process shutdown or bypass; operations and duration; items to be retained by OWNER; protection of items to be retained by OWNER; and items to be disposed, and disposal location. See Section 01 31 00 PROJECT MANAGEMENT AND COORDINATION for additional requirements.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION

3.1 REQUIREMENTS

- A. Protect existing items that are to remain in the area of the Work and are not to be removed or demolished.
- B. Provide sheeting, shoring, and bracing as needed to prevent movement or settlement of adjacent structures and foundations.
- C. To prevent damage, carefully remove materials and equipment indicated to be salvaged, reused, or relocated. Dispose of all other materials according to approved plan.
- D. Conduct demolition to minimize interference with adjacent structures and appurtenances, and access.
- E. Maintain egress and access at all times.
- F. Cease operations immediately and notify the OWNER if adjacent structures appear to be in danger.

3.2 SELECTIVE DEMOLITION

- A. Demolish and remove components in an orderly and careful manner, per the approved plan.
- B. Remove appurtenances of items scheduled for demolition when said appurtenance serves no other function or supports no other unit process or piece of equipment. Per specification Section 01 14 00 PROJECT CONSTRAINTS, Sequence of Construction:
- C. Protect existing ancillary facilities and appurtenances.
- D. See specification Section 01 31 00 PROJECT MANAGEMENT AND COORDINATION and 01 78 00 CONTRACT CLOSEOUT, as well as individual technical Specifications and Drawings for other requirements related to demolition and cutting, patching, and surface finishing related to the Work of this Project.
- E. At penetrations of fire rated wall, partitions, ceilings, roof or floor constructions, completely seal voids with fire rated material to full thickness of the penetrated element. Maintain all fire assembly rating wall or area separation construction in accordance with applicable codes.
- F. Refinish any affected surfaces to match adjacent finish. For continuous surfaces, refinish to nearest intersection or natural break. For an assembly, refinish entire unit.

3.3 DUST CONTROL

A. Fugitive Dust Control Plan

1. Submit minimum of 21 calendar days prior to initiating demolition work scope. Plan approval required prior to initiating demolition work scope.
2. Plan must demonstrate accommodation of continued OWNER operations at the AWWTF.
3. Address the following in the plan submittal
 - a. Schedule for deployment of dust control measures and materials.
 - b. Manufacturer's product data sheets for materials proposed for use in the work.
 - 1) Ventilation Fans
 - 2) Dust Ductwork
 - 3) Filters/Filtration
 - 4) Enclosures
 - c. Monitoring and maintenance procedures to be deployed by the CONTRACTOR to confirm control of fugitive dust.
 - d. Project closeout procedures for dust control
 - 1) Demolition and removal of fugitive dust control.
 - 2) Cleaning procedures for dust removal from project site.

3.4 CLEAN UP

- A. Remove demolished materials from site as work progresses.
- B. Leave areas of work in clean condition.

END OF SECTION

SECTION 07 81 00
APPLIED FIRE RESISTIVE MATERIALS

PART 1 GENERAL

1.1 WORK INCLUDED

- A. Prepare existing columns with chipped/damaged Spray-Applied Fire-Resistive Material (SFRM) and furnish and apply new fire resistive materials per APPLICATION SCHEDULE this Specification, and per the column callouts on Schedule B, Drawings S1.1 Building 2, and S1.2 Aeration Building.
- B. Existing Conditions: Record Submittal indicates the existing SFRM as Monokote MK-6.

1.2 RELATED SECTIONS

- A. Municipality of Anchorage Standard Specifications (MASS), Division 10 – General Provisions; Special Provisions; and Division 1 - General Requirements.
- A. 01 14 00 – Project Constraints
- B. 01 31 00 – Project Management and Coordination
- C. 01 32 00 – Construction Progress Documentation

1.3 REFERENCE STANDARDS

- A. ASTM E84 - Standard Test Method for Surface Burning Characteristics of Building Materials
- B. ASTM E736/E736M - Standard Test Method for Cohesion/Adhesion of Sprayed Fire-Resistive Materials Applied to Structural Members
- C. ASTM E760/E760M - Standard Test Method for Effect of Impact on Bonding of Sprayed Fire-Resistive Material Applied to Structural Members
- D. ASTM E937/E937M - Standard Test Method for Corrosion of Steel by Sprayed Fire-Resistive Material (SFRM) Applied to Structural Members

1.4 SUBMITTALS

- A. Prepare, deliver, and process submittals under provisions of Section 01 33 00 SUBMITTAL PROCEDURES.
- B. Complete list of all deviations from the Drawings and Specifications.
- C. Product Data: Provide data indicating product characteristics.
- D. Shop Drawings:
 - 1. Framing plans, schedules, or both, indicating the following:
 - a. Extent of substrate preparation and application of new fire resistive materials for each existing column with chipped/damaged SFRM.
 - 2. Minimum fire resistive material thicknesses needed to match existing fire resistive materials.
- E. Treatment of fire resistive materials after application.

- F. Quality Control Submittals:
 - 1. Manufacturer's written instructions and special details.
 - 2. Installer's Experience: List of references substantiating experience.
 - 3. Field Testing: Inspection and test reports.
 - 4. Manufacturer's and Installer's Certificate of Proper Installation.

1.5 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Company specializing in manufacturing products specified in this section, with not less than ten years of documented experience.
- B. Installer Qualifications: Company specializing in performing work of the type specified and with at least five years of documented experience.

1.6 PREINSTALLATION MEETING

- A. Prior to starting work on site, conduct a pre-installation meeting. As a minimum, identify and discuss the work to be performed, the sequence of activities, coordination of work with other trades, environmental controls, and testing and reporting procedures.

1.7 FIELD CONDITIONS

- A. CONTRACTOR shall employ best practices to control dust, fumes, and other airborne byproducts of the work using appropriate environmental controls. This may include tenting, ventilation, and other measures necessary to safeguard the OWNER's staff and adjacent equipment and processes.
- B. Environmental Limitations: Do not apply fire resistive materials when ambient or substrate temperature is 40 F or lower unless temporary protection and heat are provided to maintain temperature at or above this level for 24 hours before, during, and for 24 hours after product application.
- C. Ventilation: Ventilate building spaces during and after application of fire resistive materials, providing complete air exchanges according to Manufacturer's written instructions. Use natural means or, if they are inadequate, forced-air circulation until fire resistive material dries thoroughly.

PART 2 PRODUCTS

2.1 MANUFACTURERS

- A. Applied Fire Resistive Materials:
 - 1. GCP Applied Technologies: www.gcpat.com.

2.2 FIRE RESISTIVE MATERIALS

- A. Monokote MK-6 Series. Applicable when patching existing SFRM areas greater than 144 square inches.
- B. Monokote Patching Compound. Applicable only for use when patching existing SFRM areas 144 square inches or less.

- C. Thickness: As required to achieve the fire rating per the Manufacturer, but not less than the existing fire resistive materials thickness.
- D. Dry mixed mineral fiber and/or slag wool products are not acceptable.

2.3 ACCESSORIES

- A. General: Provide auxiliary materials that are compatible with fire resistive materials and substrates and are approved by UL or another testing and inspecting agency acceptable to authorities having jurisdiction for use in fire-resistance designs indicated.
- B. Substrate Primers: Primers approved by fire resistive materials Manufacturer and complying with one or both of the following requirements:
 - 1. Primer and substrate are identical to those tested in required fire-resistance design by UL or another testing and inspecting agency acceptable to authorities having jurisdiction.
 - 2. Primer's bond strength in required fire-resistance design complies with specified bond strength for fire resistive materials and with requirements in UL's "Fire Resistance Directory" or in the listings of another qualified testing agency acceptable to authorities having jurisdiction, based on a series of bond tests according to ASTM E 736.
- C. Bonding Agent: Product approved by fire resistive materials Manufacturer and complying with requirements in UL's "Fire Resistance Directory" or in the listings of another qualified testing agency acceptable to authorities having jurisdiction.
- D. Metal Lath: Expanded metal lath fabricated from material of weight, configuration, and finish required, according to fire-resistance designs indicated and fire resistive materials Manufacturer's written recommendations. Include clips, lathing accessories, corner beads, and other anchorage devices required to attach lath to substrates and to receive fire resistive materials.
- E. Reinforcing Fabric: Glass- or carbon-fiber fabric of type, weight, and form required to comply with fire-resistance designs indicated; approved and provided by fire resistive materials Manufacturer.
- F. Reinforcing Mesh: Metallic mesh reinforcement of type, weight, and form required to comply with fire-resistance design indicated; approved and provided by fire resistive materials Manufacturer. Include pins and attachment.
- G. Patching: Monokote Patching Compound can be applied to patch areas of 144 square inches or less. Follow manufacturer's instructions for hand patching.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Examine substrates, areas, and conditions, with Installer present, for compliance with requirements for substrates and other conditions affecting performance of the Work and according to each fire-resistance design. Verify compliance with the following:
 - 1. Substrates are free of dirt, oil, grease, release agents, rolling compounds, mill scale, loose scale, incompatible primers, paints, and encapsulants, or other foreign substances capable of impairing bond of fire resistive materials with substrates under conditions of normal use or fire exposure.
 - 2. Objects penetrating fire resistive materials, including clips, hangers, support sleeves, and similar items, are securely attached to substrates.
 - 3. Substrates receiving fire resistive materials are not obstructed by ducts, piping, equipment, or other suspended construction that will interfere with application.

3.2 PREPARATION

- A. Perform tests as recommended by fire resistive materials Manufacturer in applications where adhesion of fire resistive materials to substrate is in question.
- B. Remove incompatible materials that could affect bond by scraping, brushing, scrubbing, or sandblasting.
- C. Prepare substrates to receive applied fire resistive materials Manufacturer in strict accordance with instructions of Manufacturer.
- D. Apply Manufacturer's recommended bonding agent on existing coated steel.
- E. Protect surfaces not scheduled for application of fire resistive materials and equipment from damage.

3.3 APPLICATION

- A. Patching SFRM in accordance with the Manufacturer's recommendations and the following guidelines:
 - 1. The material used for patching is of the same Type designation as the material being patched.
 - 2. All loose material, including dirt and any other foreign material, that would impair adhesion of the patching material must be removed prior to patching. Where damaged material extends to the steel or concrete substrate, removal should be to the steel or concrete substrate.
 - 3. Where well-bonded material exists below the damaged material, removal of the damaged material should extend to the well-bonded firm material. There is no requirement to remove well-bonded material that lies immediately beneath loosely bonded or poorly adhered material. Well-bonded material may be determined by in-place bond strength tests in accordance with ASTM E736.
 - 4. Cementitious fire resistive material may be hand mixed and trowel applied as required for patching and repair to surfaces where the area of the patch will not exceed 144 square inches.

5. The minimum in-place density and minimum thickness of the material, as specified in the fire resistance design, must be maintained.
6. The in-place bond strength of the material meets the minimum value established by the Manufacturer. Bond testing should be conducted in accordance with ASTM E736 and the requirements for Spray Applied Fire Resistive Materials in the front of the UL Fire Resistance Directory.
7. The patching material is keyed into the material surrounding the patch. It should be understood that the integrity of the surrounding material shall not have been impaired. If the surrounding material has been damaged it should be removed prior to patching.
8. When applying new material over in place material that has dried, it may be necessary to dampen or pre-wet the in-place material sufficiently to prevent premature drying of the newly applied patching material. In addition to the dryness of the substrate, the requirement to pre-wet will depend on the set time of the applied material, thickness of the patch, and environmental factors such as ambient temperature and relative humidity. The supplier of the SFRM should be consulted for specific recommendations appropriate to the jobsite conditions.
9. Any clips or hangers being patched around are totally encased in material at the point of attachment to the structural member at a thickness equal to that being applied to the structural member.
10. Where hand applications will exceed 144 square inches, the SFRM shall be mechanically mixed and pumped through standard application equipment as outlined in the Manufacturer's application instructions and then sprayed into a suitable container. From the container, the material may be troweled on beams, columns, decks, joists and trusses in accordance with the thicknesses and densities required in the specific design. The sprayed material can be hand applied with conventional plastering hand application tools without limitation. Mechanical mixing may include the use of drill-mounted mixers.
11. Monokote Patching Compound can be applied to Types MK-6 patch areas of 144 square inches or less following the above guidelines 1 through 9 with a minimum average dry density and minimum individual density of 15/14 pounds per cubic foot (pcf), respectively.

3.4 APPLICATION SCHEDULE:

- A. Unless otherwise shown or specified, apply fire resistive materials to patch existing SFRM per the following application schedule. In the event of discrepancies or omissions in the following, request clarification from the OWNER before starting Work.
- B. See column callouts on Schedule B, Drawings S1.1 Building 2, and S1.2 Aeration Building.

1. Aeration Building. Columns:
 - a. A/25.6. Chipped/damaged SFRM near top of column.



- b. A/25. Chipped SFRM on column flange near top.



Aeration Building (CONTINUED). Columns:

- c. C/25. Chipped SFPM near mid-base of column.



- d. D/25. Chipped SFPM on column flange, near rear-base of column.



Aeration Building (CONTINUED). Columns:

- e. F/25. Chipped SFPM on column flange, each side, near base of column (two photos).



Aeration Building (CONTINUED). Columns:

- f. B/25.7. Chipped SFPM on column flange, near base of column.



- g. C/25.7. Chipped SFPM on column flange, near base of column in concrete wall.



Aeration Building (CONTINUED). Columns:

- h. D/25.7. Chipped SFPM on column flange, near base of column in concrete wall.



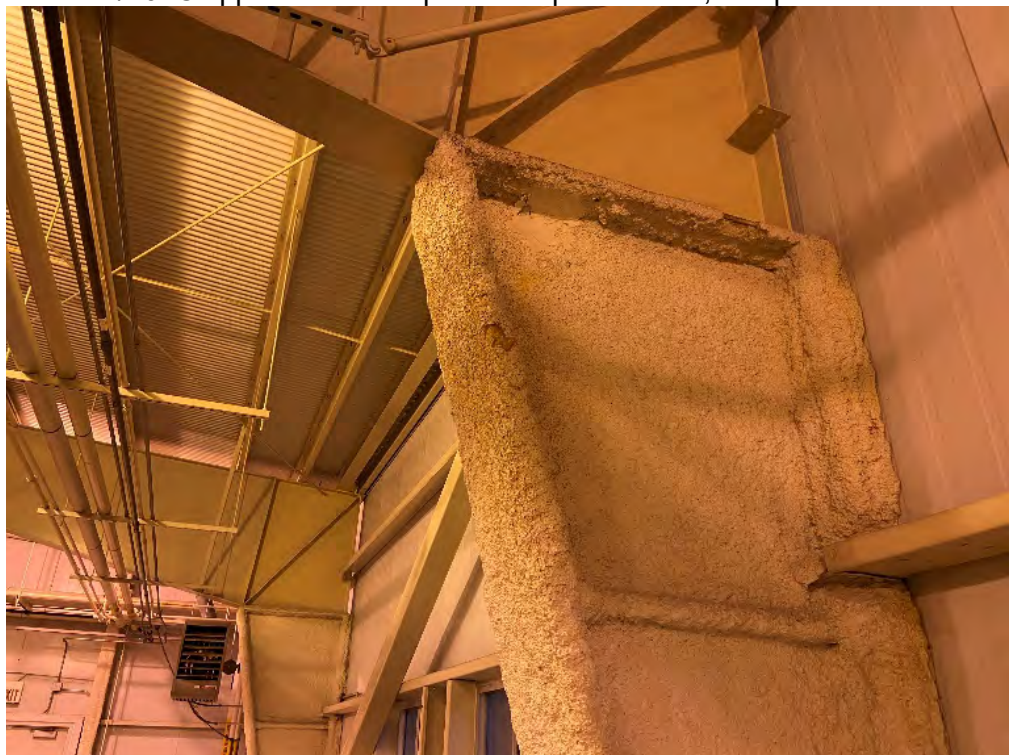
- i. F/25.7. Chipped SFPM on column flange, near base of column in concrete wall.



2. Building 2. Columns:
 - a. J/25.4. Chipped SFPM on column web, near column base where tension rod connects.



- b. L/26. Chipped SFPM on plate at top of column, two places.



Building 2 (CONTINUED). Columns:

- c. N/26. Chipped SFPM on plate at top of column.



- d. S/25.2. Chipped SFPM on column web, near column base where tension rod connects.



- 3.

3.5 FIELD QUALITY CONTROL

- A. Perform field inspection and testing as recommended by the Manufacturer.
- B. Inspect fire resistive materials after application and curing for integrity.
- C. Ensure that actual thicknesses, densities, and bond strengths meet requirements to match existing adjacent fire resistive materials.
- D. Applied Fire Resistive Material will be considered defective if it does not pass tests and inspections.
 - 1. Remove and replace fire resistive materials that does not pass tests and inspections, and retest.
 - 2. Apply additional fire resistive materials, per Manufacturer's written instructions, where test results indicate insufficient thickness, and retest.
- E. Prepare test and inspection reports.

3.6 CLEANING AND REPAIRING

- A. Immediately after completing operations in each containable area of Project, remove material overspray and fallout from surfaces of other construction and clean exposed surfaces to remove evidence of soiling.
- B. Repair applied fire resistive materials by reapplying it using same method as original installation or using Manufacturers recommended trowel-applied product.

END OF SECTION

SECTION 09 51 00
SUSPENDED ACOUSTICAL CEILINGS

PART 1 GENERAL

1.1 WORK INCLUDED

- A. This section includes the work required to repair and/or replace Suspended Acoustical Ceilings as designated on the Drawings.

1.2 RELATED SECTIONS

- A. Municipality of Anchorage Standard Specifications (MASS), Division 10 – General Provisions, Section 10.07 Measurement and Payment; Special Provisions; and Division 1 - General Requirements.

1.3 REFERENCE STANDARDS

- A. ASTM C635/C635M - Standard Specification for the Manufacture, Performance, and Testing of Metal Suspension Systems for Acoustical Tile and Lay-in Panel Ceilings.
- B. ASTM E580/E580M - Standard Practice for Installation of Ceiling Suspension Systems for Acoustical Tile and Lay-in Panels in Areas Subject to Earthquake Ground Motions.
- C. ASTM E1264 - Standard Classification for Acoustical Ceiling Products.

1.4 SUBMITTALS

- A. Prepare, deliver, and process submittals under provisions of Section 01 33 00 SUBMITTAL PROCEDURES.
- B. Complete list of all deviations from the Drawings and Specifications.
- A. Shop Drawings: CONTRACTOR shall submit shop drawings of the ceilings to be repaired and/or replaced, indicating grid layout and related dimensioning, junctions with other ceiling finishes, and mechanical and electrical items installed in the ceiling.
- B. Schedule of Selective Demolition and Installation Activities: Indicate detailed sequence of selective demolition and removal work, as well as repair and/or replacement work with starting and ending dates for each activity. Include indication of items to be disposed and salvaged.
1. Submit minimum of 21 calendar days prior to initiating demolition work scope.
 2. Plan approval required prior to initiating demolition work scope.
 3. Plan must demonstrate accommodation of continued Owner operations at the Treatment Plant.
- C. Pre-demolition Photographs: Submit photo images showing existing conditions of adjoining construction relative to proposed demolition/upgrade work, including finished surfaces that might be misconstrued as damage caused by selective demolition operations.

1.5 QUALITY ASSURANCE

- A. Suspension System Manufacturer Qualifications: Company specializing in manufacturing the products specified in this section with minimum three years documented experience.
- B. Acoustical Unit Manufacturer Qualifications: Company specializing in manufacturing the products specified in this section with minimum three years documented experience.

1.6 FIELD CONDITIONS

- A. Maintain uniform temperature of minimum 60 degrees F, and maximum humidity of 40 percent prior to, during, and after acoustical unit installation.

PART 2 PRODUCTS

2.1 MANUFACTURERS

- A. Acoustic Tiles/Panels: Armstrong World Industries, Inc: www.armstrong.com.

2.2 ACOUSTICAL UNITS

- A. Acoustical Units - General: ASTM E1264, Class A.
- B. Acoustical Panels Type Armstrong Cirrus High-NRC Angled Tegular with Prelude 15/16" suspension system: Painted mineral fiber, ASTM E1264 Type III, with the following characteristics:
 - 1. Size: 24 x 48 inches.
 - 2. Thickness: 7/8-inches.
 - 3. Composition: Wet-formed mineral fiber.
 - 4. Light Reflectance: 0.85 percent, determined in accordance with ASTM E1264.
 - 5. NRC Range: 0.73 to 0.75, determined in accordance with ASTM E1264.
 - 6. Articulation Class (AC): 170, determined in accordance with ASTM E1264.
 - 7. Ceiling Attenuation Class (CAC): 35, determined in accordance with ASTM E1264.
 - 8. Edge: 15/16" Angled Tegular.
 - 9. Color: White.
 - 10. Surface Pattern: medium texture.
 - 11. Suspension System: Exposed grid.

2.3 SUSPENSION SYSTEM(S)

- A. Suspension Systems - General: Complying with ASTM C635/C635M; die cut and interlocking components, with stabilizer bars, clips, splices, perimeter moldings, and hold down clips as required.
- B. Exposed Steel Suspension System: Formed galvanized steel, commercial quality cold rolled; heavy-duty.
 - 1. Profile: Tee; 15/16 inch wide face.
 - 2. Construction: Double web.
 - 3. Finish: White painted.
 - 4. Products: Prelude XL by Armstrong World Industries, Inc.

2.4 ACCESSORIES

- A. Support Channels and Hangers: Galvanized steel; size and type to suit application, seismic requirements, and ceiling system flatness requirement specified.
- B. Perimeter Moldings: Same material and finish as grid.
 - 1. At Exposed Grid: Provide L-shaped molding for mounting at same elevation as face of grid.
- C. Acoustical Sealant for Perimeter Moldings: Non-hardening, non-skinning, for use in conjunction with suspended ceiling system.
- D. Touch-up Paint: Type and color to match acoustical and grid units

PART 3 EXECUTION

3.1 EXAMINATION

- A. Verify existing conditions before starting work.
- B. Verify that layout of hangers will not interfere with other work.

3.2 INSTALLATION - SUSPENSION SYSTEM

- A. Install suspension system in accordance with ASTM E580/E580M and manufacturer's instructions and as supplemented in this section.
- B. Rigidly secure system, including integral mechanical and electrical components, for maximum deflection of 1:240.
- C. Locate system on room axis according to reflected plan.
- D. Install after major above-ceiling work is complete. Coordinate the location of hangers with other work.
- E. Hang suspension system independent of walls, columns, ducts, pipes and conduit. Where carrying members are spliced, avoid visible displacement of face plane of adjacent members.
- F. Where ducts or other equipment prevent the regular spacing of hangers, reinforce the nearest affected hangers and related carrying channels to span the extra distance.

- G. Do not support components on main runners or cross runners if weight causes total dead load to exceed deflection capability.
- H. Support fixture loads using supplementary hangers located within 6 inches of each corner, or support components independently.
- I. Do not eccentrically load system or induce rotation of runners.
- J. Perimeter Molding: Install at intersection of ceiling and vertical surfaces and at junctions with other interruptions.
 - 1. Use longest practical lengths.
 - 2. Overlap and rivet corners.

3.3 INSTALLATION - ACOUSTICAL UNITS

- A. Install acoustical units in accordance with manufacturer's instructions.
- B. Fit acoustical units in place, free from damaged edges or other defects detrimental to appearance and function.
- C. Fit border trim neatly against abutting surfaces.
- D. Install units after above-ceiling work is complete.
- E. Install acoustical units level, in uniform plane, and free from twist, warp, and dents.
- F. Cutting Acoustical Units:
 - 1. Cut to fit irregular grid and perimeter edge trim.
 - 2. Make field cut edges of same profile as factory edges.
 - 3. Double cut and field paint exposed reveal edges.
- G. Where round obstructions occur, provide preformed closures to match perimeter molding.
- H. Install hold-down clips on each panel to retain panels tight to grid system; comply with fire rating requirements.
 - 1. Ensure all ceiling grid at exits and corridors is braced to structure above in accordance with latest CISCA seismic zone 4 recommendations. Secure all ceiling tiles at exits and corridors to grid with seismic holddown clips.

3.4 TOLERANCES

- A. Maximum Variation from Flat and Level Surface: 1/8 inch in 10 feet.
- B. Maximum Variation from Plumb of Grid Members Caused by Eccentric Loads: 2 degrees.

END OF SECTION

SECTION 09 97 00
SPECIAL COATINGS

PART 1 GENERAL

1.1 WORK INCLUDED

- A. Furnish and install surface preparation and coatings application for exposed steel and related appurtenances of this project as required of the Drawings and these specifications.
 - 1. New steel and related appurtenances shall be provided with factory-applied hot-dip galvanized coating.
 - 2. New hot-dip galvanized steel components furnished to the project, as well as existing coated steel and appurtenances affected by this project, shall be prepared and coated per APPLICATION SCHEDULE this Specification.
 - a. Only structural elements with complete and approved coating shall be installed in the structure by the CONTRACTOR.
- B. Do Not Coat or Finish the Following Items:
 - 1. Items indicated to receive other finishes.
 - 2. Items indicated to remain unfinished.
 - 3. Fire rating labels, equipment serial number and capacity labels, and operating parts of equipment.
 - 4. Stainless steel, anodized aluminum, bronze, and lead items.
 - 5. Concealed pipes, ducts, and conduits.

1.2 RELATED SECTIONS

- A. Municipality of Anchorage Standard Specifications (MASS), Special Provisions, and Division 1 - General Requirements apply to Work of this Section.
- B. 01 10 00 – Summary of Work
- C. 01 14 00 – Project Constraints
- D. 01 33 00 – Submittal Procedures
- E. 02 41 19 – Selective Demolition

1.3 QUALITY ASSURANCE/REFERENCES

- A. 40 CFR 59, Subpart D - National Volatile Organic Compound Emission Standards for Architectural Coatings; U.S. Environmental Protection Agency; current edition.
- B. Society for Protective Coatings (SSPC)
 - 1. Standards
 - 2. PA2. Paint Application Specification No. 2: Measurement of Dry Coating Thickness with Magnetic Gages

- C. American Standard for Testing and Materials (ASTM).
 - 1. A123. Standard Specification for Zinc (Hot-Dip Galvanized) Coatings on Iron and Steel Products
 - 2. A780. Standard Practice for Repair of Damaged and Uncoated Areas of Hot-Dip Galvanized Coatings
 - 3. D6386. Standard Practice for Preparation of Zinc (Hot-Dip Galvanized) Coated Iron and Steel Product and Hardware Surfaces for Painting
 - 4. D870. Standard Practice for Testing Water Resistance of Coatings Using Water Immersion
 - 5. D1653. Standard Test Methods for Water Vapor Transmission of Organic Coating Films
 - 6. D4417, Standard Test Methods for Field Measurement of Surface Profile of Blast Cleaned Steel
 - 7. D4541. Standard Test Method for Pull-Off Strength of Coatings Using Portable Adhesion Testers
 - 8. F2329. Standard Specification for Zinc Coating, Hot-Dip, Requirements for Application to Carbon and Alloy Steel Bolts, Screws, Washers, Nuts, and Special Threaded Fasteners
- D. National Association of Corrosion Engineers International (NACE)
 - 1. SP0188. Standard Practice for Discontinuity (Holiday) Testing of New Protective Coatings on Conductive Substrates

1.4 DEFINITIONS

- A. Terms used in this section:
 - 1. Coverage: Total minimum dry film thickness in mils, or square feet per gallon.
 - 2. FRP: Fiberglass Reinforced Plastic
 - 3. HCl: Hydrochloric Acid
 - 4. Int: Intermediate
 - 5. MDFT: Minimum Dry Film Thickness
 - 6. MDFTPC: Minimum Dry Film Thickness Per Coat
 - 7. Mil: Thousandth of an inch
 - 8. MIL/milspec: Military Specification - Paint
 - 9. NAPF: National Association of Pipe Fabricators
 - 10. SFPG: Square Feet Per Gallon
 - 11. SFPGPC: Square Feet Per Gallon Per Coat
 - 12. SP: Surface Preparation
 - 13. Stripe Coat: Coating applied to edges and welds on steel structures before or after a full coat is applied. The stripe coat is intended to give those areas sufficient film build to resist corrosion.

1.5 SUBMITTALS

- A. Prepare, deliver, and process under provisions of Section 01 33 00, SUBMITTAL PROCEDURES.
- B. Complete list of all deviations from the Drawings and Specifications.
- C. Data: Submit required information for each coating system on system-by-system basis.
 - 1. Coating System Data Sheet (CSDS is appended to this section).
 - 2. Manufacturers' Technical Data/Product Sheets, including VOC content.
 - 3. Maintenance Data: Submit data on cleaning, touch-up, and repair of coated surfaces.
 - 4. Manufacturer and applicator qualifications.
- D. Quality Control Submittals:
 - 1. Factory Applied Coatings: Manufacturer's certification stating factory applied coating system meets or exceeds requirements specified.
 - 2. If the manufacturer of finish coating differs from that of the factory and/or shop applied coatings, provide both manufacturers' written confirmation that materials are compatible.
 - 3. Manufacturer's written instructions and special details for applying each type of coating, including component mixing requirements as applicable.
 - 4. Applicator's Experience: List of references substantiating experience.
 - 5. Field Testing: Inspection and test reports addressing the following:
 - a. Environmental conditions
 - b. Work area air temperature
 - c. Temperatures of surfaces to be coated
 - d. Relative humidity
 - e. Dew point
 - f. Surface roughness of surfaces prepared for coating
 - g. Surface preparation methods, procedures, materials used
 - h. Identification of coating products applied
 - i. Dry mil thickness of coatings applied
 - 6. Coating Applicator's Certificate of Proper Installation.

1.6 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Company specializing in manufacturing the products specified, with minimum ten years' experience.
- B. Applicator Qualifications: Company specializing in performing the type of work specified with minimum ten years' documented experience in application of specified products.

C. Regulatory Requirements:

1. Meet federal, state, and local requirements limiting the emission of volatile organic compounds.
2. Perform surface preparation and coat in accordance with recommendations of the following:
 - a. Coating manufacturer's instructions.
 - b. SSPC-PA Guide No. 3, Guide to Safety in Paint Applications.
 - c. Federal, state, and local agencies having jurisdiction.

1.7 PREINSTALLATION MEETING

- A. Prior to starting work on site, conduct a pre-installation meeting. As a minimum, discuss the work to be performed, the sequence of activities, coordination of work with other trades, environmental controls, and testing and reporting procedures.

1.8 DELIVERY, STORAGE, AND HANDLING

- A. Deliver new coating product materials to site in unopened containers labeled with designated name, date of manufacture, color, and manufacturer; inspect to verify acceptability.
- B. Container Label: Include manufacturer's name, type of coating, brand name, lot number, brand code, coverage, surface preparation, drying time, cleanup requirements, color designation, and instructions for mixing and reducing.
- C. Store products in a protected area, well ventilated, and heated or cooled to maintain temperatures within the range recommended by coating manufacturer.
- D. Shipping: Where precoated items are to be shipped to the site, protect coating from damage. Batten coated items to prevent abrasion. Use nonmetallic or padded slings and straps in handling.

1.9 ENVIRONMENTAL REQUIREMENTS

- A. CONTRACTOR shall employ best practices to control dust, fumes, and other airborne byproducts of the work using appropriate environmental controls. This may include tenting, ventilation, and other measures necessary to safeguard the OWNER's staff and adjacent equipment and processes.
- B. Do not apply paints and coatings in temperatures outside of manufacturer's recommended maximum or minimum allowable, or in dust or smoke-laden atmosphere, damp or humid weather.
- C. Do not perform abrasive blast cleaning whenever relative humidity exceeds 85 percent, or whenever surface temperature is less than 5 degrees F above dew point of ambient air. Further, the surface temperature must be at least 5 degrees F above the dew point at all times during and between final blasting and coating operations.
- D. The applicator shall maintain the proper environmental conditions for the application of the specified coatings.
- E. Follow manufacturers' recommended procedures for producing best results, including testing of substrates, moisture in substrates, and humidity and temperature limitations.

- F. Minimum Application Temperatures for Latex Paints: 45 degrees F for interiors; 50 degrees F for exterior; unless required otherwise by manufacturer's instructions.
- G. Provide lighting level of 80 foot-candles measured mid-height at substrate surface.

PART 2 PRODUCTS

2.1 MANUFACTURERS

- A. Provide all paints and coatings products used in any individual system from the same manufacturer; no exceptions.
- B. Protective Coatings:
 - 1. Devoe® High Performance Coatings
 - 2. Sherwin Williams
 - 3. Tnemec Company, Inc.
 - 4. Others as approved.

2.2 COATINGS

- A. General:
 - 1. Material Quality: Manufacturers' highest quality products and suitable for intended service.
 - 2. Materials Including Primer and Finish Coats: Produced by same manufacturer.
 - 3. Thinners, Cleaners, Driers, and Other Additives: As recommended by manufacturer of the particular coating.
 - 4. Epoxy Primer: Polyamide, anticorrosive, converted epoxy primer containing rust-inhibitive pigments.
 - 5. Polyamide Epoxy: Polyamide, high build epoxy coating suitable for the intended exposure. Capable of application at 4 to 8 MDFT per coat.
 - 6. (Acrylic) Aliphatic Polyurethane: Plural component, high build, high solids, suitable for intended service.
 - 7. Inorganic Zinc Primer: Solvent or water based, having 85% metallic zinc content in the dry film; follow manufacturer's recommendation for top coating.

B. Special Coatings Systems:

1. See APPLICATION SCHEDULE, this Section, for coatings systems application locations.
2. Hot-Dip Galvanized Coating, Factory-Applied.
 - a. New exposed steel and related appurtenances in Corrosive Environment:
 - 1) ASTM A123 new structural steel shapes, plates, sections, washers, bars, and related appurtenances.
 - 2) ASTM F2329 bolts, nuts, and washers.
 - 3) ASTM A152 connectors and anchors.
 - 4) ASTM A780 touchup.
3. System No. 2 Exposed Metal in Corrosive Environment:

Surface Prep.	Coating	Min. Coats, Cover
Abrasive Blast, or Centrifugal Wheel Blast (SP 10)	Polyamide Epoxy Primer	1 coat, 3 MDFT
Detergent Wash, Fresh Water Rinse, and in accordance with the Manufacturer's Directions (as required)	Polyamide Epoxy	Stripe coat: 3 MDFT 1 coat, 5 MDFT
Detergent Wash, Fresh Water Rinse, and in accordance with the Manufacturer's Directions (as required)	High Solids Aliphatic Polyurethane Top Coat	1 coat, 5 MDFT

4. System No. 3 Galvanized Metal in Corrosive Environment:

Surface Prep.	Paint Material	Min. Coats, Cover
ASTM D6386	Polyamide, Anticorrosive Epoxy Primer	1 coat, 3 MDFT
Detergent Wash, Fresh Water Rinse, and in Accordance with the Manufacturer's Directions (as required)	High-Build Epoxy Topcoat	1 coat, 5 MDFT

5. System No. 4 Exposed Metal, Topcoat:

Surface Prep.	Paint Material	Min. Coats, Cover
Detergent Wash, Fresh Water Rinse, and in Accordance with the Manufacturer's Directions	Aliphatic Polyurethane	2 coats, 3 MDFTPC
See Primer System No. 10 requirement for topcoat		

6. System No. 10 Primer:

Surface Prep.	Paint Material	Min. Coats, Cover
Abrasive Blast, or Centrifugal Wheel Blast (SP 10)	Inorganic Zinc Rich Primer	1 coat, 3 MDFT

2.3 APPLICATION SCHEDULE:

- A. Unless otherwise shown or specified, coat surfaces in accordance with the following application schedule. In the event of discrepancies or omissions in the following, request clarification from the OWNER before starting Work.
- B. Hot-Dip Galvanized Coating, Factory-Applied. Provide on the following items:
- All new exposed structural steel and related appurtenances.
- C. System No. 2 Exposed Metal in Corrosive Environment, Use on the following items or areas:
- Existing exposed steel and related appurtenances requiring recoating as affected by CONTRACTOR's work.
- D. System No. 3 Galvanized Metal Top Coat, Corrosive Environment. Factory or Shop-Applied and completed prior to installation. Provide on the following items:
- All new hot-dip galvanized steel and related appurtenances.
 - All new metal pipe supports, bracing, and appurtenances installed in this project.
- E. System No. 4 Exposed Metal, Topcoat. Completed prior to installation. Provide on the following items:
- All items coated with System No. 10 Primer or otherwise requiring finish coating.
- F. System No. 10 Primer: Use on the following items:
- Ferrous metals not otherwise indicated for coating or provided with factory /shop finished coating systems.
 - Repair of galvanized steel damaged by cutting, welding, and/or handling.

- G. Surfaces Not Requiring Coating: Unless otherwise stated or shown on the Drawings and/or specifications.
 - 1. Nonmetallic process related materials such as PVC, CPVC, and other plastics (including FRP).
 - 2. Pre-finished electrical items such as motor control centers, switchboards, switchgear, panel boards, transformers, and disconnect switches.
 - 3. Stainless Steel.
- H. Topcoat Color. Where possible, CONTRACTOR is to match the topcoat color to adjacent existing coatings; or as otherwise designated by the OWNER.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Inspect and provide substrate surfaces prepared in accordance with these Specifications and the printed directions and recommendations of coatings manufacturer whose product is to be applied. The more stringent requirements shall apply.
- B. Provide minimum 7 days advance notice to start of shop or field surface preparation work and coating application work.

3.2 ENVIRONMENTAL CONDITIONS

- A. Do not apply coatings in temperatures outside of manufacturer's recommended maximum or minimum allowable, or in dust or smoke-laden atmosphere, damp or humid weather.
- B. Do not apply coatings in snow, rain, fog, or mist; or when the relative humidity exceeds 85 percent; or to damp or wet surfaces; unless otherwise permitted by the coating manufacturer's printed instructions.
- C. Coating may be continued during inclement weather, only if the areas and surfaces to be coated are enclosed, heated, and dehumidified as applicable, within the temperature limits specified by the coating manufacturer during application and drying periods.
- D. The applicator shall employ best practices to control dust, fumes, and other airborne byproducts of the work using appropriate environmental controls. This may include tenting, ventilation and other measures necessary to safeguard the Owner's staff and adjacent equipment and processes.
- E. The applicator shall maintain the proper environmental conditions for the application of the specified coatings, which may include tenting, ventilation, heating, dehumidification, and other measures. Follow manufacturer's recommended procedures for producing best results, including testing of substrates, moisture in substrates, and humidity and temperature limitations.

3.3 SAFETY

- A. Coating shall be performed in strict accordance with the safety recommendations of the coating manufacturer, the National Association of Corrosion Engineers; and federal, state, and local agencies having jurisdiction.

3.4 PREPARATION

- A. Protection of Items not to be coated: Remove, mask, or otherwise protect building features, flooring, equipment, piping, and appurtenances; hardware, lighting fixtures, switch plates, aluminum surfaces, machined surfaces, couplings, shafts, bearings, nameplates on machinery, and other surfaces not intended to be coated. Provide drop cloths to prevent coating materials from falling on or marring adjacent surfaces. Protect working parts of mechanical and electrical equipment from damage during surface preparation and coating process. Openings in motors shall be masked to prevent coatings and other materials from entering the motors.
- B. Metal Surfaces: Where indicated, meet requirements of the latest revision of the following SSPC Specifications:
 - 1. Solvent Cleaning: SP 1.
 - 2. White Metal Blast Cleaning: SP 5.
 - 3. Brush-Off Blast Cleaning: SP 7.
 - 4. Near-White Metal Blast Cleaning: SP 10.
- C. Solvent Cleaning (as required):
 - 1. Consists of removal of foreign matter such as oil, grease, soil, drawing and cutting compounds, and any other surface contaminants by using solvents, emulsions, cleaning compounds, steam cleaning, or similar materials and methods which involve a solvent or cleaning action.
 - 2. Meets requirements of SSPC SP 1.
- D. Grind smooth burrs, jagged edges, and surface defects.
- E. Existing Surfaces to be Painted:
 - 1. Detergent wash and freshwater rinse.
 - 2. Perform blasting as required to restore damaged surfaces. Materials, equipment, procedures shall meet requirements of Steel Structures Painting Council.
- F. Welds and Adjacent Areas:
 - 1. Prepare such that there is:
 - a. No undercutting or reverse ridges on weld bead.
 - b. No weld spatter on or adjacent to weld or any other area to be coated.
 - c. No sharp peaks or ridges along weld bead.
 - 2. Grind or brush-machine embedded pieces of electrode or wire flush with adjacent surface of weld bead.
- G. Preblast Cleaning Requirements:
 - 1. Remove oil, grease, welding fluxes, and other surface contaminants prior to blast cleaning.
 - 2. Cleaning Methods: Steam, open flame, hot water, or cold water with appropriate detergent additives followed with clean water rinsing.

3. Clean small isolated areas as above or solvent clean with suitable solvents and clean cloths.
- H. Blast Cleaning Requirements:
1. Type of Equipment and Speed of Travel: Design to obtain specified degree of cleanliness. Minimum surface preparation is as specified herein and takes precedence over coating manufacturer's recommendations.
 2. Select type and size of abrasive to produce a surface profile that meets coating manufacturer's recommendations for particular primer to be used.
 3. Use only dry blast cleaning methods.
 4. Do not reuse abrasive, except for designed recyclable systems.
 5. Meet applicable federal, state, and local air pollution and environmental control regulations for blast cleaning, confined space entry (if required), and disposition of spent aggregate and debris.
- I. Post-Blast Cleaning and Other Cleaning Requirements:
1. Clean surfaces of dust and residual particles from cleaning operations by dry (no oil or water vapor) air blast cleaning or other method prior to coating. Vacuum clean enclosed areas and other areas where dust settling is a problem and wipe with a tack cloth.
 2. Coat surfaces the same day they are blasted. Reblast surfaces that have started to rust before they are coated.
- J. Galvanized surfaces to be painted:
1. Solvent clean and brush blast or acid etch prior to applying coating. Consult coating manufacturer as to which of the two is the preferred surface preparation method. Solvent cleaning only will not be approved.
 2. Prime using a coating recommended by the manufacturer as compatible with the selected top coat.
- K. Galvanized surfaces to be repaired
1. In accordance with ASTM A780: If method according to Annex A2 is selected, perform blast cleaning to near white finish prior to applying coating.

3.5 APPLICATION

A. General:

1. The intent of this specification is for new and existing steel and related appurtenances to be coated to prevent metal corrosion, whether specifically mentioned or not, except as shown or specified otherwise.
 - a. All new steel (typically hot dip galvanized) shall be finish coated prior to installation. Careful handling during installation will minimize the touchup coating repairs that might otherwise be required.
2. Apply coatings in accordance with these Specifications and the coating manufacturers' printed recommendations and special details. The more stringent requirements shall apply. Allow sufficient time between coats to assure thorough drying of previously applied coating.

3. Confirm coating application is completed, including recoated field cuts, on structural elements or surfaces prior to assembly or installation.
 - a. Only complete and approved coated steel and related appurtenances shall be installed in the structure by the CONTRACTOR.
 4. Keep coating materials sealed when not in use.
 5. Where more than one coat of a material is applied within a given system, alternate color to provide a visual reference that the required number of coats have been applied.
- B. Stripe Coating:
1. Stripe coat all field welds, edges, angles, fasteners, and other irregular surfaces.
 2. Stripe coat shall consist of one coat, brush applied, to the coating thickness specified.
 3. Apply stripe coat between intermediate and final coats.
- C. Film Thickness:
1. Number of Coats: Minimum required without regard to coating thickness. Additional coats may be required to obtain minimum required coating thickness, depending on method of application, differences in manufacturers' products, and atmospheric conditions.
 2. Maximum film build per coat shall not exceed coating manufacturer's recommendations.
 3. Film Thickness Measurements and Electrical Inspection of Coated Surfaces:
 - a. Perform with properly calibrated instruments.
 - b. Recoat and repair as necessary for compliance with the Specifications.
 - c. All coats are subject to inspection by Engineer and coating manufacturer's representative.
 - d. Give particular attention to edges, angles, flanges, and other similar areas, where insufficient film thickness is likely to be present, and ensure proper millage in these areas.
 4. Thickness Testing:
 - a. Measure coating thickness specified in mils with a magnetic type dry film thickness gauge.
 - b. Test finish coat for holidays and discontinuities with an electrical holiday detector, low voltage, wet-sponge type.
 - c. Check each coat for correct millage. Do not make measurement before a minimum of 8 hours after application of coating.

- D. Damaged Coatings, Pinholes, and Holidays:
 - 1. Feather edges and repair in accordance with recommendations of coating manufacturer.
 - 2. Apply finish coats, including touchup and damage-repair coats in a manner that will present a uniform texture and color-matched appearance.
- E. Unsatisfactory Application:
 - 1. If item has an improper finish color, or insufficient film thickness, clean surface and topcoat with specified coating material to obtain specified color and coverage on all affected areas. Obtain specific surface preparation information from coating manufacturer.
 - 2. Hand or power sand visible areas of chipped, peeled, or abraded coating, and feather the edges. Follow with primer and finish coat. Depending on extent of repair and appearance, a finish sanding and topcoat may be required.
 - 3. Evidence of runs, bridges, shiners, laps, or other imperfections is cause for rejection.
 - 4. Repair defects in accordance with written recommendations of coating manufacturer.
 - 5. Leave staging and lighting in place until Engineer has inspected surface or coating. Replace staging removed prior to approval and provide additional staging and lighting as requested.

3.6 FIELD QUALITY CONTROL

- A. Testing Gauges:
 - 1. Provide a magnetic type dry film thickness gauge to test coating thickness specified in mils. Mikrotest as manufactured by ElektroPhysik USA Inc., Arlington Heights, IL (1-800-782-1506).
 - 2. Provide an electrical holiday detector, low voltage, wet sponge type to test finish coat, except zinc primer, high-build elastomeric coatings, and galvanizing, for holidays and discontinuities as manufactured by Tinker and Rasor, San Gabriel, CA, Model M-1.
- B. Blast surface profile. Include test standard and methods used for field measurements.
- C. Daily test reports shall include the following minimum information: ambient environmental conditions; environmental conditions within the enclosure; general locations that holiday and thickness tests are performed; specific locations of failed tests; record of remedial action taken on failed tests.

3.7 CLEANUP

- A. All cloths and waste that might constitute a fire hazard shall be placed in closed metal containers or destroyed at the end of each day.
- B. Upon completion of coating work, clean coating-spattered surfaces. Remove spattered coating by proper methods of washing and scraping, using care not to scratch or otherwise damage finished surfaces.

3.8 PROTECTION

- A. Protect work of other trades, whether to be coated or not, against any damage by coating and finishing work. Correct any damage by cleaning, repairing or replacing, and recoating as acceptable to the OWNER.
- B. Provide "WET PAINT" signs as required to protect newly coated finishes. Remove temporary protective wrappings provided by others for protection of their work after completion of coating operations.
- C. At the completion of work of other trades, touch up and restore all damaged or defaced painted surfaces.

3.9 FORMS

- A. Attached form is part of this specification.

END OF SECTION

COATING SYSTEM DATA SHEET

Complete and attach manufacturer's Technical Data Sheet to this CSDS for each coating system.

Coating System Number (from Spec.):		
Coating System Title (from Spec.):		
Coating Supplier:		
Representative:		
Surface Preparation:		
Coating Material (Generic)	Product Name/Number (Proprietary)	Min. Coats, Coverage



Municipality of Anchorage

Anchorage Water and Wastewater Utility



2022 SEWER IMPROVEMENTS

ERWWTF EARTHQUAKE REPAIRS AND STRUCTURAL RETROFITS

SECTION IV

SUBMITTAL LIST AND STANDARD FORMS

Submittal List

Submittal Transmittal

Certificate of Compliance

Design Clarification & Verification Request

Deviation Request

Substitution Request

Subcontractor & Supplier List



Municipality of Anchorage

Anchorage Water and Wastewater Utility



2022 SEWER IMPROVEMENTS

ERWWTF EARTHQUAKE REPAIRS AND STRUCTURAL RETROFITS

Job WM.00151
#:

Contractor: _____

Submittal No.	Description	Submittal Schedule
10.02.2	Bidder request for interpretation or clarification	Not later than seven (7) days prior to the date for opening bids
10.03.2	Bid Submittals	Prior to the time of opening specified in the Invitation to Bid and the exact date and time of receipt of Bids shall be recorded.
10.03.6	Performance and Payment Bond. Certificate of insurance.	Within five (5) working days after Notice of Award of contract is issued.
10.04.19	Record Documents	Within thirty (30) days after Substantial Completion or prior to Final Acceptance of the project, whichever is earlier.
10.05.3	Construction Progress Schedule	Within ten (10) days of the effective Notice to Proceed, and prior to the commencement of Work.
10.05.3	Critical Path Method (CPM) Schedule	No later than twenty-one (21) days from the effective date of the Notice to Proceed and at least monthly thereafter.
10.05.4	Unusual Working Hours	At least forty-eight (48) hours advance notice.
10.05.5	Shop Drawings	Within reason and in such sequence as to cause no delay in the Work or in the work of the Owner or any other contractor.
10.05.6	Product Data	Within reason and in such sequence as to cause no delay in the Work or in the work of the Owner or any other contractor.



Municipality of Anchorage

Anchorage Water and Wastewater Utility



2022 SEWER IMPROVEMENTS

ERWWTF EARTHQUAKE REPAIRS AND STRUCTURAL RETROFITS

10.05.7	Materials Substitutions	Within ten (10) calendar days of the effective date of the Notice-to-Proceed (or such time as may be approved in writing by the Engineer.)
10.05.10	Subcontractor List	Within ten (10) days after the effective date of the Notice-To-Proceed, and prior to the commencement of the Work.
10.05.18	Changed Conditions	No later than two (2) working days, and before such conditions are disturbed.
10.05.20	Change Order Proposal	Prior to payment of changed Work
10.05.21	Claims for Additional Compensation	Initial Notification - Immediately.
10.05.26	Pre-Final Inspection Notification	After completion of Work After code compliance inspections
10.05.29	Termination of Work for Owners Convenience	Immediately after receiving a Notice of Termination.
10.06.8	24-Hour Emergency Contact Number*	Prior to commencement of work * Found in Construction Specifications
10.06.9	Insurance	Prior to execution of the Contract.
10.07.4	Change Order Proposal/ Negotiated Changes	Prior to payment of the changed Work.
10.07.5	Application for Partial Payment	Monthly
10.07.7	Final Payment	Upon completion of the Work and issuance of a certificate of completion by the Engineer.
01 14 00	Narrative Work Plan (including Shutdowns, and sequencing of activities and construction)	Minimum (30) days prior to schedule to commence Work
01 20 00	Schedule of Values, and Estimated Progress Payments	Within ten (10) days after the effective date of the Notice-To-Proceed, and



Municipality of Anchorage

Anchorage Water and Wastewater Utility



2022 SEWER IMPROVEMENTS

ERWWTF EARTHQUAKE REPAIRS AND STRUCTURAL RETROFITS

		prior to the commencement of the Work.
01 31 00	Confined Space Entry Plan	Minimum (30) days prior to Work in such space
01 32 00	Updated Progress Schedule	With every pay application or every thirty (30) days
02 41 19	Schedule of Selective Demolition Activities	Minimum (30) days prior to schedule to commence Work
all drawings & specifications	Quality Control/Quality Assurance Submittals	Within reason and in such sequence as to cause no delay in the Work or in the work of the Owner or any other contractor.
<p>NOTE: The above list of submittals is not all-inclusive. In addition to the above, the Contractor is required to comply with all submittal requirements as required or identified in the plans (drawings and specifications), Special Provisions, MASS, or as directed by the Engineer. (See Division 10, Section 10.04, Article 4.3.)</p>		

SUBMITTAL TRANSMITTAL

PROJECT: _____ SUBMITTAL NO.: _____
 CONTRACTOR: _____ CONTRACT NO.: _____
 ORIGINATOR: _____ SPEC. SECTION: _____
 DATE SUBMITTED: _____ DRAWING NO.: _____ SHEET _____ OF _____

TO: ANCHORAGE WATER & WASTEWATER UTILITY
 Engineering Division
 3000 Arctic Boulevard

ATTN: _____

ITEM: _____ SUPPLIER/CONTRACTOR: <input type="checkbox"/> Original Submittal <input type="checkbox"/> 3rd <input type="checkbox"/> 2nd <input type="checkbox"/> 4th		REVIEW ACTION						
		COPIES SENT	NO EXCEPTION TAKEN	MAKE CORRECTIONS AS NOTED	AMEND AND RESUBMIT	REJECTED RESUBMIT	COPIES RETURNED	NOTES ATTACHED
ID. NO.	DETAILED DESCRIPTION (Provide Itemized List of Contents of this Submittal)	A	B	C	D			

Complete either (a) or (b), following:

(a) We have verified that the material or equipment contained in this submittal meets all the requirements specified or shown (no exceptions).

(b) We have verified that the material or equipment contained in this submittal meets all the requirements specified or shown, except for the following deviations (list deviations, attach a separate sheet if necessary).

Corrections or comments made relative to submittals during this review do not relieve the Contractor from compliance with the requirements of the drawings and specifications. This submittal is only for review of general conformance with the design concept of the project and general compliance with the information given in the contract documents. The Contractor is responsible for confirming and correlating all quantities and dimensions; selecting fabrication processes and techniques of construction; coordinating his work with that of other trades, and performing his work in a safe and satisfactory manner.

CONTRACTOR: _____
(Signature)

ENGINEER: _____
(Signature)

ROUTING	RECEIVED BY NAME / COMPANY	DATE RECEIVED	DATE FORWARDED	COMMENTS
Project Manager				
Designer				
Project Manager				
Contractor				

CERTIFICATE OF COMPLIANCE

Project Name: _____ Contract No. C-_____

I (WE) CERTIFY THAT ALL WORK HAS BEEN PERFORMED AND MATERIALS SUPPLIED IN ACCORDANCE WITH THE PLANS, SPECIFICATIONS AND CONTRACT DOCUMENTS FOR THE ABOVE WORK, AND THAT:

- A. Not less that the prevailing rates of wages as ascertained by the governing body of the contracting agency has been paid to laborers, workmen, and mechanics employed on this work;
- B. There have been no unauthorized substitutions of subcontractors; nor have any subcontracts been entered into without the names of the subcontractors having been submitted to the Engineer prior to the start of such subcontracted work;
- C. No subcontract was assigned or transferred or performed by any subcontractor other than the original subcontractor, without prior notice having been submitted to the Engineer together with the names of all subcontractors;
- D. All claims for material and labor and other services performed in connection with these specifications have been paid;
- E. All monies due the State Industrial Accident Fund, the State Unemployment Compensation Trust Fund, the State Tax Commission, hospital associations and/or other have been paid.

(Company Name)

(Contractor's Signature)

(Date)

STATE OF ALASKA)
)ss.
THIRD JUDICIAL DISTRICT)

The foregoing instrument was acknowledged before me this _____ day of _____, 20 ____, by _____
to be the _____ of the company.

Notary Public
My commission expires: _____

DESIGN CLARIFICATION/VERIFICATION REQUEST (DC/VR)

PROJECT _____ DC/VR NO. _____
 CONTRACTOR _____ CONTRACT NO. _____
 ORIGINATOR _____ SPEC. SECTION _____
 DATE SUBMITTED _____ DRAWING NO. _____ SHEET _____ OF _____

DESCRIPTION OF DC/VR

RESPONSE REQUESTED BY (Date) _____

RESPONSE TO DC/VR

RESPONSE BY (Name/Company) _____

ROUTING	RECEIVED BY NAME / COMPANY	DATE RECEIVED	DATE FORWARDED	COMMENTS
Project Manager				
Designer				
Project Manager				
Contractor				

DIRECTION

- Proceed per Engineers Response. No change in contract price or time is recognized.
- Do not proceed until _____
- _____

DEVIATION REQUEST (DR)

PROJECT _____ DR NO. _____
 CONTRACTOR _____ CONTRACT NO. _____
 ORIGINATOR _____ SPEC. SECTION _____
 DATE SUBMITTED _____ DRAWING NO. _____ SHEET _____ OF _____

DESCRIPTION OF DR

A. Original Contract Requirements:

B. Reason for Deviation Request:

C. Proposed Deviation:

D. Any Changes in Contract Time or Cost YES NO

CONTRACTOR SIGNATURE - _____ RESPONSE
 Date _____ REQUIRED BY (Date) _____

RESPONSE TO DR

RESPONSE BY (Name/Company) _____

ROUTING	RECEIVED BY NAME / COMPANY	DATE RECEIVED	DATE FORWARDED	COMMENTS
Project Manager				
Designer				
Project Manager				
Contractor				

DIRECTION

Approved
 Approved as Noted BY _____
 Disapproved (Signature)

SUBSTITUTION REQUEST (SR)

PROJECT _____ SR NO. _____
CONTRACTOR _____ CONTRACT NO. _____
ORIGINATOR _____ SPEC. SECTION _____
DATE SUBMITTED _____ DRAWING NO. _____ SHEET _____ OF _____

SPECIFIED ITEM:

SECTION	PAGE	PARAGRAPH	DESCRIPTION
---------	------	-----------	-------------

The undersigned requests consideration of the following:

PROPOSED SUBSTITUTION: _____

Attached data includes product description, specifications, drawings, photographs and performance and test adequate for evaluation of the request. Applicable portions of the data are clearly identified.

The undersigned states that the following paragraphs, unless modified on attachments, are correct:

1. The proposed substitution does not affect dimensions shown on Drawings and will not require any change in any of the Contract Documents.
2. The undersigned will pay for changes to the design, including engineering design, detailing, and construction costs caused by the requested substitution which is estimated to be \$_____.
3. The proposed substitution will have no adverse affect on other contractors, the construction schedule (specifically the date of substantial completion), or specified warranty requirements.
4. Maintenance and service parts will be locally available for the proposed substitution.
5. The incorporation or use of the substitution in connection with the work is not subject to payment of any license fee or royalty.

The undersigned further states that the function, appearance, and quality of the Proposed Substitution are equivalent or superior to the Specified Item.

Submitted by CONTRACTOR

Reviewed by ENGINEER

Signature: _____
Firm: _____
Date: _____
Telephone: _____

- Accepted
- Accepted as Noted
- Not Accepted
- Received too Late

Attachments

: _____

By: _____
Title: _____
Date: _____
Remarks: _____

ANCHORAGE WATER AND WASTEWATER UTILITY

Subcontractor/Supplier List

Project Name:

Project Number:

List all suppliers, subcontractors, their mailing addresses and a summary of the extent and character of the work to be performed by each:

Supplier/Subcontractor	Address	Extent/Character of Work
-------------------------------	----------------	---------------------------------



Municipality of Anchorage

Anchorage Water and Wastewater Utility



2022 SEWER IMPROVEMENTS

ERWWTF EARTHQUAKE REPAIRS AND STRUCTURAL RETROFITS

SECTION V

CONTRACT AND BID DOCUMENTS

Contract

Bid Bond

Performance & Payment Bond

Certificate of Insurance

Bidder's Checklist

Responsible Bidder Questionnaire

CONTRACT

Invitation to Bid No. **2022C**_____

Contract No. **C-2022**_____

NAME AND ADDRESS OF CONTRACTOR:

Check appropriate box:

Incorporated in the State of

MUNICIPALITY OF ANCHORAGE, acting through _____ (hereinafter the Owner).

Contract for _____

BID SCHEDULES

ITEMS

**PLAN SHEET
FILE NUMBERS**

AMOUNT

\$ _____

Total Amount : \$ _____

THIS CONTRACT, entered into by the MUNICIPALITY OF ANCHORAGE, ALASKA, acting through the Owner named above, and the individual, partnership, or corporation named above, hereinafter called the Contractor, WITNESSETH that the parties hereto do mutually agree as follows:

Statement of Work: The Contractor shall furnish all labor, equipment and materials and perform the Work above described, for the amount stated, in strict accordance with the Contract Documents.

CONTRACT DOCUMENTS

- I. This CONTRACT consisting of 4 pages.
- II. The Bid Proposal Section ___ consisting of ___ pages numbered as ___, **as contained in ITB 2022C**_____.
- III. The Contract Performance and Payment Bond _____.
- IV. The Contractor's Certificate of Insurance Dated _____.
- V. Municipality of Anchorage Standard Specifications dated 2015 (MASS) Incorporated by Reference, **as contained in ITB 2022C**_____.
- VI. Specifications consisting of the following:

Supplemental Provisions Section _____ consisting of _____ pages, with attachments Exhibit A through F, **as contained in ITB 2022C**_____.
- VII. Equal Opportunity Special Provisions and Forms Section _____ consisting of _____ pages, **as contained in ITB 2022C**_____.
- VIII. Disadvantaged/Women-Owned Business Enterprise (DBE/WBE) Specification Section _____ consisting of _____ pages, **as contained in ITB 2022C**_____.
- IX. The Laborers' and Mechanics' Minimum Rates of Pay dated September 1, 2015 Section _____ consisting of _____ pages, **as contained in ITB 2022C**_____.
- X. Submittal List Section _____ consisting of _____ page, **as contained in ITB 2022C**_____.
- XI. The Drawings consisting of _____ sheets numbered _____, **as contained in ITB 2022C**_____.

IN WITNESS WHEREOF, the parties hereto have executed this Contract as of the Contract Date entered below.

MUNICIPALITY OF ANCHORAGE, ALASKA

VENDOR _____

BY _____
Signature

BY _____
Signature

Purchasing Officer or designee
Title

Printed Name

Title

Date of Signature

Date of Signature and Contract Date:

SAMPLE

**CONTRACT AND PERFORMANCE AND PAYMENT
BOND SIGNATURE INSTRUCTIONS**

1. The full name and business of the Contractor shall be inserted on Page 1 of the Contract and on the Performance and Payment Bond, hereinafter the Bond.
2. Two copies of the Contract and the Bond shall be manually signed by the Contractor. If the Contractor is a partnership or joint venture, all partners or joint ventures shall sign the Contract and the Bond except that one partner or one joint venturer may sign for the partnership or joint venture when all other partners or joint venturers have executed a Power-of-Attorney authorizing one partner or joint venturer to sign. The Power-of-Attorney shall accompany the executed contract and the Bond.
3. If the Contractor is a corporation, the President of the corporation shall execute the Contract and the Bond unless a Power-of-Attorney or corporate resolution shall accompany the executed Contract and Bond.
4. The Bond shall be returned to the Purchasing Division undated. The Contract Date shall be inserted on the Contract when the Municipality signs the Contract and the Bond shall be dated the same as the Contract Date.

SAMPLE

BID BOND

KNOW ALL MEN BY THESE PRESENTS, That we, _____
as Principal, and _____ a
corporation organized under the laws of the _____ and
authorized to transact surety business in the State of Alaska, of _____
_____ as Surety, are held and firmly bound unto the MUNICIPALITY OF
ANCHORAGE, as Obligee, in the full and just sum of _____
_____ (\$ _____) Dollars, lawful
money of the UNITED STATES, for the payment of which sum, well and truly to be made, we bind
ourselves, our heirs, executors, administrators, successors, and assigns, jointly and severally, firmly
by the presents.

WHEREAS, the said Principle is herewith submitting its proposal for _____
_____.

The condition of this obligation is such that if the aforesaid Principal will, within the time required enter
into a formal contract and give a good and sufficient bond to secure the performance of the terms and
conditions of the contract, then this Obligation to be void; otherwise the Principal and Surety will pay
unto to the Obligee the amount stated above.

Signed, sealed, and delivered _____, 20_____.

WITNESS AS TO PRINCIPAL:

(AFFIX CORPORATE SEAL)

Contractor Name

Contractor Signature

Corporate Surety

Surety Business Address

BY: _____
(Attorney-In-Fact)

(AFFIX SURETY SEAL)

CONTRACT PERFORMANCE AND PAYMENT BOND

KNOW ALL MEN BY THESE PRESENTS, That we _____
_____ of _____
as Principal, and _____
a corporation organized under the laws of the _____
_____ and authorized to transact surety business in the State of Alaska,
of _____
as Surety, are held and firmly bound unto the MUNICIPALITY OF ANCHORAGE, as Obligee, in the full and
just sum of _____
(\$ _____) Dollars, lawful money of the UNITED STATES, for the payment
which, well and truly to be made, we bind ourselves, our heirs, executors, administrators, successors and
assigns, jointly and severally, firmly by these presents.

THE CONDITIONS OF THIS OBLIGATION IS SUCH, that whereas the principal has entered into a certain
contract dated the _____ date of _____ 20 _____, with the Obligee for the
construction of _____

which contract is hereby referred to and made a part hereof as fully and to the same extent as if copied at
length herein.

NOW THEREFORE, if the Principal shall well and truly perform and fulfill all the undertakings, covenants,
terms, conditions, and agreements of said contract, and shall promptly make payments to all persons
supplying labor and material in the prosecution of the work provided for in said contract, during the original
term of said contract and any extensions of modifications thereof that may be granted by the Municipality, with
or without notice to the Surety, then this obligation to be void; otherwise to remain in full force and effect.

This obligation is made for the use of said Obligee and also for use and benefit of all persons who may perform
any work or labor or furnish any material in the execution of said Contract and may be sued on thereby in the
name of said Obligee.

This said Surety, for the value received, hereby stipulates and agrees that no change, extension of time,
alteration or addition to the terms of the contract or to the work to be performed thereunder or the
specifications accompanying the same, shall in anywise affect its obligations on this bond, and it does hereby
waive notice of any such change, extension of time, alteration or addition to the terms of the contract or to the
work or to the specifications.

Whenever Principal shall be, and declared by Obligee to be in default under the Contract the Obligee having performed Obligee's obligations thereunder, the Surety may promptly remedy the default or shall promptly:

1. Complete the Contract in accordance with its terms and conditions, or
2. Obtain a bid or bids for submission to Obligee for completing the Contract in accordance with its terms and conditions and upon determination by Surety of the lowest responsible bidder, or, if the Obligee elects, upon determination by Obligee and the Surety jointly of the lowest responsible bidder, arrange for a contract between such bidder and Obligee and make available as Work progresses (even though there should be a default or a succession of defaults under the contract or contracts of completion arranged under this paragraph) sufficient funds to pay the cost of completion less the balance of the contract price but not exceeding, including other costs and damages for which the Surety may be liable hereunder the amount set forth in the first paragraph hereof. The term "balance of the contract price" as used in this paragraph, shall mean the total amount payable by Obligee to Principal under the Contract and any amendments thereto, less the amount properly paid by Obligee to Principal.

IN TESTIMONY WHEREOF, the parties hereunto have caused the execution hererof in _____
_____ original counterparts as of the _____ day of _____, 20_____.

WITNESS AS TO PRINCIPAL:

(AFFIX CORPORATE SEAL)

(AFFIX SURETY SEAL)

Principal Name

Principal Signature

Corporate Surety

Surety Business Address

BY:

(Attorney-In-Fact)

INSURANCE

By submitting a bid, the bidder agrees, if they are the successful bidder, to obtain and maintain the insurance required by this section. The bidder also agrees to provide the Municipality a copy of their Certificate of Liability Insurance prior to signing the contract and prior to commencement of any work under this contract.

GENERAL: The Contractor will not allow any subcontractor to commence work until the subcontractor has obtained insurance as listed in this section. The contractor and each subcontractor shall maintain this insurance throughout the life of this contract, including any maintenance and/or guarantee/warranty period. The contractor shall obtain separate insurance certificates for each contract.

ADDITIONAL INSURED: The Municipality of Anchorage shall be listed as an additional insured on all General and Auto Liability policies required by this contract. All policies shall contain a waiver of subrogation against the Municipality, except Professional Liability. All policies shall remain in effect during the life of the contract. The Contractors insurance certificate shall also indicate the Municipality of Anchorage as a certificate holder of the policy.

WORKERS COMPENSATION: The Contractor shall purchase and maintain during the life of this contract, workers compensation insurance for all employees who will work on this project and, if any work is sublet, the Contractor shall require the subcontractor similarly to provide such insurance. Employers' Liability with a minimum limit of \$500,000 shall be maintained and Workers Compensation with minimum limits as required by Alaska State Workers Compensation Statutes. The policy shall contain a waiver of subrogation against the Municipality.

NOTICE TO "OUT-OF-STATE" CONTRACTORS WORKING IN ALASKA: The Contractor shall provide evidence of Workers Compensation insurance, either State of Alaska Workers Compensation coverage or an endorsement to the Contractor's home state Workers Compensation policy, evidencing coverage for "other states" including Alaska, prior to execution of a contract or, if approved, before commencement of contract performance in Alaska.

GENERAL LIABILITY: The Contractor shall purchase and maintain, in force, during the life of this contract such general liability insurance as shall protect the Owner and the Contractor against losses which may result from claims for damages for bodily injury, including accidental death, as well as from claims for property damages which may arise from any operations under this contract whether such operations be those of the Contractor, a subcontractor or anyone directly or indirectly employed by either of them.

<u>Commercial General Liability</u>	<u>Minimum Limits</u>
Products/Completed Operations	\$2,000,000
Personal & Advertising Injury	\$1,000,000
Each Occurrence	\$1,000,000
General Aggregate	\$2,000,000
Medical Payments	\$5,000
<u>Commercial Auto Liability</u>	<u>Minimum Limits</u>
Combined single limit (Bodily Injury and Property Damage)	\$1,000,000
Including all owned, hired, and non-owned	
<u>Workers Compensation and Employers Liability</u>	<u>Minimum Limits</u>
Per Alaska statute	\$500,000
<u>Errors and Omissions</u>	<u>Minimum Limits</u>
Professional Liability (Not required unless limits appear in space provided)	
<u>Umbrella Liability</u>	<u>Minimum Limits</u>
(Not required unless limits appear in space provided)	
\$ _____ S.I.R.	

Each insurance policy required by this section shall require the insurer to give advance notice to the MOA/Contract Administrator prior to the cancellation of the policy. IF the insurer does not notify the MOA upon policy cancellation, it shall be the Contractor's responsibility to notify the MOA of such cancellation.

COMPLIANCE WITH LAWS

The Contractor shall observe and abide by all applicable laws, regulations, ordinances and other rules of the State of Alaska and/or any political subdivisions thereof, or any other duly constituted public authority wherein work is done or services performed, and further agrees to indemnify and save the Municipality of Anchorage harmless from any and all liability or penalty which may be imposed or asserted by reason of the Contractor's failure or alleged failure to observe and abide thereby.

(Remainder of Page Initially left Blank)



CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) shall be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER	CONTACT NAME:	
	PHONE (A/C, No, Ext):	FAX (A/C, No, Ext):
E-MAIL ADDRESS:		
INSURER(S) AFFORDING COVERAGE		NAIC #
INSURED	INSURER A :	
	INSURER B :	
	INSURER C :	
	INSURER D :	
	INSURER E :	
	INSURER F :	

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSR	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
	GENERAL LIABILITY <input type="checkbox"/> COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS-MADE OCCUR <input type="checkbox"/> GEN'L AGGREGATE LIMIT APPLIES PER: <input type="checkbox"/> POLICY <input type="checkbox"/> PRO <input type="checkbox"/> LOC						EACH OCCURRENCE \$ DAMAGE TO RENTED PREMISES (Ea occurrence) \$ MED EXP (Any one person) \$ PERSONAL & ADV INJURY \$ GENERAL AGGREGATE \$ PRODUCTS - COMP/OP AGG \$ \$
	AUTOMOBILE LIABILITY <input type="checkbox"/> ANY AUTO <input type="checkbox"/> ALL OWNED AUTOS <input type="checkbox"/> HIRED AUTOS <input type="checkbox"/> SCHEDULE D AUTOS <input type="checkbox"/> NON-OWNED AUTOS						COMBINED SINGLE LIMIT (Ea accident) \$ BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$ \$
	UMBRELLA LIAB OCCUR EXCESS LIAB CLAIMS- DED RETENTIONS \$						EACH OCCURRENCE \$ AGGREGATE \$ \$
	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE <input type="checkbox"/> Y / N <input type="checkbox"/> N / A OFFICER/MEMBER EXCLUDED? (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below						WC STATUTORY LIMITS OTH-ER E.L. EACH ACCIDENT \$ E.L. DISEASE - EA \$ E.L. DISEASE - POLICY LIMIT \$

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (Attach ACORD 101, Additional Remarks Schedule, if more space is required)

- The Municipality of Anchorage is an additional insured on Auto and General Liability policies. All policies, including workers compensation, contain a WAIVER OF SUBROGATION against the Municipality, except Professional Liability, .
- CANCELLATION: "Should any of the above described policies be cancelled before the expiration date thereof, notice will be delivered in accordance with the Policy Provisions."

CERTIFICATE HOLDER**CANCELLATION**

	<p>SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.</p> <p>Authorized Representative</p>
--	---

BIDDER'S CHECKLIST

INSTRUCTION TO BIDDER

I. GENERAL:

Bidders are advised that notwithstanding any instructions or implications elsewhere in this Invitation to Bid only the documents shown and detailed on this sheet need be submitted with and made part of their bid. Other documents may be required to be submitted after bid time, but prior to award. Bidders are hereby advised that failure to submit the documents shown and detailed on this sheet shall be justification for rendering the bid nonresponsive. Evaluation of bids for responsiveness shall be accomplished in accordance with Anchorage Municipal Code, Title 7.

II. REQUIRED DOCUMENTS FOR BID

NOTE: "Only the following listed items as marked with an "X" are required to be completely filled out and submitted with the bid."

- X Bid Proposal consisting of four pages numbered BP-1 through BP-4, Bid Proposal Page BP-2 must be manually signed.
- X Erasures or other changes made to the Bid Proposal Sheet must be initialed by the person signing the bid.
- X Bid Bond, certified check, cashier's check, money order or cash shall be submitted with the bid in the amount indicated.
- X All Addenda issued shall be acknowledged in the space provided on the Bid Proposal sheet or by manually signing the Addenda sheet and submitting it prior to the bid opening in accordance with Anchorage Municipal Code 7.20.020C.

III. REQUIRED DOCUMENTS AFTER BID OPENING

The following documents are required within five (5) working days of notification by the Purchasing Office. Failure, in whole or in part, to submit the documents required below may be grounds to determine the Bidder as non-responsible.

- X Federal Provisions, Exhibit "E", consisting of fifteen (15) pages. Attachment D1 page 00 74 00-10, Attachment D2 page 00 74 00-11, DBE Subcontractor Utilization Forms B-1 through B-4, must be manually signed and returned within five (5) business days.
- X In accordance with AO No. 2019-130 (S), Anchorage Municipal Code 7.20.030 and 7.20.070, Contractor Questionnaire consisting of three (3) Pages, Prime Contractor Form Filled out by Prime Contractor and all known subcontractors. **Please review AO NO. 2019-130 (S), AMC 7.20.030 and 7.20.070, and the attached Contractor Questionnaire before submitting a bid**

**Municipality of Anchorage
Contractor Questionnaire**

Contractors/Vendors wishing to qualify for award of a bid or proposal offered by the Municipality of Anchorage shall submit this completed form and any supplemental information requested by this form within five days following a request by the Purchasing Officer.

This form is to be filled out by the prime, and subcontractors that perform work "on-site". On-site is defined as the physical place or places where the building or work called for in the contract will remain, and any other site where a significant portion of the building or work is constructed, provided that such site is established specifically for the performance of the contract or project.

Contractor/Vendor Name: _____

Owner(s) of Company (if sole proprietorship or partnership): _____

List all Alaska construction contractor's registration numbers, registration types and expiration dates of the Alaska business licenses held by your company in the past three years:

Has your company changed names, business license number, or contractor registration number in the past three years?

Yes No

If "Yes," explain on a separate signed page, including the reason for the change.

Has any owner, partner or (for corporations) officer of your company operated any business offering similar services outlined in the bid or proposal under any other name in the past three years?

Yes No

If "Yes," explain on a separate signed page, including the reason for the change.

Certifications & Disclosures

For these questions & certifications, "company" includes any entity that shares or has shared majority ownership or control with your company. "Determination of violation" includes any citations, orders or recommendations issued to or against the company.

Debarment

1. In the last three years has your company been debarred from bidding on, or being awarded, a state or federal project?

Yes No

Occupational Safety & Health

Note: Only willful violations of state or federal occupational safety and health laws will result in disqualification; disclosure of other violations does not lead to automatic disqualification.

2. In the last three years has your company been determined to have committed a **willful violation** of state or federal occupational safety and health law? For purposes of this question, a state or federal occupational safety and health law includes laws enforced by the Occupational Safety and Health Administration (OSHA), Alaska Occupational Safety and Health (AKOSH), or another state’s occupational safety and health agency.

Yes No

3. In the last three years, has the federal Occupational Safety and Health Administration (OSHA), Alaska Occupational Safety and Health (AKOSH), or another state’s occupational safety and health agency, made a determination of violation against your company?

Note: If you have filed an appeal of a citation and the appropriate appeals board has not yet ruled on your appeal, you need not include information about it.

Yes No

If “Yes,” attach a separate signed page describing each citation.

Wage & Hour

Note: Only willful violations of state or federal wage and hour laws will result in disqualification; disclosure of other violations does not lead to automatic disqualification.

4. In the last three years has your company been determined to have committed a **willful violation** of state or federal wage and hour law?

Yes No

5. In the last three years has there been a determination of violation of wage and hour laws against your company? Wage and hour violations include failure to pay minimum wages, overtime, or prevailing wages.

Yes No

If “Yes,” attach a separate signed page describing each violation, identifying the claim by claimant, date, and status/outcome.

Unemployment Insurance & Workers’ Compensation

6. In the last three years has there been a determination of violation of unemployment insurance or workers’ compensation requirements against your company?

Yes No

If “Yes,” attach a separate signed page describing each violation, identifying the claim by claimant, date, and status/outcome.

Licensing & Registration

7. If a license or certificate of fitness is required to perform any services provided by your company, has there been a determination of violation of any certificate of fitness requirements against your company in the last three years?

Yes No

If “Yes,” attach a separate signed page describing each violation, identifying the claim by claimant, date, and status/outcome.

Subcontracting

8. I certify that all independent subcontractors engaged by my company meet the definition of an independent contractor under Alaska Statute 23.30.230.

Yes No

9. I understand that my company is responsible for ensuring that each subcontractor my company uses on the project completes this form and associated documentation. I will submit any disclosures required by Anchorage Municipal Code.

I understand

10. I understand that my company is responsible for providing this form and any associated documentation for each subcontractor hired after award within 30 days of hire, and that the subcontractor may not begin work on the project until such information is provided.

I understand

11. I understand that my company is responsible for ensuring that if any event, such as a violation or loss of coverage, causes the information submitted by the subcontractor to change, the subcontractor shall submit updated certifications or disclosures within 30 days of occurrence to the department contract administrator.

I understand

I declare under penalty of perjury that the foregoing is true and correct.

Dated: _____ (Signature)

(Printed name and title)

Right to Appeal: Anchorage Municipal Code provides that any person adversely affected in connection with the award of a municipal contract, including the Municipality’s determination on responsibility, may request that the mayor or assembly refer the matter to the bidding review board.



Municipality of Anchorage

Anchorage Water and Wastewater Utility



2022 SEWER IMPROVEMENTS

ERWWTF EARTHQUAKE REPAIRS AND STRUCTURAL

RETROFITS

SECTION VI

BID PROPOSAL

BID PROPOSAL
(CERTIFICATION)

TO: MUNICIPALITY OF ANCHORAGE _____, 2022
PURCHASING DEPARTMENT
632 W. 6TH AVENUE, SUITE 520
ANCHORAGE, ALASKA 99501

SUBJECT: Invitation to Bid No. 2022C044

PROJECT TITLE: ERWWTF EQ Repairs & Structural Retrofits

Pursuant to and in compliance with subject Invitation to Bid, and other bid documents relating thereto, the bidder hereby proposes to furnish all labor and materials and to perform all work for the construction of the above referenced project in strict accordance with the bid documents at the prices established in the Bid Proposal, page **BP- 1 of 4 through BP- 4 of 4** submitted herewith.

The bidder agrees, if awarded the contract, to commence and complete the work within the time specified in the bid documents.

Schedule A Total \$ _____

Schedule B Total \$ _____

Total: \$ _____

The bidder acknowledges receipt of the following addenda:

Addenda No. _____ Addenda No. _____
Addenda No. _____ Addenda No. _____
Addenda No. _____ Addenda No. _____

Enclosed is a Bid Bond in the amount of _____.
(Dollar Amount or Percentage of Bid)

Type of Business Organization

The bidder, by checking the applicable box, represents that it operates as () a corporation incorporated under the laws of the State of _____, () an individual, () an LLC, () a partnership, () a nonprofit organization, or () a joint venture. If a partnership or joint venture, identify all parties on a separate page.

Is this project Federally Funded?

Yes
No

Company Name

BID PROPOSAL
(CERTIFICATION)
Continued

SUBJECT: Invitation to Bid No. 2022C044

PROJECT TITLE: ERWWTF EQ Repairs & Structural Retrofits

Date

Alaska Contractor's License Number

Company Name (Printed)

Employer's Tax Identification Number

Authorized Representative Signature

Printed Name & Title

Company **Mailing** Address

Company Phone Number

City, State, Zip Code

Company Fax Number

Company **Physical** Address
(if different from mailing address)

Company Email Address

City, State, Zip Code



Municipality of Anchorage

Anchorage Water and Wastewater Utility



2022 SEWER IMPROVEMENTS

ERWWTF EARTHQUAKE REPAIRS AND STRUCTURAL RETROFITS

Bid Proposal (Continued)

BID SCHEDULE A. EARTHQUAKE REPAIRS Items per Specifications Division 01, Section 01 10 00, Section 01 20 00, and Drawings.

LUMP SUM PRICE

Description	Bid Price
ITEM 1 – Schedule A. Earthquake Repairs	\$ _____

UNIT PRICE

Description	Unit	Estimated Quantity	Bid Unit Price	Bid Price
ITEM 2 – Schedule A. Remove and Replace sections of damaged insulation and wrap (20 locations, each ±2 linear feet). Aeration Building and Building 2.	each	20	\$ _____ each	\$ _____
ITEM 3 – Schedule A. Repair drywall cracks on walls. Building 1 (100-feet) and Building 2 (200-feet).	linear foot	300	\$ _____ per linear foot	\$ _____

- A. Bidder acknowledges that: (1) each Bid Unit Price includes an amount considered by bidder to be adequate to cover overhead and profit for each separately identified item.

SCHEDULE A. EARTHQUAKE REPAIRS
LUMP SUM AND UNIT BID PRICE TOTALS

\$ _____

(numeric)

Company Name _____



Municipality of Anchorage

Anchorage Water and Wastewater Utility



2022 SEWER IMPROVEMENTS

ERWWTF EARTHQUAKE REPAIRS AND STRUCTURAL RETROFITS

Bid Proposal (Continued)

BID SCHEDULE B, ITEM 1. STRUCTURAL RETROFITS Items per Specifications Division 01, Section 01 10 00, Section 01 20 00, and Drawings.

LUMP SUM PRICE

Description	Bid Price
ITEM 1 – Schedule B. Structural Retrofits	\$ _____

UNIT PRICE

Description	Unit	Estimated Quantity	Bid Unit Price	Bid Price
ITEM 2 - Schedule B. Install new collector beams including welds per details S2.1/10 and S2.1A/12	each	13	\$ _____ each	\$ _____

- A. Bidder acknowledges that: (1) each Bid Unit Price includes an amount considered by bidder to be adequate to cover overhead and profit for each separately identified item.

SCHEDULE B. STRUCTURAL RETROFITS
LUMP SUM AND UNIT BID PRICE TOTAL

\$ _____

(numeric)

Company Name _____

(Schedule A Total + Schedule B Total) Total Bid: \$ _____

(numeric)



Municipality of Anchorage

Anchorage Water and Wastewater Utility



2022 SEWER IMPROVEMENTS

ERWWTF EARTHQUAKE REPAIRS AND STRUCTURAL RETROFITS

SECTION VII (NOT USED)

OTHER UTILITY REQUIREMENTS



Municipality of Anchorage

Anchorage Water and Wastewater Utility



2022 SEWER IMPROVEMENTS

ERWWTF EARTHQUAKE REPAIRS AND STRUCTURAL

RETROFITS

SECTION VIII

MINIMUM RATES OF PAY

State of Alaska, Alaska Laborers' & Mechanics Minimum Rates of Pay
Federal Wages - General Decision Number: AK20220001 10/14/2022



Municipality of Anchorage

Anchorage Water and Wastewater Utility



2022 SEWER IMPROVEMENTS

ERWWTF EARTHQUAKE REPAIRS AND STRUCTURAL RETROFITS

**THE LABORER'S AND MECHANICS MINIMUM RATES OF PAY EFFECTIVE
SEPTEMBER 1, 2020 (PAMPHLET 600- ISSUE 41)**

Pamphlet 600 – Issue 41 can be obtained at:

<https://labor.alaska.gov/lss/pamp600.htm>

"General Decision Number: AK20220001 10/14/2022

Superseded General Decision Number: AK20210001

State: Alaska

Construction Types: Building and Heavy

Counties: Alaska Statewide.

BUILDING AND HEAVY CONSTRUCTION PROJECTS (does not include residential construction consisting of single family homes and apartments up to and including 4 stories)

Note: Contracts subject to the Davis-Bacon Act are generally required to pay at least the applicable minimum wage rate required under Executive Order 14026 or Executive Order 13658. Please note that these Executive Orders apply to covered contracts entered into by the federal government that are subject to the Davis-Bacon Act itself, but do not apply to contracts subject only to the Davis-Bacon Related Acts, including those set forth at 29 CFR 5.1(a)(2)-(60).

If the contract is entered into on or after January 30, 2022, or the contract is renewed or extended (e.g., an option is exercised) on or after January 30, 2022:	. Executive Order 14026 generally applies to the contract. . The contractor must pay all covered workers at least \$15.00 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in 2022.
If the contract was awarded on or between January 1, 2015 and January 29, 2022, and the contract is not renewed or extended on or after January 30, 2022:	. Executive Order 13658 generally applies to the contract. . The contractor must pay all covered workers at least \$11.25 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on that contract in 2022.

The applicable Executive Order minimum wage rate will be adjusted annually. If this contract is covered by one of the Executive Orders and a classification considered necessary for performance of work on the contract does not appear on this wage determination, the contractor must still submit a conformance request.

Additional information on contractor requirements and worker protections under the Executive Orders is available at <https://www.dol.gov/agencies/whd/government-contracts>.

1	02/18/2022
2	02/25/2022
3	03/11/2022
4	03/18/2022
5	04/15/2022
6	07/08/2022
7	09/09/2022
8	09/23/2022
9	10/14/2022

ASBE0097-001 06/01/2021

	Rates	Fringes
Asbestos Workers/Insulator (includes application of all insulating materials protective coverings, coatings and finishings to all types of mechanical systems).....	\$ 38.68	21.57
HAZARDOUS MATERIAL HANDLER (includes preparation, wetting, stripping, removal scrapping, vacuming, bagging, and disposing of all insulation materials, whether they contain asbestos or not, from mechanical systems).....	\$ 37.38	19.55

BOIL0502-002 01/01/2021

	Rates	Fringes
BOILERMAKER.....	\$ 47.03	30.59

BRAK0001-002 07/01/2020

	Rates	Fringes
Bricklayer, Blocklayer, Stonemason, Marble Mason, Tile Setter, Terrazzo Worker.....	\$ 42.16	19.67
Tile & Terrazzo Finisher.....	\$ 35.99	19.67

CARP1281-001 09/01/2019

	Rates	Fringes
CARPENTER Including Lather and Drywall Hanging.....	\$ 38.34	26.51

CARP1501-001 09/01/2019

	Rates	Fringes
MILLWRIGHT.....	\$ 37.64	23.46

CARP2520-003 09/01/2019

	Rates	Fringes
Diver Stand-by.....	\$ 42.65	26.51

Tender.....	\$ 41.65	26.51
Working.....	\$ 82.45	26.51
Piledriver		
Piledriver; Skiff Operator and Rigger.....	\$ 38.34	26.51
Sheet Stabber.....	\$ 38.34	26.51
Welder.....	\$ 43.90	26.51

DEPTH PAY PREMIUM FOR DIVERS BELOW WATER SURFACE:

50-100 feet	\$1.00 per foot
101 feet and deeper	\$2.00 per foot

ENCLOSURE PAY PREMIUM WITH NO VERTICAL ASCENT:

5-50 FEET	\$1.00 PER FOOT/DAY
51-100 FEET	\$2.00 PER FOOT/DAY
101 FEET AND ABOVE	\$3.00 PER FOOT/DAY

SATURATION DIVING:

The standby rate applies until saturation starts. The saturation diving rate applies when divers are under pressure continuously until work task and decompression are complete. the diver rate shall be paid for all saturation hours.

WORK IN COMBINATION OF CLASSIFICATIONS:

Employees working in any combination of classifications within the diving crew (except dive supervisor) in a shift are paid in the classification with the highest rate for that shift.

ELEC1547-004 04/01/2022

	Rates	Fringes
CABLE SPLICER.....	\$ 42.77	3% + 27.97
ELECTRICIAN.....	\$ 42.44	3% + 28.22

ELEC1547-005 04/01/2022

Line Construction

	Rates	Fringes
CABLE SPLICER.....	\$ 62.29	3%+32.37
Linemen (Including Equipment Operators, Technician).....	\$ 61.29	3%+30.98
Powderman.....	\$ 59.29	3%+32.37
TREE TRIMMER.....	\$ 38.05	3%+27.01

ELEV0019-002 01/01/2022

	Rates	Fringes
ELEVATOR MECHANIC.....	\$ 63.16	36.885+a+b

FOOTNOTE: a. Employer contributes 8% of the basic hourly rate for over 5 year's service and 6% of the basic hourly rate for 6 months to 5 years' of service as vacation paid credit. b. Eight paid holidays: New Year's Day; Memorial Day; Independence Day; Labor Day; Veteran's Day; Thanksgiving Day; Friday after Thanksgiving, and Christmas Day

	Rates	Fringes
POWER EQUIPMENT OPERATOR		
GROUP 1.....	\$ 43.53	25.95
GROUP 1A.....	\$ 45.29	25.95
GROUP 2.....	\$ 42.76	25.95
GROUP 3.....	\$ 42.76	25.95
GROUP 4.....	\$ 35.83	25.95
TUNNEL WORK		
GROUP 1.....	\$ 47.88	25.95
GROUP 1A.....	\$ 49.82	25.95
GROUP 2.....	\$ 47.04	25.95
GROUP 3.....	\$ 46.24	25.95
GROUP 4.....	\$ 39.41	25.95

POWER EQUIPMENT OPERATOR CLASSIFICATIONS

GROUP 1: Asphalt Roller: Breakdown, Intermediate, and Finish; Back Filler; Barrier Machine (Zipper); Beltcrete with power pack and similar conveyors; Bending Machine; Boat Coxwains; Bulldozers; Cableways, Highlines and Cablecars; Cleaning Machine; Coating Machine; Concrete Hydro Blaster; Cranes-45 tons and under or 150 foot boom and under (including jib and attachments): (a) Hydralifts or Transporters, all track or truck type,(b) Derricks; Crushers; Deck Winches-Double Drum; Ditching or Trenching Machine (16 inch or over); Drilling Machines, core, cable, rotary and exploration; Finishing Machine Operator, Concrete Paving, Laser Screed, Sidewalk, Curb and Gutter Machine; Helicopters; Hover Craft, Flex Craft, Loadmaster, Air Cushion, All Terrain Vehicle, Rollagon, Bargecable, Nodwell, and Snow Cat; Hydro Ax: Feller Buncher and similar; Loaders (2 1/2 yards through 5 yards, including all attachments): Forklifts with telescopic boom and swing attachment, Overhead and front end, 2 1/2 yards through 5 yards, Loaders with forks or pipe clamps; Loaders, elevating belt type, Euclid and similar types; Mechanics, Bodyman; Micro Tunneling Machine; Mixers: Mobile type w/hoist combination; Motor Patrol Grader; Mucking Machines: Mole, Tunnel Drill, Horizontal/Directional Drill Operator, and/or Shield; Operator on Dredges; Piledriver Engineers, L. B. Foster, Puller or similar Paving Breaker; Power Plant, Turbine Operator, 200 k.w. and over (power plants or combination of power units over 300 k.w.); Scrapers-through 40 yards; Service Oiler/Service Engineer; Sidebooms-under 45 tons; Shot Blast Machine; Shovels, Backhoes, Excavators with all attachments, and Gradealls (3 yards and under), Spreaders, Blaw Knox, Cedarapids, Barber Greene, Slurry Machine; Sub-grader (Gurries, Reclaimer, and similar types); Tack tractor; Truck mounted Concrete Pumps, Conveyor, Creter; Water Kote Machine; Unlicensed off road hauler

GROUP 1A: Camera/Tool/Video Operator (Slipline), Cranes-over 45 tons or 150 foot (including jib and attachments): (a) Clamshells and Draglines (over 3 yards), (b) Tower cranes; Licensed Water/Waste Water Treatment Operator; Loaders over 5 yds.; Certified Welder, Electrical Mechanic, Camp Maintenance Engineer, Mechanic (over 10,000 hours); Motor Patrol Grader, Dozer, Grade Tractor, Roto-mill/Profiler (finish: when finishing to final grade and/or to hubs, or for asphalt); Power Plants: 1000 k.w. and over; Quad; Screed; Shovels, Backhoes, Excavators with

all attachments (over 3 yards), Sidebooms over 45 tons; Slip Form Paver, C.M.I. and similar types; Scrapers over 40 yards;

GROUP 2: Boiler-fireman; Cement Hog and Concrete Pump Operator; Conveyors (except as listed in group 1); Hoist on steel erection; Towermobiles and Air Tuggers; Horizontal/Directional Drill Locator; Licensed Grade Technician; Loaders, (i.e., Elevating Grader and Material Transfer Vehicle); Locomotives: rod and geared engines; Mixers; Screening, Washing Plant; Sideboom (cradling rock drill regardless of size); Skidder; Trenching Machine under 16 inches; Waste/ Waste Water Treatment Operator.

GROUP 3: "A" Frame Trucks, Deck Winches: single power drum; Bombardier (tack or tow rig); Boring Machine; Brooms-power; Bump Cutter; Compressor; Farm tractor; Forklift, industrial type; Gin Truck or Winch Truck with poles when used for hoisting; Grade Checker and Stake Hopper; Hoist, Air Tuggers, Elevators; Loaders: (a) Elevating-Athey, Barber Green and similar types (b) Forklifts or Lumber Carrier (on construction job site) (c) Forklifts with Tower (d) Overhead and Front-end, under 2 1/2 yds. Locomotives: Dinkey (air, steam, gas and electric) Speeders; Mechanics (light duty); Oil, Blower Distribution; Post Hole Diggers, mechanical; Pot Fireman (power agitated); Power Plant, Turbine Operator, under 200 k.w.; Pumps-water; Roller-other than Plantmix; Saws, concrete; Skid Steer with all attachments; Straightening Machine; Tow Tractor

GROUP 4: Rig Oiler/Crane Assistant Engineer; Parts and Equipment Coordinator; Swamper (on trenching machines or shovel type equipment); Spotter; Steam Cleaner; Drill Helper.

FOOTNOTE: Groups 1-4 receive 10% premium while performing tunnel or underground work. Rig Oiler/Crane Assistant Engineer shall be required on cranes over 85 tons or over 100 feet of boom.

 * IRON0751-003 07/01/2022

	Rates	Fringes
IRONWORKER		
BENDER OPERATOR.....	\$ 41.49	34.86
BRIDGE, STRUCTURAL,		
ORNAMENTAL,		
REINFORCING		
MACHINERY MOVER,		
RIGGER,		
SHEETER, STAGE		
RIGGER,		
BENDER OPERATOR.....	\$ 41.49	34.86
BRIDGE, STRUCTURAL,		
ORNAMENTAL, REINFORCING		
MACHINERY MOVER, RIGGER,		
SHEETER, STAGE RIGGER,		
BENDER OPERATOR.....	\$ 38.75	32.63
FENCE, BARRIER INSTALLER....	\$ 37.99	34.86

GUARDRAIL INSTALLERS.....	\$ 38.99	34.86
GUARDRAIL LAYOUT MAN.....	\$ 38.72	34.86
HELICOPTER, TOWER.....	\$ 42.49	34.86

LAB00341-001 04/01/2021

	Rates	Fringes
LABORER (South of the 63rd Parallel & West of Longitude 138 Degrees)		
GROUP 1.....	\$ 32.00	31.11
GROUP 2.....	\$ 33.00	31.11
GROUP 3.....	\$ 33.90	31.11
GROUP 3A.....	\$ 37.18	31.11
GROUP 3B.....	\$ 40.97	28.40
GROUP 4.....	\$ 21.57	31.11
TUNNELS, SHAFTS, AND RAISES		
GROUP 1.....	\$ 35.20	31.11
GROUP 2.....	\$ 36.30	31.11
GROUP 3.....	\$ 37.29	31.11
GROUP 3A.....	\$ 40.90	31.11
GROUP 3B.....	\$ 45.07	28.40

LABORERS CLASSIFICATIONS

GROUP 1: Asphalt Workers (shovelman, plant crew); Brush Cutters; Camp Maintenance Laborer; Carpenter Tenders; Choke Setters, Hook Tender, Rigger, Signalman; Concrete Laborer (curb and gutter, chute handler, grouting, curing, screeding); Crusher Plant Laborer; Demolition Laborer; Ditch Diggers; Dump Man; Environmental Laborer (asbestos (limited to nonmechanical systems), hazardous and toxic waste, oil spill); Fence Installer; Fire Watch Laborer; Flagman; Form Strippers; General Laborer; Guardrail Laborer, Bridge Rail Installers; Hydro-Seeder Nozzleman; Laborers (building); Landscape or Planter; Laying of Decorative Block (retaining walls, flowered decorative block 4 feet and below); Material Handlers; Pneumatic or Power Tools; Portable or Chemical Toilet Serviceman; Pump Man or Mixer Man; Railroad Track Laborer; Sandblast, Pot Tender; Saw Tenders; Scaffold Building and Erecting; Slurry Work; Stake Hopper; Steam Point or Water Jet Operator; Steam Cleaner Operator; Tank Cleaning; Utiliwalk, Utilidor Laborer and Conduit Installer; Watchman (construction projects); Window Cleaner

GROUP 2: Burning and Cutting Torch; Cement or Lime Dumper or Handler (sack or bulk); Choker Splicer; Chucktender (wagon, airtrack and hydraulic drills); Concrete Laborers (power buggy, concrete saws, pumpcrete nozzleman, vibratorman); Culvert Pipe Laborer; Cured in place Pipelayer; Environmental Laborer (marine work, oil spill skimmer operator, small boat operator); Foam Gun or Foam Machine Operator; Green Cutter (dam work); Gunnite Operator; Hod Carriers; Jackhammer or Pavement Breakers (more than 45 pounds); Laying of Decorative Block (retaining walls, flowered decorative block above 4 feet); Mason Tender and Mud Mixer (sewer work); Pilot Car; Plasterer, Bricklayer and Cement Finisher Tenders; Power Saw Operator; Railroad Switch Layout Laborer; Sandblaster; Sewer Caulkers; Sewer Plant Maintenance Man; Thermal Plastic Applicator; Timber Faller, chain saw operator, filer; Timberman

GROUP 3: Alarm Installer; Bit Grinder; Guardrail Machine

Operator; High Rigger and tree topper; High Scaler;
Multiplate; Slurry Seal Squeegee Man

GROUP 3A: Asphalt Raker, Asphalt Belly dump lay down; Drill Doctor (in the field); Drillers (including, but not limited to, wagon drills, air track drills; hydraulic drills); Powderman; Pioneer Drilling and Drilling Off Tugger (all type drills); Pipelayers

GROUP 3B: Grade checker (setting or transferring of grade marks, line and grade)

GROUP 4: Final Building Cleanup

TUNNELS, SHAFTS, AND RAISES CLASSIFICATIONS

GROUP 1: Brakeman; Muckers; Nippers; Topman and Bull Gang; Tunnel Track Laborer

GROUP 2: Burning and Cutting Torch; Concrete Laborers; Jackhammers; Nozzleman, Pumpcrete or Shotcrete.

GROUP 3: Miner; Retimberman

GROUP 3A: Asphalt Raker, Asphalt Belly dump lay down; Drill Doctor (in the field); Drillers (including, but not limited to, wagon drills, air track drills; hydraulic drills); Powderman; Pioneer Drilling and Drilling Off Tugger (all type drills); Pipelayers.

GROUP 3B: Grade checker (setting or transferring of grade marks, line and grade)

Tunnel shaft and raise rates only apply to workers regularly employed inside a tunnel portal or shaft collar.

LAB00942-001 04/01/2022

	Rates	Fringes
Laborers: North of the 63rd Parallel & East of Longitude 138 Degrees		
GROUP 1.....	\$ 33.00	31.37
GROUP 2.....	\$ 34.00	31.37
GROUP 3.....	\$ 34.90	31.37
GROUP 3A.....	\$ 38.18	31.37
GROUP 3B.....	\$ 41.97	29.00
GROUP 4.....	\$ 22.57	31.37
TUNNELS, SHAFTS, AND RAISES		
GROUP 1.....	\$ 36.20	31.37
GROUP 2.....	\$ 37.40	31.37
GROUP 3.....	\$ 38.39	31.37
GROUP 3A.....	\$ 42.00	31.37
GROUP 3B.....	\$ 46.17	29.00

LABORERS CLASSIFICATIONS

GROUP 1: Asphalt Workers (shovelman, plant crew); Brush Cutters; Camp Maintenance Laborer; Carpenter Tenders; Choke Setters, Hook Tender, Rigger, Signalman; Concrete Laborer (curb and gutter, chute handler, grouting, curing, screeding); Crusher Plant Laborer; Demolition Laborer; Ditch Diggers; Dump Man; Environmental Laborer (asbestos

(limited to nonmechanical systems), hazardous and toxic waste, oil spill); Fence Installer; Fire Watch Laborer; Flagman; Form Strippers; General Laborer; Guardrail Laborer, Bridge Rail Installers; Hydro-Seeder Nozzleman; Laborers (building); Landscape or Planter; Laying of Decorative Block (retaining walls, flowered decorative block 4 feet and below); Material Handlers; Pneumatic or Power Tools; Portable or Chemical Toilet Serviceman; Pump Man or Mixer Man; Railroad Track Laborer; Sandblast, Pot Tender; Saw Tenders; Scaffold Building and Erecting; Slurry Work; Stake Hopper; Steam Point or Water Jet Operator; Steam Cleaner Operator; Tank Cleaning; Utiliwalk, Utilidor Laborer and Conduit Installer; Watchman (construction projects); Window Cleaner

GROUP 2: Burning and Cutting Torch; Cement or Lime Dumper or Handler (sack or bulk); Choker Splicer; Chucktender (wagon, airtrack and hydraulic drills); Concrete Laborers (power buggy, concrete saws, pumpcrete nozzleman, vibratorman); Culvert Pipe Laborer; Cured in place Pipelayer; Environmental Laborer (marine work, oil spill skimmer operator, small boat operator); Foam Gun or Foam Machine Operator; Green Cutter (dam work); Gunnite Operator; Hod Carriers; Jackhammer or Pavement Breakers (more than 45 pounds); Laying of Decorative Block (retaining walls, flowered decorative block above 4 feet); Mason Tender and Mud Mixer (sewer work); Pilot Car; Plasterer, Bricklayer and Cement Finisher Tenders; Power Saw Operator; Railroad Switch Layout Laborer; Sandblaster; Sewer Caulkers; Sewer Plant Maintenance Man; Thermal Plastic Applicator; Timber Faller, chain saw operator, filer; Timberman

GROUP 3: Alarm Installer; Bit Grinder; Guardrail Machine Operator; High Rigger and tree topper; High Scaler; Multiplate; Slurry Seal Squeegee Man

GROUP 3A: Asphalt Raker, Asphalt Belly dump lay down; Drill Doctor (in the field); Drillers (including, but not limited to, wagon drills, air track drills; hydraulic drills); Powderman; Pioneer Drilling and Drilling Off Tugger (all type drills); Pipelayers

GROUP 3B: Grade checker (setting or transferring of grade marks, line and grade)

GROUP 4: Final Building Cleanup

TUNNELS, SHAFTS, AND RAISES CLASSIFICATIONS

GROUP 1: Brakeman; Muckers; Nippers; Topman and Bull Gang; Tunnel Track Laborer

GROUP 2: Burning and Cutting Torch; Concrete Laborers; Jackhammers; Nozzleman, Pumpcrete or Shotcrete.

GROUP 3: Miner; Retimberman

GROUP 3A: Asphalt Raker, Asphalt Belly dump lay down; Drill Doctor (in the field); Drillers (including, but not limited to, wagon drills, air track drills; hydraulic drills); Powderman; Pioneer Drilling and Drilling Off Tugger (all type drills); Pipelayers.

GROUP 3B: Grade checker (setting or transferring of grade marks, line and grade)

Tunnel shaft and raise rates only apply to workers regularly employed inside a tunnel portal or shaft collar.

* PAIN1959-001 07/01/2022

NORTH OF THE 63RD PARALLEL

	Rates	Fringes
PAINTER		
BRUSH/ROLLER PAINT OR WALL COVERER.....	\$ 36.08	25.45
TAPING, TEXTURING, STRUCTURAL PAINTING, SANDBLASTING, POT TENDER, FINISH METAL, SPRAY, BUFFER OPERATOR, RADON MITIGATION, LEAD BASED PAINT ABATEMENT, HAZARDOUS MATERIAL HANDLER.....	\$ 36.60	25.45

PAIN1959-002 12/01/2021

SOUTH OF THE 63RD PARALLEL

	Rates	Fringes
PAINTER		
General Painter.....	\$ 32.64	25.95
Industrial Painter.....	\$ 32.74	25.95
Taper / Paper & Vinyl Hanger.....	\$ 32.64	25.95

PAIN1959-003 12/01/2021

NORTH OF THE 63RD PARALLEL

	Rates	Fringes
GLAZIER.....	\$ 41.16	28.16

PAIN1959-004 07/01/2019

	Rates	Fringes
FLOOR LAYER: Carpet.....	\$ 28.75	14.44

PAIN1959-006 12/01/2021

SOUTH OF THE 63RD PARALLEL

	Rates	Fringes
GLAZIER.....	\$ 41.37	27.25

PLUM0262-002 07/01/2022

East of the 141st Meridian

	Rates	Fringes
Plumber; Steamfitter.....	\$ 41.32	27.62

PLUM0367-002 07/01/2021

South of the 63rd Parallel

	Rates	Fringes
Plumber; Steamfitter.....	\$ 41.00	27.95

PLUM0375-002 07/01/2021

North of the 63rd Parallel

	Rates	Fringes
Plumber; Steamfitter.....	\$ 42.91	31.25

PLUM0669-002 04/01/2019

	Rates	Fringes
SPRINKLER FITTER.....	\$ 47.25	26.49

ROOF0189-006 04/01/2021

	Rates	Fringes
ROOFER.....	\$ 44.62	17.63

SHEE0023-003 08/01/2022

South of the 63rd Parallel

	Rates	Fringes
SHEET METAL WORKER.....	\$ 45.35	29.19

SHEE0023-004 07/01/2022

North of the 63rd Parallel

	Rates	Fringes
SHEET METAL WORKER.....	\$ 50.83	29.03

TEAM0959-003 04/01/2021

	Rates	Fringes
TRUCK DRIVER		
GROUP 1.....	\$ 41.94	26.12
GROUP 1A.....	\$ 43.21	26.12
GROUP 2.....	\$ 40.68	26.12
GROUP 3.....	\$ 39.86	26.12
GROUP 4.....	\$ 39.28	26.12
GROUP 5.....	\$ 38.52	26.12

GROUP 1: Semi with Double Box Mixer; Dump Trucks (including rockbuggy and trucks with pups) over 40 yards up to and including 60 yards; Deltas, Commanders, Rollogans and similar equipment when pulling sleds, trailers or similar equipment; Boat Coxswain; Lowboys including attached trailers and jeeps, up to and including 12 axles; Ready-mix over 12 yards up to and including 15 yards); Water Wagon (250 Bbls and above); Tireman, Heavy Duty/Fueler

GROUP 1A: Dump Trucks (including Rockbuggy and Trucks with pups) over 60 yards up to and including 100 yards; Jeeps (driver under load)

GROUP 2: Turn-O-Wagon or DW-10 not self-loading; All Deltas, Commanders, Rollogans, and similar equipment; Mechanics; Dump Trucks (including Rockbuggy and Trucks with pups) over 20 yards up to and including 40 yards; Lowboys including attached trailers and jeeps up to and including 8 axles; Super vac truck/cacasco truck/heat stress truck; Ready-mix over 7 yards up to and including 12 yards; Partsman; Stringing Truck

GROUP 3: Dump Trucks (including Rockbuggy and Trucks with pups) over 10 yards up to and including 20 yards; batch trucks 8 yards and up; Oil distributor drivers; Oil Distributor Drivers; Trucks/Jeeps (push or pull); Traffic Control Technician

GROUP 4: Buggymobile; Semi or Truck and trailer; Dumpster; Tireman (light duty); Dump Trucks (including Rockbuggy and Truck with pups) up to and including 10 yards; Track Truck Equipment; Grease Truck; Flat Beds, dual rear axle; Hyster Operators (handling bulk aggregate); Lumber Carrier; Water Wagon, semi; Water Truck, dual axle; Gin Pole Truck, Winch Truck, Wrecker, Truck Mounted "A" Frame manufactured rating over 5 tons; Bull Lifts and Fork Lifts with Power Boom and Swing attachments, over 5 tons; Front End Loader with Forks; Bus Operator over 30 passengers; All Terrain Vehicles; Boom Truck/Knuckle Truck over 5 tons; Foam Distributor Truck/dual axle; Hydro-seeders, dual axle; Vacuum Trucks, Truck Vacuum Sweepers; Loadmaster (air and water); Air Cushion or similar type vehicle; Fire Truck/Ambulance Driver; Combination Truck-fuel and grease; Compactor (when pulled by rubber tired equipment); Rigger (air/water/oilfield); Ready Mix, up to and including 7 yards;

GROUP 5: Gravel Spreader Box Operator on Truck; Flat Beds, single rear axle; Boom Truck/Knuckle Truck up to and including 5 tons; Pickups (Pilot Cars and all light duty vehicles); Water Wagon (Below 250 Bbls); Gin Pole Truck, Winch Truck, Wrecker, Truck Mounted "A" Frame, manufactured rating 5 tons and under; Bull Lifts and Fork Lifts (fork lifts with power broom and swing attachments up to and including 5 tons); Buffer Truck; Tack Truck; Farm type Rubber Tired Tractor (when material handling or pulling wagons on a construction project); Foam Distributor, single axle; Hydro-Seeders, single axle; Team Drivers (horses, mules and similar equipment); Fuel Handler (station/bulk attendant); Batch Truck, up to and including 7 yards; Gear/Supply Truck; Bus Operator, Up to 30 Passengers; Rigger/Swamper

WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

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Note: Executive Order (EO) 13706, Establishing Paid Sick Leave for Federal Contractors applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2017. If this

contract is covered by the EO, the contractor must provide employees with 1 hour of paid sick leave for every 30 hours they work, up to 56 hours of paid sick leave each year. Employees must be permitted to use paid sick leave for their own illness, injury or other health-related needs, including preventive care; to assist a family member (or person who is like family to the employee) who is ill, injured, or has other health-related needs, including preventive care; or for reasons resulting from, or to assist a family member (or person who is like family to the employee) who is a victim of, domestic violence, sexual assault, or stalking. Additional information on contractor requirements and worker protections under the EO is available at <https://www.dol.gov/agencies/whd/government-contracts>.

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (ii)).

The body of each wage determination lists the classification and wage rates that have been found to be prevailing for the cited type(s) of construction in the area covered by the wage determination. The classifications are listed in alphabetical order of ""identifiers"" that indicate whether the particular rate is a union rate (current union negotiated rate for local), a survey rate (weighted average rate) or a union average rate (weighted union average rate).

Union Rate Identifiers

A four letter classification abbreviation identifier enclosed in dotted lines beginning with characters other than ""SU"" or ""UAVG"" denotes that the union classification and rate were prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2014. PLUM is an abbreviation identifier of the union which prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. 07/01/2014 is the effective date of the most current negotiated rate, which in this example is July 1, 2014.

Union prevailing wage rates are updated to reflect all rate changes in the collective bargaining agreement (CBA) governing this classification and rate.

Survey Rate Identifiers

Classifications listed under the ""SU"" identifier indicate that no one rate prevailed for this classification in the survey and the published rate is derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As this weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SULA2012-007 5/13/2014. SU indicates the rates are survey rates based on a weighted average calculation of rates and are not majority rates. LA indicates the State of Louisiana. 2012 is the year of survey on which

these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. 5/13/2014 indicates the survey completion date for the classifications and rates under that identifier.

Survey wage rates are not updated and remain in effect until a new survey is conducted.

Union Average Rate Identifiers

Classification(s) listed under the UAVG identifier indicate that no single majority rate prevailed for those classifications; however, 100% of the data reported for the classifications was union data. EXAMPLE: UAVG-OH-0010 08/29/2014. UAVG indicates that the rate is a weighted union average rate. OH indicates the state. The next number, 0010 in the example, is an internal number used in producing the wage determination. 08/29/2014 indicates the survey completion date for the classifications and rates under that identifier.

A UAVG rate will be updated once a year, usually in January of each year, to reflect a weighted average of the current negotiated/CBA rate of the union locals from which the rate is based.

WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

- * an existing published wage determination
- * a survey underlying a wage determination
- * a Wage and Hour Division letter setting forth a position on a wage determination matter
- * a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour National Office because National Office has responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N.W.

Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

4.) All decisions by the Administrative Review Board are final.

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END OF GENERAL DECISIO"



Municipality of Anchorage

Anchorage Water and Wastewater Utility



2022 SEWER IMPROVEMENTS

ERWWTF EARTHQUAKE REPAIRS AND STRUCTURAL RETROFITS

SECTION IX (NOT USED)

**AWWU DISADVANTAGED BUSINESS ENTERPRISE
PROGRAM (MBE/WBE)**



Municipality of Anchorage

Anchorage Water and Wastewater Utility



2022 SEWER IMPROVEMENTS

ERWWTF EARTHQUAKE REPAIRS AND STRUCTURAL RETROFITS

SECTION X

EEO CONTRACT COMPLIANCE SPECIFICATIONS

EEO Special Provisions

EQUAL EMPLOYMENT OPPORTUNITY SPECIAL PROVISIONS CONTRACT COMPLIANCE SPECIFICATIONS

Every municipal contract shall include language substantially the same as the following: The contractor will not discriminate against any employee or applicant for employment because of race, color, religion, national origin, ancestry, age, sex, sexual orientation, gender identity, marital status, or physical or mental disability. The contract will comply with all laws concerning the prohibition of discrimination including, but not limited to, Title 5 and Title 7 of the Anchorage Municipal Code.

Every municipal contract shall state, in all solicitations or advertisements for employees to work under the contract, that all qualified applicants will receive consideration for employment without regard to race, color, religion, national origin, ancestry, age, sex, sexual orientation, gender identity, marital status, or physical or mental disability.



Municipality of Anchorage

Anchorage Water and Wastewater Utility



2022 SEWER IMPROVEMENTS

ERWWTF EARTHQUAKE REPAIRS AND STRUCTURAL

RETROFITS

SECTION XI

FEMA FUNDING REQUIREMENTS

Exhibit "E"

FEDERAL PROVISIONS

I. DEFINITIONS

- A. Government** means the United States of America and any executive department or agency thereof.
- B. FEMA** means the Federal Emergency Management Agency.
- C. Third Party Subcontract** means a subcontract at any tier entered into by Contractor or subcontractor, financed in whole or in part with Federal assistance originally derived from the Federal Emergency Management Agency.
- D. "MOA"** means Municipality of Anchorage.

II. FEDERAL CHANGES

- A.** Contractor shall at all times comply with all applicable regulations, policies, procedures, and FEMA Directives as they may be amended or promulgated from time to time during the term of this Agreement, including but not limited to those requirements of 2 CFR 200.317 through 200.326 and more fully set forth in Appendix II to Part 200—Contract Provisions for non-Federal Entity Contracts Under Federal Awards, which is included herein by reference. Contractor's failure to so comply shall constitute a material breach of this contract.
- B.** The Contractor agrees to include the above clause in each third party subcontract financed in whole or in part with Federal assistance provided by FEMA. It is further agreed that the clause shall not be modified, except to identify the subcontractor who will be subject to its provisions.

III. ACCESS TO RECORDS

- A.** The Contractor agrees to provide the MOA, FEMA, the Comptroller General of the United States or any their authorized representatives access to any books, documents, papers, and records of the Contractor which are directly pertinent to this Agreement for the purposes of making audits, examinations, excerpts, and transcriptions.
- B.** The Contractor agrees to permit any of the foregoing parties to reproduce by any means whatsoever or to copy excerpts and transcriptions as reasonably needed.
- C.** The Contractor agrees to maintain all books, records, accounts, and reports required under this Agreement for a period of not less than three years after the later of: (a) the date of termination or expiration of this Agreement or (b) the date MOA makes final payment under this Agreement, except in the event of litigation or settlement of claims arising from the performance of this Agreement, in which case, Contractor agrees to maintain same until the MOA, FEMA, the Comptroller General, or any of their duly authorized representatives, have disposed of all such litigation, appeals, claims, or exceptions related thereto.
- D.** The requirements set for in paragraphs A, B, and C above are all in addition to, and should not be considered to be in lieu of, those requirements set forth in Section 21 of the Agreement.

IV. DEBARMENT AND SUSPENSION

- A.** This contract is a covered transaction for purposes of 2 C.F.R. pt. 180 and 2 C.F.R. pt. 3000. As such the contractor is required to verify that none of the contractor, its principals (defined at 2 C.F.R. § 180.995), or its affiliates (defined at 2 C.F.R. § 180.905) are excluded (defined at 2 C.F.R. § 180.940) or disqualified (defined at 2 C.F.R. § 180.935).
- B.** Contractor represents and warrants that it is not debarred, suspended, or otherwise excluded from or ineligible for participation in Federal assistance programs under Executive Order 12549, "Debarment and Suspension" or on the USEPA's List of Violating Facilities. Contractor agrees that neither Contractor nor any of its third party subcontractors shall enter into any third party subcontracts for any of the work under this Agreement with a third party subcontractor who is debarred, suspended, or otherwise excluded from or ineligible for participation in Federal assistance programs under executive Order 12549 or on the USEPA's List of Violating Facilities. Gov. Code § 4477.
- C.** The contractor must comply with 2 C.F.R. pt. 180, subpart C and 2 C.F.R. pt. 3000, subpart C and must include a requirement to comply with these regulations in any lower tier covered transaction it enters into. Contractor agrees to the provisions of Attachment 1, Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion—Lower Tier Covered Transactions, attached hereto and incorporated herein. For purposes of this Agreement and Attachment 1, Contractor is the “prospective lower tier participant.”
- D.** The Contractor agrees to include paragraphs A and B above in each third party subcontract financed in whole or in part with Federal assistance provided by FEMA. It is further agreed that the paragraphs shall not be modified, except to identify the subcontractor who will be subject to its provisions.
- E.** This certification is a material representation of fact relied upon by MOA. If it is later determined that the contractor did not comply with 2 C.F.R. pt. 180, subpart C and 2 C.F.R. pt. 3000, subpart C, in addition to remedies available to the State of California, the MOA, and the Federal Government may pursue available remedies, including but not limited to suspension and/or debarment.
- F.** The bidder or proposer agrees to comply with the requirements of 2 C.F.R. pt. 180, subpart C and 2 C.F.R. pt. 3000, subpart C while this offer is valid and throughout the period of any contract that may arise from this offer. The bidder or proposer further agrees to include a provision requiring such compliance in its lower tier covered transactions.”

V. NO FEDERAL GOVERNMENT OBLIGATIONS TO CONTRACTOR

- A.** The MOA and Contractor acknowledge and agree that, notwithstanding any concurrence by the Federal Government in or approval of the solicitation or award of the underlying contract, absent the express written consent by the Government, the Government is not a party to this contract and shall not be subject to any obligations or liabilities to the MOA, Contractor, or any other party (whether or not a party to that contract) pertaining to any matter resulting from the underlying contract.
- B.** The Contractor agrees to include the above clause in each third party subcontract financed in whole or in part with Federal assistance provided by FEMA. It is further

agreed that the clause shall not be modified, except to identify the subcontractor who will be subject to its provisions.

VI. EQUAL EMPLOYMENT OPPORTUNITY COMPLIANCE (applicable to all construction contracts awarded meeting the definition of “federally assisted construction contract” under 41 CFR 61-1.3)

Contractor agrees to comply with Executive Order 11246 of September 24, 1965, entitled “Equal Employment Opportunity,” as amended by Executive Order 11375 of October 13, 1967, and as supplemented in Department of Labor regulations (41 CFR Part 60). 41 CFR 60.14 is hereby incorporated by reference.

- A. Contractors and subcontractors shall not unlawfully discriminate, harass, or allow harassment against any employee or applicant for employment because of sex, race, color, ancestry, religious creed, national origin, sexual orientation, physical disability (including HIV and AIDS), mental disability, medical condition (cancer), age (over 40), marital status, and denial of family care leave.
- B. Contractors, and subcontractors shall ensure that the evaluation and treatment of their employees and applicants for employment are free from such discrimination and harassment.
- C. Contractors and subcontractors shall comply with the provisions of the Fair Employment and Housing Act (Gov. Code, § 12990 (a-f) et seq.) and the applicable regulations promulgated thereunder (California Code of Regulations, Title 2, Section 7285 et seq.). The applicable regulations of the Fair Employment and Housing Commission implementing Government Code Section 12990 (a-f), set forth in Chapter 5 of Division 4 of Title 2 of the California Code of Regulations, are incorporated into this Agreement by reference and made a part hereof as if set forth in full.
- D. Contractors, and subcontractors shall give written notice of their obligations under this clause to labor organizations with which they have a collective bargaining or other Agreement.

VII. ANTI-KICKBACK ACT COMPLIANCE (applicable to all contracts and subgrants for construction or repair; 44 CFR §13.36(i)(4))

Contractor agrees to comply with the Copeland “Anti-Kickback” Act (18 U.S.C. 874) as supplemented in Department of Labor regulations (29 CFR Part 3).

VIII. DAVIS-BACON ACT COMPLIANCE (applicable to construction contracts in excess of \$2,000 awarded by grantees and subgrantees when required by Federal grant program legislation;)

To the extent required by any Federal grant programs applicable to expected funding or reimbursement of MOA’s expenses incurred in connection with the services provided under this Agreement, Contractor agrees to comply with the Davis-Bacon Act (40 U.S.C. 276a to 276a-7) as supplemented by Department of Labor regulations (29 CFR Part 5) as set forth below. These requirements are in addition to the requirements set forth in Section 19(b) of the Agreement.

- A. The Contractor shall be bound to the provisions of the Davis-Bacon Act, and agrees to be bound by all the provisions of Labor Code section 1771 regarding prevailing wages. All labor on this project shall be paid neither less than the greater of the minimum wage

rates established by the U.S. Secretary of Labor (Federal Wage Rates), or by the State of California Director of Department of Industrial Relations (State Wage Rates). Current DIR requirements may be found at <http://www.dir.ca.gov/lcp.asp>.

- B. The general prevailing wage rates may be accessed at the Department of Labor Home Page at www.wdol.gov. Under the Davis Bacon heading, click on “Selecting DBA WDs.” In the drop down menu for State, select, “California.” In the drop down menu for MOA, select “Napa.” In the drop down menu for Construction Type, make the appropriate selection. Then, click Search.

IX. CONTRACT WORK HOURS AND SAFETY STANDARDS (applicable to all contracts in excess of \$100,000 that involve the employment of mechanics or laborers, but not to purchases of supplies or materials or articles ordinarily available on the open market, or contracts for transportation or transmission of intelligence)

- A. **Compliance:** Contractor agrees that it shall comply with Sections 103 and 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 327–330) as supplemented by Department of Labor regulations (29 CFR Part 5), which are incorporated herein.
- B. **Overtime:** No contractor or subcontractor contracting for any part of the work under this Agreement which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek.
- C. **Violation; liability for unpaid wages; liquidated damages:** In the event of any violation of the provisions of Paragraph B, the Contractor and any subcontractor responsible therefore shall be liable to any affected employee for his unpaid wages. In additions, such Contractor and subcontractor shall be liable to the United States for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic employed in violation of the provisions of paragraph B in the sum of \$10 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 his standard workweek of forty hours without payment of the overtime wages required by paragraph B.
- D. **Withholding for unpaid wages and liquidated damages:** The MOA shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld, from any moneys payable on account of work performed by the contractor or subcontractor under any such contract or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime contractor, such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set for in paragraph C of this section.
- E. **Subcontracts:** The contractor or subcontractor shall insert in any subcontracts the clauses set forth in paragraphs A through D of this section and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime

contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs A through D of this section.

X. NOTICE OF REPORTING REQUIREMENTS

- A. Contractor acknowledges that it has read and understands the reporting requirements of FEMA in Part III of Chapter 11 of the United States Department of Justice's Office of Justice Programs Financial Guide, and agrees to comply with any such applicable requirements.
- B. The Contractor agrees to include the above clause in each third party subcontract financed in whole or in part with Federal assistance provided by FEMA. It is further agreed that the clause shall not be modified, except to identify the subcontractor who will be subject to its provisions.

XI. NOTICE OF REQUIREMENTS PERTAINING TO COPYRIGHTS

- A. Contractor agrees that FEMA shall have a royalty-free, nonexclusive, and irrevocable license to reproduce, publish or otherwise use, and to authorize others to use, for government purposes:
 - 1) The copyright in any work developed with the assistance of funds provided under this Agreement;
 - 2) Any rights of copyright to which Contractor purchases ownership with the assistance of funds provided under this Agreement.
- B. The Contractor agrees to include paragraph A above in each third party subcontract financed in whole or in part with Federal assistance provided by FEMA. It is further agreed that the clause shall not be modified, except to identify the subcontractor who will be subject to its provisions.

XII. PATENT RIGHTS (applicable to contracts for experimental, research, or development projects financed by FEMA; 44 CFR §13.36(i)(8))

- A. General. If any invention, improvement, or discovery is conceived or first actually reduced to practice in the course of or under this Agreement, and that invention, improvement, or discovery is patentable under the laws of the United States of America or any foreign country, the MOA and Contractor agree to take actions necessary to provide immediate notice and a detailed report to FEMA.
- B. Unless the Government later makes a contrary determination in writing, irrespective of Contractor's status (a large business, small business, state government or state instrumentality, local government, nonprofit organization, institution of higher education, individual), the MOA and Contractor agree to take the necessary actions to provide, through FEMA, those rights in that invention due the Federal Government as described in U.S. Department of Commerce regulations, "Rights to Inventions Made by Nonprofit Organizations and Small Business Firms Under Government Grants, Contracts and Cooperative Agreements," 37 CFR, Part 401.
- C. The Contractor agrees to include paragraphs A and B above in each third party subcontract for experimental, developmental, or research work financed in whole or in part with Federal assistance provided by FEMA.

XIII. ENERGY CONSERVATION REQUIREMENTS

- A. The Contractor agrees to comply with mandatory standards and policies relating to energy efficiency which are contained in the state energy conservation plan issued in compliance with the Energy Policy and Conservation Act (42 USC 6201).
- B. The Contractor agrees to include paragraph A above in each third party subcontract financed in whole or in part with Federal assistance provided by FEMA. It is further agreed that the clause shall not be modified, except to identify the subcontractor who will be subject to its provisions.

XIV. CLEAN AIR AND WATER REQUIREMENTS (applicable to all contracts and subcontracts in excess \$100,000, including indefinite quantities where the amount is expected to exceed \$100,000 in any year)

- A. Contractor agrees to comply with all applicable standards, orders or regulations issued pursuant to the Clean Air Act (42 U.S.C. 7401-7671q) and the Federal Water Pollution Control Act as amended (33 U.S.C. 1251-1387), and will report violations to FEMA and the Regional Office of the Environmental Protection Agency (EPA).
- B. Contractor agrees to report each violation of these requirements to the MOA and understands and agrees that the MOA will, in turn, report each violation as required to assure notification to FEMA and the appropriate EPA regional office.
- C. The Contractor agrees to include paragraph A and B above in each third party subcontract exceeding \$100,000 financed in whole or in part with Federal assistance provided by FEMA.

XV. TERMINATION FOR CONVENIENCE OF MOA (applicable to all contracts in excess of \$10,000)

See Section 10.5 -Article - 5.39 of MASS.

XVI. TERMINATION FOR DEFAULT (applicable to all contracts in excess of \$10,000)

Contractor's failure to perform or observe any term, covenant or condition of this Agreement shall constitute an event of default under this Agreement. See Section 10.5 -Article - 5.3 of MASS.

XVII. LOBBYING (Byrd Anti-Lobbying Amendment, 31 U.S.C. § 1352 (as amended).)

- A. Contractor shall not use or pay any funds received under this Agreement to influence or attempt to influence an officer or employee of an agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.
- B. Contractor agrees to the provisions of Attachment 2, Certification Regarding Lobbying, attached hereto and incorporated herein (applicable for contracts or subcontracts in excess of \$100,000).

- C. Contractor agrees to include paragraphs A and B above in each third party subcontract financed in whole or in part with Federal assistance provided by FEMA. It is further agreed that the clause shall not be modified, except to identify the subcontractor who will be subject to its provisions.

XVIII. MBE / WBE REQUIREMENTS

The MOA intends to seek reimbursement of its costs incurred in connection with this project from FEMA. Accordingly, the CONTRACTOR shall make every effort to procure Minority and Women's Business Enterprises ("DBEs") through the "Good Faith Effort" process as required in 2 CFR 200.321. Failure to perform the "Good Faith Effort" process and submit the forms listed below with the bid shall be cause for a bid to be rejected as non-responsive and/or be considered as a material breach of the contract.

PRIME CONTRACTOR RESPONSIBILITIES

All recipients of this grant funding, as well as their prime contractors and subcontractors, must take all affirmative steps to assure that minority firms, women's business enterprises, and labor surplus area firms are used when possible make every effort to solicit bids from eligible DBEs. This information must be documented and reported.

"GOOD FAITH" EFFORT PROCESS

Any public or private entity receiving federal funds must demonstrate that efforts were made to attract MBE/WBEs. The process to attract MBE/WBEs is referred to as the "Good Faith" effort. This effort requires the recipient, prime contractor and any subcontractors to take the steps listed below to assure that MBE/WBEs are used whenever possible as sources of supplies, construction, equipment, or services. If a CONTRACTOR fails to take the steps outlined below shall cause the bid to be rejected as non-responsive and/or be deemed a material breach of the contract.

- A. Place qualified small and minority businesses and women's business enterprises on solicitation lists;
- B. Assure that small and minority businesses, and women's business enterprises are solicited whenever they are potential sources;
- C. Divide total requirements, when economically feasible, into smaller tasks or quantities to permit maximum participation by small and minority business, and women's business enterprises;
- D. Establish delivery schedules, where the requirement permits, which encourage participation by small and minority business, and women's business enterprises; and
- E. Use the services and assistance of the Small Business Administration, and the Minority Business Development Agency of the Department of Commerce.
- F. If subcontracts are to be let, Contractor shall take the affirmative steps listed in 2 CFR 200.321.

XIX. PROCUREMENT OF RECOVERED MATERIALS (2 CFR 200.322)

Contractor shall comply with Section 6002 of the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act. The requirements of Section 6002 include procuring only items designated in guidelines of the Environmental Protection Agency (EPA) at 40 CFR part 247 that contain the highest percentage of recovered materials practicable, consistent with maintaining a satisfactory level of competition, where the purchase price of the item exceeds \$10,000 or the value of the quantity acquired during the preceding fiscal year exceeded \$10,000; procuring solid waste management services in a manner that maximizes energy and resource recovery; and establishing an affirmative procurement program for procurement of recovered materials identified in the EPA guidelines.

XX. INCORPORATION OF UNIFORM ADMINISTRATIVE REQUIREMENTS

The preceding provisions include, in part, certain standard terms and conditions required by FEMA, whether or not expressly set forth in the preceding contract provisions. All contractual provisions required by FEMA are hereby incorporated by reference. Anything to the contrary herein notwithstanding, all FEMA mandated terms shall be deemed to control in the event of a conflict with other provisions contained in this Agreement. Contractor shall not perform any act, fail to perform any act, or refuse to comply with any MOA requests that would cause MOA to be in violation of the FEMA terms and conditions.

XXI. DHS SEAL, LOGO, AND FLAGS

The contractor shall not use the DHS seal(s), logos, crests, or reproductions of flags or likenesses of DHS agency officials without specific FEMA pre-approval.

Attachment D1

CERTIFICATION REGARDING DEBARMENT, SUSPENSION, INELIGIBILITY AND VOLUNTARY EXCLUSION – LOWER TIER COVERED TRANSACTIONS

(Lower Tier refers to the agency or contractor receiving Federal funds, as well as any subcontractors that the agency or contractor enters into contract with using those funds)

As required by Executive Order 12549, Debarment and Suspension, as defined at 44 CFR Part 17, MOA may not enter into contract with any entity that is debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded by the Federal Government from participating in transactions involving Federal funds. Contractor is required to sign the certification below which specifies that neither Contractor nor its principals are presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded by the Federal agency. It also certifies that Contractor will not use, directly or indirectly, any of these funds to employ, award contracts to, engage the services of, or fund any contractor that is debarred, suspended, or ineligible under 44 CFR Part 17.

Instruction for Certification

1. By signing and submitting this proposal, the prospective lower tier participant is providing the certification set out below.
2. The certification in this clause is a material representation of fact upon which reliance was placed when this transaction was entered into. If it is later determined that the prospective lower tier participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government the department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.
3. The prospective lower tier participant shall provide immediate written notice to the person to whom this proposal is submitted if at any time the prospective lower tier participant learns that its certification was erroneous when submitted or had become erroneous by reason of changed circumstances.
4. The terms covered transaction, debarred, suspended, ineligible, lower tier covered transaction, participant, person, primary covered transaction, principal, proposal, and voluntarily excluded, as used in this clause, have the meaning set out in the Definition and Coverage sections of rules implementing Executive Order 12549. You may contact the person to which this proposal is submitted for assistance in obtaining a copy of those regulations.
5. The prospective lower tier participant agrees by submitting this agreement that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is proposed for debarment under 48 CFR Part 9, subpart 9.4, debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency with which this transaction originated.
6. The prospective lower tier participant further agrees by submitting this proposal that it will include this clause titled "Certification Regarding Debarment, Suspension, Ineligibility and

Voluntary Exclusion-Lower Tier Covered Transaction," without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions.

7. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that it is not proposed for debarment under 48 CFR part 9, subpart 9.4, debarred, suspended, ineligible, or voluntarily excluded from covered transactions, unless it knows that the certification is erroneous. A participant may decide the method and frequency by which it determines the eligibility of its principals. Each participant may, but is not required to, check the List of Parties Excluded from Federal Procurement and Nonprocurement Programs.
8. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of a participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.
9. Except for transactions authorized under paragraph 5 of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is proposed for debarment under 48 CFR part 9, subpart 9.4, suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction originated may pursue available remedies, including suspension and/or debarment.

Certification Regarding Debarment, Suspension, Ineligibility an Voluntary Exclusion – Lower Tier Covered Transactions

1. The prospective lower tier participant certifies, by submission of its proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency.
2. Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

Contractor Signature

Date

Attachment D2

CERTIFICATION REGARDING LOBBYING

Certification for Contracts, Grants, Loans, and Cooperative Agreements

The undersigned certifies, to the best of his or her knowledge and belief, that:

1. No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of an agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.
2. If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.
3. The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loan, and cooperative agreements) and that all subrecipients shall certify and disclose accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by section 1352, title 31, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

Contractor Signature

Date

DBE Subcontractor Utilization Form

This form is intended to capture the prime contractor's actual and/or anticipated use of identified certified DBE¹ subcontractors² and the estimated dollar amount of each subcontract.

Prime Contractor Name		Project Name
Bid/Proposal No.	Assistance Agreement ID No. (If known)	Point of Contact
Address		
Telephone No.	Email Address	
Issuing/Funding Entity:		

I have identified potential DBE certified subcontractors	<input type="radio"/> YES	<input type="radio"/> NO	
Subcontractor Name/ Company Name	Company Address/Phone/Email	Est. Dollar Amt	Currently DBE Certified?

¹ A DBE is a Disadvantaged, Minority, Small or Woman Business Enterprise that has been certified as described in 40 CFR 33.204-33.205.

² Subcontractor is defined as a company, firm, joint venture or individual who enters into an agreement with a contractor to provide services.

DBE Subcontractor Performance

I certify under penalty of perjury that the foregoing statements are true and correct. Signing this form does not signify a commitment to utilize the subcontractors above. In the event of a replacement of a subcontractor, I will adhere to the replacement requirements set forth in 40 CRF Part 33 Section 33.302(c).

Prime Contractor Signature	Print Name
Title	Date

DBE Subcontractor Performance

This form is intended to capture the DBE³ subcontractors⁴ description of work to be performed and the price of the work submitted to the prime contractor. Prime contractor is required to have its DBE subcontractors complete this form and include all completed forms in the prime contractors bid or proposal package unless subcontractors will not be used.

Subcontractor Name		Project Name
Bid/Proposal No.	Assistance Agreement ID No. (If known)	Point of Contact
Address		
Telephone No.	Email Address	
Prime Contractor Name	Issuing/Funding Entity:	

Contract Item Number	Description of Work Submitted to the Prime Contractor Involving construction, Services, Equipment or Supplies	Price of Work Submitted to the Prime Contractor
BDE Certified by <input type="radio"/> DOT <input type="radio"/> SBA <input type="radio"/> Other: _____		Meets/ exceeds FEMA certification standards: <input type="checkbox"/> YES <input type="radio"/> NO <input type="radio"/> Unknown

³ A DBE is a Disadvantaged, Minority, Small or Woman Business Enterprise that has been certified as described in 40 CFR 33.204-33.205

⁴ Subcontractor is defined as a company, firm, joint venture or individual who enters into an agreement with a contractor to provide services pursuant to an EPA award of financial assistance.

DBE Subcontractor Performance

I certify under penalty of perjury that the foregoing statements are true and correct. Signing this form does not signify a commitment to utilize the subcontractors above. I am aware of that in the event of a replacement of a subcontractor, I will adhere to the replacement requirements set forth in 40 CRF Part 33 Section 33.302(c).

Prime Contractor Signature	Print Name
Title	Date

Subcontractor Signature	Print Name
Title	Date



Municipality of Anchorage

Anchorage Water and Wastewater Utility



2022 SEWER IMPROVEMENTS

ERWWTF EARTHQUAKE REPAIRS AND STRUCTURAL

RETROFITS

SECTION XII

RECORD DRAWINGS

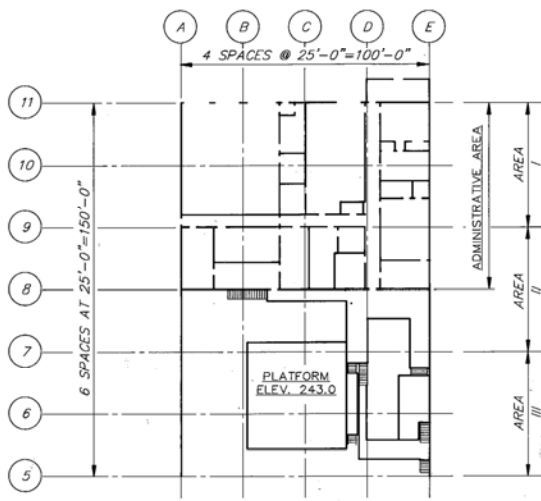
SHEET NO.

DRAWING NO.

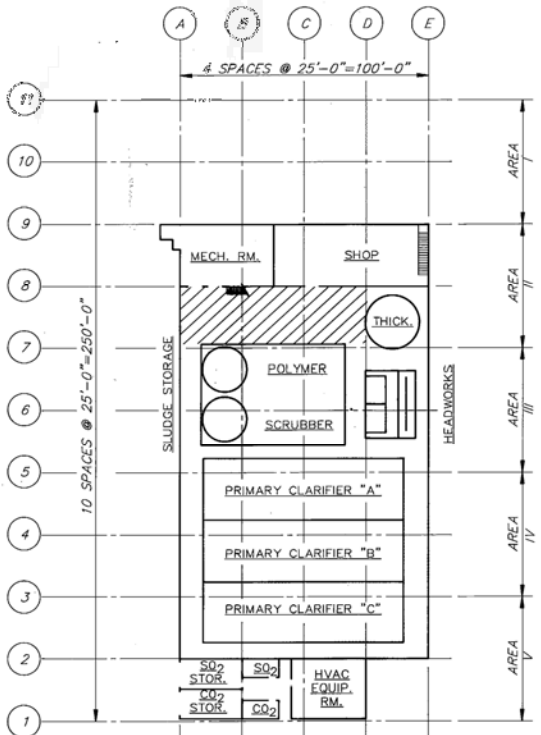
SHEET TITLE

RECORD DRAWINGS

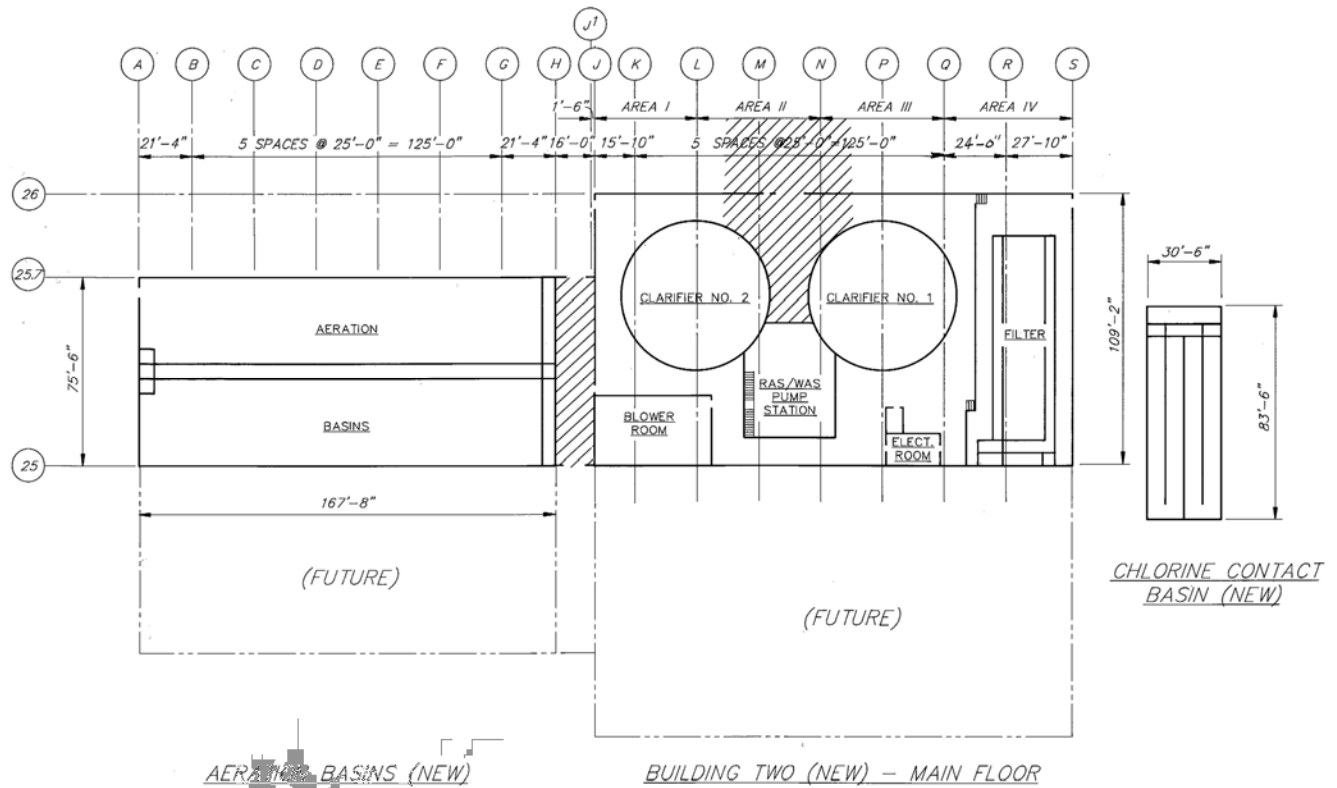
- GENERAL BUILDING KEY PLAN
- BUILDING 1 UPPER FLOOR PLAN
- BUILDING 1 LOWER FLOOR PLAN
- BUILDING 1 STRUCTURAL DETAILS CLARIFIERS
- BUILDING 1 SECTIONS DRAWING
- BUILDING 2 ANCHOR BOLT LAYOUT
- BUILDING 2 ERECTION DRAWING SECTION FRAMES K-Q
- BUILDING 2 ERECTION DRAWING SECTION FRAMES M-N
- BUILDING 2 ERECTION DRAWING SECTION FRAME R
- BUILDING 2 ERECTION DRAWING ROOF FRAMING PLAN
- BUILDING 2 CUSTOM REFERENCE DRAWING FRAMING DETAILS
- AERATION BUILDING ANCHOR BOLT LAYOUT
- AERATION BUILDING ERECTION DRAWING SECTION FRAME B
- AERATION BUILDING ERECTION DRAWING SECTION FRAMES C-G
- AERATION BUILDING ERECTION DRAWING SECTION FRAME H
- AERATION BUILDING ERECTION DRAWING SECTION FRAME J
- AERATION BUILDING ERECTION DRAWING ROOF FRAME PLAN
- AERATION BUILDING AERATION BASIN WEST END PLAN
- AERATION BUILDING AERATION BASIN EAST END PLAN
- AERATION BUILDING AERATION BASIN SECTION



BUILDING ONE (EXISTING) - UPPER FLOOR

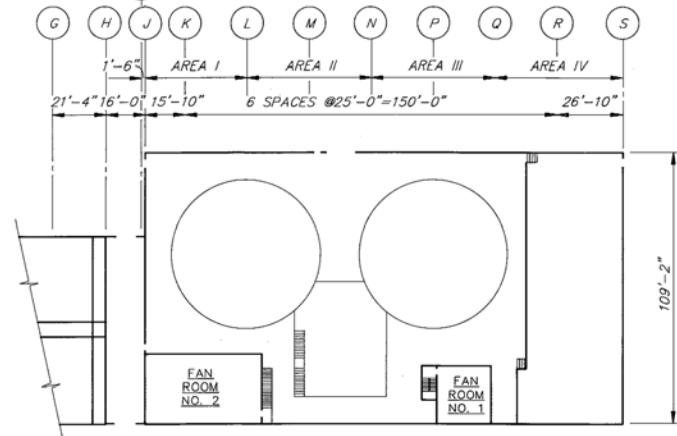


BUILDING ONE (EXISTING) - MAIN FLOOR



BUILDING TWO (NEW) - MAIN FLOOR

AERATION BASINS (NEW)



BUILDING TWO (NEW) - MEZZANINE AREAS

CLEAR FLOOR HARDENER ADDED AT INDICATED AREAS.

RECORD DRAWING
 These record drawings have been prepared based on information provided by others. The Engineer has not verified the accuracy of such information and shall not be responsible for any errors or omissions which may be incorporated herein as a result.

	DSGN	E.R. WEESNER
	DR	E.R. WEESNER
	CHK	J.P. MACIARELLO
	APVD	S.J. HYLAND

NO.	DATE	REVISION
2	4/92	RECORD DRAWING
1	4/89	ADDENDUM NO. 1 2/10/89

BY	APVD
BSD	LAG
CAR	JPM

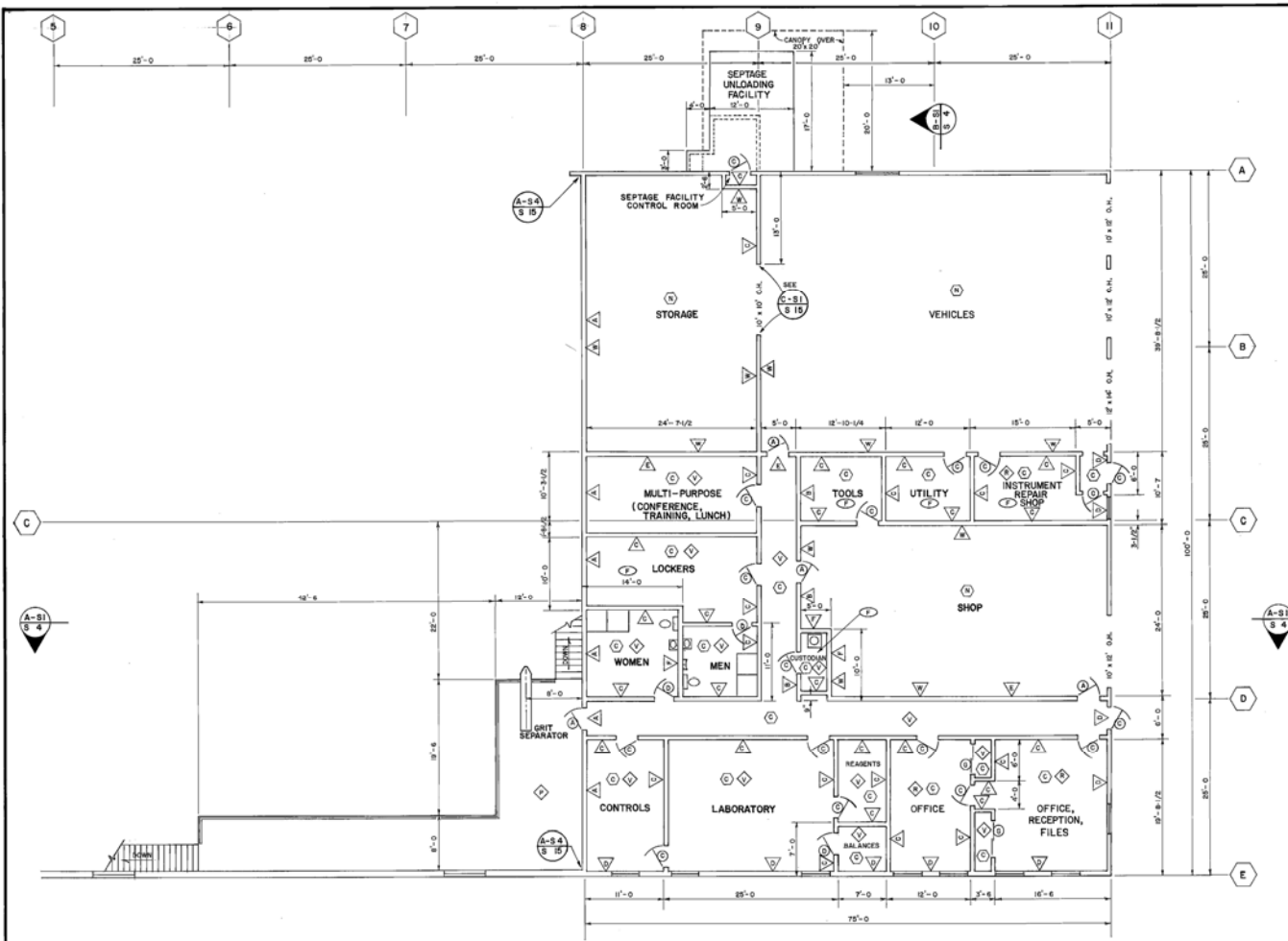
JAMES M. MONTGOMERY CONSULTING ENGINEERS, INC.
 in association with
CH2M HILL

VERIFY SCALES
 BAR IS ONE INCH ON ORIGINAL DRAWING.
 IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY.

MUNICIPALITY OF ANCHORAGE WATER AND WASTEWATER UTILITY
 ANCHORAGE, ALASKA

EAGLE RIVER WASTEWATER TREATMENT FACILITY
 STAGE I EXPANSION

GENERAL BUILDING KEY PLAN



CEILING SCHEDULE

- (N) NO CEILING
- (C) 1-HOUR FIRE-RATED SUSPENDED CEILING, 9' HT. - SEE SHEET S 17

PARTITION SCHEDULE


- ▲ PARTITION WALLS - SEE (A-S1/S 15), (B-S1/S 15), (C-S1/S 15), (D-S1/S 15), (E-S1/S 15), (F-S1/S 15)
- ▲ INSTALL WAINSCOT - SEE (A-S1/S 15)
- ▽ FLOOR ABOVE - SEE DETAILS, SHEET S 15

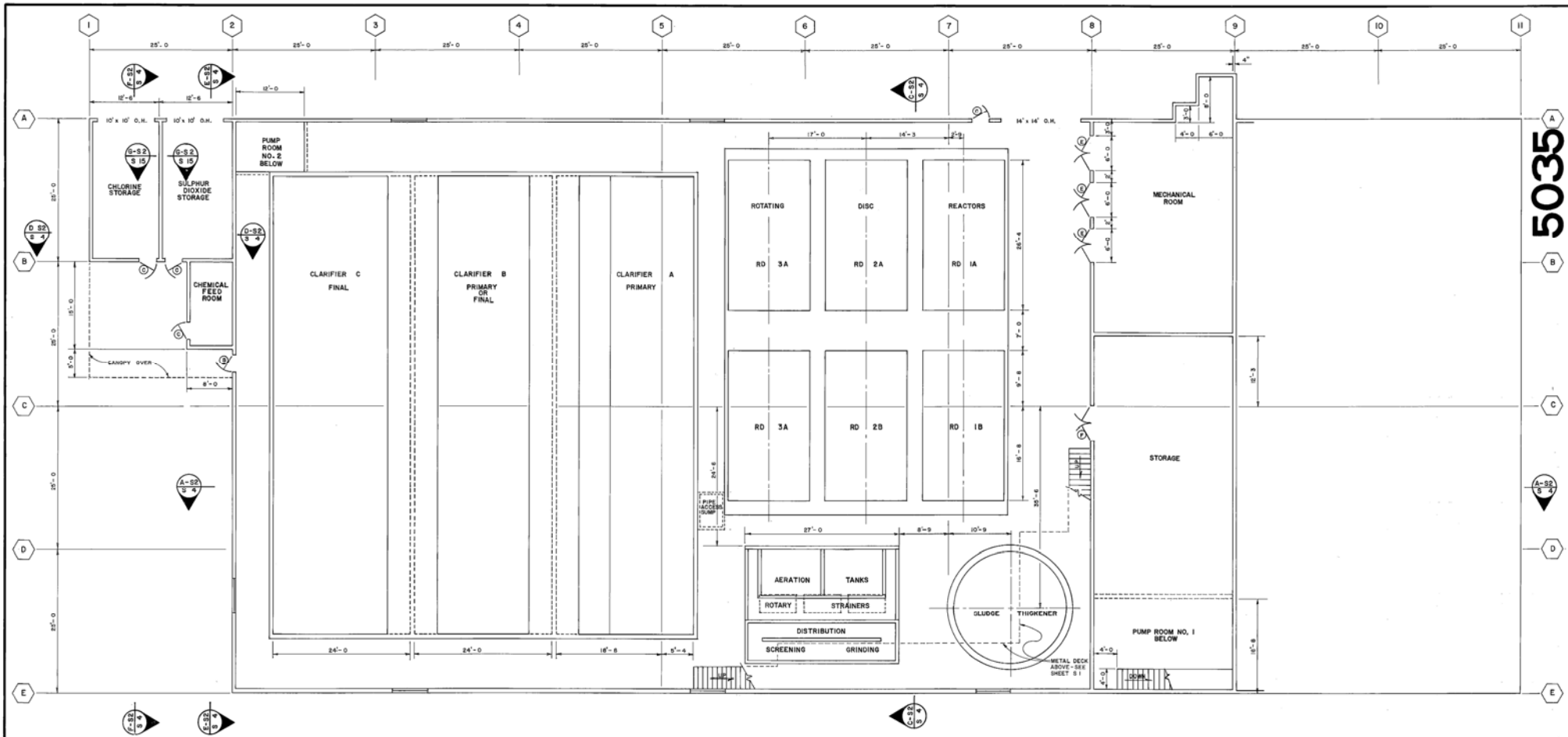
DOOR SCHEDULE (SHEETS S 1 AND S 2)

- ① 1-HOUR FIRE-RATED DOOR, 3'-0" x 7'-0"
- ② 1-1/2-HOUR FIRE RATED DOOR, 3'-0" x 7'-0"
- ③ NON-RATED DOOR, 3'-0" x 7'-0"
- ④ NON-RATED DOOR, 2'-8" x 7'-0"
- ⑤ 1-HOUR FIRE-RATED DOOR, DOUBLE LEAF, 6'-0" x 7'-0"
- ⑥ NON-RATED DOOR, DOUBLE LEAF, 6'-0" x 7'-0"
- ⑦ NON-RATED SLIDING DOOR, DOUBLE LEAF, 6'-0" x 6'-8"

FLOORING SCHEDULE

- ◇ CARPET AND PAD
- ▽ VINYL CUSHION COVERING
- ◇ PAINT

REVISIONS WINCE • CORTHELL & ASSOCIATES RENAI • ANCHORAGE, A.K.	
	
EAGLE RIVER WASTEWATER TREATMENT PLANT UPPER FLOOR PLAN MUNICIPALITY OF ANCHORAGE, ALASKA	
SCALE 1/8" = 1'-0" DATE JUNE 1978	DRAWN [Signature] CHECKED [Signature] SHEET NO. S 1 OF 21

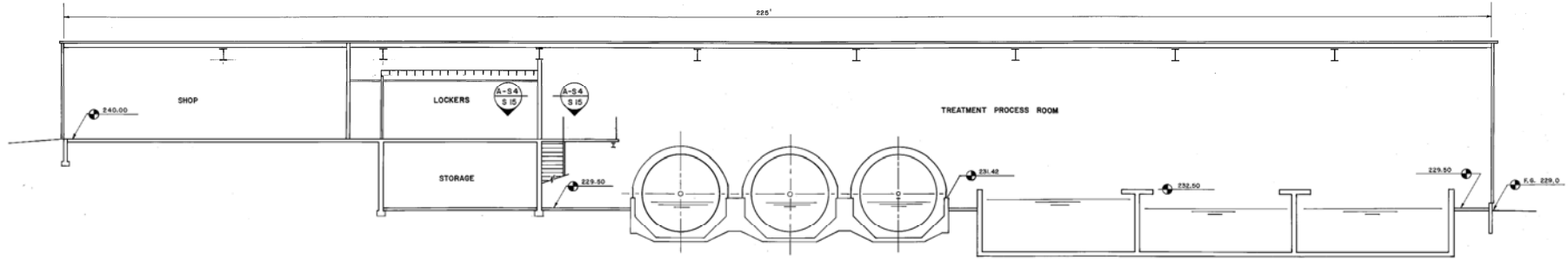


5035

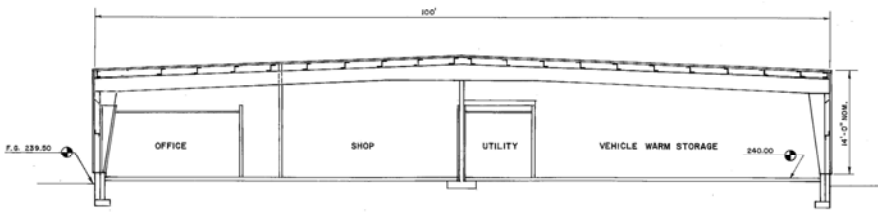
PLAN SET NO. 1485

SEE DOOR SCHEDULE, SHEET S 1

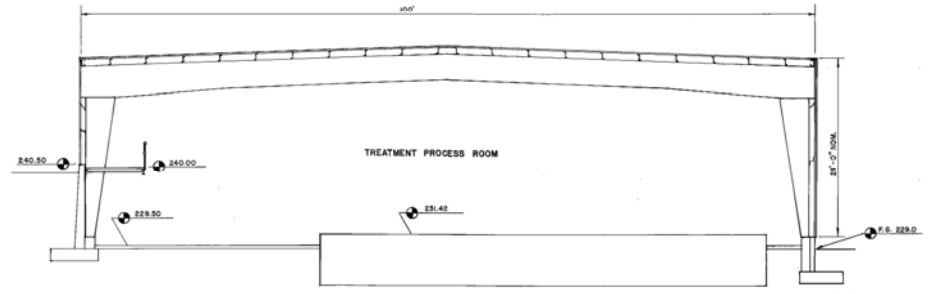
		REVISIONS WINCE • CORTHELL & ASSOCIATES KENAI - ANCHORAGE, AK.	
EAGLE RIVER WASTEWATER TREATMENT PLANT			
LOWER FLOOR PLAN			
MUNICIPALITY OF ANCHORAGE, ALASKA			
SCALE: 1/8" = 1'-0"	DRAWN	CHECKED	
DATE: JUNE 1978	SHEET NO. 8 2 OF 21		



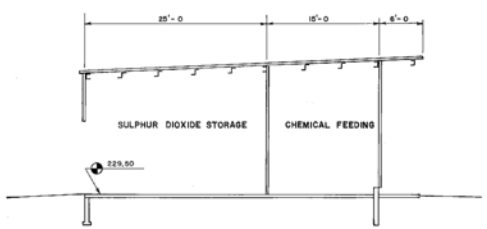
A-S4



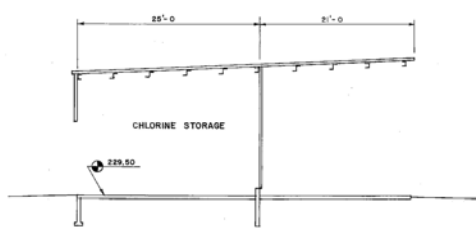
B-S1



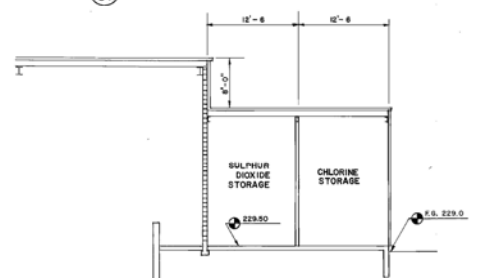
C-S2



E-S2



F-S2

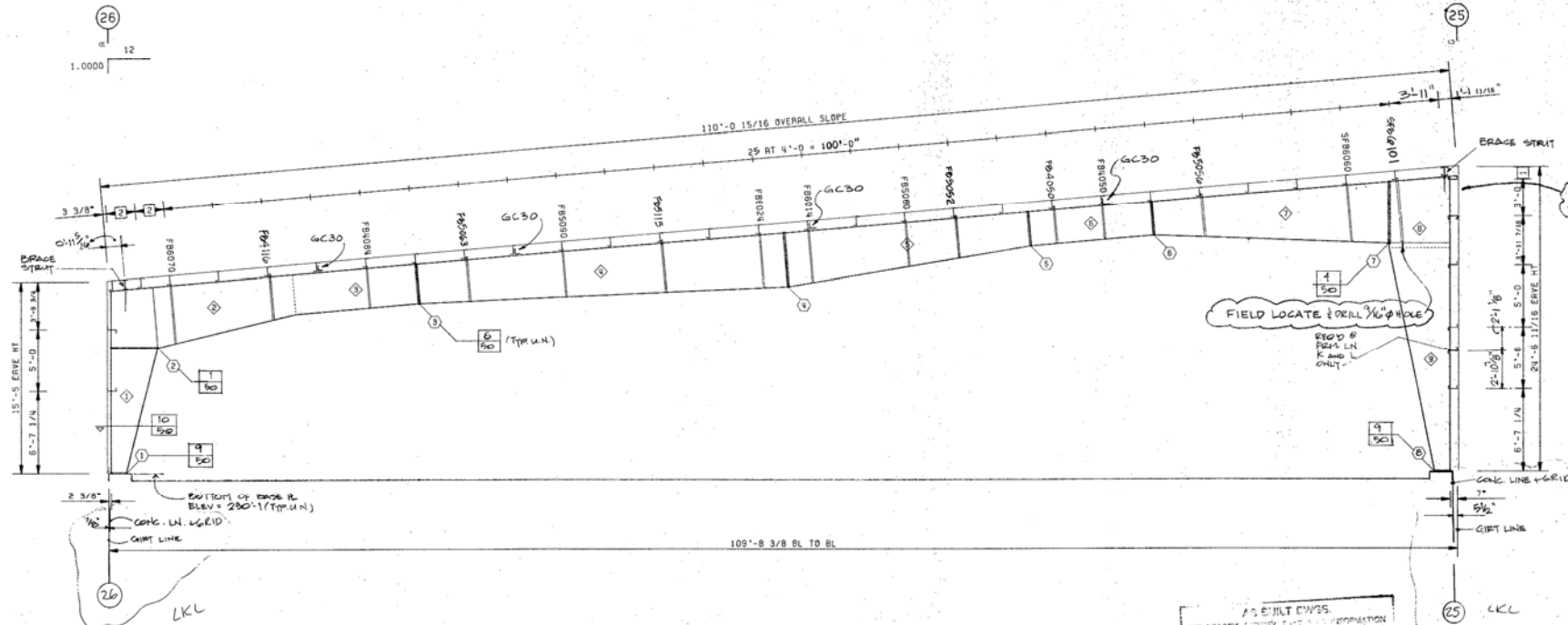


D-S2

		REVISIONS WINCE • CORTHELL & ASSOCIATES KENAI - ANCHORAGE, AK. EAGLE RIVER WASTEWATER TREATMENT PLANT BUILDING SECTIONS MUNICIPALITY OF ANCHORAGE, ALASKA SCALE 1/8" = 1'-0" DRAWN CHECKED DATE JUNE 1978 SHEET NO. 3 4 OF 21	
---	--	--	--

DIMENSIONS
 1 1'-0"
 2 2'-4 7/16"

PLAN SET No. 5107 17247



BUILDING CROSS SECTION AT FRAME LINE (S) K, L, P, Q

- NOTE**
- 1) ALL VERTICAL CLEARANCE DIM. ARE FROM BOTTOM OF BASE PL.
 - 2) ALL EAVE HTG. ARE TAKEN FROM BOTTOM OF BASE PL.
 - 3) ALL BASE PL'S ARE LOCATED ON 1' GIRT.
 - 4) ALL MEQ 90 DETAILS SHOWN ON SHIT # 2 ARE TYPICAL FOR ALL CROSS SECTION.

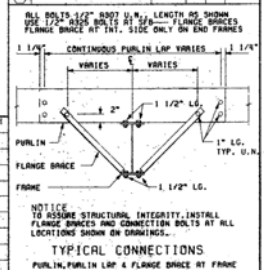
FRAME CLEARANCES

CLEAR UNDER RAUNCH AT COLUMN LINE = 26	10'-0 3/4"
CLEAR UNDER RAUNCH AT COLUMN LINE = 25	18'-4 7/16"
CLEAR DISTANCE BETWEEN KNEES AT RAUNCH	100'-1 15/16"

AS BUILT DIMS
 WE HEREBY CERTIFY THAT THE INFORMATION CONTAINED HEREIN IS TRUE AND CORRECT TO THE BEST OF OUR KNOWLEDGE AND BELIEF AND THAT WE HAVE NOT BEEN ADVISED OF ANY FACTS WHICH MIGHT CAUSE THIS INFORMATION TO BE MISLEADING OR INACCURATE.
 DATE: 11/11/90
 SIGNATURE: [Signature]

A36 ANCHOR BOLTS			
QTY	SIZE	TYPE	NOTE
1	1/2" x 1 1/2"	A36	172
1	1/2" x 1 1/2"	A36	172
1	1/2" x 1 1/2"	A36	172

A325 CONNECTION BOLTS			
QTY	SIZE	TYPE	NOTE
1	1/2" x 1 1/2"	A325	172
1	1/2" x 1 1/2"	A325	172
1	1/2" x 1 1/2"	A325	172



MEM NO	FLANGE SIZE	WEB THK	DEPTH (IN)	LENGTH (FT)
1	1/2" x 13.0"	1/4"	15.00/745.00	14.7
2	1/2" x 8.5"	5/16"	59.00/38.00	14.9
3	1/2" x 8.5"	3/16"	38.00/38.00	10.0
4	1/2" x 8.0"	5/16"	38.00/52.00	30.0
5	1/2" x 7.0"	5/16"	52.00/25.00	20.0
6	1/2" x 10.0"	3/16"	33.00/35.00	10.0
7	5/8" x 14.0"	5/16"	33.00/60.00	24.4
8	1/2" x 18.0"	5/16"	58.00/59.00	5.8
9	1/2" x 14.0"	5/16"	59.00/75.00	18.0

GENERAL NOTES

1. A325 HIGH STRENGTH BOLTS SHALL BE TIGHTENED IN ACCORDANCE WITH THE "SPECIFICATION FOR STRUCTURAL JOINTS USING ASTM A325 OR A490 BOLTS" SECTION 5.1C) "TURN-OF-NUT TIGHTENING".
2. USE 1/2" DIA. A307 BOLTS FOR PURLIN TO FRAME, GIRT TO FRAME, AND GIRT TO CLIP CONNECTIONS UNLESS NOTED OTHERWISE. SEE JOB DETAILS FOR BOLT LENGTHS.
3. INSTALLATION OF ADEQUATE TEMPORARY BRACING FOR USE UNTIL CONSTRUCTION IS COMPLETE. IS THE RESPONSIBILITY OF THE ERECTOR.

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ERECTION DRAWING

BUILDER	HAP ENTERPRISES	CUSTOMER	CITY OF ANCHORAGE (BLDG. 2)	LOCATION	EAGLE RIVER, ALASKA	JOB NO.	43041
REVISED BY	DESCRIPTION	DATE	NO.	DATE	NO.	DATE	NO.
1	1/2" x 13.0"	1/4"	15.00/745.00	14.7	1	11/3/90	
2	1/2" x 8.5"	5/16"	59.00/38.00	14.9	2		
3	1/2" x 8.5"	3/16"	38.00/38.00	10.0	3		
4	1/2" x 8.0"	5/16"	38.00/52.00	30.0	4		
5	1/2" x 7.0"	5/16"	52.00/25.00	20.0	5		
6	1/2" x 10.0"	3/16"	33.00/35.00	10.0	6		
7	5/8" x 14.0"	5/16"	33.00/60.00	24.4	7		
8	1/2" x 18.0"	5/16"	58.00/59.00	5.8	8		
9	1/2" x 14.0"	5/16"	59.00/75.00	18.0	9		



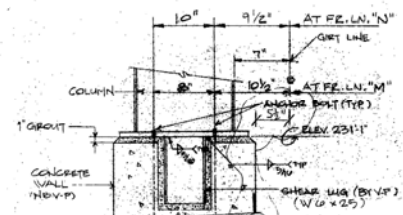
2 OF 36

SHEET NO. 107C

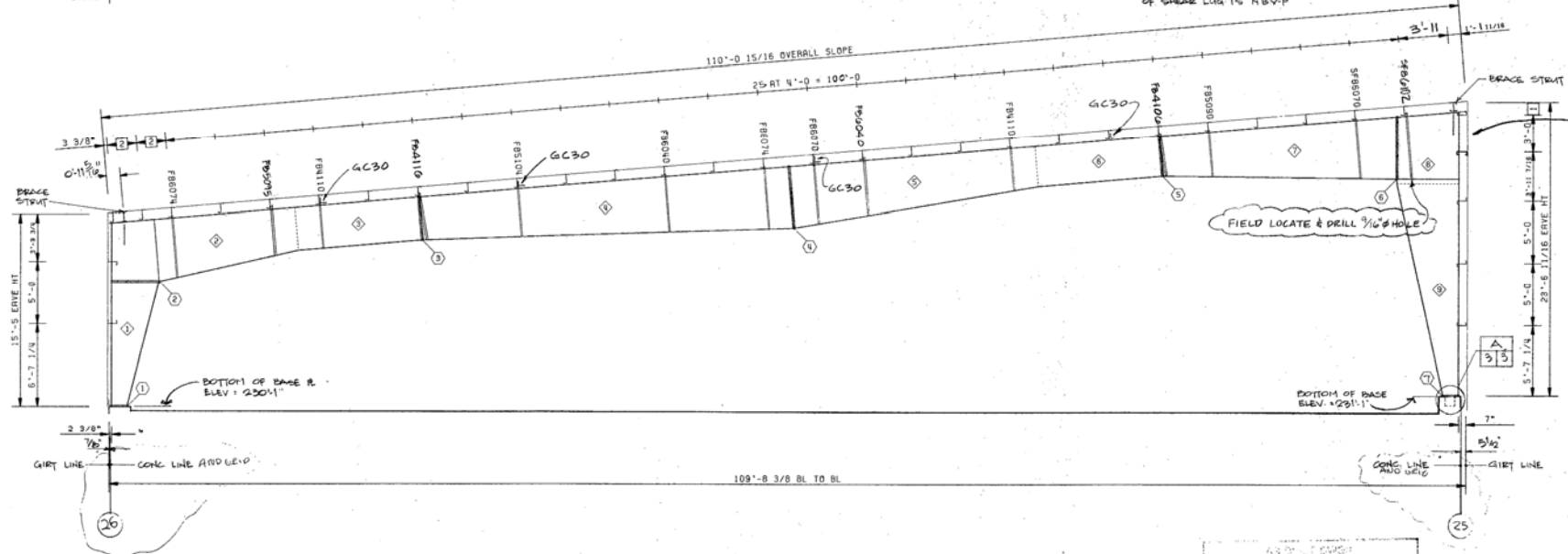
DIMENSIONS
 1 1'-0"
 2 2'-4 7/16"

17248

PLAN SET NO. 51 07



NOTE: ANCHOR BOLTS DESIGNED FOR TENSION ONLY. SHEAR TAKEN BY SHEAR LUG DESIGN OF SHEAR LUG TO NOV-P

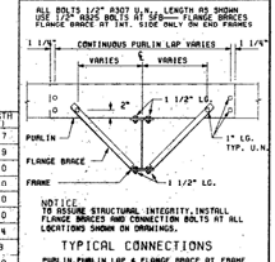


BUILDING CROSS SECTION AT FRAME LINE (S) M, N

AS NOTED ON DRAWING
 OR HEAVILY DIMENSIONED FOR INFORMATION
 (MANDATORY FOR THE CONTRACTOR TO VERIFY DIMENSIONS ACCURATELY BEFORE THE START OF CONSTRUCTION)
 SIGNATURE: [Signature] LEASE KIRSHENLEWIS
 DATE: [Date]

A325 ANCHOR BOLTS			
CON. NO.	BASE PLATE SIZE	CON. QTY.	CON. DIA.
1	14" X 10" X 1"	4	1 3/8"
2	14" X 10" X 1 1/4"	4	1 3/8"

A325 CONNECTION BOLTS			
CON. NO.	BOLTS	CON. QTY.	CON. DIA.
1	120 3/4" X 2 1/2"	3/4"	3/8"
2	120 3/4" X 2"	1/2"	3/8"
3	120 3/4" X 2 1/2"	5/8"	3/8"
4	120 3/4" X 2"	1/2"	3/8"
5	120 3/4" X 2 1/2"	3/4"	3/8"
6	120 3/4" X 2 1/2"	3/4"	3/8"



ITEM NO.	FLANGE T X X W	WEB THK	DEPTH (FINI)	LENGTH (FINI)
1	1/2 X 13.0	1/4	15.00/46.00	14.7
2	1/2 X 8.0	5/16	60.00/41.00	14.9
3	1/2 X 8.0	3/16	41.00/41.00	10.0
4	1/2 X 8.0	5/16	41.00/46.00	30.0
5	1/2 X 7.0	5/16	59.00/39.00	20.0
6	1/2 X 7.0	3/16	39.00/39.00	10.0
7	5/8 X 4.0	5/16	39.00/60.00	24.4
8	1/2 X 13.0	5/16	60.00/60.00	5.8
9	1/2 X 13.0	5/16	60.00/15.00	17.0

FRAME CLEARANCES FROM BOTTOM OF BASE R.
 CLEAR UNDER HANGAR AT COLUMN LINE = 26' = 9'-11 3/4"
 CLEAR UNDER HANGAR AT COLUMN LINE = 25' = 17'-8 3/8"
 CLEAR DISTANCE BETWEEN KNEES AT HANGAR = 100'-0 15/16"

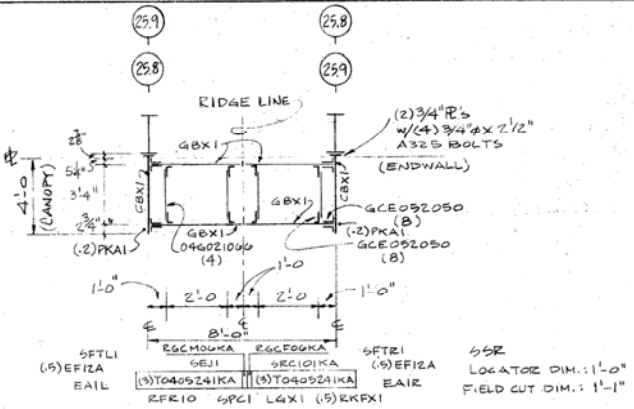
GENERAL NOTES
 1. A325 HIGH STRENGTH BOLTS SHALL BE TIGHTENED IN ACCORDANCE WITH THE "SPECIFICATION FOR STRUCTURAL JOINTS USING ASTM A325 OR A490 BOLTS" SECTION 5(C) "TURN-OF-NUT TIGHTENING".
 2. USE 1/2" DIA. A307 BOLTS FOR PURLIN TO FRAME, GIRT TO FRAME, AND GIRT TO CLIP CONNECTIONS UNLESS NOTED OTHERWISE. SEE JOB DETAILS FOR BOLT LENGTHS.
 3. INSTALLATION OF FIDEGUATE TEMPORARY BRACING FOR USE UNTIL CONSTRUCTION IS COMPLETE, IS THE RESPONSIBILITY OF THE ERECTOR.

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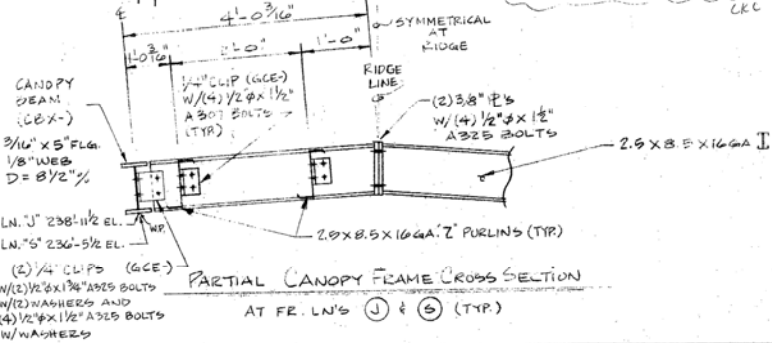
ERECTION DRAWING DRAWN BY: [Signature] CHECKED BY: [Signature] DATE: 4/3/90		CUSTOMER: HAP ENTERPRISES CITY OF ANCHORAGE (BLOC.2) LOCATION: EAGLE RIVER, ALASKA JOB NO.: 43041
VARCO-PRUDEN BUILDINGS AMCA INTERNATIONAL	MBMA	DRAWING: 3 OF 136 SHEET NO. 1070

17255

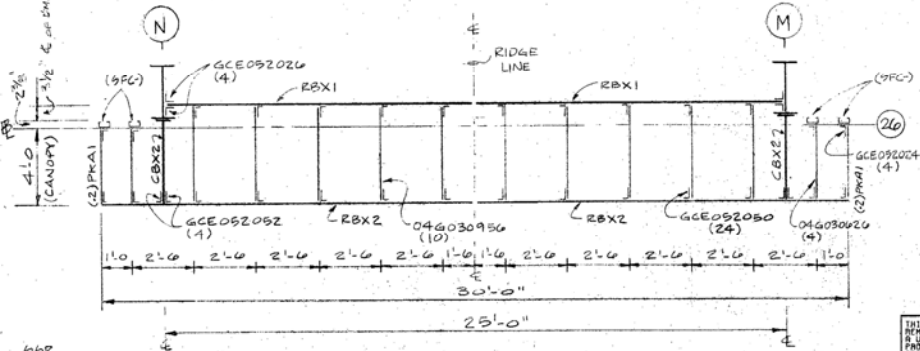
PLAN SET No. 5.1.07



CANOPY - ROOF FRAMING PLAN AT FR. LN'S J & S (TYP)
FOR CANOPY INSULATION SEE PAGE 13 A -

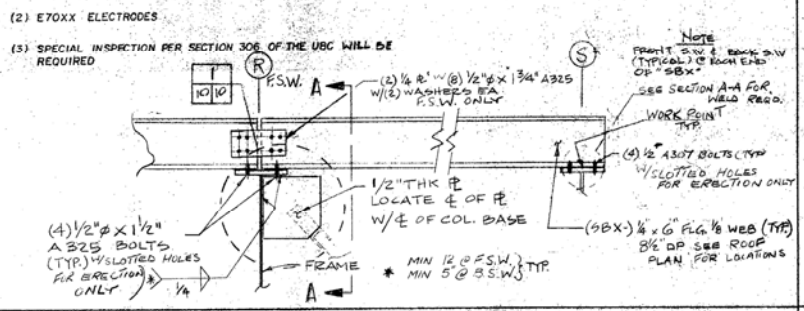


PARTIAL CANOPY FRAME CROSS SECTION AT FR. LN'S J & S (TYP)

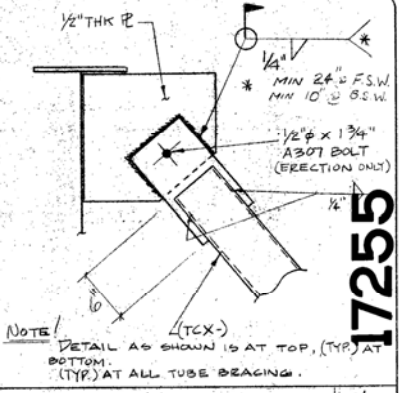


BACK SIDEWALL CANOPY - ROOF FRAMING PLAN

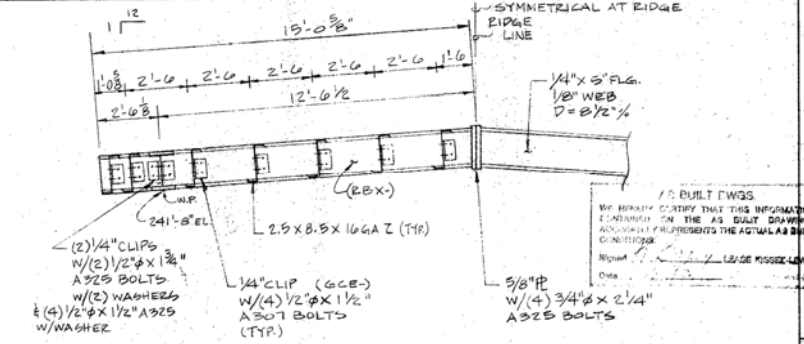
SPECIAL NOTES
(1) FIELD WELDING IS TO BE PERFORMED BY AN A.W.S. CERTIFIED WELDER AND SHALL CONFORM TO A.W.S. AND A.I.S.C. SPECIFICATIONS.
(2) E70XX ELECTRODES
(3) SPECIAL INSPECTION PER SECTION 306 OF THE UBC WILL BE REQUIRED



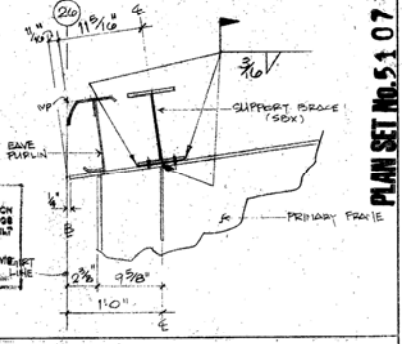
TUBE BRACING & SUPPORT BEAM DETAIL



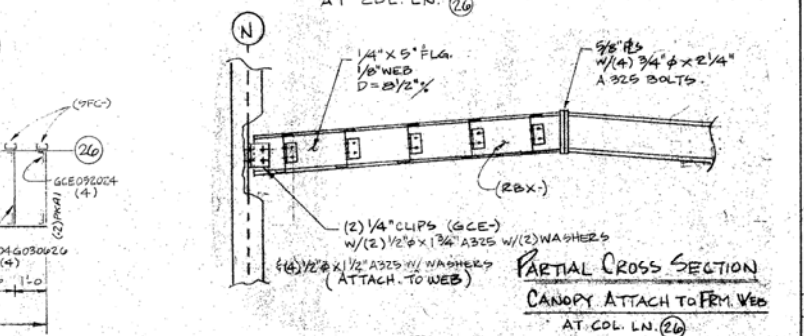
WELDING DETAIL



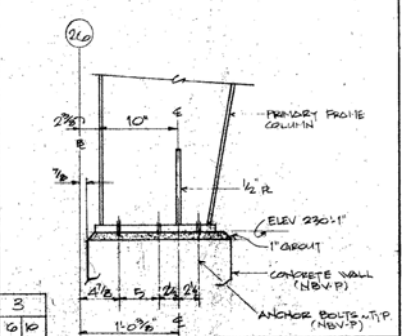
PARTIAL CANOPY FRAME CROSS SECTION AT COL. LN. 26



SECTION A-A



PARTIAL CROSS SECTION CANOPY ATTACH TO FRM. WEB AT COL. LN. 26



SECTION 26

CUSTOMER REFERENCE DRAWING			
BUILDER	CITY OF ANCHORAGE (BLDG. 2)	LOCATION	DWG. NO.
HAP ENTERPRISES	ANCHORAGE, ALASKA	EAGLE RIVER, ALASKA	43041
REV. DATE BY	DESCRIPTION	DR. BY DATE	DR. DATE
1	AS SHOWN	AK/BS	06/10/89
2	CHANGED WELDER	AK/BS	
3	CHANGED WELDER	AK/BS	
4	CHANGED WELDER	AK/BS	
5	CHANGED WELDER	AK/BS	
6	CHANGED WELDER	AK/BS	
7	CHANGED WELDER	AK/BS	
8	CHANGED WELDER	AK/BS	
9	CHANGED WELDER	AK/BS	
10	CHANGED WELDER	AK/BS	
11	CHANGED WELDER	AK/BS	
12	CHANGED WELDER	AK/BS	
13	CHANGED WELDER	AK/BS	
14	CHANGED WELDER	AK/BS	
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98	CHANGED WELDER	AK/BS	
99	CHANGED WELDER	AK/BS	
100	CHANGED WELDER	AK/BS	

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INTERNATIONAL

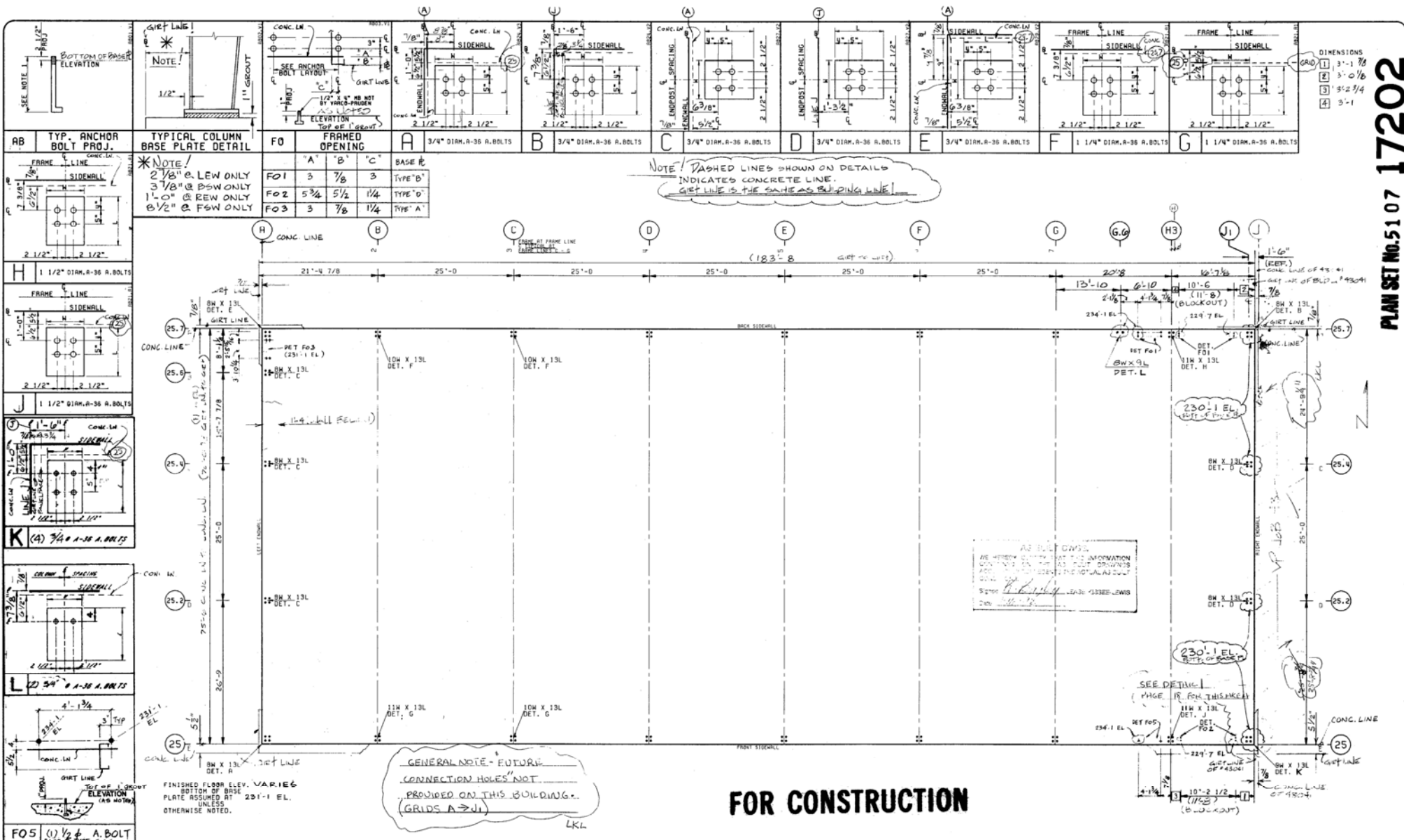
MBMA

10 of 13C

SHEET NO. 107K

DIMENSIONS

1	3'-1 7/8"
2	3'-0 1/8"
3	3'-2 1/4"
4	3'-1"



AB TYP. ANCHOR BOLT PROJ.

HYPOTHEICAL COLUMN BASE PLATE DETAIL

NOTE!
 2 1/8" @ LEW ONLY
 3 1/8" @ BSW ONLY
 1'-0" @ REW ONLY
 6 1/2" @ FSW ONLY

F0 FRAMED OPENING				
A	B	C	BASE #	
FO1	3	7/8	3	TYPE "B"
FO2	5 3/4	5 1/2	1 1/4	TYPE "D"
FO3	3	7/8	1 1/4	TYPE "A"

H 1 1/2" DIAM. A-36 A. BOLTS

I 1 1/2" DIAM. A-36 A. BOLTS

J 1 1/2" DIAM. A-36 A. BOLTS

K (A) 3/4" A-36 A. BOLTS

L (J) 3/4" A-36 A. BOLTS

FO5 (I) 1/2" A. BOLT BASE # TYPE "C"

FOR CONSTRUCTION

GENERAL NOTES

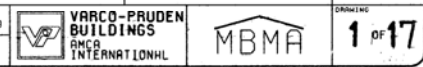
1. CONCRETE, GROUT, ANCHOR BOLTS, AND ANY OTHER EMBEDDED ITEMS ARE TO BE FURNISHED BY OTHERS.
2. ANCHOR BOLT DIAMETERS WERE DETERMINED BY ALLOWABLE SHEAR AND TENSION PER AISC SPECIFICATIONS (177 + 36,000). ANCHOR BOLT LENGTH AND METHOD OF TRANSFERRING FORCES FROM ANCHOR BOLTS TO FOOTINGS ARE TO BE DETERMINED BY OTHERS.
3. DESIGN LOADS AND REACTIONS ARE FURNISHED ON OTHER DOCUMENTS.
4. FOUNDATION MUST BE LEVEL, SQUARE, AND STRUTH. ANCHOR BOLTS MUST BE ACCURATELY PLACED AS SHOWN ON THIS DRAWING OR STEEL WILL NOT FIT.

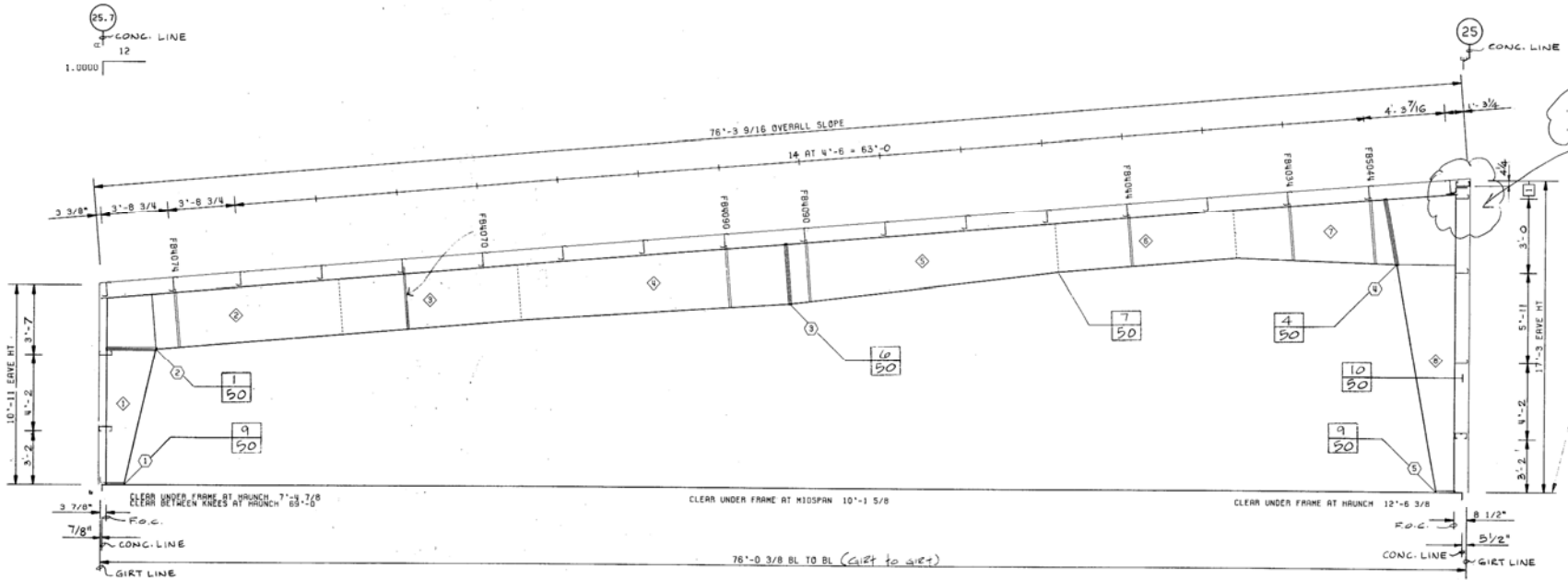
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THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND FOR THE CORRECT USE OF TEMPORARY BRACING.

BUILDER		CUSTOMER		LOCATION		JOB NO.
HAP ENTERPRISES		CITY OF ANCHORAGE/AERATIO		EAGLE RIVER, ALASKA		43042
DATE		DESCRIPTION		DATE		DRAWING
6/14/89		GENERAL		6/14/89		1 OF 17
BY		FOR		BY		SCALE
[Signature]		N.T.S.		[Signature]		

ANCHOR BOLT LAYOUT





BUILDING CROSS SECTION AT FRAME LINE (S) B

SPECIAL NOTES

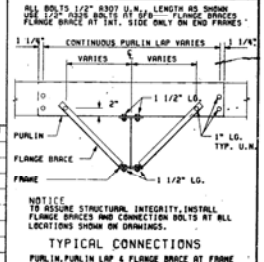
1. INSTALLATION OF ADEQUATE TEMPORARY BRACING FOR USE UNTIL CONSTRUCTION IS COMPLETE, IS THE RESPONSIBILITY OF THE ERECTOR.

NOTE! - ALL VERTICAL CLEARANCES ARE FROM BOTTOM OF BASE P.
 - ALL EAVE HT'S AS SHOWN ARE FROM BOTTOM OF BASE P.
 - ALL BASE P'S ARE ON 1" GROUT.
 - (TYP.) AT ALL FRAMES ON THIS JOB NO. 43042 ALL THE ABOVE NOTE LINES
 - ALL MRD 50 DETAILS ARE (TYP.) AT ALL FRAME CROSS SECTIONS.

AN INQUIRY
 WE HEREBY CERTIFY THAT THE INFORMATION CONTAINED ON THIS DRAWING IS ACCURATE AND CORRECT AS SHOWN AND AS NOTED THEREON.
 DATE: 6/14/09
 BY: [Signature]
 TITLE: [Signature]

A36 ANCHOR BOLTS			
CON. NO.	BASE PLATE SIZE	NO.	SIZE
(1)	10" X 13" X 1/2"	4	1 1/4"
(2)	11" X 13" X 5/8"	4	1 1/4"

A325 CONNECTION BOLTS			
CON. NO.	BOLTS	PLATE THICKNESS	PLATE SIZE
(1)	118) 3/4" X 2 1/2"	5/8"	6 3/4" X 7 1/8"
(2)	121) 3/4" X 2"	1/2"	8 3/4" X 7 1/8"
(3)	126) 3/4" X 2 1/2"	5/8"	9 1/4" X 7 1/8"



MRD NO.	FRAMING	SIZE	DEPTH (IN)	LENGTH
(1)	1/2 X 7.0	3/16	12.00/33.00	10.2
(2)	1/2 X 6.0	3/16	36.00/36.00	12.9
(3)	3/8 X 6.0	3/16	36.00/36.00	10.0
(4)	1/2 X 6.0	3/16	36.00/39.00	15.0
(5)	1/2 X 6.0	3/16	39.00/32.00	15.0
(6)	3/8 X 6.0	3/16	32.00/32.00	10.0
(7)	5/8 X 6.0	1/4	32.00/44.00	12.4
(8)	1/2 X 10.0	3/16	39.00/12.00	16.5

GENERAL NOTES

1. A325 HIGH STRENGTH BOLTS SHALL BE TIGHTENED IN ACCORDANCE WITH THE "SPECIFICATION FOR STRUCTURAL JOINTS USING ASTM A325 OR A490 BOLTS" SECTION 5(C) "TURN-OF-NUT TIGHTENING".
2. USE 1/2" DIA. A307 BOLTS FOR PURLIN TO FRAME, GIRT TO FRAME, AND GIRT TO CLIP CONNECTIONS UNLESS NOTED OTHERWISE. SEE JOB DETAILS FOR BOLT LENGTHS.

THIS DRAWING, INCLUDING THE INFORMATION HEREON, REMAINS THE PROPERTY OF VARCO-PRUDEN BUILDINGS. IT IS TO BE USED ONLY FOR THE PROJECT AND SITE SPECIFICALLY IDENTIFIED HEREON. IT IS NOT TO BE REPRODUCED OR USED FOR ANY OTHER PURPOSE WITHOUT PRIOR WRITTEN APPROVAL OF VARCO-PRUDEN BUILDINGS.

THE GENERAL CONTRACTOR AND/OR ERECTOR IS SOLELY RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND FOR VERIFYING THE ACCURACY OF ALL INFORMATION SHOWN ON THIS DRAWING. DETAILS REFERENCED IN THIS DRAWING SHALL BE OBTAINED FROM THE VARCO-PRUDEN ERECTION MANUAL AND THE VARCO-PRUDEN ERECTION MANUAL FOR THE PROJECT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING THE CORRECT USE OF TEMPORARY BRACING.

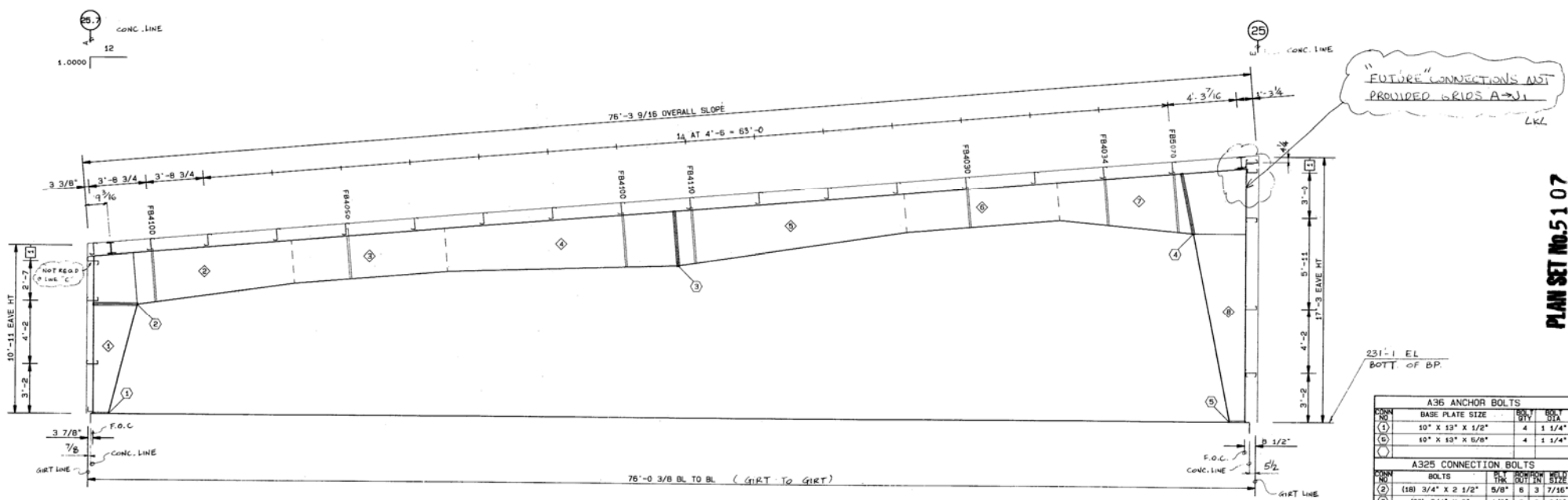
ERECTION DRAWING

BUILDER HAP ENTERPRISES	CUSTOMER CITY OF ANCHORAGE/REAR110	LOCATION EARLE RIVER, ALASKA	JOB NO. 43042
REVISED BY AF	DATE 6/14/09	SCALE N.T.S.	DRAWING NO. 2 OF

DIMENSIONS
1' = 0

17204

PLAN SET No. 5107



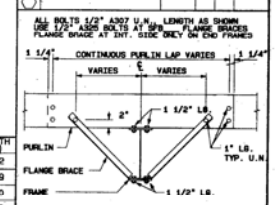
"FUTURE" CONNECTIONS NOT PROVIDED (GIRTS A-J) LKL

231'-1 EL. BOT. OF B.P.

BUILDING CROSS SECTION AT FRAME LINE(S) C, D, E, F, G

A36 ANCHOR BOLTS				
CON. NO.	BASE PLATE SIZE	DIAM.	LENGTH	TYPE
1	10" X 13" X 1/2"	4	1 1/4"	
2	10" X 13" X 5/8"	4	1 1/4"	

A325 CONNECTION BOLTS				
CON. NO.	BOLTS	TK	BTM	IN. SPAC.
2	(18) 3/4" X 2 1/2"	5/8"	6	3 7/16"
3	(22) 3/4" X 2"	1/2"	3	8 3/8"
4	(24) 3/4" X 2 1/2"	5/8"	8	4 F. P.



NOTICE TO ASSEMBLE STRUCTURAL INTEGRITY, INSTALL FLANGE BRACES AND CONNECTION BOLTS AT ALL LOCATIONS SHOWN ON DRAWINGS.

TYPICAL CONNECTIONS
PURLIN PURLIN LAP & FLANGE BRACE AT FRAME

AC - ERECT... INFORMATION...
DATE: 11/1/72

CON. NO.	FLANGE	WEB	DEPTH (IN)	LENGTH (FT)
1	1/2 X 6.0	1/4	12.00/34.00	10.2
2	1/2 X 6.0	3/16	40.00/33.00	12.9
3	1/2 X 6.0	3/16	33.00/33.00	10.0
4	1/2 X 6.0	3/16	33.00/42.00	15.0
5	1/2 X 6.0	3/16	42.00/30.00	15.0
6	1/2 X 6.0	3/16	30.00/30.00	10.0
7	5/8 X 6.0	1/4	30.00/48.00	12.4
8	1/2 X 9.0	1/4	41.00/12.00	16.5

FRAME CLEARANCES

CLEAR UNDER HAUNCH AT COLUMN LINE 25.7'	7'-0 15/16
CLEAR UNDER HAUNCH AT COLUMN LINE 25	12'-2 3/16
CLEAR DISTANCE BETWEEN KNEES AT HAUNCH	68'-9

GENERAL NOTES

- A325 HIGH STRENGTH BOLTS SHALL BE TIGHTENED IN ACCORDANCE WITH THE "SPECIFICATION FOR STRUCTURAL JOINTS USING ASTM A325 OR A490 BOLTS" SECTION 5.10 "TURN-OF-NUT TIGHTENING".
- USE 1/2" DIA. A307 BOLTS FOR PURLIN TO FRAME, GIRT TO FRAME, AND GIRT TO CLIP CONNECTIONS UNLESS NOTED OTHERWISE. SEE JOB DETAILS FOR BOLT LENGTHS.
- INSTALLATION OF ADEQUATE TEMPORARY BRACING FOR USE UNTIL CONSTRUCTION IS COMPLETE, IS THE RESPONSIBILITY OF THE ERECTOR.

THIS DRAWING, INCLUDING THE INFORMATION HEREON, REMAINS THE PROPERTY OF VARCO-PRUDEN BUILDINGS, A UNIT OF AMCA INTERNATIONAL CORPORATION. IT IS PROVIDED SOLELY FOR ERECTING THE BUILDING DESCRIBED IN THE APPLICABLE PURCHASE ORDER AND SHALL NOT BE REPRODUCED OR USED FOR ANY OTHER PURPOSE WITHOUT PRIOR WRITTEN APPROVAL OF VARCO-PRUDEN BUILDINGS.

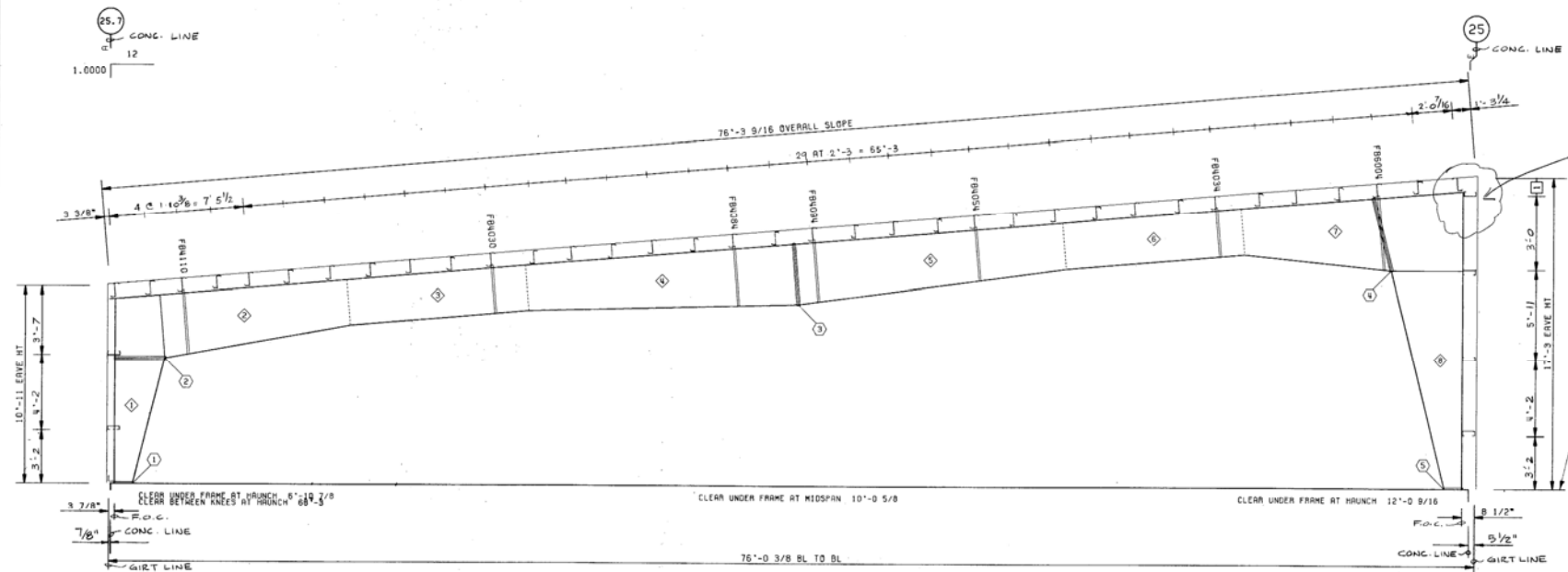
THE GENERAL CONTRACTOR AND/OR ERECTOR IS SOLELY RESPONSIBLE FOR OBTAINING 5000 QUALITY WORKMANSHIP IN ERECTING THIS BUILDING IN CONFORMANCE WITH THIS DRAWING, DETAILS REFERENCED IN THIS DRAWING, ALL APPLICABLE VARCO-PRUDEN ERECTION GUIDES, AND INDUSTRY STANDARDS PERTAINING TO PROPER ERECTION, INCLUDING THE CORRECT USE OF TEMPORARY BRACING.

REV	DATE	BY	DESCRIPTION
1	8/8/90	TH	NEW P.W.G.

ERECTION DRAWING

BUILDER: HAP ENTERPRISES
 CUSTOMER: CITY OF ANCHORAGE/AERATIO
 LOCATION: EAGLE RIVER, ALASKA
 JOB NO.: 43042

DR. BY DATE: 8/8/90
 TH
 CK. BY SCALE: N.T.S.
 VARCO-PRUDEN BUILDINGS
 AMCA INTERNATIONAL
 MBMA
 3 OF 3



FUTURE CONNECTIONS NOT PROVIDED GRIPS A-J. LKL

231'-1 EL. BOT OF C.F.

BUILDING CROSS SECTION AT FRAME LINE (S) H3

SPECIAL NOTES

1. INSTALLATION OF ADEQUATE TEMPORARY BRACING FOR USE UNTIL CONSTRUCTION IS COMPLETE IS THE RESPONSIBILITY OF THE ERECTOR.

AS BUILT DWGS.
WE HEREBY CERTIFY THAT THIS INFORMATION CONTAINED ON THE AS BUILT DRAWINGS ACCURATELY REPRESENTS THE ACTUAL AS BUILT CONDITIONS.
Signed: *[Signature]* LEASE KISSEE-LEWIS
Date: 1-16-76

R36 ANCHOR BOLTS				
NO.	BASE PLATE SIZE	NO. OF BOLTS	NO. OF NUTS	NO. OF WASHERS
1	11" X 13" X 1/2"	4	4	1 1/2"
2	11" X 13" X 5/8"	4	4	1 1/2"

R325 CONNECTION BOLTS				
NO.	BOLTS	PL. DIA.	NO. OF NUTS	NO. OF WASHERS
1	(18) 3/4" X 2 1/2"	3/4"	6	3
2	(20) 3/4" X 2 1/2"	5/8"	3	7
3	(28) 3/4" X 2 1/2"	5/8"	10	4

ALL BOLTS 1/2" ROOT W. L. LENGTH AS SHOWN. USE 1/2" ANCHOR BOLTS AT END FLANGE BRACES. FLANGE BRACE AT INT. SIDE ONLY ON END FRAMES.

1 1/2" CONTINUOUS PURLIN LAP VARIES 1 1/4"

NOTICE: TO ASSURE STRUCTURAL INTEGRITY, INSTALL FLANGE BRACES AND CONNECTION BOLTS AT ALL LOCATIONS SHOWN ON DRAWINGS.

TYPICAL CONNECTIONS
PURLIN, PURLIN LAP & FLANGE BRACE AT FRAME

NO.	FLANGE	WEB	DEPTH	LENGTH
	SIZE	THICK.	START/END	
1	1/2 X 8.0	1/4	12.00/33.00	10.2
2	1/2 X 8.0	3/16	42.00/30.00	12.9
3	1/2 X 8.0	3/16	30.00/30.00	10.0
4	1/2 X 8.0	3/16	30.00/40.00	15.0
5	1/2 X 8.0	3/16	40.00/31.00	15.0
6	1/2 X 8.0	3/16	31.00/31.00	10.0
7	1/2 X 8.0	5/16	31.00/49.00	12.4
8	1/2 X 8.0	1/4	48.00/12.00	16.5

GENERAL NOTES

1. R325 HIGH STRENGTH BOLTS SHALL BE TIGHTENED IN ACCORDANCE WITH THE "SPECIFICATION FOR STRUCTURAL JOINTS USING ASTM A325 OR A490 BOLTS" SECTION 5(C) "TURN-OF-NUT TIGHTENING".
2. USE 1/2" DIA. ANCHOR BOLTS FOR PURLIN TO FRAME, GIRT TO FRAME, AND GIRT TO CLIP CONNECTIONS UNLESS NOTED OTHERWISE. SEE JOB DETAILS FOR BOLT LENGTHS.

THIS DRAWING, INCLUDING THE INFORMATION HEREON, IS THE PROPERTY OF VARCO-PRUDEN BUILDINGS. IT IS TO BE USED ONLY FOR THE PROJECT AND LOCATION SPECIFICALLY IDENTIFIED IN THE TITLE BLOCK. IT IS NOT TO BE REPRODUCED OR USED FOR ANY OTHER PURPOSE WITHOUT PRIOR WRITTEN APPROVAL OF VARCO-PRUDEN BUILDINGS.

THE GENERAL CONTRACTOR AND/OR ERECTOR IS SOLELY RESPONSIBLE FOR SECURING GOOD QUALITY WORKMAN WITH THIS DRAWING. ALL BILLS REFERENCED IN THIS DRAWING SHALL BE OBTAINABLE FROM THE ERECTOR. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL APPLICABLE BUILDING CODES, ORDINANCES, AND INDUSTRY STANDARDS PERTAINING TO THE PROJECT, INCLUDING THE CORRECT USE OF TEMPORARY BRACING.

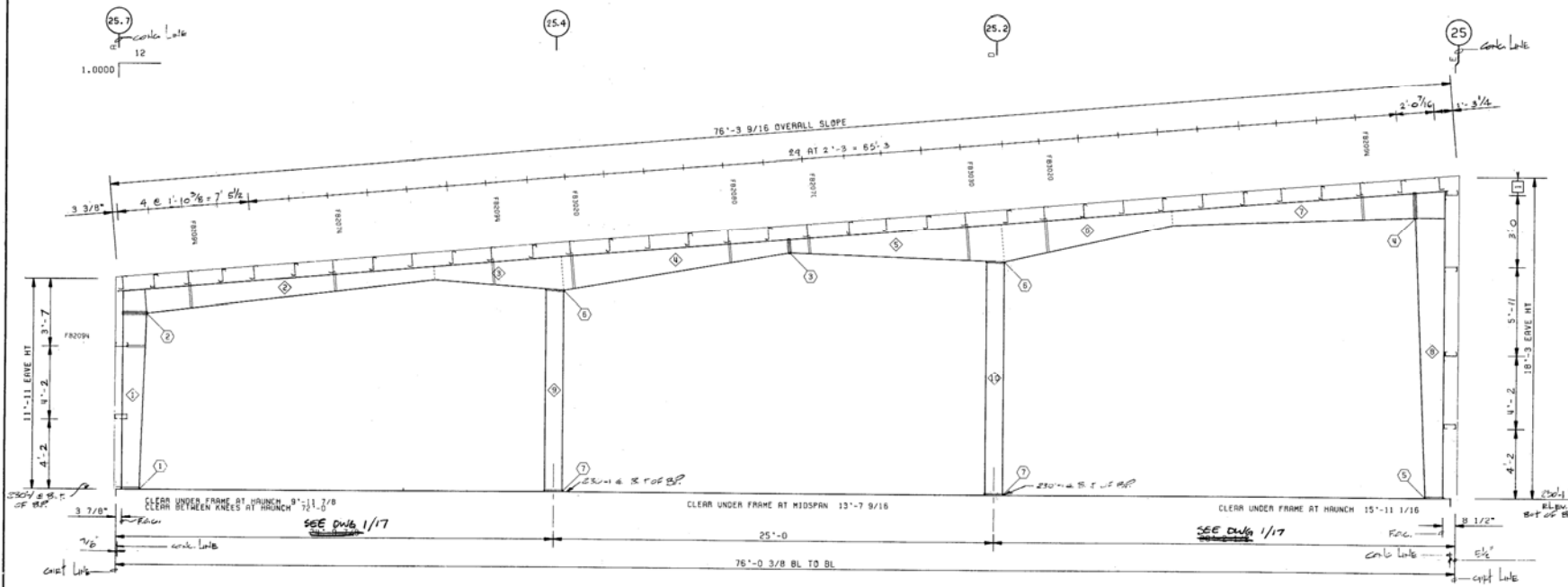
ERECTION DRAWING

BUILDER HAP ENTERPRISES	CUSTOMER CITY OF ANCHORAGE/REAR 10	LOCATION EAGLE RIVER, ALASKA	JOB NO. 43042
REV. DATE BY 1 AF GENE S.	DR. BY DATE AF 6/14/89	SCALE N.T.S.	DRAWING 4 OF 4

VARCO-PRUDEN BUILDINGS
ANCA INTERNATIONAL

MBMA

SHEET NO. 91J



BUILDING CROSS SECTION AT FRAME LINE (S) J-I
BUILDING CROSS SECTION AT FRAME LINE VIEWED FROM INSIDE OF THE BUILDING

SPECIAL NOTES

1. INSTALLATION OF ADEQUATE TEMPORARY BRACING FOR USE UNTIL CONSTRUCTION IS COMPLETE, IS THE RESPONSIBILITY OF THE ERECTOR.

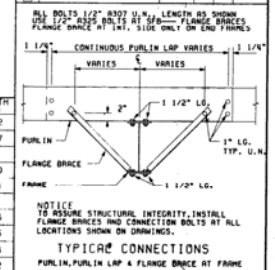
GENERAL NOTES

1. A325 HIGH STRENGTH BOLTS SHALL BE TIGHTENED IN ACCORDANCE WITH THE "SPECIFICATION FOR STRUCTURAL JOINTS USING A325 OR A490 BOLTS" SECTION 5.13 "TURN-OF-NUT TIGHTENING".
2. USE 1/2" DIA. A307 BOLTS FOR PURLIN TO FRAME, GIRT TO FRAME, AND GIRT TO CLIP CONNECTIONS UNLESS NOTED OTHERWISE. SEE JOB DETAILS FOR BOLT LENGTHS.

AS BUILT DWGS.
WE HEREBY CERTIFY THAT THIS INFORMATION ACCURATELY REPRESENTS THE ACTUAL AS BUILT CONDITIONS.
Signed: *[Signature]*
Date: 1-16-92

A36 ANCHOR BOLTS			
CON. NO.	BASE PLATE SIZE	BOLTS	BOLT SIZE
1	8" X 13" X 3/8"	4	3/4"
5	9" X 13" X 3/8"	4	3/4"
7	8" X 13" X 3/8"	4	3/4"

A325 CONNECTION BOLTS			
CON. NO.	BOLTS	TH. OF PLATE	BOLT SIZE
1	110 3/4" X 2"	1/2"	3 3/16"
3	181 3/4" X 2"	3/8"	1 2 3/16"
4	181 3/4" X 2"	1/2"	3 1 3/16"
6	141 1/2" X 1 1/2"	3/8"	1 1 3/16"



MEM. NO.	FLANGE T X W	WEB THK	DEPTH (L1)	LENGTH (L2)
1	3/16 X 5.0	1/8	12.00/16.00	11.2
2	3/16 X 5.0	1/8	16.00/9.00	17.7
3	1/4 X 5.0	1/8	9.00/23.00	7.5
4	1/4 X 5.0	1/8	23.00/9.00	13.0
5	3/16 X 5.0	1/8	9.00/26.00	12.1
6	3/16 X 5.0	1/8	10.00/17.00	15.6
7	3/16 X 8.0	1/8	20.00/12.00	17.5
8	3/16 X 6.0	1/8	12.00/12.00	11.4
9	3/16 X 6.0	1/8	12.00/12.00	13.2

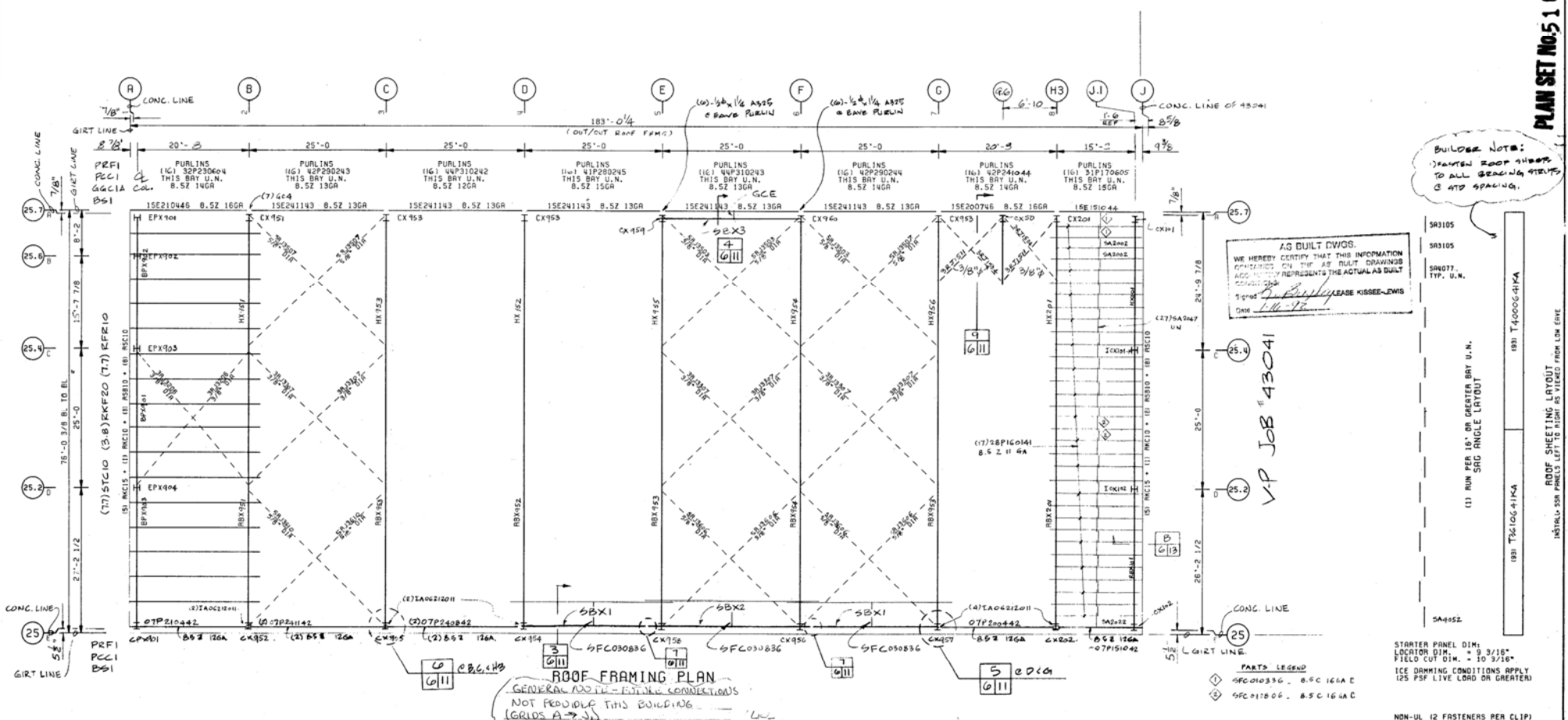
ERECTION DRAWING

BUILDER HAP ENTERPRISES	CUSTOMER CITY OF ANCHORAGE/AERATIO	LOCATION EAGLE RIVER, ALASKA	JOB NO. 43042
DATE BY 8/30/89 NEI PLT	SCALE N.T.S.	DRAWING NO. VARCO-PRUDEN BUILDINGS	DRWING 5 OF



DIMENSIONS
1/8" = 3' 1/2"

PLAN SET No. 510717207



BUILDER NOTE:
PAINTED ROOF SHEETS TO ALL BRACING MEMBERS AND SPACING.

AS BUILT DWGS.
WE HEREBY CERTIFY THAT THIS INFORMATION CONTAINED ON THIS AS BUILT DRAWING ACCURATELY REPRESENTS THE ACTUAL AS BUILT CONDITIONS.
Signed: *[Signature]* LEASE KIRSEK-EWS
Date: 11-17-21

VP JOB # 4304

STARTER PANEL DIM: LOCATOR DIM: 9 3/16" FIELD CUT DIM: 10 3/16" ICE DRAINING CONDITIONS APPLY 125 PSF LIVE LOAD OR GREATER

GENERAL NOTES

- UNLESS NOTED USE 1/2" DIAMETER A-307 BOLTS FOR PURLIN LAP, PURLIN TO FRAME, FLANGE BRACE TO FRAME, AND FLANGE BRACE TO PURLIN CONNECTIONS. SEE JOB DETAILS FOR BOLT LENGTHS.
- ROOF SHEETS ARE AN INTEGRAL PART OF THE STRUCTURAL SYSTEM. REMOVAL OR ALTERATION WITHOUT PRIOR AUTHORIZATION IS PROHIBITED.
- WIND, FLANGE, AND PURLIN BRACING ARE AN INTEGRAL PART OF THE ROOF STRUCTURAL SYSTEM AND SHOULD BE PROPERLY INSTALLED PRIOR TO ERECTION OF WALL AND ROOF SHEETS. REMOVAL OR ALTERATION OF ROOF BRACING WITHOUT PRIOR AUTHORIZATION IS PROHIBITED.
- SEE JOB DETAILS FOR SHEETING AND TRIM FASTENER SPECIFICATION.
- WHEN SAG ANGLE SLOTS IN ADJACENT PURLINS DO NOT ALIGN, FIELD-BEND A SAG ANGLE TAB AND ATTACH TO PURLIN WITH A SELF-DRILLING STRUCTURAL FASTENER.

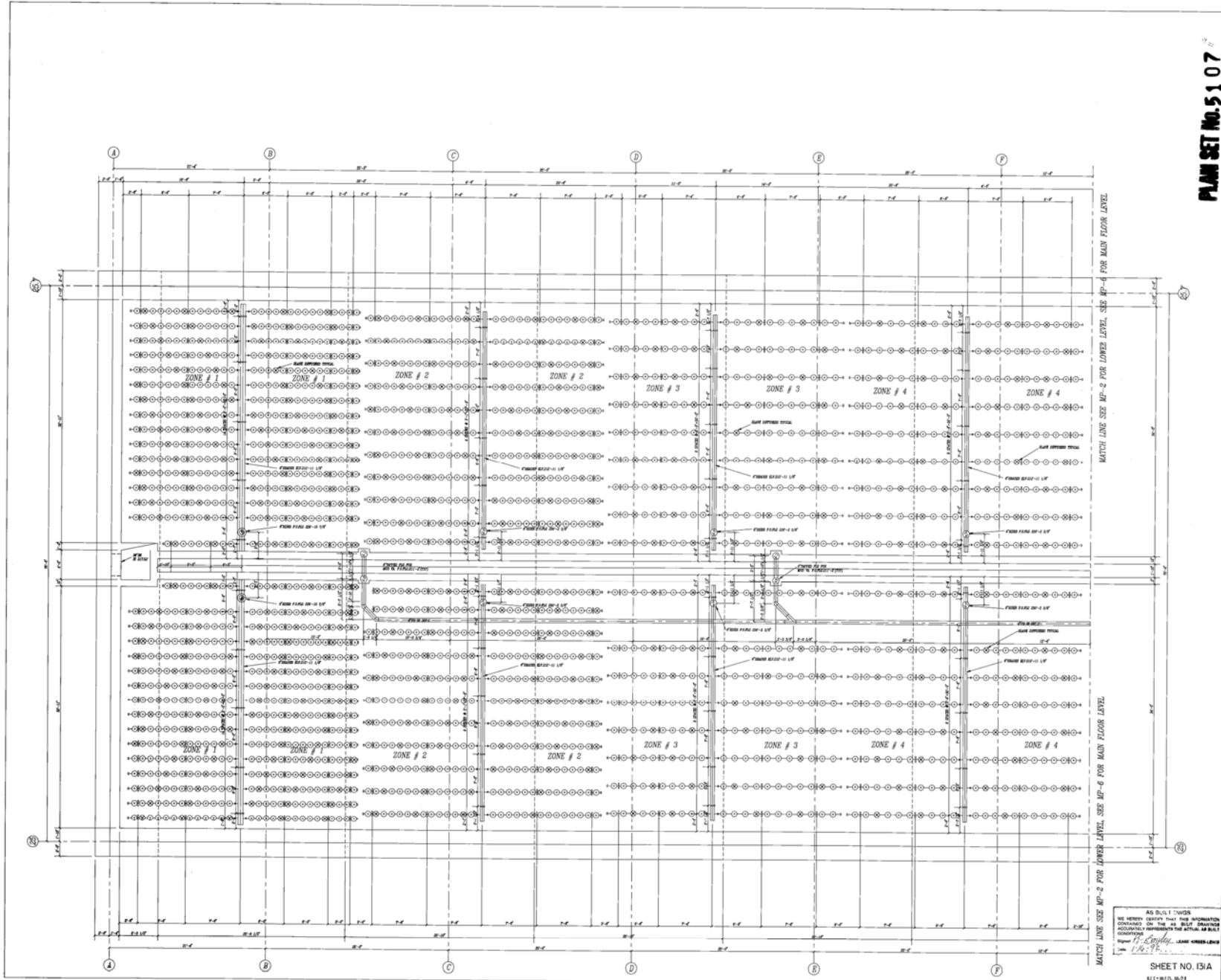
ROOF FRAMING PLAN
GENERAL NOTE - FASTENER CONNECTIONS NOT PROVIDED THIS BUILDING (GRIDS A-J)

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THE USER SHALL BE RESPONSIBLE FOR THE CORRECT USE OF THIS DRAWING AND FOR THE QUALITY, WORKMANSHIP AND SAFETY OF THE BUILDING. DETAILS INDICATED IN THIS DRAWING ARE THE PROPERTY OF VARCO-PRUDEN BUILDINGS AND SHALL BE USED IN ACCORDANCE WITH THE AMCA GUIDE AND INDUSTRY STANDARDS PERTAINING TO FASTENERS. INCLUDING THE CORRECT USE OF TEMPORARY BRACING.

BUILDER		CUSTOMER		LOCATION		JOB NO.	
HAP ENTERPRISES		CITY OF ANCHORAGE/AERATIO		EAGLE RIVER, ALASKA		43042	
DATE	BY	DATE	BY	DATE	BY	DATE	BY
11/17/21	AMCA	6/14/89	AF	6/14/89	AF	6/14/89	AF
SCALE		SCALE		SCALE		SCALE	
N.T.S.		N.T.S.		N.T.S.		N.T.S.	

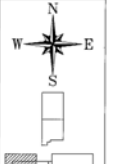




PLAN SET No. 5107
17294

JOB # 600
 DATE 2-1-90
 DRAWN BY IPR
 SCALE 1/4"=1'-0"

LEASE KISSEE LEWIS
 7801 EAST 36TH AVE. ANCHORAGE, ALASKA
 (907) 303-6506

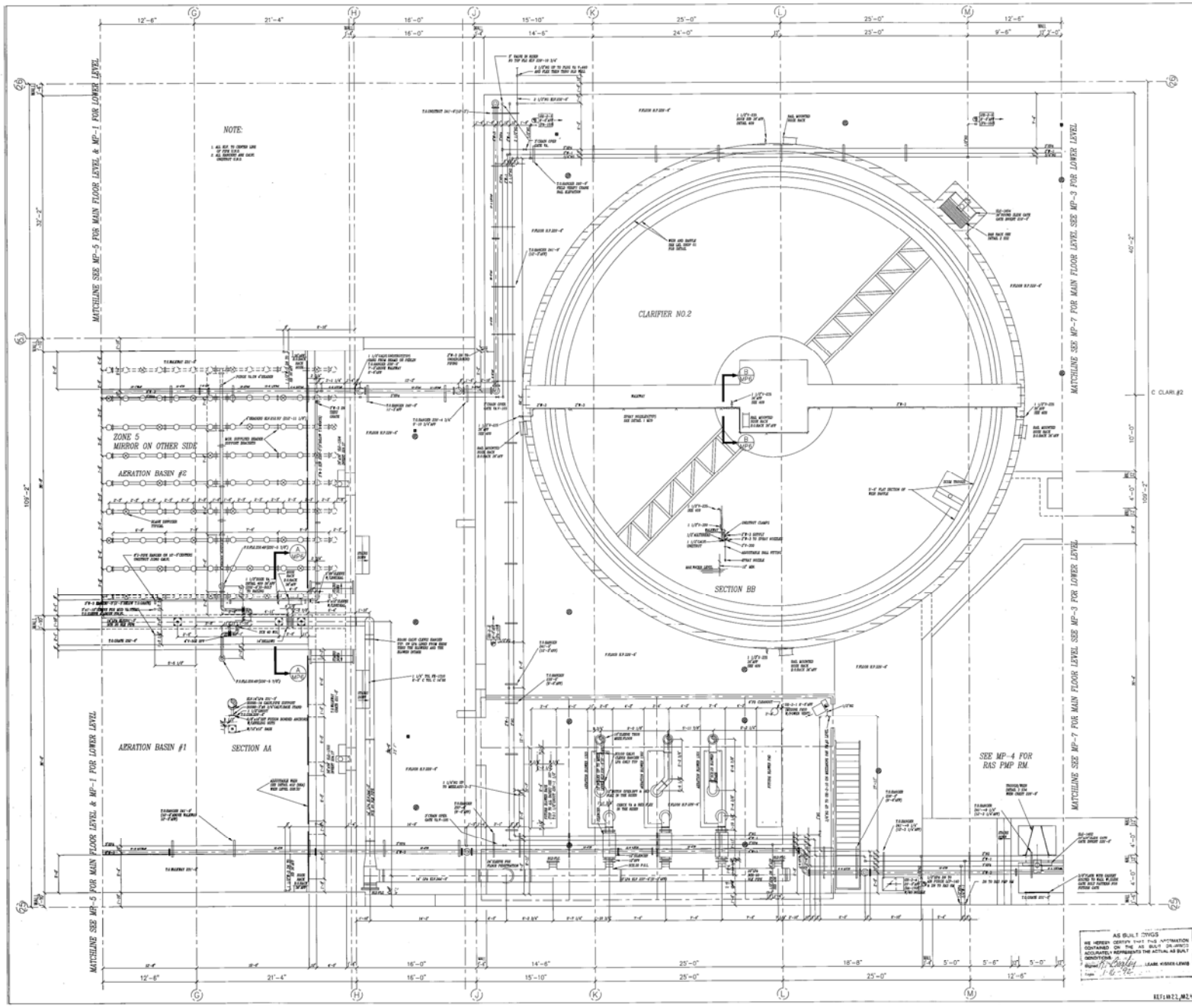


EAGLE RIVER WASTEWATER TREATMENT FACILITY
STAGE 1 EXPANSION
 DESCRIPTION WEST AREA LOWER LEVEL, BID #P

AS BUILT DRAWING
 WE HEREBY CERTIFY THAT THE INFORMATION CONTAINED ON THIS AS BUILT DRAWING ACCURATELY REPRESENTS THE ACTUAL AS BUILT CONDITIONS.
 IPR
 LEASE KISSEE LEWIS

SHEET NUMBER
MP-1

SHEET NO. 13/A
 M3:WLD, W-21



NOTE:
 1. ALL SEE W. DRAWING FOR
 2. SEE W. DRAWING FOR
 3. SEE W. DRAWING FOR
 4. SEE W. DRAWING FOR

AS BUILT DRAWING
 WE HEREBY CERTIFY THAT THE INFORMATION
 CONTAINED ON THIS AS BUILT DRAWING
 ACCURATELY REPRESENTS THE ACTUAL AS BUILT
 CONDITIONS OF THE PROJECT.
 DATE: 1-6-92
 LEASE KISSEE LEWIS

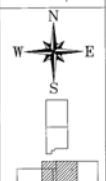
PLAN SET No. 5 1 0 7

NO.	REVISION	DATE
1.	2-25-90	
2.		
3.		
4.		
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17295

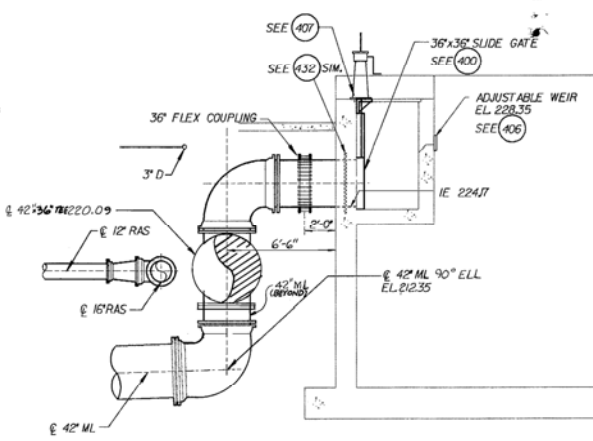
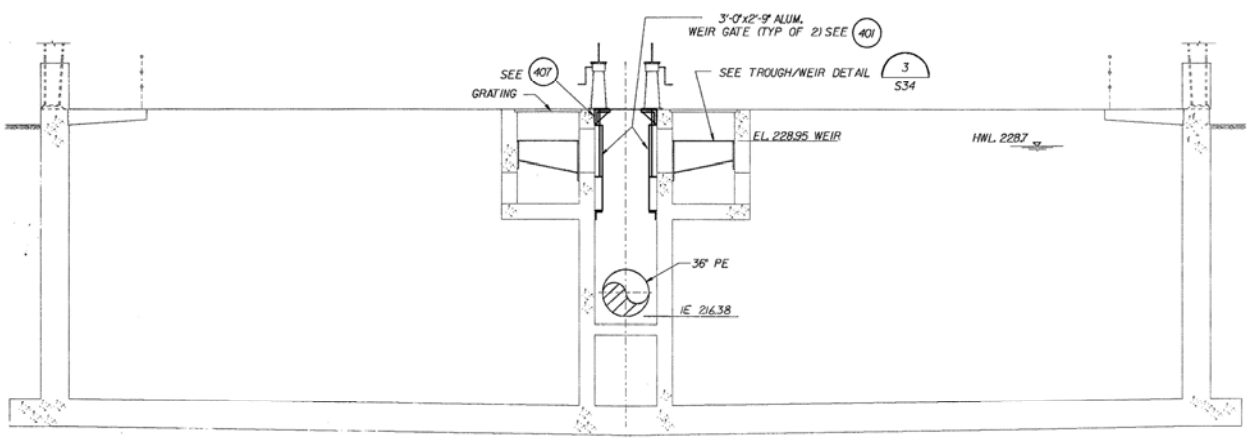
JOB # 600
 DATE 1-20-90
 DRAWN BY IPR
 SCALE 1/4"=1'-0"

LEASE KISSEE LEWIS
 7807 EAST 96th AVE. ANCHORAGE, ALASKA
 (907) 553-6586

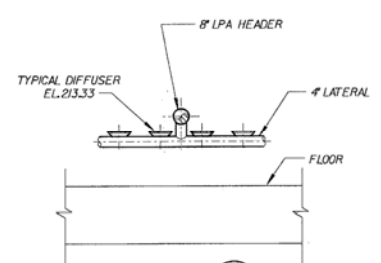
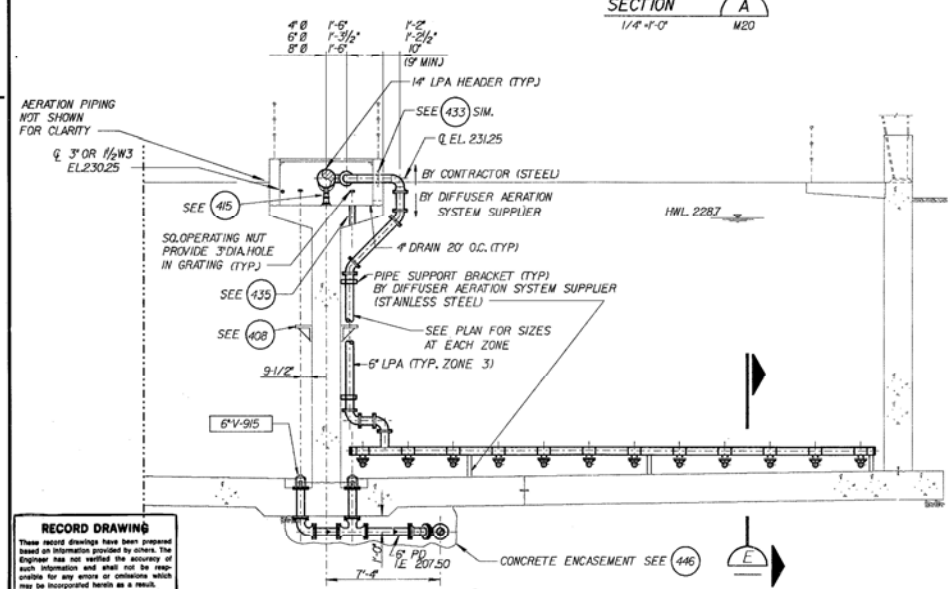


EAGLE RIVER WASTEWATER TREATMENT FACILITY
 STAGE 1 EXPANSION
 DESCRIPTION CENTER AREA MAIN FLOOR LEVEL LAYOUT

SHEET NUMBER
 MP-6

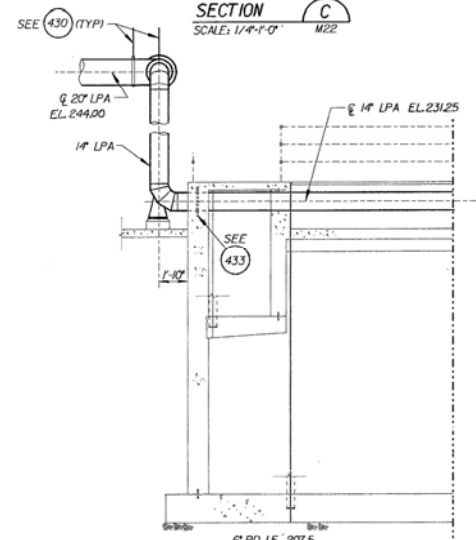


SECTION A
SCALE: 1/4"=1'-0"
M20



SECTION E
SCALE: 1/2"=1'-0"

SECTION C
SCALE: 1/4"=1'-0"
M22



SECTION D
SCALE: 1/4"=1'-0"
M22

RECORD DRAWING
These record drawings have been prepared based on information provided by others. The Engineer has not verified the accuracy of such information and shall not be responsible for any errors or omissions which may be incorporated herein as a result.



	DESIGN	J. MACCHIARIELLO	NO. DATE REVISION	WCV LAG BY APVD
	DR	G. McCUTCHAN		
	CHEK	S. BEIGMULLER		
	APVD	B. HYLAND		

JAMES M. MONTGOMERY CONSULTING ENGINEERS, INC. In association with CH2M HILL	
--	--

VERIFY SCALES BAR IS ONE INCH ON ORIGINAL DRAWING. IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY!	
--	--

MUNICIPALITY OF ANCHORAGE WATER AND WASTEWATER UTILITY ANCHORAGE, ALASKA	
--	--

EAGLE RIVER WASTEWATER TREATMENT FACILITY STAGE I EXPANSION MECHANICAL ACRATION BASIN SECTIONS	
SHEET 132	DWG NO. M23
DATE DEC 1988	PROJ. 1334-1009
	NO. K20682A1



Municipality of Anchorage

Anchorage Water and Wastewater Utility



2022 SEWER IMPROVEMENTS

ERWWTF EARTHQUAKE REPAIRS AND STRUCTURAL

RETROFITS

SECTION XIII (NOT USED)

SOIL BORING LOGS



Municipality of Anchorage

Anchorage Water and Wastewater Utility



2022 SEWER IMPROVEMENTS

ERWWTF EARTHQUAKE REPAIRS AND STRUCTURAL

RETROFITS

SECTION XIV(NOT USED)

TEMPORARY CONSTRUCTION PERMITS AND EASEMENTS



Municipality of Anchorage

Anchorage Water and Wastewater Utility



2022 SEWER IMPROVEMENTS

ERWWTF EARTHQUAKE REPAIRS AND STRUCTURAL RETROFITS

SECTION XV (NOT USED)

PERMITS



Municipality of Anchorage

Anchorage Water and Wastewater Utility



2022 SEWER IMPROVEMENTS

ERWWTF EARTHQUAKE REPAIRS AND STRUCTURAL RETROFITS

SECTION XVI (NOT USED)

TRAFFIC CONTROL PLANS



Municipality of Anchorage

Anchorage Water and Wastewater Utility



2022 SEWER IMPROVEMENTS

ERWWTF EARTHQUAKE REPAIRS AND STRUCTURAL

RETROFITS

SECTION XVII (NOT USED)

ANNOTATED SITE PHOTOGRAPHS



Municipality of Anchorage

Anchorage Water and Wastewater Utility



2022 SEWER IMPROVEMENTS

ERWWTF EARTHQUAKE REPAIRS AND STRUCTURAL RETROFITS

SECTION XVIII (NOT USED)

HAZARDOUS MATERIALS SURVEY REPORT



Municipality of Anchorage

Anchorage Water and Wastewater Utility



2022 SEWER IMPROVEMENTS

ERWWTF EARTHQUAKE REPAIRS AND STRUCTURAL

RETROFITS

SECTION XIX (NOT USED)

MAXIMO ASSET REPORTS



Municipality of Anchorage

Anchorage Water and Wastewater Utility



2022 SEWER IMPROVEMENTS

ERWWTF EARTHQUAKE REPAIRS AND STRUCTURAL

RETROFITS

SECTION XX

DRAWINGS

(UNDER SEPARATE COVER)